

PROGRESS REPORT 2024

Vol.1

VARIETAL IMPROVEMENT

All India Coordinated Research Project on Rice

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PREFACE

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

The results of 38 breeding and 4 hybrid trials of irrigated as well as rainfed and basmati trials conducted at various locations across the country during *Kharif, 2024* 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, pilot trials have been initiated on “Direct Seeded Rice”, “Short slender grain along with MS trials” and “Nutrient Use Efficiency (NUE) – Nitrogen and Phosphorous”. Breeder seed production of 512 rice varieties was organized at 44 locations as per the DAC indents. Additionally, the strong partnership with IRRI, Philippines provides access to global elite rice germplasm with the exchange of breeding lines through “One IRRI-NARES South Asia Advancement Cooperation”. Delayed monsoon has been a regular phenomenon owing to climate change, therefore, efforts are being made to identify suitable early varieties for late sown conditions.

I greatly appreciate the efforts of the principal investigator, scientists, technical, administrative, project and field staff in the Crop Improvement 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 Trials		Page No.	
ICAR-Indian Institute of Rice Research-(Irrigated)		Text	Table
Sr. No	Table of Contents		
SUMMARY		1.1 -1.16	
IRRIGATED TRIALS			
1	Advance Variety Trial 2 & 1– Early –Transplanted (AVT-2 &1 E-TP)	2.1	2.7
2	Initial Variety Trial – Early –Transplanted (IVT- E-TP)	2.25	2.30
3	Advance Variety Trial 2 & 1 – Irrigated Mid Early (AVT 2 & 1 IME)	2.58	2.61
4	Initial Variety Trial – Irrigated Mid Early (IVT-IME)	2.79	2.83
5	Advance Variety Trial 2 & 1 – Irrigated Medium (AVT 2 & 1-IM)	2.112	2.116
6	Initial Variety Trial – Irrigated Medium (IVT-IM)	2.133	2.137
7	Advance Variety Trial 2 & 1–Late (AVT2 & 1–L)	2.163	2.167
8	Initial Variety Trial –Late (IVT – L)	2.177	2.181
9	Advance Variety Trial & Initial Variety Trial – Boro (AVT & IVT - BORO)	2.209	2.211
10	Initial Variety Trial – Early –Transplanted Rabi (IVT- E-TP Rabi)	2.220	2.224
HYBRIDS TRIALS			
11	Initial Hybrid Rice Trial – Early (IHRT-E)	3.3	3.11
12	Initial Hybrid Rice Trial- Mid Early (IHRT-ME)	3.5	3.20
13	Initial Hybrid Rice Trial – Medium (IHRT-M)	3.8	3.38
14	Initial Hybrid Rice Trial – Medium Slender (IHRT-MS)	3.9	3.52
AEROBIC TRIALS			
15	Advance Variety Trial 2&1 – Aerobic (AVT 2& 1-Aerob)	4.1	4.5
16	Initial Variety Trial – Aerobic (IVT-AEROB)	4.17	4.20
MS GRAIN			
17	Advance Variety Trial 2&1– Medium Slender Grain (AVT 2 & 1-MS)	4.36	4.38
18	Initial Variety Trial– Medium Slender Grain (IVT-MS)	4.52	4.56
BIOFORTIFICATION			
19	Advance Variety Trial 1– Rice Biofortification (AVT 1 –BIOFORT)	4.76	4.78
20	Initial Variety Trial – Rice Biofortification (IVT BIOFORT)	4.90	4.93
HILLS TRIALS			
21	Advance Variety Trial 1 & Initial Variety Trial- Irrigated Early (Hills) –AVT 1 & IVT-E (H)	5.1	5.5
22	Advance Variety Trial 2 & 1 & Initial Variety Trial -Medium (Hills) – AVT 2 & 1 & IVT- M (H)	5.14	5.21
23	Advance Variety Trial 1 & Initial Variety Trial-Upland (Hills) – AVT 1 & IVT-U (H)	5.26	5.27
24	Advance Variety Trial 1 & Initial Variety Trial - Japonica (AVT 1 & IVT-J)	5.31	5.33
SALINE -ALKALINE TRIALS			
25	Advance Variety Trial 2&1 - Alkaline and Inland Saline Tolerant Variety Trial (AVT 2&1 -AL& ISTVT)	6.1	6.19
26	Initial Variety Trial 2&1 - Alkaline and Inland Saline Tolerant Variety Trial (IVT-AL& ISTVT)	6.34	6.43
27	Advance Variety Trial 1 - Coastal Saline Tolerant Variety Trial (AVT 1-CSTVT)	6.53	6.59
28	Initial Variety Trial - Coastal Saline Tolerant Variety Trial (IVT-CSTVT)	6.66	6.71

PHOSPHOROUS & NITROGEN TOLERANCE			
29	Advance Varietal Trial 2&1 – Low Phosphorous Tolerance Trial(AVT 2&1-LPT)	7.1	7.5
30	Initial Varietal Trial– Low Phosphorous Tolerance Trial (IVT -LPT)	7.13	7.15
31	Advance Variety Trial 2&1- Low Nitrogen Tolerance Trial (AVT 2&1-LNT)	7.22	7.28
32	Initial Variety Trial – Low Nitrogen Tolerance Trial (IVT-LNT)	7.36	7.38
AEROMATIC GRAIN TRIALS			
33	Advance Variety Trial 1 & Initial Variety Trial – Aromatic Grain Type (AVT 1 & IVT AGT) (Non-Basmati)	8.1	8.5
COLOURED RICE			
34	Initial Varietal Trial - Coloured Rice (IVT – CR)	8.15	8.19
DSR TRIALS			
35	Initial Variety Trial – Irrigated dry DSR (IVT-DSR)	8.26	8.30
SPECIAL TRIALS			
36	Special trial under CRP-Biofortification (Bench Mark Studies)	8.41	8.44
NILs AND GENOME EDITED			
37	Advance Variety Trial 2 & 1 – NIL and GEL (AVT 2 & 1-NIL & Gel)	9.1	9.29
Breeder seed production, Monitoring Tour Report and Pests and Diseases Reaction			
38	Breeder Seed Production	10.1–10.42	
39	Monitoring Tour Report	10.43-10.56	
40	Insect Pests and Diseases Reaction	10.57-10.67	
ICAR-NRRI - RAINFED			
41	Rainfed trials	11.1-11.146	
ICAR-IARI – BASMATI			
42	Basmati trials	12.1-12.36	
APPENDICES			
	Cooperating centers / breeders	13.1-13.28	
	Weather data	13.29-13.38	
	Trials sent and data received	13.39-13.44	
	Abbreviations	13.45	
	Acknowledgement	13.46	

SUMMARY

ICAR-Indian Institute of Rice Research (ICAR-IIRR) conducts and coordinates multidisciplinary and multi-location evaluation of elite cultures, crop management and crop protection technologies in different agro-climatic zones of the country under All India Coordinated Rice Improvement Project (AICRPR) to enhance rice production. A total of 38 trials (34 varietal trials and 4 hybrid rice trials) were conducted in 1104 experiments (970 varietal and 134 hybrid rice) at 124 locations (41 funded, 83 voluntary centres) in 28 states and 5 union Territories across seven zones of the country during 2024 which is the 60th year of AICRPR testing. Hybrid rice experiments were also conducted by 10 private seed companies. The 38 trials were constituted with 1388 entries (1296 varietal and 92 hybrid rice) including 166 checks. The overall data receipt was 83.6% of which 87.7% and 74.6% data was received from funded and voluntary centres respectively.

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

LIST OF COORDINATED TRIALS, KHARIF 2024

Varietal Trials				Hybrid Trials
Ecosystem	AVT 2	AVT 1	IVT	IHRT
Rainfed Upland- DS		AVT 1-E DS	IVT-E-DS	
			IVT RDS-L	
			IVT-RDS-M	
Rainfed shallow lowland		AVT 1-RSL	IVT-RSL	
Semi-deep water			IVT-SDW	
Deep water			IVT-DW	
Early – TP (Rabi)		AVT 1 & IVT-E TP		IHRT-E
Early-TP	AVT 2&1-ETP		IVT-ETP	
Mid Early	AVT 2&1-IME		IVT-IME	IHRT-ME
Medium	AVT 2&1-IM		IVT-IM	IHRT-M
Late	AVT 2 & 1-Late		IVT-Late	
Boro		AVT 1 & IVT - Boro		
Basmati		AVT 1-BT	IVT-BT	
Aromatic grain type		AVT 1 & IVT-AGT		
Saline alkaline	AVT 2&1-AL & ISTVT		IVT-AL & ISTVT	
Coastal Saline	AVT 1 & IVT-CSTVT			
Hills		AVT 1 & IVT-E(H)		
	AVT 2&1-M (H)		IVT-M(H)	
		AVT 1 & IVT-U(H)		
Japonica		AVT-J		
Aerobic	AVT 2&1-Aerobic		IVT-Aerobic	
Medium Slender Grain	AVT 2&1-MS		IVT-MS	IHRT-MS
Bio-fortification		AVT 1-Biofort	IVT-BIOFORT	
	SPECIAL TRIAL ON-BIOFORT			
Near Isogenic Lines (CS)		AVT 1-NIL & CSTVT		
Low Phosphorus Tolerance	AVT 2&1LPT		IVT-LPT	
Low Nitrogen Tolerance	AVT 2&1-LNT		IVT-LNT	
Coloured Rice			IVT -CR	
DSR			IVT DSR	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Particulars of Zones, States and test Locations

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

Summary of the Co-ordinated Trials – *Kharif 2024*

1. AVT 2 & 1 – ETP

The trial was constituted with 16 hybrid entries and 39 varietal entries and evaluated at 49 locations

Performance in AVT 2 (ETP):

- **IET 30565 (H) (KAVERI-7374)**, a hybrid entry has short bold grains with HRR: 69.6%, AC: 26.4; GC: 58 mm and ASV: 7 **found promising for Zone II.**
- **IET 30641 (RNR 35105)** obtained from the cross JGL 24423 / MTU 1156 has long slender grains with HRR: 57%, AC: 24.25; GC: 67 mm and ASV: 4 **found promising for Zone V.**
- **IET 30642 (KNM 12509)** obtained from the cross KNM 118 / IR 72 // MTU 1156 has long slender grains with HRR: 59.2%, AC: 22.73; GC: 77 mm and ASV: 4 **found promising for Zone III and Zone VI.**
- **IET 30669 (WGL 1719)** obtained from the cross MTU 1081 / R 1556-25-77 has long slender grains with HRR: 62.6%, AC: 23.43; GC: 60 mm and ASV: 4 **found promising for Zone V.**
- **IET 30690 (RNR 35109)** obtained from the cross JGL 24423 / MTU 1156 has long slender grains with HRR: 64.2%, AC: 24.4; GC: 61 mm and ASV: 4 **found promising for Zone V.**

Entries promoted from AVT 1 to AVT 2 ETP

Zone II	IET 31436 (H)
Zone III	IET 31436 (H)
Zone IV	IET 30637
Zone VII	IET 31501

2. IVT - ETP

The trial consisted of 61 test entries and was evaluated at 58 locations.

Entries promoted in IVT-ETP to AVT1 -ETP

Overall basis	IETs, 32378, 32387, 32393, 32394, 32396, 32402, 32427 and 32433
Zone III	IETs 32387, 32393, 32394, 32396
Zone V	IETs 32396, 32399, 32402, 32420 and 32427
Zone VII	IETs 32378, 32387, 32395, 32406, 32421 and 32430

3. AVT 2 & 1 – IME

The trial was constituted with 35 test entries with 12 (2 varietal and 10 hybrids) and 23 (11 varietal and 12 hybrids) evaluated in third and second years of testing respectively, and evaluated at 52 locations.

Performance in AVT 2 (IME):

- **IET 30575 (H) (RALLIS-21304)** with HRR of 50.2 and 49.5% in 2023 and 2024 respectively.
- **IET 30577 (H) (HRI-216)** is promising for **zones-III & V.**
- **IET 30578 (H) (RNC-0752)** with HRR of 40.9 and 48.4% in 2023 and 2024 respectively.
- **IET 30579 (H) (JKRH-1135)** is promising for **zone-III.**
- **IET 30593 (H) (LG-90303)** is promising for **zones-V and VII.**
- **IET 30756 (H) (RP6693-16-388)** is promising for **zone-III.**

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entries promoted from AVT 1 to AVT 2 IME

Zone II	IET 31448 (H), 31603
Zone III	IETs 30713, 31589, 31603, 31466 (H), 31452 (H)
Zone IV	IETs 30713, 31448 (H), 31452 (H), 31608 and 30692
Zone V	IET 31461 (H), 31448 (H), 31589, 31603 and 31452 (H)
Zone VI	IET 31448 (H), 31603
Zone VII	IET 31461 (H)

4. IVT -IME

The trial was constituted with 61 test entries and evaluated at 49 locations.

Entries promoted in IVT to AVT1 -IME

Overall basis	IETs 32436, 32470 and 32465
Zone III	IETs 32443, 32447, 32448, 32460, 32467
Zone VII	IETs 32440 and 31635

5. AVT 2 & 1 – IM

The trial was constituted with 38 test entries and evaluated at 48 locations.

Performance in AVT 2 (IM):

- **IET 30613 (H)** found promising in **Zone-III**
- **IET 30617 (H)** found promising in **Zone-III**
- **IET 30604 (H)** found promising in **Zones- III & VII**
- **IET 30605 (H)** found promising in **Zone-III**
- **IET 30819** found promising in **Zone-III**
- **IET 30603 (H)** found promising in **Zone-VII**

Entries promoted from AVT 1 to AVT 2 IM

Zone III	IET 31480 (H) , IET 31643, IET 29877, IET 31637, IET 29860 , IET 31639, IET 31640, IET 31641, IET 31633, IET 31618, IET 31638
Zone IV	IET 31480 (H) , IET 31479 (H), IET 31618, IET 29877, IET 31633, IET 29860, IET 31638
Zone V	IET 31480 (H) , IET 31618, IET 29877, IET 31641, IET 31659, IET 31638, IET 29860 and IET 31643
Zone VI	IET 31478 (H), IET 31480 (H) and IET 29877
Zone VII	IET 31480 (H) , IET 31492 (H), IET 31481 (H), IET 31618, IET 31633, IET 31641, IET 31643, IET 31638

6. IVT -IM

The trial was constituted with 61 test entries and evaluated at 50 locations.

Entries promoted from IVT to AVT 1 IM

Over all	IET 32537, IET 32530, IET 32544, IET 32510 and IET 32547
Zone II	IET 32501, IET 32509
Zone III	IET 32537, IET 32530, IET 32518, IET 32510, IET 32515, IET 32526, IET 32492, IET 32525, IET 32503, IET 32507
Zone V	IET 32513
Zone VI	IET 31700, IET 32518, IET 32544, IET 32523
Zone VII	IET 32505 and IET 32537

Annual Progress Report 2024 Vol. I – Varietal Improvement

7. AVT 2 & 1 – Late

The trial was constituted with 17 test entries and evaluated at 48 locations.

Performance in AVT 2 (Late):

IET 29891 (MTU 1376) and IET 30882 (CRHR 166) found not promising in any zone over 3 years of testing

Entries promoted from AVT 1 to AVT 2 - Late

Zone III IET 31714 (H) and IET 31709 (H)

Zone V IET 31709 (H) and IET 31714 (H)

Zone VI IET 31686 (H) and IET 31709 (H)

8. IVT -Late

The trial was constituted with 60 test entries and evaluated at 48 locations.

Entries promoted from IVT to AVT 1 -Late

Over all IET 32558 (H), IET 32582 (H), IET 32576 (H), IET 32566 (H), IET 32574 (H), IET 32571, IET 32560 and IET 32554

Zone II IET 32558 (H)

Zone V IET 32558 (H) and IET 32587

Zone VI IET 32566 (H)

Zone VII IET 32576 (H)

9. AVT-1 & IVT Boro

The trial constituted with 37 test entries (36 inbreds + 1 hybrid) and evaluated in two zones i.e., Zone III (8 locations) and Zone IV (4 locations).

IET 30465 performance over three years is not consistent and hence, it is dropped.

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None of the entries are promoted.

10. AVT1 & IVT- ETP (Rabi)

The trial was constituted with 29 test entries and evaluated at 18 locations.

AVT1 to AVT2 –ETP (Rabi)

Over all IET 31368

Zone III IET 31368

Zone VII IET 32072 (GEL)

IVT to AVT -1 ETP (Rabi)

Over all IET 32290, IET 32282 and IET 32279

Zone III IET 32268, IET 32277, IET 32282, and IET 32290

Zone VII IET 32290

11-14 : Hybrid Rice

During Kharif 2024, totally 92 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 (2024)

Name of the Hybrid	IET No.	DFP	Promising in
IHRT-E			
PHI-24105	33007	90	Overall
Pusa RH-72	33006	90	Zone II & V
Indam 200-058	33002	90	Zone V & VI
IHRT-ME			
Kaveri-7429	33025	99	Overall
PHI-24108	33050	95	Overall
PHI-24106	33046	97	Overall
IHRT-M			
NK-7010	33068	102	Overall
SHX-2783	33052	102	Zone V & VI
BAYR-4408	33065	100	Zone VI
IHRT-MS			
PHI-24102	33085	102	Overall
PHI-24101	33084	101	Overall

List of public sector institute nominated hybrids (2024)

S.No.	Public sector	Number of hybrids nominated
1	ICAR-IIRR, Hyderabad	3
2	TNAU, Coimbatore	5
3	ICAR-NRRI, Cuttack	4
4	ICAR-IARI, New Delhi	5
5	JNKV, Jabalpur	4
6	RARS, Karjat	3
7	ZARS, Mandya	2
8	RARS, Nandyal	2
	Total	28

15. AVT 2 & 1 (Aerobic)

The trial was constituted with 26 test entries (25 entries in 2nd year of testing and one entry in 3rd year of testing) and evaluated at 26 locations.

Performance in AVT 2 (Aerobic): The entry IET 30919 (IIRRH 159) possessing MS grains is a hybrid showed yield superiority inconsistently in different zones over years, hence it is not promising.

AVT1 to AVT2 (Aerobic)

Zone III IETs 31765, 31740, 31760, 30045, 31757 and 31741
Zone IV IET 31775
Zone V IET 31741

Annual Progress Report 2024 Vol. I – Varietal Improvement

16. IVT (Aerobic)

The trial was constituted with 60 test entries and evaluated at 26 locations.

Entries promoted from IVT to AVT 1 (Aerobic):

Zone III IET 32612 and IET 32650 (IIRRH181)
Zone V IET 32617, IET 32616 and IET 32654

Repeat :

Zone IV: IET 32625 (Repeat in IVT)

17. AVT 2 & 1 (Medium slender)

The trial was constituted with 22 test entries and evaluated at 40 locations.

IET 30961 found promising with desirable grain quality in Zone IV.

AVT1 to AVT2 (Aerobic)

Zone IV IET 31494 (H)

18. IVT (Medium Slender)

The trial was constituted with 59 test entries and evaluated at 39 locations.

Entries promoted from IVT to AVT 1-MS:

Zone IV IET 32717 and 32718
Zone VI IETs 32685, 32672 and 32680
Zone VII IETs 32680 and 32675

19. AVT 1 (Bio-fortification)

The trial was constituted with 22 test entries and evaluated at 40 locations.

Entries promoted from AVT 1 to AVT 2:

Zone II IETs 31927, 31938
Zone IV IETs 31925, 31927, 31961
Zone VI IETs 31927, 31938, 31947
Zone VII IETs 31927, 31938, 31939, 31961

20. IVT (Biofortification)

The trial was constituted with 49 test entries and evaluated at 39 locations.

Entries promoted to AVT 1- Biofort, based on grain yield and zinc:

Zone III IET 32754
Zone VI IET 32729, IET 32748, IET 32752, IET 32754 and IET 32758

21. AVT1 & IVT (EH)

The trial was constituted with 25 test entries and evaluated at 17 locations.

List of test entries promoted to AVT-2 E (H) and AVT 1 E (H) is :

<u>Elevation</u>	<u>Entries promoted to</u>	<u>Entries promoted to</u>
Low Southern	IET 31389	IETs 32317 and 32333
Medium Northern	IETs 31381, 31386, 31389,	IETs 32317 and IET 32326
Medium Southern		IETs 32325 and 32323
High elevation		IETs 32325 and IET 32326
Total	IETs 31381, 31386, 31389,	IETs 32317, 32323, 32325, 32326, and 32333

Annual Progress Report 2024 Vol. I – Varietal Improvement

22. AVT 2 & 1 and IVT (MH)

The trial was constituted with 23 test entries and evaluated at 17 locations.

Performance in AVT 2 (MH):

- **IET 29654** (VL 32605) is promising in Uttarkhand State under Medium Northern Hills
- **IET 30513** (SKUA 570) is promising in high hills (Jammu and Kashmir).

List of test entries promoted to AVT-2 M (H) and AVT 1 M (H) is mentioned below:

<u>Elevation</u>	<u>Entries promoted to AVT-2 E(H)</u>	<u>Entries promoted to AVT 1 E(H)</u>
Overall basis		IETs 32343, 32344 and 32350
Low northern	IET 31413	IETs 32344, 32350, 32354 and 32349
Low southern		IET 32349
Medium northern	IET 31413	IET 32344
Medium southern		IETs 32344 and 32340
High altitude		IETs 32347, 32343, 32351 and 32356
Total	IET 31413	IETs 32340, 32343, 32344, 32347, 32349, 32350, 32351, 32354, 32356

22. AVT 1 and IVT (UH)

The trial was constituted with 15 test entries and evaluated at 12 locations.

None of the entries were promoted.

24. AVT 1 & IVT (Japonica)

The trial was constituted with 4 test entries and evaluated at 9 locations.

List of test entries promoted to AVT-2 (J) and AVT 1 (J) are

<u>Zone</u>	<u>Entries promoted to AVT-2 J and AVT 1 J</u>
Zone I-Hilly Region	IET 31431 (promoted to AVT-2 J)
Zone I-Hilly Region	IET 32371 (promoted to AVT 1 J)

25. AVT 2 & 1 - AL & ISTVT

The trial was constituted with 36 test entries and evaluated at 18 locations.

Performance of entries in 3rd year of testing

Among the 8 test entries in the final year of testing, 5 entries were promising for different zones under alkaline and inland saline conditions as below:

- **IET 31045 (RP 6684-CGR13)** promising in **Zone-VII** for two years.
- **IET 31048** found promising for two years in **Zone- II** and **Zone-VII**
- **IET 31050** found promising under both alkaline and inland saline conditions for three years in **Z-II**
- **IET 31053** found promising in **zone-II** for two years under alkaline conditions.
- **IET 31055** found promising for two years in **Zone- II** and **Zone-VII** under alkaline conditions

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of NILs and GELs

NILs of Pusa 44 (2 years testing)

- **IET 32052** (CSR-389-16-19-15) & IET 32053 (CSR-389-16-23-42) promising for zone-II and zone-III under alkalinity, and in zone-II and zone-VII for inland saline conditions.

NILs of ISM (2 years testing)

- **IET 32055** (RP 6750-RMS-2-23-67-91) promising in zone-II under inland saline conditions.
- **IET 32056** (RP 6751-RMS-1-13-34-42) promising in zone- Zone-VII under alkalinity conditions.

NILs of ADT 45 (1 st year)

- IET 32036 promising in zone-II and zone-III under alkalinity; and in zone-II for inland saline conditions.
- IET 32037 promising in zone-II under alkalinity and inland saline conditions.
- IET 32038 promising in zone-II, zone-III and zone-VII under alkalinity conditions
GEL of MTU1010 (1 st year)
- IET 32043 promising in Zone-VII under alkalinity and in zone-II and Zone-VII under inland saline conditions.

The entries promoted to 3rd year of testing in AVT 2 AL & ISTVT in Z-II and Z-III are IET Nos. 31861, 31862, 31858, 32036 (NIL), 32037(NIL), 32038 (NIL) & 32043 (GEL)

Performance of entries in 2nd year of testing

Among the 9 test entries in the second year of testing, 3 entries merit promotion to next level of testing.

Alkaline Stress

In Zone –II: IET nos. 31862, 31861, 31858.

In Zone –III: IET Nos. 31861, 31862, 31858

Inland Saline Stress

In Zone –II, IET Nos. 31861, 31862, 31858

The entries promoted to 3rd year of testing in AVT 2 AL & ISTVT in Z-II and Z-III are IET Nos. 31861, 31862, 31858, 32036 (NIL), 32037(NIL), 32038 (NIL) & 32043 (GEL)

26. IVT- AL & ISTVT

The trial was constituted with 23 test entries and evaluated at 18 locations.

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

Alkalinity:

- **Zone II:** IETs. 32783, 32792, 32785, 32778, 32788
- **Zone III:** IETs. 32778, 32783, 32776, 32788

Inland Salinity:

- **Overall Inland Salinity:** IETs. 32787, 32791, 32788, 32785, 32778
- **Zone II under Inland Salinity:** IETs. 32783, 32788, 32792, 32778, 32776
- **Zone VI under Inland Salinity:** IETs. 32787, 32785
- **Zone VII under Inland Salinity:** IETs. 32780, 32787

Annual Progress Report 2024 Vol. I – Varietal Improvement

Therefore, the constitution for AVT AL & ISTVT:

IET Nos. 32783, 32792, 32785, 32778, 32788, 32776, 32787, 32791, 32780

27. AVT1 (CSTVT)

The trial was constituted with 25 test entries and evaluated at 10 locations.

The following entries testing were promoted to AVT 2- CSTVT

Zone-III: IET 31877 and IET 31878

Zone- VI: IET 31067

NILs in the final year of testing promising in:

In Zone-III & VII: NILs- IET Nos. 32036; 32037 & 32038

AVT 2- CSTVT is constituted with IET Nos. 31877, 31878 and 31067

28. IVT (CSTVT)

The trial was constituted with 38 test entries and evaluated at 12 locations.

The following entries were promoted to AVT1 CSTVT.

Overall: IET 32807 and IET 32821

Zone III: IET Nos. 32795, 32822, 32802, 32806, 32812, 32813, 32807, 32823, 32798, 32821, 32793 and 32809

29. AVT 1 & IVT-AGT

The trial was constituted with 28 test entries and evaluated at 35 locations.

Promoted entries to AVT 1 to AVT 2 : Zone VII -IET 31909

IVT to AVT 1: Overall: IET 32846, Zone IV : IETs 31912, 32846, 32848

Zone V: IET 32846, Zone VII : IETs 32829, 32843

30. AVT 2 & 1 -LPT

The trial was constituted with 27 test entries and evaluated at 10 locations.

Performance of 3rd year entries :

- **IET 31102, IET 28070, IET 29560, IET 31108** and **IET 31110** are found promising for Zone 7. Whereas, **IET 31103** is are found promising for Zone 7 provided their revised grain quality analysis data found acceptable as per the standards.

Promotion of entries from AVT1 LPT to AVT 2 LPT

Zone 2: IETs 31107, 31979

Zone 3: IETs 31975, 31968, 31973, 31982, 31969, 31966

Zone 7: IETs 31980, 31976, 31107, 31985, 31986, 31968, 31969, 31966, 31979

31. IVT -LPT

The trial was constituted with 21 test entries and evaluated at 10 locations.

Promotion of entries from IVT to AVT 1

On overall basis: IETs 32858, 32859, 32861 and 32865

Zone 2: IETs 32853 and 32863

Zone 3: IETs 32854, 32855 and 32859

Zone 6: IETs 32852, 32853, 32855, 32856, 32858, 32860, 32861, 32862, 32865, 32867, 32870

Zone 7: IETs 32852, 32853, 32854, 32859, 32861, 32863, 32865

32. AVT 2&1 -LNT

The trial was constituted with 23 test entries and evaluated at 10 locations.

Performance of entries in 3rd year (Final year) of testing

- **IET 31118** found promising for Zone 6 and Zone 7.
- **IET 31135** found promising for Zone 2, Zone 3 and Zone 7.
- **IET 31128** found promising for Zone 3 and Zone 7 subjected to qualification of grain quality parameters in revised estimate.
- **IET 31119** found promising for Zone 3.
- **IET 30269** found promising for Zone 3.
- **IET 31131** found promising for Zone 3 and Zone 7.
- **IET 29578** (Repeat entry) found promising for Zone 7, subjected to qualification of grain quality parameters in revised estimates.
- **IET 29581** (Repeat entry) found promising for Zone 3 and Zone 7.
- **IET 30273** (Repeat entry) is found promising for Zone 3 and Zone 7.
- **IET 28084** (Repeat entry) is found promising for Zone 2 and Zone 7.

Promotion of entries from AVT 1 LNT to AVT 2 LNT

Zone 2: IETs 31998, 32010, 31990, 32009

Zone 3: IETs 32010, 31990, 31993

Zone 6: IETs 31998, 32010, 31990, 32009, 31993, 31994

Zone 7: IETs 31998, 32010, 31990, 32009, 31994

33. IVT -LNT

The trial was constituted with 25 test entries and evaluated at 10 locations.

Promotion of entries from IVT to AVT-I

Zone II: IETs 32885, 32890, 32884, 32889, 32891, 32878, 32883

Zone III: IET 32875.

Zone VII: IET 32874.

34. IVT – Coloured Rice

The trial was constituted with 27 test entries and evaluated at 22 locations.

Promotion of entries from IVT to AVT-1-Coloured Rice

Over all IET 28664, IET 32896 and IET 32025

Zone III IET 32896 and IET 28664

Zone VII IET 28664

35. AVT 2 & 1 NILs and GELs

Near Isogenic Lines (NILs) in the genetic background of Samba Mahsuri (BPT 5204)

- **IET 32964** is promoted to second year of testing in AVT 2 NIL and GEL trial.

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

- **IET 32972** is promoted to second year of testing.
- **IET 32051** found promising for the states of Haryana, Uttar Pradesh (Zone II), Odisha, Bihar, Jharkhand, West Bengal (Zone III), Assam, Tripura (Zone IV), Gujarat, Maharashtra (Zone VI), Andhra Pradesh, Telangana, Tamil Nadu, Kerala, Karnataka and Puducherry (Zone VII).

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

- **IET 32047** is found promising.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Near Isogenic Line (NIL) in the genetic background of Krishna Hamsa

- IET 32045 is found promising

Near Isogenic Lines (NIL's) in the genetic background of Swarna

- IET 32064 and IET 32065 are found promising for the states of Andhra Pradesh, Karnataka, Telangana, Tamil Nadu (Zone VII), Chhattisgarh, Maharashtra (Zone V), Bihar, Jharkhand, Odisha, West Bengal (Zone III).
- IET 32977 is promoted to second year of testing.

Near Isogenic Lines (NIL's) in the genetic background of CARI Dhan 5

- IET 32984 promoted to second year of testing.

Near Isogenic Line (NIL) in the genetic background of 28P67

- IET 32990 is promoted to second year of testing

Near Isogenic Line (NIL) in the genetic background of Pusa 44

- IET 32053 is promising.
- IET 29546 may be repeated for one more year of testing under low P condition.

Near Isogenic Line (NIL) in the genetic background of MTU 1121

- Due to data on low phosphorus tolerance is currently unavailable for both lines. both IET 32074 and IET 32974 will be repeated.

Near Isogenic Line (NIL) in the genetic background of Improved Samba Mahsuri

- IET's 32054, 32056, 32058, 32061 and 32062 found promising for Improved Samba Mahsuri gazette notified areas.

Genome Edited Lines (GELs) in the genetic background of BPT 5204 (Samba Mahsuri)

- IET 32072 is recommended for release in Andhra Pradesh, Telangana, Karnataka, Tamil Nadu, Puducherry (Zone VII), Chhattisgarh, Maharashtra (Zone V), Odisha, Jharkhand, Bihar, Uttar Pradesh, and West Bengal (Zone III), where it has shown significant yield improvements.

Genome Edited Lines (GELs) in the genetic background of MTU 1010

- IET 32043 is found promising for the states of MTU 1010 gazette notified and adapted areas.

37. IVT – DSR trial

The trial was constituted with 48 test entries and evaluated at 33 locations.

Promotions of entries from IVT to AVT 1

Overall	IET 32582 (H), IET 32917 (H), IET 32952 (H), IET 32929 (H), IET 32924 (H), IET 32944 (H), IET 32918 (H) and IET 32922
Zone VI	IET 32929 (H), IET 32582 (H), IET 32924 (H), IET 32922, IET 32952 (H)
Zone VII	IET 32582 (H), IET 32955, IET 32945, IET 32924 (H), IET 32918 (H), IET 32954, IET 32956 and IET 32917 (H)

Annual Progress Report 2024 Vol. I – Varietal Improvement

Rice Varieties/Hybrids released during 2024-25 by CVRC/SVRC

S.No.	Variety/Hybrid	IET	Ecosystem	Institute	Zone	States
1	HKR – 49	27866	IETP	HAU, KUL	III, VI	OD, BR, MH, GJ
2	Chhattisgarh Bhavya Dhan	29523	IMS	IGKV, RPR	VI	MH, GJ
3	Telangana Rice-1355 (WGL-1355)	29188	IME	PGTAU, WGL	III, VII	OD, WB, BR, TG, KL
4	Telangana Rice-34560 (JGL-34560)	29833	IM	PGTAU, JGT	VII	TG & KA
5	Telangana Rice-35085 (JGL-35085)	29142	IETP	PGTAU, JGT	III	BR & WB
6	ICAR NEH NICRA Aerobic Dhan- 2	29409	I-Aerob	ICAR, Tripura	II & III	BR & HR
7	Swarna Purvi Dhan-4	29405	I-Aerob	ICAR, Patna	II, III, VI	HR, BR, JH, GJ
8	Swarna Purvi Dhan- 5	29036	R-EDS	ICAR, Patna	III	BR, WB, JH
9	CR Dhan-108	29052	R-EDS	ICAR, NRRI	III	OD & BR
10	CR Dhan-332	28506	IETP	ICAR, NRRI	III	OD & WB
11	CR Dhan-337	29939	IE	ICAR, NRRI	III	OD, BR, JH, WB
12	CR Dhan-416	30201	Coastal Saline	ICAR, NRRI	III, VI	WB, MH, GJ
13	CR Dhan-809	30282	IME (NIL)	ICAR, NRRI	III, IV	OD, BR, JH, WB, TR, AS
14	CR Dhan-810	30409	SUB (NIL)	ICAR, NRRI	III	OD, WB, AS
15	CR Dhan-811	30410	RSL	ICAR, NRRI	III	OD & WB
16	VL Bosi Dhan (VL-32585)	28883	IEH	VPKAS, ALM	I	UK, HP, JK
17	NLR Rice -3684	29947	IETP	ANGRAU, NLR	III	OD, BR, UP, WB
18	KKL (R) 4	30697	IME (FP)	PAJANCOA, KRK	VII	AP, TG, TN, PY
19	CSR 101	30827	NIL (BLB and ST)	CSSRI, KRL	VII	KL, TN, KA
20	CSR 104	29354	Saline/Alk	CSSRI, KRL	II	UP & HR
21	CSR 105	30004	I-Aerob	CSSRI, KRL	II & VI	HR & GJ
22	DRR Dhan-73	30107	LPT	IIRR, Hyd	III, VII	KA, OD, TG
23	DRR Dhan-74	30252	LPT	IIRR, Hyd	V, VII	KA, MH, TG, JH

Annual Progress Report 2024 Vol. I – Varietal Improvement

S.No.	Variety/Hybrid	IET	Ecosystem	Institute	Zone	States
24	DRR Dhan-75	30107	IMS	IIRR, Hyd	III, VI and VII	TG, AP, TN, UP, OD, JH, BR, GJ, MH
25	DRR Dhan-76	29808	IME	IIRR, Hyd	III and VII	OD, WB, KL, PY, AP
26	DRR Dhan-77	28636	I-Aerob	IIRR, Hyd	III, VI and VII	BR, GJ, TN
27	DRR Dhan-78	30240	LPT	IIRR, Hyd	VII	KA & TG
28	DRR Dhan-79	29859	IM (MAS)	IIRR, Hyd	III, V and VII	OD, BR, CH, MP, MH, KA, TN
29	DRR Dhan-80	30757	IM (NIL)	IIRR, Hyd	VII	KA & TG
30	BRR2152 (Sabour Pratap Dhan)	30083	IMS	BAU, SBR	III, V, VI and VII	BR, JK, OD, UP, CH, MH, GJ, TG, KA, AP, TN
31	BRR2183 (Sabour Vijay Dhan)	30029	I Aerob	BAU, SBR	III, V and VII	BR, JH, CH, KA
32	BRR2184 (Sabour Narendra Dhan)	30041	RSL	BAU, SBR	III and V	BR, UP, CH
33	BRR2010 (Sabour Shriram Dhan)	30367	RSL	BAU, SBR	III	BR, UP, OD
34	OUAT Kalinga Rice 18 (Saria) (ORJ-1342) (TP-29409)	29822	IME	OUAT, JYP	III	OD, BR, WB
35	BRR 2110 (Sabour Heera Dhan)	27538	Area extension	BAU, SBR	III	BR & UP
36	Sanjeevani Rice	CGR 22847	IL	IGKV, RPR	V	CH
37	Bauna Luchai - CTLM	29944	IETP	IGKV, RPR	V	CH
38	Sahyadri Siri	30764	IL	KSNAUHS, Shivamogga		KA (VII)
39	Sahyadri Jalmukthi (KHP-14)	30872	RL	KSNAUHS, Shivamogga		KA (IX)
40	Sahyadri Saphami (BMR-US-1-24-2)	27776	IME	ZAHRS, BRM		KA (X)

Annual Progress Report 2024 Vol. I – Varietal Improvement

S.No.	Variety/Hybrid	IET	Ecosystem	Institute	Zone	States
41	KMP-225	29973	IME	KSNAUHS, Shivamogga		KA (VI)
42	Kaje 25-9 (BMR – Kajejaya)	30120	IME	ZAHRS, BRM		KA (X)
43	CG Tejas Dhan (IGKV DH 105)	29898	IM	IGKV, RPR	V	CH
44	CAU-R 105 (Khingrasong 1)	27496	IL & M Altitude	SVRC, Govt. of Meghalaya	I	ML
45	CAU-R 107 (Khingrasong 2)	28210	IL & M Altitude	SVRC, Govt. of Meghalaya	I	ML
46	CAU-R 124 (Khingrasong 3)	28907	IL & M Altitude	SVRC, Govt. of Meghalaya	I	ML
47	Phule Kolam (VDN-1832)	30956	IMS	MPKV,RHI	VI	MH
48	Pant Sugandh Dhan 25	30219	I Aromatic	GBPAUT, PNT		UK, HP, JK
49	PR – 131 (RYT 3888)	30751	IM	PAU, LDH		PB
50	Konkon Sanjay	29264	IM	RARS, KJT	I, II, III and IV	MH
51	Trombay Konkon Khara (BARCKKV 16)	30185	Coastal Saline	BARC, Trombay		MH
52	Shalimar Rice – 7 (SKUA – 540)	28204	I EH	SKUASTK, KHD		JK
53	Shalimar Rice – 8 (SKUA – 522)	27477	I EH	SKUASTK, KHD		JK
54	Shalimar Rice – 9 (SKUA – 493)	25829	I EH	SKUASTK, KHD		JK
55	Labanga Dhan (CR Dhan 603)	26434	I Boro	ICAR, NRRRI	III	OD
56	Pusa 1824	28442	IME	IARI, NDL		DL
57	Pusa 2090	29217	IME	IARI, NDL		DL
58	ADT 59	29154	IE	TNAU, CBT		TN
59	KKM 1	30079	IME	TNAU, CBT		TN
60	CO 58	25577	IME	TNAU, CBT		TN

Annual Progress Report 2024 Vol. I – Varietal Improvement

S.No.	Variety/Hybrid	IET	Ecosystem	Institute	Zone	States
61	CO 57	31924	IME	TNAU, CBT		TN
62	CO RH 5	24986	IM	TNAU, CBT		TN
63	Karjat - 10	23649	ETP	RARS, KJT		MH
64	DRRH-6 (IIRRH130)-Hybrid	28123	IETP	IIRR, Hyd	III	BR, OD, UP
65	27P34 (PHI- 21103)-Hybrid	29726	IME	CTVA, Hyd	III and VII	OD, UP, AP, TN, KA, PY
66	27P38 (PHI- 21104)-Hybrid	29734	IME	CTVA, Hyd	III, V and VII	UP, JH, MH, MP, AP, KL
67	RNC-0457/NK4101-Hybrid	29738	IME	Syngenta, Pune	III and VII	UP, BR, JH, OD, AP, KL
68	ADV 8222-Hybrid	29692	IETP	Advanta, Hyd	V	CH & MH
69	ADV 8283-Hybrid	29690	IETP	Advanta, Hyd	III and V	BR, UP, CH, MH, MP
70	Arize Dhan DT (HRI-205)-Hybrid	29000	IM	Bayer, Hyd	III, V and VII	UP, BR, JH, OD, WB, MP, CH, TG, AP, TN, KA
71	Arize 655 ST (HRI-209)-Hybrid	29741	IM	Bayer, Hyd	III and V	HR, PB, UP, BR, JH, OD, MP, CH, MH, GJ
72	HRI- 211 (2)-Hybrid	29743	IM	Bayer, Hyd	II, III and V	HR, PB, UP, BR, KH, OD, WB, MP, CH, MH, GJ
73	Arize 6585 ST (HRI- 214)-Hybrid	29689	IETP	Bayer, Hyd	III and V	HR, PB, UP, BR, JH, OD, MP
74	NK 5231-Hybrid		IL	AAU, Jorhat		AS

IRRIGATED TRIALS

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

ICAR-Indian Institute of Rice Research (ICAR-IIRR) conducts and coordinates multidisciplinary and multi-location evaluation of elite cultures, crop management and crop protection technologies in different agro-climatic zones of the country under All India Coordinated Rice Improvement Project (AICRPR) to enhance rice production. A total of 38 trials (34 varietal trials and 4 hybrid rice trials) were conducted in 1104 experiments (970 varietal and 134 hybrid rice) at 124 locations (41 funded, 83 voluntary centres) in 28 states and 5 union Territories across seven zones of the country during 2024 which is the 60th year of AICRPR testing. Hybrid rice experiments were also conducted by 10 private seed companies. The 38 trials were constituted with 1388 entries (1296 varietal and 92 hybrid rice) including 166 checks. The overall data receipt was 83.6% of which 87.7% and 74.6% data was received from funded and voluntary centres, respectively.

The chapter outlines the results obtained trial wise which are discussed below :

ADVANCE VARIETY TRIAL 2 & 1 – IRRIGATED EARLY TRANSPLANTED (AVT 2& 1 - E TP)

Locations: 49

Test Entries: 55

Checks: CO-51 (National); PR 124 (Northern), Narendra 97 (Eastern) Table: 1
Luit (North Eastern), Sahbhagidhan (Central & Western),
MTU 1153 (Southern) - Zonal; US 314 (Hybrid) and local check

The AVT 2&1 – Early Transplanted trial was constituted with 16 hybrid entries (5 in 3rd year and 11 in 2nd year) and 39 varietal entries (8 in 3rd year and 31 in 2nd year) with along with 4 checks; National Check (NC)- CO 51 (NC); Zonal check (ZC) Northern-PR 124, Eastern-Narendra 97, North Eastern-Luit, Central and Western Sahbhagidhan, Southern-MTU 1153; Hybrid check-US 314 and a Local Check. The trial was sent to 49 locations and data was not received from two locations viz., Derol, and Dabhoi. The data from 4 locations viz., Chiplima (Low expt. yield=3223 kg/ha), Masodha (Low CV=2.68%), Mugad (high CV=29.64%) and Rudrur (Low expt. yield1803 kg/ha) was not considered for analysis. Data from remaining 43centres was used for analysis and entries were assessed for their yield performance. The entries are tested zone wise and hence performance of entries are discussed zone wise. National check was common across all zones and Zonal checks and local checks are varying depending on zone and location.

Zone II

In Zone II, the trial was sent to 5 locations (Kaul, Ludhiana, Kota, Pantnagar and Nagina) and data was received from all 5 centres and also the data from all 5 locations was considered for analysis. The trial in Zone II consists of 20 test entries of which 9 are hybrids and 11 were varietal entries. Days to fifty percent flowering varied from 84 (IET 31434) to 118 (IET 31509), plant height from 103 (Local check) to 124 cm (IET 30572), panicles per square metre from 260 (IET 31557) to 321 (IET 31440). Experimental mean of the locations varied from 4365 kg/ha at Nagina to 7613 kg/ha at Kaul and average being 5968 kg/ha. Overall mean of the trial ranged from 4486 kg/ha (IET 31509) to 6945 kg/ha (IET 31436). On overall basis, among checks, Hybrid check US 314 recorded highest yield of 6407 kg/ha. **A total of 8 entries (IETs 30565, 30636, 30641, 30657, 29694, 29700, 31436 and 31501) recorded significant yield superiority over the best check and hybrid and/or best varietal check.**

Zone III

In Zone III, the trial was sent to 13 locations and data was received from all 13 centres. But the data from Chiplima (Low expt. yield=3223 kg/ha) and Masodha (Low CV=2.68%) was not considered due to low experimental yield and low CV. The data from remaining 11 locations was considered for analysis. The trial in Zone III consists of 23 test entries of which 5 are hybrids and 18are varietal entries. Days to fifty percent flowering varied from 84 (ZC) to 103(IET 31509 and IET 31553), plant height from 90 (Zonal check) to 121 cm (IET 31553), panicles per square metre from 247 (IET 31435) to 302 (IET Zonal check). Experimental mean of the locations varied from 4190 kg/ha at Sabore to 6246 kg/ha at Malda and average being 5059 kg/ha. Overall mean of the trial ranged from 3955 kg/ha (Zonal check) to 5702 kg/ha (IET 31552). On overall basis, among checks, Hybrid check US 314

recorded highest yield of 5228 kg/ha. **A total of 9 entries (IETs 30636, 30641, 30642, 30656, 31463, 31501, 31509 and 31552) recorded significant yield superiority over the best check and hybrid and/or best varietal check.**

Zone IV

In Zone IV, the trial was sent to 3 locations (Titabar, Arundhutinagar and Lembucherra) and data was received from all 3 centres and also the data from all 3 locations was considered for analysis. The trial in Zone IV consists of 40 test entries of which 6 are hybrids and 34 are varietal entries. Days to fifty percent flowering varied from 90 (IET 31434 and IET 30568) to 104 (IET30638), plant height from 84 (IET 30660) to 110 cm (Local check), panicles per square metre from 213 (IET 30681) to 347 (IET 30677). Experimental mean of the locations varied from 3915 kg/ha at Arundhutinagar to 4863 kg/ha at Titabar, and average being 4460 kg/ha. Overall mean of the trial ranged from 3194 kg/ha (IET 30668) to 5716 kg/ha (IET 30561). On overall basis, among checks, Hybrid check US 314 recorded highest yield of 5012 kg/ha. **A total of 22 entries (IETs 30561, 30636, 30641, 30642, 30656, 30657, 30669, 30690, 31501, 31509, 31519, 30681, 30635, 30671, 30674, 30679, 30688, 30687, 30661, 30637 and 30638) recorded significant yield superiority over the best check and hybrid and/or best varietal check.**

Zone V

In Zone V, the trial was sent to 6 locations (Bilaspur, Jagadapur, Raipur, Sakoli, Sindewahi and Rewa) and data was received from all 6 centres and also the data from all 6 locations was considered for analysis. The trial in Zone V consists of 14 test entries of which 3 are hybrids and 11 are varietal entries. Days to fifty percent flowering varied from 86 (IET 31434) to 111 (IET 31509), plant height from 107 (National check) to 128 cm (IET 30572), panicles per square metre from 216 (National check) to 288 (Hybrid check). Experimental mean of the locations varied from 4169 kg/ha at Jagadapur to 7284 kg/ha at Raipur and average being 50305 kg/ha. Overall mean of the trial in zone V ranged from 4121 kg/ha (IET 31434) to 6102 kg/ha (IET 30642). On overall basis in zone V, among checks, Hybrid check US 314 recorded highest yield of 6007 kg/ha. **A total of 6 entries (IETs 30641, 30642, 30669, 30690 and 31519) recorded significant yield superiority over the best check and hybrid and/or best varietal check..**

Zone VI

In Zone VI, the trial was sent to 6 locations and data was not received from 2 locations (Derol and Dabhoi). The data from remaining 4 centres Nawagam, Vyara, Karjat and Rathnagiri was received and accepted for analysis. The trial in Zone VI consists of 17 test entries of which 5 are hybrids and 12 were varietal entries. Days to fifty percent flowering varied from 82 (IET 31434) to 106 (IET 31509), plant height from 95 (IET 31434) to 125 cm (IET 31515), panicles per square metre from 211 (IET 31557) to 270 (National check). Experimental mean of the locations varied from 4647 kg/ha at Karjat to 5850 kg/ha at Nawagam and average being 5308 kg/ha. Overall mean of the trial ranged from 4299 kg/ha (Zonal check) to 6420 kg/ha (Hybrid check). **A total of 3 entries (IETs 30642, 31501 and 31059) recorded significant yield superiority over the best check and hybrid and/or best varietal check and the details are furnished in the following table 3a.**

Zone VII

In Zone VII, the trial was sent to 16 locations and data was received from all 16 centres. But the data from Mugad (high CV=29.64%) and Rudrur (Low expt. yield 1803 kg/ha) was not considered for analysis. The trial in Zone VII consists of 13 test entries of which 5 are hybrids 8 are varietal entries. Days to fifty percent flowering varied from 85 (IET 31434) to 100 (IET31509), plant height from 93 (IET 31434) to 106 cm (IET 31509), panicles per square metre from 268 (National check) to 319 (IET 31519). Experimental mean of the locations varied from 4360 kg/ha at Brahmavar to 8085 kg/ha at Jagtial and average being 6028 kg/ha. Overall mean of the trial in Zone VII ranged from 5086 kg/ha (IET 31434) to 6704 kg/ha (IET 31501). On overall basis, among checks, Hybrid check US 314 recorded highest yield of 6547 kg/ha. **Among the test entries only one entry IET 31501 recorded significantly superior yield over the best check and hybrid and/or best varietal check and the details are furnished in the following table 3a.**

Table 3a: Performance of the entries in AVT 2&1 ETP Kharif 2024

	GT	Grain yield kg/ha, Ranking and DFF											
		Z-II	DFF	Z-III	DFF	Z-IV	DFF	Z-V	DFF	Z-VI	DFF	Z-VII	DFF
Entries in Third year of testing													
30565 (H)	SB	6864/2	93										
30636	LS	6355/10	103	5674/2	98	5522/2	97						
30641	LS	6435/8	98	5474/4	94	4803	99	5936/4	93				
30657	LS	6127	97			5376/4	97						
29694(H)	LB	6492/6	94										
29700(H)	LS	6762/3	89										
30642	LS			5276/9	92	4501	100	6102/1	94	5737/6	93		
30656	LS			5313/7	96	5281/6	98						
30561 (H)	LB					5716/1	93						
30669	LS					4802	97	5664/6	93				
30690	LS					5255/7	100	5811/5	93				
Entries in Second year of testing													
31436(H)	LB	6945/1	93	5502/3	92								
31501	LS	6129	102	5153	96	4807	99			5699/7	94	6704/1	92
31509	MS			5295/8	103	5452	98			5975/4	106		
31552				5702/1	95								
31519	LS					4626	97	5642/7	96				
30681	LS					4396	99						
30635	MS					4590	108						
30671	MS					4691	94						
30674	LS					4555	99						
30679	LS					4851	97						
30688	LS					4774	98						
30687	MB					4786	100						
30661	LS					4660	102						
30637	MS					4807	93						
30638	LS					4354	104						
NC		4781	89	4878	89	3837	92	4271	100	5112	83	5262	91
ZC		5586	102	3955	84	3533	91	4769	92	4299	84	6155	90
LC		5403	90	4900	94	3710	91	4984	94	5017	88	5789	88
HC		6407/9	97	5228	92	5012/9	95	6007/2	93	6420/1	89	6682	89
CD		396		239		459		418		458		321	

**Entries with bold letters are not considered due to DFF not suitable for ETP trial.*

Entries in second year of testing

IETs 31509, 31552, 31519, 30681, 30635, 30671, 30674, 30679, 30688, 30687, 30661, 30638 were in second year of testing and showed yield superiority either in one zone or more than one zone against best check. But their respective days to 50% flowering is beyond the acceptable range of 80-90 days (± 3 days) as prescribed for Early transplanted trial. Hence these entries are not promoted in this trial.

Entries promoted from AVT 1 to AVT 2 ETP for 3rd year of testing

IET 31436 (H) promoted in Zone II and III

IET 31501 promoted in Zone VII (Even though it is promising in other zones, its Days to 50% flowering in those zones is higher than the DFF for ETP trial, hence promoted only in Zone VII)

IET 30637 promoted in Zone IV.

Performance of entries in Third year of testing

IET No.	Year	Zone	Yield/Rank	Remarks
30561(H)	2024	IV	5716 (1)	Not found promising in any zone
	2023	Z II	6350 (1)	
		Z VI	7197 (1)	
	2022	Overall	-	
		Z II	7802	
		Z V	5751	
		Z VII	8199	
30565 (H)	2024	Z II	6864 (2)	Promising for Z II
	2023	Z II	6338 (2)	
		Z VII	6453 (2)	
	2022	Overall	6868	
		Z II	7765	
		Z V	6232	
		Z VII	8315	
30641	2024	Z V	5936 (4)	Promising for Z V
	2023	Z II	6033 (4)	
		Z III	5245 (8)	
		Z V	6764 (2)	

Annual Progress Report 2024 Vol. I – Varietal Improvement

	2022	Overall	6201	
		Z II	6387	
		Z III	5996 (2)	
		Z VII	7396 (3)	
30642	2024	Z III	5276 (9)	Promising for Z III, Z VI
		Z VI	5737 (6)	
	2023	Z III	5205 (9)	
		Z V	6487 (7)	
		Z VI	6487 (4)	
	2022	Overall	6226	
		Z II	6850	
Z VII		7562		
30669	2024	Z V	5664 (6)	Promising for Z V
	2023	Z III	5046	
		Z V	6348 (10)	
		Z VII	6552 (1)	
	2022	Overall	6050	
		Z VII	7326 (5)	
30690	2024	Z V	5811 (5)	Promising for Z V
	2023	Z III	5002	
		Z V	6674 (3)	
	2022	Overall	5818	
		Z VII	7348 (4)	

IET 30561(H) (JKRH-1170), a hybrid entry was evaluated in 2022, 2023 and 2024. Based on performance of the entry in 3 years, it was not found promising in any zone. It has long bold grains with HRR: 54.3%, AC: 26.19; GC: 49 mm and ASV: 5.

IET 30565 (H) (KAVERI-7374), a hybrid entry was evaluated in 2022, 2023 and 2024. Based on performance of the entry in 3 years, it was found promising for Zone II and Zone VII. It has Short bold grains with HRR: 69.6%, AC: 26.4; GC: 58 mm and ASV: 7. Based on its consistent performance, **IET 30565 is found promising for Zone II**

IET 30641 (RNR 35105) obtained from the cross JGL 24423 / MTU 1156 was evaluated in 2022, 2023 and 2024. Based on performance of the entry in 3 years, it was found promising for Zone II, Zone III and Zone V. It has long slender grains with HRR: 57%, AC: 24.25; GC: 67 mm and ASV: 4. Based on its consistent performance, **IET 30641 is found promising for Zone V.**

IET 30642 (KNM 12509) obtained from the cross KNM 118 / IR 72 // MTU 1156 was evaluated in 2022, 2023 and 2024. Based on performance of the entry in 3 years, it was found promising for Zone III and Zone VI. Among states, it was found promising for Bihar. It has long slender grains with HRR: 59.2%, AC: 22.73; GC: 77 mm and ASV: 4. Based on its consistent performance, **IET 30642 is found promising for Zone III and Zone VI.**

IET 30669 (WGL 1719) obtained from the cross MTU 1081 / R 1556-25-77 was evaluated in 2022, 2023 and 2024. Based on performance of the entry in 3 years, it was found promising for Zone V and Zone VII. It has long slender grains with HRR: 62.6%, AC: 23.43; GC: 60 mm and ASV: 4. Based on its consistent performance, **IET 30669 is found promising for Zone V.**

IET 30690 (RNR 35109) obtained from the cross JGL 24423 / MTU 1156 was evaluated in 2022, 2023 and 2024. Based on performance of the entry in 3 years, it was found promising for Zone V. It has long slender grains with HRR: 64.2%, AC: 24.4; GC: 61 mm and ASV: 4. Based on its consistent performance, **IET 30690 is found promising for Zone V.**

Overall summary

Entries promoted from AVT 1 to AVT 2 ETP for 3rd year of testing

IET 31436 (H) promoted in Zone II and III

IET 31501 promoted in Zone VII

IET 30637 promoted in Zone IV

Table No. 1.1: Composition of entries in Advance Variety Trial -Early –Transplanted (AVT-2 & 1 E-TP) Kharif 2024.

Entry No.	IET No.	Designation	Cross Combination	Zones	GT
3301	30555* (H)	RRX-3276	Hybrid	II,IV,VII	LB
3302	30561* (H)	JKRH-1170	Hybrid	II,IV,VI	LB
3303	30565* (H)	KAVERI-7374	Hybrid	II,IV,VII	SB
3304	30636*	JGL 28639	MTU 1010 / NLR 34449	II,III,IV, V,VI,VII	LS
3305	30641*	RNR 35105	JGL 24423 / MTU 1156	II,III, IV,V	LS
3306	30642*	KNM 12509	KNM 118 / IR 72 // MTU 1156	III,IV, V,VI	LS
3307	30651*	RCPR 94-IR97030-7-2-2-2	IR09L337 / IR10L178	II,IV	LS
3308	30656*	IIABR-9 / IIAB-54 / IR 16A3098	PR 36921-B-6-1-3-4 / IRR I 154 // IR09A228	III, IV	LS
3309	30657*	WGL 1720	MTU 1081 / R 1556-25-77	II,III,IV, V,VII	LS
3310	30669*`	WGL 1719	MTU 1081 / R 1556-25-77	III,IV, V,VII	LS
3311	30690*	RNR 35109	JGL 24423 / MTU 1156	III,IV,V	LS
3312	29694*	UPLRH-181325	Hybrid	II	LB
3313	29700*	JKRH-1004	Hybrid	II	LS
3314	31433 (H)	KSRH-01	Hybrid	III	LS
3315	31434 (H)	MEPH-174	Hybrid	II,III,IV, V,VI,VII	LS
3316	31435 (H)	NPH-X49	Hybrid	II,III	LB
3317	31436 (H)	VNR-234	Hybrid	II,III,IV, V,VI,VII	LB
3318	CO-51 (NC)			II,III,IV, V,VI,VII	
3319	31437 (H)	SHX-5977	Hybrid	II,III,IV, V,VI,VII	LS
3320	31440 (H)	Pusa RH-67	Hybrid	II	LS
3321	PR 124 (Northern), Narendra 97 (Eastern), Luit (North Eastern), Sahbhagidhan (Central and Western), MTU 1153 (Southern)—Zonal Check			II,III,IV, V,VI,VII	
3322	31444 (H)	BS-356	Hybrid	II,VI	LB
3323	31501	JGL 41255	JGL 244423 / IR 09-251	II,III,IV, V,VI,VII	LS
3324	30505	KNM 14376	KNM 118 / IR 04A216	VI	LS
3325	31509	MTU 1409 (MTU 2701-1-1-1)	MTU 1121 / MTU7029	II,III,IV, V,VI,VII	MS
3326	31510	NVSR-931	Gurjari / IR-28	III	LB
3327	31512	RNR 37913	AAGP 9772 / NLR 34449	III,VI	LS

Entry No.	IET No.	Designation	Cross Combination	Zones	GT
3328	31515	NVSR-908	IET 22121 / IET 24003	III, VI	MS
3329	Local Check (LC)			II,III,IV, V,VI,VII	
3330	31519	RCPR 101-IR107891-B-B-1432-2-1	IR 87707-446-B-B-B / KALI AUS // IRRI 154 / UPL RI 7 /// Dular (ACC 32561) /IRRI 148	II,III,IV, V,VI,VII	LS
3331	31533	CR 4469-RGA-126-27	CR 4384-RGA-20 / CR 4389-RGA-12	VI	MS
3332	31540	TM 13327	WGL 305/Rasi	VI	MS
3333	31550	CR 4418 -4-1-2-1-2-1	CR 3553-9-2-1-1-1-1 / CR 3510 -12-1-1-2-1-1	III	MS
3334	31552	Tilkormel Mutant-12	Sel. from Til Kormel landrace	III	
3335	US 314 (HC)			II,III,IV, V,VI,VII	
3336	31553	CR 4379-4-1-1-1	CR Dhan 307 / MTU 1010	III	LB
3337	31557	CR 4469-RGA-9	CR 4384-RGA-20 / CR 4389-RGA-12	II,III,IV, V,VI,VII	MS
3338	30568 (H)	Bio-271	Hybrid	IV	LS
3339	30681	RP 6529-1780-28-7-16	MTU 1010*2 / Improved Samba Mahsuri	IV	LS
3340	30635	Pusa 2091-26	CMH 310 / CMH 482	IV	MS
3341	30653	CSR M1-5	IR 71730-51-2 / NSIC Rc106	IV	LS
3342	30660	KNM 13557	MTU 1156 / WGL 1097 // MUT NS1	IV	
3343	30668	R 1902-97-1-77-1	Danteshwari / JGL 1118	IV	MS
3344	30671	KPS-10321	Akshaydhan / RNR 15048	IV	MS
3345	30674	RCPR 95-IR 97046-39-2-1-2	IR09L272 / IR10L165	IV	LS
3346	30679	HURS 19-9-IR 128773-4-3-1-4-B	IR 69428-6-1-1-3-3 / Rajendra Mahsuri 1	IV	LS
3347	30572 (H)	IIRRH-164	Hybrid	II,III,IV, V,VI,VII	
3348	30688	RP 6680- RMS-1703-55-89-66	MTU 1010*2 // ST12	IV	LS
3349	30687	CRR-DH64	`Savatri/Pokkali	IV	MB
3350	30661	CR3843-22-2	Gontra Dhan/CR Dhan 202	IV	LS

Entry No.	IET No.	Designation	Cross Combination	Zones	GT
3351	30637	CR4075-1341-3-3-2-2-1-4-3	Jaya/PKV HMT	IV	MS
3352	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	IV	LS
3353	30677	CR4386-RGA-134	CR Dhan 202/SR-36-2-1	IV	MS
3354	30643	CR3745-3-2-1-2-1-1	Pooja/Lalat	IV	MS
3355	30686	IIABR-10/IIAB-309/IR1 T144	AT 401/3*IR04A285	IV	LS
3356	30640	CSR M1-4	IR71730-51-2/NSIC Rc106	IV	LS
3357	30683	MTU 1390(IR17M1172)	IR95097:1-B-19-7-13-GBS/Madirat66	IV	LS
3358	30659 (R)	ORJ 1345 (TP 30531)	IURON 43 Ent.02	IV	MS
3359	30647 (R)	NWGR-16032	Gurjari / NWGR-3015 /35-2-1-1-1-1-1	IV	MB

*3rd year testing entries

Table No. 1.2: Grain Yield (kg/ha) in AVT-2 & 1 E-TP, Kharif 2024

Entry No	IET No	Zone II-Northern									Zone II-Northern (5)		
		Haryana		Punjab		Rajasthan		Uttarakhand		Uttar Pradesh		Mean	
		Kaul		Ludhiana		Kota		Pantnagar		Nagina			
3301	30555* (H)	8487	6*	6439		6806	9	5997	8	4965	4**	6539	4*
3302	30561* (H)	8249	9*	6880	10	6656		6518	3*	4319		6524	5*
3303	30565* (H)	8549	4*	7357	5	7092	3#	6333	5*	4989	3*#	6864	2*#
3304	30636*	6862		6707		7310	1#	5886	9	5011	2*#	6355	10*
3305	30641*	7927		6910	9	7256	2#	5540		4541	9#	6435	8*
3307	30651*	5820		5247		5265		4260		4752	5#	5069	
3309	30657*	7284		6779		5756		6066	7	4752	5#	6127	*
3312	29694*	8404	7*	6121		6956	6	5703		5275	1*#	6492	6*
3313	29700*	8536	5*	7019	8	7065	4#	6875	2*	4316		6762	3*
3315	31434 (H)	7202		4385		5265		5070		4255		5235	
3316	31435 (H)	7924		6599		6983	5	6074	6	3908		6298	*
3317	31436 (H)	9091	1*	7369	4	6219		7503	1*	4541	9#	6945	1*#
3318	CO-51 (NC)					5346				4215		4781	
3319	31437 (H)	8731	3*	7221	7	6574		5126		4647	7#	6460	7*
3320	31440 (H)	8349	8*	6498		6792	10	5457		4148		6249	*
3321	PR 124 (ZC)	6929		5846		6285		5024		3846		5586	
3322	31444 (H)	7796		7431	1	6819	8	5266		4185		6299	*
3323	31501	6909		7227	6	6847	7	5793	10	3868		6129	*
3325	31509	5556				6083		1740		4565	8#	4486	
3329	Local Check (LC)	7469		7378	3	4937		3221		4009		5403	
3330	31519	6531		6720		6315		5126		4012		5741	
3335	US 314 (HC)	8827	2	7379	2	5592		6429	4	3809		6407	9
3337	31557	5662		5102		5074		4146		4004		4798	
3347	30572	8004	10	4631		5346		4386		3833		5240	
Experimental Mean		7613		6511		6277		5371		4365		5968	
CD(0.05)		683		710		1471		1077		600		396	
CV(%)		5.46		6.61		14.26		12.18		8.37		4.04	
F val		18.66**		13.69**		2.19*		10.82**		4.2**		26.56**	
DOS		29-05-24		31-05-24		23-06-24		30-05-24		28-06-24			
DOP		02-07-24		01-07-24		26-07-24		24-06-24		29-07-24			
Local Check Name		HKR 49		PR 126		PB-1509		Govind		Narendra 97			

Table No. 1.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 E-TP, Kharif 2024

Entry No	IET No	Zone III- Eastern													
		Bihar				Bihar (3)		Jharkhand		Jharkhand (2)					
		Bikramganj		Patna-ICAR		Sabour		Mean		Ranchi		Hazariabagh		Mean	
3304	30636*	5947	#	5833	*	5317	1*#	5699	6*#	4222		6032	4*	5127	9
3305	30641*	5939	#	5680	*	4582	6*	5400	*	3778		5677	6	4728	
3306	30642*	5649	#	6423	6*	4612	5*	5561	7*#	4667	10	5618	8	5142	8
3308	30656*	6435	5#	5827	*	4318		5527	8*#	5556	2*	4495		5025	
3309	30657*	3866		5377		4706	2*	4650		4222		6269	2*#	5246	4
3310	30669*	6153	8#	6393	7*	3974		5507	9*#	4889	7	5204		5047	10
3311	30690*	5401	#	4497		4248		4715		5778	1*	5500	10	5639	2*
3314	31433 (H)	6015	9#	5290		4167		5157	*	5111	3	5618	8	5365	3
3315	31434 (H)	4752		5203		4005		4653		3556		6032	4*	4794	
3316	31435 (H)	5656	#	6743	3*	3880		5426	10*	4889	7	5500		5194	5
3317	31436 (H)	7426	2*#	6753	2*	4700	3*	6293	1*#	4000		5677	6	4839	
3318	CO-51 (NC)									4444				4444	
3319	31437 (H)	7467	1*#	5707	*	4534	7*	5903	4*#	3333		5500		4417	
3321	PR 124 (ZC)	5981	10	3490		3023		4164		3111		4387		3749	
3323	31501	6312	6#	6903	1*	4652	4*	5956	2*#	4000		4790		4395	
3325	31509	6438	4#	6530	5*	4345	10*	5771	5*#	5111	3	4672		4892	
3326	31510	7290	3*#	6347	8*	4184		5940	3*#	4667		5328		4997	
3327	31512	5390	#	6073	*	3917		5127	*	4667		4968		4817	
3328	31515	6228	7#	6187	10*	3701		5372	*	4222		4140		4181	
3329	Local Check (LC)	5170		5087		3586		4614		4444		5263		4854	
3330	31519	5282		5477		3671		4810		4222		6091	3*#	5157	7
3333	31550	5410	#	5933	*	3856		5066	*	5111	3	3898		4504	
3334	31552	5652	#	6303	9*	4116		5357	*	5111	3	6446	1*#	5779	1*#
3335	US 314 (HC)	4745		6630	4	3995		5123		4889	7	5441		5165	6
3336	31553	4787		4620		4366	9*	4591		4222		2543		3383	
3337	31557	4783		5100		4076		4653		4222		5204		4713	
3347	30572	5544	#	5113		4399	8*	5019	*	3111		5473		4292	
Experimental Mean		5758		5751		4190		5233		4428		5222		4811	
CD(0.05)		544		419		740		326		916		592		563	
CV(%)		5.76		4.45		10.77		3.8		12.63		6.91		7.15	
F val		20.04 **		30.35 **		3.08 **		21.16 **		4.52 **		16.25 **		7.1 **	
DOS		06-07-24		08-07-24		19-07-24		28-06-24		06-07-24					
DOP		08-08-24		02-08-28		22-08-24		09-08-24		05-08-24					
Local Check Name		R. Bhagwati		Sahbhagi Dhan		Sabour Harshit				BVD-110		CR Dhan 320			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 1.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 E-TP, Kharif 2024

Entry No	IET No	Zone III- Eastern													Zone III- Eastern (11)				
		Odisha		Odisha		Odisha (2)		Uttar Pradesh		West Bengal			West Bengal (3)						
		Jeypure	NRRI	Mean	Mean	Varanasi	Malda	chinsurah	Hatwara	Mean	Mean	Mean							
3304	30636*	5252	4	5041	8	5147	6	6095	1*#	6239	*	4278		8155	1*#	6224	2	5674	2*#
3305	30641*	5303	2	5397	5#	5350	3	5673	5#	8600	1*#	4083		5501		6061	8	5474	4*#
3306	30642*	5092	6	4750		4921	9	4948		6394	*	4361		5527		5427		5276	9*
3308	30656*	4120		3824		3972		5255	10#	8556	2*#	4322		5739		6206	3	5313	7*
3309	30657*	4499		2607		3553		5320	9#	7528	4*	4183		6687	6	6133	6	5024	
3310	30669*^	3110		3935		3522		5014	#	6194	*	4289		6219		5567		5034	
3311	30690*	3881		3499		3690		4886		4456		4228		5703		4795		4734	
3314	31433 (H)	4233		3602		3917		4264		5533		4544	10	5856		5311		4930	
3315	31434 (H)	3489		2523		3006		4277		3767		4167		4170		4034		4176	
3316	31435 (H)	4841		3725		4283		4574		7267	5*	4211		6399	9	5959	10	5244	10*
3317	31436 (H)	4750		5083	7	4916		4461		6783	10*	4083		6801	5*	5889		5502	3*#
3318	CO-51 (NC)	4396		3511		3954				5244		6794	1			6019	9	4878	
3319	31437 (H)	4286		4218		4252		4299		6950	7*	4450		7895	2*	6432	1	5331	6*
3321	PR 124 (ZC)	3127		2836		2981		4111		5194		4044		4197		4479		3955	
3323	31501	2902		3491		3196		5092	#	7661	3*	5328	3#	5557		6182	4	5153	*
3325	31509	4867	10	5627	3#	5247	5	4445		6689	*	4483		5035		5403		5295	8*
3326	31510	5084	8	3847		4465		4511		4128		4306		5937		4790		5057	
3327	31512	3648		2416		3032		4505		6706	*	4900	4	4909		5505		4736	
3328	31515	4928	9	5007	9	4967	8	4011		6494	*	4550	9	5265		5436		4976	
3329	Local Check (LC)	5089	7	4945	10	5017	7	5442	7	5078		4700	5	5097		4958		4900	
3330	31519	3197		4230		3713		5583	6#	6106		4428		5048		5194		4849	
3333	31550	4457		5382	6#	4919	10	5783	4#	4833		4372		6556	7	5254		5054	
3334	31552	5383	1	6775	1*#	6079	1*#	4639		6778	*	4611	6	6903	4*	6097	7	5702	1*#
3335	US 314 (HC)	5120	5	4364		4742		4467		6978	6	4589	7	6287	10	5951		5228	
3336	31553	4719		5895	2*#	5307	4	5345	8#	5261		5433	2#	6519	8	5738		4883	
3337	31557	4199		3939		4069		5942	2#	6889	8*	4583	8	4698		5390		4876	
3347	30572	5278	3	5431	4#	5355	2	5904	3#	6833	9*	4194		7403	3*	6144	5	5335	5*
Experimental Mean		4417		4293		4355		4956		6264		4538		5926		5577		5059	
CD(0.05)		944		847		664		543		900		589		1613		602		239	
CV(%)		13.04		12.04		9.31		6.68		8.77		7.93		16.6		6.59		2.88	
F val		5.2 **		13.63 **		13.22 **		10.7 **		14.98 **		7.35 **		3.27 **		7.92 **		21.4 **	
DOS		09-06-24		12-06-24				07-06-24		19-06-24		26-06-24		03-07-24					
DOP		09-07-24		13-07-24				05-07-24		20-07-24		22-07-24		01-08-24					
Local Check Name		Mahendragiri		CR Dhan 102				HUR-3022		Ajit		Ajit		MTU 1153					

Table No. 1.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 E-TP, (Not considered)

Entry No	IET No	ZONE III - Eastern			
		Odisha		Uttar Pradesh	
		@ Chiplima		@ Masodha	
3304	30636*	4285		5630	7
3305	30641*	3846		5817	5
3306	30642*	3543		5412	
3308	30656*	3543		5149	
3309	30657*	3306		4547	
3310	30669*^	3543		4569	
3311	30690*	3644		4392	
3314	31433 (H)	3306		4558	
3315	31434 (H)	2463		4569	
3316	31435 (H)	3036		6061	2
3317	31436 (H)	3441		6091	1
3318	CO-51 (NC)	3205		5128	
3319	31437 (H)	4049	4	5502	10
3321	PR 124 (ZC)	607		4877	
3323	31501	3543		5843	4
3325	31509	5108	1	5816	6
3326	31510	3171		5608	8
3327	31512	3408		4465	
3328	31515	3036		5556	9
3329	Local Check (LC)	1586		4716	
3330	31519	3205		4591	
3333	31550	2328		5434	
3334	31552	2092		5106	
3335	US 314 (HC)	3070		4918	
3336	31553	4251	3	5308	
3337	31557	2429		5491	
3347	30572	3981	5	5971	3
Experimental Mean			3223		5227
CD(0.05)			949		229
CV(%)			17.97		2.68
F val			7.21 **		45.28 **
DOS			10-07-24		02-07-24
DOP			13-08-24		05-08-24
Local Check Name			Khandagiri		NDR 97

Table No. 1.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 E-TP, Kharif 2024

Entry No	IET No	Zone IV-North Eastern								Zone IV-North Eastern (3)	
		Assam		Tripura			Tripura (2)			Mean	
		Titabar		Arundhutinagar	Lembucherra		Mean				
3301	30555* (H)	5085	*	5354	3	4985		5170	6*	5142	8*
3302	30561* (H)	6155	7*	5866	1*	5126		5496	1*#	5716	1*#
3303	30565* (H)	6005	8*	3404		5159		4282		4856	10*
3304	30636*	5615	*	4396		6556	1*#	5476	2*#	5522	2*#
3305	30641*	5622	*	4475		4311		4393		4803	*
3306	30642*	5430	*	3350		4722		4036		4501	*
3307	30651*	5032	*	2846		4463		3654		4114	
3308	30656*	6343	4*#	4446		5056		4751		5281	6*
3309	30657*	6250	6*	4838	7	5041		4939	8*	5376	4*
3310	30669**	5512	*	2884		6011	2#	4447		4802	*
3311	30690*	5605	*	4829	8	5330	6	5079	7*	5255	7*
3315	31434 (H)	3752		2662		3919		3291		3444	
3317	31436 (H)	6485	3*#	3625		5952	3#	4788		5354	5*
3318	CO-51 (NC)			4238		3437		3837		3837	
3319	31437 (H)	3415		3292		5281	7	4286		3996	
3321	PR 124 (ZC)	2022		3392		5185	10	4289		3533	
3323	31501	6290	5*#	4817	9	3315		4066		4807	*
3325	31509	7185	1*#	5020	5	4152		4586		5452	3*
3329	Local Check (LC)	3478		3442		4211		3827		3710	
3330	31519	5028	*	3792		5059		4425		4626	*
3335	US 314 (HC)	5430		5142	4	4463		4802	10	5012	9
3337	31557	4282		2800		5396	5	4098		4160	
3338	30568	2840		3612		4452		4032		3635	
3339	30681	5602	*	3271		4315		3793		4396	*
3340	30635	5913	10*	3079		4778		3928		4590	*
3341	30653	3020		3838		3830		3834		3562	
3342	30660	3010		2846		3893		3369		3250	
3343	30668	2350		3434		3800		3617		3194	
3344	30671	4467	*	4688		4919		4803	9	4691	*
3345	30674	5328	*	4116		4222		4169		4555	*
3346	30679	4130		4738		5685	4#	5211	5*	4851	*
3347	30572	6530	2*#	3446		4244		3845		4740	*
3348	30688	3605		5492	2	5226	8	5359	3*	4774	*
3349	30687	5662	*	4862	6	3833		4348		4786	*
3350	30661	5760	*	3225		4996		4111		4660	*
3351	30637	5820	*	4796	10	3804		4300		4807	*
3352	30638	5925	9*	3479		3659		3569		4354	*
3353	30677	4987	*	3567		4174		3871		4243	
3354	30643	5668	*	3117		4063		3590		4283	
3355	30686	4747	*	2671		3467		3069		3628	
3356	30640	1878		4480		4541		4510		3633	
3357	30683	4242		3146		4622		3884		4004	
3358	30659 (R)	4510	*	3516		4422		3969		4150	
3359	30647 (R)	3080				5222	9	5222	4*	4151	
Experimental Mean		4863		3915		4620		4282		4460	
CD(0.05)		852		1283		1125		567		459	
CV(%)		10.78		20.18		15.01		8.15		6.34	
F val		19.37**		1.57*		3.36**		9.06**		16**	
DOS		10-07-24		27-07-24		13-07-24					
DOP		05-08-24		24-08-24		04-08-24					
Local Check Name		Disang		Tripura Hakuchuk 2		Hakuchuk-2					

Table No. 1.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 E-TP, Kharif 2024

Entry No	IET No	Zone V- Central									
		Chhattisgarh						Chhattisgarh (3)		Maharashtra	
		Bilsapur		Jagadapur		Raipur		Mean		Sakoli	
3304	30636*	6264	*	4219	10	7215	9*	5899	*	4422	
3305	30641*	7394	5*	4753	4	7584	7*	6577	3*	4578	
3306	30642*	6848	8*	4612	5	8077	4*	6512	4*	5789	6
3309	30657*	7233	6*	3407		7844	5*	6161	6*	3933	
3310	30669*^	6864	7*	3426		7491	8*	5927	*	5878	5
3311	30690*	7697	2*	4356	8	7145	10*	6400	5*	6156	4
3315	31434 (H)	2864		3142		7064		4357		5011	10
3317	31436 (H)	7527	3*	4275	9	9171	1*	6991	2*	4133	
3318	CO-51 (NC)			3736				3736			
3319	31437 (H)	6242		3197		8685	3*	6041	8*	5178	9
3321	PR 124 (ZC)	4639		4819	3	5889		5116		5444	7
3323	31501	6721	9*	4550	6	6971		6081	7*	4256	
3325	31509	6442	10*	3845		5538		5275		5433	8
3329	Local Check (LC)	5258		4404	7	6125		5262		4956	
3330	31519	5682		5639	1	6773		6031	9*	7062	3*
3335	US 314 (HC)	7770	1	5081	2	8698	2	7183	1	7167	1
3337	31557	7515	4*	3593		5941		5683		4829	
3347	30572	6273	*	3983		7620	6*	5959	10*	7111	2*
Experimental Mean		6425		4169		7284		5844		5373	
CD(0.05)		993		1308		992		626		1046	
CV(%)		9.29		18.91		8.19		6.46		11.71	
F val		13.54**		2.27*		9.11**		15.51**		8.14**	
DOS		15-06-24		16-06-24		01-07-24				13-06-24	
DOP		04-07-24		09-07-24		27-07-24				12-07-24	
Local Check Name		MTU1010		Samleshwari		Bastar Dhan 1				PDKV Sadhana	

Table No. 1.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 E-TP, Kharif 2024

Entry No	IET No	Zone V- Central						Zone V- Central (6)	
		Maharashtra		Maharashtra (2)		Madhya Pradesh		Mean	
		Sindewahi		Mean		Rewa			
3304	30636*	4778	7	4600		5218	4#	5353	9
3305	30641*	4728	8	4653	10	6580	1*#	5936	4*
3306	30642*	4827	5	5308	6	6460	2*#	6102	1*
3309	30657*	4418		4176		4405	9#	5207	
3310	30669*^	4591	10	5234	7	5737	3*#	5664	6*
3311	30690*	4990	3	5573	5	4520	8#	5811	5*
3315	31434 (H)	3528		4269		3116	#	4121	
3317	31436 (H)	4677	9	4405		1635		5236	10
3318	CO-51 (NC)					4805	5	4271	
3319	31437 (H)	6091	1*	5634	3	3486	#	5480	8*
3321	PR 124 (ZC)	3196		4320		4626	6	4769	
3323	31501	4545		4400		3767	#	5135	
3325	31509	4271		4852	9	2371		4650	
3329	Local Check (LC)	4924	4	4940	8	4240	10	4984	
3330	31519	4127		5595	4	4570	7#	5642	7*
3335	US 314 (HC)	5267	2	6217	1	2060		6007	2
3337	31557	3930		4380				5162	
3347	30572	4787	6	5949	2*			5955	3*
Experimental Mean		4569		4971		4225		5305	
CD(0.05)		862		712		831		418	
CV(%)		11.34		8.61		11.8		4.75	
F val		4.88**		6.84**		25.23**		16.25**	
DOS		01-07-24				27-06-24			
DOP		05-08-24				20-07-24			

Table No. 1.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 E-TP, Kharif 2024

Entry No	IET No	Zone VI- Western												Zone VI- Western (4)	
		Gujarat				Gujarat (2)		Maharashtra				Maharashtra (2)		Mean	
		Nawagam		Vyra		Mean		Karjat		Radhanagari		Mean		Mean	
3302	30561* (H)	6455	6*	4739		5597	9	5715	3	7302	1*	6508	1*	6053	3*
3304	30636*	5625		6582	1*	6104	7*	3557		5604	10	4581		5342	9
3306	30642*	7266	2*	5665	8	6465	3*	4091		5928	6*	5009	9	5737	6*
3315	31434 (H)	6153	8	4232		5193		3368		5830	9	4599		4896	
3317	31436 (H)	6144	9	6411	2*	6277	5*	4355		6581	3*	5468	5	5873	5*
3318	CO-51 (NC)	5112				5112								5112	
3319	31437 (H)	7407	1*	6188	5	6797	1*	5302	5	6044	5*	5673	4*	6235	2*
3321	PR 124 (ZC)	5296		2838		4067		4122		4939		4531		4299	
3322	31444 (H)	6066	10	4191		5129		5091	7	5415		5253	7	5191	
3323	31501	6792	3*	6005	6	6399	4*	6115	2*	3883		4999		5699	7*
3324	30505	6025		4101		5063		5169	6	5427		5298	6	5181	
3325	31509	5900		5512	9	5706	8	5632	4	6856	2*	6244	3*	5975	4*
3327	31512	4880		6310	4*	5595	10	4143		5867	8*	5005	10	5300	10
3328	31515	5338		4031		4684		4485	10	3810		4147		4416	
3329	Local Check (LC)	4906		5270	10	5088		5070	8	4823		4946		5017	
3330	31519	6369	7*	5852	7	6111	6*	3756		5574		4665		5388	8
3331	31533	4559		3791		4175		4188		5598		4893		4534	
3332	31540	4521		5183		4852		3804		5409		4606		4729	
3335	US 314 (HC)	6594	4	6372	3	6483	2	6226	1	6490	4	6358	2	6420	1
3337	31557	4984				4984		4544	9	4786		4665		4771	
3347	30572	6462	5*	4614		5538		4207		5916	7*	5062	8	5300	
Experimental Mean		5850		5152		5496		4647		5604		5126		5308	
CD(0.05)		858		960		705		782		909		546		458	
CV(%)		8.89		11.25		7.77		10.18		9.81		6.45		5.23	
F val		7.95**		10.4**		9.61**		9.54**		7.68**		11.35**		13.83**	
DOS		19-06-24		15-06-24				13-06-24		11-06-24					
DOP		29-07-24		12-07-24				10-07-24		11-07-24					
Local Check Name		Mahisagar		GR 17				KJT-7		Phule Radha					

Table No. 1.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 E-TP, Kharif 2024

Entry No	IET No	Zone VII- Southern													
		Andhra Pradesh			Karnataka			Karnataka (2)		Kerala			Kerala (2)		
		Maruteru		Mandya	Brahmavar	Mean		Pattambi	Monocompu	Mean					
3301	30555* (H)	4385		7153	5	4715	3	5934	4	4324		7181	6	5753	
3303	30565* (H)	4372		7307	4	4336	10	5821	5	4536		7559	2	6047	
3304	30636*	6226	1*	5874		4405	7	5140		5952	10	5669	10	5810	
3309	30657*	4417	9	7471	3	4525	5	5998	3	7200	7	7559	2	7379	3
3310	30669**	4170		6942	7	4487	6	5715	6	6523	8	7559	2	7041	4
3315	31434 (H)	4413	10	6574		4532	4	5553	10	8241	5#	4535		6388	9
3317	31436 (H)	4375		7947	1#	4146		6047	2	7898	6#	4913		6406	8
3318	CO-51 (NC)					5043	1	5043		6072	9	6425	8	6248	10
3319	31437 (H)	4403		7582	2#			7582	1*#	4832		4535		4684	
3321	PR 124 (ZC)	5049	7	7122	6	4146		5634	8	5760		6425	8	6092	
3323	31501	5226	5	6487		4374	9	5430		8773	4*#	9826	1*#	9300	1*
3325	31509	5368	4	6716	9	3452		5084		8880	3*#	7181	6	8030	2*
3329	Local Check (LC)	5152	6	5072		4279		4676		5469		4913		5191	
3330	31519	4792	8	5787		4109		4948		9203	2*#	4535		6869	5
3335	US 314 (HC)	5758	2	6623	10	4784	2	5704	7	5280		7559	2	6419	7
3337	31557	5486	3	5725		4020		4873		9696	1*#	3401		6549	6
3347	30572			6788	8	4399	8	5593	9	4867		5291		5079	
Experimental Mean		4906		6698		4360		5575		6677		6180		6429	
CD(0.05)		721		868		418		514		2345		1810		1596	
CV(%)		8.79		7.77		5.76		5.54		21.12		17.61		14.93	
F val		6.14**		6.59**		6.19**		13.92**		4.8**		6.82**		4.04**	
DOS		06-07-24		13-08-24						09-06-24		05-06-24			
DOP		27-07-24		06-09-24						09-07-24		20-06-24			
Local Check Name		MTU 1156		RNR-15048						Kanchana		MO 21 Prathyasa			

Table No. 1.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 E-TP, Kharif 2024

Entry No	IET No	Zone VII- Southern											
		Puducherry				Puducherry (2)		Telangana					
		Kurumbape		Karaikal		Mean		Kunaram		Jagtial		Kampasagar	
3301	30555* (H)	7074	2	4478		5776	8	5795		8617	6*	6736	5
3303	30565* (H)	4034		5478	5	4756		6427	7#	9355	3*	6814	4
3304	30636*	5858	10	4689		5273		6679	4#	9383	2*	6722	6
3309	30657*	4836		4822		4829		6228	8#	7809		7092	2#
3310	30669*	5923	9	5111	9	5517	9	6698	3#	8035	10	6544	8
3315	31434 (H)	4836		5011	10	4924		3589		4188		5044	
3317	31436 (H)	6040	7	5533	4	5787	6	4059		9770	1*	6044	
3318	CO-51 (NC)			4133		4133							
3319	31437 (H)	6327	6	5233	8	5780	7	7178	1#	8423	7*	6236	
3321	PR 124 (ZC)	6948	3	4878		5913	4	6613	6#	6995		6489	10
3323	31501	4293		5344	6	4819		6900	2#	8207	8*	8192	1*#
3325	31509	4784		3689		4236		6225	9#	8043	9	6975	3
3329	Local Check (LC)	5324		5244	7	5284	10	6648	5#	6731		6653	7
3330	31519	6451	5	6486	1*	6468	3	5849	10	7543		6394	
3335	US 314 (HC)	7438	1	5928	2	6683	2	4871		9154	5	6253	
3337	31557	5926	8	5782	3	5854	5	3984		7876		6497	9
3347	30572	6790	4			6790	1*	5328		9229	4*	5597	
Experimental Mean		5805		5115		5460		5817		8085		6518	
CD(0.05)		616		1060		587		1014		1153		797	
CV(%)		6.36		12.42		6.46		10.46		8.56		7.33	
F val		23.31**		3.52**		14.86**		10.34**		11.55**		6.09**	
DOS		10-07-24		03-09-24				28-06-24		15.06.2024		10-07-24	
DOP		12-08-24		03-10-24				25-07-24		09.07.2024		10-08-24	
Local Check Name		ADT -53		KKL(R) 3				KNM 118		JGL 18047		JGL-24423	

Table No. 1.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 E-TP, Kharif 2024

Entry No	IET No	Zone VII- Southern											Zone VII- Southern (14)		
		Telangana		Telangana (4)		Tamil Nadu				Tamil Nadu (3)					
		Warangal		Mean		Tirur		Adutrai		Coimbatore		Mean			
3301	30555* (H)	7829	6	7244	6*	6133	9#	5089		5914	8	5712	9	6102	9
3303	30565* (H)	7854	5*	7612	4*	6433	7#	6129	2	6801	1	6454	1	6245	6
3304	30636*	7669	7	7613	3*	6375	8#	5780	4	6404	4	6186	4	6263	4
3309	30657*	6908		7009	9	5604		5422	8	6015	7	5680	10	6136	7
3310	30669*	7056	9	7084	7	5796	#	4433		6524	3	5584		6129	8
3315	31434 (H)	4374		4299		5521		5392	9	4954		5289		5086	
3317	31436 (H)	8180	3*	7014	8	7046	1#	5941	3	5871	9	6286	2	6269	3
3318	CO-51 (NC)					5417				4264		4840		5226	
3319	31437 (H)	9178	2*	7754	2*	6483	6#	5454	7	5352		5763	8	6248	5
3321	PR 124 (ZC)	6766		6716		6675	3#	5215		5079		5656		6011	
3323	31501	8075	4*	7843	1*	6879	2#	5134		6150	6	6054	5	6704	1*
3325	31509	6478		6930	10	6546	5#	5277	10	5000		5608		6044	10
3329	Local Check (LC)	6290		6580		5942	10#	5556	6	6257	5	5919	6	5681	
3330	31519	5843		6407		5692		5027		5700	10	5473		5958	
3335	US 314 (HC)	9259	1	7384	5	5242		6747	1	6760	2	6250	3	6547	2
3337	31557	6957	10	6329		6550	4#	5659	5	5538		5916	7	5936	
3347	30572	7353	8	6877		5129		4946		4927		5001		5887	
Experimental Mean		7254		6918		6086		5450		5736		5745		6028	
CD(0.05)		1075		473		536		698		1445		544		310	
CV(%)		8.89		4.1		5.29		7.68		15.15		5.69		3.09	
F val		10.79**		26.1**		10.08**		4.94**		2.09**		5.46**		14.31**	
DOS		24-06-24				05-07-24		12-06-24		06-06-24					
DOP		26-07-24				31-07-24		12-07-24		05-07-24					
Local Check Name		KNM 118				CO 54		ADT 57		CO 54					

Table No. 1.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 E-TP, (Not considered)

Entry No	IET No	Zone VII -Southern			
		Karnataka		Telangana	
		@Mugad		@Rudrur	
3301	30555* (H)	8040	3	3422	1
3303	30565* (H)	8972	1	2644	4
3304	30636*	5592	8	2222	6
3309	30657*	5223		2956	3
3310	30669**	5329	10	1311	10
3315	31434 (H)	3072		3244	2
3317	31436 (H)	6124	4	1689	8
3318	CO-51 (NC)				
3319	31437 (H)	4084		822	
3321	PR 124 (ZC)			933	
3323	31501	5525	9	800	
3325	31509	5839	6	867	
3329	Local Check (LC)	4574		2556	5
3330	31519	5969	5	1044	
3335	US 314 (HC)	8580	2	2111	7
3337	31557	5598	7	778	
3347	30572	4931		1444	9
Experimental Mean			5830		1803
CD(0.05)			2890		519
CV(%)			29.64		17.27
F val			2.6*		27.19**
DOS			20-07-24		03-07-24
DOP					06-08-24
Local Check Name			PSB-68		MTU-1010

Table No. 1.3: Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 E-TP, Kharif 2024

Entry No	IET No	Zone II-Northern															Zone II-Northern (5)		
		Haryana			Punjab			Rajasthan			Uttarakhand			Uttar Pradesh			Mean		
		Kaul			Ludhiana			Kota			Pantnagar			Nagina					
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3301	30555* (H)	88	112	352	93	116	275	83	94	284	94	104	296	95	97	293	90	104	300
3302	30561* (H)	91	113	328	97	123	222	87	122	261	99	117	264	103	97	302	95	114	275
3303	30565* (H)	90	109	328	94	115	281	83	110	301	97	110	296	99	98	269	93	108	295
3304	30636*	108	122	293	105	126	282	88	116	320	109	119	253	103	98	356	103	116	301
3305	30641*	98	113	305	103	118	262	90	113	309	104	117	272	97	97	320	98	111	294
3307	30651*	93	109	295	99	130	268	90	140	237	103	122	284	97	102	276	96	121	272
3309	30657*	95	120	324	102	119	317	85	122	252	103	118	263	99	99	317	97	116	294
3312	29694*	93	122	330	96	116	273	88	114	279	95	112	267	98	102	307	94	113	291
3313	29700*	90	114	337	93	115	224	79	101	301	93	110	242	90	94	308	89	107	282
3315	31434 (H)	83	108	318	86	112	242	77	111	233	91	102	282	84	87	311	84	104	277
3316	31435 (H)	86	114	314	88	126	213	84	117	292	94	107	237	93	105	279	89	114	267
3317	31436 (H)	90	111	348	92	113	246	88	113	256	96	105	269	97	99	387	93	108	301
3318	CO-51 (NC)							83	110	232				95	101	293	89	106	262
3319	31437 (H)	89	121	349	87	113	218	82	113	264	91	98	270	91	98	299	88	109	280
3320	31440 (H)	93	122	347	94	116	262	90	127	269	98	110	298	100	105	429	95	116	321
3321	PR 124 (ZC)	105	109	293	104	101	257	92	114	259	110	111	311	99	95	384	102	106	301
3322	31444 (H)	85	125	319	87	120	231	90	120	276	91	116	306	92	97	314	89	116	289
3323	31501	103	113	308	105	111	304	94	115	277	107	107	283	100	101	348	102	110	304
3325	31509	111	115	255				103	127	221	139	101	260	121	98	342	118	110	270
3329	Local Check (LC)	89	112	316	95	101	274	91	111	243	87	94	292	87	98	312	90	103	287
3330	31519	97	110	293	99	107	264	95	116	258	103	110	362	96	97	301	98	108	296
3335	US 314 (HC)	96	126	357	104	122	238	94	134	237	100	104	265	93	96	320	97	116	283
3337	31557	102	115	279	105	110	213	105	138	230	106	113	256	101	99	320	104	115	260
3347	30572	96	122	330	99	133	260	95	139	242	103	123	266	95	104	320	98	124	284
Experimental Mean		94	115	318	96	116	255	89	118	263	100	110	278	96	98	321	95	111	287
Standard Error			0.66			0.78			1.55			0.97			0.57				

Table No. 1.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 E-TP, Kharif 2024

Entry No	IET No	Zone III- Eastern			Zone III- Eastern (11)		
		West Bengal (3)					
		Mean			Mean		
		DDF	PH	PAN	DDF	PH	PAN
3304	30636*	92	109	289	98	108	272
3305	30641*	91	104	311	94	104	272
3306	30642*	86	108	302	92	106	273
3308	30656*	91	110	315	96	109	297
3309	30657*	87	103	303	93	107	300
3310	30669**	87	108	270	93	107	282
3311	30690*	92	108	233	95	105	269
3314	31433 (H)	85	109	269	88	103	281
3315	31434 (H)	85	109	253	86	101	262
3316	31435 (H)	86	107	259	91	108	247
3317	31436 (H)	85	106	276	92	104	263
3318	CO-51 (NC)	86	101	318	89	104	271
3319	31437 (H)	83	99	297	90	102	272
3321	PR 124 (ZC)	82	95	308	84	90	302
3323	31501	90	103	300	96	102	287
3325	31509	90	114	295	103	110	265
3326	31510	87	110	258	94	110	270
3327	31512	86	100	297	91	96	269
3328	31515	87	114	282	95	116	286
3329	Local Check (LC)	87	101	277	94	110	270
3330	31519	91	104	274	96	101	269
3333	31550	92	107	276	101	110	273
3334	31552	89	104	283	95	98	267
3335	US 314 (HC)	86	108	318	92	107	269
3336	31553	93	110	282	103	121	276
3337	31557	91	105	305	96	104	254
3347	30572	87	107	314	92	110	262
Experimental Mean		88	106	288	94	106	273

Table No. 1.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 E-TP, Kharif 2024 (Not considered)

Entry No	IET No	Zone III- Eastern					
		Odisha			Uttar Pradesh		
		@Chiplima			@Masodha		
		DDF	PH	PAN	DDF	PH	PAN
3304	30636*	95	106	264	97	97	301
3305	30641*	100	105	264	101	101	316
3306	30642*	101	102	287	98	98	303
3308	30656*	96	106	318	98	98	282
3309	30657*	101	109	278	100	100	279
3310	30669**	102	102	317	96	96	256
3311	30690*	99	99	283	97	97	254
3314	31433 (H)	105	102	210	95	95	257
3315	31434 (H)	109	103	178	91	91	253
3316	31435 (H)	102	107	143	97	97	311
3317	31436 (H)	103	102	184	101	101	312
3318	CO-51 (NC)	100	102	222	96	96	255
3319	31437 (H)	103	105	182	97	97	264
3321	PR 124 (ZC)	80	93	177	100	100	264
3323	31501	96	93	142	97	97	283
3325	31509	88	106	233	115	115	315
3326	31510	99	109	172	102	102	310
3327	31512	103	92	193	98	98	253
3328	31515	98	98	194	100	100	290
3329	Local Check (LC)	81	99	121	96	96	267
3330	31519	103	99	108	96	96	276
3333	31550	92	105	207	103	103	295
3334	31552	99	99	178	102	102	255
3335	US 314 (HC)	100	94	133	97	97	257
3336	31553	89	104	158	119	119	293
3337	31557	95	99	131	104	104	268
3347	30572	102	104	176	98	98	299
Experimental Mean		97	101	201	99	99	280

Table No. 1.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 E-TP, Kharif 2024

Entry No	IET No	Zone IV-North Eastern											Zone IV-North Eastern (3)			
		Assam			Tripura			Tripura (2)			Mean					
		Titabar			Arundhutinagar			Lembucherra			Mean					
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3301	30555* (H)	97	98	273	93	110	250	95	96	300	94	103	275	95	101	274
3302	30561* (H)	91	101	269	92	110	201	97	105	417	94	107	309	93	105	295
3303	30565* (H)	92	93	281	94	92	229	95	93	300	94	92	264	93	92	270
3304	30636*	105	100	277	91	88	208	97	87	250	94	87	229	97	92	245
3305	30641*	111	93	276	90	94	177	98	91	408	94	92	292	99	93	287
3306	30642*	103	103	273	95	88	179	101	94	500	98	91	339	100	95	317
3307	30651*	105	126	286	88	106	210	97	95	417	92	100	313	97	109	304
3308	30656*	112	105	296	87	98	197	97	92	500	92	95	348	98	99	331
3309	30657*	110	103	274	87	98	258	94	92	417	91	95	337	97	98	316
3310	30669*	111	102	273	89	104	187	92	102	383	90	103	285	97	102	281
3311	30690*	110	92	291	94	89	195	97	94	408	95	92	302	100	92	298
3315	31434 (H)	90	88	280	84	96	206	97	91	333	90	94	270	90	92	273
3317	31436 (H)	98	92	285	91	94	183	98	95	433	94	95	308	96	94	300
3318	CO-51 (NC)				87	108	224	97	91	400	92	100	312	92	100	312
3319	31437 (H)	92	89	264	94	90	211	98	109	358	96	99	284	95	96	278
3321	PR 124 (ZC)	90	85	254	86	102	204	97	103	242	91	102	223	91	97	233
3323	31501	109	93	252	94	94	241	93	96	400	94	95	320	99	94	297
3325	31509	90	102	287	109	101	252	96	97	267	102	99	259	98	100	268
3329	Local Check (LC)	88	89	274	89	125	209	96	115	325	92	120	267	91	110	269
3330	31519	102	94	289	89	96	235	101	93	408	95	94	322	97	94	311
3335	US 314 (HC)	100	106	253	87	102	261	97	106	333	92	104	297	95	105	282
3337	31557	105	99	257	93	86	201	94	88	308	94	87	254	97	91	255
3338	30568	89	96	254	86	104	226	94	88	342	90	96	284	90	96	274
3339	30681	107	101	259	91	106	198	98	107	183	94	107	190	99	105	213
3340	30635	113	105	259	109	98	167	101	86	508	105	92	338	108	96	311
3341	30653	90	91	256	87	94	195	105	103	300	96	98	247	94	96	250
3342	30660	91	74	231	91	94	204	101	85	442	96	90	323	94	84	292
3343	30668	89	95	228	86	104	212	100	97	233	93	100	223	92	98	225
3344	30671	103	102	254	83	105	322	97	111	342	90	108	332	94	106	306
3345	30674	105	122	278	94	96	219	98	92	367	96	94	293	99	103	288
3346	30679	104	88	266	90	100	196	97	118	417	93	109	306	97	102	293
3347	30572	106	106	275	90	108	190	94	92	292	92	100	241	97	102	252
3348	30688	104	94	271	94	91	258	97	87	325	95	89	291	98	91	284
3349	30687	111	97	267	91	94	240	99	96	408	95	95	324	100	96	305
3350	30661	111	102	288	91	86	142	103	91	350	97	88	246	102	93	260
3351	30637	110	96	274	89	102	247	80	93	325	84	98	286	93	97	282
3352	30638	111	102	274	90	96	181	110	87	358	100	91	270	104	95	271
3353	30677	111	93	253	90	104	187	102	115	600	96	109	393	101	104	347
3354	30643	107	106	260	92	89	243	111	91	350	101	90	296	103	95	284
3355	30686	111	102	276	88	108	131	98	102	258	93	105	194	99	104	222
3356	30640	92	89	251	89	110	244	100	82	308	94	96	276	94	94	268
3357	30683	104	104	267	89	94	213	99	93	367	94	94	290	97	97	282
3358	30659 (R)	104	103	267	103	102	189	102	103	383	102	102	286	103	102	280
3359	30647 (R)	91	98	291				100	98	400	100	98	400	96	98	345
Experimental Mean		101	98	268	91	98	212	97	96	362	94	98	290	97	98	282
Standard Error		0.69			0.9			0.96								

Table No. 1.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 E-TP, Kharif 2024

Entry No	IET No	Zone V- Central											
		Chhattisgarh									Chhattisgarh (3)		
		Bilsapur			Jagadapur			Raipur			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3304	30636*	91	130	96	96	244	94	123	212	94	116	228	
3305	30641*	85	129	92	102	268	88	126	205	88	119	237	
3306	30642*	85	126	94	110	290	88	130	217	89	122	253	
3309	30657*	85	127	93	109	289	89	129	218	89	122	254	
3310	30669*	84	125	92	103	225	88	129	201	88	119	213	
3311	30690*	84	123	94	105	257	90	126	217	89	118	237	
3315	31434 (H)	80	110	84	101	249	80	112	234	81	108	242	
3317	31436 (H)	83	121	92	103	249	85	118	213	87	114	231	
3318	CO-51 (NC)			95	108	264				95	108	264	
3319	31437 (H)	79	121	92	98	278	82	126	224	84	115	251	
3321	PR 124 (ZC)	83	125	92	99	297	86	126	154	87	117	226	
3323	31501	88	119	98	108	286	94	121	218	93	116	252	
3325	31509	105	134	110	101	257	111	119	215	109	118	236	
3329	Local Check (LC)	86	134	90	106	297	94	131	246	90	124	272	
3330	31519	85	109	104	102	285	92	117	221	94	109	253	
3335	US 314 (HC)	86	132	92	103	323	87	130	231	88	122	277	
3337	31557	90	129	98	106	295	95	129	239	94	121	267	
3347	30572	84	135	89	108	287	86	138	253	86	127	270	
Experimental Mean		86	125	94	103	274	89	125	218	90	118	248	
Standard Error		0			0			0.74					

Table No. 1.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 E-TP, Kharif 2024

Entry No	IET No	Zone V- Central												Zone V- Central (6)		
		Maharashtra						Maharashtra (2)			Madhya Pradesh			Mean		
		Sakoli			Sindewahi			Mean			Re wa			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3304	30636*	92	115	214	101	109	254	97	112	234	112	103	211	98	113	227
3305	30641*	90	124	237	96	110	244	93	117	241	108	106	241	93	116	239
3306	30642*	91	127	262	94	112	250	93	119	256	109	100	250	94	117	254
3309	30657*	90	122	244	94	115	267	92	118	256	108	106	233	93	118	250
3310	30669*	91	136	266	97	117	263	94	126	264	107	103	313	93	119	253
3311	30690*	90	129	301	93	114	305	92	122	303	107	98	166	93	116	249
3315	31434 (H)	77	121	277	87	113	282	82	117	280	107	95	183	86	109	245
3317	31436 (H)	85	124	255	95	110	275	90	117	265	108	103	191	91	113	237
3318	CO-51 (NC)										106	105	169	100	107	216
3319	31437 (H)	87	131	242	91	115	297	89	123	270	106	95	252	90	114	259
3321	PR 124 (ZC)	90	125	255	93	119	269	92	122	262	106	89	246	92	114	244
3323	31501	95	120	263	97	110	276	96	115	270	112	93	210	97	112	251
3325	31509	116	124	266	111	117	246	114	120	256	113	100	241	111	116	245
3329	Local Check (LC)	90	107	235	96	103	279	93	105	257	107	95	170	94	113	245
3330	31519	91	118	289	94	103	258	92	110	274	113	96	276	96	108	266
3335	US 314 (HC)	90	135	305	93	110	258	91	123	282	111	96	322	93	118	288
3337	31557	95	116	251	98	112	250	97	114	250				95	119	258
3347	30572	87	136	302	90	122	276	89	129	289				87	128	280
Experimental Mean		91	124	262	95	112	267	93	118	265	108	98	229	94	115	250
Standard Error		0.4			0.4						1.02					

Table No. 1.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 E-TP, Kharif 2024

Entry No	IET No	Zone VI- Western																		Zone VI- Western (4)		
		Gujarat						Gujarat (2)			Maharashtra						Maharashtra (2)			Mean		
		Nawagam			Vyra			Mean			Karjat			Radhanagari			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3302	30561* (H)	85	119	280	98	109	288	91	114	284	83	115	171	101	100	266	92	108	218	92	111	251
3304	30636*	83	123	276	91	123	263	87	123	269	88	108	136	100	89	291	94	98	213	90	111	241
3306	30642*	87	123	285	94	111	268	90	117	276	92	107	180	99	94	264	96	101	222	93	109	249
3315	31434 (H)	82	99	277	82	101	278	82	100	278	78	96	145	89	85	231	83	90	188	82	95	233
3317	31436 (H)	83	109	277	88	109	300	86	109	288	79	105	148	96	87	224	88	96	186	87	102	237
3318	CO-51 (NC)	83	122	270				83	122	270										83	122	270
3319	31437 (H)	104	119	286	84	111	245	94	115	266	82	107	148	95	94	243	88	101	195	91	108	230
3321	PR 124 (ZC)	76	128	270	88	115	264	82	121	267	81	112	190	93	103	215	87	107	202	84	114	235
3322	31444 (H)	82	119	276	80	115	262	81	117	269	90	107	143	89	96	242	89	102	192	85	109	231
3323	31501	87	121	279	95	111	236	91	116	258	89	110	144	104	107	230	96	108	187	94	112	222
3324	30505	89	127	274	97	132	283	93	130	278	105	123	159	98	96	229	101	110	194	97	120	236
3325	31509	97	131	277	106	123	293	101	127	285	110	124	197	111	107	232	110	116	214	106	121	250
3327	31512	84	103	267	88	105	251	86	104	259	81	100	141	95	90	224	88	95	182	87	99	221
3328	31515	88	137	276	90	127	291	89	132	283	89	122	176	96	112	224	92	117	200	91	125	241
3329	Local Check (LC)	86	121	274	86	110	242	86	116	258	83	102	188	95	93	214	89	97	201	88	107	229
3330	31519	89	121	283	93	107	303	91	114	293	82	108	189	97	89	228	89	98	208	90	106	251
3331	31533	88	120	264	100	112	245	94	116	254	83	112	182	98	102	210	91	107	196	92	112	225
3332	31540	84	118	265	90	110	263	87	114	264	82	103	139	93	95	228	88	99	184	87	106	224
3335	US 314 (HC)	85	129	280	92	114	237	88	122	259	83	108	150	96	94	244	90	101	197	89	111	228
3337	31557	89	110	269				89	110	269	89	110	149	101	98	215	95	104	182	93	106	211
3347	30572	88	144	278	90	120	274	89	132	276	83	118	183	92	101	177	88	110	180	88	121	228
Experimental Mean		86	121	275	91	113	267	89	118	272	86	109	162	96	96	231	92	103	197	90	111	235
Standard Error		0.39			1.27						1.28			0.56								

Table No. 1.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 E-TP, Kharif 2024

Entry No	IET No	Zone VII- Southern																				
		Andhra Pradesh			Karnataka						Karnataka (2)			Kerala						Kerala (2)		
		Maruteru			Mandya			Brahmavar			Mean			Pattambi			Monocompu			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3301	30555* (H)	82	115	322	103	100	292	96	72	72	99	86	182	97	96	175	80	116	337	88	106	256
3303	30565* (H)	78	110	326	107	97	303	95	72	72	101	84	188	90	88	320	80	115	386	85	102	353
3304	30636*	82	119	336	104	98	304	102	71	71	103	85	187	91	93	359	80	118	255	86	106	307
3309	30657*	78	120	332	91	95	272	102	72	72	96	83	172	90	97	466	80	119	257	85	108	362
3310	30669*	79	118	289	89	102	343	99	64	64	94	83	204	91	101	381	80	121	320	85	111	350
3315	31434 (H)	76	109	333	88	85	290	99	72	72	93	79	181	94	84	526	80	107	286	87	96	406
3317	31436 (H)	79	108	306	102	95	333	96	66	66	99	80	199	93	94	384	78	115	294	86	105	339
3318	CO-51 (NC)							94	72	72	94	72	72	94	86	396	81	111	276	88	98	336
3319	31437 (H)	78	115	317	91	94	270				91	94	270	96	98	213	78	106	277	87	102	245
3321	PR 124 (ZC)	79	111	316	88	100	308	93	65	65	90	82	187	98	95	338	81	113	311	90	104	324
3323	31501	82	105	289	88	86	265	102	72	72	95	79	168	98	96	397	82	113	284	90	105	341
3325	31509	99	124	328	89	95	324	101	62	62	95	79	193	101	113	354	72	126	339	86	119	346
3329	Local Check (LC)	79	114	315	89	102	269	107	71	71	98	87	170	83	88	434	82	114	320	83	101	377
3330	31519	80	112	297	93	94	281	97	76	76	95	85	178	88	97	555	80	105	274	84	101	414
3335	US 314 (HC)	78	111	328	89	96	263	101	76	76	95	86	169	94	97	281	78	112	281	86	105	281
3337	31557	84	123	311	91	94	292	95	64	64	93	79	178	97	102	337	83	114	251	90	108	294
3347	30572				90	93	270	106	71	71	98	82	170	98	104	351	80	117	333	89	111	342
Experimental Mean		80	114	316	93	95	292	99	69	69	96	83	180	93	95	368	79	114	298	87	105	334
Standard Error		0.61			1.08			0.83						1			0.52					

Table No. 1.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 E-TP, Kharif 2024

Entry No	IET No	Zone VII- Southern																	
		Puducherry						Puducherry (2)			Telangana								
		Kurumbapet			Karaikal			Mean			Kunaram			Jagtial			Kampasagar		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
3301	30555* (H)	95	88	440	86	99	402	90	93	421	89	109	260	88	113	392	89	78	260
3303	30565* (H)	95	83	290	87	108	359	91	96	324	88	114	286	88	115	374	90	87	221
3304	30636*	95	88	300	91	92	363	93	90	332	88	118	299	95	114	398	90	92	181
3309	30657*	94	83	330	92	102	371	93	92	350	88	118	308	88	111	385	85	91	203
3310	30669*	97	91	370	87	113	376	92	102	373	87	120	277	88	118	383	85	93	142
3315	31434 (H)	91	76	320	95	99	401	93	88	361	76	107	238	80	105	370	75	89	268
3317	31436 (H)	100	90	350	90	97	427	95	93	389	82	106	231	89	116	345	89	76	136
3318	CO-51 (NC)				86	110	370	86	110	370									
3319	31437 (H)	98	98	380	90	99	391	94	98	386	84	110	253	88	113	376	86	81	133
3321	PR 124 (ZC)	95	98	450	92	97	362	93	97	406	86	116	293	89	105	355	86	81	96
3323	31501	100	87	310	84	100	404	92	94	357	87	108	339	94	103	381	90	81	91
3325	31509	106	103	343	81	108	327	94	106	335	108	121	253	111	121	362	101	88	95
3329	Local Check (LC)	104	91	370	83	106	396	94	98	383	80	112	319	86	104	384	85	76	188
3330	31519	99	87	430	89	90	400	94	88	415	84	113	312	90	104	388	86	86	76
3335	US 314 (HC)	94	99	440	85	85	444	90	92	442	84	116	262	88	111	357	85	85	164
3337	31557	103	97	370	83	94	355	93	96	363	86	122	240	95	114	357	93	85	94
3347	30572	94	101	350				94	101	350	84	128	286	87	128	376	85	84	93
Experimental Mean		97	91	365	87	99	384	92	96	374	86	114	278	90	112	373	87	84	152
Standard Error		1.23			2.07						0.53			0.43			0.45		

Table No. 1.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 E-TP, Kharif 2024

Entry No	IET No	Zone VII- Southern																		Zone VII- Southern (14)		
		Telangana			Telangana (4)			Tamil Nadu						Tamil Nadu (3)			Mean			Mean		
		Warangal			Mean			Tirur		Adutrai		Coimbatore		Mean			Mean					
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
3301	30555* (H)	89	109	389	89	102	325	86	93	210	100	93	345	98	100	325	95	95	293	91	99	302
3303	30565* (H)	87	113	379	88	107	315	81	89	234	103	91	350	105	96	358	96	92	314	91	98	304
3304	30636*	92	116	395	91	110	318	87	91	250	105	94	337	106	99	347	99	95	311	93	100	299
3309	30657*	92	119	446	88	110	336	78	96	200	105	94	296	105	90	353	96	93	283	91	100	307
3310	30669*	91	119	441	88	112	311	73	98	287	99	93	341	98	94	327	90	95	318	89	103	310
3315	31434 (H)	77	99	399	77	100	319	72	85	287	96	94	308	87	89	295	85	89	297	85	93	314
3317	31436 (H)	89	110	425	87	102	284	78	96	304	104	94	345	102	96	350	94	95	333	91	97	307
3318	CO-51 (NC)							81	96	203				109	93	290	95	95	246	91	95	268
3319	31437 (H)	87	110	420	86	103	295	71	104	258	103	89	334	98	84	303	91	92	299	88	100	302
3321	PR 124 (ZC)	92	115	416	88	104	290	78	89	226	105	91	366	102	91	358	95	90	317	90	98	304
3323	31501	96	116	452	92	102	316	80	100	283	102	97	366	108	93	337	97	97	329	92	97	305
3325	31509	112	128	431	108	115	285	96	110	253	105	86	350	123	99	302	108	98	302	100	106	294
3329	Local Check (LC)	93	129	440	86	105	333	79	98	207	86	91	311	94	95	358	86	95	292	88	99	313
3330	31519	93	105	420	88	102	299	82	92	248	106	95	348	108	93	362	99	93	319	91	96	319
3335	US 314 (HC)	91	117	427	87	107	302	75	99	215	98	86	327	97	91	335	90	92	292	89	99	300
3337	31557	98	116	398	93	109	272	85	103	227	98	95	302	99	89	322	94	96	284	92	101	280
3347	30572	92	120	450	87	115	301	78	88	202	92	91	326	93	90	350	88	90	293	90	101	288
Experimental Mean		91	115	420	89	107	306	80	95	240	100	92	334	101	93	333	94	94	301	91	99	301
Standard Error		0.49						0.51			1.07			1.78								

Table No. 1.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 E-TP, Kharif 2024 (Not Considered)

Entry No	IET No	Zone VII - Southern					
		Karnataka			Telangana		
		@Mugad			@Rudur		
		DFP	PH	PAN	DFP	PH	PAN
3301	30555* (H)	101	66	309	86	78	260
3303	30565* (H)	103	72	315	85	87	221
3304	30636*	95	74	315	85	92	181
3309	30657*	99	71	313	90	91	203
3310	30669*	100	69	309	87	93	142
3315	31434 (H)	96	61	257	89	89	268
3317	31436 (H)	102	64	320	91	76	136
3318	CO-51 (NC)						
3319	31437 (H)	101	67	301	89	81	133
3321	PR 124 (ZC)				88	81	96
3323	31501	105	66	313	91	81	91
3325	31509	113	71	316	90	88	95
3329	Local Check (LC)	106	81	294	89	76	188
3330	31519	100	78	323	89	86	76
3335	US 314 (HC)	98	68	323	89	85	164
3337	31557	108	86	311	90	85	94
3347	30572	105	71	329	89	84	93
Experimental Mean		102	71	309	88	84	152

Table No. 1.4: Grain quality characteristics of entries in AVT-2 & 1 E-TP, Kharif 2024

Code	Entry No.	Designation / IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1314	3301	30555 (H)	80.8	71.4	53.9	6.16	2.17	2.83	LB	VOC	7.0	19.88	57
1315	3302	30561 (H)	79.0	70.3	54.3	6.14	2.54	2.41	LB	VOC	5.0	26.19	49
1316	3303	30565 (H)	79.0	72.6	69.6	5.49	2.36	2.32	SB	OC	7.0	26.40	58
1317	3304	30636 *	78.7	66.8	61.6	6.18	1.94	3.18	LS	A	4.0	24.34	60
1318	3305	30641 *	79.5	69.3	57.0	5.91	2.22	2.66	MS	VOC	4.0	24.25	67
1319	3306	30642 *	78.6	69.2	59.2	6.47	2.13	3.03	LS	VOC	4.0	22.73	77
1320	3307	30651 *	77.2	68.7	59.1	6.63	2.08	3.18	LS	VOC	4.0	26.28	52
1321	3308	30656 *	77.8	68.0	57.0	6.49	2.06	3.15	LS	VOC	4.0	24.52	60
1322	3309	30657 *	77.1	67.4	50.8	5.64	2.07	2.72	MS	VOC	4.0	24.75	57
1323	3310	30669 *	80.7	71.2	62.6	6.17	1.98	3.11	LS	VOC	4.0	23.43	60
1324	3311	30690 *	79.6	71.5	64.2	6.38	2.08	3.06	LS	VOC	4.0	24.40	61
1325	3312	29694 *	79.8	70.9	60.5	6.13	2.32	2.64	LB	VOC	4.5	26.40	39
1326	3313	29700 *	79.1	67.4	56.1	6.46	2.14	3.01	LS	VOC	4.0	20.62	45
1327	3314	31433	80.0	65.4	51.2	6.80	2.09	3.25	LS	VOC	7.0	26.22	22
1328	3315	31434	78.6	66.5	56.0	6.66	2.04	3.26	LS	VOC	5.0	26.37	22
1329	3316	31435	81.0	71.3	54.9	6.05	2.29	2.64	LB	VOC	4.0	26.60	22
1330	3317	31436											
1331	3318	Co-51 (NC)	78.8	68.6	55.6	6.46	1.93	3.34	LS	A	4.0	26.34	65
1332	3319	31437	79.8	69.0	55.8	6.93	1.90	3.64	LS	VOC	4.0	24.58	22
1333	3320	31440	78.7	66.7	57.0	7.53	1.86	4.04	LS	A	3.0	19.58	35
1334	3321	MTU-1153(ZC)	80.1	71.3	55.8	6.31	2.18	2.89	LB	VOC	3.0	22.05	22
1335	3322	31444	78.6	70.5	59.5	6.50	2.30	2.82	LB	VOC	5.0	22.54	22
1336	3323	31501	79.4	71.0	64.2	6.29	2.06	3.05	LS	VOC	4.0	22.88	58
1337	3324	30505	79.3	71.6	66.8	7.10	2.18	3.25	LS	VOC	5.0	22.29	54
1338	3325	31509	77.8	68.1	45.8	5.30	2.19	2.42	SB	A	4.0	22.73	64
1339	3326	31510	77.9	66.9	40.8	6.31	2.36	2.67	LB	VOC	5.0	22.26	48
1340	3327	31512	80.2	66.7	28.7	6.49	2.26	2.87	LB	VOC	4.0	24.05	68
1341	3328	31515	79.4	69.3	52.5	5.17	1.63	3.17	SS	VOC	4.0	26.28	22
1342	3329	(LC)	77.9	68.1	53.4	5.87	2.09	2.80	MS	VOC	4.0	23.23	56
1343	3330	31519	76.0	66.5	46.7	5.31	2.22	2.39	SB	VOC	4.0	24.04	24
1344	3331	31533	80.5	71.5	55.9	5.40	1.91	2.82	MS	VOC	3.0	22.26	25
1345	3332	31540	77.1	68.9	55.4	5.17	1.91	2.70	MS	A	5.8	23.46	22
1346	3333	31550	79.4	70.5	60.1	5.75	1.91	3.01	SS	A	7.0	19.09	64
1347	3334	31552	77.2	65.7	34.6	5.76	2.10	2.74	MS	A	5.2	21.64	45
1348	3335	US-314 (HC)	79.9	68.2	56.4	6.75	2.00	3.37	LS	F	4.0	22.08	47
1349	3336	31553	79.2	67.2	54.4	5.43	2.18	2.49	SB	VOC	4.0	23.20	22
1350	3337	31557	79.1	67.0	27.0	6.25	2.07	3.01	LS	VOC	7.0	23.20	22
1351	3338	30568	78.9	66.0	46.8	6.29	2.03	3.09	LS	VOC	4.0	25.84	59
1352	3339	30681	79.7	69.7	35.0	6.08	2.24	2.71	LB	VOC	4.0	21.49	53
1353	3340	30635	77.1	59.0	41.4	7.33	1.87	3.91	LS	VOC	7.0	18.92	78
1354	3341	30653	77.9	67.6	49.4	6.52	1.94	3.36	LS	A	7.0	24.34	63
1355	3342	30660	77.8	67.6	49.5	5.42	1.96	2.76	MS	VOC	4.0	22.93	45
1356	3343	30668	78.5	69.5	51.0	5.15	1.87	2.75	MS	VOC	4.0	25.96	46
1357	3344	30671	78.0	68.7	52.6	6.46	2.04	3.16	LS	VOC	4.0	27.69	24
1358	3345	30674	78.1	69.1	55.9	6.36	1.92	3.31	LS	VOC	4.0	23.17	57
1359	3346	30679	80.5	70.5	52.2	5.75	2.1	2.73	MS	VOC	5.0	23.43	55
1360	3347	30572	78.4	66.9	51.1	6.64	1.90	3.49	LS	VOC	4.4	22.73	43
1361	3348	30688	78.9	59.8	27.0	6.46	1.78	3.62	LS	VOC	4.0	27.63	43
1362	3349	30687	78.1	66.6	46.8	6.14	2.17	2.83	LB	VOC	4.0	16.28	45
1363	3350	30661	79.2	68.3	56.2	5.35	2.03	2.63	MS	VOC	7.0	27.22	26
1364	3351	30637	77.0	65.8	35.3	5.58	2.01	2.77	MS	VOC	4.9	22.70	45
1365	3352	30638	78.0	69.6	62.4	5.25	2.15	2.44	SB	VOC	7.0	25.93	22
1366	3353	30677	79.0	70.0	59.7	5.81	2.08	2.79	MS	VOC	7.0	25.72	48
1367	3354	30643	75.9	62.8	40.7	6.56	1.87	3.50	LS	VOC	7.0	23.64	47
1368	3355	30686	76.9	66.3	44.5	6.61	1.87	3.53	LS	VOC	4.0	19.15	54
1369	3356	30640	74.7	62.2	38.1	7.58	1.95	3.88	LS	A	7.0	22.85	45
1370	3357	30683	78.3	67.9	49.6	6.33	2.28	2.77	LB	VOC	4.0	25.72	33
1371	3358	30659 (R)	78.2	68.0	52.5	6.31	2.22	2.84	LB	A	4.0	26.86	51
1372	3359	30647 (R)	80.0	68.6	49.6	6.10	2.48	2.45	LB	OC	5.0	24.52	66

HULL: Hulling(%) MILL:Milling(%) HRR:Head Rice Recovery KL:Kernal length (mm) KB:Kernal Breadth(mm) L/B : Length and Breadth(mm) KLAC:Kernal length after cooking WU:Water uptake ER:Elongation ratio AC:Amylose content (%)ASV:Alkali Spreading Value AC: Amylose Content GC: Gel consistency

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

Locations: **58**

Test Entries: **61**

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

Table: 2

Initial variety trial–Early Transplanted (IVT-ETP) was constituted with 61 test entries and 3 checks i.e., National, Zonal and Local check. The trial was sent to 58 locations, however data was not received from 12 locations viz., Ludhiana, Kota, Chiplima, Patna-ICAR, Hazaribagh, Hathwara, Varanasi, Arundathi Nagar, Bilaspur, Derol, Dahoi and Karaikal. Data from 12 centres was excluded from analysis viz., Gorakhpur (Low Yield=3186 kg/ha), Masodha (Low CV=3.47%), Prayagraj (Low CV), Gerua (High CV=24.85%), Titabar (Low CV=0.23%), Rewa (LY=3493 kg/ha), Shirgaon (LY=3399 kg/ha), Kattalgere (Low CV=0.81%), Mugad (Non-significant), Brahmavar (LY=2969 kg/ha), Rudrur (LY=2298 kg/ha) and Coimbatore (LY=3588 kg/ha), unacceptable CV and non-significance of experiment. The data from remaining 34 centres was considered for analysis.

Over locations, mean grain yield ranged from 3761 kg/ha (Pantnagar) to 7745 kg/ha (Kampasagar); while, CV ranged from 4.94% (Kampasagar) to 18.91% (Lembucherra). Overall mean grain yield of the entries ranged from 4174 kg/ha (IET32410) to 5882 kg/ha (IET332430); days to 50% flowering from 83 days (IET32401) to 105 days (IET32418); plant height ranged from 91cm (IET32411) to 140 cm (IET 32375); number of panicles per square meter ranged from 262 (IET32395) to 317 (IET 32424).

Performance of the entries on overall mean basis

Among the varietal checks, local check was the highest yielder (5310 Kg/ha) followed by zonal check (5004 Kg/ha) and national check (4769 Kg/ha). The data pertaining to yield, days to 50% flowering, plant height, panicles/m² and quality are presented in Table 2.1, 2.2 and 2.3. Based on the overall performance, 13 entries viz., IETs, 32378, 32380, 32386, 32387, 32392, 32393, 32394, 32396, 32402, 32406, 32427, 32430 and 32433 recorded significant superiority over best check. Among these 13 entries, 5 entries viz., IETs 32380, 32386, 32392, 32406 and 32430 showed higher days to 50% flowering and hence not considered for promotion. **Remaining 8 entries viz., IETs, 32378, 32387, 32393, 32394, 32396, 32402, 32427 and 32433 are promoted to AVT-1 ETP.**

Performance of the entries on overall mean basis IVT- ETP during Kharif 2024

Sl. No.	IET	Grain yield/rank	DFP	Remarks
1	32378	5651(6)	92	Promoted on overall basis
2	32380	5548	95	Not promoted due to high DFP
3	32386	5736(5)	94	Not promoted due to high DFP
4	32387	5773(3)	89	Promoted on overall basis
5	32392	5875(2)	98	Not promoted due to high DFP

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	IET	Grain yield/rank	DFP	Remarks
6	32393	5601(8)	89	Promoted on overall basis
7	32394	5745(4)	90	Promoted on overall basis
8	32396	5533	92	Promoted on overall basis
9	32402	5584(9)	91	Promoted on overall basis
10	32406	5548(10)	94	Not promoted due to high DFP
11	32427	5617(7)	91	Promoted on overall basis
12	32430	5882(1)	95	Not promoted due to high DFP
13	32433	5525	92	Promoted on overall basis
	NC	4769	86	
	ZC	5004	89	
	LC	5310	90	
	CD	182		

Zonal performance of the entries

Zone II

The trial was evaluated at five locations viz., Pantnagar (Uttarkhand), Ludhiana (Punjab), Kaul (Haryana), Kota (Rajasthan) and Nagina (Uttar Pradesh) covering five states of Northern Zone. The data was received from 3 centres (Kaul, Pantnagar and Nagina); but not received from Ludhiana and Kota. The data from these 3 centres (Kaul, Pantnagar and Nagina) was considered for analysis. Zonal mean yield of the entries varied from 3662 kg/ha (IET 32401) to 6398 kg/ha (IET 32431); days to 50% flowering ranged from 83 days (IET 32410) to 128 days (IET 32418); plant height ranged from 94 cm (IET 32411) to 150 cm (IET 32382) and panicles per square meter ranged from 220 (IET 32382) to 328 (IET 32421). In Zone II, zonal check was the best check followed by local check and National Check which yielded 5946, 4362 and 4845 kg/ha respectively. **In zone II, none of the entries recorded significant superiority over best check, therefore none were promoted.**

Zone III

The trial was sent to 16 locations and data was received from 11 locations. The data from remaining 5 locations viz., Chiplima, Patna-ICAR, Hazaribag, Hathwara and Varanasi was not received. Out of 11 locations from which data was received, 8 locations viz., Sabour, Bikramganj, Ranchi, NRRI, Jeypore, Bhubaneswar, Malda and Chinsura, data was considered for analysis. The data from three locations viz., Gorakhpur (Low Yield=3186 kg/ha), Masodha (Low CV=3.47%) and Prayagraj (Low CV) was not considered for analysis. Among the checks, national check was the best check followed by local check and zonal check which yielded 4907, 4591 and 3797 kg/ha respectively. Mean yield of the entries ranged from 3793 kg/ha (IET 32410) to 5750 kg/ha (IET 32394); days to 50% flowering ranged from 87 days (IETs 32397, 32401 32410) to 104 days (IET 32418); plant height ranged from 88 cm (ZC) to 134 cm (IET 32375) and panicles per square meter ranged from 243 (IET 32395) to 330 (IET 32411). In zone III, entries viz., IETs 32386, 32387, 32392, 32393, 32394, 32396, 32404, 32419 and 32430 recorded significant superiority over best

Annual Progress Report 2024 Vol. I – Varietal Improvement

check. But 5 entries viz., IETs 32386, 32392, 32404, 32419 and 32430 recorded higher DFF, hence not promoted. **Remaining 4 entries viz., IETs 32387, 32393, 32394 and 32396 are promoted to AVT 1.**

Performance of the entries in Zone III of IVT- ETP during Kharif 2024

Sl. No.	IET	Grain yield/rank	DFF	Remarks
1	32386	5462(7)	96	Not promoted due to high DFF
2	32387	5464(2)	90	Promoted in Zone III
3	32392	5595(3)	97	Not promoted due to high DFF
4	32393	5466(6)	93	Promoted in Zone III
5	32394	5750(1)	92	Promoted in Zone III
6	32396	5527(4)	92	Promoted in Zone III
7	32404	5374(8)	96	Not promoted due to high DFF
8	32419	5357(9)	96	Not promoted due to high DFF
9	32430	5523(5)	94	Not promoted due to high DFF
	NC	4907	91	
	ZC	3797	88	
	LC	4591	91	

Zone IV

The trial was sent for evaluation at 4 locations viz., Titabar, Gerua, Arundhutinagar and Lembucherra and the data from Arundhutinagar was not received and data from Titabar (Non significant F) Gerua (High CV=24.85%) were not considered for analysis. Data from only one location i.e. Lembucherra was considered for analysis. Among the checks, national check was the best check followed by local check and zonal check which yielded 4500, 3625 and 3250 kg/ha respectively. In zone IV, two entries viz., IETs 32415 and 32430 recorded significant superiority over best check, but both the entries had higher days to 50% flowering. **Hence none of the entries are promoted to second year in Zone IV.**

Performance of the entries in Zone IV of IVT- ETP during Kharif 2024

Sl. No.	IET	Grain yield/rank	DFF	Remarks
1	32415	6138 (2)	104	Not promoted due to high DFF
2	32430	6538 (1)	102	Not promoted due to high DFF
	NC	4500	118	
	ZC	3250	118	
	LC	3625	97	

Zone V

The trial was sent to seven locations viz., Rewa (MP), Raipur, Ambikapur, Jagadalpur, Bilaspur, (Chhattisgarh), Sakoli and Sindewahi (Maharashtra). Data was obtained from all the centres except Bilaspur. The data from Rewa was not considered due to low experimental mean yield of 3493 kg/ha. The data from remaining 5 locations viz., Raipur, Ambikapur, Jagadalpur, Sakoli and Sindewahi was considered for analysis. Among the checks, local check was the best check followed by zonal check and national check which yielded 4819,

Annual Progress Report 2024 Vol. I – Varietal Improvement

4440 and 4326 kg/ha respectively. Mean yield of the entries ranged from 2785 kg/ha (IET 32375) to 5834 kg/ha (IET 32402); days to 50% flowering ranged from 83 days (NC) to 108 days (IET 32418); plant height ranged from 89 cm (IET 32411) to 152 cm (IET 32375) and panicles per square meter ranged from 195 (IET 32395) to 277 (IET 32394). In zone V, entries viz., IETs 32378, 32386, 32396, 32402, 32413, 32420, 32427 and 32431 recorded significant yield superiority over best check. But 4 entries Viz., IETs 32378, 32386, 32413 and 32431 recorded higher DFF hence not promoted. Remaining **5 entries viz., IETs 32396, 32399, 32402, 32420 and 32427** are promoted to AVT 1 ETP.

Performance of the entries in Zone V of IVT- ETP during Kharif 2024

Sl. No.	IET	Grain yield/rank	DFF	Remarks
1	32378	5598(5)	94	Not promoted due to high DFF
2	32386	5497(7)	96	Not promoted due to high DFF
3	32396	5474(8)	92	Promoted in Zone III
4	32399	5728(3)	89	Promoted in Zone III
5	32402	5834(1)	92	Promoted in Zone III
6	32413	5424(9)	94	Not promoted due to high DFF
7	32420	5544(6)	86	Promoted in Zone III
8	32427	5684(4)	92	Promoted in Zone III
9	32431	5759(2)	94	Not promoted due to high DFF
	NC	4326	83	
	ZC	4440	87	
	LC	4819	91	

Zone VI

The trial was sent for evaluation at seven locations viz., Karjat, Radhanagari, Shirgaon (Maharashtra), Nawagam, Derol, Dabhoi, Vyara (Gujarat). The data was not received from two centres viz., Derol and Dabhoi. The data from Shirgaon was not considered due to low experimental grain yield (3399 kg/ha). Therefore, data from 4 locations viz., Karjat, Radhanagari, Nawagam and Vyara was considered for analysis. Zonal mean yield of the entries varied from 2359 kg/ha (IET 32401) to 5411 kg/ha (IET 32392); days to 50% flowering ranged from 83 days (IET 32410) to 117 days (IET 32375); plant height ranged from 88 cm (IET 32410) to 148 cm (IET 32375 and IET 32382) and panicles per square meter ranged from 196 (IET 32391) to 252 (IET 32378). In Zone VI, local check was the best check followed by zonal check and National Check which yielded 5378, 4018 and 3733 kg/ha respectively. **Therefore, none of the entries recorded significant yield superiority over best check, therefore none of them were promoted.**

Southern Zone (Zone VII)

The trial was sent to 19 locations viz., Maruteru, Ragolu, Rudrur, Kampasagar, Kunaram, Warangal, Jagtial, Aduthurai, Coimbatore, Tirur, Moncompu, Pattambi, Mandya, Mugad, Brahmavar, Gangavati, Kathalgere, Kurumbapet and Karaikal. The experimental data was not received from Karaikal and data from 5 centres viz., Kathalgere (Low CV=0.81%), Mugad (F non-significance), Brahmavar (Low experimental yield = 2969 kg/ha), Rudrur (Low experimental yield = 2298 kg/ha), and Coimbatore (Low experimental yield = 3588 kg/ha)

Annual Progress Report 2024 Vol. I – Varietal Improvement

were not considered for analysis. The data from remaining 13 locations was considered for analysis. Experimental mean yield at the locations ranged from 4087 kg/ha (Aduturai) to 7745 Kg/ha (Kampasagar). Mean yield of the entries ranged from 4817 kg/ha (IET 32411) to 7349 kg/ha (IET 32406); days to 50% flowering 80 days (IET 32401) to 97 days (IET 32418); plant height ranged from 88 cm (IET 32411) to 140 cm (IET 32375) and panicles per square meter ranged from 286 (IET 32374) to 357 (IET 32399). Among the checks, zonal check was the best check followed by local check and national check which yielded 6185, 6156 and 5288 kg/ha respectively. In zone VII, seven entries viz., IETs 32378, 32387, 32392, 32395, 32406, 32421, 32430 recorded significant yield superiority over best check. But one entry IETs 32392 recorded higher DFF hence not promoted. **Remaining 6 entries viz., IETs 32378, 32387, 32395, 32406, 32421 and 32430 are promoted to AVT 1**

Performance of the entries in Zone VII of IVT- ETP during Kharif 2024

Sl. No.	IET	Grain yield/rank	DFF	Remarks
1	32378	6485(7)	89	Promoted in Zone III
2	32387	6974(2)	84	Promoted in Zone III
3	32392	6864(3)	94	Not promoted due to high DFF
4	32395	6638(6)	88	Promoted in Zone III
5	32406	7349(1)	88	Promoted in Zone III
6	32421	6850(4)	88	Promoted in Zone III
7	32430	6657(5)	91	Promoted in Zone III
	NC	5288	82	
	ZC	6185	84	
	LC	6156	87	

Summary table: Promotion of entries from IVT ETP to AVT 1 ETP

Sl.No.	Over all	Zone III	Zone V	Zone VII
1	32378	32387	32396	32378
2	32387	32393	32399	32387
3	32393	32394	32402	32395
4	32394	32396	32420	32406
5	32396		32427	32421
6	32402			32430
7	32427			
8	32433			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.1: Composition of entries in Initial Variety Trial - Early Transplanted (IVT – E TP), Kharif 2024.

Entry No.	IET No.	Designation	Cross Combination	GT
3401	32373	TJR 2	PB1 Mutant/MTU 1010	LS
3402	32374	IR 17A3016	IR 110611-B-B-B-25-1/IR12N234	MB
3403	32375	TRC 2024-12/TRC H1TC 5826-B-B-11-8	Hakuchuk 1/Tripura Chikan	LS
3404	32376	CR 6313-IR 17A3033	NSIC 2011 RC 240/IR 12N234	MB
3405	32377	CR 4405-1442-4-1-3-5-4-1-4-1	1321 X N 54	LS
3406	32378	NVSR-1307	IET-23998/IET-24021	LB
3407	32379	NWGR 18083	Gurjari/Z-31/2-2-3-1-1-1-2	MB
3408	32380	OR 2566-5-1	Heera/OR 2009-1	MB
3409	32381	IR 143512-17-1-1-154-7-5	MTU 1010/AUS 295::IRGC 29083	LS
3410	32382	TRC 2024-11/TRC H1TN 5726-B-B-11-4	Hakuchuk 1/Tripura Nirog	MB
3411	32383	NVSR 3620	GR-7/NVSR2094	LS
3412	32384	CR 3516-1-1-1-1-1-2	Birupa/Pusa 44	SB
3413	32385	PAU 7596-18-1-3-1-1 (RYT 4170)	PR123/PR126	LS
3414	32386	RP CG-SLK-235-456	IRRI 163 X PR 126	MS
3415	32387	WGL-1868	RNR 15048/WGL 1145	LS
3416	32388	KPS 12555	MTU 1001/NLR 145	MS
3417	32389	BKR 105	Lalat/Pusa 1176	MB
3418	32390	RP 6460-DB-C3-345-12	166S-Swarna/O.nivara//148S-Swarna/O.nivara	LS
3419	32391	RNR 39204	NDR359/IR72	LS
3420		National check	CO-51	
3421	32392	NVSR-1200	Gurjari/IET-23467	LB
3422	32393	IR 17A3030	IR 110611-B-B-B-25-1/IR12N234	MS
3423	32394	CR 6316-14-1-1-1-1	CR 3856-44-22-2-1-11-1-1-1/NJ 276//F 13 (Hybrid)	SB
3424	32395	JGL 42646	JGL 24423/IR04A-216	LB
3425	32396	SVR 24-25	SVT 22/PR 126	LB
3426	32397	KMP 257	KMP-175/DHMAS-70Q-164-1b-2	MS
3427	32398	R 2341-330-2-171-1	Karma Mahsuri/Guang Jianr-1	SB
3428	32399	KNM 16057	IRTON 117/Pusa 44//KNM 118	LS
3429	32400	Pusa 2091-38-2	CMH 310/CMH482	LS
3430	32401	IR 17A3083	WAS 33-B-B-15-1-4-5::C1/IRRI 154	LS
3431	32402	NVSR-1310	IET-23998/NAUR-1	LB
3432	32403	CRAC- 4424-101-2	Doubled haploid of 8433DT	MB
3433	32404	MTU 1425 (MTU 2941-52-1-1-1)	MTU 1121/BPT 2615	MS
3434	32405	RDR 4929	KNM 118/Mutnsi	LS
3435	32406	SYE-1202-25-48-17-11-16-12	MTU-1010/JGL-13571	MS
3436	32407	CRAC- 4424-118-2	Doubled haploid of 8433DT	MB
3437	32408	HURS 24-7-IR 143513-25-6-6-277-11-20	MTU 1010/BARIK KUDI IRGC 52807-1	LS
3438	32409	CR 4393-A1-23-1	IR93312-30-101-20-13-66-6 / IR94226-B-177-B // WAB 880-1-27-9-2/ IR94225-B-82-B /// IR91648-B-289-B/ IR91648-B-336-B// IR91648-B-13-B/ IR91648-B-32-B-	MS

Annual Progress Report 2024 Vol. I – Varietal Improvement

			B// Abhaya/ Rathu Hennati xIR 64// IRBL9/ Agannai	
3439	32410	KMP 243	KMP-149/IC-10-43	Bold
3440	32411	Dawar Dhan Mutant-20	Mutant of Dawar Dhan	LS
3441	32412	RP CG-SLK-458-235	DRR dhan 52 X PR126	MS
3442		ZC	Zonal: PR 124 (Northern), Narendra 97 (Eastern), Luit(North Eastern), Sahbhagidhan (Central & Western), MTU 1153 (Southern)	
3443	32413	CR 63667-1 (IR 17A 3030-CR 6367-1)	IR 110611-B-B-B-25-1/IR 12N234	MS
3444	32414	HKR 22-180	HKR 08-67/HKR 128	LS
3445	32415	KNM 14382	KNM 8/IR 04A216	LS
3446	32416	VDN 2003	IR 46/VDN 21-1-7-1-1-1	LS
3447	32417	RNR 41617	JGL 24423/IRLON 115	LS
3448	32418	NLR 3894	MTU 2077/NLR 3042	DG, MS
3449	32419	PAU 8460-34-1-2 (RYT 4172)	PR126/PR 121	LS
3450	32420	TM 13367	IET 19577/BPT 5205	MS
3451	32421	ORJ 1319	Swarna/IRGC27502//MTU1081	MB
3452	32422	HURS 24-8-IR 143515-35-5-5-407-60-18	MTU 1010/JAMBALI IRGC 731010-1	LS
3453	32423	ORJ 1340	IR 09M312/IR08N956	MB
3454	32424	NDLR 28 (NDLR 116-30-3-2-14-10)	NLR 34449/White Ponni	SS
3455	32425	CB 21506	CO S1 / CO 54	SS
3456	32426	CB 21533	CO 51/ PRNP 9108	MS
3457	32427	NDR 2023-3-CP-18-1	HKL-47/Pusa Sundha 5	MB
3458	32428	RDR 2757	RDR-1144/(MTU 1153/Tellahamsa)	LS
3459	32429	AD 20020	AD04001/J11	MS
3460	32430	ORJ 1350	IR10M300/IR10M342	MS
3461	32431	R 21-3	Sel from IR 17A2134	LB
3462	32432	KPS 12652	BM-71/NLR 34449	MS
3463	32433	BRR 0289-IR 143510-75-16-16-868-43-46	MTU 1010/AUS 295::IRGC 29083	LS
3464		Local check		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.2: Grain Yield (kg/ha) in IVT -ETP, Kharif 2024

Entry No	IET No	Zone II- Northern						Zone II-		Zone III- Eastern				
		Haryana		Uttarakhand		Uttar Pradesh		Northern (3)		Bihar		Bihar (2)		
		Kaul	Pantnagar			Nagina		Mean		Sabour	Bikramganj		Mean	
3401	32373	5675		4062		5206		4981		2738		5919		4328
3402	32374	6372		4062		4721		5052		2399		6090		4245
3403	32375	3755		1625		6463	3*	3948		4080		3669		3874
3404	32376	6473		2438		4235		4382		3617		4630		4123
3405	32377	5890		4875	7	4894		5220		3645		5634		4639
3406	32378	5520		3875		4362		4586		4863	8*	5613		5238
3407	32379	6291		3000		4641		4644		3855		4188		4022
3408	32380	7223		6188	1*	5479	9	6296	2	3828		5199		4514
3409	32381	4555		4062		5073		4564		3571		5221		4396
3410	32382	4790		3938		4182		4303		4153		3818		3985
3411	32383	5859		3625		3883		4456		5321	3*	5962		5641
3412	32384	4082		4250		4834		4388		6232	1*	5919		6075
3413	32385	7895	3	3812		4561		5423		4327		5691		5009
3414	32386	7872	4	3188		5259		5440		4304		6268	9	5286
3415	32387	7700	7	3562		3777		5013		3819		6688	3	5253
3416	32388	6225		3375		4774		4791		3791		5577		4684
3417	32389	4820		3000		3856		3892		2930		5202		4066
3418	32390	4065		3125		4342		3844		3159		4017		3588
3419	32391	6275				3438		4856						
3420	CO-51(NC)	4666		3938		4481		4362		3068		6040		4554
3421	32392	5550		5312	4	3876		4913		5119	4*	6325	8	5722
3422	32393	6720		2562		4867		4717		3617		5690		4654
3423	32394	7258				5027		6142	3	4931	6*	6019		5475
3424	32395	7925	2			3644		5784	8	2775		5771		4273
3425	32396	6865		3562		4860		5096		6108	2*	6040		6074
3426	32397	4555		2688		5093		4112		3407		4170		3788
3427	32398	5588		3625		5372		4862		4116		4281		4198
3428	32399	5981		3375		5033		4796		3379		5910		4645
3429	32400	6207		3812		4940		4987		3512		5548		4530
3430	32401	3934		3375		3677		3662		3599		3726		3663
3431	32402	6099		6062	2*	4382		5514		3837		4744		4290
3432	32403	7397		3375		5053		5275		2807		4632		3719
3433	32404	6586		4062		4555		5068		4153		7037	2	5595
3434	32405	7595	8	4188		5844	4	5876	6	3704		6496	7	5100
3435	32406	5927		5250	5	6689	2*	5955	4	4519	10	5126		4823
3436	32407	6745				4874		5809	7	2619		4095		3357
3437	32408	7120		3375		4781		5092		3755		5840		4798
3438	32409	4991		4375	8	3564		4310		3388		4544		3966
3439	32410	4640		2875		3650		3722		3031		4186		3609
3440	32411	4634		3750		5120		4501		4501		5064		4783
3441	32412	6230		6000	3*	4761		5664	9	3796		6503	6	5149
3442	ZC	8235	1	4250		5352		5946	5	3581		3796		3688
3443	32413	5751		5000	6	4422		5058		3004		5648		4326
3444	32414	7759	5	3250		4328		5112		3136		5782		4459
3445	32415	6154		2688		5778	5	4873		3663		6108		4885
3446	32416	4661		2938		5645	6	4414		5041	5*	6190	10	5616
3447	32417	6055				3976		5016		3164		4772		3968
3448	32418	4445		2625		5585	8	4218		3974		6097		5036
3449	32419	7581	9	3000		4541		5041		4872	7*	7628	1*	6250
3450	32420	6868		4125		5239		5411		3503		6595	4	5049
3451	32421	5075				4987		5031		4066		5876		4971
3452	32422	5127		2875		4335		4112		4542	9	6054		5298
3453	32423	5996				3910		4953		2459		5705		4082
3454	32424	5400		4125		5479	9	5001		3869		6560	5	5214
3455	32425	4668		3188		4255		4037		3759		5755		4757
3456	32426	5480		3938		4189		4535		3686		4421		4053
3457	32427	7281		3812		4594		5229		3814		6140		4977
3458	32428	7532	10	3375		4508		5138		2724		5848		4286
3459	32429	5327		4250		5346		4974		3603		5349		4476
3460	32430	6845		4312	10	5612	7	5590	10	4254		6097		5175
3461	32431	5861				6935	1*	6398	1	3658		5534		4596
3462	32432	5756		4375	8	4282		4804		3049		6019		4534
3463	32433	7735	6	3938		5066		5580		3178		5812		4495
3464	LC	7483		2938		4116		4845		3539		4815		4177
Experimental Mean		6057		3761		4759		4931		3786		5487		4637
CD(0.05)		751		1330		903		534		1026		1447		842
CV(%)		6.21		17.65		9.5		5.42		13.56		13.19		9.08
F val		19.37**		3.69**		5.27**		11.05**		4.71**		2.96**		4.93**
DOS		09-06-24		07-06-2024		25-06-2024				10-07-2024		08-07-2024		
DOP		12-07-24		10-07-2024		25-07-2024				24-07-2024		07-08-2024		
Local Check Name		HKR 49		Govind		PR 124				Sabour Harshit Dhan		R. Bhagwati		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.2 (Contd.): Grain Yield (kg/ha) in IVT -ETP, Kharif 2024

Entry No	IET No	Zone III- Eastern											
		Jharkhand		Odisha				Odisha (3)		West Bengal			
		Ranchi		NRRRI		Jeypore		Bhubaneswar		Mean		Malda	
3401	32373	4030		5114		5833		2731		4559		4317	
3402	32374	3315		5051		4194		3796		4347		4150	
3403	32375	6045	2*	3409		6949	6	3403		4587		5158	*
3404	32376	4030		4924		4644		3241		4270		3433	
3405	32377	5330	9*	5745		4491		4792		5009		4367	
3406	32378	3120		7134	2*	6266		4931		6110	3*	3608	
3407	32379	2650		5871		4625		4861		5119		3933	
3408	32380	4810		5997	9	6620		4583		5734	8	4108	
3409	32381	3190		4293		4699		3889		4294		4750	*
3410	32382	3050		5682		4009		3750		4480		4442	
3411	32383	4050		4545		6088		3657		4764		4117	
3412	32384	4030		6124	8*	4236		3588		4649		5350	9*
3413	32385	4485		5240		6037		3750		5009		5258	10*
3414	32386	6305	1*	4419		6500		5093		5337		4483	
3415	32387	5395	8*	6944	3*	6609		4120		5891	7	6392	2*
3416	32388	3195		4356		5394		4630		4793		3300	
3417	32389	4290		4482		4111		4167		4253		3083	
3418	32390	2950		3977		5113		3009		4033		3167	
3419	32391	4095		4104		6005				5054		3883	
3420	CO-51(NC)	3900		4545		6030		4444		5007		4167	
3421	32392	4875		6250	5*	6250		5556	6*	6019	5*	4508	
3422	32393	5785	3*	6250	5*	6375		5139		5921	6	4683	
3423	32394	3250		7702	1*	6958	4	5116		6592	1*	6150	7*
3424	32395	5005	*	4040		4100		3519		3886		3583	
3425	32396	3900		5492		6690	10	6250	2*	6144	2*	4483	
3426	32397	4875		5177		4509		4769		4818		3342	
3427	32398	4550		4040		6863	7	3634		4846		4242	
3428	32399	3315		4040		6343		6343	1*	5575		4683	
3429	32400	4290		5177		4472		4167		4605		6350	3*
3430	32401	4875		4040		5009		2685		3912		3917	
3431	32402	5785	3*	4104		6488		4676		5089		5000	*
3432	32403	4745		4672		5757		4815		5081		3858	
3433	32404	5525	7*	4167		5944		4907		5006		6258	4*
3434	32405	4940		4609		6752	8	5162	10	5508		4608	
3435	32406	3200		6313	4*	4016		3194		4508		4658	
3436	32407	3130		4609		4296		3750		4218		3858	
3437	32408	4290		3977		7826	1	5162		5655	10	3108	
3438	32409	5590	6*	4230		7477	2	3843		5183		6258	5*
3439	32410	3030		4104		4039		3449		3864		3133	
3440	32411	4030		4924		4155		1042		3374		4458	
3441	32412	4225		4609		6644		4838		5363		3908	
3442	ZC	3185		4104		4093		4028		4075		3092	
3443	32413	5005	*	4609		5035		5718	4*	5120		3033	
3444	32414	4225		5492		4153		4398		4681		4767	*
3445	32415	3900		4293		5028		5602	5*	4974		4425	
3446	32416	5330	9*	4230		6208		5787	3*	5408		3217	
3447	32417	2375		4167		3669				3918		4425	
3448	32418	4290		4419		6581		4375		5125		3700	
3449	32419	3640		6187	7*	5324		3866		5126		5967	8*
3450	32420	3445		4104		4086		3218		3802		4408	
3451	32421	3365		5240		4979		5278	8*	5166		3242	
3452	32422	2730		4672		5995		2361		4343		4283	
3453	32423	3950		4104		6583				5343		3633	
3454	32424	3900		4482		4236		5255	9*	4658		3558	
3455	32425	4030		4040		4519		4329		4296		4517	
3456	32426	3705		4861		5398		4444		4901		4567	
3457	32427	3965		5492		5567		5440	7*	5500		6850	1*
3458	32428	4680		4040		4176		4074		4097		4150	
3459	32429	3095		3977		5449		2917		4114		4600	
3460	32430	5720	5*	5051		6954	5	5069		5691	9	6225	6*
3461	32431	4225		5114		6727	9	3843		5228		4142	
3462	32432	3050		5997	9	6044				6021	4*	4367	
3463	32433	4225		5303		6970	3	4259		5511		4200	
3464	LC	3000		5177		6616		3681		5158		4117	
Experimental Mean		4133		4901		5528		4273		4918		4375	
CD(0.05)		1069		876		1918		742		771		573	
CV(%)		12.94		8.94		17.36		8.68		7.85		6.56	
F val		6.03**		8.24**		2.6**		14.22**		6.21**		20.84**	
DOS		02-07-2024		21-06-2024		10-06-2024		08-08-1023				20-06-2024	
DOP		12-08-2024		23-07-2024		10-07-2024		14-09-2024				19-07-2024	
Local Check Name		BVD-110		CR Dhan 321		Mahendragiri		Mandakini				AJIT	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.2 (Contd.): Grain Yield (kg/ha) in IVT -ETP, Kharif 2024

Entry No	IET No	Zone III- Eastern				Zone III- Eastern		Zone IV-North		Zone V- Central					
		West Bengal		West Bengal (2)		(8)		Tripura		Chhattisgarh					
		chinsurah		Mean		Mean		Lembucherra		Jagadapur		Ambikhapur			
3401	32373	5875		5096		4570		2038		4381		4646			
3402	32374	6125		5138		4390		5388	6	4450		3939			
3403	32375	5125		5142		4730		5762	4	3189		4520			
3404	32376	4875		4154		4174		4750		3443		4091			
3405	32377	5500		4933		4938		3362		5457		4192			
3406	32378	5250		4429		5098		4225		6227	4*	5960	2		
3407	32379	5625		4779		4451		4875		3073		4697			
3408	32380	5188		4648		5042		3525		5938	9	4950			
3409	32381	4812		4781		4303		4088		5046		4293			
3410	32382	6375	10	5408		4410		4512		5949	8	5000			
3411	32383	4875		4496		4827		2762		5150		4495			
3412	32384	6750	3	6050	1	5279		4688		4748		3838			
3413	32385	5375		5317		5020		4038		4442		3182			
3414	32386	6325		5404		5462	7*	5075		5663		5202	8		
3415	32387	5200		5796	4	5646	2*	3725		5017		3485			
3416	32388	5962		4631		4526		5125		4190		3535			
3417	32389	6438	8	4760		4338		3450		3542		3232			
3418	32390	6438	8	4802		3979		3638		3275		4697			
3419	32391	6625	4	5254		4942		4625		4630		4899			
3420	CO-51(NC)	7062	2	5615	9	4907		4500		3479		5606	3		
3421	32392	5875		5192		5595	3*	3825		6305	1*	4848			
3422	32393	6188		5435		5466	6*	5188	10	4945		5000			
3423	32394	5875		6012	3	5750	1*	3850		5590		4091			
3424	32395	5112		4348		4238		5200	9	5767		5404	6		
3425	32396	5250		4867		5527	4*	4375		5770		3636			
3426	32397	4875		4108		4390		5900	3	4705		5152	9		
3427	32398	5750		4996		4685		3475		5185		4950			
3428	32399	5125		4904		4892		4400		6276	3*	4596			
3429	32400	5000		5675	5	4814		4850		4670		3950			
3430	32401	6000		4958		4231		3725		3125		4798			
3431	32402	5250		5125		4985		4350		6215	5*	5051			
3432	32403	7125	1	5492		4801		4562		4612		5152	9		
3433	32404	5000		5629	8	5374	8*	4488		4919		3990			
3434	32405	5625		5117		5237		4825		4656		5303	7		
3435	32406	6625	4	5642	7	4707		3850		3848		3788			
3436	32407	5500		4679		3982		2662		4572		3737			
3437	32408	6062		4585		5003		5188		4719		4141			
3438	32409	4875		5567	10	5026		3575		4986		5455	4		
3439	32410	5375		4254		3793		4362		3877		4747			
3440	32411	5750		5104		4241		3588		3090		4141			
3441	32412	5250		4579		4972		4500		5830	10	3990			
3442	ZC	4500		3796		3797		3250		4253		3990			
3443	32413	5625		4329		4710		4788		6296	2*	5455	4		
3444	32414	5875		5321		4729		3900		3935		5000			
3445	32415	5125		4775		4768		6138	2*	5255		3939			
3446	32416	6562	6	4890		5321	10	4738		5417		4798			
3447	32417	5000		4712		3939		5250	8	5608		5101			
3448	32418	6125		4912		4945		4225		4198		4242			
3449	32419	5375		5671	6	5357	9*	4400		4346		4899			
3450	32420	6500	7	5454		4482		4250		5738		4293			
3451	32421	4875		4058		4615		3962		4552		3990			
3452	32422	6375		5329		4627		3625		4638		4747			
3453	32423	4438		4035		4410		4275		5605		5000			
3454	32424	4875		4217		4592		4288		5041		6010	1		
3455	32425	5000		4758		4494		5625	5	5692		4697			
3456	32426	5875		5221		4620		1538		5321		4495			
3457	32427	5250		6050	1	5315		4312		5483		5051			
3458	32428	5688		4919		4422		4275		5095		3939			
3459	32429	6375		5488		4421		4712		4274		4040			
3460	32430	4812		5519		5523	5*	6538	1*	5981	7	5000			
3461	32431	5525		4833		4846		3225		6071	6	5101			
3462	32432	5625		4996		4879		3038		4352		3889			
3463	32433	5900		5050		4981		5338	7	5541		3182			
3464	LC	5788		4952		4591		3625		4838		4545			
Experimental Mean		5631		5003		4768		4284		4883		4528			
CD(0.05)		891		491		417		1619		1265		915			
CV(%)		7.92		4.92		4.37		18.91		12.97		10.11			
F val		4.1**		8.87**		9.99**		2.54**		3.94**		4.11**			
DOS		21-06-2024				13-07-2024				16-06-2024					
DOP		13-07-2024								04-08-2024		11-07-2024		25-07-2024	
Local Check Name		AJIT								Hakuchuk-2		Samleshwari		RF105	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.2 (Contd.): Grain Yield (kg/ha) in IVT -ETP, Kharif 2024

Entry No	IET No	Zone V- Central									Zone V- Central (5)		
		Chhattisgarh		Chhattisgarh (3)		Maharashtra			Maharashtra (2)		Mean		
		Raipur		Mean		Sakoli		Sindewahi	Mean		Mean		
3401	32373	6818	6	5282		4425		4651		4538		4984	
3402	32374	5979		4789		5850		4851		5350	9	5014	
3403	32375	1910		3206		1675		2631		2153		2785	
3404	32376	4945		4160		2085		2501		2293		3413	
3405	32377	4936		4862		3585		4076		3830		4449	
3406	32378	6184		6123	2*	4800		4821		4810		5598	5*
3407	32379	4001		3924		2275		3176		2726		3444	
3408	32380	5990		5626	7*	6200	9	3836		5018		5383	10
3409	32381	2983		4107		2650		3341		2996		3663	
3410	32382	3021		4657		3700		4046		3873		4343	
3411	32383	5301		4982		3450		4371		3910		4554	
3412	32384	2932		3839		3525		3916		3720		3792	
3413	32385	3650		3758		4600		4881		4740		4151	
3414	32386	5568		5478	*	5500		5551	1	5526	3	5497	7*
3415	32387	6598	9	5033		2650		5031	8	3840		4556	
3416	32388	4119		3948		3750		4061		3906		3931	
3417	32389	5654		4143		1675		3721		2698		3565	
3418	32390	3748		3907		2300		2836		2568		3371	
3419	32391			4764		2675		4361		3518		4141	
3420	CO-51(NC)	4395		4493		4500		3651		4076		4326	
3421	32392	5343		5499	*	4550		4496		4523		5109	
3422	32393	6266	10	5404	*	5200		4171		4686		5116	
3423	32394	4728		4803		5800		3826		4813		4807	
3424	32395	5359		5510	10*	4750				4750		5320	
3425	32396	6671	8	5359	*	6250	8	5041	7	5646	2	5474	8*
3426	32397	4034		4630		1700		3791		2746		3876	
3427	32398	5689		5274		4800		3751		4276		4875	
3428	32399	5879		5584	8*	6625	4	5266	3	5946	1	5728	3*
3429	32400	7346	5*	5322	*	5325		3546		4436		4967	
3430	32401	3236		3720		2400		3316		2858		3375	
3431	32402	7860	1*	6375	1*	4750		5296	2	5023		5834	1*
3432	32403	7811	2*	5858	6*	4050		3756		3903		5076	
3433	32404	5816		4908		6325	7	4376		5350	9	5085	
3434	32405	5070		5010		6075	10	3661		4868		4953	
3435	32406	4870		4169		5450		4746		5098		4541	
3436	32407	5053		4454		4900		3346		4123		4322	
3437	32408	3650		4170		4700		4756		4728		4393	
3438	32409	5002		5147		5350		4391		4870		5037	
3439	32410	2905		3843		3125		2681		2903		3467	
3440	32411	2699		3310		3575		2711		3143		3243	
3441	32412	6072		5298	*	4800		4676		4738		5074	
3442	ZC	5034		4426		4950		3971		4460		4440	
3443	32413	4911		5554	9*	6850	2	3606		5228		5424	9*
3444	32414	5618		4851		6000		3936		4968		4898	
3445	32415	5728		4974		5725		4601		5163		5050	
3446	32416	6021		5412	*	6375	6	3206		4790		5163	
3447	32417			5354	*	6000		3201		4600		4977	
3448	32418	3956		4132		4900		2706		3803		4001	
3449	32419	4411		4552		6000		5031	8	5516	4	4938	
3450	32420	7695	4*	5909	5*	5100		4896		4998		5544	6*
3451	32421			4271		4950		3761		4356		4313	
3452	32422	2031		3805		5850		4091		4970		4271	
3453	32423			5302	*	4550		4951	10	4750		5026	
3454	32424	4909		5320	*	4750		4526		4638		5047	
3455	32425	4100		4830		6550	5	3731		5140		4954	
3456	32426	4599		4805		5875		4581		5228		4974	
3457	32427	7770	3*	6101	3*	5850		4266		5058		5684	4*
3458	32428	5249		4761		5950		4561		5256		4959	
3459	32429	4008		4107		6750	3	4186		5468	5	4652	
3460	32430	4985		5322	*	5550		5266	3	5408	8	5356	
3461	32431	6736	7	5969	4*	6950	1*	3936		5443	6	5759	2*
3462	32432			4120		4500		3716		4108		4114	
3463	32433	5612		4778		5425		5241	5	5333		5000	
3464	LC	3844		4409		5700		5166	6	5433	7	4819	
Experimental Mean		5039		4809		4742		4112		4432		4656	
CD(0.05)		1858		789		1166		1067		824		600	
CV(%)		18.43		8.21		12.31		12.98		9.31		6.44	
F val		4.65**		6.7**		11.75**		4.04**		10.08**		11.34**	
DOS		01-07-2024				13-06-2024		26-06-2024					
DOP		27-07-2024				18-07-2024		06-08-2024					
Local Check Name		Baster Dhan 1				PDKV Sadhana		PDKV Sadhana					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.2 (Contd.): Grain Yield (kg/ha) in IVT -ETP, Kharif 2024

Entry No	IET No	Zone VI- Western											
		Gujarat				Gujarat (2)		Maharashtra			Maharashtra (2)		
		Vyra		Nawagam		Mean		Radhanagari	Karjat		Mean		
3401	32373	3630		4848		4239		6286	3*	3190		4738	
3402	32374	4460		2592		3526		5644		4171		4907	
3403	32375	3730		1654		2692		3159		2486		2823	
3404	32376	3118		1836		2478		3877		2020		2948	
3405	32377	4258		3953		4105		6120	4	4542		5331	
3406	32378	5111	9	4172		4642		5572		6237	4	5904	2
3407	32379	5215	6	4968		5091	7	2478		2746		2612	
3408	32380	4421		4583		4502		5613		5263		5438	7
3409	32381	3509		3071		3290		3989		3649		3819	
3410	32382	3776		2084		2930		5231		2914		4073	
3411	32383	4746		3472		4109		5304		4215		4759	
3412	32384	3971		5633	5	4802		4655		5920	8	5288	
3413	32385	4935		4904		4919		3168		6001	6	4584	
3414	32386	3991		4645		4318		5066		6038	5	5552	5
3415	32387	4993	10	5066		5029	9	5503		3350		4426	
3416	32388	3952		4344		4148		3717		4122		3919	
3417	32389	3060		3916		3488		3759		3900		3829	
3418	32390	4212		3719		3966		3565		2908		3237	
3419	32391	4297		4398		4348		3909		3474		3692	
3420	CO-51(NC)	3717		4591		4154		3990		2635		3313	
3421	32392	5137	8	4490		4814		6064	5	5952	7	6008	1*
3422	32393	5501	2	5085		5293	4	4934		4176		4555	
3423	32394	4590		5416	9	5003		7178	1*	3246		5212	
3424	32395	3913		5812	2	4863		2364		5864	9	4114	
3425	32396	3724		5170		4447		7085	2*	3821		5453	6
3426	32397	2643		3294		2969		3790		2657		3224	
3427	32398	5397	3	5410		5404	2	4738		3988		4363	
3428	32399	4069		5500	8	4785		5822	7	3933		4877	
3429	32400	5260	5	5132		5196	6	3611		3625		3618	
3430	32401	1868		1844		1856		3325		2400		2862	
3431	32402	5319	4	4861		5090	8	5533		5311		5422	8
3432	32403	3854		4398		4126		4708		4957		4832	
3433	32404	4525		4183		4354		4093		7064	2*	5578	4
3434	32405	3151		4506		3829		5486		3452		4469	
3435	32406	3646		3719		3682		2864		4408		3636	
3436	32407	2650		2960		2805		4950		4848		4899	
3437	32408	3698		4511		4104		4467		4920		4694	
3438	32409	4622		4578		4600		5310		3813		4561	
3439	32410	1966		3010		2488		3737		2617		3177	
3440	32411	4512		2944		3728		3688		4664		4176	
3441	32412	4245		5416	9	4831		4845		5751		5298	
3442	ZC	3555		4922		4239		4391		3203		3797	
3443	32413	4902		4706		4804		5818	8	5712		5765	3
3444	32414	4388		4128		4258		5485		2440		3962	
3445	32415	3770		5086		4428		5616		3166		4391	
3446	32416	4264		4514		4389		5485		2800		4142	
3447	32417	3971		4036		4003		4386		3903		4144	
3448	32418	4473		5938	1	5205	5	3218		3374		3296	
3449	32419	5163	7	5517	7	5340	3	3609		7089	1*	5349	10
3450	32420	4564		3272		3918		5674	10	4503		5088	
3451	32421	3353		3826		3589		5396		2971		4183	
3452	32422	4264		3672		3968		3996		5116		4556	
3453	32423	4531		4282		4407		5796	9	4014		4905	
3454	32424	3854		5295		4575		6054	6	3314		4684	
3455	32425	2031		4662		3347		4993		5765		5379	9
3456	32426	3600		3594		3597		2955		4728		3841	
3457	32427	4395		5648	4	5022	10	5401		3770		4586	
3458	32428	3939		5676	3	4808		4822		5369		5096	
3459	32429	3503		4586		4045		4449		4919		4684	
3460	32430	4225		4514		4370		3974		6473	3*	5224	
3461	32431	4225		4892		4559		5393		4104		4749	
3462	32432	4707		3434		4071		4698		5217		4957	
3463	32433	4076		5308		4692		4264		5814	10	5039	
3464	LC	5508	1	5606	6	5557	1	4894		5505		5199	
Experimental Mean		4104		4341		4222		4687		4289		4488	
CD(0.05)		1156		879		734		1299		872		780	
CV(%)		14.09		10.13		8.7		13.86		10.18		8.69	
F val		4**		10.93**		9.1**		5.43**		16.59**		8.91**	
DOS		20-06-2024		19-06-2024				11-06-2024		13-06-2024			
DOP		16-07-2024		25-07-2024				08-07-2024		10-07-2024			
Local Check Name		GR 17 (Sardar)		Mahisagar				Phule Radha		KJT-7			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.2 (Contd.): Grain Yield (kg/ha) in IVT -ETP, Kharif 2024

Entry No	IET No	Zone VI- Western (4)				Zone VII- Southern							
		Mean		Andhra Pradesh		Andhra Pradesh (2)		Karnataka		Karnataka			
				Ragolu	Maruteru	Mean		Mandya	Gangavati				
3401	32373	4488		6239		4234		5237		5466		3660	
3402	32374	4217		5268		4338		4803		6543		3686	
3403	32375	2758		4420		4214		4317		4726		5500	
3404	32376	2713		4275		4098		4187		4561		3859	
3405	32377	4718		6659	10	4130		5395		6509		4571	
3406	32378	5273	5	6261		5842	3	6051	7	7154	6	5506	
3407	32379	3852		3928		4228		4078		2901		4705	
3408	32380	4970	10	4536		4106		4321		6111		6955	3
3409	32381	3554		4870		4244		4557		6454		5833	
3410	32382	3501		3696		4267		3981		6447		4776	
3411	32383	4434		5290		4044		4667		5117		4551	
3412	32384	5045	9	5746		4812		5279		6310		5058	
3413	32385	4752		5116		4913		5014		5254		3808	
3414	32386	4935		5572		6747	1*	6160	2*	6351		4641	
3415	32387	4728		6710	9	4688		5699		6989	8	6308	10
3416	32388	4034		4449		4938		4694		5597		5391	
3417	32389	3659		5790		4322		5056		4211		4462	
3418	32390	3601		3254		4042		3648		3265		6353	9
3419	32391	4020		3674				3674					
3420	CO-51(NC)	3733		3978		4181		4080		7490	3	6032	
3421	32392	5411	1	6312		4694		5503		6770	10	5077	
3422	32393	4924		5138		5341	6	5239		6728		5205	
3423	32394	5107	7	4326		4008		4167		5837		4878	
3424	32395	4488		6159				6159	3*	6447		6776	5
3425	32396	4950		6239		6052	2*	6145	4*	7407	4	5135	
3426	32397	3096		6116		4053		5084		6372		5346	
3427	32398	4883		3696		4162		3929		5782		4205	
3428	32399	4831		4790		4368		4579		5720		6359	8
3429	32400	4407		3746		4034		3890		6639		3558	
3430	32401	2359		4572		4058		4315		4129		5756	
3431	32402	5256	6	7254	4*	4235		5744		6214		5859	
3432	32403	4479		5913		4114		5014		5021		6045	
3433	32404	4966		5935		5337	7	5636		5562		5756	
3434	32405	4149		5319		4122		4720		6626		4968	
3435	32406	3659		5768		5045	9	5407		5219		7872	1*
3436	32407	3852		8138	1*	4050		6094	5*	4568		5506	
3437	32408	4399		3551		4328		3940		7154	6	5814	
3438	32409	4581		5094		5274	8	5184		5158		4724	
3439	32410	2832		4746		4300		4523		5014		3994	
3440	32411	3952		4174		4316		4245		4595		1923	
3441	32412	5064	8	6138		4404		5271		5103		5212	
3442	ZC	4018		4696		4390		4543		7606	2	6782	4
3443	32413	5285	4	4000		4479		4240		6838	9	3628	
3444	32414	4110		5739		4063		4901		5645		4763	
3445	32415	4409		5920		5801	4	5861	9	5967		5782	
3446	32416	4266		7254	5*	4112		5683		6248		3865	
3447	32417	4074		4949		4213		4581				5474	
3448	32418	4251		6116		4483		5299		6283		2942	
3449	32419	5344	3	7058	6*	4030		5544		4609		3013	
3450	32420	4503		5022		4146		4584		6097		6628	6
3451	32421	3886		7355	3*			7355	1*	6036		5026	
3452	32422	4262		4123		4166		4145		5466		3692	
3453	32423	4656		5841				5841	10	5055			
3454	32424	4629		4022		4243		4132		4719		3699	
3455	32425	4363		4029		4579		4304		5926		5667	
3456	32426	3719		3928		4284		4106		5576		4519	
3457	32427	4804		6833	8*	4134		5484		7750	1	5237	
3458	32428	4952		5000				5000		5953		5904	
3459	32429	4364		4000		5420	5	4710		5926		6115	
3460	32430	4797		7855	2*	4332		6093	6*	5754		7583	2
3461	32431	4654		5370		4098		4734		7291	5	6276	
3462	32432	4514		4551				4551		6269			
3463	32433	4866		7036	7*	4972	10	6004	8			5583	
3464	LC	5378	2	5594		4718		5156		4925		6545	7
Experimental Mean		4355		5299		4506		4946		5827		5153	
CD(0.05)		571		1201		1212		904		831		977	
CV(%)		6.56		11.34		13.43		9.15		7.13		9.48	
F val		11.51**		7.61**		1.85*		5.75**		11.92**		11.39**	
DOS				02-07-24		06-07-2024				13-08-24		29-07-24	
DOP				30-07-24		29-07-2024				05-09-24		01-09-24	
Local Check Name				MTU 1156		MTU 1156				RNR-15048		GNV 10-89	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.2 (Contd.): Grain Yield (kg/ha) in IVT -ETP, Kharif 2024

Entry No	IET No	Zone VII- Southern											
		Karnataka (2)		Kerala			Kerala (2)		Puducherry		Telangana		
		Mean		Monocompu	Pattambi	Mean		Kurumbapet		Jagtial			
3401	32373	4563		5725		8626	7*	7175	6	5423		6492	
3402	32374	5115		3913		4429		4171		5799		7796	
3403	32375	5113		2391		5270		3831		9751	5*	8117	
3404	32376	4210		4710		6770		5740		4709		6729	
3405	32377	5540		5145		4623		4884		8746	6*	7092	
3406	32378	6330		7609	1	8579	8*	8094	2*	4444		8054	
3407	32379	3803		4275		7503		5889		7566	*	5746	
3408	32380	6533	8	5942	10	5261		5602				8180	
3409	32381	6144		4493		7805	*	6149		6915	*	8201	
3410	32382	5611		5435		7869	*	6652		10138	4*	7531	
3411	32383	4834		7101	2	8285	*	7693	3*	5963		8298	
3412	32384	5684		3696		5392		4544		6566	*		
3413	32385	4531		5145		4733		4939		8085	10*	7413	
3414	32386	5496		6377	6	7283		6830		6831	*	8040	
3415	32387	6648	5	6377	6	7766	*	7071	7	8471	9*	7713	
3416	32388	5494		3623		5417		4520		5968		7280	
3417	32389	4336		5072		5685		5379				7824	
3418	32390	4809		4710		4564		4637		5159		7601	
3419	32391			6957	3	8162	*	7559	5	6487	*	8124	
3420	CO-51(NC)	6761	3	5290		6040		5665		5407		6032	
3421	32392	5923		4203		9479	2*	6841		8593	8*	10272	2*
3422	32393	5967		5435		7906	*	6670		5127		8612	10
3423	32394	5357		5290		6151		5720		11381	2*	7001	
3424	32395	6611	6	5000		8931	5*	6966	10	7582	*	8529	
3425	32396	6271		4420		3844		4132		6164		8710	9
3426	32397	5859		3841		6115		4978		8608	7*	7183	
3427	32398	4994		5362		8747	6*	7055	9	11275	3*	8591	
3428	32399	6040		5725		6015		5870		5101		6332	
3429	32400	5098		5652		9467	3*	7560	4	5603		5635	
3430	32401	4943		5145		7882	*	6513		6661	*	7001	
3431	32402	6036		5652		5064		5358		7143	*	8424	
3432	32403	5533		4928		8419	9*	6673		4238		8222	
3433	32404	5659		4348		5563		4956		5968		8424	
3434	32405	5797		5362		7357		6359		4878		7462	
3435	32406	6546	7	5725		13213	1*	9469	1*			10063	3*
3436	32407	5037		5290		6698		5994		7212	*	9310	5*
3437	32408	6484	10	4348		4538		4443		4709		6186	
3438	32409	4941		3623		5878		4751		6370	*	8117	
3439	32410	4504		4565		4977		4771		6497	*	7273	
3440	32411	3259		3188		6551		4870				8243	
3441	32412	5157		4203		4970		4587				6848	
3442	ZC	7194	1	6232	8	6039		6135		4153		7371	
3443	32413	5233		5145		8967	4*	7056	8	4169		8961	6*
3444	32414	5204		5507		6185		5846				8020	
3445	32415	5875		4783		7054		5919		5000		7650	
3446	32416	5057		4855		5370		5112				10662	1*
3447	32417	5474		3406		6392		4899				9986	4*
3448	32418	4612		3116		4733		3925		5122		8794	7
3449	32419	3811		5797		6064		5930		7265	*	7043	
3450	32420	6363		4493		4489		4491		7153	*	8766	8
3451	32421	5531		6014	9	6453		6234		14206	1*	6402	
3452	32422	4579		3333		4575		3954		4397		8264	
3453	32423	5055		3986		7760	*	5873				8278	
3454	32424	4209		5507		8333	10*	6920		7466	*	7559	
3455	32425	5796		5217		7725	*	6471		7640	*	6702	
3456	32426	5048		5145		7138		6141		6614	*	6297	
3457	32427	6494	9	4638		4233		4435				6904	
3458	32428	5929		4130		5344		4737				6625	
3459	32429	6021		5072		7833	*	6453		6392	*	8020	
3460	32430	6669	4	6739	5	5100		5920		6804	*	7141	
3461	32431	6783	2	5145		5410		5278		6899	*	4616	
3462	32432	6269		4565		5514		5039				8529	
3463	32433	5583		5797		5819		5808		4862		7573	
3464	LC	5735		6884	4	5673		6279		5021		7357	
Experimental Mean		5494		5012		6563		5788		6706		7718	
CD(0.05)		670		1766		1653		1298		936		1582	
CV(%)		6.1		17.63		12.6		11.22		6.95		10.25	
F val		12.18**		2.73**		8.5**		6.18**		37.55**		4.02**	
DOS				03-07-2024		15-07-2024				10-07-2024		15-06-2024	
DOP				20-07-2024		05-08-2024				10-08-2024		09-07-2024	
Local Check Name				MO 21 Prathyasa		Kanchana				ADT-53		JGL 18047	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.2 (Contd.): Grain Yield (kg/ha) in IVT -ETP, Kharif 2024

Entry No	IET No	Zone VII- Southern											
		Telangana					Telangana (4)		Tamil Nadu				
		Kampasagar		Kunaram		Warangal	Mean		Tirur		Adutrai		
3401	32373	5844		5972		6523		6208		5445		4304	
3402	32374	6307		5564		5995		6415		5379		3291	
3403	32375	6379		8203	1*	3573		6568		4775		2975	
3404	32376	6193		5981		4369		5818		5672		5000	8
3405	32377	6070		7205	3	7339		6926		6030		3797	
3406	32378	8549		5495		8107		7551		5979		2722	
3407	32379	6091		5634		8176		6411		6272		3671	
3408	32380	9033	5*	6493	8	7647		7838	4	6069		3196	
3409	32381	8755	*	5347		5844		7037		6226		3987	
3410	32382	9054	3*	6241		6385		7303		5289		4462	
3411	32383	8488		4722		7846		7339		5816		5190	4
3412	32384	8837	*	5686		6722		7082		6858	5	4937	
3413	32385	8056		6181		6344		6998		6520		4241	
3414	32386	5833		7144	4	7476		7123		5871		4557	
3415	32387	8899	9*	6476	9	8628	8	7929	3	6669		4968	
3416	32388	7150		5460		7215		6776		5943		2975	
3417	32389	8333		6467	10	5796		7105		6171		4367	
3418	32390	6543		5556		5466		6292		5856			
3419	32391	7449						7786	9	5121		2975	
3420	CO-51(NC)	6574		5451		3422		5370		5486		3354	
3421	32392	9043	4*	5599		8402	10	8329	1*	6294		4494	
3422	32393	7531		6120		6872		7284		7060	2	5000	8
3423	32394	9095	1*	6146		8326		7642				4810	
3424	32395	7582		5955		6742		7202		6025		3924	
3425	32396	8971	7*	4227		5775		6921		5641		4494	
3426	32397	6461		4115		4102		5465		4961		4684	
3427	32398	8292		5174		6866		7231		4821		3924	
3428	32399	8992	6*	5286		9225	4	7459		6780	8	5000	8
3429	32400	7551		5842		6694		6431		5321		3354	
3430	32401	6471		5799		5816		6272		5264		4715	
3431	32402	7222		5677		6845		7042		5356		3956	
3432	32403	8035		5434		9527	2	7804	6	6445		4082	
3433	32404	8467		3819		8196		7227		6120		2911	
3434	32405	8107		4679		8635	7	7221		6570		4430	
3435	32406	7181		5417		8525	9	7796	8	6810	6		
3436	32407	6204		4696		7339		6887		4730		3671	
3437	32408	8580		3490		6824		6270		6015		3354	
3438	32409	8529		5278		7963		7472		5240		4114	
3439	32410	6327		6068		3546		5804		4950		5127	6
3440	32411	5916		4479		4925		5891		6176		3323	
3441	32412	7881		5434		8018		7045		5790		3101	
3442	ZC	7840		6267		9225	4	7676	10	6580		3228	
3443	32413	8416		4358		6029		6941		5644		3987	
3444	32414	7984		6050		8299		7588		5075		5190	4
3445	32415	9074	2*	5295		7010		7257		6471		4114	
3446	32416	8128		5009		6015		7453		5684		3418	
3447	32417	7973		6875	7	5439		7568		5659		2595	
3448	32418	8426		4097		8779	6	7524		5750		3734	
3449	32419	8889	10*	4653		6619		6801		6270		5253	3
3450	32420	8837	*	6198		7421		7806	5	6995	3	3734	
3451	32421	8951	8*	5373		6139		6716		6891	4	3354	
3452	32422	7726		6380		6804		7294		6650		3481	
3453	32423	7119				5775		7057		6350		6076	1
3454	32424	7634		5885		7167		7061		6320		4430	
3455	32425	7809		5859		6852		6805		7180	1	4810	
3456	32426	7572		3663		6385		5979		6254		3038	
3457	32427	8097		7300	2	8210		7628		6730	9	5127	6
3458	32428	8601		4878		5645		6437		5430		4051	
3459	32429	7047		6285		8402		7438		6784	7	4937	
3460	32430	7510		6884	6	9657	1	7798	7	6690	10	4494	
3461	32431	7037		5148		8313		6278		6374		3481	
3462	32432			4748		5727		6335		6286		4304	
3463	32433	8663	*	7005	5	9259	3	8125	2	5936		3418	
3464	LC	7757		6233		7606		7238		6021		5696	2
Experimental Mean		7745		5620		6965		7021		5998		4087	
CD(0.05)		765		1360		1361		593		830		949	
CV(%)		4.94		12.1		9.78		4.23		6.92		11.61	
F val		13.59**		3.77**		9.4**		9.67**		4.47**		5.66**	
DOS		18-07-2024		08-07-2024		24-06-2024				25-06-2024		12-06-2024	
DOP		24-08-2024		27-07-2024		20-07-2024				24-07-2024		12-07-2024	
Local Check Name		JGL-24423		KNM 118		KNM 118				CO 54		ADT 57	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.2 (Contd.): Grain Yield (kg/ha) in IVT -ETP, Kharif 2024

Entry No	IET No	Zone VII- Southern Tamil Nadu (2)		Zone VII- Southern (13)		Maharashtra (4)		Overall Mean (34)	
		Mean		Mean		Mean		Mean	
3401	32373	4874		5689		4638		5011	
3402	32374	4335		5254		5129		4880	
3403	32375	3875		5407		2488		4432	
3404	32376	5336		5148		2621		4298	
3405	32377	4914		5994		4581		5222	
3406	32378	4350		6485	7*	5357	7	5651	6*
3407	32379	4972		5438		2669		4639	
3408	32380	4633		6128		5228		5548	*
3409	32381	5107		6075		3407		4815	
3410	32382	4876		6276		3973		5000	
3411	32383	5503		6209		4335		5175	
3412	32384	5897	6	5885		4504		5147	
3413	32385	5380		5831		4662		5178	
3414	32386	5214		6363	9	5539	2	5736	5*
3415	32387	5819		6974	2*	4134		5773	3*
3416	32388	4459		5493		3912		4791	
3417	32389	5269		5708		3264		4569	
3418	32390	5856	10	5197		2902		4262	
3419	32391	4048		6118		3605		5027	
3420	CO-51(NC)	4420		5288		3694		4769	
3421	32392	5394		6864	3*	5266	10	5875	2*
3422	32393	6030	3	6313		4620		5601	8*
3423	32394	4810		6437	8	5012		5745	4*
3424	32395	4975		6638	6*	4326		5470	
3425	32396	5067		5929		5549	1	5533	*
3426	32397	4822		5535		2985		4620	
3427	32398	4373		6223		4319		5304	
3428	32399	5890	7	6130		5411	6	5458	
3429	32400	4338		5623		4027		5114	
3430	32401	4990		5636		2860		4357	
3431	32402	4656		6069		5222		5584	9*
3432	32403	5264		6186		4368		5368	
3433	32404	4516		5878		5464	4	5423	
3434	32405	5500		6040		4668		5418	
3435	32406	6810	1*	7349	1*	4367		5548	10*
3436	32407	4200		5955		4511		4866	
3437	32408	4685		5299		4711		4969	
3438	32409	4677		5797		4716		5164	
3439	32410	5038		5183		3040		4174	
3440	32411	4749		4817		3660		4268	
3441	32412	4446		5592		5018		5272	
3442	ZC	4904		6185		4129		5004	
3443	32413	4816		5740		5497	3	5309	
3444	32414	5132		6043		4465		5167	
3445	32415	5292		6148		4777		5344	
3446	32416	4551		5885		4466		5274	
3447	32417	4127		5724		4372		4897	
3448	32418	4742		5567		3550		4877	
3449	32419	5762		5889		5432	5	5441	
3450	32420	5365		6152		5043		5355	
3451	32421	5123		6850	4*	4269		5353	
3452	32422	5066		5312		4763		4719	
3453	32423	6213	2	6249		4828		5186	
3454	32424	5375		5922		4661		5199	
3455	32425	5995	4	6153		5260		5174	
3456	32426	4646		5416		4535		4772	
3457	32427	5928	5	6266		4822		5617	7*
3458	32428	4740		5596		5176		5039	
3459	32429	5861	8	6326		5076		5234	
3460	32430	5592		6657	5*	5316	9	5882	1*
3461	32431	4927		5804		5096		5383	
3462	32432	5295		5610		4533		4879	
3463	32433	4677		6327	10	5186		5525	*
3464	LC	5859	9	6156		5316	8	5310	
Experimental Mean		5068		5944		4458		5141	
CD(0.05)		609		284		551		182	
CV(%)		6.02		2.39		6.19		1.77	
F val		7.53**		23**		17.12**		41.47**	
DOS									
DOP									
Local Check Name									

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.2 (Contd.): Grain Yield (kg/ha) in IVT -ETP, Kharif 2024 (Not considered)

Entry No	IET No	ZONE III-EASTERN						ZONE IV- NORTH EASTERN		ZONE-V – CENTRAL	
		Uttar Pradesh						Assam		Madhya Pradesh	
		@Gorakhpur		@Masodha		@Prayagraj		@Gerua		@Rewa	
3401	32373	3922		5565		5531	7	2864		3270	
3402	32374	4132	8	4880		4228		2605		4003	
3403	32375	2381		4009		1361		4309		2748	
3404	32376	2241		5007		2471		1747		2923	
3405	32377	3418		5113		5346	10	5173	10	1954	
3406	32378	4384	4	5785		4240		5241	7	3219	
3407	32379	2591		4880		1999		4833		3038	
3408	32380	2901		5532		4787		5457	4	2780	
3409	32381	2871		6097	2	5244		4272		3432	
3410	32382	2594		5213		4058		4864		2465	
3411	32383	3215		4016		3772		5111		2919	
3412	32384	3735		4528		3961		4080		3988	
3413	32385	4568	2	4794		3617		1481		3640	
3414	32386	3386		4860		4669		4222		2984	
3415	32387	3992	10	5824	9	4708		4852		3926	
3416	32388	2322		5858	8	3452		4000		3370	
3417	32389	3318		5429		3390		4383		4188	
3418	32390	2311		5100		4150		3432		2456	
3419	32391	2206		5864	7	3607				3069	
3420	CO-51 (NC)	2801		5818	10	3932		3679		4089	
3421	32392	3206		4422		3639		5000		3633	
3422	32393	2818		5027		4033		2907		5213	3
3423	32394	4426	3	4455		4286		4210		3292	
3424	32395	4175	7	4395		4648				4905	5
3425	32396	4202	6	5725		5735	3	3148		3104	
3426	32397	2171		4777		4329		2772		2936	
3427	32398	3011		4368		4816		3975		3628	
3428	32399	4090	9	5146		5916	1	5191	9	2632	
3429	32400	3081		5106		5683	5	3506		2383	
3430	32401	2356		5219		2475		2031		2459	
3431	32402	3529		5602		3240		2802		2443	
3432	32403	3011		6011	5	5618	6	3815		2236	
3433	32404	3814		4538		3710		5642	3	5300	2
3434	32405	3529		5568		4691		5019		3790	
3435	32406	3495		4661		5809	2	4574		5678	1
3436	32407	2105		4495		3830				4070	
3437	32408	2871		4820		4960		5210	8	3856	
3438	32409	3361		4920		3665		4302		2867	
3439	32410	1916		5146		2510		2407		2849	
3440	32411	2661		6270	1	4133		2932		3239	
3441	32412	3339		6064	3	3267		5099		3038	
3442	ZC	1681		5080		5697	4	1500		2916	
3443	32413	3746		4395		4919		4080		2342	
3444	32414	4762	1	5991	6	5354	9	2840		2931	
3445	32415	3686		5376		3794		5247	6	2963	
3446	32416	2512		5013		4872		5123		4896	6
3447	32417	2396		4960		3634				4519	9
3448	32418	2801		4089		1849		4117		4467	10
3449	32419	3894		5718		4369		2265		4160	
3450	32420	3476		6017	4	4610		5117		3221	
3451	32421	3598		4940		5205				3602	
3452	32422	2449		4794		3534		2475		3769	
3453	32423	1933		5173		4897				3861	
3454	32424	2893		5638		4027		3302		3688	
3455	32425	3782		4714		3523		4957		3089	
3456	32426	2510		5718		4980		4556		4836	8
3457	32427	3676		5818		5519	8	5389	5	3084	
3458	32428	3571		5575		3596		3432		4110	
3459	32429	3866		4608		3956		4432		2699	
3460	32430	4230	5	4980		3732		6123	1	4878	7
3461	32431	3420		5585		5304		3142		5144	4
3462	32432	2866		5106		4353				3676	
3463	32433	3665		4541		4878		5920	2	3778	
3464	LC	2006		4488		4774		3105		2930	
Experimental Mean		3186		5144		4233		4005		3493	
CD(0.05)		1183		357		437		1993		590	
CV(%)		18.59		3.47		9.18		24.85		8.45	
F val		3.18**		20.47**		2.32ns		2.77**		16.27**	
DOS		12-06-2024		20-07-2024		04-07-2024		26-06-2024		26-06-2024	
DOP		19-07-2024		16-08-2024		29-07-2024		27-08-2024		15-07-2024	
Local Check Name		Sarjoo-52		NDR 97		Shiats-5		LUIT		MTU 1010 (E.N.3464)	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.2 (Contd.): Grain Yield (kg/ha) in IVT -ETP, Kharif 2024 (Not considered)

Entry No	IET No	ZONE VI – WESTERN				ZONE VII – SOUTHERN							
		Maharashtra		Karnataka		Telangana		Tamil Nadu					
		@Shirgaon	@Kathalgerre	@Mugad	@Brahmavar	@Rudrur	@Coimbatore						
3401	32373	4280		6608	5466	4	2942		2625		3880		
3402	32374	3707		6144	4493		3157		2165		3018		
3403	32375	2214		7125	4529		2961		1450		3234		
3404	32376	2786		4590	5116		2582		1765		3165		
3405	32377	2960		3500	4364		3479	6	2047		4967	2	
3406	32378	4983	5	5116	5411	6	3169		1568		3097		
3407	32379	3524		7886	5	4629		2904		1785		3155	
3408	32380	5139	4	4160	5346	10	3681	2	4068	7	4227		
3409	32381	3125		7584	5061		3283		2093		3872		
3410	32382	2387		5100	4653		2633		2034		2787		
3411	32383	2604		4824	4627		3277		1686		3831		
3412	32384	2014		6224	4472		3535	5	1490		3691		
3413	32385	4080		6538	4576		2652		4593	3	3389		
3414	32386	4462	9	4552	4997		3580	4	1831		3985		
3415	32387	3507		6252	5364	9	2784		5381	1	3720		
3416	32388	3863		8694	1		3302		1522		3244		
3417	32389	2188		6092		4340		2241		1385		3564	
3418	32390	2257		4128		4439		2677		1575		3686	
3419	32391	2344		6276					5315	2	3822		
3420	CO-51 (NC)	3021		4943		4354		2235		2297		3491	
3421	32392	4931	6	6266		4450		3434	7	4199	5	3979	
3422	32393	4358	10	6950		4329		3011		1680		4042	
3423	32394	4184		6242		3894		3005		1923		2654	
3424	32395	3828		6724		4947		3258		4265	4	3524	
3425	32396	2457		4936		4167		3277		1470		3087	
3426	32397	2552		7790	8	4561		3100		1312		3442	
3427	32398	4340		5234		4371		3245		2021		3469	
3428	32399	3646		6658		4914		3295		4068	7	4886	3
3429	32400	3082		8272	4	5421	5	1970		1864		3317	
3430	32401	2144		5082		4404		3283		3084		2692	
3431	32402	4193		3810		5617	2	2317		4199	5	4648	6
3432	32403	2309		8618	2	4669		3081		3281		5426	1
3433	32404	5408	2	5050		4399		2980		2631		3739	
3434	32405	3707		7808	7	4988		2910		1837		4043	
3435	32406	3377		7090		4259		3239		1575		3517	
3436	32407	3585		4848		4231		3270		2756		2557	
3437	32408	3759		7025		5256		3220		1509		3011	
3438	32409	3368		5725		4859		3182		3281		3087	
3439	32410	2005		5415		3851		3213		1312		2662	
3440	32411	2292		4266		4845		3037		3018		2493	
3441	32412	4280		3977		4888		3169		1339		3946	
3442	ZC	2856		5592		5370	8	2986		1385		3615	
3443	32413	4288		7588		5374	7	3258		1339		3997	
3444	32414	2431		6058		4581		3365	9	1903		2723	
3445	32415	3785		7602		4829		1894		2493		2741	
3446	32416	2127		7524		4530		3251		1772		4355	9
3447	32417	2483		5958		4754		2538		1706		2996	
3448	32418	2526		4318		4964		3434	7	2493		4592	8
3449	32419	4740	7	5902		4950		2563		1706		2800	
3450	32420	2595		6676		5604	3	1824		1509		3239	
3451	32421	3472		6925		4496		3176		1444		3646	
3452	32422	2769		4400		4591		3365	9	1706		2658	
3453	32423	4271		6392		4749		3674	3	3346		3455	
3454	32424	2917		4800		4700		2462		1903		3126	
3455	32425	5286	3	5116		4829		2355		3150		3708	
3456	32426	3455		7588		4112		2973		1575		4632	7
3457	32427	5512	1	5493		6121	1	2658		1378		4672	5
3458	32428	4028		7702	9			3314		1575		3190	
3459	32429	2656		5652		4200		1970		1312		3347	
3460	32430	4644	8	7885	6	4965		2014		1115		4325	10
3461	32431	3576		7222		4464		2652		3543	9	4106	
3462	32432	2066		4492				3314		3478	10	2759	
3463	32433	2569		8472	3	4836		2689		1444		4746	4
3464	LC	3247		7696	10	4400		3731	1	2493		4141	
Experimental Mean		3399		6112		4750		2969		2298		3588	
CD(0.05)		646		99		1252		669		905		1045	
CV(%)		9.51		0.81		13.18		11.28		19.7		14.58	
F val		17.8**		1492.41**		1.05ns		3.91**		10.88**		3.29**	
DOS		11-06-2024		06-08-24		01-07-24		18-06-2024		18-07-2024		06-07-2024	
DOP		02-07-2024		14-09-24		20-07-2024		09-07-2024		17-08-2024		30-07-2024	
Local Check Name		Ratnagiri 1		RNR-15048		MGD-101		MO 21		MTU 1010		CO 54	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.3: Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-ETP, Kharif 2024

Entry No	IET No	Zone II-Northern									Zone II-Northern (3)		
		Haryana			Uttarakhand			Uttar Pradesh			Mean		
		Kaul			Pantnagar			Nagina					
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3401	32373	96	124	320	99	104	224	94	97	280	96	108	275
3402	32374	88	124	346	95	104	272	93	81	261	92	103	293
3403	32375	101	160	302	139	140	316	106	122	228	116	140	282
3404	32376	86	124	353	90	108	198	88	94	234	88	109	262
3405	32377	103	154	302	105	121	312	102	104	244	103	126	286
3406	32378	94	128	295	101	123	266	94	103	261	96	118	274
3407	32379	110	123	341	122	126	228	106	97	224	112	115	264
3408	32380	103	133	339	106	111	302	102	97	224	104	114	289
3409	32381	94	112	286	98	124	254	92	95	294	95	110	278
3410	32382	105	164	240	112	173	222	105	114	198	107	150	220
3411	32383	105	114	318	108	138	258	102	96	290	105	116	289
3412	32384	113	129	317	120	139	336	114	98	254	116	122	303
3413	32385	107	114	353	104	109	311	101	91	244	104	105	303
3414	32386	104	110	358	110	104	270	102	97	205	106	104	278
3415	32387	98	134	333	97	110	277	93	98	254	96	114	288
3416	32388	102	115	340	108	124	358	96	98	244	102	112	314
3417	32389	102	140	308	102	137	224	88	108	310	97	128	281
3418	32390	92	112	268	92	97	361	96	87	284	94	99	304
3419	32391	95	124	334				98	100	257	96	112	295
3420	CO-51 (NC)	88	125	313	91	105	270	84	85	218	87	105	267
3421	32392	105	122	316	111	135	325	114	103	228	110	120	290
3422	32393	92	124	340	92	110	241	93	94	201	92	109	261
3423	32394	102	107	344				93	82	234	97	95	289
3424	32395	95	134	351				93	96	241	94	115	296
3425	32396	98	130	363	100	119	239	102	100	257	100	117	286
3426	32397	96	162	296	94	143	235	90	123	198	93	142	243
3427	32398	96	115	328	101	111	327	94	95	248	97	107	301
3428	32399	102	126	328	97	121	323	92	96	267	97	114	306
3429	32400	90	126	335	90	110	291	93	99	261	91	112	296
3430	32401	90	116	286	84	98	264	76	85	261	84	100	270
3431	32402	96	126	344	100	115	242	94	105	231	96	115	272
3432	32403	103	142	344	100	124	284	96	107	287	100	125	305
3433	32404	108	122	353	112	123	221	108	95	284	109	113	286
3434	32405	95	130	356	100	109	242	93	102	267	96	114	288
3435	32406	103	129	316	105	121	205	102	101	267	104	117	263
3436	32407	109	122	350				96	100	238	102	111	294
3437	32408	108	116	370	110	118	362	110	90	254	109	108	328
3438	32409	98	122	298	104	126	262	98	101	264	100	116	274
3439	32410	90	134	312	85	98	320	74	89	211	83	107	281
3440	32411	91	102	306	92	96	266	84	85	317	89	94	296
3441	32412	101	138	337	99	123	278	94	94	294	98	118	303
3442	ZC	105	108	352	104	103	271	96	87	237	102	99	287
3443	32413	102	111	320	103	111	244	96	96	287	100	106	284
3444	32414	100	121	364	98	126	190	92	87	284	97	111	279
3445	32415	104	116	328	104	106	292	98	92	284	102	105	301
3446	32416	107	116	298	111	114	338	103	97	304	107	109	313
3447	32417	90	102	348				88	96	261	90	99	304
3448	32418	114	90	269	142	108	222	126	86	292	128	95	261
3449	32419	106	104	353	106	109	280	103	80	307	105	98	313
3450	32420	97	132	334	102	121	258	92	100	294	97	118	295
3451	32421	102	126	302				106	94	353	104	110	328
3452	32422	108	114	305	109	117	282	105	86	330	107	106	306
3453	32423	106	134	322				112	96	251	110	115	287
3454	32424	108	108	328	108	103	278	104	82	300	106	98	302
3455	32425	104	112	278	104	119	270	94	93	254	101	108	267
3456	32426	97	114	306	104	119	261	105	91	267	102	108	278
3457	32427	96	122	340	92	115	272	94	99	224	94	112	279
3458	32428	99	124	356	96	103	228	90	82	293	95	103	292
3459	32429	98	122	300	103	110	341	92	91	267	98	108	302
3460	32430	107	125	342	110	120	230	100	101	254	106	115	276
3461	32431	102	142	315				100	106	275	101	124	295
3462	32432	106	128	310	110	122	355	108	100	284	108	117	316
3463	32433	102	116	341	100	117	287	98	95	247	100	110	292
3464	LC	90	120	349	86	90	280	96	85	254	90	99	294
Experimental Mean		100	123	324	102	116	274	97	95	261	100	112	288
Standard Error		1.47			1.12			1.11					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-ETP, Kharif 2024

Entry No	IET No	Zone III- Eastern											
		Bihar						Bihar (2)			Jharkhand		
		Sabour			Bikramganj			Mean			Ranchi		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3401	32373	96	89	217	88	125	382	92	107	299	102	110	206
3402	32374	90	83	280	87	113	361	89	98	320	97	94	166
3403	32375	121	156	320	95	156	386	108	156	353	110	119	156
3404	32376	84	106	340	84	120	367	84	114	354	93	92	188
3405	32377	94	96	255	91	143	383	92	120	319	107	114	204
3406	32378	94	102	318	84	124	390	89	113	354	96	104	163
3407	32379	122	116	249	97	142	365	110	129	307	110	96	202
3408	32380	93	94	328	90	125	362	92	109	345	102	98	220
3409	32381	90	99	395	88	123	336	89	111	365	102	94	240
3410	32382	98	129	208	94	118	344	96	123	276	103	116	134
3411	32383	102	104	286	93	155	332	97	129	310	101	100	188
3412	32384	101	118	292	103	131	348	102	124	320	109	101	208
3413	32385	100	92	220	94	115	333	97	104	276	108	86	170
3414	32386	100	93	292	90	121	355	95	107	323	101	100	236
3415	32387	84	99	268	85	122	370	85	111	318	104	98	201
3416	32388	92	100	321	94	129	338	93	115	329	95	98	200
3417	32389	87	107	358	87	120	360	87	113	359	101	81	250
3418	32390	94	90	330	85	108	322	90	99	326	108	114	206
3419	32391										90	99	227
3420	CO-51 (NC)	82	85	310	83	101	353	83	93	332	110	100	210
3421	32392	90	108	334	105	139	348	98	124	342	108	92	165
3422	32393	94	97	298	87	122	355	90	110	327	102	88	268
3423	32394	92	88	259	95	108	348	94	98	304	102	106	154
3424	32395	94	87	248	92	115	330	93	101	289	97	100	186
3425	32396	100	112	344	94	115	346	97	113	344	100	110	186
3426	32397	86	142	282	82	156	344	84	149	313	98	107	191
3427	32398	86	95	312	90	127	347	88	111	329	102	98	228
3428	32399	85	86	282	90	114	350	88	100	316	101	97	186
3429	32400	89	95	250	82	110	372	86	103	311	93	86	156
3430	32401	85	82	392	77	117	358	81	99	375	102	108	176
3431	32402	93	98	265	87	90	376	90	94	321	99	100	239
3432	32403	89	103	250	94	119	351	92	111	300	100	94	174
3433	32404	107	97	252	96	113	324	102	105	288	110	94	236
3434	32405	85	95	336	85	109	330	85	102	332	96	96	252
3435	32406	94	110	306	85	117	366	89	113	336	106	104	267
3436	32407	92	100	219	89	113	359	91	106	289	100	102	168
3437	32408	92	100	296	90	121	340	91	110	318	110	103	292
3438	32409	114	111	337	92	114	358	103	113	348	101	105	218
3439	32410	80	86	298	76	104	360	78	95	329	90	92	204
3440	32411	86	94	385	82	110	332	84	102	359	97	88	287
3441	32412	92	98	295	91	123	349	92	110	322	104	99	244
3442	ZC	86	73	362	79	109	380	82	91	371	90	74	258
3443	32413	100	83	302	87	121	368	93	102	336	108	94	273
3444	32414	89	92	325	87	115	362	88	104	344	100	89	184
3445	32415	97	95	358	93	113	373	95	104	366	102	88	244
3446	32416	93	100	362	95	120	380	94	110	370	105	102	278
3447	32417	94	94	262	87	114	352	91	104	308	95	88	204
3448	32418	107	94	253	104	115	352	106	104	302	121	88	270
3449	32419	100	90	338	92	110	325	96	100	331	110	90	199
3450	32420	88	90	296	85	116	336	86	103	316	99	96	184
3451	32421	94	108	260	95	130	352	94	119	306	104	98	222
3452	32422	108	91	297	90	115	348	99	103	322	108	88	232
3453	32423	100	94	207	93	115	337	96	104	272	102	109	224
3454	32424	100	82	265	92	111	354	96	97	310	100	84	262
3455	32425	92	95	380	92	113	347	92	104	364	100	94	206
3456	32426	100	97	270	90	110	380	95	104	325	106	96	195
3457	32427	94	106	203	93	111	313	94	108	258	102	98	236
3458	32428	89	69	282	89	113	328	89	91	305	97	90	210
3459	32429	92	98	362	79	128	346	86	113	354	97	88	265
3460	32430	99	98	288	88	121	320	94	110	304	101	101	248
3461	32431	100	117	218	90	152	380	95	134	299	96	108	182
3462	32432	101	105	253	90	133	370	96	119	311	103	105	191
3463	32433	91	92	246	90	116	362	90	104	304	109	94	226
3464	LC	91	105	322	90	121	334	90	113	328	114	100	138
Experimental Mean		94	98	294	89	120	352	92	109	324	102	97	212
Standard Error		0.44			0						0		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-ETP, Kharif 2024

Entry No	IET No	Zone III- Eastern											
		Odisha									Odisha (3)		
		NRRI			Jeypore			Bhubaneswar			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3401	32373	90	120	271	94	107	345	88	95	296	90	107	304
3402	32374	92	112	283	94	102	271	88	83	178	91	99	244
3403	32375	88	114	245	114	141	341	87	112	206	97	122	264
3404	32376	89	111	272	90	102	265	86	84	218	88	99	251
3405	32377	90	130	238	99	134	379	114	108	186	101	124	268
3406	32378	90	120	232	96	115	330	97	102	145	94	112	235
3407	32379	88	112	265	98	118	324	112	96	129	99	108	240
3408	32380	91	116	331	92	104	302	110	92	204	98	104	279
3409	32381	92	112	474	96	98	326	110	88	232	99	99	344
3410	32382	90	118	249	100	139	324	110	133	154	100	130	242
3411	32383	92	118	364	94	102	422	97	93	250	94	104	346
3412	32384	95	106	436	99	100	322	97	102	204	97	103	321
3413	32385	92	103	234	98	104	344	109	83	197	100	97	258
3414	32386	88	119	264	101	104	302	112	96	226	100	107	264
3415	32387	92	115	246	90	108	324	97	92	158	93	105	242
3416	32388	86	116	256	98	106	355	96	89	233	94	104	281
3417	32389	92	112	340	98	107	442	98	93	214	96	104	332
3418	32390	96	102	248	88	93	350	95	64	234	93	86	278
3419	32391	91	116	324	88	98	348				90	107	336
3420	CO-51 (NC)	92	114	318	90	101	389	89	82	180	90	99	296
3421	32392	90	114	270	96	110	296	112	88	194	99	104	254
3422	32393	88	109	248	96	98	348	99	92	195	94	99	264
3423	32394	88	110	368	92	92	324	97	80	234	92	94	309
3424	32395	92	107	272	90	103	252	99	94	148	94	101	224
3425	32396	92	110	344	92	107	356	96	92	188	94	103	296
3426	32397	88	112	217	94	134	542	86	134	212	89	127	324
3427	32398	92	110	372	96	95	502	89	88	242	92	97	372
3428	32399	97	115	315	94	104	450	96	82	209	96	100	325
3429	32400	84	112	382	94	104	366	89	88	206	89	101	318
3430	32401	90	102	250	90	83	456	84	73	210	88	86	305
3431	32402	92	112	290	93	127	378	98	92	232	94	110	300
3432	32403	82	118	304	92	119	409	96	100	221	90	113	311
3433	32404	84	114	315	99	105	368	97	81	242	93	100	308
3434	32405	89	126	334	91	101	426	97	104	195	92	110	318
3435	32406	89	130	376	97	106	396	96	96	188	94	111	320
3436	32407	82	122	310	96	110	295	87	98	256	88	110	287
3437	32408	92	117	251	86	108	379	109	93	270	95	106	300
3438	32409	90	117	359	94	112	324	109	82	205	98	104	296
3439	32410	93	103	258	88	88	372	87	84	248	89	92	293
3440	32411	90	108	440	88	74	410	109	76	258	96	86	370
3441	32412	95	116	318	93	111	351	108	104	220	99	110	296
3442	ZC	89	84	280	88	77	324	86	82	280	88	81	295
3443	32413	82	116	258	98	100	311	107	82	248	96	100	272
3444	32414	87	110	302	90	98	368	95	88	186	91	99	286
3445	32415	86	112	370	93	105	412	109	86	238	96	101	340
3446	32416	86	124	380	95	106	325	109	96	264	97	109	323
3447	32417	89	134	346	90	95	368				90	114	357
3448	32418	87	89	269	114	101	335	114	112	252	105	101	285
3449	32419	88	102	273	99	94	342	99	74	221	95	90	279
3450	32420	81	108	238	94	104	382	87	92	194	87	101	272
3451	32421	86	112	348	96	103	321	98	83	238	93	99	302
3452	32422	86	103	324	96	97	359	98	73	190	94	91	291
3453	32423	84	116	252	96	110	367				90	113	309
3454	32424	88	102	408	94	90	340	96	67	224	93	86	324
3455	32425	96	112	372	95	95	378	96	82	251	96	96	334
3456	32426	94	118	342	96	103	332	97	96	213	96	106	296
3457	32427	86	122	387	95	103	363	95	88	261	92	104	337
3458	32428	84	112	242	92	98	352	89	86	208	88	99	268
3459	32429	90	110	254	98	99	351	95	85	188	94	98	264
3460	32430	90	114	364	97	115	288	98	90	243	95	106	298
3461	32431	94	112	326	96	116	392	109	98	162	99	108	293
3462	32432	99	116	356	96	106	372				98	111	364
3463	32433	89	109	346	96	102	380	98	82	236	94	98	321
3464	LC	89	110	304	93	102	308	87	86	211	90	99	275
Experimental Mean		89	112	309	94	104	357	98	90	215	94	103	297
Standard Error		2.75			0.97			0.62					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-ETP, Kharif 2024

Entry No	IET No	Zone III- Eastern									Zone III- Eastern (8)		
		West Bengal						West Bengal (2)					
		Malda			chinsurah			Mean			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3401	32373	90	108	272	90	92	263	90	100	268	92	106	281
3402	32374	86	113	286	88	96	276	87	105	281	90	100	263
3403	32375	86	172	330	83	106	282	85	139	306	98	134	283
3404	32376	84	106	264	91	98	324	88	102	294	88	102	280
3405	32377	93	148	302	84	92	250	88	120	276	96	121	275
3406	32378	95	120	264	86	92	352	90	106	308	92	110	274
3407	32379	90	112	230	88	97	251	89	104	240	101	111	252
3408	32380	94	112	250	103	90	280	98	100	265	97	104	284
3409	32381	91	106	260	84	92	308	88	98	284	94	101	321
3410	32382	97	165	294	85	105	300	91	135	297	97	128	251
3411	32383	88	118	252	94	106	270	91	112	262	95	112	296
3412	32384	96	146	381	86	96	301	91	120	341	98	112	312
3413	32385	89	106	364	86	92	276	88	100	320	97	98	267
3414	32386	91	104	298	86	94	266	88	99	282	96	104	280
3415	32387	82	110	403	84	108	255	83	109	329	90	107	278
3416	32388	88	103	255	94	79	249	90	91	252	93	103	276
3417	32389	86	101	223	82	112	280	84	106	251	91	104	309
3418	32390	88	102	227	86	86	278	87	94	252	93	95	274
3419	32391	92	104	269	81	99	278	86	102	273	88	103	289
3420	CO-51 (NC)	80	104	301	104	98	262	92	101	281	91	98	290
3421	32392	88	124	277	86	103	276	87	113	276	97	110	270
3422	32393	87	104	272	88	96	308	88	100	290	93	101	286
3423	32394	83	106	423	87	98	243	85	102	333	92	98	294
3424	32395	83	102	264	93	116	242	88	108	253	92	103	243
3425	32396	82	114	254	83	108	252	83	111	253	92	108	284
3426	32397	82	112	286	80	100	244	81	106	266	87	125	290
3427	32398	86	114	230	86	94	242	86	104	236	91	103	309
3428	32399	90	112	350	90	98	289	90	105	320	93	101	304
3429	32400	83	116	440	88	98	284	86	108	362	88	101	307
3430	32401	86	106	234	82	96	272	84	101	253	87	96	293
3431	32402	88	114	360	85	84	282	86	99	321	92	102	303
3432	32403	85	110	280	89	104	252	87	107	266	91	109	280
3433	32404	90	108	428	84	105	242	87	106	335	96	102	301
3434	32405	94	106	361	83	95	271	88	100	316	90	104	313
3435	32406	91	106	356	87	92	262	89	99	309	93	108	315
3436	32407	88	132	209	86	114	284	87	123	246	90	111	263
3437	32408	90	120	240	84	104	266	88	112	253	94	108	292
3438	32409	84	120	442	88	96	254	86	108	348	96	107	312
3439	32410	95	102	247	84	110	282	90	106	264	87	96	284
3440	32411	92	102	236	92	104	286	92	102	262	92	94	330
3441	32412	90	116	321	86	104	276	88	110	298	95	109	297
3442	ZC	96	104	260	88	99	257	92	102	259	88	88	300
3443	32413	86	112	271	92	98	258	89	105	265	95	101	286
3444	32414	83	112	314	92	116	276	88	114	295	90	102	290
3445	32415	94	112	304	88	108	264	91	110	284	95	102	320
3446	32416	91	122	256	92	98	242	92	110	249	96	108	310
3447	32417	92	100	254	90	102	237	91	101	246	91	104	289
3448	32418	97	106	259	85	104	237	91	105	248	104	101	278
3449	32419	93	109	462	84	104	274	88	106	368	96	96	304
3450	32420	84	109	351	85	93	292	85	101	321	88	101	284
3451	32421	87	106	259	86	90	252	86	98	256	93	104	282
3452	32422	92	104	330	88	108	284	90	106	307	96	97	295
3453	32423	86	117	316	88	98	264	87	107	290	93	108	281
3454	32424	85	114	324	92	102	289	88	108	306	94	94	308
3455	32425	88	115	229	96	105	254	92	110	242	94	101	302
3456	32426	90	116	232	88	98	246	89	106	239	95	104	276
3457	32427	82	116	434	90	104	290	86	110	362	92	106	311
3458	32428	81	108	333	84	102	263	83	106	298	88	97	277
3459	32429	83	102	338	85	90	280	84	96	310	90	100	298
3460	32430	94	122	422	85	95	271	90	108	346	94	107	305
3461	32431	90	102	246	90	106	278	90	104	262	95	114	273
3462	32432	84	113	294	94	108	262	90	110	278	95	112	300
3463	32433	90	105	352	93	97	306	92	101	329	94	100	307
3464	LC	83	110	338	82	98	293	82	104	315	91	104	281
Experimental Mean		88	113	303	87	99	271	88	106	287	93	105	290
Standard Error		1.11			1.37								

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-ETP, Kharif 2024

Entry No	IET No	Zone IV-North Eastern			Zone V- Central								
		Tripura			Chhattisgarh								
		Lembuche rra			Jagadalpur			Ambikhapur			Raipur		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
3401	32373	102	102	300	90	110	245	88	107	180	90	121	197
3402	32374	106	92	400	92	95	200	85	110	188	88	117	182
3403	32375	106	96	325	92	120	272	86	133	188	120	164	159
3404	32376	103	86	412	85	90	220	80	110	154	86	117	178
3405	32377	102	84	300	99	127	256	88	127	235	95	143	234
3406	32378	102	98	350	98	115	236	86	118	174	90	134	197
3407	32379	101	94	275	101	96	238	99	103	194	104	134	190
3408	32380	100	101	250	96	97	299	97	110	242	96	109	162
3409	32381	98	78	250	88	104	228	82	111	222	88	122	202
3410	32382	102	94	362	98	133	282	98	134	210	98	181	180
3411	32383	96	102	300	92	108	270	92	109	203	102	118	226
3412	32384	98	90	338	110	103	260	98	110	204	99	134	249
3413	32385	104	94	225	100	87	134	98	96	200	98	106	164
3414	32386	104	102	338	92	111	292	85	102	226	101	116	163
3415	32387	102	98	300	85	108	290	80	111	176	88	116	190
3416	32388	100	88	475	92	105	280	87	106	200	92	127	206
3417	32389	96	111	438	89	105	324	80	120	182	88	137	198
3418	32390	96	103	300	92	85	246	83	92	240	92	103	248
3419	32391	106	112	375	88	90	276	78	112	166			
3420	CO-51 (NC)	118	86	312	84	96	292	77	108	228	80	111	244
3421	32392	114	80	312	103	109	250	98	117	189	100	120	224
3422	32393	102	92	338	96	89	274	86	106	194	90	128	192
3423	32394	100	91	312	88	80	316	86	93	240	92	104	252
3424	32395	116	101	338	88	111	284	82	113	131	90	122	154
3425	32396	100	106	462	98	108	310	90	104	188	94	127	194
3426	32397	102	86	338	91	121	254	78	144	204	86	155	152
3427	32398	102	81	300	88	99	288	82	110	219	88	119	189
3428	32399	98	82	250	88	100	268	84	110	221	90	116	220
3429	32400	101	98	275	92	100	218	86	110	181	86	117	224
3430	32401	98	103	475	84	88	231	75	91	206	82	111	232
3431	32402	106	80	512	96	108	248	86	123	164	90	138	190
3432	32403	104	94	338	88	102	251	84	123	152	90	141	196
3433	32404	100	116	350	101	89	321	88	102	211	96	127	212
3434	32405	101	106	450	88	111	255	86	113	178	88	119	194
3435	32406	110	90	312	104	101	255	89	108	206	92	130	219
3436	32407	100	101	238	92	115	220	84	118	155	92	119	152
3437	32408	88	82	325	101	107	272	97	108	276	94	128	169
3438	32409	104	97	300	98	101	276	88	108	221	94	121	227
3439	32410	106	95	338	88	89	232	77	106	216	78	104	198
3440	32411	104	98	388	84	79	206	82	97	218	82	96	206
3441	32412	104	81	350	96	116	238	86	116	191	94	137	232
3442	ZC	118	86	250	88	108	286	82	114	202	86	126	213
3443	32413	102	97	425	99	109	320	84	107	200	94	122	226
3444	32414	112	106	312	88	95	248	78	102	222	88	108	202
3445	32415	104	86	400	97	97	310	85	96	198	96	106	218
3446	32416	101	86	262	98	107	325	86	97	154	98	129	271
3447	32417	103	86	375	88	86	240	87	99	240			
3448	32418	108	104	375	97	86	257	98	93	268	112	109	208
3449	32419	112	116	262	104	86	292	98	92	216	100	98	241
3450	32420	98	96	350	88	101	283	77	113	211	88	118	188
3451	32421	105	88	238	92	98	253	85	107	210			
3452	32422	99	100	500	103	88	266	98	94	235	98	111	144
3453	32423	100	78	212	92	113	276	92	114	188			
3454	32424	102	86	625	100	96	305	97	92	242	96	106	174
3455	32425	100	98	438	92	97	268	85	103	216	94	110	230
3456	32426	102	72	450	101	94	271	87	98	218	96	116	208
3457	32427	104	92	312	92	100	280	98	110	176	92	128	230
3458	32428	99	96	450	87	98	282	82	105	178	86	120	199
3459	32429	100	110	275	88	96	250	80	98	210	88	111	166
3460	32430	102	76	388	104	105	277	97	110	206	100	126	260
3461	32431	102	88	500	97	120	271	92	132	218	97	136	212
3462	32432	96	66	712	97	111	246	92	109	214			
3463	32433	100	100	488	90	101	276	82	99	224	92	120	216
3464	LC	97	88	338	90	106	226	81	111	174	94	114	208
Experimental Mean		102	93	357	93	101	264	86	108	203	92	122	203
Standard Error		1.09			0.69			0.98			0.91		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-ETP, Kharif 2024

Entry No	IET No	Zone V- Central											
		Chhattisgarh (3)			Maharashtra						Maharashtra (2)		
		Mean			Sakoli			Sinde wahi			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3401	32373	89	113	207	84	114	248	96	118	258	90	116	253
3402	32374	88	107	190	82	120	268	92	114	276	87	117	272
3403	32375	99	139	206	100	169	238	103	175	276	102	172	257
3404	32376	84	106	184	104	126	222	86	108	256	95	117	239
3405	32377	94	132	242	100	154	257	100	147	264	100	150	260
3406	32378	92	122	202	92	134	241	102	124	280	97	129	260
3407	32379	101	111	207	98	136	254	108	110	266	103	123	260
3408	32380	96	106	234	94	130	268	98	126	326	96	128	298
3409	32381	86	112	217	88	120	257	96	121	328	92	121	292
3410	32382	98	149	224	99	155	238	93	152	290	96	154	264
3411	32383	95	112	233	88	125	230	92	119	290	90	122	260
3412	32384	102	116	238	114	129	244	106	125	278	110	127	261
3413	32385	99	96	166	94	118	259	104	92	235	99	106	247
3414	32386	93	110	227	96	126	257	103	125	289	100	126	273
3415	32387	84	112	218	90	124	236	94	121	330	92	122	283
3416	32388	90	113	229	90	126	256	99	109	284	95	118	270
3417	32389	86	120	235	90	134	227	94	130	251	92	132	239
3418	32390	89	93	244	84	114	270	94	97	299	89	106	284
3419	32391	83	101	221	80	118	206	90	102	250	85	110	228
3420	CO-51 (NC)	80	105	255	80	112	254	91	103	313	86	108	283
3421	32392	100	115	221	94	130	246	103	105	288	99	118	268
3422	32393	90	108	220	85	114	262	96	116	338	90	114	300
3423	32394	89	93	269	88	109	252	97	100	324	93	104	288
3424	32395	87	115	190	86	120	210				86	120	210
3425	32396	94	113	231	84	126	270	95	118	330	90	122	300
3426	32397	85	140	203	86	142	226	88	156	336	87	149	281
3427	32398	86	109	232	90	124	242	96	114	332	93	119	286
3428	32399	88	108	236	88	128	264	96	125	293	92	126	279
3429	32400	88	109	208	82	122	262	93	105	330	87	114	296
3430	32401	80	97	223	90	92	222	84	96	320	87	94	270
3431	32402	90	123	201	88	130	232	101	126	295	94	128	264
3432	32403	88	122	200	85	134	251	98	127	274	92	130	262
3433	32404	95	106	248	94	120	278	102	105	279	98	112	278
3434	32405	87	114	209	84	120	278	101	127	306	93	124	292
3435	32406	95	113	226	94	127	258	92	128	311	93	127	285
3436	32407	89	117	176	90	126	262	93	108	232	92	117	247
3437	32408	97	114	239	94	133	238	102	126	340	98	130	290
3438	32409	93	110	241	92	132	261	101	155	298	96	144	280
3439	32410	81	100	215	92	92	243	80	102	240	86	97	241
3440	32411	83	91	210	80	86	241	96	88	326	88	87	284
3441	32412	92	123	220	90	132	220	102	128	332	96	130	276
3442	ZC	85	116	234	86	120	241	94	116	254	90	118	248
3443	32413	92	112	249	90	118	277	102	115	272	96	117	274
3444	32414	85	102	224	88	132	264	96	108	315	92	120	289
3445	32415	92	100	242	94	130	258	98	109	341	96	120	300
3446	32416	94	111	250	94	133	278	92	106	238	94	120	258
3447	32417	88	93	240	80	114	250	93	107	320	87	110	285
3448	32418	103	96	244	116	111	263	118	106	343	117	108	303
3449	32419	101	92	249	98	110	288	104	92	268	101	101	278
3450	32420	84	111	227	86	126	278	93	114	299	89	120	289
3451	32421	88	102	231	90	135	270	98	126	306	94	130	288
3452	32422	100	98	215	94	122	268	76	110	262	84	116	265
3453	32423	92	113	232	94	144	281	96	126	282	95	135	281
3454	32424	98	98	240	94	114	268	106	103	292	100	108	280
3455	32425	90	103	238	90	122	274	93	104	238	91	113	256
3456	32426	94	103	233	92	132	249	102	119	280	98	126	265
3457	32427	94	112	229	84	129	258	96	102	263	90	116	261
3458	32428	85	108	220	84	124	250	91	106	302	88	115	276
3459	32429	85	102	209	86	128	288	96	110	244	91	119	266
3460	32430	100	114	247	92	136	241	100	123	316	96	130	278
3461	32431	95	129	234	90	152	282	95	128	260	92	140	271
3462	32432	94	110	230	94	145	270	102	120	311	98	132	290
3463	32433	88	107	239	88	124	276	95	106	330	91	115	303
3464	LC	88	110	203	90	106	282	102	111	348	96	108	315
Experimental Mean		91	110	224	90	125	254	96	116	292	94	121	273
Standard Error					0.48			0.59					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-ETP, Kharif 2024

Entry No	IET No	Zone V- Central (5)			Zone VI- Western								
		Mean			Gujarat						Gujarat (2)		
		DFF	PH	PAN	Vyra			Nawagam			Mean		
					DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	32373	89	114	226	91	116	218	103	105	281	97	111	249
3402	32374	88	111	223	91	108	208	102	98	268	96	103	238
3403	32375	100	152	227	121	154	250	146	146	260	133	150	255
3404	32376	88	110	206	83	100	210	92	111	268	87	105	239
3405	32377	96	140	249	102	136	235	104	139	276	102	137	256
3406	32378	94	125	226	95	120	222	101	124	274	98	122	248
3407	32379	102	116	229	100	139	245	136	138	282	118	139	264
3408	32380	96	114	260	98	116	228	102	128	280	100	122	254
3409	32381	89	116	247	87	104	202	93	117	270	90	111	236
3410	32382	97	151	240	105	153	250	104	169	264	105	161	257
3411	32383	93	116	244	93	115	248	94	124	272	94	120	260
3412	32384	105	120	247	103	124	185	126	149	286	114	137	236
3413	32385	99	100	198	95	108	256	94	110	282	94	109	269
3414	32386	96	116	246	101	114	202	94	122	280	97	118	241
3415	32387	87	116	244	90	110	245	91	117	282	90	113	264
3416	32388	92	115	245	88	122	208	92	121	278	90	122	242
3417	32389	88	125	237	91	121	228	93	132	275	92	126	251
3418	32390	89	98	260	91	96	242	92	92	274	92	94	258
3419	32391	84	105	224	95	98	134	102	123	278	98	110	206
3420	CO-51 (NC)	83	106	266	85	102	222	85	101	280	85	102	251
3421	32392	100	116	240	85	128	235	104	131	280	94	130	258
3422	32393	90	110	252	90	113	225	91	117	282	90	115	254
3423	32394	90	97	277	87	102	255	91	97	284	89	100	270
3424	32395	87	116	195	91	119	208	91	103	284	91	111	246
3425	32396	92	117	258	95	104	215	90	120	283	92	112	249
3426	32397	86	144	234	84	155	190	90	149	276	87	152	233
3427	32398	89	113	254	87	112	282	92	121	285	89	117	284
3428	32399	89	116	253	96	108	252	90	114	286	94	111	269
3429	32400	88	111	243	84	114	262	90	120	284	87	117	273
3430	32401	83	96	242	78	86	190	86	104	256	82	95	223
3431	32402	92	125	226	94	116	225	91	122	282	92	119	253
3432	32403	89	125	225	88	119	210	90	124	276	89	122	243
3433	32404	96	109	260	97	112	225	103	118	276	100	115	251
3434	32405	90	118	242	86	111	230	92	118	280	89	114	255
3435	32406	94	119	250	94	121	240	101	123	274	98	122	257
3436	32407	90	117	204	92	123	190	102	120	268	97	122	229
3437	32408	98	121	259	100	124	208	99	125	279	99	124	243
3438	32409	95	124	257	92	126	268	102	119	280	96	123	274
3439	32410	83	99	226	73	88	192	86	85	270	80	86	232
3440	32411	85	89	240	84	96	264	90	98	270	87	97	267
3441	32412	93	126	243	90	123	258	100	122	285	96	122	271
3442	ZC	87	117	239	88	109	212	90	117	280	89	113	246
3443	32413	94	114	259	91	117	245	92	114	280	91	115	262
3444	32414	88	109	250	86	110	245	90	109	276	88	110	261
3445	32415	94	108	265	101	112	232	102	105	283	101	108	258
3446	32416	94	115	253	93	122	245	100	114	280	96	118	262
3447	32417	87	102	262	98	109	172	90	103	276	94	106	224
3448	32418	108	101	268	114	117	248	102	123	289	108	120	268
3449	32419	101	96	261	98	102	270	104	101	286	101	102	278
3450	32420	86	115	252	86	108	228	92	100	270	89	104	249
3451	32421	91	116	259	96	121	230	94	117	275	95	119	252
3452	32422	94	105	235	97	111	232	104	110	274	100	110	254
3453	32423	94	124	257	100	125	178	100	122	277	100	123	227
3454	32424	98	102	256	98	100	212	101	102	283	100	100	248
3455	32425	91	107	245	98	97	188	100	102	280	99	100	234
3456	32426	96	112	246	98	120	215	101	121	274	100	121	244
3457	32427	92	114	242	90	109	220	92	121	286	91	115	253
3458	32428	86	111	242	98	96	220	91	102	286	94	99	253
3459	32429	88	109	232	91	109	248	91	100	280	91	104	264
3460	32430	99	120	260	98	114	216	94	126	280	96	120	248
3461	32431	94	134	249	100	123	225	92	116	282	96	120	254
3462	32432	96	121	260	97	124	208	94	136	272	96	130	240
3463	32433	90	110	265	92	107	208	95	119	284	94	113	246
3464	LC	91	110	248	95	103	262	90	122	280	92	113	272
Experimental Mean		92	115	244	93	114	225	97	117	277	95	116	252
Standard Error						1.4			0.72				

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-ETP, Kharif 2024

Entry No	IET No	Zone VI- Western									Zone VI- Western (4)		
		Maharashtra						Maharashtra (2)			Mean		
		Radhanagari			Karjat			Mean			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3401	32373	94	103	232	86	103	197	90	103	214	94	107	232
3402	32374	96	94	152	87	108	198	92	100	175	94	102	206
3403	32375	100	118	216	103	175	279	101	146	247	117	148	251
3404	32376	88	84	186	93	87	176	90	86	181	89	96	210
3405	32377	100	114	220	94	139	213	97	126	216	100	132	236
3406	32378	98	116	252	96	113	261	97	114	256	97	118	252
3407	32379	100	94	228	98	137	184	99	116	206	108	127	235
3408	32380	100	87	210	93	117	159	96	102	184	98	112	219
3409	32381	98	96	226	88	109	236	93	103	230	92	107	233
3410	32382	102	106	216	99	162	195	100	134	205	102	148	231
3411	32383	96	88	205	95	115	241	96	101	223	95	110	242
3412	32384	108	102	212	101	118	234	104	110	223	109	123	229
3413	32385	105	89	222	92	119	200	98	104	211	96	106	240
3414	32386	96	90	213	92	115	196	94	103	204	96	110	223
3415	32387	94	92	202	94	112	199	94	102	200	92	108	232
3416	32388	98	90	132	89	118	217	93	104	174	92	113	208
3417	32389	98	104	129	86	113	206	92	108	168	92	117	209
3418	32390	98	82	212	84	108	236	91	95	224	91	94	241
3419	32391	102	96	170	87	109	203	94	102	187	96	106	196
3420	CO-51 (NC)	89	88	183	87	116	197	88	102	190	86	102	220
3421	32392	97	99	202	108	134	159	102	116	180	98	123	219
3422	32393	98	98	121	80	96	176	89	97	148	90	106	201
3423	32394	94	81	180	92	107	198	93	94	189	91	97	230
3424	32395	94	104	170	91	106	177	92	105	174	92	108	210
3425	32396	93	88	190	90	116	195	91	102	192	92	107	221
3426	32397	87	122	180	79	149	240	83	136	210	85	144	221
3427	32398	90	102	168	86	119	217	88	110	192	88	114	238
3428	32399	96	104	236	90	114	221	93	108	228	93	110	249
3429	32400	98	98	178	91	109	194	95	103	186	91	110	229
3430	32401	84	82	212	92	89	214	88	86	213	85	90	218
3431	32402	96	126	175	94	120	199	95	123	187	94	121	220
3432	32403	98	104	204	84	124	248	91	114	226	90	118	235
3433	32404	102	84	157	103	102	195	102	93	176	101	104	213
3434	32405	92	100	211	86	104	167	89	102	189	89	108	222
3435	32406	100	104	185	91	121	241	96	112	213	97	117	235
3436	32407	98	106	210	94	122	193	96	114	201	96	118	215
3437	32408	100	104	250	90	129	252	95	116	251	97	120	247
3438	32409	96	109	198	98	138	238	97	124	218	97	123	246
3439	32410	84	86	150	89	93	213	87	89	182	83	88	206
3440	32411	89	82	200	88	97	235	88	90	218	88	93	242
3441	32412	99	114	192	91	124	214	95	119	203	95	120	237
3442	ZC	100	94	177	85	99	174	92	96	176	91	105	211
3443	32413	100	94	226	89	112	184	94	103	205	93	109	234
3444	32414	91	94	204	89	108	179	90	100	192	89	105	226
3445	32415	100	89	218	92	112	199	96	100	209	98	104	233
3446	32416	100	94	188	96	113	270	98	103	228	97	111	245
3447	32417	90	93	256	80	104	170	85	98	213	90	102	219
3448	32418	112	96	186	115	114	235	114	105	210	111	112	239
3449	32419	104	78	202	103	103	238	104	90	220	102	96	249
3450	32420	96	90	132	84	117	205	90	103	168	90	104	208
3451	32421	100	98	182	91	128	185	96	113	184	95	116	218
3452	32422	102	82	204	92	114	201	97	98	202	99	104	228
3453	32423	98	106	196	101	128	258	100	116	227	100	120	227
3454	32424	95	73	218	91	106	223	93	90	220	96	95	234
3455	32425	100	85	195	95	103	194	97	94	194	98	97	214
3456	32426	100	96	162	90	129	206	95	113	184	97	117	214
3457	32427	100	102	195	84	108	198	92	105	196	92	110	225
3458	32428	96	98	168	88	103	217	92	100	192	93	100	223
3459	32429	99	96	193	87	108	167	93	102	180	92	103	222
3460	32430	101	102	224	89	122	212	95	112	218	96	116	233
3461	32431	97	111	178	89	133	167	93	122	172	94	121	213
3462	32432	99	99	140	94	133	228	96	116	184	96	123	212
3463	32433	100	95	208	89	108	204	94	102	206	94	107	226
3464	LC	96	92	112	89	92	225	92	92	169	92	102	220
Experimental Mean		97	96	192	91	115	208	94	106	201	95	111	226
Standard Error		0.97			0								

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-ETP, Kharif 2024

Entry No	IET No	Zone VII- Southern											
		Andhra Pradesh						Andhra Pradesh (2)			Karnataka		
		Ragolu			Maruteru			Mean			Mandya		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3401	32373	84	120	315	78	125	314	81	123	314	92	91	258
3402	32374	80	108	238	76	113	268	78	110	253	87	86	286
3403	32375	86	143	214	102	162	284	94	152	249	86	117	276
3404	32376	78	104	300	74	110	297	76	107	299	91	91	289
3405	32377	86	139	311	84	144	320	85	142	315	91	119	310
3406	32378	84	126	251	82	140	292	82	133	271	94	104	276
3407	32379	98	121	208	88	143	316	93	132	262	101	98	296
3408	32380	82	107	305	81	118	300	82	113	303	86	85	272
3409	32381	78	122	295	82	134	287	80	128	291	92	94	304
3410	32382	86	166	284	101	155	258	94	160	271	90	128	289
3411	32383	88	123	284	86	117	262	87	120	273	98	105	289
3412	32384	90	130	264	89	139	294	89	134	279	84	95	306
3413	32385	88	105	261	87	101	317	87	103	289	104	84	326
3414	32386	86	123	257	89	123	316	88	123	287	88	99	292
3415	32387	78	119	277	78	125	290	78	122	284	90	94	282
3416	32388	80	117	248	82	114	330	81	116	289	92	106	333
3417	32389	78	129	294	82	143	278	80	136	286	86	97	279
3418	32390	82	95	271	76	98	304	79	97	287	93	79	292
3419	32391	78	106	294				78	106	294			
3420	CO-51 (NC)	74	110	314	70	112	280	72	111	297	102	89	262
3421	32392	92	125	208	89	137	317	90	131	262	92	102	306
3422	32393	80	122	229	82	116	307	81	119	268	96	97	326
3423	32394	80	96	271	80	100	284	80	98	277	86	75	258
3424	32395	79	113	261				79	113	261	86	100	262
3425	32396	84	129	254	81	131	307	83	130	281	92	102	279
3426	32397	72	153	294	82	159	267	76	156	280	88	130	340
3427	32398	78	119	241	79	117	304	79	118	272	88	100	344
3428	32399	80	116	310	76	122	297	78	119	304	91	94	336
3429	32400	80	108	264	80	105	264	80	107	264	86	97	316
3430	32401	68	99	300	76	95	278	72	97	289	84	80	296
3431	32402	84	130	274	82	133	280	83	132	277	84	118	304
3432	32403	78	132	277	77	137	251	78	135	264	86	106	304
3433	32404	84	106	304	88	115	306	86	111	305	85	81	316
3434	32405	76	114	310	77	113	264	77	114	287	92	99	299
3435	32406	82	126	277	80	135	317	81	131	297	92	98	279
3436	32407	80	126	309	82	126	264	81	126	286	90	92	310
3437	32408	84	113	320	85	132	280	85	123	300	91	101	316
3438	32409	84	119	271	83	132	320	83	126	295	99	95	320
3439	32410	68	110	304	83	92	287	76	101	295	93	92	316
3440	32411	76	83	307	76	103	294	76	93	300	96	67	320
3441	32412	80	129	284	83	126	324	81	128	304	90	99	323
3442	ZC	80	112	312	78	120	327	78	116	319	88	92	302
3443	32413	84	120	307	83	118	304	83	119	305	90	86	286
3444	32414	78	118	309	74	97	294	76	107	301	90	85	340
3445	32415	84	103	305	84	120	314	84	112	309	90	80	320
3446	32416	82	126	312	83	127	267	83	127	289	90	93	292
3447	32417	80	109	305	76	110	320	78	109	313			
3448	32418	74	115	310	106	104	259	90	109	285	103	80	289
3449	32419	90	104	290	104	103	330	97	103	310	92	78	326
3450	32420	76	109	299	80	123	287	78	116	293	91	87	292
3451	32421	82	125	297				82	125	297	92	96	268
3452	32422	88	105	297	90	101	290	90	103	294	102	80	316
3453	32423	86	135	309				86	135	309	91	92	289
3454	32424	76	97	312	84	105	297	80	101	304	101	80	336
3455	32425	80	109	315	84	115	294	82	112	305	87	89	376
3456	32426	82	124	294	82	120	320	82	122	307	86	92	292
3457	32427	82	121	300	80	117	310	82	119	305	100	104	313
3458	32428	78	101	304				78	101	304	90	92	330
3459	32429	80	100	320	78	113	306	78	107	313	90	84	292
3460	32430	87	126	299	86	136	310	86	131	305	86	92	286
3461	32431	82	144	264	85	137	258	84	141	261	84	106	310
3462	32432	86	127	224				86	127	224	84	82	302
3463	32433	84	115	317	83	124	307	83	120	312			
3464	LC	83	110	261	76	119	278	79	114	269	88	92	308
Experimental Mean		81	117	284	82	121	294	82	120	289	90	94	302
Standard Error		0.35			1.25						1.25		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-ETP, Kharif 2024

Entry No	IET No	Zone VII- Southern											
		Karnataka			Karnataka (2)			Kerala					
		Gangavati			Mean			Monocompu			Pattambi		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3401	32373	100	88	311	96	89	285	80	121	273	83	87	468
3402	32374	94	96	315	91	91	300	84	108	190	82	77	173
3403	32375	94	132	328	90	124	302	90	173	253	94	144	266
3404	32376	84	90	284	88	90	286	80	113	213	82	75	407
3405	32377	101	124	264	96	121	287	90	146	216	82	101	406
3406	32378	100	120	308	98	112	292	80	144	293	79	93	367
3407	32379	100	110	284	101	104	290	84	122	333	91	97	241
3408	32380	95	100	355	91	93	314	90	110	273	92	94	346
3409	32381	94	108	309	93	101	307	81	121	233	88	94	372
3410	32382	96	139	317	92	133	303	90	158	256	95	116	490
3411	32383	96	98	320	97	101	304	90	120	230	84	95	382
3412	32384	98	92	294	92	93	300	90	137	280	92	95	367
3413	32385	102	94	292	103	89	310	90	109	246	91	77	205
3414	32386	94	100	325	91	99	309	90	119	230	88	100	382
3415	32387	92	101	331	91	98	307	78	123	260	80	88	518
3416	32388	94	96	320	93	101	327	84	118	320	82	101	338
3417	32389	90	112	270	88	105	274	80	129	220	81	89	348
3418	32390	94	100	336	94	90	314	90	100	263	82	76	331
3419	32391							82	118	266	80	67	501
3420	CO-51 (NC)	90	102	328	96	95	294	76	115	263	77	81	523
3421	32392	88	103	300	90	102	303	90	112	243	92	101	399
3422	32393	94	100	296	95	98	311	82	120	243	81	86	508
3423	32394	94	88	318	90	82	288	84	101	256	82	84	554
3424	32395	96	116	344	91	108	303	90	119	190	90	98	367
3425	32396	98	97	256	95	100	268	90	116	273	81	73	324
3426	32397	86	128	284	87	129	312	79	159	226	83	104	270
3427	32398	94	100	302	91	100	323	82	125	223	81	95	382
3428	32399	94	100	342	92	97	340	80	117	266	82	90	583
3429	32400	94	100	260	90	99	288	79	109	233	80	86	316
3430	32401	86	94	342	86	87	318	79	104	210	84	79	677
3431	32402	95	111	321	89	114	313	84	140	243	82	96	434
3432	32403	94	118	339	90	112	322	76	127	260	93	95	550
3433	32404	96	97	317	90	89	317	84	98	253	88	103	374
3434	32405	94	100	326	93	100	312	76	117	263	83	95	442
3435	32406	97	114	360	94	106	319	90	123	273	83	82	292
3436	32407	88	102	312	90	97	311	83	121	263	82	102	331
3437	32408	102	110	268	96	105	292	90	123	280	92	95	338
3438	32409	96	103	272	97	99	296	90	124	206	92	106	209
3439	32410	84	84	278	88	88	297	76	110	260	76	83	310
3440	32411	98	80	222	97	74	271	83	90	240	90	75	306
3441	32412	96	105	313	93	102	318	79	121	220	84	111	371
3442	ZC	94	102	314	91	97	308	76	114	240	83	94	425
3443	32413	102	91	270	96	88	278	77	111	296	88	98	407
3444	32414	94	98	312	92	91	326	78	111	290	82	92	436
3445	32415	98	95	322	94	87	320	83	110	256	94	95	509
3446	32416	97	100	286	94	96	289	90	108	306	91	101	536
3447	32417	88	96	298	88	96	298	81	107	256	79	93	306
3448	32418	108	84	285	105	82	287	76	120	293	86	100	223
3449	32419	105	82	304	98	80	315	90	105	206	88	76	367
3450	32420	90	102	324	90	94	308	76	114	270	81	100	259
3451	32421	94	98	314	94	97	291	82	123	223	84	96	392
3452	32422	102	90	274	102	85	296	90	106	240	85	85	259
3453	32423				91	92	289	90	117	256	87	99	547
3454	32424	102	82	258	102	81	298	82	105	286	82	98	443
3455	32425	96	99	272	91	94	324	83	112	276	91	101	435
3456	32426	96	101	306	92	97	300	90	112	203	94	89	223
3457	32427	96	92	288	98	98	301	90	117	223	80	88	378
3458	32428	92	98	314	91	94	322	84	105	233	82	85	349
3459	32429	96	90	279	93	87	286	76	108	333	84	95	367
3460	32430	102	112	334	94	102	310	90	126	253	92	105	266
3461	32431	87	116	284	86	111	296	90	133	236	94	90	352
3462	32432				84	82	302	90	123	306	92	85	295
3463	32433	97	99	295	97	99	295	75	111	243	92	83	403
3464	LC	91	106	338	90	99	323	90	117	233	80	84	482
Experimental Mean		95	101	303	93	98	303	83	118	253	85	92	381
Standard Error		1.23						0.66			2.24		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-ETP, Kharif 2024

Entry No	IET No	Zone VII- Southern											
		Kerala (2)			Puducherry			Telangana					
		Mean			Kurumbapet			Jagtial			Kampasagar		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3401	32373	82	104	371	86	88	375	89	136	396	104	107	284
3402	32374	83	92	181	84	82	405	88	120	385	100	92	284
3403	32375	92	159	260	90	116	375	98	106	360	98	122	266
3404	32376	81	94	310	80	92	315	90	122	387	88	89	316
3405	32377	86	124	311	90	97	495	104	140	358	105	140	300
3406	32378	80	118	330	88	96	255	96	116	365	96	115	334
3407	32379	88	110	287	92	104	345	89	110	356	108	120	300
3408	32380	91	102	309				94	107	352	100	104	384
3409	32381	84	107	302	82	92	480	94	110	378	101	79	383
3410	32382	92	137	373	92	107	420	100	109	363	108	141	383
3411	32383	87	107	306	88	93	390	100	109	374	94	104	334
3412	32384	91	116	323	95	100	360				107	112	350
3413	32385	90	93	226	94	90	450	88	132	343	109	95	434
3414	32386	89	109	306	83	86	405	94	111	358	102	101	284
3415	32387	79	106	389	82	91	510	94	130	354	98	102	384
3416	32388	83	109	329	80	86	390	94	130	352	91	106	350
3417	32389	80	109	284				86	119	370	100	113	266
3418	32390	86	88	297	83	83	405	98	100	418	102	80	366
3419	32391	81	93	384	84	94	405	95	116	354	104	89	434
3420	CO-51 (NC)	77	98	393	80	90	420	98	122	394	88	90	383
3421	32392	91	106	321	94	96	420	100	124	345	108	121	466
3422	32393	82	103	375	81	96	345	89	115	334	90	96	384
3423	32394	83	93	405	92	100	480	86	108	380	98	96	366
3424	32395	90	109	279	84	92	435	94	116	348	98	109	300
3425	32396	86	95	298	86	88	420	96	134	328	92	104	400
3426	32397	81	132	248	96	96	390	86	106	365	96	109	316
3427	32398	82	110	302	80	94	555	95	132	317	92	130	350
3428	32399	81	104	425	82	89	465	88	164	339	96	107	366
3429	32400	79	98	275	76	80	375	112	101	392	92	97	350
3430	32401	81	92	443	80	86	390	88	103	374	84	87	367
3431	32402	83	118	339	86	95	405	86	111	344	102	109	300
3432	32403	84	111	405	80	98	345	88	115	370	98	118	317
3433	32404	86	100	314	88	88	435	104	133	372	101	99	350
3434	32405	80	106	353	86	88	360	96	112	420	99	114	384
3435	32406	86	103	282				94	124	412	98	106	384
3436	32407	82	111	297	82	87	330	86	120	378	94	107	384
3437	32408	91	109	309	91	91	255	86	118	348	106	104	417
3438	32409	91	115	208	80	74	450	94	126	420	100	115	333
3439	32410	76	96	285	89	89	465	92	132	370	84	78	300
3440	32411	87	82	273				87	123	372	100	101	266
3441	32412	82	116	295				94	108	405	102	125	434
3442	ZC	79	104	332	78	82	300	99	174	368	92	88	334
3443	32413	82	104	352	83	90	315	90	123	392	102	103	334
3444	32414	80	102	363				100	104	411	101	101	384
3445	32415	89	103	383	88	91	420	88	110	416	104	94	350
3446	32416	90	104	421				89	124	338	104	111	466
3447	32417	80	100	281				95	133	360	94	96	400
3448	32418	81	110	258	98	90	345	90	140	356	108	101	300
3449	32419	89	90	287	92	90	450	83	98	407	99	88	333
3450	32420	78	107	264	79	88	390	94	150	378	94	105	375
3451	32421	83	109	308	94	102	540	80	100	387	102	81	316
3452	32422	88	96	249	90	94	345	91	130	341	98	95	316
3453	32423	88	108	402				88	107	416	107	110	366
3454	32424	82	102	365	88	80	480	90	115	366	100	84	450
3455	32425	87	107	356	84	90	450	90	134	380	102	97	300
3456	32426	92	101	213	82	92	390	87	100	431	108	106	366
3457	32427	85	102	301				88	113	412	90	108	350
3458	32428	83	95	291				85	105	366	105	83	316
3459	32429	80	102	350	81	86	390	92	121	385	98	91	384
3460	32430	91	116	260	93	96	390	86	96	378	98	112	366
3461	32431	92	112	294	88	102	465	91	178	380	85	115	383
3462	32432	91	104	301				96	134	368			
3463	32433	83	97	323	82	83	285	88	96	411	102	105	350
3464	LC	85	100	358	82	92	360	95	134	341	98	95	316
Experimental Mean		85	106	317	85	91	400	92	120	373	98	103	352
Standard Error						3.77			0.63			0.78	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-ETP, Kharif 2024

Entry No	IET No	Zone VII- Southern											
		Telangana						Telangana (4)			Tamil Nadu		
		Kunaram			Warangal			Mean			Tirur		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3401	32373	78	101	260	88	117	339	90	115	320	84	95	264
3402	32374	75	102	270	84	103	341	86	104	320	80	91	201
3403	32375	84	165	310	94	171	352	93	141	322	98	153	200
3404	32376	72	113	224	80	108	381	83	108	327	70	82	224
3405	32377	84	147	334	94	137	366	97	141	339	92	123	222
3406	32378	84	130	300	92	124	363	92	121	340	84	119	303
3407	32379	80	128	290	95	122	365	93	120	328	90	101	205
3408	32380	82	116	324	90	101	367	91	107	356	84	87	264
3409	32381	75	113	320	88	112	365	90	103	362	80	101	305
3410	32382	84	174	274	94	162	343	97	146	341	97	137	242
3411	32383	90	115	353	92	113	360	94	110	355	84	97	280
3412	32384	89	127	363	101	130	380	99	123	364	86	118	269
3413	32385	88	93	297	94	101	368	95	105	360	82	98	323
3414	32386	78	113	300	88	109	336	91	109	320	86	88	222
3415	32387	74	124	344	87	112	376	88	117	364	78	104	408
3416	32388	75	126	238	88	114	359	87	119	325	78	91	268
3417	32389	73	137	316	86	131	394	86	125	336	85	116	266
3418	32390	78	93	363	86	90	363	91	91	378	77	72	268
3419	32391							99	102	394	80	79	182
3420	CO-51 (NC)	70	113	307	80	91	352	84	104	359	76	75	202
3421	32392	90	129	294	94	117	346	98	123	363	94	93	288
3422	32393	77	118	323	85	111	376	85	110	354	80	95	282
3423	32394	77	95	264	88	92	350	87	98	340			
3424	32395	75	123	178	86	104	292	89	113	280	80	103	336
3425	32396	78	128	340	88	108	372	89	119	360	82	90	316
3426	32397	74	157	274	84	158	358	85	133	328	80	131	231
3427	32398	75	114	231	85	110	348	87	122	311	81	100	212
3428	32399	77	119	382	88	111	400	87	126	372	76	89	226
3429	32400	76	106	340	84	111	326	91	104	352	82	91	262
3430	32401	69	106	350	78	87	398	80	96	372	72	79	288
3431	32402	80	124	304	88	121	328	89	116	319	80	95	295
3432	32403	78	135	346	87	124	321	88	123	338	82	105	399
3433	32404	80	112	343	94	110	405	94	114	368	92	91	263
3434	32405	78	110	376	84	118	363	90	114	386	81	96	327
3435	32406	78	120	270	92	116	330	91	117	349	84	101	321
3436	32407	78	125	264	88	119	339	87	118	341	84	76	268
3437	32408	83	119	346	93	111	383	92	113	374	82	100	334
3438	32409	81	119	294	88	118	367	91	119	354	96	103	257
3439	32410	68	113	231	78	92	368	80	104	317	70	77	204
3440	32411	75	77	350	81	89	394	86	97	346	76	81	330
3441	32412	78	123	324	90	111	346	91	117	377	85	103	341
3442	ZC	76	120	340	88	98	378	89	120	355	82	77	286
3443	32413	77	112	300	90	99	360	90	109	346	76	88	315
3444	32414	76	110	336	86	108	380	90	106	378	80	83	192
3445	32415	80	115	370	89	104	392	90	106	382	88	93	244
3446	32416	81	118	340	94	113	385	92	117	382	88	102	289
3447	32417	75	106	268	84	99	363	87	109	348	78	91	294
3448	32418	106	95	314	107	109	400	103	111	343	98	85	310
3449	32419	90	93	290	96	98	368	92	94	350	78	89	290
3450	32420	73	120	300	84	102	376	86	120	357	80	101	393
3451	32421	82	118	234	88	109	378	88	102	329	78	101	262
3452	32422	84	90	297	91	97	360	91	103	329	88	93	362
3453	32423				93	117	370	96	111	384	76	95	311
3454	32424	90	90	333	91	96	382	93	96	383	84	82	277
3455	32425	77	113	389	90	108	378	90	113	362	86	103	328
3456	32426	76	114	294	90	105	359	90	106	362	84	80	368
3457	32427	80	115	284	91	111	334	87	112	345	74	90	334
3458	32428	73	108	270	84	95	330	87	98	321	76	79	231
3459	32429	74	104	363	86	105	374	88	105	376	80	101	224
3460	32430	83	122	287	93	111	334	90	111	342	90	99	272
3461	32431	81	136	310	88	119	356	86	137	358	84	102	261
3462	32432	78	118	396	90	123	346	88	125	370	80	106	264
3463	32433	76	119	310	90	106	394	89	106	366	86	84	312
3464	LC	82	107	330	88	108	376	91	111	341	80	89	288
Experimental Mean		79	116	309	88	111	362	90	113	350	82	95	279
Standard Error		0.67			0.65						0.55		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-ETP, Kharif 2024

Entry No	IET No	Zone VII- Southern						Zone VII- Southern (13)			Maharashtra (4)			Overall Mean (34)		
		Tamil Nadu			Tamil Nadu (2)			Mean			Mean			Mean		
		Adutrai			Mean			Mean			Mean			Mean		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3401	32373	100	99	348	92	97	306	88	106	323	90	110	234	91	107	283
3402	32374	94	88	366	87	89	284	85	97	286	90	109	224	89	101	266
3403	32375	104	120	352	100	136	276	94	140	295	101	159	252	101	140	277
3404	32376	92	89	353	81	86	288	82	98	307	93	101	210	86	101	273
3405	32377	96	108	330	94	115	276	92	128	326	98	138	238	96	127	288
3406	32378	96	93	328	90	106	316	89	117	310	97	122	258	92	116	280
3407	32379	94	92	336	92	96	270	93	113	298	101	120	233	100	114	266
3408	32380	99	97	297	91	92	280	90	102	320	96	115	241	95	107	285
3409	32381	92	99	356	86	100	330	87	106	338	92	112	261	90	106	300
3410	32382	102	119	347	99	128	294	95	139	328	98	144	234	98	139	277
3411	32383	104	99	329	94	98	304	92	107	322	93	112	241	94	110	291
3412	32384	96	94	328	91	106	299	93	114	321	107	118	242	100	116	295
3413	32385	89	91	352	85	94	337	93	98	324	99	105	229	96	100	278
3414	32386	94	96	318	90	92	270	89	105	310	97	114	239	94	107	281
3415	32387	87	85	257	82	95	332	84	108	353	93	112	242	89	109	298
3416	32388	87	106	349	82	98	309	85	109	323	94	111	222	91	108	291
3417	32389	86	72	347	86	94	307	85	116	304	92	120	203	89	115	285
3418	32390				77	72	268	87	89	332	90	100	254	90	94	293
3419	32391	94	87	348	87	83	266	87	95	348	90	106	207	90	102	287
3420	CO-51 (NC)	86	92	303	81	84	252	82	99	333	87	105	236	86	100	294
3421	32392	97	99	350	95	96	319	94	112	329	100	117	224	98	113	285
3422	32393	88	84	307	84	90	294	85	104	328	90	106	224	89	105	286
3423	32394	94	76	336	94	76	336	87	93	343	93	99	239	90	95	302
3424	32395	95	87	334	88	95	335	88	107	304	90	110	186	91	108	262
3425	32396	96	96	330	90	93	323	88	108	323	90	112	246	92	110	293
3426	32397	98	95	337	89	113	284	85	130	304	85	142	245	87	132	276
3427	32398	94	88	304	88	94	258	85	110	316	90	115	240	89	108	294
3428	32399	94	97	320	85	93	273	85	109	357	93	118	254	90	108	309
3429	32400	98	92	308	90	92	284	86	99	308	91	108	240	88	104	287
3430	32401	86	86	306	79	82	297	80	91	352	88	90	242	83	94	303
3431	32402	104	89	339	92	92	317	87	113	321	95	126	225	91	112	292
3432	32403	95	92	304	88	98	352	86	116	337	92	122	244	90	116	292
3433	32404	89	89	314	90	90	288	90	102	335	100	103	227	96	105	298
3434	32405	96	105	340	89	101	333	86	106	344	91	113	240	89	108	306
3435	32406				84	101	321	88	113	319	94	120	249	94	113	291
3436	32407	95	86	389	89	81	329	86	107	319	94	115	224	90	111	271
3437	32408	106	72	294	94	86	314	92	107	322	97	123	270	95	110	297
3438	32409	96	102	347	96	102	302	91	110	313	97	134	249	95	113	293
3439	32410	91	110	318	81	93	261	81	97	308	86	93	211	84	97	277
3440	32411	87	84	319	82	82	324	85	88	310	88	88	251	88	91	297
3441	32412	96	95	346	90	99	343	88	113	336	95	124	240	93	114	298
3442	ZC	84	90	282	83	83	284	84	105	324	91	107	212	89	102	287
3443	32413	97	79	297	87	83	306	88	101	322	95	110	240	92	104	293
3444	32414	86	85	334	83	84	263	85	99	335	91	110	240	89	104	292
3445	32415	96	75	308	92	84	276	90	99	348	96	110	254	94	102	313
3446	32416	98	84	356	93	93	322	91	109	348	96	111	243	95	109	306
3447	32417	95	79	362	86	85	328	84	102	321	86	104	249	88	102	292
3448	32418	98	96	354	98	90	332	97	101	311	116	107	256	105	102	286
3449	32419	114	86	339	96	88	314	94	92	331	102	96	249	98	95	301
3450	32420	85	86	308	83	93	350	83	107	327	90	112	228	87	107	290
3451	32421	99	86	292	89	94	277	88	103	325	95	122	236	92	107	289
3452	32422	99	84	338	94	89	350	92	96	311	91	107	234	96	100	291
3453	32423	104	106	322	90	100	316	91	109	354	97	126	254	95	112	292
3454	32424	94	90	352	89	86	314	90	93	352	96	99	250	95	95	317
3455	32425	100	87	346	93	95	337	88	104	349	94	104	225	93	103	302
3456	32426	95	90	282	89	85	326	89	102	318	96	119	224	94	105	286
3457	32427	92	97	351	84	94	342	87	106	323	91	110	228	91	108	292
3458	32428	103	102	362	90	91	296	86	96	309	90	108	234	89	100	283
3459	32429	84	96	356	82	99	290	84	100	336	92	110	223	89	102	294
3460	32430	94	92	326	92	95	299	91	110	316	96	121	248	95	111	294
3461	32431	97	110	334	91	106	298	87	122	323	92	131	222	92	121	290
3462	32432	94	100	321	87	103	292	88	111	314	97	124	237	94	113	302
3463	32433	88	84	308	87	84	310	87	101	328	93	108	254	92	103	302
3464	LC	96	90	320	88	90	304	87	103	326	94	100	242	90	103	289
Experimental Mean		94	92	329	89	94	304	88	106	325	94	114	237	92	108	290
Standard Error		1.9									0.52					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 2.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-ETP, Kharif 2024 (Not considered)

Entry No	IET No	ZONE III-EASTERN									ZONE IV- NORTH EASTERN			ZONE-V – CENTRAL		
		Uttar Pradesh									Assam			Madhya Pradesh		
		@Gorakhpur			@Masodha			@Prayagraj			@Gerua			@Rewa		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3401	32373	90	123	231	74	100	348	101	119	232	117		240	101	91	308
3402	32374	91	119	284	68	100	315	96	101	320	125		80	239	94	272
3403	32375	103	148	225	73	120	258	107	146	323	125		128	234	102	290
3404	32376	86	113	238	74	84	292	90	108	256	114		77	222	56	208
3405	32377	98	139	213	74	118	294	104	132	269	125		117	236	112	190
3406	32378	96	124	204	73	106	310	98	107	300	125		103	226	100	246
3407	32379	114	131	226	76	116	284	113	109	267	139		118	252	100	218
3408	32380	100	132	244	72	104	320	103	123	313	140		100	238	108	226
3409	32381	92	123	328	72	94	308	94	120	363	125		96	270	98	184
3410	32382	108	159	240	78	85	308	105	140	261	125		126	236	100	252
3411	32383	97	125	254	80	90	252	105	104	244	117		99	241	103	250
3412	32384	111	131	277	80	95	310	103	105	254	125		110	240	96	224
3413	32385	98	117	272	80	91	260	104	95	218	112		75	238	99	170
3414	32386	100	132	252	78	104	304	106	106	282	125		97	254	102	174
3415	32387	90	124	228	72	90	334	95	110	271	125		96	235	101	210
3416	32388	98	131	264	76	96	309	99	112	312	125		101	254	106	232
3417	32389	93	142	273	71	106	306	94	115	227	125		114	228	98	177
3418	32390	90	108	303	68	100	302	96	103	362	117		81	273	106	222
3419	32391	100	114	210	74	107	291	98	107	291				109	101	230
3420	CO-51 (NC)	86	112	228	68	76	318	92	111	345	117		88	251	104	256
3421	32392	93	133	264	88	106	300	109	113	265	131		108	250	109	259
3422	32393	88	120	254	72	114	282	95	105	306	125		86	240	100	292
3423	32394	94	103	253	72	89	303	100	129	250	125		88	240	95	186
3424	32395	89	121	202	76	106	261	102	115	234				108	92	159
3425	32396	92	128	246	74	104	317	103	114	231	112		92	251	104	260
3426	32397	89	158	220	72	129	256	94	151	311	125		120	237	100	162
3427	32398	90	121	258	69	88	252	97	117	274	125		99	252	111	272
3428	32399	94	123	239	82	90	294	100	116	359	125		97	245	98	194
3429	32400	87	123	320	100	121	274	96	109	291	117		99	244	97	311
3430	32401	81	94	342	82	90	287	86	90	260	112		76	235	99	248
3431	32402	94	124	294	74	102	342	95	106	222	125		98	228	94	210
3432	32403	97	143	268	72	106	294	101	108	332	125		101	260	104	237
3433	32404	106	119	252	82	104	302	102	105	395	125		96	234	104	320
3434	32405	92	127	306	70	103	288	96	108	318	125		104	239	100	296
3435	32406	94	129	212	74	105	282	101	127	289	117		104	288	102	299
3436	32407	100	130	278	74	100	308	101	121	251				96	104	222
3437	32408	96	124	290	76	90	234	105	116	300	131		105	299	100	177
3438	32409	100	128	255	74	84	262	105	128	329	131		108	222	106	252
3439	32410	85	106	286	74	88	278	83	98	168	112		80	248	98	236
3440	32411	82	100	216	68	79	338	93	107	264	125		81	250	102	236
3441	32412	98	123	321	76	106	319	105	110	285	125		102	255	104	226
3442	ZC	81	84	230	70	72	292	95	113	256	112		66	282	102	147
3443	32413	93	120	254	76	86	250	103	123	248	116		100	234	106	179
3444	32414	92	124	300	72	96	346	97	114	351	117		91	246	102	188
3445	32415	98	116	275	78	92	284	106	95	276	125		97	250	98	184
3446	32416	100	122	258	76	94	292	103	112	232	131		107	262	104	158
3447	32417	99	120	210	80	77	328	95	98	217				103	116	287
3448	32418	130	109	262	106	110	248	93	99	259	139		101	284	90	210
3449	32419	97	105	296	73	74	290	104	97	281	112		76	246	106	148
3450	32420	92	124	273	74	91	282	98	116	282	125		93	233	96	112
3451	32421	96	131	282	76	98	300	103	117	260				103	102	160
3452	32422	98	116	296	74	102	295	101	96	253	112		79	283	104	146
3453	32423	100	132	272	71	70	291	106	116	299				98	95	253
3454	32424	96	106	308	74	84	322	103	97	289	112		86	286	102	216
3455	32425	96	120	220	76	84	306	102	100	280	125		94	260	100	224
3456	32426	97	120	261	84	96	318	104	126	299	125		95	222	96	184
3457	32427	90	124	252	73	98	337	102	114	268	117		99	219	90	218
3458	32428	90	106	258	70	74	346	100	102	284	117		84	262	104	180
3459	32429	92	117	241	80	98	296	99	100	262	125		94	267	90	164
3460	32430	98	125	280	78	110	288	107	116	324	125		107	226	93	154
3461	32431	93	129	198	73	104	302	101	130	285	117		112	246	105	254
3462	32432	101	128	228	74	90	294	103	115	273				98	107	222
3463	32433	96	117	254	74	94	290	104	109	306	125		102	274	106	178
3464	LC	98	116	255	71	78	262	96	106	243	121		108	238	99	200
Experimental Mean		95	122	258	75	96	296	99	112	280	122		97	248	100	218

**ADVANCE VARIETY TRIAL 2 & 1-IRRIGATED MIDEARLY
(AVT 2 & 1- IME)**

Locations: 52

Test Entries: 35

Checks: Gontra Bidhan-3 (National); PR 113-(Northern), Lalat (Eastern and North Eastern), Karjat 7 (Western), MTU 1010 (Central and Southern)-Zonal; US 312-Hybrid and Local Check **Table: 3.0**

Advanced Variety Trial 2 & 1- Irrigated Mid Early (AVT 2 & 1-IME) was constituted with 35 test entries of which 12 and 23 were evaluated in third and second years of testing respectively. In third year, two varietal and 10 hybrid entries while in second year, 11 varietal and 12 hybrid entries were evaluated along with four checks. 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 were used in the trial. The trial was sent to 52 locations across II, III, IV, V, VI and VII zones, and the data was received from all the locations except Chatha. The range of various parameters across the zones is presented in the following table 3.1, 3.2, 3.3 and 3.4. Perusal of the zonal mean yield data suggests that one of the checks were poor yielding and particularly locations falling in central and western zones except Ambikapur and Bilaspur should replace the existing local checks with best performing varieties.

Zones	II	III	IV	V	VI	VII
Zonal mean(kg/ha)	4792 (HC)-6481 (IET31448)	4589 (NC)-6738 (IET30578)	2578 (NC)-6665 (IET30578)	4644 (LC)-6437 (IET31452)	4362 (LC)-6305 (IET31603)	5223 (NC)-6978 (IET31461)
Exp Mean (kg/ha)	4489 (NGN)- 7888 (KUL)	4777 (RCI)-9537 (BNK)	4219 (TTB)-5008 (LMB)	3887(REW)-7264 (RPR)	4959 (NAV)-6249 (VDG)	4000(BRM)-8974 (RNR)
CV%	6.01 (KUL)-19.08 (PNT)	4.61 (VRN)-13.55(HTW)	7.53(LMB)-7.77(TTB)	5.51(JBL)-13.07(SND)	7.06(VDG)-12.3(VYR)	4.81(KRB)-16.37(MCP)
DFP	93(IET30574, NC)-127 (IET30713)	98(NC)-115(IET30713)	89(NC)-115(IET30713)	89(NC)-109(IET30713)	88(NC)-108 (IET30713)	90(ZC)-102 (IET30692, 30713)
PH (cm)	97(IET30713)-123(IET31452)	94(NC)-144(IET31462)	97(IET31589)-121(ZC)	101(IET30713)-123(IET30593)	89(ZC)-121 (IET31452)	92(ZC)-106 (IET31452)
Pan/m ²	246(NC)-321(LC)	235(NC)-393(IET30574)	241(IET31448)-356(IET31611)	193(NC)-239(IET30713)	232 (IET31603)-295 (IET31448)	382(ZC)-438 (IET31589)
DNI	KNP-F(ns)	CHP-CV (exp.mean) MSD-CV(low) MLD-F(ns)	GER-CV (high) & exp. mean(low)	JDP-F(ns)	--	KTG-CV(low)
Locations considered	4	9	2	7	6	15

Among the entries that completed three years of testing, five hybrid (IETs 30575, 30577, 30578, 30579 and 30593) and one varietal (IET 30756) entries recorded required significant yield superiority and their three years performance is presented as a table. Among the entries that were in the second year of testing, five varietal (IETs 31608, 30692, 30713, 31603 and 31589) and four hybrid (IETs 31448, 31452, 31461 and 31466) entries recorded required significant yield superiority.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of the entries with required significant yield superiority over checks in AVT 2 &1 IME during *kharif* 2024

IET No / Designation / Cross combination	Zonal performance-Yield (kg/ha); Rank						Promoted
	II	III	IV	V	VI	VII	
Entries in third year of testing							
30575 (H) (RALLIS-21304)	--	6651(2)*#	--	--	--	--	Three years completed
30577 (H) (HRI-216)	--	6539(4)*#	--	6344(2)*#	--	--	
30578 (H) (RNC-0752)	--	6738(1)*#	6665(1)*#	--	--	6761(3)*#	
30579 (H) (JKRH-1135)	--	6478(6)*#	--	--	--	--	
30593 (H) (LG-90303)	--	--	--	6017(6)*#	--	6786(2)*#	
30756 (RP6693-16-388) Swarna/MTU1010	--	6150*	--	--	--	--	
31608 (CR4396-291-2-6) Lalat MAS*2/CR Dhan 801	--	--	4950(6)*	--	--	--	IV
Entries in second year of testing							
30692 (NDR8806-TFR-3) MTU1010/Bauni PB Mutant	--	--	4848(9)*	--	--	--	IV
30713 (CR4077-1357-5-4-2-1-1) PKV HMT/Vandana	--	6200*	5306(3)*#	--	--	--	III, IV
31448 (H) (HRI-217)	6481(1)*#	--	5176(4)*#	6122(5)*#	6178(2)*#	--	II, IV, V, VI
31603 (YNPK-7258) YNP 85 / YNP 27	6176 (2) *#	5946*	--	6163(4)*#	6305(1)*#	--	II, III, V, VI
31452 (H) (RRX-3341)	--	6561(3)*#	5702(2)*#	6437(1)*#	--	--	III, IV, V
31461 (H) (RNC-0992)	--	--	--	6205(3)*#	--	6978(1)*#	V, VII
31466 (H) (AGRH-01)	--	6525(5)*#	--	--	--	--	III
31589 (CR4415-3-1-3-1-3-1) CR3562-2-1-2-1-1-1	--	6260*	--	5551(7)*	--	--	III, V
NC	5119	4581	2578	5175	5707	5223	
ZC	5564	5187	3794	4890	4454	5546	
LC	4859	5508	4406	4644	4362	6309	
HC	4792	6121	4690	5448	5706	6150	
CD	482	295	420	372	394	255	
BC+CD	6046	5803	4826	5547	6101	6564	
HC+CD	5274	6416	5110	5820	6100	6405	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Three years performance of the entries in IME ecology: Six entries completed three years of testing with required significant yield advantage in the third year of testing over the checks. Yield performance along with ranks across three years in various zones for these entries is given in the following table.

Three years performance of the entries in IME ecology

IET No	Year	III	IV	V	VII	Remarks
30575	2024	6651(2)	--	--	--	HRR: 50.2/49.5
	2023	6104(2)	--	--	--	
	2022	7317	--	--	--	
30577	2024	6539(4)	--	6344(2)	--	Promising for Zone-III & V
	2023	5560(6)	--	6479(1)	--	
	2022	7407	--	--	--	
30578	2024	6738(1)	6665(1)	--	6761(3)	HRR: 40.9/48.4
	2023	5889(3)	7192(3)	--	6097(5)	
	2022	7140	--	--	--	
30579	2024	6478(6)	--	--	--	Promising for Zone-III
	2023	6214(1)	--	--	--	
	2022	7168	--	--	--	
30593	2024	--	--	6017(6)	6786(2)	Promising for Zone- V & VII
	2023	--	--	6422(2)	6286(2)	
	2022	--	--	--	7656	
30756	2024	6150	--	--	--	Promising for Zone-III
	2023	5301(10)	--	--	--	
	2022	6374	--	--	--	

Entries promoted to third year of testing (from AVT1-IME to AVT2-IME): 10

Zone II	IET 31448 (H), 31603
Zone III	IETs 30713, 31589, 31603, 31466 (H), 31452 (H)
Zone IV	IETs 30713, 31448 (H), 31452 (H), 31608 and 30692
Zone V	IET 31461 (H), 31448 (H), 31589, 31603 and 31452 (H)
Zone VI	IET 31448 (H), 31603
Zone VII	IET 31461 (H)

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.1: Composition of entries in Advance Variety Trial 2 & 1–Irrigated Mid Early (AVT 2 & 1 - IME) Kharif 2024.

Entry No.	IET No.	Designation	Cross/ hybrid	Zones	Grain Type
3rd year of testing					
3501	30573* (H)	SRH-333	Hybrid	III,IV,VI	LB
3502	30574* (H)	RRX-3366	Hybrid	II,III, VII	LS
3503	30575* (H)	RALLIS-21304	Hybrid	III,VII	LS
3504	30576* (H)	ADV RH-162108	Hybrid	VII	LS
3505	30577*	HRI-216	Hybrid	III,V, VII	LS
3506	30578* (H)	RNC-0752	Hybrid	III,IV, VII	LS
3507	30579* (H)	JKRH-1135	Hybrid	III	LS
3508	30587* (H)	SRPH-123	Hybrid	III	LS
3509	30589* (H)	MEPH-168	Hybrid	III	LB
3510	30593* (H)	LG-90303	Hybrid	III,IV, V,VII	LS
3511	30704*	WGL 1533	WGL 32100 / MTU 1936-12-1-2-1 // MTU 1081 / HRR 2143	II	LS
2nd year of testing					
3512	31608	CR 4396-291-2-6	Lalat MAS*2 / CR Dhan 801	IV	MS
3513	30556 (H)	NPH-X4	Hybrid	III	LB
3514	30558 (H)	NPH-X69	Hybrid	V	SB
3515	30649	CR 4396-1-13-11	Lalat MAS / CR Dhan 801 // 3* Lalat MAS	III	LS
3516	30692	NDR 8806-TFR-3	MTU1010 / Bauni Pusa Basmati Mutant	II,III,IV, V,VI,VII	LS
3517	30713	CR 4077-1357-5-4-2-1-1	PKV HMT / Vandana	II,III,IV, V,VI,VII	MS
3518	NC	Gontra Bidhan-3	Gontra Bidhan-3	II,III,IV, V,VI,VII	
3519	31447 (H)	JKRH-1179	Hybrid	III	
3520	31448 (H)	HRI-217	Hybrid	II,III,IV, V,VI,VII	
3521	ZC				
3522	31449 (H)	ADV-RH 190125	Hybrid	III	LS
3523	31603	YNPK-7258	YNP 85 / YNP 27	II,III,IV,V, VI,VII	SB
3524	31452 (H)	RRX-3341	Hybrid	II,III,IV,V, VI,VII	LS
3525	31456 (H)	TMRH-5786	Hybrid	III	LB
3526	31460 (H)	BS-330	Hybrid	III	MS
3527	31461 (H)	RNC-0992	Hybrid	II,III,IV,V, VI,VII	LB
3528	31462 (H)	Sona-405	Hybrid	III	LS
3529	HC			II,III,IV,V, VI,VII	
3530	31466 (H)	AGRH-01	Hybrid	III	LB
3531	31469 (H)	AGRH-02	Hybrid	III	LS
3532	31611	RP6746-IR17A2831	IR 98418-B-B-15/IR11A293	IV	
3533	31572	KNM 13568	MTU 1156 / WGL 1097 // MUT NSI	III	LS
3534	31582	BRR 0287-IR 143532-95-1-1-177-44-4	DRR Dhan 44 / NX3533::IRGC63796	VII	LS
3535	LC			II,III,IV,V, VI,VII	
3536	31587	NWGR-17075	Gujari / IET 20575 / 5-2-1-1-2-2-1	IV	M
3537	31589	CR 4415-3-1-3-1-3-1	CR 3562-2-1-2-1-1-1	II,III,IV,V, VI,VII	SB
3538	31594	RNR 38966	V6 / RNR 25993	IV	LS
3539	30756*	RP 6693-16-388	Swarna / MTU 1010	III	MS

*3rd year testing entries

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.2: Grain Yield (kg/ha) in AVT-2 & 1 IME, Kharif 2024

Entry No	IET No	Zone II-Northern								Zone II-Northern (4)	
		Haryana		Punjab		Uttarakhand		Uttar Pradesh			
		Kaul		Ludhiana		Pantnagar		Nagina			
3502	30574* (H)	9122	2*	3562		4607	9	4924	3#	5554	6#
3511	30704*	6913	10	6050	3#	4540	10	5142	2#	5661	3#
3516	30692	7442	8	4242	8	5385	4	5494	1*#	5641	4#
3517	30713	5953				4888	5	4855	4#	5232	9
3518	Gontra Bidhan - 3 (NC)	7378	9	6519	2	1739		4842	5	5119	10
3520	31448 (H)	8896	4*	6707	1#	6639	1*	3682		6481	1*#
3521	ZC	7724	6	5778	4	4815	7	3939		5564	5
3523	31603	8751	5*	4740	5#	6384	2*	4828	6#	6176	2*#
3524	31452 (H)	8942	3*	3597	10	4734	8	4599	7#	5468	8#
3527	31461 (H)	9818	1*	4265	7	3833		4244	8	5540	7#
3529	US 312 (HC)			4141	9	6230	3	4004	10	4792	
3535	LC	7458	7			3504		3614		4859	
3537	31589	6258		4537	6	4879	6	4190	9	4966	
Experimental Mean		7888		4922		4783		4489		5466	
CD(0.05)		803		557		1538		456		482	
CV(%)		6.01		6.65		19.08		6.02		5.23	
F val		19.57**		36.52**		6.12**		14.07**		8.78**	
DOS		09-06-24		05-06-24		04-06-24		28-06-24			
DOP		14-07-24		06-07-24		01-07-24		29-07-24			
Local Check Name		HKR 47		PR 130		Pant Dhan-12		PR-113			

Table No. 3.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 IME, Kharif 2024 (Not considered)

Entry No	IET No	Zone II-Northern	
		Uttar Pradesh	
		@ Kanpur	
3502	30574* (H)	4122	
3511	30704*	4100	
3516	30692	4800	4
3517	30713	5144	1
3518	Gontra Bidhan - 3 (NC)	4762	5
3520	31448 (H)	4044	
3521	ZC	4273	10
3523	31603	4302	9
3524	31452 (H)	4711	6
3527	31461 (H)	4529	7
3529	US 312 (HC)	5033	3
3535	LC	4502	8
3537	31589	5049	2
Experimental Mean		4567	
CD(0.05)		839	
CV(%)		10.91	
F val		1.76ns	
DOS			
DOP			
Local Check Name			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 IME, Kharif 2024

Entry No	IET No	Zone III- Eastern																			Zone III- Eastern (9)						
		Bihar		Bihar (2)		Jharkhand		Odisha			Odisha (2)		Uttar Pradesh		West Bengal				West Bengal (3)								
		Bikramganj	Sabour	Mean	Ranchi	Jeypore	NRRI	Mean	Varanasi	Bankura	chinsurah	Hatwara	Mean	Mean	Mean												
3501	30573* (H)	6075		6023		6049		4542		6389	10	4589		5489		5426	6*#	8855		6367	9*	6821	3*	7348	10*	6121	*
3502	30574* (H)	6677	*	4841		5759		3764		6288		4187		5237		4296		8393		4198		5189		5926		5315	
3503	30575* (H)	7447	3*#	6886	9#	7167	7*#	5351	9*	7094	3*	5287	#	6191	2*	5811	5*#	8940		6868	6*	6172	7*	7327	*	6651	2*#
3505	30577*	7500	1*#	6835	10#	7167	6*#	4916	*	5986		5440	7#	5713	8	6279	1*#	10017	6	5925		5952	*	7298	*	6539	4*#
3506	30578* (H)	7274	6*	8397	1*#	7836	1*#	5538	4*	5697		5700	3#	5698	9	5408	7*#	9863		6934	5*	5829	*	7542	7*	6738	1*#
3507	30579* (H)	6626	*	6310		6468		5433	7*	5819		4420		5120		6076	3*#	10564	3	6192	10*	6858	2*	7871	4*#	6478	6*#
3508	30587* (H)	6342		5266		5804		4262		5133		4963		5048		3827		10342	4	5087		4966		6798		5576	
3509	30589* (H)	7299	5*	6490		6894	*#	4573		5519		5414	8#	5466		4595		8838		7469	3*#			8153	1*#	6275	*
3510	30593* (H)	7436	4*#	6679		7057	9*#	4418		6073		6016	1#	6045	5*	4167		9812		5912		6804	4*	7509	8*	6369	9*
3513	30556 (H)	6985	8*	6386		6685	*	4231		5267		5266	#	5266		4620		9316		5518		5836	*	6890		5936	*
3515	30649	6754	*			6754	*	3578		4190		5067		4629		4183		9470		4855		4641		6322		5342	
3516	30692	6887	*	5772		6330		4511		5370		3669		4520		4408		9949	9	4534		5166		6549		5585	
3517	30713	6861	*	7744	3*#	7303	4*#	5538	4*	6908	5*	5667	4#	6288	1*#	4520		9778		3910		4872		6187		6200	*
3518	Gontra Bidhan - 3 (NC)	5232		4576		4904		3111		4167		5086		4627		3158		7812		3945		4141		5299		4581	
3519	31447 (H)	6692	*	7161	6*#	6927	10*#	4387		5592		3460		4526		4067		10205	5	5251		6316	5*	7257	*	5904	*
3520	31448 (H)	7038	7*	7647	4*#	7342	3*#	5196	*	5824		5810	2#	5817	7*	4823		8974		6124	*	5893	*	6997		6370	8*
3521	ZC	5828		5763		5796		4044		5787		4114		4950		4183		8154		4298		4513		5655		5187	
3522	31449 (H)	6965	9*	6416		6691	*	5382	8*	6034		5330	9#	5682	10	4592		9658		5211		5369		6746		6106	*
3523	31603	6487		6673		6580	*	4511		5850		5008		5429		4102		10000	7	6002		4884		6962		5946	*
3524	31452 (H)	6415		6920	8*#	6668	*	6129	1*	6442	9	5304	10#	5873	6*	4318		11043	2	7034	4*	5448		7841	5*#	6561	3*#
3525	31456 (H)	6749	*	8071	2*#	7410	2*#	5787	2*	5455		3520		4487		5967	4*#	9282		5740		5722		6915		6255	*
3526	31460 (H)	6379		6062		6220		4013		5124		5464	6#	5294		5283	8*#	8821		4808		5579		6402		5726	
3527	31461 (H)	7450	2*#	6780	#	7115	8*#	5320	10*	4310		4303		4306		5108	9	9709		7519	2*#	6098	9*	7775	6*	6288	10*
3528	31462 (H)	6477		5501		5989		4542		7222	2*	3680		5451		4542		9880	10	6046		6182	6*	7369	9*	6008	*
3529	US 312 (HC)	6543		5607		6075		5538	4	6678	7	4640		5659		4833		9607		6004		5638		7083		6121	
3530	31466 (H)	6927	10*	6465		6696	*	4573		7306	1*	4984		6145	3*	4392		8957		7967	1*#	7154	1*#	8026	2*#	6525	5*#
3531	31469 (H)	6879	*	7531	5*#	7205	5*#	5320	*	5397		3813		4605		4564		11077	1	6800	7*	5978	10*	7952	3*#	6373	7*
3533	31572	6749	*	4667		5708		4791		6480	8	4130		5305		5105	10	9538		5254		5156		6649		5763	
3535	LC	5663		5085		5374		4262		4800		5503	5	5152		4915		9966	8	4890		4483		6446		5508	
3537	31589	6353		6654		6504		4916	*	6738	6	4200		5469		6186	2*#	9436		6539	8*	5322		7099		6260	*
3539	30756*	6260		7097	7*#	6679	*	5600	3*	6937	4*	5163	#	6050	4*	4755		9385		4054		6103	8*	6514		6150	*
Experimental Mean		6686		6410		6553		4777		5867		4813		5340		4791		9537		5718		5636		6991		6024	
CD(0.05)		758		1143		749		599		1066		520		627		361		1622		1212		1248		715		295	
CV(%)		6.94		10.91		7		7.68		11.13		6.62		7.19		4.61		10.41		12.97		13.55		6.26		2.99	
F val		3.97**		5.88**		6.3**		11.14**		5.14**		15.97**		6.35**		33.38**		1.71*		6.76**		2.96**		7.72**		22.08**	
DOS		03-07-24		17-06-24				27-06-24		07-06-24		12-06-24				08-06-24		21-06-24		20-06-24		04-07-24					
DOP		12-08-24		15-07-24				22-08-24		06-07-24		16-07-24				06-07-24		30-08-24		19-07-24		05-08-24					
Local Check Name		Sabour Harshit		Rajendra Suwasini				BVD-203		Kalinga Dhan 1205		CR Dhan-805				Lalat		Shatabdi (IET 4786)		LALAT							

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 IME, Kharif 2024 (Not considered)

Entry No	IET No	Zone III- Eastern					
		Odisha		Uttar Pradesh		West Bengal	
		@ Chiplima		@ Masodha		@ Malda	
3501	30573* (H)	3692	8	5990		6444	
3502	30574* (H)	2851		5480		6522	
3503	30575* (H)	1827		5466		5739	
3505	30577*	3633	10	5915		5839	
3506	30578* (H)	3509		5085		6678	7
3507	30579* (H)	3034		6757	3	5994	
3508	30587* (H)	3472		6075		6500	
3509	30589* (H)	2997		6744	4	6533	
3510	30593* (H)	3655	9	5698		6322	
3513	30556 (H)	3509		6468	9	6600	9
3515	30649	3509		5728		5628	
3516	30692	4423	1	4978		6406	
3517	30713	3472		4419		7039	4
3518	Gontra Bidhan - 3 (NC)	4203	3	5795		6550	
3519	31447 (H)	2851		6380	10	6600	9
3520	31448 (H)	3728	6	5513		5456	
3521	ZC	3472		5256		4256	
3522	31449 (H)	3436		6623	7	6111	
3523	31603	4020	4	5371		7911	1
3524	31452 (H)	4313	2	5094		6061	
3525	31456 (H)	3582		6574	8	7344	2
3526	31460 (H)	3509		5505		7122	3
3527	31461 (H)	2632		6208		6767	6
3528	31462 (H)	2997		6634	6	6844	5
3529	US 312 (HC)	3728	6	6663	5	5878	
3530	31466 (H)	3253		6822	2	6556	
3531	31469 (H)	3180		6852	1	6672	8
3533	31572	3107		6293		6406	
3535	LC	3070		5676		6228	
3537	31589	3472		4643		6189	
3539	30756*	3984	5	4604		6417	
Experimental Mean		3423		5849		6375	
CD(0.05)		979		370		1411	
CV(%)		17.52		3.87		13.56	
F val		2.27**		29.57**		1.65ns	
DOS							
DOP							
Local Check Name							

Table No. 3.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 IME, Kharif 2024

Entry No	IET No	Zone IV-North Eastern				Zone IV-North Eastern (2)	
		Assam		Tripura		Mean	
		Titabar		Lembucherra			
3501	30573* (H)	4011		6089	2*#	5050	5*
3506	30578* (H)	5394	1*#	7937	1*#	6665	1*#
3510	30593* (H)	3354		4856		4105	
3512	31608	4581	7#	5319	7*	4950	6*
3516	30692	4485	9	5211	10*	4848	9*
3517	30713	4638	6#	5974	4*	5306	3*#
3518	Gontra Bidhan-3 (NC)	2001		3156		2578	
3520	31448 (H)	5055	4*#	5296	8*	5176	4*#
3521	ZC	3648		3941		3794	
3523	31603	5181	3*#	4185		4683	
3524	31452 (H)	5352	2*#	6052	3*#	5702	2*#
3527	31461 (H)	3864		5870	5*	4867	8*
3529	US 312 (HC)	3999		5381	6	4690	10
3532	31611	3441		3541		3491	
3535	LC	4335	10	4478		4406	
3536	31587	4521	8	5263	9*	4892	7*
3537	31589	4863	5#	3770		4317	
3538	31594	3225		3819		3522	
Experimental Mean		4219		5008		4613	
CD(0.05)		544		625		420	
CV(%)		7.77		7.53		5.48	
F val		21.33**		29.3**		39.63**	
DOS		26-06-24		12-07-24			
DOP		24-07-24		02-08-24			
Local Check Name		Numali		Hakuchuk-2			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 IME, Kharif 2024 (Not considered)

Entry No	IET No	Zone IV-North Eastern	
		Assam	
		@Gerua	
3501	30573* (H)	773	
3506	30578* (H)	1090	10
3510	30593* (H)	543	
3512	31608	1730	6
3516	30692	2917	3
3517	30713	4523	1
3518	Gontra Bidhan-3 (NC)	3080	2
3520	31448 (H)	630	
3521	ZC	1143	9
3523	31603	643	
3524	31452 (H)	733	
3527	31461 (H)	1663	7
3529	US 312 (HC)	560	
3532	31611	443	
3535	LC	533	
3536	31587	1360	8
3537	31589	2766	4
3538	31594	1993	5
Experimental Mean		1507	
CD(0.05)		1530	
CV(%)		61.18	
F val		4.64**	
DOS		14-06-24	
DOP		23-07-24	
Local Check Name		Naveen	

Table No. 3.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 IME, Kharif 2024

Entry No	IET No	Zone V- Central									
		Chhattisgarh						Chhattisgarh (3)		Maharashtra	
		Ambikhapur		Bilsapur		Raipur		Mean		Sakoli	
3505	30577*	5689	4	8148	1*#	7498	7	7112	3*#	6811	6*#
3510	30593* (H)	6067	2	6530	8	7220	8	6606	7*	6400	7#
3514	30558 (H)	3733		5200		6798		5244		5611	8
3516	30692	5178	8	5197		6998	9	5791	10	4767	
3517	30713	4733	9	7009	6*	8316	4*#	6686	5*	4222	
3518	Gontra Bidhan-3 (NC)	4000		5561	10	6549		5370		5167	10
3520	31448 (H)	4200		7621	3*#	8457	3*#	6760	4*#	7867	1*#
3521	ZC	5333	7	4776		5036		5048		5200	9
3523	31603	3711		7258	5*#	8958	1*#	6642	6*	7200	4*#
3524	31452 (H)	5511	6	7424	4*#	8565	2*#	7167	2*#	6911	5*#
3527	31461 (H)	6200	1	7909	2*#	7735	6*	7281	1*#	7667	2*#
3529	US 312 (HC)	5644	5	5773	9	6889	10	6102	9	4911	
3535	LC	5889	3	5270		4808		5322		4433	
3537	31589	4533	10	6958	7*	7873	5*	6455	8*	7367	3*#
Experimental Mean		5030		6474		7264		6256		6038	
CD(0.05)		655		1261		1002		648		1236	
CV(%)		7.76		11.61		8.22		6.17		12.19	
F val		14.91**		7**		12.73**		11.99**		8.94**	
DOS		01-07-24		15-06-24		01-07-24				13-06-24	
DOP		30-07-24		04-07-24		20-07-24				15-07-24	
Local Check Name		RF-105		Chandahasni		IGKV R2				PKV Ganesh	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 IME, Kharif 2024

Entry No	IET No	Zone V- Central										Zone V- Central (7)	
		Maharashtra		Maharashtra (2)		Madhya Pradesh		Madhya Pradesh (2)					
		Sindewahi	1*#	Mean	2*#	Jabalpur	1*#	Rewa	3*	Mean	6	Mean	6344
3505	30577*	5955	1*#	6383	2*#	6563	1*#	3742	6	5153	6	6344	2*#
3510	30593* (H)	5053	3	5726	7#	6203	4*	4648	3*	5426	4	6017	6*#
3514	30558 (H)	4368	10	4990	9	5750	7	3198		4474	9	4951	
3516	30692	4314		4540		4050		2915		3483		4774	
3517	30713	4312		4267		4383		4218	5	4301		5314	9
3518	Gontra Bidhan-3 (NC)	4190		4678	10	5583	9			5583	3	5175	10
3520	31448 (H)	5490	2#	6679	1*#	5734	8	3487	8	4610	7	6122	5*#
3521	ZC	4893	5	5046	8	5550	10	3442	9	4496	8	4890	
3523	31603	4736	7	5968	5*#	6520	2*#	4756	2*	5638	2	6163	4*#
3524	31452 (H)	4802	6	5857	6*#	6400	3*	5446	1*#	5923	1#	6437	1*#
3527	31461 (H)	5006	4	6336	3*#	5777	6	3139		4458	10	6205	3*#
3529	US 312 (HC)	4406	9	4659		5963	5	4550	4	5257	5	5448	8
3535	LC	3920		4177		4640		3549	7	4095		4644	
3537	31589	4632	8	5999	4*#	4057		3437	10	3747		5551	7*
Experimental Mean		4720		5379		5512		3887		4760		5574	
CD(0.05)		1036		779		510		766		432		372	
CV(%)		13.07		8.63		5.51		11.69		5.4		3.98	
F val		2.32*		10.01**		25.14**		8.46**		25.2**		24.28**	
DOS		26-06-24				27-06-24		27-06-24					
DOP		10-08-24				20-07-24		14-07-24					
Local Check Name		PKV Ganesh				Kranti		-					

Table No. 3.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 IME, Kharif 2024 (Not considered)

Entry No	IET No	Zone V- Central	
		Chhattisgarh	
		@Jagadpur	
3505	30577*	7211	2
3510	30593* (H)	7269	1
3514	30558 (H)	6958	3
3516	30692	4851	10
3517	30713	5006	9
3518	Gontra Bidhan-3 (NC)	5017	8
3520	31448 (H)	6786	4
3521	ZC	4599	
3523	31603	5417	7
3524	31452 (H)	5858	5
3527	31461 (H)	4654	
3529	US 312 (HC)	4585	
3535	LC	4597	
3537	31589	5623	6
Experimental Mean		5602	
CD(0.05)		2427	
CV(%)		25.82	
F val		1.54ns	
DOS		14-06-24	
DOP		03-07-24	
Local Check Name		IGKVR 1	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 IME, Kharif 2024

Entry No	IET No	Zone VI- Western									
		Gujarat						Gujarat (3)		Maharashtra	
		Navasari		Nawagam		Vyra		Mean		Karjat	
3501	30573* (H)	5146	7	7283	1*#	4994	6	5808	5	4318	
3516	30692	3263		5530	7	4537	9	4443	10	5817	5
3517	30713	5421	5	5848	6	4850	7	5373	7	6938	1*#
3518	Gontra Bidhan-3 (NC)	5275	6	5316	9	6890	1	5827	4	3952	
3520	31448 (H)	6003	2*	6169	3	5969	3	6047	2	5672	6
3521	ZC	3886	10	2859		4363	10	3702		4381	10
3523	31603	6450	1*#	6385	2*	6669	2	6502	1*#	6070	3*
3524	31452 (H)	5058	8	4968	10	5591	5	5206	8	5912	4*
3527	31461 (H)	5784	3	5862	5	4537	8	5394	6	5533	7
3529	US 312 (HC)	5713	4	5879	4	5969	3	5854	3	5152	8
3535	LC	3029		4126		4243		3799		4927	9
3537	31589	4480	9	5395	8	3951		4609	9	6565	2*#
Experimental Mean		4959		5468		5214		5214		5436	
CD(0.05)		703		1002		1086		526		930	
CV(%)		8.37		10.82		12.3		5.96		10.1	
F val		20.41**		10.89**		7.01**		24.81**		8.38**	
DOS		13-06-24		19-06-24		15-06-24				13-06-24	
DOP		09-07-24		24-07-24		12-07-24				10-07-24	
Local Check Name		GNR-3		GR 21		GNR 3				KJT-3	

Table No. 3.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 IME, Kharif 2024

Entry No	IET No	Zone VI- Western						Zone VI- Western	
		Maharashtra				Maharashtra (3)		(6)	
		Radhanagari		Vadgaonmaval		Mean		Mean	
3501	30573* (H)	5681	8	7410	1#	5803	7	5805	4
3516	30692	5770	7	6601	4	6063	5#	5253	9
3517	30713	6152	3	5809	9	6299	2*#	5836	3
3518	Gontra Bidhan-3 (NC)	6011	4	6798	2	5587	8	5707	5
3520	31448 (H)	6832	1#	6423	5	6309	1*#	6178	2*#
3521	ZC	5965	5	5270		5205		4454	
3523	31603	5530	9	6723	3	6108	4*#	6305	1*#
3524	31452 (H)	6237	2	6269	7	6139	3*#	5672	7
3527	31461 (H)	5909	6	6342	6	5928	6	5661	8
3529	US 312 (HC)	5360	10	6165	8	5559	9	5706	6
3535	LC	4480		5370		4926		4362	
3537	31589	3847		5808	10	5406	10	5007	10
Experimental Mean		5648		6249		5778		5496	
CD(0.05)		1060		748		503		394	
CV(%)		11.09		7.06		5.14		4.24	
F val		4.89**		5.83**		6.72**		20.86**	
DOS		14-06-24		01-07-24					
DOP		10-07-24		07-08-24					
Local Check Name		Phule Radha		Pawana					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 IME, Kharif 2024

Entry No	IET No	Zone VII- Southern															
		Andhra Pradesh			Andhra Pradesh (2)		Karnataka						Karnataka (4)				
		Maruteru	Ragolu	Mean	Mandya	Brahmavar	Gangavati	Mugad	Mean								
3502	30574* (H)	2038		4733		3386		7296		3378		7611	8	5325		5902	
3503	30575* (H)	5691	8	6176		5934		7155		4439	4#	5654		7645	4*	6223	9
3504	30576* (H)	3827		7132	9	5480		7863	10	4112	8#	7366		5527		6217	
3505	30577*	5823	6	6082		5953		8413	7	4202	5#	6332		5482		6107	
3506	30578* (H)	4583		7738	3#	6161	9	10879	1*#	4665	2#	8026	2	6593	7	7541	1*#
3510	30593* (H)	6493	4	7821	1#	7157	2#	8089	8	3258		7634	7	6729	6	6427	6
3516	30692	5576	10	6494		6035		8921	5	4082	9#	6568		4976		6137	
3517	30713	6822	3	6425		6623	4	6626		4047	10#	7664	5	7051	5	6347	7
3518	Contra Bidhan-3 (NC)			7540	5	7540	1	9230	4	4621	3	7210		3880		6235	8
3520	31448 (H)	4854		7821	1#	6338	8	7710		3864	#	6455		8545	2*#	6643	4
3521	ZC	7295	1	5018		6157	10	6332		3598		7691	4	5713	10	5834	
3523	31603	4573		7395	6	5984		8648	6	3681		7198		6519	8	6511	5
3524	31452 (H)	6928	2	7183	8	7056	3	9248	3#	4032	#	6287		7768	3*#	6834	3#
3527	31461 (H)	5695	7	6591		6143		9653	2#	4131	6#	7554	10	8567	1*#	7476	2*#
3529	US 312 (HC)	6483	5	6638	10	6560	5	7922	9	3277		7646	6	6040	9	6221	10
3534	31582	4955		5343		5149		6678		4116	7#	8390	1	4572		5939	
3535	LC	5689	9	7197	7	6443	6	7537		4766	1	7897	3	4020		6055	
3537	31589	5108		7626	4#	6367	7	6120		3725		7602	9	5472		5730	
Experimental Mean		5437		6720		6137		8018		4000		7266		6135		6354	
CD(0.05)		742		864		593		1108		456		813		1611		604	
CV(%)		8.21		7.75		5.82		8.33		6.87		6.75		15.83		5.72	
F val		24.9**		10.18**		18.74**		10.69**		8.22**		6.44**		6.3**		5.75**	
DOS		06-07-24		02-07-24				19-07-24		17-06-24		26-07-24		20-06-24			
DOP		27-07-24		31-07-24				16-08-24		07-07-24		16-08-24		Drill Sown			
Local Check Name		MTU-1121		MTU-1121				Thanu		Sahyadri Saphami		Gangavathi Sona					

Table No. 3.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 IME, Kharif 2024

Entry No	IET No	Zone VII- Southern											
		Kerala			Kerala (2)		Puducherry			Puducherry (2)			
		Monocompu	Pattambi	Mean	Mean	Kurumbapet	Karaikal	Mean					
3502	30574* (H)	5863		4261		5062		8886	1*	4435		6660	2#
3503	30575* (H)	7062		2184		4623		5203	10	5297	9	5250	
3504	30576* (H)	7127	10	7368	2	7247	4	7498	2*	5215		6357	4#
3505	30577*	7256	8	4528		5892				5433	6	5433	8
3506	30578* (H)	7159	9	4000		5580		5829	6	8045	1#	6937	1#
3510	30593* (H)	7418	6	7109	4	7263	3			5624	4	5624	7
3516	30692	7386	7	7008	5	7197	5	5137		5454	5	5295	
3517	30713	7613	4	6541	8	7077	6	4247		5889	3	5068	
3518	Contra Bidhan-3 (NC)	3628		2484		3056				4045		4045	
3520	31448 (H)	8779	2*#	6059	9	7419	2#	6694	4*	4064		5379	9
3521	ZC	3984		4832		4408		5246	9	5260	10	5253	
3523	31603	7483	5	4717		6100				3752		3752	
3524	31452 (H)	6706		5586	10	6146	10	5556	7	3699		4627	
3527	31461 (H)	7807	3*#	4368		6087		6782	3*	5322	7	6052	5#
3529	US 312 (HC)	5831		6781	7	6306	9			5317	8	5317	10
3534	31582	6284		7557	1	6921	7	5076		4978		5027	
3535	LC	5799		7291	3	6545	8	5425	8	7838	2	6632	3
3537	31589	10172	1*#	6859	6	8515	1*#	6421	5*	5089		5755	6
Experimental Mean		6853		5530		6191		6000		5264		5470	
CD(0.05)		1862		1299		1079		486		894		667	
CV(%)		16.37		14.16		10.5		4.81		10.24		7.35	
F val		5.56**		13.77**		12.05**		54.9**		14.22**		13.51**	
DOS				14-06-24		09-06-24				10-07-24		11-09-24	
DOP				09-07-24		09-07-24				07-08-24		17-10-24	
Local Check Name		MO-23 KAU Pournami		Jyothi				TKM-13		KKL(R) 4			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 IME, Kharif 2024

Entry No	IET No	Zone VII- Southern													Zone VII- Southern (15)		
		Telangana						Telangana (3)		Tamil Nadu			Tamil Nadu (2)		Mean		
		Kunaram		Rajendranagar		Warangal		Mean		Coimbatore	Adutrai		Mean		Mean		
3502	30574* (H)	5658	#	9914	6*#	6827		7467	9	6080	6#	4259		5169	7	5771	
3503	30575* (H)	4455		10569	3*#	9701	1*	8242	4*#	6398	5*#	4402	9	5400	5#	6135	
3504	30576* (H)	6761	4#	9983	5*#	6249		7665	7*#	4296		4687	6	4491		6334	6
3505	30577*	5252		10797	2*#	8545	7*	8198	5*#	5417	8	2792		4105		6168	
3506	30578* (H)	6356	7#	11597	1*#	8953	5*	8969	1*#	3465		3533		3499		6761	3*#
3510	30593* (H)	6896	2#	9686	7*#	8246	8*	8276	3*#	4984	9	5014	2	4999	8	6786	2*#
3516	30692	6482	6#	8433		6598		7171		7496	2*#	4174		5835	2#	6319	8
3517	30713	4487		8558	10	7843	9*	6963		6953	3*#	4046		5499	4#	6321	7
3518	Gontra Bidhan-3 (NC)	6025	9	6911				6468		3311		3789		3550		5223	
3520	31448 (H)	4445		8241		7586	10	6757		8645	1*#	4598	8	6622	1*#	6557	4#
3521	ZC	6669	5	7622		6059		6783		4364		3504		3934		5546	
3523	31603	5858	10#	9157	9*#	9135	4*	8050	6*#	4228		4063		4145		6172	
3524	31452 (H)	3805		9540	8*#	9475	3*	7607	8*	5540	7	4387	10	4964	9	6383	5
3527	31461 (H)	6982	1#	10017	4*#	9565	2*	8855	2*#	6673	4*#	4957	3	5815	3#	6978	1*#
3529	US 312 (HC)	4560		7808		8681	6	7016		4394		4729	5	4561		6150	
3534	31582	5759	#	7487		7505		6917		4852		4735	4	4793	10	5886	
3535	LC	6797	3	7232		6573		6867		4966	10	5613	1	5289	6	6309	10
3537	31589	6212	8#	7989		7378		7193	10	4282		4672	7	4477		6315	9
Experimental Mean		5748		8974		7937		7526		5352		4331		4842		6229	
CD(0.05)		815		939		1179		638		1280		445		695		255	
CV(%)		8.55		6.3		8.93		5.11		14.41		6.2		8.65		2.47	
F val		12.74**		17.24**		8.77**		11.42**		10.41**		17.92**		11.91**		23.58**	
DOS		28-06-24		03-07-24		24-06-24				06-06-24		14-06-24					
DOP		25-07-24		24-07-24		18-07-24				05-07-24		23-07-24					
Local Check Name		KNM-1638		JGL-24423		RNR-15048				TKM 13		ADT 57					

Table No. 3.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 IME, Kharif 2024 (Not considered)

Entry No	IET No	Zone VII- Southern	
		Karnataka	
		@Kathalgera	
3502	30574* (H)	7713	1
3503	30575* (H)	6833	5
3504	30576* (H)	6293	7
3505	30577*	6884	4
3506	30578* (H)	5918	10
3510	30593* (H)	4708	
3516	30692	4784	
3517	30713	5833	
3518	Gontra Bidhan-3 (NC)	5407	
3520	31448 (H)	4914	
3521	ZC	5679	
3523	31603	6493	6
3524	31452 (H)	5651	
3527	31461 (H)	5951	9
3529	US 312 (HC)	7360	3
3534	31582	5514	
3535	LC	7698	2
3537	31589	6172	8
Experimental Mean		6100	
CD(0.05)		70	
CV(%)		0.69	
F val		1448.71**	
DOS		06-08-24	
DOP		14-09-24	
Local Check Name		RNR-15048	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.3 : Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 IME, Kharif 2024

Entry No	IET No	Zone II-Northern												Zone II-Northern (4)		
		Haryana			Punjab			Uttarakhand			Uttar Pradesh			Mean		
		Kaul			Ludhiana			Pantnagar			Nagina					
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3502	30574* (H)	89	123	348	95	121	218	94	117	259	92	98	317	93	115	285
3511	30704*	93	120	302	99	123	205	100	119	229	95	99	325	97	115	265
3516	30692	107	107	315	112	113	249	112	115	369	114	96	281	111	108	304
3517	30713	117	92	294				138	106	215	125	93	334	127	97	281
3518	Gontra Bidhan - 3 (NC)	94	117	312	94	110	220	92	105	114	92	89	340	93	105	246
3520	31448 (H)	100	123	357	105	123	227	103	123	335	101	97	340	102	116	315
3521	ZC	100	115	316	100	107	255	104	108	243	104	89	327	102	105	285
3523	31603	102	131	346	108	127	209	102	125	283	104	90	335	104	118	293
3524	31452 (H)	98	130	357	101	132	231	102	132	225	98	99	346	100	123	290
3527	31461 (H)	93	125	361	99	125	238	97	125	269	108	92	319	99	117	296
3529	US 312 (HC)				101	125	222	100	122	238	97	101	293	99	116	251
3535	LC	99	109	319				98	105	316	103	101	328	100	105	321
3537	31589	104	120	289	111	117	236	112	112	353	113	93	372	110	111	313
Experimental Mean		99	117	326	102	120	228	104	116	265	103	95	327	103	112	288
Standard Error		0.62			0.72			0.94			0.66					

Table No. 3.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 IME, Kharif 2024 (Not considered)

Entry No	IET No	Zone II-Northern		
		Uttar Pradesh		
		@ Kanpur		
		DFE	PH	PAN
3502	30574* (H)	66	103	231
3511	30704*	65	97	175
3516	30692	66	95	228
3517	30713	68	89	244
3518	Gontra Bidhan - 3 (NC)	65	93	165
3520	31448 (H)	67	107	244
3521	ZC	67	88	235
3523	31603	67	98	180
3524	31452 (H)	64	110	184
3527	31461 (H)	66	90	170
3529	US 312 (HC)	66	100	235
3535	LC	64	101	245
3537	31589	65	105	270
Experimental Mean		65	98	215

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 IME, Kharif 2024 (Not considered)

Entry No	IET No	Zone III- Eastern								
		Odisha			Uttar Pradesh			West Bengal		
		@ Chiplima			@Masodha			@Malda		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3501	30573* (H)	105	107	198	104	107	292	91	105	439
3502	30574* (H)	108	117	167	104	95	346	86	104	433
3503	30575* (H)	108	108	200	99	114	312	95	125	443
3505	30577*	102	109	196	107	114	297	96	111	429
3506	30578* (H)	106	110	227	110	106	341	93	112	426
3507	30579* (H)	103	110	205	89	108	304	90	105	460
3508	30587* (H)	106	109	212	110	104	346	94	117	344
3509	30589* (H)	106	113	203	105	127	295	91	112	356
3510	30593* (H)	104	106	209	105	115	254	89	105	457
3513	30556 (H)	104	112	177	87	113	355	92	111	429
3515	30649	103	106	199	104	95	286	96	121	440
3516	30692	104	111	216	108	112	318	95	102	435
3517	30713	94	112	218	106	104	291	94	112	449
3518	Gontra Bidhan - 3 (NC)	97	101	198	106	93	314	85	110	346
3519	31447 (H)	98	111	163	102	119	286	90	104	427
3520	31448 (H)	105	112	198	102	106	279	95	107	420
3521	ZC	105	119	218	104	120	269	94	109	284
3522	31449 (H)	102	112	197	103	100	334	97	113	441
3523	31603	103	109	209	97	102	283	95	107	501
3524	31452 (H)	104	111	191	103	105	302	74	117	436
3525	31456 (H)	106	104	220	111	96	309	89	114	414
3526	31460 (H)	105	109	207	89	108	303	86	100	433
3527	31461 (H)	104	106	214	109	91	362	96	107	414
3528	31462 (H)	104	105	224	107	93	332	95	111	444
3529	US 312 (HC)	104	177	167	107	93	306	93	102	437
3530	31466 (H)	106	104	224	88	103	314	86	110	368
3531	31469 (H)	104	108	210	105	94	308	86	108	391
3533	31572	104	106	203	108	107	293	94	112	397
3535	LC	105	109	196	89	97	290	87	109	441
3537	31589	99	105	217	110	95	297	93	118	451
3539	30756*	98	105	204	110	108	303	90	112	336
Experimental Mean		103	111	202	102	104	307	91	110	416

Table No. 3.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 IME, Kharif 2024

Entry No	IET No	Zone IV-North Eastern						Zone IV-North Eastern (2)		
		Assam			Tripura			Mean		
		Titabar			Lembucherra					
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3501	30573* (H)	95	108	244	93	97	292	94	102	268
3506	30578* (H)	103	110	265	91	108	267	97	109	266
3510	30593* (H)	97	115	264	91	102	358	94	108	311
3512	31608	106	107	247	92	92	283	99	100	265
3516	30692	116	105	264	104	102	242	110	103	253
3517	30713	123	103	258	106	95	292	115	99	275
3518	Gontra Bidhan-3 (NC)	90	96	245	88	102	325	89	99	285
3520	31448 (H)	101	109	266	91	104	217	96	107	241
3521	ZC	104	126	252	93	116	300	98	121	276
3523	31603	104	111	228	95	105	300	100	108	264
3524	31452 (H)	103	116	271	105	99	367	104	107	319
3527	31461 (H)	99	109	249	94	116	333	97	113	291
3529	US 312 (HC)	103	115	281	91	108	375	97	111	328
3532	31611	99	113	296	88	91	417	94	102	356
3535	LC	104	122	291	106	106	325	105	114	308
3536	31587	101	117	265	107	78	292	104	98	278
3537	31589	107	103	286	91	91	342	99	97	314
3538	31594	97	105	235	89	105	333	93	105	284
Experimental Mean		102	110	261	95	100	314	99	106	288
Standard Error		0.58			0.93					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 IME, Kharif 2024 (Not considered)

Entry No	IET No	Zone IV-North Eastern		
		Assam		
		@Gerua		
		DFF	PH	PAN
3501	30573* (H)	102	118	274
3506	30578* (H)	101	121	253
3510	30593* (H)	104	129	278
3512	31608	106	119	281
3516	30692	115	123	260
3517	30713	129	112	295
3518	Gontra Bidhan-3 (NC)	94	95	265
3520	31448 (H)	102	122	270
3521	ZC	106	135	276
3523	31603	105	120	259
3524	31452 (H)	102	128	267
3527	31461 (H)	101	122	274
3529	US 312 (HC)	104	128	284
3532	31611	104	125	326
3535	LC	101	133	290
3536	31587	105	132	271
3537	31589	115	111	260
3538	31594	105	111	271
Experimental Mean		105	121	275

Table No. 3.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 IME, Kharif 2024

Entry No	IET No	Zone V- Central														
		Chhattisgarh									Chhattisgarh (3)			Maharashtra		
		Ambikhapur			Bilsapur			Raipur			Mean			Sakoli		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3505	30577*	98	114	182	88	125	92	116	181	93	118	181	96	127	274	
3510	30593* (H)	98	125	189	90	145	90	133	187	93	134	188	90	139	264	
3514	30558 (H)	98	112	164	86	121	91	126	171	92	120	167	89	123	266	
3516	30692	99	113	204	98	125	100	125	202	99	121	203	102	117	255	
3517	30713	101	99	224	107	110	102	111	254	103	107	239	111	114	260	
3518	Gontra Bidhan-3 (NC)	96	108	144	84	111	90	108	199	90	109	171	83	115	276	
3520	31448 (H)	97	113	177	92	128	95	125	188	95	122	182	95	125	298	
3521	ZC	101	109	172	83	118	90	121	239	91	116	205	86	127	265	
3523	31603	105	114	162	94	119	96	126	241	98	120	201	96	125	281	
3524	31452 (H)	99	117	163	93	134	94	123	247	95	125	205	95	138	275	
3527	31461 (H)	101	121	183	93	126	93	139	249	96	129	216	93	131	294	
3529	US 312 (HC)	99	116	175	91	138	90	128	206	93	127	190	94	127	267	
3535	LC	100	114	162	90	120	91	127	208	94	120	185	96	115	245	
3537	31589	102	104	185	101	110	103	117	247	102	110	216	105	103	286	
Experimental Mean		99	112	177	92	123	94	123	215	95	120	196	95	123	271	
Standard Error		2.45			0			0.74						0.41		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 IME, Kharif 2024

Entry No	IET No	Zone V- Central															Zone V- Central (7)		
		Maharashtra			Maharashtra (2)			Madhya Pradesh						Madhya Pradesh (2)			Mean		
		Sindewahi			Mean			Jabalpur			Rewa			Mean			Mean		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3505	30577*	105	114	334	101	121	304	95	82	194	111	97	152	103	89	173	98	111	219
3510	30593* (H)	105	126	310	97	132	287	96	85	162	112	109	201	104	97	182	97	123	219
3514	30558 (H)	104	122	354	96	122	310	92	86	128	110	96	210	101	91	169	96	112	215
3516	30692	115	115	306	108	116	281	106	81	158	116	100	180	111	90	169	105	111	218
3517	30713	116	109	252	114	112	256	106	70	190	119	91	253	113	80	222	109	101	239
3518	Gontra Bidhan-3 (NC)	90	110	212	86	112	244	90	80	135				90	80	135	89	105	193
3520	31448 (H)	107	126	323	101	126	310	75	85	122	112	95	170	93	90	146	96	114	213
3521	ZC	99	114	292	92	121	278	92	84	127	109	87	246	101	86	186	94	109	223
3523	31603	106	118	251	101	122	266	74	82	156	111	93	188	93	88	172	98	111	213
3524	31452 (H)	107	130	253	101	134	264	78	83	113	115	89	213	96	86	163	97	116	211
3527	31461 (H)	105	131	262	99	131	278	78	85	137	112	94	188	95	89	162	96	118	219
3529	US 312 (HC)	105	122	297	100	125	282	98	84	124	113	97	157	106	91	141	99	116	204
3535	LC	108	122	304	102	119	274	108	68	177	114	94	174	111	81	176	101	109	212
3537	31589	112	114	279	108	108	283	102	80	148	123	92	232	113	86	190	107	103	230
Experimental Mean		106	119	287	100	122	280	92	81	147	113	94	197	102	87	170	99	111	216
Standard Error		0.41						0.53			3.3								

Table No. 3.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 IME, Kharif 2024 (Not considered)

Entry No	IET No	Zone V- Central		
		Chhattisgarh		
		@Jagadapur		
		DDF	PH	PAN
3505	30577*	92	106	268
3510	30593* (H)	92	103	297
3514	30558 (H)	94	105	297
3516	30692	105	106	308
3517	30713	109	100	280
3518	Gontra Bidhan-3 (NC)	84	98	291
3520	31448 (H)	95	112	314
3521	ZC	83	104	244
3523	31603	99	106	268
3524	31452 (H)	95	108	298
3527	31461 (H)	96	108	277
3529	US 312 (HC)	92	108	312
3535	LC	95	104	304
3537	31589	105	103	294
Experimental Mean		95	105	289

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 IME, Kharif 2024

Entry No	IET No	Zone VI- Western														
		Gujarat									Gujarat (3)			Maharashtra		
		Navasari			Nawagam			Vyra			Mean			Karjat		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
3501	30573* (H)	88	110	379	101	115	292	94	114	241	94	113	304	90	108	186
3516	30692	100	124	372	101	113	275	102	111	297	101	116	315	98	112	181
3517	30713	107	114	388	115	118	278	112	107	265	111	113	310	104	101	182
3518	Gontra Bidhan-3 (NC)	82	120	374	87	115	274	87	109	203	85	115	284	84	103	179
3520	31448 (H)	91	125	388	98	132	291	99	122	295	96	126	325	92	110	166
3521	ZC	83	101	298	91	85	249	92	96	311	89	94	286	87	96	174
3523	31603	91	140	223	100	125	280	103	124	247	98	130	250	90	113	169
3524	31452 (H)	89	142	232	100	123	266	99	133	309	96	133	269	90	120	170
3527	31461 (H)	91	122	376	97	124	290	98	125	249	95	123	305	95	114	181
3529	US 312 (HC)	89	146	283	115	125	276	98	132	257	101	134	272	92	112	165
3535	LC	86	123	249	114	116	262	95	116	225	98	118	245	95	96	185
3537	31589	97	117	241	113	124	276	107	108	322	106	116	280	97	104	181
Experimental Mean		91	123	316	102	117	275	98	116	268	98	119	287	92	107	176
Standard Error		0.63			0.87			1.08			0.52			1.14		

Table No. 3.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 IME, Kharif 2024

Entry No	IET No	Zone VI- Western									Zone VI- Western		
		Maharashtra						Maharashtra (3)			(6)		
		Radhanagari			Vadgaonmaival			Mean			Mean		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
3501	30573* (H)	100	104	235	94	104	264	95	106	228	94	109	266
3516	30692	110	105	241	105	104	327	104	107	249	103	111	282
3517	30713	109	84	209	103	100	306	105	95	232	108	104	271
3518	Gontra Bidhan-3 (NC)	96	100	206	94	98	312	91	100	233	88	108	258
3520	31448 (H)	107	93	287	98	108	343	99	104	265	98	115	295
3521	ZC	94	72	179	88	84	350	90	84	235	89	89	260
3523	31603	105	96	227	94	104	243	97	104	213	97	117	232
3524	31452 (H)	103	100	241	98	106	297	97	108	236	97	121	253
3527	31461 (H)	101	100	233	96	110	292	97	108	235	96	116	270
3529	US 312 (HC)	101	92	201	93	112	266	95	105	210	98	120	241
3535	LC	96	93	215	92	108	263	94	99	221	96	109	233
3537	31589	110	86	212	101	96	314	103	95	236	104	106	258
Experimental Mean		102	93	223	96	102	298	97	101	233	97	110	260
Standard Error		0.57			0.54			0.43			0.33		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 IME, Kharif 2024

Entry No	IET No	Zone VII- Southern																							
		Andhra Pradesh						Andhra Pradesh (2)			Karnataka												Karnataka (4)		
		Maruteru			Ragolu			Mean			Mandya			Brahmavar			Gangavati			Mugad			Mean		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3502	30574* (H)	80	115	290	83	121	253	82	118	272	100	107	353	105	86	410	87	116	371	93	70	283	96	95	354
3503	30575* (H)	85	123	316	91	110	286	88	117	301	106	97	362	111	87	417	93	119	396	94	71	378	101	93	388
3504	30576* (H)	79	108	279	88	109	238	84	109	258	110	103	310	107	86	476	89	118	369	92	76	349	100	96	376
3505	30577*	82	109	314	87	104	253	85	107	283	106	95	358	107	91	400	90	104	335	87	71	340	97	90	358
3506	30578* (H)	84	113	317	88	117	238	86	115	277	112	99	336	108	97	381	94	112	371	87	71	361	100	95	362
3510	30593* (H)	83	115	308	86	116	273	85	115	290	105	118	349	111	81	373	88	113	350	86	81	353	98	98	356
3516	30692	95	112	301	91	120	238	93	116	270	109	97	329	106	88	355	102	109	393	113	68	342	108	90	355
3517	30713	100	119	320	93	103	250	96	111	285	101	88	313	110	84	415	93	92	313	112	67	337	104	83	345
3518	Goitra Bidhan-3 (NC)				77	108	245	77	108	245	106	94	313	113	90	414	88	107	400	88	66	267	99	89	348
3520	31448 (H)	84	121	295	86	116	266	85	118	280	106	98	315	102	76	440	91	108	370	85	78	364	96	90	372
3521	ZC	75	106	323	79	98	314	77	102	318	107	89	320	112	87	411	81	116	378	87	63	350	96	89	365
3523	31603	88	116	306	90	107	253	89	111	279	112	95	286	111	98	396	89	101	316	105	81	330	104	94	332
3524	31452 (H)	88	123	312	88	119	242	88	121	277	111	101	340	111	99	410	95	111	339	92	79	368	102	98	364
3527	31461 (H)	85	120	317	86	119	244	86	120	280	112	92	335	112	101	381	98	102	369	92	71	351	103	92	359
3529	US 312 (HC)	85	121	315	84	115	244	85	118	279	101	94	345	111	74	396	90	113	309	104	68	303	102	87	338
3534	31582	85	134	308	89	123	282	87	129	295	106	105	315	104	81	362	94	121	329	105	84	344	102	98	337
3535	LC	102	115	326	101	119	279	102	117	302	103	115	338	102	86	354	89	106	406	100	83	311	98	98	352
3537	31589	95	129	297	98	128	257	97	129	277	112	96	367	104	87	384	96	102	322	119	71	289	108	89	341
Experimental Mean		86	117	308	88	114	258	87	116	282	106	99	332	108	87	398	91	109	357	96	73	334	101	92	356
Standard Error		0.58			0.43						0.92			1.69			0.52			0.97					

Table No. 3.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 IME, Kharif 2024

Entry No	IET No	Zone VII- Southern																				
		Kerala						Kerala (2)			Puducherry						Puducherry (2)			Telangana		
		Monocompu			Pattambi			Mean			Kurumbapet			Karaikal			Mean			Kunaram		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	
3502	30574* (H)	95	121	222	94	111	343	94	116	356	93	96	440	85	66	289	89	81	365	85	123	
3503	30575* (H)	100	127	275	97	78	202	98	102	330	96	91	320	90	76	349	93	84	334	91	108	
3504	30576* (H)	95	125	213	96	92	247	96	108	301	96	83	320	84	77	339	90	80	330	84	112	
3505	30577*	99	118	266	95	89	245	97	103	344				84	61	353	84	61	353	87	109	
3506	30578* (H)	99	126	244	96	88	259	97	107	333	99	87	360	91	86	435	95	86	398	92	117	
3510	30593* (H)	102	132	264	96	89	216	99	110	328				91	85	362	91	85	362	89	122	
3516	30692	107	130	226	106	99	300	106	115	339	101	101	390	94	85	358	98	93	374	103	113	
3517	30713	108	117	300	111	86	336	109	101	418	97	93	330	90	81	375	94	87	352	103	95	
3518	Goitra Bidhan-3 (NC)	98	114	235	97	79	176	98	96	284				84	58	259	84	58	259	84	108	
3520	31448 (H)	103	118	233	97	82	204	100	100	296	93	82	330	91	66	259	92	74	295	91	113	
3521	ZC	96	108	264	91	82	309	93	95	374	90	95	400	90	60	344	90	78	372	83	110	
3523	31603	104	117	244	100	81	203	102	99	305				91	91	241	91	91	241	95	115	
3524	31452 (H)	98	125	242	93	93	252	96	109	328	95	89	290	93	90	232	94	90	261	94	117	
3527	31461 (H)	100	126	249	94	82	168	97	104	291	97	86	360	90	91	354	94	88	357	94	117	
3529	US 312 (HC)	97	125	269	94	81	209	95	103	328				84	80	345	84	80	345	90	120	
3534	31582	105	127	295	98	90	309	101	109	401	97	103	370	90	87	330	94	95	350	96	134	
3535	LC	99	118	224	99	86	360	99	102	367	104	101	320	93	91	424	98	96	372	91	108	
3537	31589	106	114	275	92	101	446	99	107	453	94	86	340	92	101	339	93	93	340	99	115	
Experimental Mean		100	121	252	97	88	265	99	105	343	96	91	351	89	79	332	92	83	337	91	114	
Standard Error		0.58			1.46						1.14			0.58						0.67		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 IME, Kharif 2024

Entry No	IET No	Zone VII- Southern																		Zone VII- Southern (15)		
		Telangana						Telangana (3)			Tamil Nadu						Tamil Nadu (2)			Mean		
		Rajendranagar			Warangal			Mean			Coimbatore			Adutrai			Mean			Mean		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3502	30574* (H)	92	107	320	87	118	328	88	116	324	96	92	318	99	104	352	98	98	335	92	104	401
3503	30575* (H)	99	112	409	93	129	297	94	116	353	99	92	348	101	106	366	100	99	357	96	102	429
3504	30576* (H)	93	108	311	86	119	304	87	113	308	99	91	357	101	113	285	100	102	321	93	101	385
3505	30577*	91	104	393	90	122	299	89	112	346	106	92	332	98	96	315	102	94	324	93	98	412
3506	30578* (H)	98	110	387	92	122	310	94	117	348	105	93	305	97	110	364	101	102	334	96	103	415
3510	30593* (H)	94	111	396	93	127	310	92	120	353	98	91	338	98	111	395	98	101	366	94	107	418
3516	30692	103	109	387	100	115	308	102	112	347	110	98	403	97	102	406	103	100	404	102	103	414
3517	30713	103	102	389	106	116	313	104	104	351	109	93	398	98	95	404	104	94	401	102	95	442
3518	Goitra Bidhan-3 (NC)	101	108	342				93	108	342	97	93	305	95	86	380	96	89	342	94	92	382
3520	31448 (H)	97	105	444	93	125	313	94	114	378	106	95	428	101	106	394	104	101	411	95	99	410
3521	ZC	89	103	402	85	111	298	86	108	350	98	86	350	96	95	346	97	91	348	90	94	432
3523	31603	103	104	385	95	122	301	98	114	343	109	95	370	94	76	404	102	85	387	99	100	392
3524	31452 (H)	98	112	374	92	134	305	95	121	339	108	100	363	98	104	393	103	102	378	97	106	399
3527	31461 (H)	98	111	431	92	127	306	95	118	368	102	92	398	96	115	409	99	103	404	97	104	417
3529	US 312 (HC)	94	109	391	91	125	309	92	118	350	102	89	353	95	114	398	98	101	376	94	102	412
3534	31582	104	112	333	97	132	317	99	126	325	115	102	362	96	121	360	105	111	361	99	110	428
3535	LC	99	104	389	101	133	310	97	115	350	112	83	392	98	114	390	105	98	391	100	104	419
3537	31589	91	102	413	98	116	316	96	111	364	118	93	405	98	115	401	108	104	403	101	104	438
Experimental Mean		97	107	383	93	123	308	94	115	347	104	92	362	97	104	375	101	99	369	96	102	414
Standard Error		1.64			0.77						1.55			1.05								

Table No. 3.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 IME, Kharif 2024 (Not considered)

Entry No	IET No	Zone VII- Southern		
		Karnataka		
		@Kathalgere		
		DDF	PH	PAN
3502	30574* (H)	62	96	448
3503	30575* (H)	68	94	364
3504	30576* (H)	65	94	383
3505	30577*	67	91	429
3506	30578* (H)	67	91	327
3510	30593* (H)	67	100	299
3516	30692	81	96	313
3517	30713	67	83	345
3518	Goitra Bidhan-3 (NC)	65	89	336
3520	31448 (H)	64	92	266
3521	ZC	66	100	294
3523	31603	68	93	425
3524	31452 (H)	67	96	331
3527	31461 (H)	68	95	378
3529	US 312 (HC)	64	94	462
3534	31582	75	97	327
3535	LC	69	102	439
3537	31589	80	89	364
Experimental Mean		68	94	362

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.4: Grain quality characteristics of entries in AVT-2 & 1 IME, Kharif 2024

Code	Entry No.	Designation / IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1250	3501	30573 (H)	80.0	69.2	54.1	6.59	2.30	2.86	LB	VOC	7.0	26.19	55
1251	3502	30574 (H)	80.6	70.3	57.8	6.77	2.02	3.35	LS	VOC	5.0	24.02	35
1252	3503	30575 (H)	79.6	70.0	49.5	5.70	2.30	2.47	SB	VOC	5.5	26.84	42
1253	3504	30576 (H)	78.1	67.2	48.0	5.15	1.90	2.71	MS	VOC	5.0	23.84	22
1254	3505	30577	80.3	70.2	58.5	5.63	2.26	2.49	SB	VOC	7.0	24.31	22
1255	3506	30578 (H)	79.8	68.8	48.4	6.73	2.33	2.88	LB	VOC	7.0	24.55	26
1256	3507	30579 (H)	80.7	71.1	59.3	6.75	2.27	2.97	LB	VOC	5.4	23.52	23
1257	3508	30587 (H)	79.6	68.6	53.1	6.18	2.03	3.04	LS	VOC	7.0	25.25	42
1258	3509	30589 (H)	78.5	69.0	52.5	6.60	2.38	2.77	LB	VOC	5.0	26.01	29
1259	3510	30593 (H)	78.3	69.5	51.6	6.31	2.26	2.79	LB	VOC	5.0	22.44	53
1260	3511	30704	78.4	67.7	44.0	5.65	2.08	2.71	MS	VOC	5.3	22.46	46
1261	3512	31608	78.7	68.0	54.2	6.58	2.09	3.14	LS	VOC	4.0	26.01	40
1262	3513	30556 (H)	78.7	68.1	49.8	5.67	2.47	2.29	SB	VOC	4.0	26.19	26
1263	3514	30558 (H)	79.9	70.0	44.0	5.75	2.44	2.35	SB	VOC	4.0	25.93	48
1264	3515	30649	79.7	68.8	34.7	5.54	2.39	2.31	SB	VOC	4.0	27.04	22
1265	3516	30692	77.4	66.5	57.0	5.62	2.62	2.78	MS	VOC	4.0	24.22	22
1266	3517	30713	79.2	69.1	60.0	5.83	2.07	2.81	MS	A	4.0	24.78	22
1267	3518	Gontra Bidhan 3 (NC)	78.6	70.8	56.1	5.22	2.17	2.40	SB	VOC	4.0	26.78	55
1268	3519	31447 (H)	79.5	69.7	62.6	6.24	2.64	2.36	LB	VOC	4.0	20.12	55
1269	3520	31448 (H)	79.9	70.1	57.0	6.26	2.32	2.69	LB	VOC	4.0	22.96	22
1270	3521	ZC	76.1	65.8	55.0	6.72	2.13	3.15	LS	VOC	4.0	22.20	60
1271	3522	31449 (H)	79.6	69.0	53.3	6.68	2.11	3.16	LS	VOC	5.0	24.02	22
1272	3523	31603	77.9	68.3	56.7	5.66	2.01	2.81	MS	VOC	4.0	21.47	22
1273	3524	31452 (H)	76.7	67.5	54	6.47	2.06	3.14	LS	VOC	5.5	26.78	22
1275	3526	31460 (H)	80.5	68.9	54.2	5.64	2.15	2.62	MS	VOC	4.0	21.17	22
1276	3527	31461 (H)	79.6	68.7	52.0	6.95	2.22	3.13	LS	VOC	5.0	22.61	22
1277	3528	31462 (H)	80.2	68.7	44.9	6.88	2.19	3.14	LS	VOC	7.0	26.04	22
1278	3529	US 312 (HC)	79.3	70.0	55.0	5.76	2.02	2.85	MS	VOC	5.6	21.35	46
1279	3530	31466(H)	79.4	66.9	53	6.51	2.37	2.74	LB	VOC	5.0	23.76	50
1280	3531	31469(H)	78.8	69.5	57.7	6.55	2.14	3.06	LS	VOC	4.0	22.9	27
1281	3532	31611	79.0	67.9	54.6	6.69	1.92	3.48	LS	VOC	4.0	23.84	70
1282	3533	31572	77.7	66.9	48.8	6.67	1.98	3.36	LS	A	4.0	23.37	53
1283	3534	31582	77.5	67.3	61.1	5.7	2.02	2.82	MS	VOC	4.0	22.35	48
1284	3535	LC	80.6	65.9	56.4	7.07	2.27	3.11	LS	Oc	7.0	28.48	35
1285	3536	31587	77.6	66.4	41.4	6.26	2.05	3.55	LS	VOC	4.0	23.11	22
1286	3537	31589	78.7	69.8	59.5	4.83	2.07	2.33	SB	A	4.0	22.76	22
1287	3538	31594	80.0	64.8	42.0	6.44	2.25	2.86	LB	VOC	4.0	26.84	23
1288	3539	30756	79.5	68.3	52.7	5.64	2.07	2.72	MS	A	4.0	22.61	56
HULL: Hulling(%) MILL: Milling(%) HRR: Head Rice Recovery KL: Kernel length (mm) KB: Kernel Breadth(mm) L/B : Length and Breadth(mm) KLAC: Kernel length after cooking WU: Water uptake ER: Elongation ratio AC: Amylose content (%) ASV: Alkali Spreading Value AC: Amylose Content GC: Gel consistency													

INITIAL VARIETY TRIAL -IRRIGATED MIDEARLY

(IVT- IME)

Locations: 49

Test Entries: 64

Checks: **Gontra Bidhan-3 (National); PR 113-(Northern), Lalat (Eastern and North Eastern), Karjat 7 (Western), MTU 1010 (Central and Southern)-Zonal and Local Check** Table: 4

Initial Variety Trial –Irrigated Mid Early (IVT- IME) was constituted with 61 test entries and 3 checks *viz.*, Gontra Bidhan-3 (National check); Zonal checks -PR 113 (Northern), Lalat (Eastern and North Eastern), MTU1010 (Central & Southern), Karjat 7 (Western) and a Local check. The trial was sent to 49 locations and data was received from all the centres except Bilaspur, Kurumbapet and Karaikal. Data from seven centres was excluded from analysis *viz.*, Chiplima, Masodha, Chinsurah, Gerua, Lembuchera and Rewa due to low (<5%) / high CV (20%) or low experimental yield (<4000kg/ha) or based on non-significant F value. The range of various parameters across the zones is presented in the following Tables 4.1, 4.2 and 4.3. Only one location (Titabar) data is available in north eastern zone, hence entries with significant yield advantage over the best check in this zone only will not be promoted to second year of testing but will be repeated in the IVT to generate more data points in this zone. Unusual tall stature for one entry, (IET 32435) was observed consistently across the location with a mean plant height of 140 cm on overall basis. Breeders should exercise caution to avoid nominating such entries with excessively tall stature.

In all the zones except zone VII, national check is the best check (BC) while local check is the best check in zone VII. A total of 11 entries recorded significant yield advantage over the BC either on overall basis or on zonal basis. On overall basis, there were two entries (IETs 32436 and 32465) with significant yield advantage over the BC. Although IET 32440 recorded required significant yield advantage over the BC in northern and north-eastern zones, it's DFF in these zones is 116 and 119 days respectively which is much beyond the window of 91-100 days of a mid-early trial. Hence, IET 32440 is not promoted to AVT1-IME in zones-II and IV. IET 32440 with appropriate flowering duration and significant yield advantage over the BC is promoted to second year of testing only in southern zone. **It is to be noted that there are no entries with significant yield advantage over the best check and appropriate flowering duration in 4 zones viz., northern, north-eastern, central and western zones and hence none of the entries are promoted in these zones specifically.** In eastern zone, five entries *viz.*, IETs 32443, 32447, 32448, 32460 and 32467 with required significant yield advantage over the BC are promoted to second year of testing. IET 32455 despite its significant yield advantage in zone IV is dropped from further testing due to inappropriate flowering duration. IET 32470 recorded significant yield advantage over the BC in both eastern and southern zones and IET 31635 only in southern zone. Thus, a total of ten entries are promoted to second year of testing, Details of yield, DFF of the entries with significant yield advantage over the best check along with check data is presented in a table.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Parameters of the entries across the zone in IVT-IME – Kharif 2024

Zones	II	III	IV	V	VI	VII
Zonal mean(kg/ha)	3119 (IET 32457)-6583 (IET 32436)	4362 (IET 32480)-6520 (IET 32448)	3179 (IET 32456)-8305 (IET 32455)	3387 (IET 32434)-5950 (IET 32472)	3473 (IET 32451)-5967(IET 32448)	4388 (IET 32434)-6601 (IET 32440)
Exp Mean (kg/ha)	3816 (PNT)-6881 (CHT)	4024 (NRRI)-8877 (BNK)	4323 (TTB)	4411 (SND)-5558 (AMB)	4435 (NWG)-5584 (RDN)	4032 (CBT)-8613 (MNC)
CV%	7.01 (CHT)-21.9 (PNT)	5.36 (VRN)-15.51 (JYP)	11.15 (TTB)	10.05 (AMB)-18.8 (JDP)	11.21 (NVS)-14.84 (NWG)	5.38 (ADT)-14.57 (PTB)
DFP	93 (IET 32462)-122 (IET 32470)	93 (IET 32483)-110 (IE T32471)	97 (NC)-122 (IETs 32434, 32457, 32462)	94 (IET32439, 32480, 31635(R), ZC)-116 (IET 32457)	84 (IET 32483)-118 (IET 32457)	88 (IET 32480)-106 (IETs 32457, 32462)
PH (cm)	87 (NC)-147 (IET32435)	95 (IET 32483)-141 (IET 32435)	91 (IET 32450, 32476, 32483)-146 (IET 32435)	89 (IET 32476)-139 (IET 32435)	91 (IET 32477, ZC)- 147 (IET 32487)	89 (IETs 32476, 32477)- 139 (IET 32457)
Pan/m ²	186 (IET32489)-325 (IET32463)	246 (IET 32472)-325 (IET 32464)	203 (IET32464)-294 (IET32490)	204 (NC)-282 (IET 32436)	205 (IET 32479)-275 (IET 32454)	273 (IET 32455)-354 (IET 32444)
DNI	--	CHP (low exp.mean), MSD (low CV), CHN (F ns)	GER (low exp.mean), LMB (F ns)	REW (low exp. mean)	--	KTG (low CV)
Locations considered	4	9	1	6	6	13

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of the entries in IVT-IME in Kharif 2024

IET No / Designation / Cross combination	O	II	III	IV	VII	Remarks /promoted
32436 (HURS-24-2-IR 19A7492) IR04A429/DV77//IRRI 195/JAMIR/4//IRRI 123/UCP122 //Khao Dawk Malli 105/Kotki AUS///IRRI 154/Buri Katari// IR00W102/Kaliboro/5/IR47 761-27-1-3-6/PSB RC 28 (IR 56381-139-2-2)	6060(2) * 102	6583 (1)* 112	6409(5) * 103	--	--	overall
32440 (CR4379-4-3-1-1-1- 2) CR Dhan 307/MTU1010	--	6439(2) * 116	--	7089(2) * 119	6601(1) * 96	VII
32443 (SHUATS Dhan 10- IR18A1811) IR 99054-B-B- 29/IR09A224	--	--	6452(3) * 104	--	--	III
32447 (NWGR 19202) Jaya/IIRON-M-I-204/2-3-1- 1-1-2-6)	--	--	6506(2) * 101	--	--	III
32448 (KNM 13555) MTU1156/WGL 1097//MUTNS1	--	--	6520(1) * 99	--	--	III
32455 (K21-b-354) Acc-104785-6 (O. rufipogon)/ Samba Mahsuri///Sona	--	--	--	8305(1) * 119	--	Dropped due to inappropria te flowering duration
32460 (NP7250) NPG10/NPG MKDH//NPG 10	--	--	6276(8) * 98	--	--	III
32461 (Pusa 5706-1-1-1-2- 2-2) CMH 127//AR35	--	--	6278(7) * 97	--	--	III
32465 (KJTRH-2205R) KJT 184/BPT 5204	6157(1) * 101	--	6310(6) * 103	--	6600(2) * 97	Overall
32470 (BRR-2186) CRL 22//MTU1071-TCN- 188	5956(3) *	--	6412(4) * 101	--	6459(4) * 102	Overall
31635(R) (RNR 31755) IR 10A 155/MTU 1010	--	--	--	--	6516(3) * 90	VII
NC	5731	5727	5788	5478	5785	

Annual Progress Report 2024 Vol. I – Varietal Improvement

IET No / Designation / Cross combination	O	II	III	IV	VII	Remarks /promoted
ZC	5099	5133	5532	3998	5360	
LC	5519	5234	5309	4119	6016	
CD	225	641	408	964	417	
BC+CD	5956	6368	6196	6442	6433	

Entries promoted to AVT1-IME: 10

Overall: IETs 32436, 32470 and 32465

II: None

III: IETs 32443, 32447, 32448, 32460, 32467

IV: None

V: None

VI: None

VII: IETs 32440 and 31635

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.1: Composition of entries in Initial Variety Trial – Irrigated Mid Early (IVT– IME), Kharif 2024.

Entry No.	IET No.	Designation	Cross Combination	GT
3601	32434	NWGR 18084	Gurjari/Z-31/2-2-3-1-1-1-3	MB
3602	32435	GNV 2250	Aasaleeya/GNV 1109	LB
3603	32436	HURS-24-2-IR 19A7492	IR04A429/DV 77//IRRI 195/JAMIR/4/IRRI 123/UCP 122//KHAO DAWK MALLI 105/KOTKI AUS//IRRI 154/BURI KATARI//IR00W102/KALIBORO/5/IR 47761-27-1-3-6/PSB RC 28 (IR 56381-139-2-2)	LS
3604	32437	WGL 1742	Gontrabidhan -3/(B 95-1/Abhaya)	LS
3605	32438	RNR 49500	DRR Dhan 44/NX 3533::IRGC 63796	LS
3606	32439	IR 19A8864	IRRI 154/IR 115838:6-6-2	LS
3607	32440	CR4379-4-3-1-1-1-2	CR Dhan307/ MTU 1010	SB
3608	32441	JGL 43093	KNM 118/MTU 1010 NIL(Gnal)	LS
3609	32442	RP 5517 KAUPTB 1-1-1-1-3	NPT Cul 5-3	SB
3610	32443	SHUATS Dhan 10 (IR 18A1811)	IR 99054-B-B-29/IR09A224	LB
3611	32444	HTW 97-IR17A2832	IR98418-B-B-15/IR 11A293	LS
3612	32445	JXB-3-2-8-3 (Brahmavar)	JXB-3-2-8-3	LS
3613	32446	RP 6496-JBB 19246	Krishna Hamsa/IRBB 60//Krishna Hamsa/Tetep//Krishan Hamsa/IR 81896-96-B-B-195	LS
3614	32447	NWGR 19202	Jaya/IIRON-M-I-204/2-3-1-1-1-2-6	MB
3615	32448	KNM 13555	MTU 1156/WGL 1097//MUTNS1	LS
3616	32449	HURS 24-1	NDR 97/N-22	MS
3617	32450	R 2341-289-1-344-1	Indira Barani Dhan-1/ Guang Jianr-1	LB
3618	32451	TRC 2024-13/TRC H2TJ 5516-B-B-3-10	Hakuchuk 2/Tripura Jala	LS
3619	32452	CR 6307-IR19A8578	IR14F711/IR122310:7-5-6	LS
3620	32453	CR 4709-45-3-1-1	MTU 1010 / IR 121045-3-1-7-19	LS
3621	32454	PAU2k13/14-531-1-21-3-1-2(RYT 4041)	PR121*//PR 121/RP 2068	LS
3622	32455	RP 6819-15-1-4-2-1-1-B	ACC-104785-6(O. RUFFI.)/SM//SONA	LS
3623		National Check (Gothra Bidan -3_		
3624	32456	Shriram Super 4411	SPG40/SPG 16	SB
3625	31660	IET 31660	RNR 34979	LS
3626	32457	MGD-24-19	BPT-5204 x Doddiga-9	SB
3627	32458	CB 21505	CO 51/CO 54	SS
3628	32459	KPS 16647-IR 17A3046	NSIC 2011 RC 240/IR 12N234	MS
3629	32460	NP 7250	NPG 10/NPG MKDH//NPG 10	LS
3630	32461	Pusa 5706-1-1-1-2-2-2	CMH 127/AR 35	MB
3631	32462	NVSR-1242	GAR-3/IET-23814	LB
3632	32463	CR 6309-RGA-32	CR Dhan-318 x MTU-1010	LS
3633	32464	TRC 2024-14/TRC GK 5724-B-B-11-14	Gomati/Khowai	LS
3634	32465	KJTRH-2205R	KJT 184/BPT 5204	LS
3635	32466	WGL-1865	UPR 3667-2-1-7/WGL 1121	LS
3636	31662	IET 31662	NDR BARC -6	SB

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entry No.	IET No.	Designation	Cross Combination	GT
	(R)			
3637	32467	ORJ 1343 (TP 30438)	IR 09M924/IR688293	MB
3638	32468	RP 5507-JBB 684-3	Swarna/IRGC 63248//Swarna Sub 1	LB
3639	32469	KMP 252	BPT 5204/BR-2655-17	Bold
3640	32470	BRR-2186	CRL22/MTU1071-TCN-188	MS
3641	32471	Pusa 5567-3-1-4-3	Pusa 5173-3-5-1-1-2/ABL 19	LS
3642	32472	R 2697-69-1	R 1913-206-2-86-1/Indira Barani Dhan 1	MB
3643	32473	AD 19117	ADT 47/KMPI	MS
3644	32474	CR 4428-1-1-2-1-3-2	CR3562-2-1-2-1-1-1/CR3561-7-1-3-1-2-1	SB
3645	32475	CR 4344-12-2-1-1	MTU 1001/ Pusa 44 // IR 107476-13-15-8-29-B	LS
3646	32476	PAU 8460-34-1-1 (RYT 4171)	RP 126/PR 121	LS
3647	32477	NDLR 29 (NDLR 116-27-1-6-14-3)	NLR 34449/White Ponni	SS
3648	32478	HKR 18-40	(OM 6377/HKR46)/OM5240	LS
3649		Zonal Check	PR 113 (Northern), Lalat (Eastern and North Eastern), MTU 1010 (Central and Southern), Karjat 7 (Western)	
3650	32479	ORJ 1348 (TP 30579)	IR 652287-1/IR09M709	MS
3651	32480	KPS 130-IR 17A2706	Takanari/IRRI 154	MB
3652	32481	CB 21535	CO 51 / IMPROVED KAVUNI	MS
3653	32482	UPR 4659-7-1-1-1	Pant Dhan 4/UPR 3808-1-2-1-7	LS
3654	32483	Bathras Mutant-2	Mutant of Bathras	LB
3655	32484	NS-111	R 3132/PR 126-11-1-2-1	MS
3656	32485	CR3516-11-2-2-1-1-2	Birupa/Pusa 44	SB
3657	32486	CR 4398-4393-H6	Lalat Mas /CR 4393-H6//2* Lalat Mas	MS
3658	32487	HTW 91-IR18A1042	IR 10N237/IR11N202	LS
3659	32488	KMP 267	White Rajamudi/BR 2655-3	MS
3660	32489	OR 2569-3-1	OR1662-1/IR55236-35	MB
3661	32490	NVSR-1066	GAR-13/NVSR-303-6	MS
3662	32491	CR 4121-170-36-24-1	IRBB60*Swarna sub 1*3/CR 3856-44-22-2-1-11-1-1-1	SB
3663	31635 (R)	RNR 31755	IR 10A 155 / MTU 1010	LS
3664		Local Check		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.2: Grain Yield (kg/ha) in IVT -IME, Kharif 2024

Entry No	IET No	Zone II-Northern						Zone II- Northern (4)		Zone III- Eastern Bihar		
		Jammu & Kashmir		Punjab	Uttarakhand	Uttar Pradesh	Mean		Sabour			
		Chata		Ludhiana	Pantnagar	Nagina						
3601	32434			4072		3338		4262		3891		4506
3602	32435	7536	8	3130		2475		6223		4841		3997
3603	32436	6739		6855	1	7300	1*	5439		6583	1*	6734
3604	32437	6304		5587		2919		5206		5004		4802
3605	32438	6884		4978		6050	3*	6642	8	6139	4	4338
3606	32439	6232		4304		3950		5366		4963		3893
3607	32440	6957		5899	6			6463		6439	2*	5519
3608	32441	6449		4884		6238	2*	5412		5746		5138
3609	32442			2739				5106		3923		4783
3610	32443			4717		3300		5957		4658		5059
3611	32444	4275		5870	8			6715	5	5620		4718
3612	32445	6232		4116		4712	*	5386		5112		4891
3613	32446	6304		4681		4625	*	4820		5108		4847
3614	32447	7319		4964		4531		5273		5522		6734
3615	32448	6304		5928	5	4619	*	4967		5454		5973
3616	32449	6449		4072		3169		6449		5035		4916
3617	32450	6159		5435		4256		6729	4	5645		4595
3618	32451	6268		2978		3475		6157		4720		4516
3619	32452	8043	4*	5529		3938		6656	6	6041	7	2352
3620	32453	8261	3*	5790	9	3900		5884		5959	8	3157
3621	32454	7899	6*	5246		2550		4774		5117		4417
3622	32455	8043	4*	3522		5069	8*	5047		5420		5212
3623	Gothra Bidan-3(NC)	6159		4739				6283		5727		4975
3624	32456	6304		5935	4	5194	6*	6782	3	6054	6	4575
3625	31660	4928		5000		3475		4395		4449		4872
3626	32457					2175		4062		3119		4644
3627	32458	6957		4906		4981	9*	5126		5492		4738
3628	32459	6304		4862		2450		6150		4942		4437
3629	32460	8696	1*	5362		3238		5898		5798		5040
3630	32461	7174		4507		3906		4807		5099		6013
3631	32462			3297		1969		5791		3686		5217
3632	32463	8623	2*	5601		3650		5399		5818	10	5623
3633	32464	7174		3449		3719		5831		5043		4758
3634	32465	7464	9	5674		5188	7*	6835	2	6290	3	5168
3635	32466	7464	9	5891	7	3512		6223		5773		4289
3636	31662 (R)	6739		5268		4138		5605		5437		5124
3637	32467	6812		4326		2062		6017		4804		3671
3638	32468	7065		4341		3369		4176		4738		3948
3639	32469	7029		5565		5238	5*	4581		5603		6220
3640	32470	7101		4732		3638		5824		5324		6635
3641	32471			3051		3294		6416		4254		5173
3642	32472	6957		4217		3281		6642	8	5274		3607
3643	32473	6522		5000		5844	4*	6443		5952	9	3132
3644	32474			4493		4888	*	5532		4971		6250
3645	32475			4420		2825		4129		3791		5425
3646	32476			5225		2681		5233		4380		5642
3647	32477			5080		4062		6203		5115		4382
3648	32478	6884		5261		3219		4907		5068		4832
3649	ZC			6529	2	2912		5957		5133		4541
3650	32479			4297		4900	*	6017		5071		4229
3651	32480			3783		3150		5585		4173		2974
3652	32481			4051		3225		4714		3997		4432
3653	32482	6812		4906		2875		4900		4873		5237
3654	32483			4312		3094		6203		4536		2693
3655	32484			5362		4094		4601		4686		4679
3656	32485			3971		3375		6656	6	4667		6556
3657	32486			4928		4912	10*	6562	10	5468		5351
3658	32487			4870		4288		5299		4819		4629
3659	32488			5232				5824		5528		4293
3660	32489			4413		1750		6469		4211		4392
3661	32490	7826	7*	5696	10	3775		6975	1	6068	5	4723
3662	32491	6884		4942		4038		4096		4990		6097
3663	31635 (R)	6594		4696		4419		6090		5450		3167
3664	LC	6739		6188	3	1950		6057		5234		4066
Experimental Mean		6881		4820		3816		5660		5123		4774
CD(0.05)		973		898		1673		1108		641		1024
CV(%)		7.01		9.32		21.9		9.8		6.26		10.74
F val		6.07**		7.58**		3.67**		4.1**		9.71**		6.76**
DOS		12-06-24		11-06-24		06-11-24		25-06-24				19-06-24
DOP		18-07-24		07-11-24		07-01-24		26-07-24				19-07-24
Local Check Name		SJR-5		PR126		Pant Dhan 12		PR 113				Sabour Harshit Dhan

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.2 (Contd.): Grain Yield (kg/ha) in IVT -IME, Kharif 2024

Entry No	IET No	Zone III- Eastern											
		Bihar		Bihar (2)		Jharkhand		Odisha		Odisha (2)			
		Bikramganj	Mean	Ranchi	Mean	NRRI	Jeypore	Mean	Mean				
3601	32434	5342		4924		3105		3089		3698		3393	
3602	32435	4145		4071		3580		3624		6141		4883	
3603	32436	5507		6120	9	4455		5344	9	7170	7	6257	3
3604	32437	6484		5643		3985		2302		7097		4699	
3605	32438	5537		4938		3580		4279		5709		4994	
3606	32439	5806		4850		3985		5694	5	5941		5818	9
3607	32440	6502		6010		5000		5165		4524		4845	
3608	32441	6954	6	6046		4930		4742		5143		4942	
3609	32442	4341		4562		3110		5602	7	6575		6088	4
3610	32443	7210	3	6135	8	6485	3*	5463	8	6132		5797	10
3611	32444	6990	4	5854		5670	7	4914		6020		5467	
3612	32445	5586		5239		4390		3234		5223		4229	
3613	32446	6013		5430		3650		2421		4451		3436	
3614	32447	6239		6487	2	4795		5959	4	7114	8	6536	2*
3615	32448	6197		6085		6955	1*	3796		7266	6	5531	
3616	32449	5397		5156		4455		3598		5947		4772	
3617	32450	5922		5258		5130		2963		5685		4324	
3618	32451	5031		4773		4455		5099		5000		5050	
3619	32452	6575		4463		4390		2791		5297		4044	
3620	32453	6868	8	5013		4660		4312		6897		5605	
3621	32454	6789	10	5603		5535		2950		5617		4283	
3622	32455			5212		4050		3393		6084		4739	
3623	Gothra Bidan-3(NC)	6972	5	5974		4795		3188		7416	3	5302	
3624	32456	6752		5664		3445		4101		4969		4535	
3625	31660	5928		5400		5740	6	3360		7104	10	5232	
3626	32457	3791		4218		4730		2956		7438	2	5197	
3627	32458	5134		4936		3920		2612		6980		4796	
3628	32459	7698	2	6068		4455		2943		6648		4796	
3629	32460	6490		5765		5945	5	4960		6337		5649	
3630	32461	6654		6334	4	3245		6389	2*	5612		6000	6
3631	32462	5214		5216		4590		8459	1*	6125		7292	1*
3632	32463	6245		5934		4730		5238		4875		5057	
3633	32464	4609		4684		3580		3578		6949		5263	
3634	32465	5611		5389		6550	2*	4841		7077		5959	7
3635	32466	6264		5276		5265		3307		6209		4758	
3636	31662 (R)	6496		5810		4185		4696		4725		4711	
3637	32467	5830		4751		5000		2976		6661		4819	
3638	32468	5263		4605		4660		2315		6522		4418	
3639	32469	6618		6419	3	4320		2202		5883		4043	
3640	32470	8547	1*	7591	1*	6145	4	4153		7024		5589	
3641	32471	4835		5004		4730		5245	10	5685		5465	
3642	32472	5568		4587		4995		2910		3734		3322	
3643	32473	5836		4484		3715		4841		4341		4591	
3644	32474	5788		6019		5000		6078	3	5632		5855	8
3645	32475	4841		5133		5135		3909		6637		5273	
3646	32476	6728		6185	6	5065		4127		6044		5085	
3647	32477	6001		5192		4255		4226		5659		4943	
3648	32478	6868	8	5850		4055		4590		7445	1	6018	5
3649	ZC	5788		5164		5605	9	3485		5751		4618	
3650	32479	5672		4950		3850		3267		7381	4	5324	
3651	32480	5525		4250		3850		2176		3782		2979	
3652	32481	6496		5464		4930		4398		6172		5285	
3653	32482	6526		5882		5470		3340		6767		5054	
3654	32483	5031		3862		3240		3062		5495		4278	
3655	32484	5971		5325		5130		3624		5654		4639	
3656	32485	5836		6196	5	5400		4894		5434		5164	
3657	32486	6923	7	6137	7	5535	10	4246		7289	5	5768	
3658	32487	5580		5105		5200		4114		5773		4943	
3659	32488	5629		4961		3715		2308		6038		4173	
3660	32489	6166		5279		4390		4464		5850		5157	
3661	32490	5977		5350		5670	7	3452		4945		4199	
3662	32491	6142		6119	10	5000		3790		7110	9	5450	
3663	31635 (R)	5781		4474		4390		2308		3980		3144	
3664	LC	5287		4677		4930		5661	6	4824		5243	
Experimental Mean		5974		5368		4670		4024		5949		4986	
CD(0.05)		1226		810		731		464		1843		964	
CV(%)		10.27		7.55		7.84		5.77		15.51		9.67	
F val		3.71**		5.88**		10.97**		55.6**		2.34**		5.57**	
DOS		07-05-24				28-06-24		15-06-24		07-09-24			
DOP		08-04-24				13-08-24		27-07-24		08-03-24			
Local Check Name		Sabour Harshit				BVD-203		CR Dhan 805		Kalinga Dhan 1205			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.2 (Contd.): Grain Yield (kg/ha) in IVT -IME, Kharif 2024

Entry No	IET No	Zone III- Eastern									Zone III- Eastern (9)		
		Uttar Pradesh		West Bengal			West Bengal (3)		Mean				
		Varanasi	Hatwara	Malda	Bankura	Mean	Mean	Mean	Mean				
3601	32434	4333		5992		4317		10957	1*	7088	6	5037	
3602	32435	6842	8*	4150		4150		8812		5704		5049	
3603	32436	7283	6*	7033	5	5158		9000		7064	7	6409	5*
3604	32437	4667		4942		3433		7928		5434		5071	
3605	32438	7450	4*	5925		4367		7913		6068		5455	
3606	32439	5133		3892		3608		9145		5548		5233	
3607	32440	6025		5483		3933		8304		5907		5606	
3608	32441	5450		5908		4108		8159		6059		5615	
3609	32442	5608		6408		4750		8493		6550		5519	
3610	32443	6742	9*	7117	1	4442		9420		6993	9	6452	3*
3611	32444	5408		5358		4117		8754		6076		5772	
3612	32445	5492		4783		5350	9	8116		6083		5230	
3613	32446	5333		4342		5258	10	8638		6079		4995	
3614	32447	6342	*	6542	10	4483		10348	6*	7124	5	6506	2*
3615	32448	5533		7100	3	6392	2	9464		7652	1	6520	1*
3616	32449	6508	*	4408		3300		8536		5415		5230	
3617	32450	5550		5708		3083		9899	7	6230		5393	
3618	32451	6458	*	4725		3167		8290		5394		5193	
3619	32452	3667		5200		3883		8710		5931		4763	
3620	32453	5308		6292		4167		8855		6438		5613	
3621	32454	5650		6000		4508		9594		6701		5673	
3622	32455	6000		4583		4683		8174		5814		5273	
3623	Gothra Bidan-3(NC)	4017		6192		6150	7	8391		6911	10	5788	
3624	32456	4950		6108		3583		8029		5907		5168	
3625	31660	5233		6425		4483		8522		6477		5741	
3626	32457	2483		3808		3342		9739	9	5630		4770	
3627	32458	5025		5817		4242		8348		6135		5202	
3628	32459	6683	*	6158		4683		8116		6319		5758	
3629	32460	5417		6992	6	6350	3	8957		7433	3	6276	8*
3630	32461	7492	3*	6717	7	3917		10464	4*	7032	8	6278	7*
3631	32462	4600		4650		5000		9768	8	6473		5958	
3632	32463	7808	1*	4467		3858		9667		5997		5835	
3633	32464	5983		4075		6258	4	8449		6261		5360	
3634	32465	7533	2*	6708	9	4608		8696		6671		6310	6*
3635	32466	3842		7058	4	4658		8420		6712		5479	
3636	31662 (R)	5708		5658		3858		9261		6259		5523	
3637	32467	4967		7108	2	3108		10507	3*	6908		5537	
3638	32468	5192		6050		6258	5	8087		6798		5366	
3639	32469	6650	*	5717		3133		9072		5974		5535	
3640	32470	6025		6183		4458		8536		6393		6412	4*
3641	32471	5958		4508		3908		8014		5477		5340	
3642	32472	5842		4342		3092		8275		5236		4707	
3643	32473	5658		4175		3033		8290		5166		4780	
3644	32474	7300	5*	5683		4767		8362		6271		6096	10
3645	32475	5817		5375		4425		9377		6392		5660	
3646	32476	5092		6083		3217		8768		6023		5641	
3647	32477	6267	*	5050		4425		9652		6376		5546	
3648	32478	6700	10*	5867		3700		8812		6126		5874	
3649	ZC	5358		5150		5967	8	8145		6421		5532	
3650	32479	4442		4783		4408		10449	5*	6547		5387	
3651	32480	3958		5025		3242		8725		5664		4362	
3652	32481	6558	*	5067		4283		8232		5861		5619	
3653	32482	6867	7*	5367		3633		8304		5768		5724	
3654	32483	5767		5017		3558		8203		5593		4674	
3655	32484	6150		5275		4517		8304		6032		5478	
3656	32485	6675	*	4942		4567		8754		6087		5895	
3657	32486	3392		5575		6850	1*	9710	10	7378	4	6097	9
3658	32487	5492		6717	7	4150		9464		6777		5680	
3659	32488	6058		4433		4600		9232		6088		5145	
3660	32489	5767		5500		6225	6	10884	2*	7536	2	5960	
3661	32490	5808		5117		4142		8217		5825		5339	
3662	32491	5492		5742		4367		8246		6118		5776	
3663	31635 (R)	4142		5283		4200		8493		5992		4638	
3664	LC	5633		4592		4117		8667		5792		5309	
Experimental Mean		5665		5507		4375		8877		6253		5534	
CD(0.05)		607		1278		573		1611		809		408	
CV(%)		5.36		11.62		6.56		9.08		6.48		3.69	
F val		24.4**		3.91**		20.84**		1.82**		4.01**		11.54**	
DOS		12-06-24		11-07-24		20-06-24		05-07-24					
DOP		24-07-24		13-08-24		19-07-24		14-08-24					
Local Check Name						AJIT		Lalat					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.2 (Contd.): Grain Yield (kg/ha) in IVT -IME, Kharif 2024

Entry No	IET No	Zone IV-North Eastern			Zone V- Central								
		Assam		Chhattisgarh			Chhattisgarh (3)		Maharashtra				
		Titabar		Ambikhapur	Jagadapur	Raipur		Mean		Sakoli			
3601	32434	3290		5802		3293		3212		4103		1900	
3602	32435	4791		5722		5145		4245		5037		2700	
3603	32436	5078		5309		5874		5577		5586		5475	
3604	32437	3966		5660		6360	9	5399		5806		6850	2*
3605	32438	4224		5309		3397		4786		4497		4100	
3606	32439	4868		7352	3	5104		5228		5895	9	5725	
3607	32440	7089	2*	4969		3212		6154	5	4778		6900	1*
3608	32441	3608		5617		6499	8	5278		5798		6000	
3609	32442	5308	9	6049		5584		2472		4702		4625	
3610	32443	5093		5395		5909		6004	10	5769		6250	
3611	32444	4021		5648		5231		6061	9	5647		6175	
3612	32445	3503		6525		5052		4295		5291		5050	
3613	32446	3295		7062	5	4896		4074		5344		3350	
3614	32447	5555	4	6673	8	5775		5755		6068	5	5000	
3615	32448	3894		5673		6840	3	4929		5814	10	3950	
3616	32449	3812		6852	7	4433		5641		5642		6300	
3617	32450	3977		7327	4	6701	6	6140	7	6723	1	6300	
3618	32451	4922		5568		3958		3732		4419		4100	
3619	32452	4317		4753		5451		6731	1	5645		5200	
3620	32453	4912		5074		3582		5028		4562		6450	7
3621	32454	4213		4809		3704		3939		4150		4600	
3622	32455	8305	1*	6025		6985	1	4950		5987	7	5500	
3623	Gothra Bidan-3(NC)	5478	5	6420		5694		6688	2	6267	3	3375	
3624	32456	3179		4519		4722		4038		4426		6125	
3625	31660	4329		6654	9	3744		4972		5123		6500	5
3626	32457	3608		5142		5272		3754		4723		2500	
3627	32458	3872		6432		5064		4601		5366		6100	
3628	32459	4433		5889		4207		5705		5267		5975	
3629	32460	5373	8	4981		5648		5071		5234		5750	
3630	32461	4637		5296		5394		4031		4907		5675	
3631	32462	5439	6	5123		4855		2934		4304		2375	
3632	32463	3949		4840		4369		5434		4881		4850	
3633	32464	4098		7389	2	4653		3853		5298		2925	
3634	32465	6034	3	5914		6719	5	5335		5989	6	6500	5
3635	32466	5034		6580	10	5388		5264		5744		6375	9
3636	31662 (R)	2607		5784		4612		3782		4726		3600	
3637	32467	3460		4395		5168		5256		4940		5900	
3638	32468	3234		6494		3848		4665		5002		1975	
3639	32469	4829		5519		5110		4943		5190		5600	
3640	32470	5423	7	5352		5799		6581	3	5911	8	5325	
3641	32471	3751		4506		3860		4402		4256		2800	
3642	32472	4334		6957	6	6615	7	6083	8	6551	2	6650	3
3643	32473	4252		5833		4838		5434		5369		4875	
3644	32474	4296		6420		4277		4950		5216		5950	
3645	32475	3822		5574		4948		3333		4618		4250	
3646	32476	4516		4531		4757		4430		4573		6450	7
3647	32477	3888		7426	1	3993		5306		5575		3500	
3648	32478	2332		4722		4462		5392		4859		3950	
3649	ZC	3998		6099		5255		4088		5147		4700	
3650	32479	2596		5012		5359		4494		4955		5250	
3651	32480	3256		4309		4392		4865		4522		4850	
3652	32481	4736		5148		6215	10	4808		5390		3075	
3653	32482	4923		4358		5457		5050		4955		5025	
3654	32483	2486		5160		6736	4	4836		5578		2975	
3655	32484	3685		4358		5480		4651		4830		6175	
3656	32485	4340		5198		6956	2	6154	5	6102	4	6625	4
3657	32486	5055		4568		5307		4779		4885		6000	
3658	32487	3866		4488		6007		5385		5293		4950	
3659	32488	3195		5216		5133		3355		4568		3275	
3660	32489	5181	10	4302		5469		5769		5180		2950	
3661	32490	4361		4932		5353		5548		5278		4025	
3662	32491	4615		4173		5781		6389	4	5448		5950	
3663	31635 (R)	4037		4481		5272		5342		5032		6350	10
3664	LC	4119		6049		4583		4523		5052		5500	
Experimental Mean			4323		5558		5152		4936		5216		4938
CD(0.05)			964		1217		1936		1319		917		1232
CV(%)			11.15		10.95		18.8		13.37		8.8		12.48
F val			8.81**		4.21**		1.9**		3.95**		3.24**		10.01**
DOS			07-01-24		07-03-24		16-06-24		07-01-24				13-06-24
DOP			24-07-24		08-09-24		13-07-24		27-07-24				17-07-24
Local Check Name			Numali		RF105		IGKVR 1		Durgeshwari				PKV Ganesh

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.2 (Contd.): Grain Yield (kg/ha) in IVT -IME, Kharif 2024

Entry No	IET No	Zone V- Central						Zone V- Central (6)		Zone VI- Western Gujarat		
		Maharashtra		Maharashtra (2)		Madhya Pradesh		Mean		Navasari		Nawagam
		Sindewahi	Mean	Jabalpur	Mean	Mean	Mean	Mean	Mean	Mean		
3601	32434	3523		2711		2593		3387		3188		3082
3602	32435	5895	7	4297		3677		4564		3016		2716
3603	32436	5980	4	5728	7	4461		5446		5298		4105
3604	32437	4574		5712	8	4827		5612	8	4504		6306
3605	32438	4808		4454		3251		4275		4306		4045
3606	32439	5334	10	5529		3551		5382		4563		3827
3607	32440	5675	8	6287	1*	5273		5364		4292		5077
3608	32441	6051	3	6026	2*	4315		5627	7	4881		4573
3609	32442	2578		3602		2766		4012		3082		3063
3610	32443	2983		4616		5346		5314		4438		4213
3611	32444	3665		4920		3996		5129		4292		4861
3612	32445	4680		4865		5499		5183		3644		4145
3613	32446			3350		5013		4879		3512		4439
3614	32447	3757		4379		4880		5307		4643		5363
3615	32448	3707		3829		5106		5034		4206		8198
3616	32449	4297		5298		4561		5347		4669		2929
3617	32450	3786		5043		4967		5870	4	4735		5108
3618	32451	3977		4039		4847		4364		2520		2060
3619	32452	4268		4734		6436	7	5473		3393		5133
3620	32453	4808		5629	10	6184	9	5188		4735		5650
3621	32454	5305		4953		5977		4722		4590		1600
3622	32455	4659		5080		5346		5577	10	2870		2994
3623	Gothra Bidan-3(NC)	6683	1	5029		4940		5633	6	6025	8	3657
3624	32456	5909	6	6017	3*	4535		4975		6045	7	5890
3625	31660	3310		4905		5120		5050		5351		6031
3626	32457	4382		3441		3497		4091		2692		1373
3627	32458	3707		4904		5412		5219		3545		5018
3628	32459	5952	5	5963	5*	4993		5454		5397		5363
3629	32460	2592		4171		4441		4747		4134		6239
3630	32461	5043		5359		5080		5086		3505		6942
3631	32462	3984		3180		2972		3707		4517		3705
3632	32463	4524		4687		4076		4682		4769		4012
3633	32464	3232		3078		4056		4351		4848		3836
3634	32465	4730		5615		6051	10	5875	2	4497		5756
3635	32466	4432		5403		5465		5584	9	4352		6497
3636	31662 (R)	5021		4311		7380	1	5030		4312		5039
3637	32467	4169		5035		4594		4914		5569		4074
3638	32468	4261		3118		4428		4279		3571		5841
3639	32469	3679		4639		6529	6	5230		3638		3125
3640	32470	3331		4328		5512		5317		5522		4528
3641	32471	4879		3840		3956		4067		5575		2715
3642	32472	4013		5331		5386		5950	1	5582		2870
3643	32473	5036		4955		5213		5205		7004	1	2788
3644	32474	6065	2	6008	4*	5465		5521		6693	2	4437
3645	32475	3821		4036		4082		4335		4775		3657
3646	32476	3430		4940		5080		4780		5060		4497
3647	32477	4524		4012		5180		4988		4272		5363
3648	32478	4304		4127		4880		4618		6362	6	7216
3649	ZC	3764		4232		4209		4686		5880		2083
3650	32479	3906		4578		4149		4695		5298		3304
3651	32480	4531		4691		5106		4676		5437		6350
3652	32481	4290		3682		6649	4	5031		5939	9	3610
3653	32482	2308		3667		4555		4459		6389	5	5170
3654	32483	5000		3988		2680		4565		4940		4222
3655	32484	5511	9	5843	6	5924		5350		6601	3	3086
3656	32485	3871		5248		6436	7	5873	3	6587	4	3583
3657	32486	5305		5653	9	5412		5229		5509		4246
3658	32487	4602		4776		5279		5118		4802		4110
3659	32488	4283		3779		6536	5	4633		3995		4954
3660	32489	3438		3194		5505		4572		5754		5458
3661	32490	4148		4086		5259		4878		5470		4911
3662	32491	4311		5131		7227	3	5639	5	5939	10	4528
3663	31635 (R)	4815		5583		5000		5210		5794		5216
3664	LC	4510		5005		7281	2	5408		5595		5077
Experimental Mean		4411		4666		4975		4996		4796		4435
CD(0.05)		1181		868		1113		561		1075		1315
CV(%)		13.4		9.31		11.2		5.62		11.21		14.84
F val		4.83**		7.78**		7.33**		7.52**		7.77**		8.65**
DOS		26-06-24				27-06-24				25-06-24		19-06-24
DOP		29-07-24				19-07-24				16-07-24		24-07-24
Local Check Name						JR 206				GNR-3		GR 21

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.2 (Contd.): Grain Yield (kg/ha) in IVT -IME, Kharif 2024

Entry No	IET No	Zone VI- Western										
		Gujarat		Gujarat (3)		Maharashtra				Maharashtra (3)		
		Vyra		Mean		Vadgaonmaaval	Radhanagari	Karjat		Mean		
3601	32434	2963		3078		3940		4294		4782		4339
3602	32435	3404		3045		6420	7	5509		4858		5596
3603	32436	6494	6	5299		6050		6134		4252		5479
3604	32437	5849		5553		4788		6424		3513		4908
3605	32438	6775	4	5042		5049		3935		4498		4494
3606	32439	5083		4491		4295		4873		3949		4372
3607	32440	4355		4575		5025		6806	4	5455		5762
3608	32441	5607		5020		4818		5046		4451		4772
3609	32442	5817		3988		5602		4479		4801		4961
3610	32443	6762	5	5138		4522		5729		6089	7	5447
3611	32444	5983	9	5046		5513		6586	7	2955		5018
3612	32445	4004		3931		4058		4711		3627		4132
3613	32446	2797		3583		4645		5220		3002		4289
3614	32447	4349		4785		5020		5856		4801		5226
3615	32448	5096		5833	5	6395	8	6644	5	5265		6101
3616	32449	5358		4319		5108		6377		4763		5416
3617	32450	4496		4780		5311		5822		7803	1*	6312
3618	32451	4872		3151		3881		4306		3201		3796
3619	32452	4687		4404		4063		5220		5398		4894
3620	32453	5894		5426		6563	4	5961		3778		5434
3621	32454	4681		3623		6484	6	4398		5303		5395
3622	32455	2937		2934		5394		4884		6241	5	5506
3623	Gothra Bidan-3(NC)	6156	8	5279		6918	2	5845		5568		6110
3624	32456	5728		5888	3	5863		6528	8	4366		5585
3625	31660	5524		5635	9	6563	4	6505	10	5417		6161
3626	32457	3914		2660		7589	1	5301		4716		5869
3627	32458	5115		4559		5774		4190		5294		5086
3628	32459	5364		5374		4615		2755		4384		3918
3629	32460	5351		5241		6331	9	5694		6042	8	6022
3630	32461	5338		5262		4758		5220		5616	10	5198
3631	32462	5862		4695		3200		5799		5284		4761
3632	32463	3665		4149		4527		6389		4148		5021
3633	32464	5064		4582		3767		6516	9	6259	4	5514
3634	32465	4298		4850		4763		7037	1	4725		5509
3635	32466	6207	7	5685	7	4024		5602		4403		4676
3636	31662 (R)	4764		4705		3353		5613		4867		4611
3637	32467	5128		4924		4211		6412		4148		4924
3638	32468	4623		4679		4231		5579		3797		4536
3639	32469	4796		3853		3590		5185		5578		4784
3640	32470	7395	1	5815	6	4699		5637		4205		4847
3641	32471	4183		4158		3969		5764		6212	6	5315
3642	32472	3557		4003		5454		5880		4233		5189
3643	32473	4349		4713		4172		5220		3277		4223
3644	32474	7254	3	6128	2*	6070		5880		5038		5663
3645	32475	4476		4303		4822		5069		3021		4304
3646	32476	4604		4720		4961		5984		7784	2*	6243
3647	32477	4163		4600		5025		4583		3267		4292
3648	32478	4866		6148	1*	6282		5891		3608		5260
3649	ZC	5945	10	4636		4783		4630		3456		4290
3650	32479	3576		4059		5602		5995		6278	3	5958
3651	32480	5109		5632	10	3974		4155		3182		3770
3652	32481	5754		5101		5104		6458		4271		5278
3653	32482	4713		5424		6075		6319		4451		5615
3654	32483	4304		4489		3999		5023		3040		4021
3655	32484	5779		5155		5020		5046		4678		4915
3656	32485	7388	2	5853	4	4901		7037	1	5350		5763
3657	32486	3423		4393		5434		6134		4214		5261
3658	32487	4157		4356		5518		6863	3	3134		5172
3659	32488	3097		4015		3417		4803		5369		4530
3660	32489	5754		5655	8	6568	3	6620	6	4735		5974
3661	32490	4904		5095		4818		6088		4100		5002
3662	32491	5664		5377		6331	9	6470		5985	9	6262
3663	31635 (R)	4872		5294		4640		5312		5009		4987
3664	LC	5281		5318		5281		5139		5350		5257
Experimental Mean		4996		4742		5062		5584		4698		5114
CD(0.05)		1303		740		1225		1297		1066		730
CV(%)		13.06		7.8		12.11		11.62		11.35		7.14
F val		5.39**		9.45**		5.02**		3.54**		8.22**		6.39**
DOS		15-06-24				07-01-24		14-06-24		13-06-24		
DOP		07-06-24				08-07-24		13-07-24		07-08-24		
Local Check Name		GNR-3				Pawana		Phule Radha		KJT-3		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.2 (Contd.): Grain Yield (kg/ha) in IVT -IME, Kharif 2024

Entry No	IET No	Zone VI- Western (6)		Zone VII- Southern									
				Andhra Pradesh		Andhra Pradesh (2)		Karnataka					
		Mean		Ragolu	Maruteru	Mean		Mandya	Mugad				
3601	32434	3708		4130		3325		3728		3185		5272	
3602	32435	4320		6659		3398		5029		8743	4	5204	
3603	32436	5389		7080	7*	4863		5971	10	7872		5919	
3604	32437	5231		5877		4316		5096		7522		5834	
3605	32438	4768		6196		2866		4531		6168		5349	
3606	32439	4432		4181		2166		3174		5097		5113	
3607	32440	5168		6870	8			6870	1*	7954		5121	
3608	32441	4896		5275		3221		4248		7768		5382	
3609	32442	4474		4188				4188		6875		5085	
3610	32443	5292		6159		5628	4	5894		7805		5532	
3611	32444	5032		6188		3237		4713		6890		6129	
3612	32445	4031		4087		2842		3465		6317		5842	
3613	32446	3936		4058		4444		4251		5878		6741	
3614	32447	5005		6319		6216	2	6267	5	7188		5763	
3615	32448	5967	1	5326		4211		4769		8668	5	5579	
3616	32449	4868		4906		4372		4639		8058		5663	
3617	32450	5546		4826		3905		4366		7396		5640	
3618	32451	3473		5130		2842		3986		5543		5513	
3619	32452	4649		6399		3639		5019		5327		5163	
3620	32453	5430		7319	5*	4871		6095	6	9807	2	5703	
3621	32454	4509		4826		2890		3858		6406		5392	
3622	32455	4220		5725				5725		6912		6263	
3623	Gothra Bidan-3(NC)	5695	9	6022				6022	8	10156	1	7114	5
3624	32456	5737	7	5348		3841		4594		8095		5351	
3625	31660	5898	2	5949		6232	1	6091	7	6354		5625	
3626	32457	4264		6572		2995		4784		7158		6172	
3627	32458	4823		5623		3905		4764		6354		7103	6
3628	32459	4646		4899		3035		3967		6644		7171	3
3629	32460	5632	10	5522		4686		5104		7671		5579	
3630	32461	5230		5225		5435	7	5330		8281	8	5179	
3631	32462	4728		4725		3583		4154		7612		6395	
3632	32463	4585		5674		4726		5200		7292		7071	9
3633	32464	5048		4725		3309		4017		6972		6237	
3634	32465	5179		6471		4734		5603		9025	3	5138	
3635	32466	5181		6674	10	2689		4682		6979		6762	
3636	31662 (R)	4658		4283		2681		3482		6696		5610	
3637	32467	4924		4449				4449		6347		5479	
3638	32468	4607		8159	1*	4823		6491	4	8393	6	6835	10
3639	32469	4318		5623		3196		4410		8036		6795	
3640	32470	5331		7174	6*	4799		5986	9	8110		7315	2
3641	32471	4736		5159		3156		4158		8199	10	6045	
3642	32472	4596		5130		4163		4647		6161		5684	
3643	32473	4468		4159				4159		7820		5172	
3644	32474	5895	3	6246		4718		5482		7054		7549	1
3645	32475	4304		5500		4010		4755		7054		6635	
3646	32476	5481		5500		4517		5008		7999		5520	
3647	32477	4446		4652		4002		4327		7403		6188	
3648	32478	5704	8	7797	2*	5612	5	6705	2	8393	6	6210	
3649	ZC	4463		5428		5081	8	5254		7597		5780	
3650	32479	5009		5181		2899		4040		7574		5538	
3651	32480	4701		4551		3841		4196		4293		5304	
3652	32481	5189		5174		5032	9	5103		7746		7090	7
3653	32482	5519		7420	4*	4291		5856		7493		6349	
3654	32483	4255		5674		3043		4359		7143		5563	
3655	32484	5035		4377		3857		4117		6897		7121	4
3656	32485	5808	6	7688	3*	5539	6	6614	3	7321		5670	
3657	32486	4827								6897		5330	
3658	32487	4764		6790	9	5032	9	5911		7775		5928	
3659	32488	4273		4058		4364		4211		6354		6755	
3660	32489	5815	5	3732		2593		3162		7307		5482	
3661	32490	5048		5978		3736		4857		6652		6310	
3662	32491	5820	4	4826		4646		4736		8266	9	5558	
3663	31635 (R)	5141		4877		4734		4806		6801		7079	8
3664	LC	5287		6246		5676	3	5961		6458		5324	
Experimental Mean		4928		5571		4078		4880		7222		5958	
CD(0.05)		531		821		1155		696		1095		929	
CV(%)		5.39		7.37		14.13		7.14		7.59		7.8	
F val		9.25**		13.15**		5.86**		13.1**		8.72**		4.29**	
DOS				07-02-24		07-06-24				19-07-24		25-06-24	
DOP				29-07-24		29-07-24				15-08-24		Drill sowing	
Local Check Name				MTU 1121		MTU 1121				Thanu		PSB-68	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.2 (Contd.): Grain Yield (kg/ha) in IVT -IME, Kharif 2024

Entry No	IET No	Zone VII- Southern											
		Karnataka			Karnataka (4)		Kerala			Kerala (2)			
		Gangavati	Brahmavar	Mean	Monocompu	Pattambi	Mean						
3601	32434	3365		4760	7	4146		5747		3972		4860	
3602	32435	5038		4741	8	5931		7800		3628		5714	
3603	32436	4821		4924	3	5884		10673	6*	4860		7767	*
3604	32437	5564		4009		5732		8210		5616		6913	
3605	32438	5186		4306		5252		8621		6084		7352	
3606	32439	5994		3674		4969		7389		5724		6557	
3607	32440	6013		4129		5804		11494	1*	11844	1*	11669	1*
3608	32441	6404		4009		5891		7800		5576		6688	
3609	32442	6179		3813		5488		9031		5423		7227	
3610	32443	5423		3617		5594		10263	*	7648	6*	8955	2*
3611	32444	6628	9	4072		5930		8621		9072	2*	8846	4*
3612	32445	7705	5*	3990		5963		7389		5388		6389	
3613	32446	2821		3864		4826		8785		8140	5*	8462	10*
3614	32447	6314		4129		5848		9195		5760		7478	
3615	32448	6853	7	3927		6257	9	8621		4604		6612	
3616	32449	2622		4122		5116		9031		4736		6884	
3617	32450	3814		4091		5235		10263	*	5100		7681	*
3618	32451	4231		3952		4810		8949		5112		7031	
3619	32452	5590		3977		5014		6568		4928		5748	
3620	32453	5994		3927		6357	7	7800		4500		6150	
3621	32454	2596		4028		4606		9442		4484		6963	
3622	32455	4288				5821		9852		4056		6954	
3623	Gothra Bidan-3(NC)					8635	1	7800		4132		5966	
3624	32456	3654		3832		5233		8621		5616		7118	
3625	31660	5846		4003		5457		8621		6660	*	7640	*
3626	32457	7974	4*	4091		6349	8	8374		7056	*	7715	*
3627	32458	6237		5000	2	6174		6568		4276		5422	
3628	32459	3712		3977		5376		8210		4392		6301	
3629	32460	4686		3876		5453		9442		5070		7256	
3630	32461	4532		3693		5421		11084	4*	5940		8512	8*
3631	32462	2801		3857		5166		9031		5472		7252	
3632	32463	3929		3958		5563		8621		6408		7514	
3633	32464	3006		3952		5042		10673	6*	6408		8541	7*
3634	32465	8776	1*	3965		6726	2	11084	4*	6408		8746	5*
3635	32466	7660	6*	4646		6512	4	8210		6476		7343	
3636	31662 (R)	4224		3693		5056		7800		5256		6528	
3637	32467	5667		4830	4	5580		6979		6112		6545	
3638	32468	6481		4009		6429	6	8210		7488	7*	7849	*
3639	32469	4904		3744		5869		9852		4600		7226	
3640	32470	6410		4047		6471	5	11494	1*	6260		8877	3*
3641	32471	2596		4710	9	5387		6979		5572		6275	
3642	32472	5167		3895		5227		7389		4352		5871	
3643	32473	6782	8	3624		5850		8621		6500		7560	*
3644	32474	6314		3737		6164		10263	8*	4784		7523	*
3645	32475	2750		3744		5046		6814		4664		5739	
3646	32476	2923		4104		5136		9442		5972		7707	*
3647	32477	3692		3554		5210		6979		6540	*	6759	
3648	32478	4494		3946		5760		9031		6064		7548	*
3649	ZC	5641		4078		5774		6568		4828		5698	
3650	32479	5795		4773	6	5920		6568		8612	3*	7590	*
3651	32480	3269		4034		4225		6568		7000	*	6784	
3652	32481	4045		3813		5673		11084	3*	6040		8562	6*
3653	32482	3891		4122		5464		9852		7116	10*	8484	9*
3654	32483	3199		3826		4933		6158		6768	*	6463	
3655	32484	5321		4678	10	6004		10263	8*	5724		7993	*
3656	32485	4667		4104		5440		9852		5796		7824	*
3657	32486	4167		4091		5121		9031		7188	9*	8110	*
3658	32487	4513		4047		5566		8621		5688		7154	
3659	32488	4814		3990		5478		7389		7380	8*	7385	
3660	32489	8103	3*	3946		6209	10	7800		5284		6542	
3661	32490	4641		4811	5	5603		7800		4744		6272	
3662	32491	4038		4571		5608		10263	8*	4068		7165	
3663	31635 (R)	8558	2*	3864		6575	3	8210		8220	4*	8215	*
3664	LC	6603	10	5101	1	5872		7471		4808		6140	
Experimental Mean		5078		4103		5629		8613		5844		7228	
CD(0.05)		869		646		550		2206		1701		1378	
CV(%)		8.56		7.87		4.89		12.82		14.57		9.54	
F val		26.15**		2.71**		11.57**		3.28**		5.56**		4.97**	
DOS		29-07-24		27-06-24				06-11-24					
DOP		09-03-24		08-08-24				07-02-24					
Local Check Name		Gangavathi Sona		Sahyadri Brahma				MO 23 KAU Pournami					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.2 (Contd.): Grain Yield (kg/ha) in IVT -IME, Kharif 2024

Entry No	IET No	Zone VII- Southern											
		Telangana					Telangana (3)		Tamil Nadu				
		Rajendranagar		Kunaram		Warangal	Mean		Coimbatore	Adutrai			
3601	32434	7146	10	3733		4996		5292		3144		4274	
3602	32435	6212		5043		2366		4541		3874			
3603	32436	6625		7109	8	8088	1*	7274	3	6028	5	3376	
3604	32437	6709		6901		6266		6625	9	5196		5598	5*
3605	32438	6322		4774		5114		5403		3688		3974	
3606	32439	6355		4366		5598		5440		4496		4231	
3607	32440	5210		3828		6174		5071		6259	2	4316	
3608	32441	6279		5616		6200		6032		4888		4402	
3609	32442	4116		3837		4543		4165		3501		4103	
3610	32443	6044		5425		5732		5734		6164	3	3974	
3611	32444	8418	3	5304		5392		6371		5874	7	4274	
3612	32445	5960		3316		4399		4558		2757		3504	
3613	32446	5118		2865		5866		4616		2891		4487	
3614	32447	5177		6580		7440	3*	6399		3840		4017	
3615	32448	5497		3837		6066		5133		3494		4231	
3616	32449	5463		4323		4168		4651		3945		4103	
3617	32450	5572		4688		5350		5203		4162		4017	
3618	32451	4672		3559		4579		4270		2646		3761	
3619	32452	6919		3056		7820	2*	5932		5244		4530	
3620	32453	7500	6	5356		5930		6262		4705		4145	
3621	32454	5194		4774		4528		4832		2838		5684	3*
3622	32455	4992		6467		3848		5102		3033		4530	
3623	Gothra Bidan-3(NC)	3586		7040	9	4760		5128		2970		4274	
3624	32456	8165	4	5252		3097		5505		3048		5641	4*
3625	31660	7576	5	7413	4	6318	10	7102	5	4332		4316	
3626	32457	6490		4245		2761		4499		3162		4316	
3627	32458	5690		6953	10	5871		6171		5625	8	3932	
3628	32459	5783		4227		4990		5000		4282		4060	
3629	32460	6027		3498		2780		4102		2577		4573	
3630	32461	5682		6580		5366		5876		5235		4231	
3631	32462	3796		4479		4342		4206		2624		3889	
3632	32463	5295		7231	7	4970		5832		3345		4402	
3633	32464	6069		3568		6020		5219		2724		3974	
3634	32465	8678	1*	7266	5	5422		7122	4	4725		4103	
3635	32466	8594	2*	6432		7158	6*	7395	1	3885		4530	
3636	31662 (R)	6305		3030		5816		5050		4353		4402	
3637	32467	5370		2986		5804		4720		4817		5855	1*
3638	32468	6229		2899		4399		4509		3271		4316	
3639	32469	5657		5113		5073		5281		4234		4786	
3640	32470	6035		5651		6482	9	6056		5057		5128	*
3641	32471	5269		2917		5762		4650		3866		4359	
3642	32472	4924		5599		3292		4605		2447		5043	*
3643	32473	5623		5608		6832	7*	6021		2316		5470	6*
3644	32474	6498		7639	1	5968		6702	8	5489	9	5406	7*
3645	32475	5051		3160		4204		4138		2090		3718	
3646	32476	6279		3819		5772		5290		3817		5726	2*
3647	32477	6532		5321		6154		6002		3122		4829	
3648	32478	7012		6467		6710	8	6729	7	4740		5171	10*
3649	ZC	5951		5642		5264		5619		3848		3974	
3650	32479	6229		2830		5299		4786		3439		5321	9*
3651	32480	4276		5252		4512		4680		3684		4444	
3652	32481	6625		4080		7198	5*	5967		2736		3974	
3653	32482	7214	9	4931		5880		6008		3439			
3654	32483	6995		5365		3484		5281		4219		3846	
3655	32484	6322		4158		4754		5078		3391		5385	8*
3656	32485	6431		3733		5114		5093		6842	1*	4359	
3657	32486	5741		4939		5516		5398		3512		4744	
3658	32487	6911		4583		3484		4993		3926		3803	
3659	32488	5539		5243		4270		5017		2488		4615	
3660	32489	6524		6033		6302		6286		6104	4	4722	
3661	32490	5261		4236		4914		4804		3332		4957	*
3662	32491	6768		7266	5	5556		6530	10	4822		5000	*
3663	31635 (R)	7281	8	7630	2	7203	4*	7371	2	5976	6	4274	
3664	LC	7416	7	7448	3	5834		6899	6	5469	10	4359	
Experimental Mean		6112		5039		5331		5494		4032		4480	
CD(0.05)		1024		1430		987		744		1136		482	
CV(%)		8.38		14.2		9.26		6.78		14.1		5.38	
F val		8.54**		7.93**		12.17**		11.12**		8.21**		11.65**	
DOS		08-03-24		29-06-24		24-06-24				07-06-24		23-07-24	
DOP		23-08-24		27-07-24		18-07-24				31-07-24		17-10-24	
Local Check Name		JGL 24423		KNM 1638		RNR 15048				TKM 13		ADT 57	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.2 (Contd.): Grain Yield (kg/ha) in IVT -IME, Kharif 2024

Entry No	IET No	Zone VII- Southern Tamil Nadu (2)		Zone VII- Southern (13)		Uttar Pradesh (2)		Maharashtra (5)		Overall Mean (39)	
		Mean		Mean		Mean		Mean		Mean	
3601	32434	3709		4388		4298		3688		4208	
3602	32435	3874		5226		6533	5*	5076		4884	
3603	32436	4702		6326	5	6361	10	5578	9	6060	2*
3604	32437	5397	4	5971		4936		5230		5443	
3605	32438	3831		5281		7046	2*	4478		5148	
3606	32439	4364		4953		5250		4835		5002	
3607	32440	5287	6	6601	1*	6244		5972	1	5926	4
3608	32441	4645		5602		5431		5273		5464	
3609	32442	3802		5058		5357		4417		4845	
3610	32443	5069	10	6109	10	6350		5115		5795	7
3611	32444	5074	9	6161	9	6062		4979		5629	
3612	32445	3131		4884		5439		4425		4867	
3613	32446	3689		5074		5077		4054		4806	
3614	32447	3929		5995		5807		4887		5795	6
3615	32448	3863		5455		5250		5192		5675	
3616	32449	4024		5039		6479	6*	5369		5072	
3617	32450	4090		5294		6139		5804	3	5446	
3618	32451	3204		4653		6308		3893		4565	
3619	32452	4887		5320		5161		4830		5160	
3620	32453	4425		5966		5596		5512		5655	
3621	32454	4261		4852		5212		5218		4980	
3622	32455	3781		5452		5523		5336		5303	
3623	Gothra Bidan-3(NC)	3622		5785		5150		5678	7	5731	9
3624	32456	4344		5351		5866		5758	5	5326	
3625	31660	4324		6096		4814		5659	8	5608	
3626	32457	3739		5490		3273		4898		4710	
3627	32458	4778		5626		5076		5013		5283	
3628	32459	4171		5029		6417	7	4736		5180	
3629	32460	3575		5076		5657		5282		5470	
3630	32461	4733		5882		6149		5262		5638	
3631	32462	3257		4816		5196		4128		4825	
3632	32463	3873		5609		6604	4*	4887		5340	
3633	32464	3349		5203		5907		4540		5040	
3634	32465	4414		6600	2*	7184	1*	5551		6157	1*
3635	32466	4207		6207	8	5033		4967		5711	10
3636	31662 (R)	4377		4934		5657		4491		5034	
3637	32467	5336	5	5391		5492		4968		5164	
3638	32468	3794		5809		4684		3969		5110	
3639	32469	4510		5509		5616		4726		5281	
3640	32470	5093	8	6459	4*	5925		4639		5956	3
3641	32471	4113		4968		6187		4725		4789	
3642	32472	3745		4865		6242		5246		4983	
3643	32473	3893		5711		6051		4516		5201	
3644	32474	5447	2	6282	6	6416	8	5801	4	5901	5
3645	32475	2904		4569		4973		4197		4667	
3646	32476	4772		5492		5162		5722	6	5299	
3647	32477	3976		5305		6235		4180		5124	
3648	32478	4956		6280	7	5803		4807		5617	
3649	ZC	3911		5360		5658		4267		5099	
3650	32479	4380		5389		5229		5406		5120	
3651	32480	4064		4694		4772		4139		4535	
3652	32481	3355		5741		5636		4640		5349	
3653	32482	3439		6000		5883		4836		5468	
3654	32483	4032		5022		5985		4007		4641	
3655	32484	4388		5557		5376		5286		5305	
3656	32485	5601	1*	5932		6665	3*	5557	10	5753	8
3657	32486	4128		5560		4977		5418		5495	
3658	32487	3865		5469		5395		5014		5259	
3659	32488	3552		5174		5941		4229		4899	
3660	32489	5413	3	5687		6118		4862		5466	
3661	32490	4144		5182		6392	9	4636		5221	
3662	32491	4911		5819		4794		5809	2	5666	
3663	31635 (R)	5125	7	6516	3*	5116		5225		5497	
3664	LC	4914		6016		5845		5156		5518	
Experimental Mean		4243		5518		5663		4937		5284	
CD(0.05)		647		417		576		541		225	
CV(%)		7.63		3.78		5.09		5.49		2.13	
F val		7.88**		12.96**		11.1**		8.35**		25.78**	
DOS											
DOP											
Local Check Name											

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.2 (Contd.): Grain Yield (kg/ha) in IVT -IME, Kharif 2024 (Not considered)

Entry No	IET No	Zone III- Eastern			Zone IV-North Eastern			Zone V- Central		Zone VII- Southern	
		Odisha	Uttar Pradesh	West Bengal	Assam	Tripura	Madhya Pradesh		Karnataka		
		@Chiplima	@Masodha	@Chinsurah	@Gerua	@Lembucherra	@Rewa		@Kathalgere		
3601	32434	803	4694	5625	633	7025	6	2546		3584	
3602	32435	1657	5386	5987	700	6588	10	3424		4525	
3603	32436	4217	4801	7126	2	917	3	6038		3841	
3604	32437	2912	4721	6330		667		6438		3587	
3605	32438	3263	6090	4767		717		4562	5	4915	
3606	32439	2309	5146	5116		733		5412		3424	
3607	32440	1255	6350	6942	4	750		6625	8	4121	
3608	32441	3288	6164	5790		883	5	6600	9	4336	
3609	32442	2435	4987	4779		692		5975		2676	
3610	32443	3564	4781	6121		925	2	4712		3607	
3611	32444	3037	5918	4969		1000	1	6238		3770	
3612	32445	1305	6356	4982		625		6338		3411	
3613	32446	2510	4654	5319		467		4612	6	4850	
3614	32447	2359	6842	4	5809	750		5475		3698	
3615	32448	1581	5047	5686		650		8138	2	2298	
3616	32449	1406	5485	6863	5	675		7338	4	3405	
3617	32450	1506	5725	5938		700		7388	3	2480	
3618	32451	2736	5047	5025		608		6750	7	2142	
3619	32452	3790	4	6017	4338	625		5938		3392	
3620	32453	3163	5691	6654	9	883	5	5138		4030	
3621	32454	2811	4395	5233		392		5988		3132	
3622	32455	1355	4987	4951				6212		4049	
3623	Gothra Bidan-3(NC)	577	5326	6783	7			4475		2044	
3624	32456	2058	5991	6066		833	7	5050		2624	
3625	31660	2359	5785	6434		775		4062		2995	
3626	32457	1883	4521	6765	8	900	4	6388		2181	
3627	32458	4041	2	6868	2	5809		625		5112	
3628	32459	2987	5685	5754		692		6212		2266	
3629	32460	3665	6	4847		6176		650		5638	
3630	32461	2861	6749	5	5527	642		5225		4948	
3631	32462	753	4202	5625		633		6338		3568	
3632	32463	3062	6656	6	5306	717		8488	1	3529	
3633	32464	1606	4322	6317		625		5238		2546	
3634	32465	3765	5	6270	6808	6	800	10	5975	4844	
3635	32466	2560	4993	5778		633		6362		3470	
3636	31662 (R)	1958	5785	5619		592		5238		3652	
3637	32467	1606	5532	5643				5538		3392	
3638	32468	2008	6961	1	5539	792		3838		2129	
3639	32469	3138	6629	9	6440	10	742	4812		4121	
3640	32470	3414	9	6868	2	6360	642	7088	5	2409	
3641	32471	2359	5412	5919		508		6088		3151	
3642	32472	2309	5552	3964		533		3625		4375	
3643	32473	2259	6416	4871		683		5850		3411	
3644	32474	3138	5924	7022	3	825	8	6038		2747	
3645	32475	2410	5439	5741		500		6212		4928	
3646	32476	3539	8	5319	5294	525		4738		2279	
3647	32477	2861	5086	5925		517		6150		3724	
3648	32478	3112	5691	5784		808	9	4862		3483	
3649	ZC	2736	6137	4105		758		5325		3587	
3650	32479	1757	5332	4393				4662		2585	
3651	32480	3163	6090	3732		592		4788		2155	
3652	32481	2410	4894	6066		675		3638		5182	
3653	32482	2359	4694	5472		550		4650		2786	
3654	32483	2234	5931	4559		350		4538		3939	
3655	32484	2359	5319	4884		533		5288		3594	
3656	32485	3238	6649	7	7206	1	517	4112		4701	
3657	32486	1431	4787	5319				5850		2598	
3658	32487	3188	6649	7	5074	800		5238		4219	
3659	32488	3062	6483	5925		683		5175		5078	
3660	32489	3363	10	5346	5699	750		5838		3574	
3661	32490	2309	6569	10	5490	458		4725		3932	
3662	32491	3840	3	5924	5251	583		5025		3633	
3663	31635 (R)	2836	5552	5447		567		5938		3281	
3664	LC	2912	5332	4841		642		5038		3958	
Experimental Mean		2543	5622	5642	672	5625		3440		5659	
CD(0.05)		853	387	1963	234	2354		620		416	
CV(%)		16.78	3.44	17.41	17.43	20.94		9.02		3.68	
F val		7.7 **	28.43 **	1.27 ns	2.62 **	1.46 ns		14.98 **		69.01 **	
DOS		01-08-24	02-07-24	20-06-24	26-06-24	12-07-24		29-06-24		06-08-24	
DOP		31-08-24	02-08-24	25-07-24	03-09-24	02-08-24		27-07-24		19-09-24	
Local Check Name		MTU1156	IR 64-Sub 1	Shatabdi (IET 4786)	Naveen	Hakuchuk-2		MTU 1010 (E.N.3664)		RNR-15048	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.3: Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IME, Kharif 2024

Entry No	IET No	Zone II-Northern											
		Jammu & Kashmir			Punjab			Uttarakhand			Uttar Pradesh		
		Chata			Ludhiana			Pantnagar			Nagina		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3601	32434				116	112	229	120	123	262	114	99	264
3602	32435	108	128	248	103	150	194	100	180	231	101	129	294
3603	32436	124	89	244	106	112	241	110	120	316	106	97	290
3604	32437	108	79	244	98	104	242	99	121	212	94	96	304
3605	32438	118	86	333	101	116	244	106	120	228	96	108	268
3606	32439	122	77	244	100	109	264	104	129	210	95	99	238
3607	32440	124	90	229	110	112	304				112	94	278
3608	32441	122	67	355	102	106	280	109	108	222	98	97	281
3609	32442				125	120	260				115	102	214
3610	32443				108	110	300	115	114	304	112	95	284
3611	32444	122	78	377	103	108	306				114	97	194
3612	32445	116	76	362	104	94	214	108	87	318	105	94	260
3613	32446	124	77	319	110	102	270	109	98	185	114	93	221
3614	32447	126	83	270	115	110	248	118	131	264	103	95	274
3615	32448	122	74	261	104	115	260	108	119	316	107	94	270
3616	32449	122	74	360	102	102	302	100	105	358	102	89	271
3617	32450	120	79	340	107	100	261	106	99	265	110	101	282
3618	32451	124	93	330	106	116	236	110	152	366	98	99	241
3619	32452	122	79	360	101	109	238	98	109	308	96	102	241
3620	32453	120	90	365	102	108	307	98	129	237	107	86	244
3621	32454	122	65	350	110	99	247	106	106	276	112	94	184
3622	32455	134	73	328	116	108	258	117	100	245	94	92	314
3623	Gothra Bidan-3(NC)	106	63	287	92	102	267				94	96	240
3624	32456	106	75	302	96	104	261	92	122	247	98	98	214
3625	31660	122	91	432	99	104	214	94	121	286	129	114	280
3626	32457							138	151	240	100	101	322
3627	32458	124	89	311	104	104	294	105	114	276	102	88	248
3628	32459	126	89	348	104	109	252	102	114	282	108	102	249
3629	32460	124	103	357	108	112	231	106	122	312	104	100	230
3630	32461	128	99	310	108	110	277	106	118	238	127	92	248
3631	32462	2			128	104	276	136	110	229	104	103	284
3632	32463	126	105	526	108	115	252	110	120	226	109	95	294
3633	32464	134	117	518	108	132	281	110	123	247	106	90	276
3634	32465	130	99	386	106	110	224	108	123	264	95	98	248
3635	32466	122	87	330	98	110	268	96	123	310	107	82	278
3636	31662 (R)	124	63	338	106	96	285	106	108	269	100	103	248
3637	32467	119	82	433	102	106	290	101	115	228	98	90	294
3638	32468	119	74	448	100	106	279	100	109	235	111	108	244
3639	32469	126	88	339	112	120	228	110	128	234	112	86	244
3640	32470	130	68	375	116	92	259	116	113	352	124	93	221
3641	32471				130	96	250	74	102	236	96	99	268
3642	32472	108	76	311	101	102	234	98	111	269	96	98	261
3643	32473	118	67	375	102	106	252	102	119	264	119	95	224
3644	32474				123	108	304	120	135	276	118	93	270
3645	32475				112	102	296	110	111	276	103	93	270
3646	32476				110	96	287	108	100	316	104	97	282
3647	32477				107	98	337	101	106	245	100	102	248
3648	32478	126	79	353	102	110	214	100	120	215	110	91	270
3649	ZC				106	101	281	107	89	246	102	97	258
3650	32479				101	114	288	99	121	240	94	91	277
3651	32480				100	101	274	93	111	254	123	97	274
3652	32481				128	115	306	122	114	256	114	106	268
3653	32482	119	96	370	106	122	284	106	129	358	98	88	231
3654	32483				90	97	280	92	105	245	106	93	283
3655	32484				106	108	266	106	129	264	118	98	256
3656	32485				118	101	239	120	119	252	114	117	277
3657	32486				119	136	264	120	143	262	100	131	255
3658	32487				100	140	260	106	149	232	112	101	241
3659	32488				110	105	264				113	99	250
3660	32489				114	125	259	111	121	41	110	92	258
3661	32490	130	87	360	111	104	259	112	118	317	112	100	224
3662	32491	132	86	370	116	101	267	114	135	248	94	92	248
3663	31635 (R)	126	76	370	102	102	286	102	106	306	95	92	244
3664	LC	136	89	361	92	97	276	94	118	256	110	100	248
Experimental Mean		119	83	344	107	108	264	106	118	262	106	97	258
Standard Error		0			1			4.58			1.06		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IME, Kharif 2024

Entry No	IET No	Zone II-Northern (4)			Zone III- Eastern								
		Mean			Bihar			Bihar (2)			Mean		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3601	32434	117	112	252	118	126	314	116	135	348	117	130	331
3602	32435	103	147	242	101	156	264	102	174	374	102	164	320
3603	32436	112	105	273	108	119	350	105	126	370	106	122	360
3604	32437	100	100	250	96	103	310	99	118	372	97	110	342
3605	32438	105	107	268	96	111	404	100	122	366	98	116	385
3606	32439	105	103	239	98	114	386	98	123	382	98	119	384
3607	32440	116	99	270	108	108	300	100	105	378	104	106	339
3608	32441	108	95	284	103	112	302	100	130	352	102	121	328
3609	32442	120	111	237	116	122	323	116	141	370	116	131	346
3610	32443	112	106	296	109	112	274	103	120	387	106	116	330
3611	32444	113	94	292	99	121	392	99	112	380	99	116	386
3612	32445	108	88	289	101	106	313	100	112	352	100	109	332
3613	32446	114	93	249	108	100	338	105	110	360	106	105	348
3614	32447	116	105	264	108	114	285	101	118	322	104	116	304
3615	32448	110	100	277	102	116	344	100	116	347	101	116	346
3616	32449	106	93	323	103	106	368	100	114	398	102	110	382
3617	32450	110	95	287	101	101	402	99	106	377	100	104	389
3618	32451	110	115	293	116	125	390	102	133	362	109	129	376
3619	32452	104	100	287	96	104	240	99	116	416	98	110	328
3620	32453	106	103	288	96	100	274	100	122	362	98	111	318
3621	32454	113	91	264	105	102	350	102	106	374	104	104	362
3622	32455	115	93	286	116	112	321				116	112	321
3623	Gothra Bidan-3(NC)	97	87	265	92	102	324	100	118	392	96	110	358
3624	32456	98	100	256	97	101	289	99	108	382	98	104	336
3625	31660	111	108	303	98	101	325	99	115	383	98	108	354
3626	32457	120	126	282	130	160	235	116	150	370	123	155	303
3627	32458	109	99	282	103	101	380	96	112	369	100	107	374
3628	32459	110	103	283	100	108	355	99	114	348	99	111	352
3629	32460	111	109	282	104	124	214	100	118	340	102	121	278
3630	32461	117	105	268	103	119	260	102	118	368	102	118	314
3631	32462	93	106	263	123	120	317	112	120	357	118	120	337
3632	32463	113	109	325	108	122	337	103	121	348	106	122	342
3633	32464	114	115	331	106	124	400	101	134	387	103	128	394
3634	32465	110	107	281	104	117	358	100	111	354	102	114	356
3635	32466	106	100	296	94	104	352	99	114	350	96	109	351
3636	31662 (R)	109	93	285	103	96	378	102	96	362	102	96	370
3637	32467	105	98	312	104	112	368	99	116	383	101	114	376
3638	32468	108	99	301	97	96	328	100	112	393	98	104	360
3639	32469	115	106	261	115	120	305	102	118	348	108	119	327
3640	32470	122	91	302	110	104	344	98	105	350	104	104	347
3641	32471	100	99	251	121	100	100	117	96	354	119	98	226
3642	32472	100	97	269	96	98	98	98	115	385	97	107	242
3643	32473	111	97	279	98	104	104	96	109	395	97	106	250
3644	32474	120	112	283	116	114	114	97	118	382	106	116	248
3645	32475	108	102	281	104	98	98	110	104	335	107	101	217
3646	32476	107	98	295	107	98	98	101	96	378	104	97	238
3647	32477	103	102	276	104	96	96	103	104	352	104	100	224
3648	32478	109	100	263	98	116	116	102	120	364	100	118	240
3649	ZC	105	96	261	103	126	126	102	114	370	102	120	248
3650	32479	98	109	268	102	119	119	99	121	354	100	120	236
3651	32480	105	103	267	96	100	298	98	95	354	97	97	326
3652	32481	121	112	277	120	111	280	102	114	362	111	112	321
3653	32482	107	109	311	104	124	280	101	120	371	102	122	325
3654	32483	96	98	270	100	96	374	96	100	352	98	98	363
3655	32484	110	112	262	104	102	300	99	114	368	102	108	334
3656	32485	118	112	256	116	114	375	104	114	390	110	114	383
3657	32486	113	137	260	116	125	292	103	132	356	110	128	324
3658	32487	106	130	244	100	142	302	101	134	338	100	138	320
3659	32488	111	102	257	117	106	228	104	116	366	110	110	298
3660	32489	112	113	186	109	119	362	106	116	376	108	117	369
3661	32490	116	102	290	108	111	382	101	114	324	105	112	353
3662	32491	114	103	283	107	100	315	105	105	365	106	103	340
3663	31635 (R)	106	94	302	97	101	372	100	112	368	98	107	370
3664	LC	108	101	285	96	114	288	105	134	370	100	124	330
Experimental Mean		109	104	276	105	111	291	101	117	366	104	114	328
Standard Error		2.52			0.6			0			0.3		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IME, Kharif 2024

Entry No	IET No	Zone III- Eastern											
		Jharkhand			Odisha						Odisha (2)		
		Ranchi			NRRI			Jeypore			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3601	32434	102	98	202	101	121	290	97	99	372	99	110	331
3602	32435	97	118	138	89	157	249	85	127	282	87	142	265
3603	32436	110	96	168	100	113	270	93	102	282	96	108	276
3604	32437	93	95	198	88	112	184	94	109	357	91	111	270
3605	32438	107	100	152	95	123	330	91	100	292	93	111	310
3606	32439	96	99	148	104	110	308	81	98	272	92	104	290
3607	32440	110	96	151	99	115	264	98	93	303	98	104	283
3608	32441	102	92	182	99	111	296	92	98	372	96	105	334
3609	32442	102	96	170	102	121	288	102	110	348	102	116	318
3610	32443	103	101	176	104	118	297	92	108	352	98	113	324
3611	32444	101	97	228	89	112	256	88	103	340	89	108	298
3612	32445	109	90	167	97	114	288	96	94	409	97	104	349
3613	32446	108	84	235	96	102	194	96	89	288	96	96	241
3614	32447	101	96	180	97	116	250	98	103	314	97	109	282
3615	32448	104	97	194	93	120	282	98	112	372	96	116	327
3616	32449	95	82	204	88	102	308	94	97	374	91	100	342
3617	32450	101	89	248	79	96	262	91	89	322	85	93	292
3618	32451	108	102	206	106	125	292	98	100	356	102	112	324
3619	32452	90	96	172	91	110	225	86	100	264	89	105	245
3620	32453	110	98	240	89	123	262	94	102	258	91	113	260
3621	32454	108	88	216	100	100	216	94	84	337	97	92	276
3622	32455	102	90	221	103	101	248	91	92	292	97	97	270
3623	Gothra Bidan-3(NC)	102	94	154	83	105	237	92	90	362	88	98	299
3624	32456	97	87	210	92	113	323	87	89	302	89	101	312
3625	31660	100	100	207	94	112	222	88	104	466	91	108	344
3626	32457	98	116	130	106	169	204	92	141	350	99	155	277
3627	32458	102	86	162	90	107	260	93	99	365	92	103	312
3628	32459	101	90	182	96	118	262	96	97	332	96	107	297
3629	32460	93	104	182	90	125	295	98	106	358	94	116	327
3630	32461	102	90	161	101	118	294	96	97	336	99	108	315
3631	32462	99	94	206	106	131	290	101	102	444	104	116	367
3632	32463	100	98	194	133	123	310	87	97	288	110	110	299
3633	32464	110	92	198	134	128	222	103	94	322	119	111	272
3634	32465	96	90	243	100	109	268	106	98	348	103	104	308
3635	32466	106	96	170	88	107	242	91	108	341	90	107	292
3636	31662 (R)	100	85	228	89	108	216	96	84	318	92	96	267
3637	32467	110	96	238	92	111	261	88	106	328	90	108	295
3638	32468	101	92	204	93	119	162	88	90	362	90	104	262
3639	32469	90	94	171	100	120	216	91	103	261	95	112	239
3640	32470	97	90	151	99	98	216	90	92	365	94	95	290
3641	32471	104	86	224	117	115	275	86	89	306	102	102	291
3642	32472	90	92	206	94	107	249	88	94	312	92	100	280
3643	32473	108	80	188	96	109	229	82	87	332	89	98	281
3644	32474	100	92	238	111	118	218	99	97	386	105	108	302
3645	32475	102	91	195	103	116	270	90	103	318	97	109	294
3646	32476	105	84	223	96	95	269	93	87	402	94	91	336
3647	32477	95	81	206	99	113	302	94	84	368	96	99	335
3648	32478	121	96	175	98	124	282	95	108	328	96	116	305
3649	ZC	110	100	234	94	127	183	83	98	276	88	112	230
3650	32479	99	98	183	96	136	328	92	107	327	94	122	328
3651	32480	104	87	160	87	110	181	80	84	392	83	97	287
3652	32481	108	102	148	107	110	236	98	104	300	102	107	268
3653	32482	102	107	224	99	121	236	92	103	302	96	112	269
3654	32483	100	85	188	84	92	238	82	83	388	83	88	313
3655	32484	100	86	200	100	104	198	88	89	272	94	97	234
3656	32485	106	82	274	104	115	262	95	106	312	100	111	287
3657	32486	102	108	170	102	126	236	98	106	287	100	116	261
3658	32487	97	118	155	97	147	190	98	139	422	97	143	306
3659	32488	97	137	182	110	115	188	99	97	362	104	106	275
3660	32489	101	98	186	72	125	256	97	109	332	84	117	294
3661	32490	96	96	212	97	108	216	95	97	318	96	102	267
3662	32491	103	91	169	100	114	216	92	103	305	96	108	260
3663	31635 (R)	109	91	190	98	111	258	86	93	285	92	102	272
3664	LC	114	92	156	92	132	284	93	99	390	92	115	337
Experimental Mean		102	94	191	97	116	252	92	99	334	95	108	294
Standard Error		0.78			1.24			1.31			0.9		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IME, Kharif 2024

Entry No	IET No	Zone III- Eastern											
		Uttar Pradesh			West Bengal								
		Varanasi			Hatwara			Malda			Bankura		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3601	32434	118	108	116	105	112	288	90	108	272	108	132	434
3602	32435	108	150	124	94	126	288	86	113	286	104	149	350
3603	32436	106	108	140	103	111	272	86	172	330	113	124	522
3604	32437	98	96	102	90	117	304	84	106	264	103	112	356
3605	32438	110	110	144	92	117	240	93	148	302	107	121	458
3606	32439	104	109	131	90	113	352	95	120	264	105	118	426
3607	32440	108	102	120	100	104	240	90	112	230	111	130	378
3608	32441	100	105	130	97	82	304	94	112	250	110	114	322
3609	32442	118	117	134	106	126	256	91	106	260	113	139	440
3610	32443	116	112	144	98	109	304	97	165	294	111	112	348
3611	32444	106	105	179	91	113	384	88	118	252	106	117	310
3612	32445	106	99	148	98	96	304	96	146	381	116	125	476
3613	32446	116	102	157	107	92	320	89	106	364	109	108	472
3614	32447	110	103	94	98	110	256	91	104	298	108	103	352
3615	32448	106	107	104	98	117	304	82	110	403	111	120	414
3616	32449	106	100	174	97	99	288	88	103	255	109	109	442
3617	32450	106	96	175	93	99	320	86	101	223	103	89	520
3618	32451	118	114	136	104	140	256	88	102	227	114	142	486
3619	32452	100	94	132	90	101	272	92	104	269	110	95	401
3620	32453	103	100	100	94	114	240	80	104	301	105	121	342
3621	32454	112	93	140	104	85	288	88	124	277	105	122	303
3622	32455	117	102	138	103	100	224	87	104	272	108	109	476
3623	Gothra Bidan-3(NC)	98	91	86	94	98	160	83	106	423	110	122	358
3624	32456	100	98	118	96	105	192	83	102	264	101	110	325
3625	31660	106	99	158	94	111	288	82	114	254	107	104	424
3626	32457	134	154	123	106	134	304	82	112	286	105	109	332
3627	32458	109	99	111	97	101	304	86	114	230	117	107	328
3628	32459	106	101	134	97	110	288	90	112	350	107	106	365
3629	32460	110	109	97	98	120	288	83	116	440	103	106	403
3630	32461	107	111	128	104	106	224	86	106	234	107	123	406
3631	32462	126	114	130	88	100	272	88	114	360	109	114	330
3632	32463	104	120	162	104	112	288	85	110	280	117	128	304
3633	32464	110	118	162	103	106	320	90	108	428	109	118	489
3634	32465	110	102	133	100	114	256	94	106	361	114	134	334
3635	32466	100	96	97	92	111	288	91	106	356	108	129	409
3636	31662 (R)	99	93	153	96	93	320	88	132	209	105	118	452
3637	32467	100	98	157	90	111	352	90	120	240	101	92	385
3638	32468	98	101	123	93	103	368	84	120	442	106	106	376
3639	32469	114	116	126	102	117	240	95	102	247	103	121	438
3640	32470	116	96	121	105	94	288	92	102	236	106	121	391
3641	32471	126	100	140	114	82	304	90	116	321	117	112	488
3642	32472	100	98	109	96	103	208	96	104	260	104	94	382
3643	32473	98	96	142	92	92	352	86	112	271	102	98	492
3644	32474	118	106	152	106	102	320	83	112	314	110	106	484
3645	32475	114	100	134	104	112	288	94	112	304	110	112	360
3646	32476	99	95	132	100	89	288	91	122	256	101	104	428
3647	32477	110	95	176	101	92	320	92	100	254	110	100	388
3648	32478	102	112	117	91	117	288	97	106	259	110	128	378
3649	ZC	107	117	146	93	110	272	93	109	462	112	108	424
3650	32479	106	110	114	96	123	192	84	109	351	109	130	300
3651	32480	98	89	133	88	97	336	87	106	259	105	146	424
3652	32481	122	107	146	100	108	256	92	104	330	113	106	396
3653	32482	108	119	101	100	118	240	86	117	316	105	132	428
3654	32483	98	94	156	88	99	304	85	114	324	102	95	422
3655	32484	109	102	139	96	98	208	88	115	229	106	118	310
3656	32485	118	108	199	104	98	288	90	116	232	113	121	456
3657	32486	112	119	151	100	122	240	82	116	434	113	130	363
3658	32487	105	135	136	95	142	272	81	108	333	98	144	344
3659	32488	116	103	116	104	102	208	83	102	338	115	122	365
3660	32489	114	108	127	103	122	240	94	122	422	110	118	254
3661	32490	112	108	154	98	96	272	90	102	246	112	116	422
3662	32491	112	97	93	98	106	208	84	113	294	106	126	376
3663	31635 (R)	102	88	157	95	102	304	90	105	352	109	107	422
3664	LC	112	94	164	86	104	320	83	110	338	105	116	393
Experimental Mean		108	105	134	97	107	279	88	113	303	108	116	396
Standard Error		0.39			1.85			1.11			0		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IME, Kharif 2024

Entry No	IET No	Zone III- Eastern West Bengal (3)			Zone III- Eastern (9)			Zone IV-North Eastern Assam Titabar			Zone V- Central Chhattisgarh Ambikhapur		
		Mean			Mean			Mean			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3601	32434	101	118	331	106	116	293	122	111	232	92	114	196
3602	32435	95	129	308	96	141	262	98	146	234	94	122	220
3603	32436	101	136	375	103	119	300	106	106	286	105	111	202
3604	32437	92	112	308	94	108	272	100	111	232	94	108	196
3605	32438	98	129	333	99	117	298	106	107	228	96	114	190
3606	32439	96	117	347	97	112	296	104	110	247	93	102	176
3607	32440	100	115	283	103	107	263	119	101	280	100	99	210
3608	32441	100	103	292	100	106	279	102	109	283	100	104	197
3609	32442	103	123	318	107	120	288	120	112	240	110	115	204
3610	32443	102	129	315	104	117	286	113	107	249	101	109	194
3611	32444	95	116	316	96	111	302	102	114	277	95	102	191
3612	32445	103	122	387	102	109	315	108	94	258	102	105	198
3613	32446	102	102	385	104	99	303	106	94	248	106	102	195
3614	32447	99	105	302	101	107	261	116	110	245	102	100	210
3615	32448	97	116	374	99	113	307	106	110	213	104	109	196
3616	32449	98	104	328	98	101	312	106	98	292	96	93	202
3617	32450	94	96	354	95	96	316	100	91	269	92	96	166
3618	32451	102	128	323	106	120	301	112	112	212	105	119	200
3619	32452	98	100	314	95	102	266	100	111	274	100	108	166
3620	32453	93	113	294	97	109	264	98	110	222	96	101	191
3621	32454	99	110	289	102	100	278	107	92	233	108	87	164
3622	32455	99	104	324	103	101	274	119	111	221	104	100	152
3623	Gothra Bidan-3(NC)	96	109	314	95	103	277	97	100	258	94	102	210
3624	32456	93	106	260	95	101	267	98	92	276	95	106	194
3625	31660	95	110	322	96	107	303	100	113	264	95	104	185
3626	32457	98	118	308	108	138	260	122	142	225	116	148	198
3627	32458	100	107	287	99	103	279	110	101	258	96	101	172
3628	32459	98	109	334	99	106	291	108	102	222	96	107	166
3629	32460	95	114	377	98	114	291	110	113	243	104	114	209
3630	32461	99	112	288	101	110	268	113	92	274	108	102	180
3631	32462	95	110	321	106	112	301	122	124	236	116	108	191
3632	32463	102	116	291	105	115	279	114	105	245	106	103	154
3633	32464	101	111	412	107	113	325	108	131	203	102	106	202
3634	32465	102	118	317	103	109	295	112	116	248	100	103	208
3635	32466	97	115	351	97	108	289	106	107	230	95	106	188
3636	31662 (R)	96	114	327	98	100	293	106	102	253	104	89	190
3637	32467	94	108	326	97	107	301	104	114	280	100	110	183
3638	32468	94	110	396	96	104	307	99	105	288	93	104	185
3639	32469	100	113	308	101	112	262	111	113	248	96	108	188
3640	32470	101	105	305	101	100	274	120	100	246	105	92	205
3641	32471	107	104	371	110	99	279	121	95	272	110	90	206
3642	32472	99	100	284	96	101	246	98	100	272	98	106	238
3643	32473	93	100	372	95	98	278	107	102	240	92	96	198
3644	32474	100	107	373	104	107	290	120	104	268	106	96	198
3645	32475	103	112	318	104	105	256	108	101	221	104	100	206
3646	32476	97	105	324	99	97	275	102	91	260	106	89	205
3647	32477	101	97	321	101	96	274	107	98	251	104	91	220
3648	32478	99	117	308	102	114	256	107	114	244	100	109	178
3649	ZC	99	109	386	100	112	277	108	115	267	94	100	192
3650	32479	96	121	281	98	117	252	100	111	252	93	110	192
3651	32480	93	116	340	94	102	282	100	97	224	94	88	174
3652	32481	102	106	328	107	107	273	118	104	230	106	115	168
3653	32482	97	122	328	100	118	278	110	110	241	105	119	215
3654	32483	92	103	350	93	95	305	98	91	282	92	105	201
3655	32484	97	110	249	99	103	247	108	94	212	96	98	161
3656	32485	102	112	325	106	108	310	119	96	250	106	100	176
3657	32486	98	123	346	103	120	281	120	128	222	109	124	186
3658	32487	91	131	316	97	134	277	106	140	272	108	132	208
3659	32488	101	109	304	105	111	262	117	95	238	104	104	176
3660	32489	102	120	305	101	115	284	119	119	266	104	109	203
3661	32490	100	105	313	101	105	283	111	100	294	96	99	194
3662	32491	96	115	293	101	106	260	119	101	221	104	102	198
3663	31635 (R)	98	105	359	98	101	301	101	101	238	96	98	190
3664	LC	91	110	350	98	110	300	109	127	254	96	101	180
Experimental Mean		98	112	326	100	109	283	108	107	249	100	104	191
Standard Error		0.73			0.37			0.77			1.86		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IME, Kharif 2024

Entry No	IET No	Zone V- Central											
		Chhattisgarh						Chhattisgarh (3)			Maharashtra		
		Jagadalpur			Raipur			Mean			Sakoli		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
3601	32434	105	102	222	105	111	190	101	109	203	96	142	261
3602	32435	100	138	290	96	163	204	96	141	238	90	146	260
3603	32436	104	100	272	102	114	213	104	108	229	96	116	290
3604	32437	92	104	248	93	114	202	93	109	215	90	136	291
3605	32438	92	111	284	96	117	192	95	114	222	90	129	260
3606	32439	94	95	227	96	114	190	94	104	198	92	136	262
3607	32440	104	106	280	100	109	226	101	105	239	100	129	281
3608	32441	97	102	202	98	114	201	98	107	200	92	119	333
3609	32442	90	117	308	112	116	196	104	116	236	110	144	250
3610	32443	104	104	312	102	111	224	102	108	243	98	117	280
3611	32444	96	92	262	94	105	246	95	100	233	90	125	289
3612	32445	100	95	250	100	108	256	101	103	234	94	105	302
3613	32446	115	93	298	110	102	212	110	99	235	100	104	215
3614	32447	110	100	268	100	110	252	104	103	244	100	114	330
3615	32448	105	106	266	100	120	206	103	112	222	96	129	302
3616	32449	92	86	262	96	101	203	95	93	222	91	113	331
3617	32450	100	92	269	94	103	230	96	97	222	92	106	358
3618	32451	104	104	271	102	117	208	104	113	226	92	144	332
3619	32452	105	103	206	96	112	210	100	107	194	90	114	309
3620	32453	98	195	226	94	116	208	96	137	208	88	108	326
3621	32454	106	86	222	104	95	252	106	89	213	100	96	289
3622	32455	104	97	313	102	116	233	104	104	233	98	116	233
3623	Gothra Bidan-3(NC)	105	89	210	94	103	200	98	98	206	80	94	202
3624	32456	94	86	244	98	98	214	96	97	217	90	100	274
3625	31660	99	103	248	96	121	196	96	109	210	89	117	318
3626	32457	94	141	336	118	134	230	109	141	254	126	154	256
3627	32458	96	93	262	96	110	251	96	101	229	92	108	302
3628	32459	100	102	300	98	111	206	98	107	224	93	174	311
3629	32460	105	105	261	101	122	196	104	114	222	96	120	272
3630	32461	110	100	288	101	110	260	106	104	243	98	125	320
3631	32462	113	99	306	114	108	210	114	105	236	121	124	256
3632	32463	105	106	310	102	123	203	104	111	222	100	126	266
3633	32464	101	100	302	101	127	208	102	111	238	95	152	251
3634	32465	109	104	306	100	98	231	103	102	249	98	116	308
3635	32466	97	104	232	96	111	234	96	107	218	87	110	321
3636	31662 (R)	104	86	218	96	102	210	102	92	206	98	110	243
3637	32467	101	110	266	98	106	183	99	108	211	90	114	278
3638	32468	98	94	262	96	106	192	96	101	213	86	101	258
3639	32469	104	107	280	102	120	212	100	112	227	98	117	275
3640	32470	110	87	246	102	103	242	106	94	231	100	107	282
3641	32471	114	84	299	110	104	245	111	92	250	110	104	248
3642	32472	100	102	276	96	106	216	98	105	244	90	102	284
3643	32473	89	84	317	94	108	214	92	96	243	84	89	268
3644	32474	117	87	280	104	100	206	109	94	228	85	114	290
3645	32475	115	97	295	106	97	204	109	98	235	96	109	240
3646	32476	105	80	257	100	96	212	104	88	225	100	89	294
3647	32477	104	83	235	98	91	219	102	89	225	94	97	261
3648	32478	101	112	308	98	112	223	99	111	236	92	124	261
3649	ZC	92	97	258	92	93	208	93	96	219	86	115	278
3650	32479	98	118	310	100	124	228	97	117	244	85	156	280
3651	32480	94	94	256	94	107	218	94	96	216	86	115	260
3652	32481	119	113	286	104	106	219	110	111	225	108	126	257
3653	32482	104	108	313	102	124	205	104	117	244	94	139	268
3654	32483	117	90	278	92	99	262	100	98	247	84	89	253
3655	32484	104	93	255	98	98	228	100	96	215	94	116	302
3656	32485	116	99	292	104	111	221	109	103	230	106	119	300
3657	32486	105	117	304	101	119	214	105	120	234	100	126	286
3658	32487	101	136	302	98	159	192	102	142	234	94	159	253
3659	32488	109	96	273	104	111	252	106	103	233	100	134	246
3660	32489	104	115	252	102	122	238	103	115	231	100	143	289
3661	32490	103	94	264	98	107	220	99	100	226	100	115	338
3662	32491	105	97	272	100	109	200	103	103	224	102	124	332
3663	31635 (R)	92	97	250	96	112	250	94	102	230	90	120	376
3664	LC	96	99	232	92	112	244	95	104	218	96	118	302
Experimental Mean		102	102	270	99	111	218	101	106	227	95	120	283
Standard Error		0			0.94			0.68			0.56		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IME, Kharif 2024

Entry No	IET No	Zone V- Central									Zone V- Central (6)		
		Maharashtra			Maharashtra (2)			Madhya Pradesh			Mean		
		Sinde wahi			Mean			Jabalpur					
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3601	32434	100	98	260	98	120	261	109	98	160	101	111	215
3602	32435	100	148	318	96	147	289	102	116	138	97	139	238
3603	32436	112	100	358	104	108	324	100	87	358	103	104	282
3604	32437	111	109	228	100	122	260	93	85	170	96	109	222
3605	32438	109	96	270	100	112	265	92	95	158	96	110	226
3606	32439	98	112	312	95	124	287	94	77	150	94	106	220
3607	32440	102	111	303	101	120	292	103	76	137	101	105	240
3608	32441	97	126	326	94	122	330	104	82	142	98	108	234
3609	32442	112	100	252	111	122	251	114	100	193	108	115	234
3610	32443	112	84	270	106	101	275	103	88	189	104	102	245
3611	32444	109	104	247	100	115	268	96	87	190	97	103	238
3612	32445	110	122	260	102	114	281	104	76	172	102	102	240
3613	32446				100	104	215	112	73	220	109	95	228
3614	32447	96	98	286	98	106	308	104	85	142	102	101	248
3615	32448	98	97	256	97	113	279	100	85	139	100	108	227
3616	32449	98	90	292	94	102	311	99	82	200	95	94	248
3617	32450	98	103	274	96	105	316	96	75	248	96	96	258
3618	32451	109	124	319	100	134	326	102	100	190	102	118	253
3619	32452	118	92	297	104	103	303	100	85	129	102	102	220
3620	32453	100	103	338	94	106	332	95	88	103	95	118	232
3621	32454	112	128	310	106	112	300	108	70	212	106	94	242
3622	32455	110	91	238	104	103	235	105	75	150	104	99	220
3623	Gothra Bidan-3(NC)	92	116	274	86	105	238	106	88	129	95	99	204
3624	32456	110	116	280	100	108	277	100	82	154	98	98	227
3625	31660	118	94	255	103	106	286	99	86	125	99	104	221
3626	32457	121	107	261	124	130	258	119	126	180	116	135	243
3627	32458	112	124	276	102	116	290	106	83	108	100	103	229
3628	32459	104	99	294	98	137	302	103	77	148	99	112	237
3629	32460	101	86	230	98	103	251	100	89	140	101	106	218
3630	32461	110	104	278	104	115	299	100	89	127	105	105	242
3631	32462	106	87	274	114	105	265	98	88	131	111	102	228
3632	32463	98	111	291	99	118	278	98	83	151	101	109	229
3633	32464	111	115	258	103	134	254	102	112	188	102	119	235
3634	32465	112	120	286	105	118	297	104	83	122	104	104	244
3635	32466	107	115	288	97	113	305	96	82	158	96	105	237
3636	31662 (R)	106	86	381	102	98	312	116	71	208	104	91	242
3637	32467	110	112	284	100	113	281	100	86	156	100	106	225
3638	32468	112	86	268	99	94	263	99	77	168	97	95	222
3639	32469	100	113	266	98	115	271	104	94	122	100	110	224
3640	32470	90	98	318	94	102	300	108	70	150	102	93	240
3641	32471	95	103	286	102	104	267	114	62	166	109	91	242
3642	32472	98	110	254	94	106	269	104	79	179	97	101	241
3643	32473	110	117	318	97	103	293	98	79	185	95	96	250
3644	32474	93	96	370	89	105	330	107	86	222	102	96	261
3645	32475	102	100	266	99	105	253	102	80	142	104	97	226
3646	32476	96	113	270	98	101	282	102	68	114	102	89	226
3647	32477	96	118	274	96	107	268	107	71	122	101	92	222
3648	32478	124	160	258	108	142	260	105	91	152	103	118	230
3649	ZC	100	110	258	93	112	268	96	89	150	94	100	224
3650	32479	95	117	262	90	137	271	102	80	142	96	118	236
3651	32480	98	103	253	92	109	257	98	74	189	94	97	225
3652	32481	113	105	244	110	116	251	110	103	122	110	111	216
3653	32482	112	104	232	103	122	250	106	91	158	104	114	232
3654	32483	109	119	314	96	104	284	96	64	200	98	94	251
3655	32484	110	103	267	102	110	285	106	74	151	101	97	228
3656	32485	119	107	269	113	113	284	112	74	169	111	102	238
3657	32486	114	112	275	107	119	281	104	99	132	105	116	233
3658	32487	96	125	254	96	142	254	105	105	132	101	136	224
3659	32488	112	106	248	106	120	247	107	77	116	106	104	218
3660	32489	98	104	282	98	124	286	104	102	119	102	116	230
3661	32490	112	88	268	106	101	303	105	92	144	102	99	238
3662	32491	111	112	274	106	118	303	104	77	127	104	103	234
3663	31635 (R)	98	112	257	94	116	317	96	77	166	94	103	248
3664	LC	102	157	294	99	137	298	94	89	159	96	113	235
Experimental Mean		105	108	279	100	114	281	102	84	159	101	105	234
Standard Error		0.39			0.34			0.98			0.37		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IME, Kharif 2024

Entry No	IET No	Zone VI- Western											
		Gujarat									Gujarat (3)		
		Navasari			Nawagam			Vyra			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3601	32434	92	122	181	118	121	260	94	123	185	101	122	209
3602	32435	84	152	228	104	139	255	90	146	185	93	146	222
3603	32436	96	130	216	102	113	267	95	127	235	97	123	239
3604	32437	84	146	194	92	116	277	81	122	212	86	128	228
3605	32438	90	146	206	94	128	267	83	127	220	89	134	231
3606	32439	88	136	213	92	123	264	84	113	200	88	124	226
3607	32440	98	139	191	125	129	271	92	118	205	105	129	222
3608	32441	88	140	241	93	120	270	89	118	205	90	126	238
3609	32442	98	134	230	132	120	258	94	140	238	108	131	242
3610	32443	91	138	191	101	135	268	94	122	220	95	132	226
3611	32444	92	138	243	94	127	272	88	119	262	91	128	259
3612	32445	84	112	181	94	109	268	84	93	225	87	105	224
3613	32446	84	127	239	102	116	268	98	106	230	94	116	246
3614	32447	69	146	208	100	137	274	102	119	182	90	134	222
3615	32448	92	141	224	101	126	274	94	127	195	96	131	231
3616	32449	84	117	239	128	109	258	87	116	310	100	114	269
3617	32450	84	102	211	104	107	272	92	103	236	94	104	240
3618	32451	82	162	183	122	128	252	86	144	235	96	145	223
3619	32452	88	137	194	122	125	272	86	115	262	98	126	243
3620	32453	84	126	232	94	117	276	84	122	200	87	121	236
3621	32454	86	105	269	104	97	238	94	110	258	95	104	255
3622		98	124	159	130	110	254	101	122	190	110	118	201
3623	Gothra Bidan-3(NC)	82	126	232	88	108	260	75	108	195	82	114	229
3624	32456	80	111	188	92	116	276	85	107	208	86	111	224
3625	31660	80	127	266	90	127	276	80	112	228	84	122	256
3626	32457	101	168	184	144	161	234	125	175	240	123	168	219
3627	32458	88	122	213	100	123	272	86	110	258	91	118	247
3628	32459	92	130	171	100	120	274	89	113	265	94	121	237
3629	32460	102	144	181	100	145	278	92	129	185	98	139	215
3630	32461	90	142	183	102	115	280	95	119	185	95	125	216
3631	32462	102	150	144	134	106	264	112	134	185	116	130	198
3632	32463	90	146	154	100	121	264	97	130	200	96	132	206
3633	32464	94	140	182	106	139	265	97	133	255	99	137	234
3634	32465	94	145	181	105	126	276	97	113	185	99	128	214
3635	32466	90	133	213	84	121	278	86	119	232	86	124	241
3636	31662 (R)	86	113	194	84	102	272	95	100	230	88	105	232
3637	32467	94	128	202	126	116	265	88	125	230	103	123	232
3638	32468	82	110	224	92	114	272	80	111	265	85	112	254
3639	32469	94	129	159	104	129	262	99	132	202	99	130	208
3640	32470	102	133	163	118	115	269	99	120	235	106	123	222
3641	32471	98	113	192	132	108	258	112	112	210	114	111	220
3642	32472	82	130	232	87	122	258	86	110	195	85	121	228
3643	32473	82	108	204	124	114	256	81	114	208	96	112	223
3644	32474	98	126	194	122	128	270	105	122	230	108	125	231
3645	32475	82	117	169	94	123	263	94	117	172	90	119	202
3646	32476	83	107	208	104	96	268	95	95	212	94	100	230
3647	32477	84	97	213	94	106	274	88	100	208	88	101	232
3648	32478	84	140	132	97	139	282	91	122	220	91	134	211
3649	ZC	80	103	214	101	96	251	82	101	250	88	100	238
3650	32479	82	138	146	102	125	261	86	126	140	90	130	182
3651	32480	82	114	203	94	119	280	78	105	245	84	113	242
3652	32481	98	132	188	118	120	258	108	132	255	108	128	234
3653	32482	86	141	198	88	129	262	100	142	255	92	137	238
3654	32483	82	123	178	84	96	266	76	97	220	81	105	221
3655	32484	88	118	172	89	115	258	90	107	225	89	113	219
3656	32485	98	138	185	130	133	262	109	118	262	113	130	236
3657	32486	88	146	154	106	131	268	94	146	235	96	141	219
3658	32487	86	152	190	100	156	266	90	155	220	92	154	225
3659	32488	100	124	204	105	130	272	102	123	180	102	126	219
3660	32489	88	156	194	103	142	274	94	128	212	95	142	227
3661	32490	90	131	188	104	123	272	95	118	265	96	124	242
3662	32491	92	136	192	104	123	270	92	121	192	96	127	218
3663	31635 (R)	86	124	190	94	117	274	86	115	190	89	119	218
3664	LC	88	125	193	97	118	272	86	118	225	90	120	230
Experimental Mean		88	130	197	104	121	266	92	120	220	95	124	228
Standard Error		0.56			0.71			1.81			0.68		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IME, Kharif 2024

Entry No	IET No	Zone VI- Western											
		Maharashtra									Maharashtra (3)		
		Vadgaonmaval			Radhanagari			Karjat			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3601	32434	92	98	324	97	95	268	97	128	219	95	107	270
3602	32435	92	130	254	99	130	246	90	151	249	94	137	250
3603	32436	94	104	331	103	98	288	107	130	234	102	111	284
3604	32437	88	96	264	96	106	262	87	117	240	90	106	255
3605	32438	88	103	282	96	104	264	90	120	186	91	109	244
3606	32439	86	97	255	94	99	250	92	116	200	90	104	235
3607	32440	92	97	277	101	97	254	100	108	220	98	101	250
3608	32441	86	93	278	94	91	246	93	108	212	91	98	245
3609	32442	104	96	340	112	108	240	97	152	211	104	118	264
3610	32443	94	94	272	98	96	280	98	126	236	96	106	263
3611	32444	86	96	338	97	101	267	91	118	238	92	105	281
3612	32445	88	96	284	98	92	304	91	126	221	92	105	270
3613	32446	98	96	244	112	90	302	95	102	192	101	96	246
3614	32447	92	92	307	99	97	246	96	106	196	96	99	249
3615	32448	98	113	342	104	103	253	98	119	212	100	112	269
3616	32449	92	90	297	98	94	292	88	112	177	93	98	255
3617	32450	86	85	318	95	87	313	96	102	227	92	91	286
3618	32451	94	125	224	103	109	252	88	141	196	95	125	224
3619	32452	94	96	246	96	101	274	94	120	220	94	106	246
3620	32453	88	111	334	94	101	269	92	122	226	91	112	277
3621	32454	98	82	330	106	83	330	97	102	228	101	89	296
3622	32455	98	98	262	99	97	272	104	118	219	100	105	251
3623	Gothra Bidan-3(NC)	92	96	342	99	91	262	90	116	240	94	101	281
3624	32456	88	89	314	96	93	275	87	114	251	90	99	280
3625	31660	94	106	378	97	102	284	92	113	195	94	107	286
3626	32457	112	134	360	116	147	232	109	170	215	112	150	269
3627	32458	86	96	318	97	87	290	98	114	236	94	99	281
3628	32459	88	99	211	97	103	204	92	116	184	92	106	200
3629	32460	99	110	325	104	111	271	100	128	233	101	116	276
3630	32461	104	104	250	104	99	231	99	122	199	102	109	227
3631	32462	110	108	226	116	102	290	100	128	217	108	113	244
3632	32463	96	107	196	99	100	292	98	128	236	98	112	241
3633	32464	94	102	284	100	105	300	98	126	208	97	111	264
3634	32465	96	94	300	101	83	245	96	109	233	97	95	260
3635	32466	86	101	196	94	94	294	88	120	254	90	105	248
3636	31662 (R)	92	71	175	102	83	310	97	108	232	97	87	239
3637	32467	88	98	225	94	101	305	90	120	198	90	106	243
3638	32468	88	93	312	98	93	292	88	111	260	91	99	288
3639	32469	96	100	195	103	102	277	99	123	195	100	108	222
3640	32470	102	88	225	110	82	312	90	117	218	101	96	252
3641	32471	102	84	286	105	98	290	111	107	238	106	96	271
3642	32472	90	96	252	96	98	258	92	114	194	93	103	234
3643	32473	86	81	251	90	89	233	94	104	220	90	91	235
3644	32474	102	105	325	110	82	318	99	124	198	104	104	280
3645	32475	98	89	255	104	92	268	98	111	194	100	97	239
3646	32476	98	82	260	106	77	278	98	98	216	101	86	252
3647	32477	92	73	310	102	76	290	114	96	236	103	82	279
3648	32478	92	104	310	97	106	208	93	118	218	94	109	246
3649	ZC	88	72	285	94	77	282	93	96	165	92	82	244
3650	32479	92	98	226	95	109	228	92	118	229	93	109	228
3651	32480	86	76	226	92	80	248	88	103	274	89	86	249
3652	32481	104	59	282	110	106	224	102	128	202	105	98	236
3653	32482	92	113	299	103	115	288	87	133	230	94	120	273
3654	32483	86	74	256	91	99	314	86	95	201	88	90	257
3655	32484	94	73	196	101	86	279	100	113	217	99	91	231
3656	32485	106	86	282	108	91	326	107	109	214	107	95	274
3657	32486	96	97	318	101	118	294	96	152	231	98	122	281
3658	32487	98	131	310	100	131	320	98	156	213	99	139	281
3659	32488	98	84	204	103	88	281	106	118	196	102	97	227
3660	32489	96	104	303	101	112	260	99	128	233	99	115	265
3661	32490	96	89	278	99	97	303	97	118	237	98	102	273
3662	32491	96	92	326	100	92	264	95	118	182	97	101	257
3663	31635 (R)	92	79	252	94	86	293	94	101	168	93	89	238
3664	LC	92	88	256	96	97	250	100	100	233	96	95	246
Experimental Mean		93	95	277	100	97	273	95	118	217	97	104	256
Standard Error		0.48			0.75			1.37			0.52		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IME, Kharif 2024

Entry No	IET No	Zone VI- Western (6)			Zone VII- Southern									
		Mean			Andhra Pradesh						Andhra Pradesh (2)			
		DDF	PH	PAN	Ragolu			Maruteru			Mean			
			DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3601	32434	98	115	240	96	128	285	90	143	297	93	136	291	
3602	32435	93	141	236	80	170	297	85	163	290	82	167	294	
3603	32436	99	117	262	88	132	248	84	133	310	86	132	279	
3604	32437	88	117	242	80	128	248	80	120	300	80	124	274	
3605	32438	90	121	238	78	130	251	81	122	274	80	126	262	
3606	32439	89	114	230	78	129	233	78	107	304	78	118	268	
3607	32440	101	115	236	86	136	185				86	136	185	
3608	32441	91	112	242	82	130	271	83	120	274	82	125	272	
3609	32442	106	125	253	100	137	300				100	137	300	
3610	32443	96	119	244	90	130	290	89	127	297	90	128	294	
3611	32444	91	117	270	84	137	323	84	109	314	84	123	318	
3612	32445	90	105	247	85	110	330	83	101	267	84	106	299	
3613	32446	98	106	246	90	113	320	92	105	277	92	109	299	
3614	32447	93	116	235	88	128	277	86	117	277	86	123	277	
3615	32448	98	122	250	86	131	261	88	127	267	87	129	264	
3616	32449	96	106	262	82	114	314	84	113	297	82	114	305	
3617	32450	93	98	263	86	118	307	86	113	290	86	115	299	
3618	32451	96	135	224	104	139	310	92	134	280	98	137	295	
3619	32452	96	116	245	82	122	315	81	118	300	81	120	308	
3620	32453	89	116	256	82	137	261	80	120	290	81	129	276	
3621	32454	98	97	275	92	114	310	78	114	294	85	114	302	
3622	32455	105	111	226	98	116	257				98	116	257	
3623	Gothra Bidan-3(NC)	88	108	255	80	127	244				80	127	244	
3624	32456	88	105	252	82	113	280	79	101	274	80	107	277	
3625	31660	89	114	271	78	128	325	81	115	300	80	122	313	
3626	32457	118	159	244	104	175	330	107	116	267	105	146	299	
3627	32458	92	109	264	84	120	323	82	116	300	83	118	312	
3628	32459	93	113	218	84	128	314	82	109	274	83	119	294	
3629	32460	100	128	246	90	139	300	88	129	290	88	134	295	
3630	32461	99	117	222	90	117	280	82	112	290	86	114	285	
3631	32462	112	121	221	100	121	221	98	132	280	99	126	251	
3632	32463	97	122	224	89	134	274	84	131	284	86	133	279	
3633	32464	98	124	249	86	147	297	90	126	290	88	136	294	
3634	32465	98	112	237	79	135	284	91	121	284	85	128	284	
3635	32466	88	114	245	78	131	280	76	118	274	77	124	277	
3636	31662 (R)	93	96	236	86	110	314	86	124	284	86	117	299	
3637	32467	97	115	238	84	136	277				84	136	277	
3638	32468	88	105	271	80	123	309	80	106	290	80	115	299	
3639	32469	99	119	215	92	126	264	89	134	277	90	130	271	
3640	32470	104	109	237	94	112	251	94	103	294	94	108	272	
3641	32471	110	104	246	106	104	284	108	103	271	107	104	277	
3642	32472	89	112	231	82	117	287	78	115	277	80	116	282	
3643	32473	93	102	229	81	106	323				81	106	323	
3644	32474	106	115	256	100	136	327	93	119	290	96	128	309	
3645	32475	95	108	220	106	119	261	86	114	280	96	116	271	
3646	32476	97	93	241	91	108	327	90	97	254	90	103	290	
3647	32477	96	91	255	87	100	317	84	113	294	86	107	305	
3648	32478	92	122	228	86	139	244	85	133	280	85	136	262	
3649	ZC	90	91	241	78	116	323	86	119	277	82	118	300	
3650	32479	91	119	205	80	140	271	81	120	304	81	130	287	
3651	32480	86	100	246	77	112	320	75	114	297	76	114	309	
3652	32481	107	113	235	98	128	317	94	120	314	96	124	315	
3653	32482	93	129	256	86	149	314	88	132	304	86	140	309	
3654	32483	84	97	239	104	116	264	74	98	271	89	107	267	
3655	32484	94	102	225	84	123	287	83	106	274	84	114	280	
3656	32485	110	113	255	96	136	323	90	124	307	94	130	315	
3657	32486	97	132	250										
3658	32487	95	147	253	86	174	318	86	163	287	86	168	303	
3659	32488	102	111	223	94	126	297	98	115	277	96	120	287	
3660	32489	97	128	246	88	150	317	88	133	300	88	141	309	
3661	32490	97	113	257	88	131	300	88	114	261	88	122	280	
3662	32491	96	114	238	90	123	244	86	108	254	88	115	249	
3663	31635 (R)	91	104	228	80	133	274	79	124	294	80	128	284	
3664	LC	93	108	238	100	118	261	102	119	305	101	119	283	
Experimental Mean		96	114	242	88	127	288	86	119	286	87	124	286	
Standard Error		0.43			0.51			1.55			0.78			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IME, Kharif 2024

Entry No	IET No	Zone VII- Southern											
		Karnataka											
		Mandya			Mugad			Gangavati			Brahmavar		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3601	32434	112	108	354	113	72	259	106	88	262	110	81	346
3602	32435	99	144	313	112	64	177	94	138	287	102	102	388
3603	32436	94	107	316	116	72	178	104	95	220	106	86	394
3604	32437	87	107	313	110	68	212	94	106	285	95	72	398
3605	32438	85	110	323	108	70	258	96	107	270	95	82	338
3606	32439	84	99	312	103	74	173	94	92	314	96	77	377
3607	32440	90	102	292	122	93	210	95	100	284	102	78	378
3608	32441	84	107	320	116	80	254	94	102	338	101	88	380
3609	32442	114	120	370	118	80	212	106	110	364	107	92	349
3610	32443	92	107	298	108	74	250	105	96	318	105	96	357
3611	32444	88	108	388	102	70	274	94	100	278	96	82	415
3612	32445	92	106	388	104	76	209	102	103	342	102	68	406
3613	32446	103	96	392	114	81	240	104	85	219	104	88	390
3614	32447	90	103	320	102	78	206	101	100	284	105	92	385
3615	32448	103	110	326	117	72	226	104	106	346	107	92	414
3616	32449	88	100	320	104	68	314	95	84	214	105	74	368
3617	32450	98	99	381	99	82	238	99	90	252	100	74	358
3618	32451	90	104	382	102	74	244	98	108	253	103	111	391
3619	32452	86	108	333	100	77	260	98	94	276	110	86	384
3620	32453	94	114	340	104	70	234	99	108	282	101	84	357
3621	32454	96	83	377	112	84	269	108	76	196	106	68	395
3622	32455	93	102	302	110	72	224	102	96	236			
3623	Gothra Bidan-3(NC)	94	107	344	110	78	198						
3624	32456	92	100	338	104	64	214	102	82	224	97	80	394
3625	31660	87	104	344	103	74	254	98	100	324	96	84	398
3626	32457	95	148	326	120	98	213	102	142	368	120	106	371
3627	32458	86	106	350	106	76	216	97	98	314	104	90	388
3628	32459	86	102	326	108	67	204	94	90	284	102	72	389
3629	32460	103	111	378	112	74	200	106	95	285	107	86	368
3630	32461	102	108	343	114	72	255	106	92	279	105	84	382
3631	32462	109	110	354	126	63	187	113	79	206	122	92	375
3632	32463	91	122	323	106	80	266	102	96	224	105	102	260
3633	32464	106	130	340	111	91	190	102	85	168	102	100	416
3634	32465	106	110	391	104	69	246	103	113	378	104	86	388
3635	32466	86	112	323	106	66	236	96	106	322	112	72	392
3636	31662 (R)	94	102	340	109	72	235	102	74	202	105	78	418
3637	32467	87	110	344	108	70	212	96	102	295	101	81	406
3638	32468	96	110	359	109	84	232	98	103	326	102	52	444
3639	32469	102	109	330	103	68	206	102	105	298	109	91	406
3640	32470	106	101	330	122	66	234	106	75	279	104	72	404
3641	32471	92	99	318	113	68	238	112	86	217	114	69	388
3642	32472	104	106	354	102	64	227	96	90	274	104	82	392
3643	32473	84	95	350	103	61	253	92	90	300	101	80	407
3644	32474	90	98	320	110	70	227	106	98	319	106	82	370
3645	32475	98	105	330	111	71	273	106	96	202	110	81	402
3646	32476	106	85	344	116	54	300	106	80	224	104	64	352
3647	32477	104	88	357	110	68	236	102	76	243	104	62	422
3648	32478	103	98	354	103	76	240	100	96	264	101	89	380
3649	ZC	84	106	357	108	64	291	98	94	278	96	72	398
3650	32479	90	108	393	112	77	274	95	107	282	101	94	369
3651	32480	88	98	326	105	59	228	94	76	206	94	74	370
3652	32481	92	112	316	108	78	184	96	90	254	105	82	358
3653	32482	94	120	330	102	78	254	102	91	218	104	91	352
3654	32483	100	97	338	116	58	186	96	88	165	96	70	400
3655	32484	90	99	323	104	60	262	102	86	274	103	71	390
3656	32485	95	98	344	112	79	250	102	84	292	106	70	368
3657	32486	90	127	360	109	72	244	105	96	324	105	82	358
3658	32487	94	148	296	114	75	244	104	118	266	108	102	370
3659	32488	92	116	299	118	62	198	106	98	216	109	84	388
3660	32489	90	126	354	104	74	328	105	118	338	104	84	348
3661	32490	90	102	316	118	70	244	102	86	211	103	74	371
3662	32491	92	101	347	102	64	218	101	88	254	101	85	368
3663	31635 (R)	88	98	350	107	65	214	96	98	360	94	62	330
3664	LC	104	118	350	116	75	236	106	94	338	119	84	391
Experimental Mean		94	107	340	109	72	233	100	95	273	103	82	380
Standard Error		1.21			1.09			1.3			1.3		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IME, Kharif 2024

Entry No	IET No	Zone VII- Southern											
		Karnataka (4)			Kerala						Kerala (2)		
		Mean			Monocompu			Pattambi			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3601	32434	110	87	305	98	120	216	92	96	326	95	108	271
3602	32435	102	112	291	97	155	303	80	116	288	88	136	295
3603	32436	105	90	277	98	131	273	92	96	338	95	114	306
3604	32437	97	88	302	94	120	213	81	98	364	88	109	288
3605	32438	96	92	297	104	121	263	92	95	508	98	108	385
3606	32439	94	86	294	110	115	296	84	97	317	97	106	306
3607	32440	102	93	291	96	125	310	86	105	389	91	115	350
3608	32441	99	94	323	93	116	283	92	99	324	92	108	304
3609	32442	111	101	324	104	138	290	94	104	266	99	121	278
3610	32443	102	93	305	108	115	270	88	101	302	98	108	286
3611	32444	95	90	339	104	118	310	84	101	616	94	109	462
3612	32445	100	88	336	104	114	266	86	88	313	95	101	290
3613	32446	107	88	310	104	122	450	84	92	426	94	107	438
3614	32447	100	93	299	96	123	226	94	90	415	95	106	321
3615	32448	108	95	328	104	115	190	88	90	234	96	103	212
3616	32449	98	81	304	94	111	263	84	86	328	89	98	295
3617	32450	99	86	307	95	113	400	80	84	440	87	98	420
3618	32451	98	99	318	99	160	256	84	114	310	92	137	283
3619	32452	98	91	313	91	110	283	83	99	317	87	105	300
3620	32453	100	94	303	94	126	213	88	96	317	91	111	265
3621	32454	105	78	309	104	104	330	92	79	227	98	92	278
3622	32455	102	90	254	94	118	313	92	96	234	93	107	274
3623	Gothra Bidan-3(NC)	102	93	271	92	114	243	79	87	342	86	101	292
3624	32456	99	82	293	104	107	246	84	86	328	94	97	287
3625	31660	96	90	330	104	116	243	84	102	458	94	109	350
3626	32457	109	123	320	110	176	246	94	135	278	102	155	262
3627	32458	98	93	317	104	106	233	94	89	352	99	98	293
3628	32459	97	83	301	93	111	260	76	90	328	84	100	294
3629	32460	107	92	308	104	119	203	94	96	328	99	108	265
3630	32461	107	89	315	112	124	283	91	95	338	102	109	310
3631	32462	118	86	281	103	126	216	89	105	356	96	115	286
3632	32463	101	100	268	96	122	290	91	107	356	94	114	323
3633	32464	105	101	278	103	119	436	92	102	357	97	111	397
3634	32465	104	95	351	104	127	313	93	98	346	98	113	329
3635	32466	100	89	318	93	119	243	86	106	364	89	113	303
3636	31662 (R)	102	81	299	95	110	256	86	90	356	90	100	306
3637	32467	98	91	314	95	104	260	84	95	406	89	100	333
3638	32468	101	87	340	104	114	313	84	95	458	94	104	385
3639	32469	104	93	310	102	123	256	92	92	338	97	108	297
3640	32470	109	78	312	104	116	303	93	87	288	98	101	296
3641	32471	108	80	290	102	108	270	95	87	274	98	98	272
3642	32472	102	85	312	92	112	226	82	86	410	87	99	318
3643	32473	95	81	328	93	115	256	84	87	354	89	101	305
3644	32474	103	87	309	104	125	333	92	94	234	98	110	284
3645	32475	106	88	302	104	111	240	84	86	180	94	98	210
3646	32476	108	71	305	110	102	204	84	86	428	97	94	316
3647	32477	105	74	314	95	98	270	87	82	482	91	90	376
3648	32478	102	90	309	96	122	294	82	111	375	89	116	335
3649	ZC	97	84	331	86	102	256	84	96	511	85	99	384
3650	32479	99	96	329	91	127	230	82	108	486	87	117	358
3651	32480	95	77	282	92	103	256	82	85	586	87	94	421
3652	32481	100	90	278	108	126	233	86	95	360	97	110	296
3653	32482	101	95	289	108	139	303	90	116	384	99	127	344
3654	32483	102	78	272	91	100	336	80	89	482	85	95	409
3655	32484	100	79	312	104	114	253	94	98	296	99	106	274
3656	32485	104	83	313	106	120	203	94	99	278	100	109	240
3657	32486	102	95	321	104	137	240	93	113	446	98	125	343
3658	32487	105	111	294	108	152	230	94	111	256	101	132	243
3659	32488	106	90	275	110	128	240	98	102	363	104	115	301
3660	32489	101	100	342	105	130	193	95	94	260	100	112	226
3661	32490	103	83	286	106	119	210	90	100	262	98	109	236
3662	32491	99	85	297	104	117	296	96	93	418	100	105	357
3663	31635 (R)	96	81	314	93	116	316	86	94	457	90	105	386
3664	LC	111	93	329	99	106	210	84	89	416	92	98	313
Experimental Mean		102	90	306	100	119	268	87	96	358	94	108	313
Standard Error		0.63			0.54			1.83			0.95		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IME, Kharif 2024

Entry No	IET No	Zone VII- Southern											
		Telangana									Telangana (3)		
		Rajendranagar			Kunaram			Warangal			Mean		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3601	32434	94	103	534	99	139	258	92	134	310	95	125	367
3602	32435	90	122	564	89	156	251	89	164	306	89	147	374
3603	32436	89	98	524	93	117	258	98	124	308	93	113	364
3604	32437	84	105	600	83	125	277	86	126	282	84	119	386
3605	32438	86	105	520	86	116	244	86	123	278	86	115	348
3606	32439	80	99	489	87	115	284	91	128	297	86	114	357
3607	32440	86	96	476	96	116	244	99	118	250	94	110	323
3608	32441	84	97	600	90	119	284	90	126	287	88	114	390
3609	32442	94	100	524	106	147	290	105	134	314	102	127	376
3610	32443	89	96	551	95	122	258	98	129	302	94	116	370
3611	32444	84	95	636	87	126	241	88	126	332	86	116	403
3612	32445	90	92	609	90	124	280	89	117	320	90	111	403
3613	32446	95	88	644	100	100	221	93	108	296	96	99	387
3614	32447	89	99	622	99	121	228	95	128	292	94	116	381
3615	32448	94	100	582	96	130	254	96	128	302	96	119	379
3616	32449	82	88	631	84	102	274	96	110	325	87	100	410
3617	32450	92	87	648	92	110	306	90	111	314	92	103	423
3618	32451	89	106	626	92	118	251	88	137	310	90	120	396
3619	32452	84	100	574	88	125	274	90	119	320	87	115	389
3620	32453	88	106	586	88	132	290	86	128	310	87	122	396
3621	32454	94	74	614	99	97	254	95	98	305	96	90	391
3622	32455	102	84	520	94	98	198	97	112	282	98	98	334
3623	Gothra Bidan-3(NC)	94	88	529	82	113	264	85	104	296	87	102	363
3624	32456	85	89	546	88	110	264	86	103	325	86	101	378
3625	31660	84	107	586	87	117	261	88	127	320	86	117	389
3626	32457	94	120	556	112	185	248	115	167	318	107	158	374
3627	32458	87	96	578	86	106	280	91	112	288	88	105	382
3628	32459	86	88	649	89	113	250	95	119	328	90	107	409
3629	32460	95	96	516	92	124	238	95	131	284	94	117	346
3630	32461	92	95	538	96	115	212	98	121	312	96	110	354
3631	32462	102	95	578	110	127	238	106	137	312	106	120	376
3632	32463	91	103	556	99	123	234	100	126	307	96	118	366
3633	32464	92	99	640	96	122	304	97	133	325	95	118	423
3634	32465	89	104	586	95	128	264	96	128	296	93	120	382
3635	32466	82	104	569	94	117	386	88	124	314	88	115	423
3636	31662 (R)	92	84	636	92	102	278	90	98	318	92	95	410
3637	32467	88	105	529	89	124	280	92	123	318	90	117	376
3638	32468	88	98	569	85	114	270	94	116	334	89	109	391
3639	32469	94	95	458	92	120	238	95	127	292	94	114	329
3640	32470	94	83	542	100	111	264	100	116	312	98	104	373
3641	32471	99	74	649	107	102	244	107	118	306	104	98	400
3642	32472	87	95	569	89	108	270	90	117	340	89	107	393
3643	32473	82	103	556	85	110	304	88	123	310	85	112	390
3644	32474	95	90	592	102	127	264	101	118	332	99	112	396
3645	32475	92	83	604	100	103	234	97	118	297	96	102	379
3646	32476	95	74	729	96	98	231	94	102	284	95	91	414
3647	32477	91	76	764	92	100	294	90	107	328	91	94	462
3648	32478	84	98	666	92	132	277	93	137	305	90	122	416
3649	ZC	82	92	568	82	114	267	84	121	294	83	109	376
3650	32479	87	96	764	94	137	244	88	137	278	90	124	429
3651	32480	82	84	760	83	105	287	88	111	333	84	100	460
3652	32481	86	94	729	102	124	280	100	129	300	96	116	437
3653	32482	94	104	542	89	130	244	92	133	294	92	122	360
3654	32483	86	90	569	83	102	211	83	96	298	84	96	360
3655	32484	88	93	596	93	106	224	92	111	304	91	104	374
3656	32485	94	99	604	99	121	287	94	127	302	96	116	398
3657	32486	89	104	578	99	145	244	98	132	292	95	127	371
3658	32487	92	121	644	96	146	234	96	168	318	94	145	399
3659	32488	99	94	556	96	122	228	99	124	274	98	113	352
3660	32489	94	103	609	96	139	244	95	138	322	95	127	392
3661	32490	90	86	600	92	110	254	93	113	297	92	103	384
3662	32491	84	91	569	97	111	238	94	122	287	92	108	364
3663	31635 (R)	86	86	604	88	123	284	89	118	325	88	109	404
3664	LC	82	88	586	90	108	294	101	143	326	91	113	402
Experimental Mean		89	95	591	93	119	260	93	123	306	92	113	386
Standard Error		1.52			0.53			0.71			0.49		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IME, Kharif 2024

Entry No	IET No	Zone VII- Southern									Zone VII- Southern (13)		
		Tamil Nadu						Tamil Nadu (2)			Mean		
		Coimbatore			Adutrai			Mean			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3601	32434	92	113	295	97	98	372	95	105	334	99	109	316
3602	32435	98	144	335				98	144	335	93	137	317
3603	32436	110	108	432	98	114	326	104	111	379	98	109	317
3604	32437	96	105	415	97	94	268	96	100	342	90	106	321
3605	32438	96	117	345	100	98	290	98	107	317	92	107	320
3606	32439	97	93	378	98	102	368	97	98	373	91	102	319
3607	32440	92	113	458	100	108	334	96	111	396	96	108	317
3608	32441	92	114	392	97	109	285	95	112	339	92	108	330
3609	32442	110	133	300	101	108	385	105	121	342	105	117	330
3610	32443	96	102	418	100	107	468	98	104	443	97	108	337
3611	32444	104	100	348	95	110	376	99	105	362	92	106	373
3612	32445	94	91	252	94	93	280	94	92	266	93	99	328
3613	32446	110	100	310	96	93	386	103	96	348	99	98	352
3614	32447	94	107	320	102	94	398	98	101	359	95	106	327
3615	32448	110	107	292	98	93	304	104	100	298	99	108	308
3616	32449	94	109	315	96	107	352	96	108	334	91	97	332
3617	32450	86	106	455	96	102	336	91	104	395	92	99	363
3618	32451	110	136	282	96	106	368	103	121	325	96	119	328
3619	32452	85	107	375	97	107	340	91	107	357	90	105	335
3620	32453	110	103	430	98	116	354	104	109	392	93	111	328
3621	32454	100	98	300	97	132	270	99	115	285	98	94	318
3622	32455	88	104	305	100	104	335	94	104	320	97	100	292
3623	Gothra Bidan-3(NC)	100	91	295	98	109	346	99	100	321	92	102	310
3624	32456	98	100	302	100	106	373	99	103	338	92	96	316
3625	31660	96	101	420	98	86	274	97	94	347	91	105	347
3626	32457	110	144	335	100	95	332	105	120	333	106	139	322
3627	32458	90	100	378	100	110	380	95	105	379	93	102	337
3628	32459	90	103	432	94	98	382	92	100	407	91	99	340
3629	32460	110	113	240	98	104	365	104	108	302	99	109	307
3630	32461	110	108	365	101	106	377	105	107	371	100	104	327
3631	32462	110	106	225	97	106	354	104	106	290	106	108	300
3632	32463	110	115	340	96	108	294	103	112	317	97	113	308
3633	32464	102	139	298	100	113	382	100	126	340	98	116	342
3634	32465	100	96	422	96	112	408	98	104	415	97	110	354
3635	32466	94	102	358	101	110	369	98	106	363	92	107	341
3636	31662 (R)	96	98	436	96	96	330	96	97	383	95	95	339
3637	32467	96	104	435	94	112	342	95	108	388	93	105	342
3638	32468	98	99	242	96	110	390	96	104	316	93	102	349
3639	32469	108	114	238	94	94	306	102	104	272	98	108	300
3640	32470	110	92	348	97	94	340	103	93	344	102	94	322
3641	32471	97	101	242	94	88	368	96	94	306	104	93	313
3642	32472	88	106	235	96	94	384	92	100	310	92	99	327
3643	32473	86	94	230	98	114	400	92	104	315	90	98	337
3644	32474	110	109	348	95	102	330	102	106	338	100	105	330
3645	32475	103	95	225	97	96	320	100	95	272	100	98	296
3646	32476	102	88	278	100	114	402	101	101	340	100	89	335
3647	32477	98	98	245	96	94	310	97	96	278	95	89	351
3648	32478	99	108	438	100	96	368	100	102	403	94	110	345
3649	ZC	98	110	258	97	96	379	98	103	318	90	100	343
3650	32479	98	111	322	96	103	320	97	107	321	92	113	349
3651	32480	88	86	392	95	104	410	92	95	401	88	93	367
3652	32481	96	101	260	97	104	386	96	102	323	97	106	330
3653	32482	102	116	302				102	116	302	96	117	320
3654	32483	95	95	435	98	102	387	96	98	411	92	92	334
3655	32484	100	101	330	98	116	342	98	109	336	95	99	320
3656	32485	102	105	428	96	104	254	99	104	341	99	105	326
3657	32486	98	123	272	97	95	302	97	109	287	99	112	333
3658	32487	110	129	282	100	104	422	105	116	352	99	132	321
3659	32488	110	96	215	95	105	418	102	101	316	102	106	305
3660	32489	96	107	450	98	103	330	97	105	390	97	115	338
3661	32490	100	100	425	100	106	354	100	103	390	97	101	316
3662	32491	94	114	428	100	106	324	97	110	376	96	102	326
3663	31635 (R)	92	101	428	97	105	326	94	103	377	90	102	351
3664	LC	110	86	430	94	105	368	102	96	399	100	103	347
Experimental Mean		99	106	339	97	103	350	98	105	345	96	105	329
Standard Error		2.13			0.94			1.31			0.35		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 4.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IME, Kharif 2024

Entry No	IET No	Maharashtra (5)			Uttar Pradesh (2)			Overall Mean (39)		
		Mean			Mean			Mean		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
3601	32434	96	112	266	116	104	190	103	112	275
3602	32435	94	141	265	105	140	209	96	140	269
3603	32436	102	110	300	106	103	215	102	111	294
3604	32437	94	113	257	96	96	203	93	108	273
3605	32438	95	110	253	102	109	206	96	112	280
3606	32439	92	112	256	99	104	184	94	107	275
3607	32440	99	108	267	110	98	199	101	107	273
3608	32441	92	107	279	99	101	206	96	107	284
3609	32442	107	120	259	116	109	174	107	118	283
3610	32443	100	104	268	114	103	214	101	111	290
3611	32444	95	109	276	110	101	187	96	108	310
3612	32445	96	108	274	105	97	204	98	101	293
3613	32446	101	98	238	115	98	189	103	98	294
3614	32447	97	102	273	107	99	184	100	107	277
3615	32448	99	112	273	106	100	188	101	110	281
3616	32449	93	100	278	104	94	223	96	99	302
3617	32450	94	97	298	108	98	229	96	97	311
3618	32451	97	128	265	108	107	188	101	121	288
3619	32452	98	105	269	98	98	186	96	105	281
3620	32453	92	109	299	105	93	172	95	112	281
3621	32454	103	98	298	112	93	162	102	95	283
3622	32455	101	104	245	106	97	226	104	102	262
3623	Gothra Bidan-3(NC)	91	103	264	96	94	163	93	101	269
3624	32456	94	102	279	99	98	166	94	99	274
3625	31660	98	107	286	118	106	219	95	107	299
3626	32457	117	142	265	118	128	223	111	141	277
3627	32458	97	106	285	105	94	179	98	103	288
3628	32459	95	118	241	108	102	192	97	106	285
3629	32460	100	111	266	108	104	163	101	113	276
3630	32461	103	111	256	117	102	188	103	107	277
3631	32462	110	110	253	116	108	207	107	110	272
3632	32463	98	114	256	107	108	228	101	113	276
3633	32464	100	120	260	108	104	219	103	117	303
3634	32465	100	104	274	102	100	190	101	109	295
3635	32466	93	108	271	104	89	188	95	107	291
3636	31662 (R)	99	92	268	100	98	200	98	96	290
3637	32467	94	109	258	99	94	226	97	107	293
3638	32468	94	97	278	105	104	183	95	102	301
3639	32469	99	111	242	114	101	186	101	111	261
3640	32470	98	98	271	120	94	171	105	98	281
3641	32471	105	99	270	110	100	204	107	96	277
3642	32472	93	104	248	98	98	185	94	102	273
3643	32473	93	96	258	109	96	184	95	98	284
3644	32474	98	104	300	118	100	211	105	106	292
3645	32475	100	100	244	109	97	202	101	102	260
3646	32476	100	92	264	102	96	207	100	92	283
3647	32477	100	92	274	105	98	212	98	93	289
3648	32478	100	122	251	106	101	194	99	113	278
3649	ZC	92	94	254	104	107	202	94	102	284
3650	32479	92	120	245	100	100	196	95	115	276
3651	32480	90	95	252	110	93	204	92	98	294
3652	32481	107	105	242	118	106	207	106	109	277
3653	32482	98	121	264	103	103	166	99	117	283
3654	32483	91	95	267	102	93	219	93	95	293
3655	32484	100	98	252	113	100	198	98	101	266
3656	32485	109	102	278	116	113	238	106	107	290
3657	32486	102	121	281	106	125	203	102	120	280
3658	32487	97	140	270	108	118	188	99	136	277
3659	32488	104	106	235	114	101	184	104	107	263
3660	32489	99	118	273	112	100	192	100	117	280
3661	32490	101	101	285	112	104	190	101	104	284
3662	32491	100	108	276	103	94	170	101	105	276
3663	31635 (R)	93	100	269	98	90	201	95	101	297
3664	LC	97	112	267	111	97	206	99	107	294
Experimental Mean		98	108	266	107	102	197	99	107	283
Standard Error		0.37			0.58			0.26		

Annual Progress Report 2024 Vol. I – Varietal Improvement

**ADVANCED VARIETY TRIAL 2 & 1 - IRRIGATED MEDIUM (IM)
(AVT 2 & 1 - IM)**

Locations: 48

Test Entries: 38

Checks: Checks: NDR-359 (National); PR 121 (Northern), CR Dhan 300(Eastern and North Eastern), Karma Mahsuri (Central), Akshaya Dhan (Western), Jaya (Southern), Hybrid: HRI 174 and Local check

Advanced Variety Trial 2 & 1 - Irrigated Medium (IM) was constituted with 38 test entries and 4 checks namely NDR-359 (National); PR 121 (Northern), CR Dhan 300(Eastern and North Eastern), Karma Mahsuri (Central), Akshaya Dhan (Western), Jaya (Southern), Hybrid: HRI 174 and local check. The trial was sent to 48 locations however, data was not received from 7 locations namely Chatha, Arunduthi Nagar, Jagtial, Tirur, Kurumbapet, Puducherry and Karaikal. Data from six centres were excluded from analysis viz., Chiplima, Masodha, Gorakhpur, Kathalgere, Geruva, Jagdalpur, due to either low (<5%) / high CV (20%) or low experimental yield (<4000Kg/ha) or based on non-significant F Value. Among the centres from which data is included in analysis, location-wise mean grain yield ranged from 4092 kg/ha (Sindewahi) to 9304 kg/ha (Bankura), while, CV ranged from 5.19% (Bhubaneswar) to 18.45% (Mugad).

Zones	II	III	IV	V	VI	VII
Zonal mean (Kg/ha)	4315 (IET 31633)-6611 (IET 30603)	4607 (IET 30772)-7586 (IET 30613)	3974 (Zonal Check) - 6998 (IET 31480)	4511 (IET 31633) - 6004 (IET 31480)	4064 (IET 31618) - 6058 (IET 31480)	4725 (Zonal check) - 6501 (IET 31480)
Exp Mean (Kg/ha)	4382 (NGN)-7008 (KUL)	4575 (RCI)-9304 (BNK)	4609 (TTB) - 6047 (LMB)	4092 (ND) - 6168 (RPR)	4221 (NVS) - 5789 (KJT)	4491 (PTB) - 7160 Kg/ha (GNV)
CV%	7.08 (KUL) - 14.02 (PNT)	5.19 (BBN) - 17.08 (CTK).	6.12 (LMB)-7.84 (TTB)	8.97 (SKL) - 11.29 (RPR).	9.63 (NWG) - 14.53 (KJT)	5.25 (GNV) - 18.45 (MGD)
DFP	91(IET 31481) - 133 (IET 31641)	97 (IET 30772) - 117 (IET 31641)	102 (IET 31492) to -122 (IET 31641)	95 (IET 31481) - 112 (IET 31641)	87 (IET 31481) - 108 (IET 31641)	95 (IET 31481) - 109 (IET 30819, IET 31641)
PH (cm)	94 (ZC)-129 (IET 31630 and IET 31659)	101 (Zonal Check, IET 30819)- 137 (IET 31619)	95 (National Check) - 124 (IET 31659)	105 (Zonal Check) - 131 (IET 31638)	113 (Local Check and National Check) - 145 (IET 31659)	94 (Zonal check, IET 30819) - 120 (IET 31659)
Pan/m ²	271 (IET 31633 and IET 31643)-354 (IET 31641)	266 (National Check) to 353 (IET 30605)	226 (IET 29860) - 407 (IET 31638)	203 (IET 31479) - 261 (IET 31638).	181 (National Check) - 225 (IET 31480)	303 (IET 29860) to 368 (IET 30819)
DNI (Data not included)	-	CHP & GRP - LEM MSD- LCV	GER- LEM	JDP- LEM	-	KTG- LCV
Locations considered	3	9	2	6	4	11

In AVT 2, five hybrids (IET 30613, IET 30617, IET 30604, IET 30605, IET 30819 and IET 30603) and one varietal (IET 30819) entries recorded required significant yield superiority and their three years performance is presented in the table. In AVT 1, five hybrids (IETs 31478 (H), IET 31479 (H), IET 31480 (H), IET 31481 (H) and IET 31492 (H) and twelve varietal (IET 31641, IET 29860 (R), IET 29877 (R), IET 31618, IET 31633, IET 31637, IET 31638, IET 31639, IET 31640, IET 31641, IET 31643 and IET 31659) entries recorded required significant yield superiority.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of the entries with required significant yield superiority over checks in AVT 2 & 1 IM during *kharif* 2024

IET No / Designation / Cross combination	Zonal performance-Yield (kg/ha); Rank						Promoted
	II	III	IV	V	VI	VII	
AVT2							
IET 30613 (H) CRHR-169/Hybrid	--	7586	--	--	--	--	Three years completed
IET 30617 (H) CRHR-175/Hybrid	--	7556	--	--	--	--	
IET 30604 (H) Indam 200-055/Hybrid	--	7395	--	--	--	6036	
IET 30605 (H) RNE-0456/Hybrid	--	6703	--	--	--	--	
IET 30819 PNPG 114/PNP 115/PNP 310	--	6462	--	--	--	--	
IET 30603 (H) RNE-0456/Hybrid	--	--	--	--	--	6333	
AVT1							
IET 31480 (H) HRI-218/Hybrid	--	7354	6998	6004	6058	6501	III, IV, V, VI, VII
IET 31643 BRR2128/ Rajendra Sweta/Sita	--	6818	--	5162	--	6067	III, V, VII
IET 29877(R) CR 4313-1-1-2-1-1-1/ CR 3511-32/CR-3561-31	--	6611	5146	5429	5806	--	III, IV, V, VI
IET 31637 BRR0252/Rajendra Mahsuri/IRBB58	--	6504	--	--	--	--	III
IET 29860 (R) CR 3856-44-22-2-1-11- 4-1-1/IR 73963-86-1-5- 2-2/CR 2324-1	--	6494	5828	5247	--	--	III, IV, V
IET 31639 WGL1752/BPT 5204/RNR 15048	--	6445	--	--	--	--	III
IET 31640 AD 19538/CO 50/AD 09494	--	6407	--	--	--	--	III
IET 31641 OR 2658-1/IR 72/OR 1920-3	--	6336	--	5365	--	5756	III, V, VII
IET 31633 CR 4409-1-1-1-1-1-1/CR 3511-3-2-2-5-1-1- 2/CR3561-3-2-1-1-1-1	--	6237	5420	--	--	5986	III, IV, VII
IET 31618 OROI-5-IR 86256-6-2-2- 2/IR 68703-AC-24- 1/Swarna-Sub 1*2	--	6157	5623	5286	--	6019	III, IV, V, VII
IET 31638 HURS 23-9-IR 11A282/IR04A427/BR 29 (AGGRi Alliance)	--	6149	5958	5694	--	6154	III, IV, V, VII
IET 31478 (H) Gajab/Hybrid	--	--	--	--	5581	--	VI

Annual Progress Report 2024 Vol. I – Varietal Improvement

IET No / Designation / Cross combination	Zonal performance-Yield (kg/ha); Rank						Promoted
	II	III	IV	V	VI	VII	
IET 31479 (H) RRX 3413/Hybrid	--	5721	--	--		--	IV
IET 31481 (H) Dhadak Gold/Hybrid	--	--	--	--	--	5788	VII
IET 31492 (H) RNE-0420/Hybrid	--	--	--	--	--	5853	VII
IET 31659 R 2299-3671-1-254- 1/Karma Mahsuri/Bamaleshwari	--	--	--	5324	--	--	V
HRI 174 (HC)	6343	6294	5293	5677	4938	5299	
NDR 359 (NC)	5890	4974	3974	4742	4066	4971	
CR Dhan 300 (ZC)	6505	4735	4230	5008	4951	4725	
Local Check	5325	5484	4657	4612	4410	5398	
CD	548	393	374	267	595	351	
HC+CD	6891	6687	5667	5944	5463	5657	
BC+CD	7053	5877	5031	5275	5476	5749	
All entries in zone VI showed DFF below 100 including checks							

Three years performance of the entries : Six entries completed three years of testing with required significant yield advantage over the checks. Yield performance along with ranks across three years in various zones for these entries is given in the following table.

Three-year performance of entries during Kharif 2022, 2023 & 2024 Zone III & VII

Entry	Year	III	VII	Remarks
IET 30613 (H) CRHR-169/Hybrid	2022	7696	--	Promising in Zone-III
	2023	5681 (8)	--	
	2024	7586 (1)	--	
IET 30617 (H) CRHR-175/Hybrid	2022	7656	--	Promising in Zone-III
	2023	6257 (1)	--	
	2024	7556 (2)	--	
IET 30604 (H) Indam 200- 055/Hybrid	2022	7647	6074	Promising in Zones- III & VII
	2023	6033 (3)	6922 (2)	
	2024	7395 (3)	6036 (5)	
IET 30605 (H) RNE-0456/Hybrid	2022	7380	--	Promising in Zone-III
	2023	6004 (4)	--	
	2024	6703 (6)	--	
IET 30819 PNPG 114/PNP 115/PNP 310	2022	6167 (1) Overall 6236 (6)	--	Promising in Zone-III
	2023	5952 (7)	--	
	2024	6462 (10)	--	
IET 30603 (H) RNE-0456/Hybrid	2022		6461	Promising in Zone- VII
	2023		7070 (1)	
	2024		6333(2)	

Annual Progress Report 2024 Vol. I – Varietal Improvement

SUMMARY

ADVANCED VARIETY TRIAL- Irrigated Medium (AVT-IM) - Kharif 2024

Locations: 48

Test entries: 38

Checks: NDR-359 (National); PR 121 (Northern), CR Dhan 300(Eastern and North Eastern), Karma Mahsuri (Central), Akshaya Dhan (Western), Jaya (Southern), Hybrid: HRI 174 and Local check

List of the entries promoted from AVT1-IM to AVT 2-IM

Zone II: None of the entries promoted

Zone III: **IET 31480**, IET 31643, IET 29877, IET 31637, IET 29860 , IET 31639, IET 31640, IET 31641, IET 31633, IET 31618, IET 31638

Zone IV: **IET 31480**, IET 31479, IET 31618, IET 29877, IET 31633, IET 29860, IET 31638

Zone V: **IET 31480**, IET 31618, IET 29877, IET 31641, IET 31659, IET 31638, IET 29860 and IET 31643

Zone VI: IET 31478, **IET 31480** and IET 29877

Zone VII: **IET 31480**, IET 31492, IET 31481, IET 31618, IET 31633, IET 31641, IET 31643, IET 31638

List of the entries performed superior in AVT2-IM

Zone III: IET 30613, IET 30617, **IET 30604**, IET 30605, IET 30819

Zone VII: IET 30603, **IET 30604**

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 5.1: Composition of entries in Advance Variety Trial 2 & 1–Irrigated Medium (AVT 2&1-IM), Kharif 2024

Entry No.	IET No.	Designation	Cross combination	Zones	Grain Type
3rd year testing					
3701	30603* (H)	RNE-0456	Hybrid	II,VII	LS
3702	30613*(H)	CRHR-169	Hybrid	III	LB
3703	30608* (H)	MEPH-170	Hybrid	II, III	LS
3704	HC	HRI 174		II to VII	LS
3705	30617* (H)	CRHR-175	Hybrid	III	LB
3706	30605* (H)	RNE-0463	Hybrid	III	LS
3707	30772*	TRC GTS 739-B-B-4-1	Gomati/Tripura Sharat	III	LS
3708	30604* (H)	Indam 200-055	Hybrid	III,VII	LB
3709	30819*	PNPG 114	PNP 115/PNP 310	III,VII	SB
2nd year testing					
3710	31623	ORJ 1311	RP Bio 226/IRGC48960//MTU 1081	III	LB
3711	31483 (H)	Dhadak	Hybrid	V	
3712	31618	OROI-5-IR 86256-6-2-2-2	IR 68703-AC-24-1/ Swarba-Sub 1*2	II to VII	MS
3713	29877 (R)	CR 4313-1-1-2-1-1-1	CR 3511-32 / CR 3561-31	II to VII	SB
3714	31629	NVSR1065	GAR-13/Gurjari	II	LB
3715	31472 (H)	SPH-47	Hybrid	VI	MS
3716	31478 (H)	Gazab	Hybrid	VI	LS
3717	ZC				SB
3718	31644	Shri Ram Super 7700	SRPG806/SPG18	II	LB
3719	31480 (H)	HRI-218	Hybrid	II to VII	LS
3720	31633	CR 4409-1-1-1-1-1-1	CR 3511-3-2-2-5-1-1-2 / CR3561-3-2-1-1-1-1	II to VII	MB
3721	31473 (H)	PAN 7161	Hybrid	VI	LS
3722	29860 (R)	CR 3856-44-22-2-1-11-4-1-1	IR 73963-86-1-5-2-2 / CR 2324-1	II to VII	SB
3723	31637	BRR0252	Rajendra Mahsuri/IRBB58	III	MS
3724	31490 (H)	CRHR 181	Hybrid	VI	MS
3725	31639	WGL1752	BPT 5204/RNR 15048	II	LS
3726	31492 (H)	RNE 0420	Hybrid	II to VII	MS
3727	31641	OR 2658-1	IR 72/OR 1920-3	II to VII	MS
3728	31476 (H)	RALLIS 22306	Hybrid	VI	LS
3729	NC	NDR 359		II to VII	
3730	31643	BRR2128	Rajendra Sweta/Sita	II to VII	MB
3731	31479 (H)	RRX 3413	Hybrid	II to VII	LS
3732	31619	BRR2140	IET 22238/IET21519	III	MS
3733	31654	CR4379-4-3-1-1-5-1	CRDhan 307/MTU1010	II	MB
3734	LC			II to VII	
3735	31471 (H)	HRI-219	Hybrid	VI	LS
3736	31630	CR 3504-19-2-2-1-1-1	IR 36/ Birupa	II, III	LB
3737	31673	RP6346-14-24-63-85	Samba Mahsuri*3/ ST 12	II	MS

Annual Progress Report 2024 Vol. I – Varietal Improvement

3738	31659	R 2299-3671-1-254-1	Karma Mahsuri/Bamaleshwari	II to VII	MS
3739	31638	HURS 23-9-IR 11A282	IR04A427/BR 29(AGGRi Alliance)	II to VII	LS
3740	31672	NVSR1219	Gurjari/IET23448	II	MS
3741	31481 (H)	Dhadak Gold	Hybrid	II to VII	MB
3742	31640	AD 19538	CO 50/AD 09494	III	MS

*3rd year testing entries

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 5.2: Grain Yield (kg/ha) in AVT-2 & 1- IM, Kharif 2024

Entry No	IET No	Zone II-Northern						Zone II-Northern (3)	
		Haryana		Uttarakhand		Uttar Pradesh		Mean	
		Kaul		Pantnagar		Nagina			
3701	30603* (H)	8951	2	4963		5919	1*#	6611	1
3703	30608* (H)	8095	8	4095		5551	2*	5914	6
3704	HRI 174 (HC)	8528	3	5552	5	4948	4	6343	5
3712	31618	4929		5935	3	4793	7*	5219	
3713	29877 (R)	6112		5161		4116		5130	
3714	31629	6078		3595		4332		4668	
3717	ZC	8146	6	7356	1	4013		6505	2
3718	31644	7593		4792		4111		5499	9
3719	31480 (H)	8462	4	5259	9	5442	3*	6388	3
3720	31633	4447		4223		4274		4315	
3722	29860 (R)	8312	5	6401	2	4386	10	6366	4
3726	31492 (H)	8139	7	3533		4015		5229	
3727	31641	5005		5380	6	4703	8	5029	
3729	NDR 359 (NC)	7829	9	5810	4	4032		5890	7
3730	31643	5843		5353	7	4703	9	5300	
3731	31479 (H)	6751		4202		4242		5065	
3733	31654	6250		4291		4836	5*	5126	
3734	LC	7678	10	5072		3224		5325	
3736	31630	4966		4695		4834	6*	4832	
3737	31673	6747		3094		3273		4371	
3738	31659	5218		5226	10	3868		4771	
3739	31638	7605		5298	8	3928		5610	8
3740	31672	7383		4338		4073		5264	
3741	31481 (H)	9113	1*	3544		3554		5404	10
Experimental Mean		7008		4882		4382		5424	
CD(0.05)		816		1125		706		548	
CV(%)		7.08		14.02		9.8		6.15	
F val		24.38**		6.27**		7.32**		11.74**	
DOS		09-06-24		06-06-24		29-06-24			
DOP		12-07-24		02-07-24		30-07-24			
Local Check Name		HKR 128		Pant Dhan 4		PR 212			

Table No. 5.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1- IM, Kharif 2024

Entry No	IET No	Zone III- Eastern							
		Bihar				Bihar (2)		Jharkhand	
		Bikramganj		Sabour		Mean		Ranchi	
3702	30613*(H)	8470	3*#	8986	2*#	8728	1*#	5778	2*
3703	30608* (H)	6196		7471	#	6834		5778	2*
3704	HRI 174 (HC)	7529	5	5043		6286		5778	2
3705	30617* (H)	8602	1*#	8752	3*#	8677	3*#	5333	7*
3706	30605* (H)	7388	9*	7460	#	7424	10*#	5111	9*
3707	30772*	4801		3972		4386		4889	*
3708	30604* (H)	7392	8*	7951	8#	7672	7*#	6222	1*
3709	30819*	6586	*	7635	#	7111	*#	4222	
3710	31623	4238		5026		4632		3111	
3712	31618	6951	10*	7971	7#	7461	8*#	4667	*
3713	29877 (R)	7428	7*	8383	5*#	7906	5*#	5111	9*
3717	ZC	4536		4173		4355		4000	
3719	31480 (H)	7489	6*	9908	1*#	8698	2*#	5333	7*
3720	31633	6001		7767	10#	6884	#	4444	
3722	29860 (R)	5986		7424	#	6705		4000	
3723	31637	6476	*	8442	4*#	7459	9*#	4222	
3725	31639	8291	4*#	7421	#	7856	6*#	4222	
3726	31492 (H)	5332		7381	#	6356		4222	
3727	31641	5251		7530	#	6390		3556	
3729	NDR 359 (NC)	4626		4806		4716		3333	
3730	31643	8495	2*#	7796	9#	8146	4*#	4444	
3731	31479 (H)	4453		5563		5008		3556	
3732	31619	3683		5402		4542		3778	
3734	LC	5753		7319		6536		3778	
3736	31630	4028		8014	6#	6021		3111	
3738	31659	4077		6825	#	5451		4667	*
3739	31638	6478	*	6970	#	6724		5556	5*
3741	31481 (H)	3517		6235	#	4876		5556	5*
3742	31640	4767		5995		5381		4889	*
Experimental Mean		6028		7021		6525		4575	
CD(0.05)		556		1043		550		606	
CV(%)		5.64		9.08		5.15		8.1	
F val		64.17**		16.14**		50.17**		16.62**	
DOS		24-06-24		17-06-24				26-06-24	
DOP		22-07-24		16-07-24				02-08-24	
Local Check Name		Sabour. Shree		Sabour Shree				Lalat	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 5.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1- IM, Kharif 2024

Entry No	IET No	Zone III- Eastern							
		Bhubaneswar		Odisha		Jeypore		Odisha (3)	
				NRRI				Mean	
3702	30613*(H)	5848	8*	5917	10	6877	3*	6214	5*
3703	30608* (H)	5614	*	3684		6411	*	5236	
3704	HRI 174 (HC)	5789	9	6166	4	6350		6102	7
3705	30617* (H)	5731	*	6876	2	6782	6*	6463	2*
3706	30605* (H)	5789	9*	5801		5483		5691	*
3707	30772*	3626		2842		3931		3466	
3708	30604* (H)	5906	6*	5954	9	6802	5*	6221	4*
3709	30819*	6082	4*	5436		3974		5164	
3710	31623			2311		3979		3145	
3712	31618	5731	*	2734		6331	*	4932	
3713	29877 (R)	5497	*	6012	8	6714	9*	6074	8*
3717	ZC	3333		3749		4060		3714	
3719	31480 (H)	6901	1*#	4359		6644	10*	5968	*
3720	31633	4620		4447		6963	1*	5343	
3722	29860 (R)	5965	5*	6791	3	6086	*	6280	3*
3723	31637	5146	*	4850		6392	*	5462	
3725	31639	6569	2*#	4764		6750	7*	6028	9*
3726	31492 (H)	5497	*	6020	7	6521	*	6013	10*
3727	31641	5380	*	5736		6720	8*	5945	*
3729	NDR 359 (NC)	4573		3705		5124		4467	
3730	31643	5497	*	6106	5	6920	2*	6175	6*
3731	31479 (H)	5906	6*	2499		6814	4*	5073	
3732	31619	5146	*	3870		5298		4771	
3734	LC	4678		5752		4523		4985	
3736	31630	4620		6065	6	3237		4641	
3738	31659	5029		5390		4038		4819	
3739	31638	5146	*	5731		4476		5118	
3741	31481 (H)	4678	*	3712		6275	*	4888	
3742	31640	6480	3*#	9995	1*#	6390	*	7621	1*#
Experimental Mean		5385		5078		5754		5380	
CD(0.05)		457		1419		883		653	
CV(%)		5.19		17.08		9.38		7.42	
F val		25**		10.48**		14.53**		17.45**	
DOS		11-07-24		12-06-24		13-06-24			
DOP		12-08-24		18-07-24		12-07-24			
Local Check Name		Pradeep		CR Dhan 319		Kalinga Dhan 1203			

Table No. 5.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1- IM, Kharif 2024

Entry No	IET No	Zone III- Eastern									
		West Bengal				West Bengal (3)					
		Malda		Bankura		chinsurah		Mean			
3702	30613*(H)	7561	1*#	10587	5*	8246	3*#	8798	1*#	7586	1*#
3703	30608* (H)	5633	9#	9127		6724		7161	*	6293	*
3704	HRI 174 (HC)	4244		9460		6287		6664		6294	
3705	30617* (H)	7289	2*#	10794	3*	7851	7*#	8644	3*#	7556	2*#
3706	30605* (H)	5917	8#	9476		7904	5*#	7766	6*#	6703	6*#
3707	30772*	3494		8079		5831		5802		4607	
3708	30604* (H)	6611	5*#	11508	2*#	8205	4*#	8775	2*#	7395	3*#
3709	30819*	7211	3*#	8651		8357	2*#	8073	5*#	6462	10*
3710	31623	4589		8571		5635		6265		4683	
3712	31618	4922		8857		7246	*	7008		6157	*
3713	29877 (R)	5361	#	9127		5869		6786		6611	7*
3717	ZC	5061		8190		5511		6254		4735	
3719	31480 (H)	5089		11540	1*#	8927	1*#	8518	4*#	7354	4*#
3720	31633	4661		9524	10	7702	9*#	7296	*	6237	*
3722	29860 (R)	5272		9048		7873	6*#	7398	9*	6494	9*
3723	31637	6794	4*#	8429		7781	8*#	7668	7*#	6504	8*
3725	31639	5089		9492		5407		6663		6445	*
3726	31492 (H)	5056		8730		5559		6448		6035	*
3727	31641	5200		10698	4*	6952		7617	8*#	6336	*
3729	NDR 359 (NC)	4011		8556		6034		6200		4974	
3730	31643	5200		9619	8	7281	10*	7367	10*	6818	5*#
3731	31479 (H)	5067		9603	9	5701		6790		5463	
3732	31619	4483		8381		5097		5987		5015	
3734	LC	4272		8111		5169		5851		5484	
3736	31630	5094		10063	6	6382		7180	*	5624	
3738	31659	3733		10048	7	5375		6385		5465	
3739	31638	6306	6*#	9508		5168		6994		6149	*
3741	31481 (H)	6000	7#	7857		5084		6314		5435	
3742	31640	5417	10#	8175		5559		6383		6407	*
Experimental Mean		5332		9304		6576		7071		6114	
CD(0.05)		1052		1547		1127		759		393	
CV(%)		12.06		10.16		10.48		6.56		3.93	
F val		7.84**		3.41**		9.15**		10.76**		36.98**	
DOS		21-06-24		21-06-24							
DOP		26-07-24		30-08-24							
Local Check Name		Lachmanti		Kunti							

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 5.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1- IM, Kharif 2024 (Not considered)

Entry No	IET No	Zone III- Eastern					
		Odisha		Uttar Pradesh			
		@ Chiplima		@ Gorakhpur		@ Masodha	
3702	30613*(H)	4276	1	3388	8	5428	
3703	30608* (H)	3947	7	2827		4362	
3704	HRI 174 (HC)	2668		2613		6069	9
3705	30617* (H)	4167	4	3693	5	5374	
3706	30605* (H)	3509		3225	9	6056	10
3707	30772*	2412		2267		6375	8
3708	30604* (H)	4130	5	2905		6495	5
3709	30819*	4130	5	4002	3	4168	
3710	31623	3143		2598		4866	
3712	31618	3874	9	3524	7	4266	
3713	29877 (R)	3655		2540		6424	7
3717	ZC	2961		2202		5265	
3719	31480 (H)	4203	3	3217	10	4880	
3720	31633	3363		2305		6555	4
3722	29860 (R)	3326		3716	4	6923	2
3723	31637	3545		4383	1	7149	1
3725	31639	3472		2686		6031	
3726	31492 (H)	3326		2668		5524	
3727	31641	3399		2421		4045	
3729	NDR 359 (NC)	2887		1948		5977	
3730	31643	4276	1	3630	6	4299	
3731	31479 (H)	2083		2853		4825	
3732	31619	3180		2133		4056	
3734	LC	2741		4321	2	6871	3
3736	31630	3911	8	2849		4424	
3738	31659	3728		2522		4536	
3739	31638	2851		2915		4266	
3741	31481 (H)	2997		2495		6427	6
3742	31640	3874	9	2524		4313	
Experimental Mean		3450		2944		5388	
CD(0.05)		795		633		282	
CV(%)		14.1		13.15		3.2	
F val		4.4**		8.48**		102.81**	
Local Check Name							
DOS							
DOP							

Table No. 5.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1- IM, Kharif 2024

Entry No	IET No	Zone IV-North Eastern				Zone IV-North Eastern (2)	
		Assam		Tripura		Mean	
		Titabar		Lembucherra			
3704	HRI 174 (HC)	5331	3	5256		5293	10
3712	31618	4995	8	6252	8*#	5623	7*
3713	29877 (R)	4122		6170	9*#	5146	*
3717	ZC	2844		5104		3974	
3719	31480 (H)	6393	1*#	7604	1*#	6998	1*#
3720	31633	4566	9	6274	7*#	5420	9*
3722	29860 (R)	5100	7*	6556	5*#	5828	4*#
3726	31492 (H)	4014		6922	2*#	5468	8*
3727	31641	5121	6*	6411	6*#	5766	5*#
3729	NDR 359 (NC)	3579		4881		4230	
3730	31643	5124	5*	6700	3*#	5912	3*#
3731	31479 (H)	5364	2*	6078	10*#	5721	6*#
3734	LC	4425	10	4889		4657	
3738	31659	4077		5674		4876	
3739	31638	5283	4*	6633	4*#	5958	2*#
3741	31481 (H)	3408		5344		4376	
Experimental Mean		4609		6047		5328	
CD(0.05)		602		617		374	
CV(%)		7.84		6.12		4.21	
F val		18.67**		13.59**		35.27**	
DOS		26-06-24		13-07-24			
DOP		24-07-24		03-08-24			
Local Check Name		Numali		Tripura Nirog			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 5.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1- IM, Kharif 2024 (Not considered)

Entry No	IET No	Zone IV-North Eastern	
		Assam	
		@ Gerua	
3704	HRI 174 (HC)	92	
3712	31618	402	5
3713	29877 (R)	320	9
3717	ZC	202	
3719	31480 (H)	439	2
3720	31633	280	
3722	29860 (R)	354	8
3726	31492 (H)	276	
3727	31641	318	10
3729	NDR 359 (NC)	178	
3730	31643	427	3
3731	31479 (H)	469	1
3734	LC	412	4
3738	31659	359	6
3739	31638	355	7
3741	31481 (H)	148	
Experimental Mean		314	
CD(0.05)		128	
CV(%)		24.5	
F val		6.26**	
Local Check Name			
DOS			
DOP			

Table No. 5.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1- IM, Kharif 2024

Entry No	IET No	Zone V- Central							
		Chhattisgarh						Chhattisgarh (3)	
		Ambikhapur		Bilaspur		Raipur		Mean	
3704	HRI 174 (HC)	4354	7	6950	2	6590	5	5964	3
3711	31483 (H)	3664		7750	1*	7187	3*	6200	2*
3712	31618	4419	5	5800	6	6395	8	5538	6*
3713	29877 (R)	3788		6500	4*	5527		5272	9
3717	ZC	3649		4667		5194		4503	
3719	31480 (H)	5157	1*#	6033	5	7918	1*#	6369	1*
3720	31633	4066	10	4950		4866		4627	
3722	29860 (R)	3763		5067		6548	6*	5126	10
3726	31492 (H)	4293	8	5750	7	5775		5273	8
3727	31641	4591	4	5083		5691		5122	
3729	NDR 359 (NC)	3492		4333		5287		4371	
3730	31643	3939		5233		6110	10	5094	
3731	31479 (H)	3621		4467		6762	4*	4950	
3734	LC	4242	9	5583	9	4748		4858	
3738	31659	4394	6	5633	8	6407	7	5478	7*
3739	31638	4773	3	5317	10	7658	2*	5916	4*
3741	31481 (H)	4871	2	6550	3*	6189	9	5870	5*
Experimental Mean		4181		5627		6168		5325	
CD(0.05)		692		903		1158		429	
CV(%)		9.95		9.65		11.29		4.84	
F val		4.15**		8.49**		5.16**		15.65**	
DOS		01-07-24		15-06-24		01-07-24			
DOP		02-08-24		09-07-24		23-07-24			
Local Check Name				Chandahasini		IGKV R 1244			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 5.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1- IM, Kharif 2024

Entry No	IET No	Zone V- Central								Zone V- Central (6)	
		Maharashtra				Maharashtra (2)		Madhya Pradesh			
		Sakoli		Sindewahi		Mean		Warase oni		Mean	
3704	HRI 174 (HC)	7211	3	4244	6	5727	2	4713		5677	3
3711	31483 (H)	3600		4191	8	3895		4440		5139	*
3712	31618	5644		3429		4537		6026	3*#	5286	8*
3713	29877 (R)	6922	4*	3835		5379	6	6003	4*#	5429	4*
3717	ZC	6622	6	3751		5186	10	6163	1	5008	
3719	31480 (H)	7267	2*	3570		5418	4	6078	2*#	6004	1*#
3720	31633	5122		3326		4224		4733		4511	
3722	29860 (R)	6511	8*	4303	3	5407	5	5292	7	5247	10*
3726	31492 (H)	6144	9*	4247	5	5196	9	5445	6	5276	9*
3727	31641	6144	9*	4977	2#	5561	3	5700	5#	5365	6*
3729	NDR 359 (NC)	5144		5208	1	5176		4986	8	4742	
3730	31643	6711	5*	4004		5357	7	4974	9	5162	*
3731	31479 (H)	5633		3819		4726		4100		4734	
3734	LC	5100		4063	10	4581		3937		4612	
3738	31659	6578	7*	4103	9	5341	8	4826	10	5324	7*
3739	31638	7489	1*	4194	7	5841	1*	4736		5694	2*
3741	31481 (H)	5611		4297	4	4954		4703		5370	5*
Experimental Mean		6086		4092		5089		5109		5210	
CD(0.05)		908		618		523		897		267	
CV(%)		8.97		9.08		6.18		10.56		3.08	
F val		10.08**		5.09**		8.62**		4.99**		18.49**	
DOS		14-06-24		26-06-24				28-06-24			
DOP		13-07-24		05-08-24				01-08-24			
Local Check Name		PKV Kisan		SYE-2001				JR 206			

Table No. 5.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1- IM, Kharif 2024 (Not considered)

Entry No	IET No	Zone V- Central	
		Chhattisgarh	
		@Jagadalpur	
3704	HRI 174 (HC)	4464	
3711	31483 (H)	4373	
3712	31618	5149	5
3713	29877 (R)	5680	1
3717	ZC	3583	
3719	31480 (H)	5248	3
3720	31633	5022	8
3722	29860 (R)	4244	
3726	31492 (H)	5076	7
3727	31641	5176	4
3729	NDR 359 (NC)	5533	2
3730	31643	4866	9
3731	31479 (H)	3583	
3734	LC	4478	10
3738	31659	5112	6
3739	31638	4012	
3741	31481 (H)	4443	
Experimental Mean		4708	
CD(0.05)		1631	
CV(%)		20.83	
F val		1.22ns	
Local Check Name			
DOS			
DOP			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 5.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1- IM, Kharif 2024

Entry No	IET No	Zone VI- Western										Zone VI- Western (4)			
		Gujarat				Gujarat (2)		Maharashtra			Maharashtra (2)		Mean		
		Navasari		Nawagam		Mean		Shirgaon		Karjat	Mean		Mean		
3704	HRI 174 (HC)	4618	8	6083		5350	7	3202		5848		4525		4938	
3712	31618	3761		4500		4130		3447		4548		3998		4064	
3713	29877 (R)	4484	9	6287	6	5386	6	6604	1*#	5848		6226	1*#	5806	2*#
3715	31472 (H)	5538	3#	6261	7	5900	3	4207	#	4548		4378		5139	9
3716	31478 (H)	5557	2#	6127	10	5842	4	4792	7#	5848		5320	8	5581	3*#
3717	ZC	4771	7	7295	3	6033	2	3190		4548		3869		4951	
3719	31480 (H)	4943	6	7460	1#	6202	1#	5980	3*#	5848		5914	2*#	6058	1*#
3720	31633	3643		6156	9	4899		6481	2*#	5198		5840	4*#	5369	4
3721	31473 (H)	5066	5	6113		5589	5	3163		6498	4	4831		5210	7
3722	29860 (R)	5404	4#	3754		4579		2851		5848	7	4350		4464	
3724	31490 (H)	3574		5765		4669		3387		7148	1*	5267	10	4968	
3726	31492 (H)	3209		6578	4	4894		4361	10#	7148	1*	5754	5*#	5324	6
3727	31641	2690		7431	2#	5061	10	4696	8#	5848		5272	9	5166	8
3728	31476 (H)	3498		6191	8	4845		5226	5*#	6498	4	5862	3*#	5354	5
3729	NDR 359 (NC)	4410		3939		4175		2718		5198		3958		4066	
3730	31643	2857		5115		3986		4093		7148	1*	5620	6*#	4803	
3731	31479 (H)	3482		5574		4528		3821		6498	4	5159		4844	
3734	LC	3643		4869		4256		3932		5198		4565		4410	
3735	31471 (H)	3851		6573	5	5212	8	5181	6*#	4548		4865		5038	
3738	31659	3722		5536		4629		5272	4*#	5848	7	5560	7*#	5094	
3739	31638	4457	10	5066		4761		3238		5848	7	4543		4652	
3741	31481 (H)	5688	1*#	4463		5075	9	4485	9#	5848	7	5167		5121	10
Experimental Mean		4221		5779		5000		4288		5789		5038		5019	
CD(0.05)		786		917		642		963		1386		929		595	
CV(%)		11.3		9.63		7.79		13.63		14.53		11.18		7.2	
F val		10.61**		10.61**		7.98**		11.44**		2.88**		4.58**		5.64**	
DOS		25-06-24		19-06-24				11-06-24		13-06-24					
DOP		18-07-24		29-07-24				02-07-24		10-07-24					
Local Check Name		GNR-5		GAR 13				Ratnagiri 6		KJT-5					

Table No. 5.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1- IM, Kharif 2024

Entry No	IET No	Zone VII- Southern										Karnataka (4)					
		Andhra Pradesh				Andhra Pradesh (2)		Karnataka				Mean					
		Maruteru		Ragolu		Mean		Brahmavar		Gangavati	Mugad	Mandya	Mean				
3701	30603* (H)	7382	1*#	8009	4#	7695	1#	4373		6425	9	5048	9	6956	4#	5700	#
3704	HRI 174 (HC)	3885		6157		5021		4621	10	6066		3918		5579		5046	
3708	30604* (H)	5828	6#	6505		6166	8#	3460		8217	4#	7020	1*#	4569		5816	6#
3709	30819*	5439	#	6255		5847		4326		5890		4669		4994		4970	
3712	31618	3496		6806	9	5151		4799	3	8235	3*#	4217		5798		5762	7#
3713	29877 (R)	3496		5519		4507		4785	5	7168	10#	6217	3*#	6390	8	6140	4*#
3717	ZC	3496		5611		4554		4471		6646		3667		6345	9	5282	
3719	31480 (H)	5828	6#	8157	1#	6993	4#	4757	6	8050	5#	6880	2*#	6733	5#	6605	1*#
3720	31633	3496		8074	3#	5785		4663	9	7285	9#	5141	8	5948		5759	8#
3722	29860 (R)	5828	9#	7231	6#	6530	5#	4546		7073	#	3965		5598		5295	
3726	31492 (H)	7382	1*#	7102	7	7242	2#	4827	2	5872		6115	6*#	6068	10	5721	10#
3727	31641	6216	3#	6713	10	6465	6#	3450		8734	1*#	4759		7194	3#	6034	5*#
3729	NDR 359 (NC)	6216	3	5685		5951	10	4686	8	7608	7	3931		3200		4856	
3730	31643	5439	#	7042	8	6240	7#	4799	3	7667	6#	4078		6394	7	5735	9#
3731	31479 (H)	5828	9#	5750		5789		4391		6138		5333	7	6653	6#	5629	#
3734	LC	6216	3	7796	5	7006	3	5286	1	7354	8	3987		5607		5558	
3738	31659	3885		8120	2#	6003	9#	4494		6634		6160	5*#	4329		5404	
3739	31638	4662		6620		5641		4696	7	6529		6180	4*#	7739	1*#	6286	3*#
3741	31481 (H)	5828	6#	5847		5838		4387		8450	2*#	4926	10	7735	2*#	6374	2*#
Experimental Mean		5255		6789		6022		4517		7160		5064		5991		5683	
CD(0.05)		1005		1031		862		668		622		1547		886		471	
CV(%)		11.55		9.17		8.65		8.93		5.25		18.45		8.93		5.01	
F val		13.59**		6.51**		8.15**		3.5**		17.38**		4**		13.98**		8.36**	
DOS		07-07-24		02-07-24				17-06-24		26-07-24		19-06-24		05-07-24			
DOP		31-07-24		31-07-24				05-04-24		16-08-24				03-08-24			
Local Check Name		MTU 1239		MTU 1210				Sahyadri Brahma		GNV 1109		Siri-1253		BR-2655			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 5.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1- IM, Kharif 2024

Entry No	IET No	Zone VII- Southern										Zone VII- Southern (11)					
		Kerala		Telangana			Telangana (2)		Tamil Nadu			Tamil Nadu (2)		Mean			
		Pattambi	Rajendranagar	Warangal	Mean	Coimbatore	Adutrai	Mean									
3701	30603* (H)	5112	9	5018		8191	1*	6604		6813	3#		6813	1*#	6333	2*#	
3704	HRI 174 (HC)	6920	3	4977		7386	3	6182		4556		4222	4389		5299		
3708	30604* (H)	6803	4*	6861	#	6611	10	6736	10	6373	6#	4148	5260	9	6036	5*#	
3709	30819*	4176		6795	#	5442		6118		6391	5#	5926	6158	2*#	5482		
3712	31618	7099	2*	6608	#	6978	6	6793	9	6938	2#	5235	7#	6086	3*#	6019	6*#
3713	29877 (R)	2280		7547	2*#	6275		6911	5#	5475		5309	6#	5392	7#	5496	
3717	ZC	2776		5873		4507		5190		3129		5457	4	4293		4725	
3719	31480 (H)	2520		9101	1*#	7800	2*	8451	1*#	7213	1*#	4469	5841	5*#	6501	1*#	
3720	31633	9171	1*#	6974	10#	4484		5729		5084		5531	3#	5307	8	5986	7*#
3722	29860 (R)	2856		7025	7#	7053	5	7039	2*#	2875		5630	2#	4252		5425	
3726	31492 (H)	2904		7217	5#	6447		6832	8#	5555		4889	8#	5222	10	5853	8*#
3727	31641	5184	8	7261	4*#	5501		6381		5736	10	2568	4152		5756	10*#	
3729	NDR 359 (NC)	4536	10	6411		6275		6343		1362		4765	10	3064		4971	
3730	31643	5640	6	7017	8#	6942	7	6980	3*#	6361	7#	5358	5#	5860	4*#	6067	4*#
3731	31479 (H)	1176		6644	#	7081	4	6862	6#	5069		4815	9#	4942		5352	
3734	LC	2832		5261		5848		5554		5588		3605	4596		5398		
3738	31659	1704		6994	9#	6719	9	6857	7#	5845	8	3494	4669		5307		
3739	31638	6309	5*	7033	6#	6906	8	6969	4*#	6749	4#	4272	5510	6#	6154	3*#	
3741	31481 (H)	5328	7	7529	3*#	3749		5639		5790	9	4099	4944		5788	9*#	
Experimental Mean		4491		6745		6326		6535		5416		4655		5092		5681	
CD(0.05)		1356		816		858		621		1484		589		925		351	
CV(%)		18.23		7.31		8.19		5.74		16.55		7.63		10.97		3.73	
F val		21.05**		11.59**		15.09**		11.18**		8.63**		18.29**		7.42**		14.41**	
DOS				25-06-24		18-06-24				06-06-24							
DOP				19-07-24		11-07-24				03-07-24							
Local Check Name				RNR 28361		WGL 14				CO 52							

Table No. 5.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1- IM, Kharif 2024 (Not considered)

Entry No	IET No	Zone VII- Southern	
		Karnataka	
		@Kathalgera	
3701	30603* (H)	6433	9
3704	HRI 174 (HC)	6860	6
3708	30604* (H)	7780	2
3709	30819*	5433	
3712	31618	6390	10
3713	29877 (R)	5413	
3717	ZC	3651	
3719	31480 (H)	6520	7
3720	31633	5233	
3722	29860 (R)	5414	
3726	31492 (H)	5674	
3727	31641	6453	8
3729	NDR 359 (NC)	4692	
3730	31643	4589	
3731	31479 (H)	5908	
3734	LC	7698	3
3738	31659	7167	4
3739	31638	8933	1
3741	31481 (H)	7149	5
Experimental Mean		6179	
CD(0.05)		220	
CV(%)		2.15	
F val		275.82**	
DOS			
DOP			
Local Check Name			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 5.3: Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1-IM, Kharif 2024

Entry No	IET No	Zone II-Northern									Zone II-Northern (3)		
		Haryana			Uttarakhand			Uttar Pradesh			Mean		
		Kaul			Pantnagar			Nagina			DF	PH	PAN
		DF	PH	PAN	DF	PH	PAN	DF	PH	PAN	DF	PH	PAN
3701	30603* (H)	101	129	294	104	122	263	101	98	351	102	116	303
3703	30608* (H)	92	136	296	98	117	234	92	98	355	94	117	295
3704	HRI 174 (HC)	105	130	329	107	119	232	105	100	340	106	116	300
3712	31618	123	113	269	128	125	281	123	98	317	125	112	289
3713	29877 (R)	115	118	288	118	121	248	115	97	367	116	112	301
3714	31629	94	117	282	96	113	225	94	97	308	95	109	272
3717	ZC	101	106	300	109	96	245	101	81	381	104	94	309
3718	31644	107	113	283	110	119	222	107	95	324	108	109	276
3719	31480 (H)	103	107	316	123	144	282	103	104	355	110	118	318
3720	31633	116	119	265	126	149	261	116	104	288	119	124	271
3722	29860 (R)	113	121	336	121	122	204	113	102	317	115	115	285
3726	31492 (H)	101	115	326	102	105	265	101	92	361	102	104	317
3727	31641	132	109	271	135	134	371	132	102	421	133	115	354
3729	NDR 359 (NC)	101	113	299	135	139	354	101	97	301	112	116	318
3730	31643	118	130	287	126	139	242	118	99	285	120	123	271
3731	31479 (H)	108	123	292	110	131	264	108	100	317	109	118	291
3733	31654	110	110	287	118	136	211	110	100	343	113	115	280
3734	LC	97	116	297	100	124	269	97	87	367	98	109	311
3736	31630	110	134	278	112	143	207	110	110	383	110	129	289
3737	31673	106	110	287	106	112	214	106	98	322	106	107	274
3738	31659	121	137	270	129	144	271	121	106	352	123	129	298
3739	31638	108	139	310	107	135	304	108	103	314	108	126	309
3740	31672	109	123	297	103	131	233	109	102	367	107	119	299
3741	31481 (H)	90	127	325	92	105	186	90	93	355	91	108	289
Experimental Mean		107	120	295	113	126	253	107	98	341	109	115	297
Standard Error			0.81			1.59			0.81				

Table No. 5.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1- IM, Kharif 2024

Entry No	IET No	Zone III- Eastern														
		Bihar					Bihar (2)			Jharkhand			Odisha			
		Bikramganj			Sabour		Mean			Ranchi			Bhubaneswar			
		DF	PH	PAN	DF	PH	PAN	DF	PH	PAN	DF	PH	PAN	DF	PH	PAN
3702	30613*(H)	108	123	391	113	123	386	110	123	388	119	94	209	109	118	224
3703	30608* (H)	101	130	408	109	123	403	105	127	406	109	100	195	92	111	242
3704	HRI 174 (HC)	101	119	374	107	123	372	104	121	373	109	97	210	94	107	282
3705	30617* (H)	111	124	344	119	120	327	115	122	335	117	93	176	102	105	183
3706	30605* (H)	103	119	366	112	117	424	107	118	395	119	93	228	96	109	267
3707	30772*	88	114	430	95	117	245	92	115	337	102	103	174	84	113	266
3708	30604* (H)	111	139	415	108	124	300	109	131	358	110	101	178	98	128	277
3709	30819*	119	108	362	122	98	372	121	103	367	126	76	211	110	118	285
3710	31623	88	120	389	98	117	282	93	118	336	97	95	208			
3712	31618	116	123	421	122	119	352	119	121	387	122	95	249	105	124	297
3713	29877 (R)	104	139	385	110	108	446	107	123	416	117	92	197	95	115	257
3717	ZC	93	108	420	98	105	402	96	107	411	109	89	171	93	102	299
3719	31480 (H)	110	139	410	113	136	295	112	138	352	116	94	140	98	128	283
3720	31633	111	129	360	123	127	375	117	128	368	118	98	212	99	128	300
3722	29860 (R)	108	129	393	113	116	382	110	122	387	118	93	148	98	109	186
3723	31637	116	128	365	119	117	366	118	123	365	118	87	206	96	107	289
3725	31639	110	138	419	119	113	309	114	125	364	121	91	175	102	118	260
3726	31492 (H)	102	116	371	113	111	309	108	114	340	114	89	176	94	113	273
3727	31641	121	129	399	136	124	329	128	126	364	126	88	197	105	124	284
3729	NDR 359 (NC)	91	116	354	105	101	257	98	109	306	106	88	105	90	103	252
3730	31643	111	117	378	134	125	387	122	121	383	122	94	193	110	124	218
3731	31479 (H)	104	133	395	109	127	303	107	130	349	118	100	166	97	124	248
3732	31619	118	160	433	124	143	357	121	152	395	115	110	158	107	127	265
3734	LC	117	123	367	113	121	382	115	122	374	100	92	197	109	132	237
3736	31630	110	148	403	112	143	344	111	146	374	106	105	170	103	124	250
3738	31659	112	161	371	115	147	399	114	154	385	116	110	201	100	122	229
3739	31638	108	146	368	109	124	429	108	135	399	115	101	164	101	119	227
3741	31481 (H)	98	113	378	99	114	325	99	113	352	101	87	151	83	98	281
3742	31640	125	155	384	135	134	319	130	145	352	122	105	213	114	119	207
Experimental Mean		107	129	388	113	121	350	111	125	370	114	95	185	99	116	256
Standard Error			0.22			0.45						1.19				0.6

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 5.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1- IM, Kharif 2024

Entry No	IET No	Zone III- Eastern											
		Odisha						Odisha (3)			West Bengal		
		NRRRI			Jeypore			Mean			Malda		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3702	30613*(H)	112	130	321	112	97	323	111	115	289	96	112	443
3703	30608* (H)	105	113	250	107	97	330	101	107	274	90	108	374
3704	HRI 174 (HC)	106	113	282	105	107	326	102	109	297	87	102	295
3705	30617* (H)	108	123	316	112	108	334	107	112	278	95	112	351
3706	30605* (H)	107	111	291	109	102	431	104	107	330	91	115	406
3707	30772*	96	111	278	102	122	319	94	115	288	89	109	358
3708	30604* (H)	106	129	297	106	120	326	103	125	300	88	115	423
3709	30819*	112	106	347	117	93	420	113	106	351	95	116	291
3710	31623	96	112	293	105	108	371	100	110	332	88	116	285
3712	31618	113	113	233	114	112	331	111	117	287	96	111	293
3713	29877 (R)	109	110	289	111	105	319	105	110	288	95	112	399
3717	ZC	98	93	263	97	95	311	96	97	291	90	111	387
3719	31480 (H)	107	128	306	108	110	351	104	122	313	96	111	330
3720	31633	113	140	258	112	133	328	108	134	295	96	115	325
3722	29860 (R)	110	121	291	112	104	317	107	111	265	93	113	299
3723	31637	113	114	303	106	98	309	105	107	300	90	107	450
3725	31639	108	124	274	108	109	367	106	117	300	88	118	452
3726	31492 (H)	103	113	302	104	107	320	100	111	298	86	104	380
3727	31641	114	134	354	113	111	419	111	123	352	94	118	340
3729	NDR 359 (NC)	102	106	264	107	99	328	100	103	281	90	112	252
3730	31643	116	123	320	114	120	400	113	122	313	87	121	435
3731	31479 (H)	103	116	279	115	121	367	105	120	298	91	109	335
3732	31619	115	148	279	113	132	369	111	136	304	88	116	288
3734	LC	110	126	235	108	113	390	109	124	287	85	109	293
3736	31630	108	133	279	105	126	322	105	128	283	95	111	347
3738	31659	110	143	370	106	143	330	106	136	310	89	115	317
3739	31638	107	123	338	107	127	354	105	123	306	88	118	443
3741	31481 (H)	99	112	313	102	99	335	95	103	310	85	104	345
3742	31640	109	135	300	105	113	370	109	122	292	93	121	310
Experimental Mean		107	120	293	108	111	348	105	116	300	90	112	353
Standard Error			1.49			0.89						0.78	

Table No. 5.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1- IM, Kharif 2024

Entry No	IET No	Zone III- Eastern										Zone III- Eastern (9)	
		West Bengal						West Bengal (3)			Mean		
		Bankura			chinsurah			Mean			Mean		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3702	30613*(H)	115	101	385	118	120	308	110	111	379	111	113	332
3703	30608* (H)	131	103	422	102	121	242	108	111	346	105	112	318
3704	HRI 174 (HC)	103	93	378	101	123	209	97	106	294	102	109	303
3705	30617* (H)	110	102	383	115	124	319	107	113	351	110	112	304
3706	30605* (H)	131	108	463	110	114	297	111	112	389	109	110	353
3707	30772*	127	137	329	92	127	242	103	124	310	97	117	293
3708	30604* (H)	131	104	313	109	141	319	109	120	352	107	122	316
3709	30819*	120	84	261	117	110	341	110	103	298	115	101	321
3710	31623	126	104	301	95	110	253	103	110	280	99	110	298
3712	31618	119	100	274	111	119	297	108	110	288	113	113	305
3713	29877 (R)	131	108	388	103	115	286	110	112	358	108	112	330
3717	ZC	127	97	428	93	109	242	103	106	352	100	101	325
3719	31480 (H)	131	105	389	106	144	352	111	120	357	109	122	317
3720	31633	125	113	459	112	136	286	111	121	357	112	124	322
3722	29860 (R)	120	102	346	108	128	308	107	114	318	109	113	297
3723	31637	121	92	384	111	119	286	107	106	373	110	108	329
3725	31639	119	87	444	112	138	220	106	114	372	110	115	324
3726	31492 (H)	131	95	382	100	115	231	105	105	331	105	107	305
3727	31641	128	115	421	115	133	275	112	122	345	117	119	335
3729	NDR 359 (NC)	128	121	320	95	118	264	104	117	279	101	107	266
3730	31643	120	105	380	118	136	297	108	121	371	115	118	334
3731	31479 (H)	123	115	376	101	138	253	105	121	321	107	120	302
3732	31619	124	123	342	93	171	209	102	137	280	111	137	300
3734	LC	122	108	283	109	146	253	105	121	276	108	119	293
3736	31630	119	132	276	108	147	275	107	130	299	107	130	296
3738	31659	131	123	381	112	153	220	110	130	306	110	135	313
3739	31638	125	108	462	104	130	231	106	119	378	107	122	335
3741	31481 (H)	127	82	349	95	126	220	102	104	305	99	104	300
3742	31640	120	104	426	121	138	264	111	121	333	116	125	310
Experimental Mean		123	105	370	106	129	268	107	116	331	108	116	313
Standard Error			0			0.46							

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 5.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1- IM, Kharif 2024 (Not considered)

Entry No	IET No	Zone III- Eastern								
		Odisha			Uttar Pradesh					
		@ Chiplima			@ Gorakhpur			@ Masodha		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3702	30613*(H)	95	117	211	122	124	252	105	89	375
3703	30608*(H)	97	110	218	106	124	349	102	103	303
3704	HRI 174 (HC)	100	105	230	105	135	208	94	105	354
3705	30617*(H)	95	110	167	111	122	198	102	109	312
3706	30605*(H)	98	107	154	107	121	179	102	90	303
3707	30772*	108	112	181	96	131	207	84	104	363
3708	30604*(H)	98	113	153	108	148	253	94	110	366
3709	30819*	88	93	232	98	119	262	108	81	267
3710	31623	108	108	181	97	122	282	94	109	256
3712	31618	89	113	385	122	123	242	116	99	246
3713	29877 (R)	100	105	204	111	130	241	96	107	338
3717	ZC	100	108	223	90	108	240	96	92	365
3719	31480 (H)	97	109	206	115	134	250	96	115	333
3720	31633	95	112	203	122	134	282	104	111	392
3722	29860 (R)	97	109	161	115	129	235	100	106	388
3723	31637	96	108	210	124	120	239	100	101	363
3725	31639	96	114	157	124	132	233	91	120	377
3726	31492 (H)	100	108	192	105	129	272	98	100	323
3727	31641	92	111	243	97	128	259	119	99	252
3729	NDR 359 (NC)	106	101	185	98	126	242	93	138	364
3730	31643	87	102	162	107	135	234	109	107	355
3731	31479 (H)	96	111	188	124	132	254	94	111	343
3732	31619	94	112	213	128	147	238	118	123	294
3734	LC	108	103	146	105	125	262	93	121	373
3736	31630	96	107	183	106	113	253	102	117	303
3738	31659	96	119	169	116	125	240	99	123	301
3739	31638	96	112	160	121	130	256	104	106	317
3741	31481 (H)	106	117	134	123	125	250	96	98	344
3742	31640	85	104	175	136	132	237	115	131	368
Experimental Mean		97	108	194	111	127	246	100	107	332

Table No. 5.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1- IM, Kharif 2024

Entry No	IET No	Zone IV-North Eastern						Zone IV-North Eastern (2)		
		Assam			Tripura			Mean		
		Titabar			Lembucherra					
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3704	HRI 174 (HC)	108	116	250	105	101	250	107	109	250
3712	31618	124	116	267	105	109	217	114	113	242
3713	29877 (R)	111	106	248	105	106	383	108	106	316
3717	ZC	125	98	246	101	96	283	113	97	265
3719	31480 (H)	109	120	277	106	102	242	108	111	259
3720	31633	115	119	226	109	115	325	112	117	275
3722	29860 (R)	115	115	227	111	107	225	113	111	226
3726	31492 (H)	104	110	249	100	97	325	102	104	287
3727	31641	125	120	273	118	96	275	122	108	274
3729	NDR 359 (NC)	102	103	211	101	87	308	102	95	260
3730	31643	124	121	226	115	111	267	120	116	246
3731	31479 (H)	109	124	255	103	112	358	106	118	307
3734	LC	110	130	273	97	113	275	103	122	274
3738	31659	117	133	222	118	115	250	117	124	236
3739	31638	108	114	281	119	114	533	114	114	407
3741	31481 (H)	96	99	275	125	107	233	110	103	254
Experimental Mean		112	115	250	108	105	296	111	110	274
Standard Error		0.74			0.82					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 5.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1- IM, Kharif 2024 (Not considered)

Entry No	IET No	Zone IV-North Eastern		
		Assam		
		@Gerua		
		DDF	PH	PAN
3704	HRI 174 (HC)	91	124	272
3712	31618	110	131	256
3713	29877 (R)	101	127	239
3717	ZC	87	126	264
3719	31480 (H)	105	137	251
3720	31633	110	144	262
3722	29860 (R)	105	130	201
3726	31492 (H)	95	126	297
3727	31641	115	134	268
3729	NDR 359 (NC)	91	125	269
3730	31643	115	138	255
3731	31479 (H)	95	138	248
3734	LC	105	131	223
3738	31659	101	153	266
3739	31638	92	134	263
3741	31481 (H)	87	119	262
Experimental Mean		100	132	256

Table No. 5.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1- IM, Kharif 2024

Entry No	IET No	Zone V- Central													
		Chhattisgarh									Chhattisgarh (3)			Maharashtra	
		Ambikhapur			Bilaspur			Raipur			Mean			Sakoli	
		DDF	PH	PAN	DDF	PH	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3704	HRI 174 (HC)	100	96	180	98	132	100	124	219	99	117	200	100	143	274
3711	31483 (H)	103	99	176	93	127	99	118	173	98	115	175	86	128	265
3712	31618	112	100	156	110	127	108	119	180	110	115	168	109	134	227
3713	29877 (R)	108	100	207	101	127	104	108	190	104	111	198	104	129	317
3717	ZC	100	90	200	96	114	100	93	199	99	99	199	100	118	311
3719	31480 (H)	112	109	182	103	138	104	126	208	106	124	195	104	150	302
3720	31633	112	107	204	105	140	107	136	163	108	128	183	106	152	243
3722	29860 (R)	112	104	134	104	122	106	108	169	107	111	152	103	138	296
3726	31492 (H)	101	97	173	97	127	100	107	149	99	110	161	95	133	294
3727	31641	104	104	206	113	129	114	107	226	110	113	216	110	137	285
3729	NDR 359 (NC)	99	92	129	95	113	103	108	172	99	104	150	90	117	269
3730	31643	112	101	170	110	139	114	115	267	112	118	218	109	133	294
3731	31479 (H)	104	108	166	101	138	103	125	147	103	124	157	99	141	216
3734	LC	119	102	156	95	115	103	117	198	106	111	177	105	127	287
3738	31659	100	117	162	105	151	106	117	196	104	128	179	101	154	274
3739	31638	104	112	205	102	142	104	135	237	103	129	221	95	155	300
3741	31481 (H)	105	99	163	90	119	95	107	160	97	109	162	88	119	272
Experimental Mean		106	102	174	101	129	104	115	191	104	116	183	100	135	278
Standard Error		1			0			0.98						0.51	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 5.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1- IM, Kharif 2024

Entry No	IET No	Zone V- Central									Zone V- Central (6)		
		Maharashtra			Maharashtra (2)			Madhya Pradesh			Mean		
		Sindewahi			Mean			Waraseoni					
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3704	HRI 174 (HC)	106	106	300	103	124	287	102	112	223	101	119	239
3711	31483 (H)	101	109	264	94	118	265	100	114	212	97	116	218
3712	31618	116	127	287	113	131	257	109	121	191	111	121	208
3713	29877 (R)	108	120	294	106	124	306	103	111	263	105	116	254
3717	ZC	103	112	283	101	115	297	102	104	258	100	105	250
3719	31480 (H)	108	117	288	106	134	295	103	127	188	106	128	233
3720	31633	113	119	286	110	136	265	107	125	209	108	130	221
3722	29860 (R)	113	144	282	108	141	289	103	107	240	107	120	224
3726	31492 (H)	104	112	276	100	122	285	107	118	206	101	116	220
3727	31641	116	108	302	113	123	294	113	117	283	112	117	260
3729	NDR 359 (NC)	98	135	265	94	126	267	96	114	213	97	113	210
3730	31643	115	104	247	112	119	270	109	119	283	111	119	252
3731	31479 (H)	108	123	280	104	132	248	105	126	204	103	127	203
3734	LC	107	117	290	106	122	288	94	108	242	104	114	234
3738	31659	109	91	295	105	122	284	105	134	229	104	127	231
3739	31638	107	126	297	101	140	298	105	115	264	103	131	261
3741	31481 (H)	100	126	301	94	122	286	94	114	278	95	114	235
Experimental Mean		107	117	284	104	127	281	103	116	234	104	120	233
Standard Error		0.4						0.54					

Table No. 5.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1- IM, Kharif 2024 (Not considered)

Entry No	IET No	Zone V- Central		
		Chhattisgarh		
		@ Jagadapur		
		DDF	PH	PAN
3704	HRI 174 (HC)	95	127	284
3711	31483 (H)	88	110	285
3712	31618	110	125	248
3713	29877 (R)	103	106	282
3717	ZC	97	101	241
3719	31480 (H)	105	104	262
3720	31633	107	114	292
3722	29860 (R)	107	119	284
3726	31492 (H)	98	111	254
3727	31641	110	108	271
3729	NDR 359 (NC)	96	106	283
3730	31643	107	118	275
3731	31479 (H)	100	113	301
3734	LC	94	115	304
3738	31659	103	119	291
3739	31638	97	100	234
3741	31481 (H)	89	113	269
Experimental Mean		100	112	274

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 5.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1- IM, Kharif 2024

Entry No	IET No	Zone VI- Western																		Zone VI- Western (4)		
		Gujarat						Gujarat (2)			Maharashtra						Maharashtra (2)			Mean		
		Navasari			Nawagam			Mean			Shirgaon			Karjat			Mean			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3704	HRI 174 (HC)	88	142	184	89	129	286	88	136	235	92	119	240	92	118	176	92	118	208	90	127	222
3712	31618	110	129	192	96	129	274	103	129	233	109	108	213	103	125	136	106	117	175	104	123	204
3713	29877 (R)	95	135	210	92	128	287	93	131	248	106	84	113	99	109	186	102	97	149	98	114	199
3715	31472 (H)	87	134	190	88	144	287	87	139	238	93	108	135	97	116	174	95	112	154	91	126	196
3716	31478 (H)	87	124	230	82	144	286	84	134	258	91	108	124	93	117	156	92	112	140	88	123	199
3717	ZC	87	150	223	90	145	293	88	148	258	93	113	165	100	126	147	97	120	156	93	134	207
3719	31480 (H)	87	162	268	92	143	295	89	152	282	106	137	145	102	123	190	104	130	168	97	141	225
3720	31633	87	152	185	94	144	286	90	148	235	108	146	114	106	135	160	107	140	137	99	144	186
3721	31473 (H)	86	136	194	90	128	286	88	132	240	93	113	141	96	114	185	95	113	163	91	123	202
3722	29860 (R)	100	143	234	94	117	271	97	130	252	103	119	108	97	127	178	100	123	143	98	126	198
3724	31490 (H)	102	139	243	98	122	283	100	131	263	108	128	135	105	124	180	106	126	158	103	128	210
3726	31492 (H)	88	123	213	93	124	289	90	123	251	99	106	173	96	117	193	98	111	183	94	117	217
3727	31641	112	153	266	97	124	293	104	138	279	116	104	137	108	136	200	112	120	169	108	129	224
3728	31476 (H)	86	148	181	94	118	287	90	133	234	93	107	121	93	125	183	93	116	152	92	125	193
3729	NDR 359 (NC)	86	137	171	88	102	271	87	120	221	91	101	136	92	113	144	92	107	140	89	113	181
3730	31643	111	152	203	97	120	279	104	136	241	109	115	128	106	136	173	108	126	151	106	131	196
3731	31479 (H)	93	144	236	94	127	283	94	136	260	94	117	120	98	139	164	96	128	142	95	132	201
3734	LC	86	124	172	91	114	277	88	119	224	94	106	100	91	109	181	93	107	141	91	113	183
3735	31471 (H)	88	138	208	91	119	288	89	129	248	93	108	107	99	122	186	96	115	146	93	122	197
3738	31659	94	161	240	94	138	282	94	150	261	96	145	105	106	137	168	101	141	137	98	145	199
3739	31638	94	151	195	94	143	278	94	147	236	95	120	102	98	131	190	96	126	146	95	136	191
3741	31481 (H)	78	124	215	89	119	276	83	122	245	85	106	128	97	108	183	91	107	155	87	114	200
Experimental Mean		92	140	211	92	128	283	92	135	247	98	114	135	98	123	174	99	119	155	95	127	201
Standard Error		0.78			0.17						0.55			1.2								

Table No. 5.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1- IM, Kharif 2024

Entry No	IET NO	Zone VII- Southern																		Karnataka (4)					
		Andhra Pradesh						Andhra Pradesh (2)			Karnataka									Mean					
		Maruteru			Ragolu			Mean			Brahmavar			Gangavati			Mugad			Mandya			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3701	30603* (H)	96	131	396	89	135	224	92	133	310	115	81	384	97	108	317	97	83	362	120	103	354	107	94	354
3704	HRI 174 (HC)	96	124	341	87	130	232	92	127	287	110	76	351	96	110	286	88	83	358	100	176	320	99	111	329
3708	30604* (H)	97	142	308	92	149	219	94	145	264	114	91	389	91	121	356	89	99	341	89	100	342	96	103	357
3709	30819*	105	124	385	104	109	282	104	116	333	115	78	351	108	84	309	102	72	361	117	71	363	110	76	346
3712	31618	99	145	385	100	123	307	100	134	346	112	86	393	101	103	283	102	97	319	114	91	369	107	94	341
3713	29877 (R)	96	126	374	92	126	291	94	126	333	112	75	352	96	100	361	96	75	318	104	90	342	102	85	343
3717	ZC	94	120	352	87	111	254	90	115	303	118	76	361	93	100	296	91	73	272	108	95	349	102	86	319
3719	31480 (H)	92	153	385	88	147	230	90	150	307	117	102	385	91	119	288	91	90	311	100	104	322	100	104	326
3720	31633	100	142	319	98	148	249	99	145	284	110	86	363	99	123	326	96	109	313	103	107	358	102	106	340
3722	29860 (R)	95	124	330	94	141	249	94	132	289	109	91	408	94	111	293	96	86	312	106	118	300	101	102	328
3726	31492 (H)	92	130	429	88	123	216	90	127	322	112	81	425	94	108	299	86	85	342	103	101	369	99	94	359
3727	31641	108	133	363	101	132	303	104	133	333	115	78	378	103	120	411	103	88	328	118	112	295	110	100	353
3729	NDR 359 (NC)	92	125	341	87	115	224	89	120	283	108	63	382	94	109	326	95	75	299	99	91	335	99	84	336
3730	31643	103	152	363	105	139	213	104	146	288	113	90	405	98	112	293	95	91	328	105	99	329	103	98	339
3731	31479 (H)	99	140	352	93	131	268	96	136	310	102	102	391	96	120	296	89	90	315	103	111	322	98	106	331
3734	LC	106	114	374	99	126	257	102	120	316	119	63	363	91	117	352	91	96	323	114	120	317	104	99	339
3738	31659	95	141	352	92	159	226	94	150	289	117	102	381	91	133	308	95	108	345	104	101	297	102	111	333
3739	31638	96	134	352	90	150	319	93	142	336	112	90	387	97	124	364	78	69	352	104	100	334	98	96	359
3741	31481 (H)	92	93	319	86	125	220	89	109	270	95	90	381	91	106	343	96	96	313	101	88	368	96	95	351
Experimental Mean		97	131	358	93	132	251	95	132	305	111	84	380	95	112	321	93	87	326	105	104	336	102	97	341
Standard Error		0			0.82						1.23			0.61			0.91			1.02					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 5.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1- IM, Kharif 2024

Entry No	IET NO	Zone VII- Southern																				Zone VII- Southern (11)				
		Kerala			Telangana						Telangana (2)			Tamil Nadu						Tamil Nadu (2)			Mean			
		Pattambi			Rajendranagar			Warangal			Mean			Coimbatore			Adutrai			Mean			Mean			
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE
3701	30603* (H)	101	91	306	105	100	453	99	124	279	102	112	366	109	92	388				109	92	388	103	105	346	
3704	HRI 174 (HC)	94	87	216	101	102	491	98	129	290	99	116	391	103	93	320	105	107	300	104	100	310	98	111	319	
3708	30604* (H)	98	99	236	99	104	453	105	154	287	102	129	370	96	107	357	103	122	296	100	115	326	98	117	326	
3709	30819*	98	94	348	115	95	607	113	117	314	114	106	460	118	98	327	101	95	407	109	97	367	109	94	368	
3712	31618	103	93	244	111	100	476	109	133	296	110	116	388	118	118	328	101	114	399	110	116	364	106	109	345	
3713	29877 (R)	95	104	168	106	100	491	102	125	286	104	112	388	108	96	329	101	110	263	105	103	296	101	102	325	
3717	ZC	92	77	302	103	99	444	91	122	312	97	111	378	103	83	312	99	83	319	101	83	316	98	94	325	
3719	31480 (H)	99	91	197	101	103	375	104	136	298	102	120	337	105	106	323	103	111	313	104	108	318	99	115	312	
3720	31633	104	93	307	111	103	469	105	148	301	108	126	385	111	114	301	102	115	405	107	115	353	104	117	337	
3722	29860 (R)	97	85	156	110	101	371	103	125	272	106	113	322	110	87	308	100	110	333	105	98	321	101	107	303	
3726	31492 (H)	96	85	372	105	96	487	94	113	308	100	105	398	106	84	353	104	110	323	105	97	338	98	102	357	
3727	31641	101	100	299	113	103	429	115	148	330	114	126	380	118	109	352	105	109	285	112	109	318	109	112	343	
3729	NDR 359 (NC)	99	103	214	103	94	553	93	117	315	98	105	434	104	94	340	100	95	306	102	94	323	98	98	331	
3730	31643	107	99	312	115	102	451	110	137	289	112	120	370	119	115	342	102	125	396	111	120	369	107	115	338	
3731	31479 (H)	103	86	288	113	104	484	100	139	295	106	122	390	114	105	355	101	123	411	107	114	383	101	114	343	
3734	LC	103	92	280	102	101	480	103	134	305	103	117	392	115	114	390	104	125	413	109	120	402	104	109	350	
3738	31659	103	115	270	104	103	566	102	159	280	103	131	423	105	110	383	103	93	296	104	101	340	101	120	337	
3739	31638	104	105	473	106	104	460	101	132	290	104	118	375	110	113	355	101	124	310	106	118	332	100	113	363	
3741	31481 (H)	93	93	325	99	97	447	87	107	271	93	102	359	104	87	357	103	115	316	103	101	336	95	100	333	
Experimental Mean		99	94	279	106	100	473	101	131	295	104	116	384	109	101	343	102	110	338	106	105	342	102	108	337	
Standard Error		0.88			1.33			0.52						0.71			0.71									

Table No. 5.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1- IM, Kharif 2024 (Not considered)

Entry No	IET No	Zone VII- Southern		
		Karnataka		
		@Kathalgera		
		DFE	PH	PAN
3701	30603* (H)	66	97	387
3704	HRI 174 (HC)	67	95	439
3708	30604* (H)	66	98	462
3709	30819*	50	82	355
3712	31618	79	99	369
3713	29877 (R)	67	96	303
3717	ZC	66	86	294
3719	31480 (H)	68	100	429
3720	31633	78	100	373
3722	29860 (R)	73	100	373
3726	31492 (H)	67	92	294
3727	31641	75	108	411
3729	NDR 359 (NC)	68	95	299
3730	31643	78	96	271
3731	31479 (H)	77	93	369
3734	LC	69	103	453
3738	31659	67	100	453
3739	31638	76	100	481
3741	31481 (H)	64	87	457
Experimental Mean		69	96	382

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 5.4: Grain quality characteristics of entries in AVT-2 & 1- IM, Kharif 2024

Code	Entry No.	Designation / IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1772	3701	30603 (H)	79.9	70.5	63.5	6.54	1.99	3.28	LS	OC	7.0	22.99	28
1773	3702	30613 (H)	78.0	67.0	58.6	6.29	2.21	2.84	LB	VOC	4.0	25.90	45
1774	3703	30608 (H)	80.4	69.2	58.5	6.42	2.01	3.19	LS	VOC	5.0	23.87	57
1775	3704	HRI-174 (HC)	80.6	69.3	55.2	5.93	2.15	2.75	MS	VOC	4.5	26.75	46
1776	3705	30617 (H)											
1777	3706	30605 (H)	79.1	69.0	59.6	5.02	2.42	2.07	SB	OC	5.0	23.05	23
1778	3707	30772	77.6	67.0	45.6	5.58	2.09	2.66	MS	VOC	7.0	22.49	22
1779	3708	30604 (H)	79.4	73.5	66.6	6.44	2.35	2.74	LB	VOC	5.0	24.17	22
1780	3709	30819	77.8	68.0	62.2	4.87	2.11	2.3	SB	VOC	4.0	24.46	22
1781	3710	31623											
1782	3711	31483	79.1	72.9	63.9	6.39	2.01	3.17	LS	A	4.0	23.70	53
1783	3712	31618	77.8	67.9	63.6	5.01	2.12	2.36	SB	VOC	4.0	25.49	23
1784	3713	29877 (R)	79.9	67.7	53.3	4.58	2.24	2.04	SB	VOC	4.0	27.69	44
1785	3714	31629	77.7	67.5	51.6	5.04	2.11	2.38	SB	OC	4.0	20.18	26
1786	3715	31472 (H)	79.9	66.7	40.5	5.86	2.04	2.87	LB	OC	4.5	24.28	60
1787	3716	31478 (H)	81.1	68.6	47.3	6.55	2.05	3.19	LS	A	4.0	27.83	54
1788	3717	ZC-JAYA	79.7	70.1	56.6	5.55	2.47	2.24	SB	VOC	7.0	25.66	22
1789	3718	31644	78.9	68.6	50.2	5.18	2.35	2.20	SB	OC	4.0	24.55	22
1790	3719	31480 (H)	79.3	69.4	64.1	6.06	2.22	2.72	LB	VOC	7.0	27.74	38
1791	3720	31633	80.6	71.1	64.2	4.71	2.19	2.15	SB	A	4.0	22.49	22
1792	3721	31473 (H)	81.4	70.6	62.2	6.52	2.05	3.18	LS	A	7.0	26.45	23
1793	3722	29860 (R)	79.4	68.9	51.0	5.13	2.62	1.95	SB	VOC	4.0	25.84	33
1794	3723	31637	80.5	69.6	63.7	5.51	2.03	2.71	MS	VOC	4.0	26.45	37
1795	3724	31490	80.5	75.3	59.6	6.20	2.14	2.89	LB	VOC	5.0	27.80	59
1796	3725	31639	80.3	73.1	69.9	6.24	1.96	3.18	LS	VOC	4.0	22.79	22
1797	3726	31492	81.6	75.0	68.6	6.62	2.04	3.24	LS	VOC	5.0	26.81	54
1798	3727	31641	77.2	65.4	60.2	5.42	2.04	2.65	MS	VOC	4.0	22.08	55
1799	3728	31476 (H)	81.1	72.8	68.7	6.13	2.28	2.68	LB	VOC	7.0	20.53	43
1800	3729	NDR-359 (NC)	80.3	74.1	68.7	6.23	2.31	2.69	LB	OC	5.0	27.54	45
1801	3730	31643	79.2	72.2	68.2	5.24	2.44	2.14	SB	VOC	4.0	26.63	42
1802	3731	31479 (H)	81.3	69.6	58.2	5.77	1.94	2.97	MS	VOC	5.0	25.84	60
1803	3732	31619	80.8	68.7	39.8	5.13	1.85	2.77	MS	VOC	4.0	24.37	22
1804	3733	31654	75.6	70.2	68.5	5.79	2.34	2.47	SB	VOC	4.0	23.84	22
1805	3734	LC	77.4	70.6	65.7	6.90	2.09	3.3	LS	VOC	7.0	25.31	22
1806	3735	31471 (H)	78.2	71.3	63.6	6.08	2.28	2.66	LB	VOC	4.0	27.16	65
1807	3736	31630	81.7	74.0	70.6	6.39	2.01	3.17	LS	VOC	4.0	20.62	23
1808	3737	31673	75.8	66.1	50.7	5.39	1.94	2.77	MS	VOC	4.0	24.49	68
1809	3738	31659	78.8	67.0	57.0	5.34	2.07	2.57	MS	VOC	7.0	24.64	22
1810	3739	31638	80.7	72.9	70.6	6.58	2.13	3.08	LS	VOC	5.0	24.02	60
1811	3740	31672	78.8	66.4	47.5	4.88	1.85	2.63	MS	VOC	4.0	22.85	22
1812	3741	31481 (H)	79.3	71.8	61.8	6.32	2.34	2.70	LB	VOC	4.0	25.66	55
1813	3742	31640	79.1	70.7	69.1	5.25	1.88	2.79	MS	A	5.0	23.61	22

HULL: Hulling(%) MILL: Milling(%) HRR: Head Rice Recovery KL: Kernel length (mm) KB: Kernel Breadth(mm) L/B : Length and Breadth(mm) KLAC: Kernel length after cooking WU: Water uptake ER: Elongation ratio AC: Amylose content (%)ASV: Alkali Spreading Value AC: Amylose Content GC: Gel consistency

INITIAL VARIETY TRIAL - IRRIGATED MEDIUM (IM) (IVT -IM)

Locations: 50

Test entries: 61

Table: 6

Checks: NDR-359 (National); PR 121 (Northern), CR Dhan 300 (Eastern and North Eastern), Karma Mahsuri (Central), Akshaya Dhan (Western), Jaya (Southern), and Local check

Initial Variety Trial - Irrigated Medium (IM) was constituted with 61 test entries and 3 checks. The trial was sent to 50 locations, however, data was not received from 12 locations viz., Chatha, Chiplima, Bankura, Gorakhpur, Arunduthi Nagar, Waraseoni, Bilaspur, Jagtial, Tirur, Kurumbapet, Puducherry and Karaikal. Data from six centres were excluded from analysis viz., Nagina, Prayagraj, Masodha, Geruva, Lemucherra, Mugad, Kathalgere and Aduthurai due to either low (<5%) / high CV (20%) or low experimental mean (<4000Kg/ha) or based on non-significant F value. Among the centres from which data is included in analysis, location-wise mean grain yield ranged from 3983 kg/ha (Pantnagar) to 6345 kg/ha (Bikramganj) while CV ranged from 6.95% (Kaul) to 20.07% (Pantnagar).

Performance of the entries on overall mean basis

The overall mean grain yield of the entries ranged from 3752 kg/ha (IET 32520) to 5892 kg/ha (IET 32537) .The data pertaining to yield, days to 50% flowering, plant height, panicles/m² and quality are presented in tables 6.1, 6.2, 6.3 and 6.4. Based on the overall performance, entries viz., IETs 32537, 32530, 32544, 32510 and 32547 performed significant superiority for grain yield over best check. Hence, these entries were promoted for 2nd year testing on overall basis.

Performance of the entries on overall mean basis IVT- IM, Kharif 2024

Rank	IET No	Designation/ Cross Combination	GY	FD	GT	Remarks
1	IET 32537	MTU 1430 (MTU 2837-56-1-1-1)/ MTU 1075/Chittimuthyalu /MTU 1075	5892	112	MB	Promoted
2	IET 32530	NP 7309/NPGK 10/NPGK 03//NPGK MG	5885	107	SB	Promoted
3	IET 32544	CR 4209-228-3/CR Dhan 307/ <i>O. rufipogan</i> (AC-100005)//CR Dhan 307	5638	106	MB	Promoted
4	IET 32510	ORS-MBB 10/Lalat mutant	5608	101	LB	Promoted
5	IET 32547	K21-B360 (Suneetha Kota)/RPBIO-226/MTU 1081	5560	107	MS	Promoted
		NDR 359 (NC)	4978	97		
		Akshaya Dhan (ZC)	4674	103		
		Local Check	5259	105		
		CD	238			
		BC+CD	5497			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Northern Zone (Zone II)

The trial was sent to five locations and the data from Chatha (Jammu and Kashmir) was not received for analysis. Data from Nagina, was not used for analysis due to high CV (23.48%) and low experimental mean yield (2989 kg/ha). Mean grain yield of the 3 locations considered for analysis ranged from 3983 kg/ha (Pantnagar) to 5488 kg/ha (Kaul) and CV% from 6.95% (Kaul) to 20.07% (Pantnagar). Zonal mean yield of the entries varied from 1785 kg/ha (IET 32520) to 6525 kg/ha (IET 32501). In Zone II, IET 32501 and IET 32509 showed significant superior yield performance over the best check (Zonal Check) and therefore, these entries were promoted to 2nd year of testing.

Performance of the entries IVT - IM, Zone II, Kharif 2024

Rank	IET No	Designation/ Cross Combination	GY	FD	GT	Remarks
1	IET 32501	ORJ 1337/RP Bio226/IRGC 48960/MTU 1081	6525	89	MB	Promoted
2	IET 32509	JGL 44230/JGL 21002/HHZ 1-DT4-L11-L11	6175	88	LS	Promoted
		NDR 359 (NC)	4835	84		
		Akshaya Dhan(ZC)	4561	88		
		Local Check	5378	85		
		CD	710			
		BC+CD	6088			

Eastern Zone (Zone III)

The trial was sent to thirteen locations. Data from Chiplitima, Bankura and Ghorakhpur were not received; and data from Prayagraj was not considered due to high CV% and low experimental mean and Masodha due to low CV %. Mean grain yield at the 8 locations ranged from 4008 kg/ha (Ranchi) to 6345 kg/ha (Bikramganj) and CV% from 7.13% (Malda) to 17.41% (Jeypore). Mean yield of the entries in this zone ranged from 3773 kg/ha (IET 32497) to 6385 kg/ha (IET 32537); In zone III, entries IETs 32537, 32530, 32518, 32510, 32515, 32526, 32492, 32525, 32503 and 32507 recorded significant superior yield performance over the best check *ie.* Local check and were promoted to second year of testing.

Performance of the entries IVT - IM, Zone III, Kharif 2024

Rank	IET No	Designation/ Cross Combination	GY	FD	GT	Remarks
1	IET 32537	MTU 1430 (MTU 2837-56-1-1-1)/MTU 1075/Chittimuthyalu/MTU 1075	6385	115	MB	Promoted
2	IET 32530	NP 7309/NPGK 10/NPGK 03//NPGK MG	5911	110	SB	Promoted
3	IET 32518	CR6326-5-3-1-2-1/CR 3504-24-2-1-1-1-1/CR 3541-1-2-5-4-1	5885	114	MB	Promoted
4	IET 32510	ORS-MBB 10/Lalat mutant	5583	108	LB	Promoted
5	IET 32515	UPR 4696-1-1-1-1/UPR 12011-22/VL Dhan 61	5537	107	LS	Promoted

Annual Progress Report 2024 Vol. I – Varietal Improvement

6	IET 32526	MTU 1429 (MTU 2861-1-1-1-1)/MTU 1075/NLR 34449	5504	114	MB	Promoted
7	IET 32492	RGL 7041 (RGL 2034-55-2-1)/MTU 121-/MTU 1224/RP Bio 226	5462	114	MS	Promoted
8	IET 32525	CR 4205-229-15-1/CR Dhan 307/ <i>O. longistaminata</i> (AC-110404)//CR Dhan 307	5438	109	SB	Promoted
9	IET 32503	BRR-2074/IR 11 A 257-Sel.	5432	111	MS	Promoted
10	IET 32507	CR4379-12-1-1-1-1/CR Dhan 307/MTU 1010	5422	105	LS	Promoted
	NDR 359 (NC)		5078	101		
	CR Dhan 300(ZC)		4828	117		
	Local Check		4903	107		
	CD		344			
	BC+CD		5422			

North Eastern Zone (Zone IV)

The trial was sent for evaluation at four locations and the data from Arundhuti Nagar was not received and data from Gerua and Lembucherra is not included for analysis due to low experimental mean yield and non-significant F value respectively. In Zone IV, none of the entries were promoted for next year of testing in IVT-IM.

Central Zone (Zone V)

The trial was sent to seven locations. The data not received from Waaraseoni (MP) and Bilaspur (Chhattisgarh). Mean grain yield at the 5 locations considered ranged from 4512 kg/ha (Ambikapur) to 5585 kg/ha (Jagdalpur) and CV% ranged from 11.13% (Ambikapur) to 18.98% (Jagdalpur). Mean yield of the entries ranged from 3831 kg/ha (IET 32497) to 6369 kg/ha (IET 32513). In Zone V, IET 32513 recorded superior yield performance over the best check (NC) and promoted for 2nd year of testing.

Performance of the entries IVT - IM, Zone V, Kharif 2024

Rank	IET No	Designation/ Combination	Cross	GY	FD	GT	Remarks
1	IET 32513	RDN 20-08/Phule Radhee/KJT-2		6369	95	LB	Promoted
		NDR 359 (NC)		5575	95		
		Karma Mahsuri(ZC)		4212	100		
		Local Check		4950	111		
		CD		635			
		BC+CD		6210			

Western Zone (Zone VI)

The trial was sent for evaluation at four locations and data received from all 4 locations and considered for analysis. Experimental mean yield at the locations ranged from 5507kg/ha (Nawagam) to 4410 Kg/ha (Shirgaon) and CV% ranged from 8.47% (Shirgaon) to 11.84%

Annual Progress Report 2024 Vol. I – Varietal Improvement

(Nawagam). Mean yield of the entries ranged from 3012 kg/ha (IET 32520) to 6741kg/ha (IET 31700). In Zone VI, IETs 31700, 32518, 32544 and 32523 recorded significant superior yield performance over the best check (ZC), and therefore, these entries were promoted for 2nd year of testing.

Performance of the entries IVT - IM, Zone VI, Kharif 2024

Rank	IET No	Designation/ Cross Combination	GY	FD	GT	Remarks
1	IET 31700	PAN 2440 (IET 31700)/25A/AN-5191	6741	99	SB	Promoted
2	IET 32518	CR6326-5-3-1-2-1/CR 3504-24-2-1-1-1-1/CR 3541-1-2-5-4-1	6030	112	MB	Promoted
3	IET 32544	CR 4209-228-3/CR Dhan 307/ <i>O. rufipogon</i> (AC-100005)//CR Dhan 307	5993	102	MB	Promoted
4	IET 32523	BRR 0290-IR 19A7980/IR 122310:7-2-2/IR09M120	5945	93	LS	Promoted
		NDR 359 (NC)	4447	91		
		Akshaya Dhan (ZC)	5447	96		
		Local Check	4569	97		
		CD	490			
		BC+CD	5937			

Southern Zone (Zone VII)

The trial was sent to 17 locations. Data was not received from, Jagtial, Tirur, Kurumbapet, Puducherry and Karaikal. The data obtained from Mugad, Kathalgere and Aduthurai station was not included in analysis due to non-significant F value, low CV% and low mean yield, respectively. Mean grain yield of 9 locations considered was ranged from 4065 kg/ha (Brahmavar) to 6147 Kg/ha (Ragolu) and CV% ranged from 7.47% (Ragolu) to 18.37% (Coimbatore). Mean yield of the entries ranged from 4166 kg/ha (IET 32520) to 6602 kg/ha (IET 32505 and 32537). In Zone VII, IET 32505 and IET 32537, recorded superior yield performance over the over the best check (LC) and therefore, these entries were promoted for 2nd year of testing.

Performance of the entries IVT - IM, Zone VII, Kharif 2024

Rank	IET No	Designation/ Cross Combination	GY	FD	GT	Remarks
1	IET 32505	1224-7-5-1-B/MTU 1121/RNR 15048	6602	111	MS	Promoted
2	IET 32537	MTU 1430 (MTU 2831-56-1-1-1)/ MTU 1075/Chittimuthyalu/MTU 1075	6602	112	MB	Promoted
		NDR 359 (NC)	4601	97		
		Jaya (ZC)	4292	103		
		Local Check	6068	105		
		CD	435			
		BC+CD	6503			

Annual Progress Report 2024 Vol. I – Varietal Improvement

SUMMARY

INITIAL VARIETY TRIAL- Irrigated Medium (IVT-IM) - Kharif 2024

Locations: 38

Test entries: 61

Checks: NDR-359 (National); PR 121 (Northern), CR Dhan 300(Eastern and North Eastern), Karma Mahsuri (Central), Akshaya Dhan (Western), Jaya (Southern), and Local check

IVT-IM The trial comprised of 61 test entries and 3 checks and tested in 38 locations.

List of the entries promoted in IVT-IM to AVT 1

Overall: IET 32537, IET 32530, IET 32544, IET 32510 and IET 32547

Zone II: IET 32501, IET 32509

Zone III: IET 32537, IET 32530, IET 32518, IET 32510, IET 32515, IET 32526, IET 32492, IET 32525, IET 32503, IET 32507

Zone IV: None of the entries was promoted.

Zone V: IET 32513

Zone VI: IET 31700, IET 32518, IET 32544 and IET 32523

Zone VII: IET 32505 and IET 32537

Table No. 6.1: Composition of entries in Initial Variety Trial – Irrigated Medium (IVT-IM), Kharif 2024.

Entry No.	IET No.	Designation	Cross Combination	Grain type
3801	32492	RGL 7041 (RGL 2034-55-2-1)	MTU 1210/MTU1224/RP Bio 226	MS
3802	32493	BRR 0275	Rajendra Mahsuri/IRBB58	MS
3803	32494	Pusa 5766-1-1-1-2-1-1	P 5563-14-3-1-2/PRR 828	MB
3804	32495	IR 143529-187-6-6-375-17-5	Swarna/CUNGUN NAO:: IRGC 63576-1	SB
3805	32496	NWGR 19024	Gurjari/IR-66/5-4-3-1-2-2-8	MS
3806	32497	TRC 2024-17/TRC GK 5726-B-B-9-2	Gomati/Khowai	SB
3807	32498	SYE-35-26-5-8-13-17	SYE-803/SYE-23-11-18-29-4	LS
3808	32499	CRAC-3998-247-3	Doubled Haploid of 27P63	LS
3809	31700	PAN 2440 (IET 31700)	25A / AN-5191	SB
3810	32500	MSN-122	INTAN/TUNGA (126-1-2-1-1-1-B)	LB
3811	32501	ORJ 1337	RP Bio226/IRGC 48960/MTU 1081	MB
3812	32502	BPT 3460	Cult.01120305/cult.0910025-7	MS
3813	32503	BRR-2074	IR 11 A 257-Sel.	MS
3814	32504	R 2307-76-1-39-2	Mahamaya/IR 2006P-12-12-2-2	LS

Annual Progress Report 2024 Vol. I – Varietal Improvement

3815		National Check	NDR 359	
3816	32505	RP 6831-1224-7-5-1-B	MTU 1121/RNR 15048	MS
3817	32506	NDR 2023-8-SEED-14-CP-14	Rajendra Bhagwati/Sukha Dhan 5	SB
3818	32507	CR4379-12-1-1-1-1	CR Dhan307/ MTU 1010	LS
3819	32508	CR 4205-229-12-1	CR Dhan 307/ <i>O. longistaminata</i> (AC-110404)	MS
3820	32509	JGL 44230	JGL 21002/HHZ 1-DT4-LI1-LI1	LS
3821	32510	ORS-MBB 10	Lalat Mutant	LB
3822	32511	RP 6717 JBC 891-19	SWARNA/IRGC 39111	MS
3823	32512	CB 21136	CB 07540/CO 56	MS
3824	32513	RDN 20-08	Phule Radhe/KJT-2	LB
3825	32514	RGL 7036 (RGL 2034-9-1-1)	MTU 1210/MTU1224/RP Bio 226	MS
3826	32515	UPR 4696-1-1-1-1	UPRI2011-22/VL Dhan 61	LS
3827	32516	Pusa 5697-1-1-1-1-1-1	GA4 SPS 69-2/PRR 209	LS
3828	32517	RNR 34996	AAGP9772/IR-72	LS
3829	32518	CR6326-5-3-1-2-1	CR 3504-24-2-1-1-1-1/CR 3541-1-2-5-4-1	MB
3830	32519	PAU 2k13/14-531-1-21-1-4-5 (RYT 4046)	PR121*3//PR121*3//PR121/RP2068	LS
3831		Zonal Check	PR 121 (Northern), CR Dhan 300 (Eastern and North Eastern), Karma Mahsuri (Central), Akshyadhan (Western), Jaya (Southern),	
3832	32520	GNV 2313	Selection from Dugga	MB
3833	32521	SKL-15-07-302-179-120-20	SKL-6/SYE 160-7-19-7-23-16	MS
3834	32522	BKR 465	BPT 5204/Karahni	MB
3835	32523	BRR 0290-IR 19A7980	IR 122310:7-2-2/IR09M120	LS
3836	31810	R 2370-115-1-93-1 (IET 31810) (Shift)	R 1706-309-1-171-1/IR 64	MS
3837	32524	NVSR-1221	GAR-13/IET-23467	MS
3838	32525	CR 4205-229-15-1	CR Dhan 307/ <i>O. longistaminata</i> (AC-110404)//CR Dhan 307	SB
3839	32526	MTU 1429 (MTU 2861-1-1-1-1)	MTU 1075/NLR 34449	MB
3840	32527	HTW 96-IR19LT2060	IR 91648-B-1-B-3-1/ABHYA//IR11L101///IR91648-B-1-3-1/IRBB23//IR 96322-34-223-B///IR91648-B-1-B-3-1/IR BB 60 (IR 72920-1-44-4)//TADUKAN	LB
3841	32528	RP 6818-1-1-1-1-B	SWARNA/RP BIO 226/Sona	LB

Annual Progress Report 2024 Vol. I – Varietal Improvement

3842	32529	KNM 16201	IRTON 101/MUT NS1//IR 71033/KNM118	LS
3843	32530	NP 7309	NPGK 10/NPGK 03//NPGK MG	SB
3844	32531	OR 2714-1	Savitri/Mandakini	MB
3845	32532	RP 6458-DB-C1-111	Swarna//166S-Swarna/O.nivara	LS
3846	32533	TRC 2024-15/TRC H2TS 5509-B-B-11-153	Hakuchuk 2/Triupura Sarat	LS
3847	32534	R 2447-1028-1-457-1	Pusa 1121/Chatri	LB
3848	32535	CR4463-12-1-1-1-2	CR Dhan 307/ CR Dhan316//CR Dhan 602	SB
3849	32536	CR 4342-32-2-2-1	MTU 1001/ Pusa 44 // Samba Mahsuri/ Wita 12	LS
3850	32537	MTU 1430 (MTU 2837-56-1-1-1)	MTU 1075/Chittimuthyalu/MTU 1075	MB
3851	32538	RDR 5767	WGL 810/WGL 1121//WGL 347/WGL 1143	MS
3852	32539	ORJ 1353 (TP 30606)	IR08M349/IR07L605	MS
3853	32540	WGL 1956	(Siddi/MIL 12)/(Siddi/BM 71)	MS
3854	32541	RP 6832-122-5-4-2-1-1	MTU 1081/IR 64	MS
3855	32542	RNR 37910	HHZ-Y3-T10/MTU 1001	LB
3856	32543	CR6324-1-3-1-4-1	CR 3582-5-2-1-2-2-1/CR 3541-1-2-5-4-1	LS
3857	32544	CR 4209-228-3	CR Dhan 307// <i>O. Rufipogan</i> (AC-100005)//CR Dhan 307	MB
3858	32545	PAU 7565-75-1-1-1 (RYT 3978)	PR 121/RYT 4050	LS
3859	32546	HKR 19-7	HKR 08-67/OM 5240	LS
3860	32547	RP 6811-12-8-1-2-1-B	RPBIO-226/MTU-1081	MS
3861	32548	CB 21103	CO 52 / IET 23750	MS/SS
3862	32549	CRAC-4423-114	Doubled Haploid of F1s (Savitri x Pokkali)	LS
3863	32550	NDLR 30	BPT 5204/MTU 1187	MS
3864		Local Check		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.2: Grain Yield (kg/ha) in IVT -IM, Kharif 2024

Entry No	IET No	Zone II-Northern						Zone II-Northern (3)		Zone III- Eastern			
		Haryana		Uttarakhand		Uttar Pradesh		Mean	Bihar				
		Kaul	Pantnagar			Kanpur			Bikramganj	Sabour			
3801	32492	5293		4625		5310	4	5076		7919	3	5844	3
3802	32493	6150		2875		5055	9	4693		6019		4948	
3803	32494	3720		3125		3590		3478		4949		2959	
3804	32495	4060		2000		4550		3537		6300		4668	
3805	32496	6180		3375		4400		4652		6768		4060	
3806	32497	5250		1812		4475		3846		5247		2251	
3807	32498	6920	8	3750		3330		4667		5319		4458	
3808	32499	3935		6000	5*	4300		4745		5848		4349	
3809	31700	5895		3625		4140		4553		6851		5420	5
3810	32500	4022		2062		4250		3445		4436		2378	
3811	32501	6900	10	8625	2*	4050		6525	1*	5448		3164	
3812	32502			562		4450		2506		5136		3689	
3813	32503	4070		4125		4390		4195		9261	1*	5245	8
3814	32504	6850		3125		4050		4675		7290	10	4196	
3815	NDR 359(NC)	6880		3500		4125		4835		6753		3728	
3816	32505	4005		4375		4845		4408		6366		4480	
3817	32506	7491	3	3312		4300		5034		6092		5358	6
3818	32507	6978	6	3812		3850		4880		7174		4572	
3819	32508	4712		8875	1*	3885		5824	3	6333		3820	
3820	32509	6655		7250	4*	4620		6175	2*	6509		3767	
3821	32510	6015		4812		4400		5076		6702		4930	
3822	32511	4080		2750		4565		3798		4787		2159	
3823	32512	3795		3875		4625		4098		5579		4371	
3824	32513	5690		5188		4300		5059		7462	6	3475	
3825	32514	3500		2812		4450		3588		6385		5192	
3826	32515	6220		3062		4380		4554		7571	5	4808	
3827	32516	5685		3250		4690		4542		6134		3217	
3828	32517	4655				4500		4578		6418		4860	
3829	32518	3840		5938	7*	3350		4376		7245		5035	
3830	32519	6525		4250		4555		5110		6461		4655	
3831	ZC	6905	9	2312		4465		4561		6393		5210	10
3832	32520			750		2820		1785		4896		1971	
3833	32521	5920		4250		4105		4758		4894		3260	
3834	32522	4964		3812		4545		4441		6105		2880	
3835	32523	7489	4	3312		4660		5154		6651		4017	
3836	31810	6328		3438		5040	10	4935		6454		4187	
3837	32524	5682		2875		5175	5	4577		6755		4484	
3838	32525	4767		5750	8	5325	3	5281		5170		5017	
3839	32526	3675		3750		3450		3625		7604	4	3864	
3840	32527	3555		4312		4625		4164		6610		4524	
3841	32528	7255	5	4250		4425		5310	10	5739		3549	
3842	32529	6950	7	2688		4370		4669		6679		3846	
3843	32530	6037		5688	9	4340		5355	9	7197		6307	2*
3844	32531	4729		3438		4300		4156		6971		5826	4
3845	32532	3845		2250		4200		3432		5005		3558	
3846	32533	4806		2750		4370		3975		5582		3068	
3847	32534	4363		3312		4300		3992		6651		4869	
3848	32535	5570		4500		4375		4815		5502		4336	
3849	32536	4205		3500		3580		3762		6548		5284	7
3850	32537	5393		4750		4070		4738		8788	2*	7037	1*
3851	32538	6192		3688		5075	7	4985		4880		3011	
3852	32539	5843				4890		5366	8	5598		2635	
3853	32540	6263		4500		4400		5054		7355	8	5135	
3854	32541	6345		4375		4610		5110		6378		4545	
3855	32542	4125				4350		4238		6739		3409	
3856	32543	6455		4188		5555	1	5399	6	6178		4943	
3857	32544	6106		6000	5*	3625		5244		6374		4458	
3858	32545	7690	2*	3125		5075	7	5297		7344	9	4283	
3859	32546	7925	1*	3250		5485	2	5553	5	6742		4226	
3860	32547	4965		7500	3*	4900		5788	4	7440	7	5240	9
3861	32548	4596		3938		4450		4328		5808		4314	
3862	32549	4440		5375	10	4250		4688		6219		3260	
3863	32550	4065		4375		4730		4390		6476		4047	
3864	LC	6830		4188		5115	6	5378	7	5574		4825	
Experimental Mean		5488		3983		4419		4607		6345		4242	
CD(0.05)		763		1599		1136		710		1245		969	
CV(%)		6.95		20.07		12.86		7.72		9.82		11.43	
F val		21.21**		7.78**		1.69*		10.02**		4.58**		8.67**	
DOS		13-06-24		15-06-24		03-07-24				03-07-24		28-06-24	
DOP		16-07-24		13-07-24		04-08-24				08-08-24		30-07-24	
Local Check Name		HKR 128		Pant Dhan 4		Sarju 52				Rajendra Sweta		Rajendra Sweta	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.2 (Contd.): Grain Yield (kg/ha) in IVT -IM, Kharif 2024

Entry No	IET No	Zone III- Eastern											
		Bihar (2)		Jharkhand		Odisha				Odisha (3)			
		Mean		Ranchi		Bhubaneswar		Jeypore		NRRI		Mean	
3801	32492	6881	3*	3375		3667		5496	9	5139	4	4767	
3802	32493	5483		3645		3667		4287		4051		4002	
3803	32494	3954		3105		4417		4187		4457		4354	
3804	32495	5484		6210	9	5083		4670		4497		4750	
3805	32496	5414		2770		4333		3424		4122		3960	
3806	32497	3749		2905		3083		3306		3479		3289	
3807	32498	4889		5130		4500		5267		4106		4624	
3808	32499	5098		6615	7	3500		5559	8	3421		4160	
3809	31700	6135	10	2945		4550		3426		3508		3828	
3810	32500	3407		3040		4617		3941		3508		4022	
3811	32501	4306		3510		4667		3144		3360		3724	
3812	32502	4412		6750	4	4333		4909		4813	10	4685	
3813	32503	7253	2*	3780		4583		5491		5207	3	5094	8
3814	32504	5743		3645		4583		4065		3681		4110	
3815	NDR 359(NC)	5240		7020	3	4333		3885		2912		3710	
3816	32505	5423		4860		4667		5639	5	4786		5030	
3817	32506	5725		3780		5417	10	5404		3932		4917	
3818	32507	5873		5130		5667	8	3257		4239		4388	
3819	32508	5076		2700		5167		4470		4855	9	4831	
3820	32509	5138		3105		2800		5480		2793		3691	
3821	32510	5816		5130		5250		5493		4429		5057	10
3822	32511	3473		7290	1	2383		4919		3452		3585	
3823	32512	4975		3060		4583		5096		2314		3998	
3824	32513	5468		2905		4167		3996		4100		4088	
3825	32514	5788		6750	4	5000		4333		3684		4339	
3826	32515	6190	8	4725		5000		4859		4256		4705	
3827	32516	4676		2770		4500		3350		4290		4047	
3828	32517	5639		4320		4667		4552		3215		4144	
3829	32518	6140	9	7290	1	5500	9	5569	7	4867	7	5312	4
3830	32519	5558		2770		8167	1*	4217		3306		5230	7
3831	ZC	5801		2970		4617		5124		4560		4767	
3832	32520	3434		2770		3167		4176		4529		3957	
3833	32521	4077		3645		3333		4889		3983		4068	
3834	32522	4493		3115		4250		3630		4566		4149	
3835	32523	5334		2700		4933		4094		3787		4272	
3836	31810	5320		5940		5917	6	3494		3208		4206	
3837	32524	5619		2700		3883		5393		3474		4250	
3838	32525	5094		4050		5200		6207	1	4299		5236	6
3839	32526	5734		2970		7000	3*	5269		4983	6	5751	2*
3840	32527	5567		2775		5167		4011		4293		4490	
3841	32528	4644		6480	8	3117		4104		3799		3673	
3842	32529	5263		3645		3833		5583	6	3841		4419	
3843	32530	6752	4*	3375		5317		5494	10	5298	2	5370	3
3844	32531	6399	5	3105		3567		4487		4326		4126	
3845	32532	4281		6750	4	3417		3230		5028	5	3891	
3846	32533	4325		3645		5067		3698		4190		4318	
3847	32534	5760		2925		4750		3481		4864	8	4365	
3848	32535	4919		4860		4833		6026	2	3744		4868	
3849	32536	5916		2970		4667		3754		3786		4069	
3850	32537	7912	1*	5130		6333	4	5648	4	5500	1*	5827	1*
3851	32538	3946		2995		3417		3148		3517		3361	
3852	32539	4117		2925		4250		3400				3825	
3853	32540	6245	7	2970		4500		4833		4127		4487	
3854	32541	5462		3105		6100	5	4674		4432		5069	9
3855	32542	5074		3110		4167		3809				3988	
3856	32543	5561		3040		4083		5793	3	4522		4799	
3857	32544	5416		3375		7250	2*	4611		3847		5236	5
3858	32545	5813		3510		4167		3796		2725		3563	
3859	32546	5484		3175		5167		5181		3137		4495	
3860	32547	6340	6	2835		5167		5046		3483		4565	
3861	32548	5061		4455		4333		3859		3826		4006	
3862	32549	4740		3060		4500		4011		3687		4066	
3863	32550	5262		6210	9	4400		3889		4119		4136	
3864	LC	5200		4185		5750	7	4509		4310		4856	
Experimental Mean		5293		4008		4632		4501		4041		4390	
CD(0.05)		799		687		787		1565		876		664	
CV(%)		7.55		8.58		8.51		17.41		10.84		7.57	
F val		9.8**		33.29**		13.42**		2.28**		4.71**		5.75**	
DOS				29-06-24		13-07-24		19-07-24		26-06-24			
DOP				24-08-24		21-08-24		22-08-24		01-08-24			
Local Check Name				BVD 203		Gobinda		Kalinga Dhan 1203		Tapaswini			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.2 (Contd.): Grain Yield (kg/ha) in IVT -IM, Kharif 2024

Entry No	IET No	Zone III- Eastern					Zone III- Eastern (8)	Zone IV-North Eastern		Zone V- Central			
		West Bengal		West Bengal (2)		Mean		Assam		Chhattisgarh			
		Malda	chinsurah	Mean	Mean			Titabar		Raipur			
3801	32492	6117		6138		6128		5462	7*	4667		3362	
3802	32493	5875		5923		5899		4802		4645		5088	
3803	32494	7267	3*	5484		6375		4603		3940		3902	
3804	32495	4400		7530	3*	5965		5420		4071		5732	9
3805	32496	5625		5454		5539		4570		4518		5234	
3806	32497	4133		5781		4957		3773		3842		3353	
3807	32498	3958		5595		4777		4792		5019		4131	
3808	32499	4500		5476		4988		4908		3765		4442	
3809	31700	7675	1*	5595		6635	6*	4996		4539		6546	2*
3810	32500	4625		5491		5058		4004		5172		4054	
3811	32501	3858		7083	10*	5471		4279		4327		4370	
3812	32502	4117		5744		4930		4936		4259		3317	
3813	32503	4358		5528		4943		5432	9*	5121		4206	
3814	32504	5350		6116		5733		4866		4747		6241	3
3815	NDR 359(NC)	6175		5818		5997		5078		6601	1	5306	
3816	32505	4242		5536		4889		5072		5274	10	5252	
3817	32506	6650		5595		6123		5279		4437		5913	5
3818	32507	6217		7121	9*	6669	4*	5422	10*	3821		5331	
3819	32508	4092		6577		5335		4752		5504	8	4453	
3820	32509	4275		5521		4898		4281		3558		4179	
3821	32510	5492		7240	6*	6366		5583	4*	5211		5145	
3822	32511	4333		6786		5560		4514		4462		4068	
3823	32512	4933		6332		5633		4534		4790		4353	
3824	32513	6050		5744		5897		4737		4803		5287	
3825	32514	4283		5662		4973		5161		5912	3	4078	
3826	32515	6667		6414		6540	8	5537	5*	5584	7	5222	
3827	32516	6383		6637		6510	9	4660		4000		4141	
3828	32517	4242		5960		5101		4779		5810	4	4872	
3829	32518	4408		7165	8*	5787		5885	3*	5801	5	5174	
3830	32519	6950	6*	5804		6377		5291		4887		5793	7
3831	ZC	4242		5506		4874		4828		6426	2	3888	
3832	32520	4008		5818		4913		3917		4679		3405	
3833	32521	4075		6153		5114		4279		4522		3520	
3834	32522	5617		6562		6090		4591		5245		3374	
3835	32523	6783	9	5818		6301		4848		4314		5739	8
3836	31810	5783		5595		5689		5072		4921		5342	
3837	32524	4950		5521		5235		4645		3493		5126	
3838	32525	5967		7589	2*	6778	3*	5438	8*	4901		4320	
3839	32526	6817	8	5528		6172		5504	6*	4696		4938	
3840	32527	5508		5565		5537		4807		4352		5848	6
3841	32528	5600		6823	*	6211		4901		4539		4877	
3842	32529	5717		5573		5645		4840		3800		4972	
3843	32530	6683	10	7619	1*	7151	2*	5911	2*	5435	9	6598	1*
3844	32531	4717		5521		5119		4815		4139		5388	
3845	32532	4475		5446		4961		4614		3579		4049	
3846	32533	4042		5499		4770		4349		4858		4386	
3847	32534	5908		5595		5752		4881		4267		6028	4
3848	32535	6592		5528		6060		5178		4866		3936	
3849	32536	6350		5707		6028		4883		3833		4395	
3850	32537	5408		7232	7*	6320		6385	1*	4930		5521	
3851	32538	6333		6972	*	6653	5*	4284		2580		2718	
3852	32539	4283		5446		4865		4077		4445		3001	
3853	32540	6192		5670		5931		5098		3612		4226	
3854	32541	4833		5528		5181		4950		4641		4510	
3855	32542	4942		5513		5228		4527		5704	6	3375	
3856	32543	7200	4*	7515	4*	7357	1*	5409		5095		4754	
3857	32544	5933		7262	5*	6598	7*	5389		5062		5420	
3858	32545	7367	2*	5476		6421	10	4834		4110		5548	10
3859	32546	6983	5*	5558		6271		5021		4101		5433	
3860	32547	6842	7	5930		6386		5248		5181		5253	
3861	32548	4508		5722		5115		4603		3910		4060	
3862	32549	4192		5618		4905		4318		4730		5311	
3863	32550	5600		5536		5568		5035		3651		4305	
3864	LC	4725		5342		5034		4903		4773		4628	
Experimental Mean		5413		6033		5723		4903		4632		4699	
CD(0.05)		771		987		585		344		666		1198	
CV(%)		7.13		8.19		5.11		3.51		7.2		12.75	
F val		15.64**		3.8**		10.38**		16.24**		9.79**		4.36**	
DOS		28-06-24								04-07-24		01-07-24	
DOP		21-07-24								28-07-24		17-07-24	
Local Check Name		Lachmanti								Numali		IGKV R 1244	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.2 (Contd.): Grain Yield (kg/ha) in IVT -IM, Kharif 2024

Entry No	IET No	Zone V- Central											
		Chhattisgarh				Chhattisgarh		Maharashtra			Maharashtra (2)		
		Ambikhapur		Jagadapur		Mean		Sakoli	Sinde wahi		Mean		
3801	32492	4141		4867		4123		3000		3835		3418	
3802	32493	4450		5075		4871		3700		4972		4336	
3803	32494	4631		6128		4887		2300		2464		2382	
3804	32495	5505	7	5938		5725	9	2400		4283		3341	
3805	32496	5045		5000		5093		2675		4212		3443	
3806	32497	4040		3368		3587		3300		5092		4196	
3807	32498	4495		4786		4471		2700		4673		3687	
3808	32499	4374		6053		4956		3900		5526		4713	
3809	31700	6530	2*	6979	3	6685	1*	4925		5952	5	5438	
3810	32500	5101		4792		4649		3475		3750		3612	
3811	32501	5303		5399		5024		3750		5582	9	4666	
3812	32502	3758		6690		4588		5150		3082		4116	
3813	32503	5455	9	5000		4887		3850		3487		3669	
3814	32504	5561	6	6774	8	6192	3	5050		4979		5014	
3815	NDR 359(NC)	5470	8	6123		5633	10	6950	6	4027		5488	
3816	32505	4338		5854		5148		3950		4212		4081	
3817	32506	5838	5	5966		5906	6	7500	1	5632	8	6566	2*
3818	32507	4707		5590		5209		7150	4	5426		6288	4
3819	32508	3919		6293		4888		7075	5	5575	10	6325	3
3820	32509	4308		4942		4476		5075		5973	4	5524	
3821	32510	6131	3	6279		5852	8	6725	9	3558		5142	
3822	32511	3894		5101		4354		5650		3189		4419	
3823	32512	5096		5200		4883		3800		4339		4070	
3824	32513	4662		6710	10	5553		7450	2	7734	1*	7592	1*
3825	32514	4646		5987		4904		5075		3778		4427	
3826	32515	4894		5101		5072		5575		5703	6	5639	9
3827	32516	4146		3345		3877		6850	7	4964		5907	7
3828	32517	3434		6065		4791		4250		4560		4405	
3829	32518	4490		5738		5134		5525		3537		4531	
3830	32519	4121		6302		5405		4100		4183		4142	
3831	ZC	3354		4094		3778		4725		5000		4862	
3832	32520	3773		3597		3592		5325		3594		4459	
3833	32521	3838		5871		4410		6850	7	5298		6074	6
3834	32522	4783		6204		4787		4275		4354		4314	
3835	32523	3768		6878	4	5461		5575		6832	2*	6204	5
3836	31810	5909	4	6308		5853	7	5725		4467		5096	
3837	32524	3737		4829		4564		5200		5668	7	5434	
3838	32525	4040		5006		4456		6025		5085		5555	
3839	32526	3869		5310		4705		7400	3	4318		5859	8
3840	32527	5364	10	7332	1	6181	4	6050		4766		5408	
3841	32528	3828		5353		4686		3950		4560		4255	
3842	32529	4293		6623		5296		5150		4098		4624	
3843	32530	4545		6852	5	5998	5	6175		5007		5591	10
3844	32531	4899		6230		5505		5200		4389		4795	
3845	32532	3914		3464		3809		6250	10	4844		5547	
3846	32533	4343		4696		4475		6150		3594		4872	
3847	32534	6742	1*	6782	7	6518	2	6150		4354		5252	
3848	32535	4490		4609		4345		4975		6193	3*	5584	
3849	32536	4207		6829	6	5144		4800		4602		4701	
3850	32537	5101		4462		5028		5850		4744		5297	
3851	32538	3889		3819		3475		4675		5021		4848	
3852	32539	4121		3249		3457		5625		3750		4688	
3853	32540	4409		6181		4938		5825		4205		5015	
3854	32541	4444		6560		5172		4025		5014		4520	
3855	32542	3889		7266	2	4843		4975		3643		4309	
3856	32543	3788		6374		4972		6000		5121		5560	
3857	32544	4480		5900		5267		5350		5163		5257	
3858	32545	4010		5226		4928		5400		4162		4781	
3859	32546	3747		5961		5047		4850		3551		4201	
3860	32547	3253		6768	9	5091		4825		5575		5200	
3861	32548	4141		5683		4628		4800		3295		4048	
3862	32549	4404		4470		4729		4950		3487		4219	
3863	32550	4116		6021		4814		4650		3075		3863	
3864	LC	4768		5194		4863		5850		4311		5081	
Experimental Mean		4512		5585		4932		5101		4585		4843	
CD(0.05)		1003		2118		995		1277		1111		855	
CV(%)		11.13		18.98		10.1		12.53		12.13		8.84	
F val		4.41**		1.86**		3.87**		7.79**		5.94**		8.7**	
DOS		03-07-24		14-06-24				14-06-24		24-06-24			
DOP		26-07-24		05-07-24				24-07-24		27-07-24			
Local Check Name		MTU 1010		IGKVR 1244				PDKV Kisan		SYE-2001			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.2 (Contd.): Grain Yield (kg/ha) in IVT -IM, Kharif 2024

Entry No	IET No	Zone V- Central (5)		Zone VI- Western									
				Gujarat				Gujarat (2)		Maharashtra			
		Mean		Navasari	Nawagam		Mean		Karjat	Shirgaon			
3801	32492	3841		5364		6771	8	6067	8	3066		4452	
3802	32493	4657		5337		6577	10	5957		4918		4957	
3803	32494	3885		4993		5614		5304		6802	7*	4715	
3804	32495	4771		5886		5398		5642		2959		5621	5*
3805	32496	4433		5291		5756		5523		3262		4411	
3806	32497	3831		4696		4805		4750		2836		3014	
3807	32498	4157		5820		6240		6030	9	5071		4898	
3808	32499	4859		5112		4140		4626		6121		3729	
3809	31700	6186	2	8399	1*	5962		7181	1*	7568	2*	5036	
3810	32500	4234		4683		4509		4596		4163		3082	
3811	32501	4881		5126		3817		4471		4561		3833	
3812	32502	4399		4159		4025		4092		3310		3326	
3813	32503	4400		6396	6	5653		6024	10	6215		4582	
3814	32504	5721	8	5906		6807	7	6356	5	4140		4759	
3815	NDR 359(NC)	5575	10			5774		5774		3490		4076	
3816	32505	4721		4894		5984		5439		3985		4999	
3817	32506	6170	3	5833		5291		5562		4675		3408	
3818	32507	5641	9	7097	3	4846		5971		4766		4168	
3819	32508	5463		6356	7	5150		5753		4158		5076	
3820	32509	4895		4947		6484		5716		2737		4655	
3821	32510	5568		5754		6198		5976		5458		5756	4*
3822	32511	4380		4041		5320		4680		4408		3601	
3823	32512	4558		5747		5186		5467		4713		4697	
3824	32513	6369	1*	6124	10	5839		5981		6167		4135	
3825	32514	4713		2619		5610		4115		6278		3901	
3826	32515	5299		5761		3668		4714		9077	1*	4826	
3827	32516	4689		5893		4792		5342		2970		3217	
3828	32517	4636		6085		4070		5077		3378		3135	
3829	32518	4893		4081		7143	3	5612		7103	4*	5793	3*
3830	32519	4900		5483		3549		4516		3952		5607	6*
3831	ZC	4212		6429	5	6124		6276	6	5693		3543	
3832	32520	3939		3292		3248		3270		2742		2766	
3833	32521	5076		3631		6066		4849		3473		4319	
3834	32522	4598		4233		4821		4527		4141		3419	
3835	32523	5758	7	6733	4	6882	6	6808	2	5955		4208	
3836	31810	5550		4907		5759		5333		7561	3*	4887	
3837	32524	4912		6224	8	4010		5117		3964		3455	
3838	32525	4895		5728		5298		5513		7014	5*	5358	8*
3839	32526	5167		3816		6486		5151		5928		5289	9*
3840	32527	5872	5	4874		5856		5365		5260		4800	
3841	32528	4514		5298		6746	9	6022		3004		3669	
3842	32529	5027		5721		6019		5870		6717	9	4784	
3843	32530	5836	6	6210	9	6978	4	6594	4	3988		6004	2*
3844	32531	5221		5073		7339	1	6206	7	4707		5069	
3845	32532	4504		3234		5045		4139		3651		3188	
3846	32533	4634		5165		3778		4471		3942		4398	
3847	32534	6011	4	5212		5908		5560		4593		4159	
3848	32535	4841		5529		5114		5321		4870		5240	10*
3849	32536	4967		4107		5119		4613		5857		5181	*
3850	32537	5136		4544		7321	2	5933		4462		5115	*
3851	32538	4025		4643		5648		5145		3142		3190	
3852	32539	3949				2662		2662		4739		4265	
3853	32540	4969		5007		6921	5	5964		5020		5024	
3854	32541	4911		3194		6064		4629		3608		5152	*
3855	32542	4630		4894		4814		4854		3029		2924	
3856	32543	5208		4921		6350		5635		4696		6123	1*
3857	32544	5263		7156	2	6110		6633	3	5811		4893	
3858	32545	4869		5972		5830		5901		2495		3927	
3859	32546	4708		3948		6534		5241		6752	8	4741	
3860	32547	5135		4431		5783		5107		2867		5519	7*
3861	32548	4396		5827		5130		5478		6670	10	4270	
3862	32549	4525		5165		4693		4929		3138		3275	
3863	32550	4433		3452		5525		4488		6870	6*	4285	
3864	LC	4950		4468		5484		4976		3968		4355	
Experimental Mean		4896		5176		5507		5327		4729		4410	
CD(0.05)		635		1169		1303		842		1064		747	
CV(%)		6.49		11.29		11.84		7.91		11.26		8.47	
F val		7.15**		6.62**		5.12**		7.35**		15.57**		10.23**	
DOS				25-06-24		22-06-24				13-06-24		13-06-24	
DOP				17-07-24		06-08-24				11-07-24		03-07-24	
Local Check Name				GNR-5		GAR 13				KJT-5		Ratnagiri 6	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.2 (Contd.): Grain Yield (kg/ha) in IVT -IM, Kharif 2024

Entry No	IET No	Zone VI- Western Maharashtra (2)		Zone VI- Western (4)		Zone VII- Southern							
		Maharashtra (2)		Western (4)		Andhra Pradesh		Andhra Pradesh (2)		Karnataka			
		Mean		Mean		Maruteru	Ragolu	Mean		Gangavati			
3801	32492	3759		4913		5548		4486		5017		5103	
3802	32493	4937		5447		4859		5326		5092		5256	
3803	32494	5759	6*	5531		3543		4855		4199		4333	
3804	32495	4290		4966		7256	6*	7717	*	7486	4*	3949	
3805	32496	3836		4680		4490		4551		4521		6006	
3806	32497	2925		3838		2514		7819	10*	5166		4442	
3807	32498	4984		5507		2335		6797		4566		4628	
3808	32499	4925		4776		4060		5507		4784		4135	
3809	31700	6302	3*	6741	1*	4552		7971	4*	6262		4558	
3810	32500	3622		4109		2441		5630		4036		3744	
3811	32501	4197		4334		5014		5877		5445		6000	
3812	32502	3318		3705		4972		5406		5189		3231	
3813	32503	5399	*	5712		7001	7*	4268		5634		6686	8
3814	32504	4449		5403		2669		6725		4697		5910	
3815	NDR 359(NC)	3783		4447		4897		5906		5401		7647	5
3816	32505	4492		4966		7280	4*	7986	3*	7633	1*	5321	
3817	32506	4041		4802		2125		7935	6*	5030		5256	
3818	32507	4467		5219		7297	3*	7891	8*	7594	3*	5724	
3819	32508	4617		5185		5389		6551		5970		3404	
3820	32509	3696		4706		1870		4246		3058		7673	4
3821	32510	5607	10*	5792	9	4804		6152		5478		6173	
3822	32511	4004		4342		2087		4297		3192		3622	
3823	32512	4705		5086		3581		5333		4457		6032	
3824	32513	5151		5566		4015		5406		4710		4282	
3825	32514	5090		4602		5503		8188	1*	6846		3878	
3826	32515	6951	1*	5833	6	4966		7841	9*	6403		3673	
3827	32516	3093		4218		2455		7159		4807		3071	
3828	32517	3257		4167		5100		6797		5948		7635	6
3829	32518	6448	2*	6030	2*	4552		6080		5316		4474	
3830	32519	4780		4648		4652		5906		5279		3263	
3831	ZC	4618		5447		4728		5261		4994		4032	
3832	32520	2754		3012		2214		4094		3154		5045	
3833	32521	3896		4372		4783		4688		4736		5353	
3834	32522	3780		4154		3344		4565		3954		5218	
3835	32523	5082		5945	4*	6605	10	7442		7023	8*	3923	
3836	31810	6224	4*	5779	10	3767		5065		4416		5308	
3837	32524	3710		4413		2638		5855		4246		5019	
3838	32525	6186	5*	5849	5	6501		5855		6178		3391	
3839	32526	5609	9*	5380		5172		8043	2*	6608		4199	
3840	32527	5030		5198		6519		7790	*	7154	5*	4276	
3841	32528	3337		4679		4811		4471		4641		5160	
3842	32529	5750	7*	5810	7	5183		4420		4801		5353	
3843	32530	4996		5795	8	5138		6797		5967		4167	
3844	32531	4888		5547		3864		5159		4512		8308	1
3845	32532	3419		3779		2207		4232		3220		5942	
3846	32533	4170		4321		3936		7225		5580		2679	
3847	32534	4376		4968		5833		6152		5993		4724	
3848	32535	5055		5188		6935	8	6101		6518		3859	
3849	32536	5519	*	5066		6243		7920	7*	7082	7*	3000	
3850	32537	4788		5360		6698	9	6522		6610		5000	
3851	32538	3166		4156		2269		7101		4685		6372	9
3852	32539	4502		3889		3151		6500		4825		6256	10
3853	32540	5022		5493		7328	2*	4587		5957		4417	
3854	32541	4380		4505		4053		5659		4856		5019	
3855	32542	2977		3915		6398		7797	*	7098	6*	7769	3
3856	32543	5410	*	5522		2899		7565	*	5232		5821	
3857	32544	5352	*	5993	3*	7262	5*	7971	4*	7617	2*	4295	
3858	32545	3211		4556		6109		5732		5920		3026	
3859	32546	5747	8*	5494		6236		7667	*	6951	9	2891	
3860	32547	4193		4650		7559	1*	6152		6855	10	8301	2
3861	32548	5470	*	5474		3137		2630		2884		4410	
3862	32549	3207		4068		3065		6971		5018		5628	
3863	32550	5577	*	5033		6264		6254		6259		3295	
3864	LC	4162		4569		5868		6551		6209		6808	7
Experimental Mean		4570		4948		4696		6147		5421		4959	
CD(0.05)		654		490		1118		918		750		1127	
CV(%)		7.16		4.96		11.91		7.47		6.92		11.37	
F val		17.84**		17.15**		17.36**		16.57**		20.13**		12.07**	
DOS						07-07-24		02-07-24				29-07-24	
DOP						01-08-24		30-07-24				05-09-24	
Local Check Name						MTU 1239		MTU 1210				GNV 1109	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.2 (Contd.): Grain Yield (kg/ha) in IVT -IM, Kharif 2024

Entry No	IET No	Zone VII- Southern											
		Karnataka				Karnataka (3)		Kerala		Telangana			
		Brahmavar		Mandya		Mean		Pattambi		Rajendranagar		Warangal	
3801	32492	4129		7522	2	5584	9	5684		5511		6468	8
3802	32493	3081		5086		4474		4788		3985		5311	
3803	32494	4236		7091	4	5220		5544		6358		5406	
3804	32495	4066		5489		4501		4996		6794		4476	
3805	32496	3920		5776		5234		6076		5222		5681	
3806	32497	4893	3	3700		4345		4908		4698		3606	
3807	32498	4312		5733		4891		4788		5632		4458	
3808	32499	3390		5144		4223		5400		5195		6364	9
3809	31700	4148		4109		4272		4544		5141		7016	4*
3810	32500	4186		5668		4532		4852		6526		3958	
3811	32501	4331		4253		4861		7300		6566		3909	
3812	32502	4135		5603		4323		7920	4*	4785		4774	
3813	32503	3504		6853	9	5681	8	4712		6640		4138	
3814	32504	5019	2	5496		5475		4548		6835	10	3786	
3815	NDR 359(NC)	1585		6868	7	5367		2732		5047		3970	
3816	32505	4205		6609		5378		6220		6687		7228	3*
3817	32506	3485		7687	1	5476		4912		6882	8*	3440	
3818	32507	4122		5503		5117		4516		6116		5498	
3819	32508	4135		5524		4354		4024		6129		5386	
3820	32509	4369	9	5668		5903	6	4534		6747		4841	
3821	32510	4350		6990	6	5838	7	3524		7507	5*	6562	7
3822	32511	4217		6444		4761		5768		5121		3178	
3823	32512	3813		4928		4924		7908	5*	4926		4157	
3824	32513	2841		6358		4494		8012	3*	7688	3*	5564	
3825	32514	4274		6810		4988		6942		6176		5534	
3826	32515	3239		6839	10	4584		4682		5276		7441	2*
3827	32516	3453		5424		3983		5512		5450		3223	
3828	32517	4085		6652		6124	4	4960		5376		4076	
3829	32518	4495	5	6861	8	5277		7760	7*	5464		4156	
3830	32519	3775		5948		4329		4956		5383		6718	5
3831	ZC	3851		3872		3918		4960		4926		3270	
3832	32520	4394	7	5122		4854		4039		4751		3298	
3833	32521	4078		5230		4887		2624		4892		3162	
3834	32522	4078		2500		3932		5460		4825		3663	
3835	32523	3902		5884		4569		4100		5517		6662	6
3836	31810	3984		5129		4807		1476		5625		5428	
3837	32524	4217		5144		4793		4546		6882	8*	5940	
3838	32525	4167		5941		4500		7444	10	5262		6052	
3839	32526	3415		6782		4799		5642		5806		5811	
3840	32527	4135		5762		4724		3816		6660		4962	
3841	32528	4122		6997	5	5427		2156		6290		5058	
3842	32529	4104		6473		5310		6408		8031	1*	4848	
3843	32530	4274		7112	3	5184		8832	1*	6499		5712	
3844	32531	3990		6739		6345	3	2376		5578		4858	
3845	32532	4186		4799		4976		4584		5504		3063	
3846	32533	4337		3484		3500		6334		5968		4180	
3847	32534	4186		5330		4747		7776	6*	7406	6*	4681	
3848	32535	4893	3	5754		4835		5148		6633		6171	10
3849	32536	3977		5718		4232		5072		4993		5970	
3850	32537	4255		6437		5231		6768		7601	4*	7564	1*
3851	32538	4034		4368		4925		4096		3757		3248	
3852	32539	4009		5043		5103		7124		5746		3082	
3853	32540	4015		5876		4769		7684	8*	6176		5730	
3854	32541	4211		6774		5335		5216		6391		4952	
3855	32542			5661		6715	1*	7092		6398		2890	
3856	32543	4141		6566		5509	10	5888		6337		4341	
3857	32544	4261		6149		4902		8060	2*	7870	2*	5045	
3858	32545	4268		5402		4232		2844		6673		5100	
3859	32546	4192		6422		4502		4064		6263		5230	
3860	32547	4400	6	6638		6446	2	3412		7312	7*	5197	
3861	32548	4362	10	5424		4732		5788		5323		3876	
3862	32549	4381	8	6063		5358		7396		5712		4053	
3863	32550	4312		4784		4130		7488	9	5457		5391	
3864	LC	5189	1	5797		5932	5	6264		5679		5743	
Experimental Mean		4065		5778		4948		5391		5947		4915	
CD(0.05)		789		1052		590		1266		1185		1087	
CV(%)		9.71		9.11		5.97		11.75		9.97		11.07	
F val		3.42**		7.41**		9.38**		13.33**		4.89**		9.73**	
DOS		18-06-24		05-07-24						26-06-24		18-06-2024	
DOP		09-07-24		01-08-24						19-07-24		11-07-2024	
Local Check Name		Sahyadri Brahma		BR-2655						RNR 28361		WGL 14	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.2 (Contd.): Grain Yield (kg/ha) in IVT -IM, Kharif 2024

Entry No	IET No	Zone VII- Southern				Zone VII- Southern (9)		Maharashtra (4)		Overall Mean (30)	
		Telangana (2)		Tamil Nadu		Mean	Mean	Mean	Mean	Mean	Mean
		Mean		Coimbatore							
3801	32492	5989		7248	7	5744		3588		5138	
3802	32493	4648		4489		4687		4637		4813	
3803	32494	5882		8095	3	5496		4071		4740	
3804	32495	5635		7062	8	5756		3816		5119	
3805	32496	5451		6201		5325		3640		4795	
3806	32497	4152		6279		4762		3561		4098	
3807	32498	5045		7760	5	5160		4336		4887	
3808	32499	5779		3856		4783		4819		4791	
3809	31700	6079		2788		4981		5870	4*	5363	
3810	32500	5242		1949		4328		3617		4137	
3811	32501	5237		5084		5370		4432		4940	
3812	32502	4779		3203		4892		3717		4469	
3813	32503	5389		4952		5417		4534		5159	
3814	32504	5310		4003		4999		4732		5097	
3815	NDR 359(NC)	4509		2761		4601		4636		4978	
3816	32505	6957	3*	7887	4	6602	1*	4286		5399	
3817	32506	5161		6090		5312		5304	*	5321	
3818	32507	5807		3723		5599		5378	*	5377	
3819	32508	5757		4843		5043		5471	10*	5148	
3820	32509	5794		6146		5122		4610		4858	
3821	32510	7034	2*	6070		5792	10	5374	*	5608	4*
3822	32511	4149		3176		4212		4212		4305	
3823	32512	4542		6331		5223		4387		4783	
3824	32513	6626	4*	6381		5616		6372	1*	5418	8
3825	32514	5855		5451		5862	8	4758		5090	
3826	32515	6358	9	5837		5532		6295	2*	5439	7
3827	32516	4337		4894		4516		4500		4529	
3828	32517	4726		5184		5541		3831		4928	
3829	32518	4810		6442		5587		5490	8*	5496	6
3830	32519	6051		4503		5012		4461		5025	
3831	ZC	4098		3731		4292		4740		4674	
3832	32520	4024		4532		4166		3607		3752	
3833	32521	4027		4792		4400		4985		4517	
3834	32522	4244		4894		4283		4047		4448	
3835	32523	6090		5508		5505		5643	7*	5356	
3836	31810	5526		5801		4620		5660	6*	5092	
3837	32524	6411	7	5635		5097		4572		4749	
3838	32525	5657		5266		5542		5870	3*	5400	10
3839	32526	5809		6191		5674		5734	5*	5267	
3840	32527	5811		4700		5402		5219		5136	
3841	32528	5674		6232		5033		3796		4875	
3842	32529	6439	6	7349	6	5796	9	5187		5236	
3843	32530	6105		6872		6156	5	5294	*	5885	2*
3844	32531	5218		6885	10	5306		4841		5039	
3845	32532	4284		3276		4199		4483		4207	
3846	32533	5074		3647		4643		4521		4461	
3847	32534	6043		4882		5663		4814		5206	
3848	32535	6402	8	4642		5571		5320	*	5194	
3849	32536	5481		4800		5299		5110		4899	
3850	32537	7583	1*	8571	2	6602	2*	5043		5892	1*
3851	32538	3502		3640		4321		4007		4248	
3852	32539	4414		4085		5000		4595		4449	
3853	32540	5953		6044		5762		5019		5274	
3854	32541	5672		6103		5375		4450		5017	
3855	32542	4644		7012	9	6377	4	3643		5026	
3856	32543	5339		6044		5511		5485	9*	5410	9
3857	32544	6457	5	4045		6106	6	5304	*	5638	3*
3858	32545	5887		4299		4828		3996		4823	
3859	32546	5747		5702		5408		4974		5171	
3860	32547	6254	10	9036	1*	6445	3	4697		5560	5*
3861	32548	4599		5725		4520		4759		4609	
3862	32549	4883		4387		5295		3713		4663	
3863	32550	5424		5156		5378		4720		4927	
3864	LC	5711		6710		6068	7	4621		5259	
Experimental Mean		5431		5389		5258		4706		4978	
CD(0.05)		797		1978		435		513		238	
CV(%)		7.35		18.37		4.14		5.45		2.39	
F val		8.82**		4.46**		15.48**		14.72**		26.72**	
DOS				20-06-24							
DOP				15-07-24							
Local Check Name				CO 56							

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.2 (Contd.): Grain Yield (kg/ha) in IVT -IM, Kharif 2024 (Not considered)

Entry No	IET No	ZONE II-NORTHERN		ZONE III-EASTERN			ZONE IV- NORTH EASTERN			ZONE VII – SOUTHERN							
		Uttar Pradesh		Uttar Pradesh			Assam		Tripura	Karnataka		Tamil Nadu					
		@Nagina		@Prayagraj	@Masodha	@Gerua	@Lembucherra	@Mugad	@Kathalgere	@Adutrai							
3801	32492	2872		3418		4205		3100		5762		5010		3574		2685	
3802	32493	4588	4	3675		5698		3300		4362		5732		5816		2639	
3803	32494	1164		810		2487		2220		5750		5876		6241	9	3056	6
3804	32495	4495	5	3431		4239		2235		4912		5719		5354		2963	8
3805	32496	3577		3841		5831		3825		5312		5502		4930		2454	
3806	32497	4036		4558	7	6330		1515		6150	7	5355		4178		2130	
3807	32498	5186	1	2896		4235		2365		6212	5	5924		4078		2361	
3808	32499	2779		1777		6124		3100		6125	9	6008		3752		2407	
3809	31700	3358		4282		6715	2	3460		3888		6150		4839		2778	
3810	32500	2806		2121		4754		3271		4688		5255		5811		2407	
3811	32501	3384		4606	6	4461		3260		5125		5462		5099		2731	
3812	32502	372		121		3158		1690		5688		5616		4064		5370	1
3813	32503	2826		2608		5120		2205		5212		5361		4970		2176	
3814	32504	2367		3192		5372		2940		5388		5625		4992		2824	
3815	NDR 359(NC)	3085		4051		5725		4195	4	4912		6235		6354	8	3056	6
3816	32505	1057		1144		4089		1500		4738		6703		5078		2731	
3817	32506	5086	2	6222	1	5785		1695		5500		5574		6908	6	2505	
3818	32507	4156	9	3582		6449	9	3595		4638		5681		3906		2546	
3819	32508	1622		1848		5233		3300		5712		6243		7234	3	2315	
3820	32509	3118		4231		6157		3445		6650	1	5322		4931		4491	3
3821	32510	3258		2630		5864		3636		4838		6716		4878		2546	
3822	32511	3059		3619		6356	10	1360		5538		5019		5260		2361	
3823	32512	2846		2320		6642	7	2310		5388		6488		5499		2731	
3824	32513	4807	3	5304	4	4721		3135		5988		6740		7702	1	2222	
3825	32514	1483		1758		4189		1485		4575		6967		5000		4861	2
3826	32515	2886		2937		6649	4	2840		6300	4	6558		3178		2685	
3827	32516	3723		3619		6649	4	1740		4850		6514		4659		2731	
3828	32517	3411		3902		6303		4010	7	4550		5759		4278		2454	
3829	32518	1828		2755		4422		4190	5	5762		7314	7	5742		3102	5
3830	32519	3384		3665		6323		3450		5750		6252		3511		2269	
3831	ZC	1955		3903		3989		2700		5675		5552		5094		2407	
3832	32520	605		474		4754		2405		5488		5234		4840		2361	
3833	32521	2227		3561		4993		2070		6112	10	6058		4180		2454	
3834	32522	4342	7	3228		6649	4	3910	8	4475		6243		6228	10	2685	
3835	32523	2992		5414	3	4914		2850		3838		8031	2	6211		2176	
3836	31810	4368	6	3705		5598		4325	3	5525		7409	5	5698		2269	
3837	32524	3684		3362		6895	1	3445		5438		5716		6458	7	2269	
3838	32525	2793		2931		4781		2925		6112		7556	4	3174		2269	
3839	32526	2254		1875		3358		1065		4938		8601	1	4929		2546	
3840	32527	2899		2128		4934		4475	2	5025		6756		4856		2685	
3841	32528	1775		3700		5738		2105		4600		5881		4078		2130	
3842	32529	4089		4377	10	5047		2120		6150	7	7345	6	4448		2731	
3843	32530	2886		5508	2	4023		3535		4612		7049	9	5130		3194	4
3844	32531	3916		4409	9	4668		3860	9	4712		6519		4651		2778	
3845	32532	2414		3458		6702	3	2040		5888		5680		3778		2824	10
3846	32533	3251		3500		6011		2665		4288		6035		5076		2778	
3847	32534	3338		3352		5672		4540	1	5025		6792		7152	5	2685	
3848	32535	2932		2147		6184		3565		5062		7173	8	5111		2639	
3849	32536	1709		1364		3697		1650		2788		7030	10	6059		2407	
3850	32537	2666		3416		4235		2730		4788		6361		5311		2870	9
3851	32538	2566		3700		5552		2915		5362		5318		4902		2083	
3852	32539	2580		4457	8	5592		3795		3900		5410		4144		2500	
3853	32540	2134		2989		5585		3670		4412		6127		5074		2500	
3854	32541	2128		2251		5632		1964		5138		7862	3	5326		2731	
3855	32542	2806		2243		6031				5500		6367		4933		2454	
3856	32543	2307		2899		5472		2815		5188		6922		4761		2361	
3857	32544	3118		3442		5027		4135	6	6412	3	6834		5086		2176	
3858	32545	2733		4163		5612		3185		4112		6393		3770		2361	
3859	32546	4116	10	5117	5	6496	8	2785		5525		6418		4511		2222	
3860	32547	3936		3314		4714		2020		4812		4943		7178	4	2778	
3861	32548	3797		2178		3943		3110		5375		6693		5926		2315	
3862	32549	2926		3127		4668		2500		4725		6297		2878		2037	
3863	32550	2241		2058		4814		2215		6625	2	6333		5386		2222	
3864	LC	4222	8	3718		5565		3840	10	6188	6	4873		7696	2	2361	
Experimental Mean		2989		3225		5279		2894		5220		6226		5091		2638	
CD(0.05)		1403		1441		405		1074		1922		1997		6		805	
CV(%)		23.48		22.36		3.84		18.57		18.42		16.05		0.06		15.27	
F val		4.29**		5.55**		47.93**		5.26**		1.22ns		1.26ns		223840.76**		4.12**	
DOS				08-07-24		04-07-24		19-07-24		12-07-24		28-06-24		06-08-24			
DOP				04-08-24		02-08-24		18-09-24		03-08-24		Drill Sowing		14-09-24			
Local Check Name				SHIATS-1		NDR 2064		CR Dhan 307		Tripura Chikan Dhan		PSB-68		RNR 15048			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.3: Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IM, Kharif 2024

Entry No	IET NO	Zone II-Northern									Zone II-Northern (3)		
		Haryana			Uttarakhand			Uttar Pradesh			Mean		
		Kaul			Pantnagar			Kanpur					
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
3801	32492	124	110	254	118	126	228	50	78	118	98	105	200
3802	32493	127	104	276	126	114	276	48	88	336	100	102	296
3803	32494	126	94	232	126	113	200	62	70	178	104	92	203
3804	32495	128	96	244	127	102	260	56	54	166	104	84	224
3805	32496	110	120	285	112	135	347	48	104	250	90	120	294
3806	32497	100	143	258	90	124	240	52	108	190	81	125	229
3807	32498	116	116	312	117	140	287	52	87	252	95	114	284
3808	32499	125	92	239	120	92	181	52	79	375	99	88	265
3809	31700	124	107	319	118	125	222	52	94	126	98	109	222
3810	32500	104	156	251	104	157	358	56	91	206	88	135	272
3811	32501	110	104	304	104	152	269	54	92	164	89	116	246
3812	32502				140	108	300	58	98	176	99	103	238
3813	32503	128	108	250	123	126	289	60	88	393	104	107	310
3814	32504	104	114	306	102	105	213	54	96	276	87	105	265
3815	NDR 359(NC)	102	112	304	104	106	152	47	74	164	84	97	207
3816	32505	119	106	243	128	118	286	58	72	170	102	99	233
3817	32506	98	122	312	89	110	255	49	93	310	79	108	292
3818	32507	111	124	302	118	120	168	48	90	168	92	111	213
3819	32508	127	108	248	118	125	285	58	96	247	101	110	260
3820	32509	104	122	294	104	102	204	54	101	251	88	108	250
3821	32510	106	128	278	110	125	326	58	92	206	91	115	270
3822	32511	100	118	236	102	135	273	54	123	388	86	125	299
3823	32512	123	122	222	122	134	320	54	107	183	100	121	241
3824	32513	104	136	266	104	128	248	57	102	226	88	122	247
3825	32514	128	112	227	127	136	204	60	94	186	105	114	206
3826	32515	107	109	284	101	119	232	56	90	334	88	106	283
3827	32516	99	115	257	90	115	229	46	103	226	78	111	237
3828	32517	100	112	236				52	78	174	76	95	205
3829	32518	126	128	224	128	140	320	60	90	188	105	119	244
3830	32519	107	98	293	105	101	330	55	78	323	89	92	315
3831	ZC	106	100	308	104	100	264	54	74	175	88	91	249
3832	32520				140	190	266	60	153	150	100	171	208
3833	32521	103	109	268	130	132	313	58	100	135	97	114	239
3834	32522	101	141	236	96	148	300	51	102	324	83	130	287
3835	32523	104	123	318	101	129	215	52	89	148	86	114	227
3836	31810	124	122	292	120	137	288	51	102	190	98	120	257
3837	32524	110	130	253	109	131	252	52	97	339	90	120	281
3838	32525	124	82	245	122	109	278	60	72	188	102	88	237
3839	32526	128	112	242	131	122	284	58	89	227	106	108	251
3840	32527	122	112	218	124	130	268	52	106	178	99	116	222
3841	32528	103	116	306	103	118	203	56	81	145	88	105	218
3842	32529	110	108	286	109	106	304	60	97	418	93	104	336
3843	32530	124	110	280	118	137	301	56	84	244	99	110	275
3844	32531	112	138	236	112	150	324	54	97	244	93	128	268
3845	32532	102	100	219	98	116	344	48	85	337	83	100	300
3846	32533	104	124	244	104	128	282	48	114	334	85	122	287
3847	32534	128	110	235	130	124	314	55	96	214	104	110	254
3848	32535	122	88	253	127	101	232	58	60	109	102	83	198
3849	32536	127	86	232	125	105	252	56	94	198	102	95	227
3850	32537	128	114	252	127	124	304	60	76	304	105	105	287
3851	32538	98	106	288	91	116	261	57	72	128	82	98	226
3852	32539	107	107	260				54	102	130	81	104	195
3853	32540	114	104	296	109	118	360	50	82	193	91	101	283
3854	32541	110	114	281	116	127	301	56	97	247	94	113	276
3855	32542	125	104	250				58	83	138	91	94	194
3856	32543	114	122	284	118	141	259	58	104	322	97	123	288
3857	32544	123	112	272	115	120	224	56	72	178	98	101	225
3858	32545	107	101	320	109	91	241	56	74	222	90	89	261
3859	32546	100	122	309	104	111	232	56	78	250	87	103	264
3860	32547	126	118	247	120	133	374	55	104	204	100	118	275
3861	32548	124	108	242	126	121	223	58	91	226	103	107	230
3862	32549	110	143	258	110	155	262	48	112	157	90	137	226
3863	32550	116	106	217	120	109	249	62	77	310	99	97	259
3864	LC	101	118	286	102	102	259	52	88	362	85	103	302
Experimental Mean		113	113	265	113	123	267	54	90	228	93	109	253
Standard Error		0.84			1.42			0.98			0.67		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IM, Kharif 2024

Entry No	IET NO	Zone III- Eastern											
		Bihar						Bihar (2)			Jharkhand		
		Bikramganj			Sabour			Mean			Ranchi		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
3801	32492	117	121	372	120	122	252	119	122	312	132	84	206
3802	32493	109	119	418	116	104	313	113	112	366	120	94	148
3803	32494	118	115	450	102	108	316	110	111	383	108	84	116
3804	32495	117	114	388	118	104	238	117	109	313	120	86	231
3805	32496	106	124	378	116	116	220	111	120	299	128	92	203
3806	32497	104	137	346	96	120	198	100	129	272	112	94	126
3807	32498	110	127	402	116	124	270	113	125	336	128	94	184
3808	32499	107	106	417	117	104	284	112	105	351	117	93	122
3809	31700	104	120	394	109	105	302	106	113	348	116	86	119
3810	32500	105	135	342	106	132	204	106	133	273	116	95	148
3811	32501	104	118	376	103	125	165	104	122	271	112	106	163
3812	32502	127	123	408	129	111	232	128	117	320	114	96	170
3813	32503	110	116	370	120	122	260	115	119	315	117	96	162
3814	32504	108	122	306	110	115	285	109	119	296	118	110	157
3815	NDR 359(NC)	102	116	392	100	96	232	101	106	312	114	90	186
3816	32505	121	120	372	126	110	334	124	115	353	126	92	202
3817	32506	103	111	328	94	102	252	99	107	290	120	98	160
3818	32507	104	119	415	115	112	299	110	116	357	120	87	160
3819	32508	112	120	374	114	118	179	113	119	277	114	89	188
3820	32509	102	120	380	100	114	242	101	117	311	124	92	200
3821	32510	109	127	400	106	104	245	108	116	322	128	99	182
3822	32511	108	137	365	98	128	192	103	132	279	122	84	213
3823	32512	110	125	452	116	122	310	113	124	381	108	102	140
3824	32513	105	127	348	101	106	204	103	116	276	118	90	164
3825	32514	120	127	388	128	132	238	124	130	313	118	88	249
3826	32515	104	112	376	105	98	242	104	105	309	114	100	148
3827	32516	101	127	414	107	103	246	104	115	330	114	86	168
3828	32517	102	127	396	113	112	225	108	120	310	128	95	151
3829	32518	118	120	450	122	130	300	120	125	375	120	98	155
3830	32519	107	115	391	119	100	288	113	107	339	134	93	140
3831	ZC	121	124	388	123	104	296	122	114	342	122	98	162
3832	32520	117	164	296	128	197	207	122	181	252	132	92	186
3833	32521	101	122	398	104	103	199	102	112	298	122	94	129
3834	32522	102	129	397	108	112	238	105	120	317	108	85	164
3835	32523	102	126	391	104	104	210	103	115	301	119	101	124
3836	31810	108	119	424	110	107	278	109	113	351	118	68	136
3837	32524	101	122	425	106	104	200	104	113	312	123	94	150
3838	32525	112	110	388	115	102	290	114	106	339	108	84	150
3839	32526	119	121	413	124	113	252	121	117	333	113	96	154
3840	32527	110	129	381	109	105	309	110	117	345	112	93	167
3841	32528	101	118	412	103	105	222	102	111	317	110	82	146
3842	32529	108	111	392	110	106	324	109	109	358	126	84	206
3843	32530	109	118	322	111	120	274	110	119	298	122	80	140
3844	32531	110	128	414	110	128	298	110	128	356	123	94	144
3845	32532	103	112	335	98	102	292	100	107	314	113	90	182
3846	32533	104	124	421	105	110	213	104	118	317	104	86	141
3847	32534	107	124	402	114	106	222	110	115	312	129	88	172
3848	32535	107	109	438	110	108	305	108	108	371	124	86	157
3849	32536	115	113	402	119	110	285	117	111	344	130	89	176
3850	32537	117	118	340	119	126	300	118	122	320	122	96	182
3851	32538	101	117	406	103	102	249	102	109	327	116	97	181
3852	32539	102	119	310	102	123	178	102	121	244	116	100	200
3853	32540	107	118	429	109	106	306	108	112	368	120	89	150
3854	32541	118	117	402	116	114	310	117	115	356	116	90	202
3855	32542	102	122	456	131	121	225	116	122	341	130	78	132
3856	32543	110	120	311	115	115	300	112	117	305	129	91	170
3857	32544	109	126	404	114	116	222	112	120	313	111	78	152
3858	32545	105	110	410	114	95	241	110	103	325	115	80	156
3859	32546	104	118	388	116	112	250	110	115	319	108	86	124
3860	32547	110	122	432	116	120	255	113	121	343	124	98	148
3861	32548	114	118	414	123	106	216	118	112	315	128	115	186
3862	32549	110	134	348	115	132	182	112	133	266	105	88	142
3863	32550	112	110	400	118	109	210	115	110	305	116	87	156
3864	LC	109	105	328	115	96	268	112	101	298	112	90	162
Experimental Mean		108	121	387	112	113	253	110	117	320	118	91	163
Standard Error		0			0.52			0.26			0.77		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IM, Kharif 2024

Entry No	IET NO	Zone III- Eastern											
		Odisha									Odisha (3)		
		Bhubaneswar			Jeypore			NRRI			Mean		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
3801	32492	114	112	222	103	90	224	114	126	274	110	109	240
3802	32493	104	96	189	104	89	268	110	110	302	106	99	253
3803	32494	115	101	217	116	80	228	116	105	266	116	95	237
3804	32495	115	102	260	114	85	310	110	107	300	113	98	290
3805	32496	105	102	180	98	95	262	111	112	236	105	103	226
3806	32497	96	116	183	107	98	302	110	119	205	104	111	230
3807	32498	110	108	204	114	98	298	115	123	188	113	110	230
3808	32499	108	92	252	104	91	318	110	100	251	107	94	274
3809	31700	83	96	253	104	67	218	99	102	222	95	88	231
3810	32500	108	142	242	98	111	315	114	160	189	107	138	249
3811	32501	99	112	261	104	94	257	103	108	282	102	105	267
3812	32502	119	108	207	115	91	316	118	121	206	117	107	243
3813	32503	107	104	214	102	93	358	121	117	272	110	105	282
3814	32504	97	104	232	103	86	268	108	114	194	102	101	232
3815	NDR 359(NC)	95	94	252	99	79	221	102	95	272	99	89	249
3816	32505	116	101	255	112	90	275	118	115	200	115	102	243
3817	32506	95	94	250	96	84	285	104	98	242	98	92	259
3818	32507	98	97	190	100	83	285	106	99	228	101	93	234
3819	32508	109	106	232	112	94	224	111	109	236	110	103	231
3820	32509	96	102	292	100	96	242	102	106	272	99	101	269
3821	32510	108	108	276	102	104	306	110	109	249	107	107	277
3822	32511	101	127	257	96	123	282	108	111	186	102	120	242
3823	32512	107	110	240	107	94	222	106	109	180	107	104	214
3824	32513	98	116	238	100	95	201	112	122	262	103	111	234
3825	32514	119	122	200	110	98	278	110	103	261	113	108	246
3826	32515	109	98	282	101	80	290	120	138	266	110	106	280
3827	32516	95	114	234	97	67	255	103	94	241	98	92	243
3828	32517	99	122	240	100	83	285	100	104	185	100	103	237
3829	32518	115	134	172	101	102	386	116	128	324	111	121	294
3830	32519	108	96	286	102	84	275	104	99	206	105	93	256
3831	ZC	120	116	243	116	100	248	116	121	292	117	112	261
3832	32520	109	166	178	102	115	295	119	157	290	110	146	254
3833	32521	96	104	286	110	96	313	110	128	248	105	109	282
3834	32522	94	112	219	104	96	242	101	113	222	100	107	227
3835	32523	96	108	274	103	90	228	102	105	258	100	101	253
3836	31810	105	114	252	98	90	345	103	107	256	102	104	284
3837	32524	95	-2	294	104	73	307	103	102	299	101	58	300
3838	32525	114	100	274	108	88	328	111	94	264	111	94	289
3839	32526	115	107	271	108	93	298	113	114	285	112	104	285
3840	32527	111	110	210	102	80	276	110	118	256	108	102	248
3841	32528	98	106	215	103	90	294	102	104	250	101	100	253
3842	32529	108	104	262	108	87	315	109	101	197	108	97	258
3843	32530	109	112	261	108	94	264	120	112	189	112	106	238
3844	32531	105	131	228	98	92	345	110	121	288	104	115	287
3845	32532	99	91	330	111	72	368	105	101	259	105	88	319
3846	32533	102	112	184	104	94	340	115	113	235	107	106	253
3847	32534	107	119	258	107	122	358	110	120	202	108	120	273
3848	32535	107	103	238	100	80	265	110	110	250	106	98	251
3849	32536	113	106	306	110	73	284	110	112	235	111	97	275
3850	32537	115	106	298	112	89	295	120	121	260	116	105	284
3851	32538	89	96	210	100	73	378	102	96	254	97	88	281
3852	32539	99	112	318	98	99	365				99	106	342
3853	32540	107	94	288	100	81	378	106	103	232	105	93	300
3854	32541	115	101	219	114	85	288	110	113	234	113	100	247
3855	32542	107	116	193	100	87	244				103	102	219
3856	32543	110	116	222	112	102	295	115	124	294	112	114	270
3857	32544	103	98	180	105	93	217	108	108	274	105	100	223
3858	32545	99	94	224	104	77	254	100	97	227	101	89	235
3859	32546	97	108	213	101	94	222	102	103	204	100	102	213
3860	32547	108	114	250	104	98	232	111	119	277	108	110	253
3861	32548	116	111	248	103	84	308	118	116	264	112	104	274
3862	32549	106	122	234	97	88	223	104	127	208	102	112	221
3863	32550	114	92	206	110	73	309	111	104	300	112	90	272
3864	LC	107	116	220	98	96	237	104	96	278	103	102	245
Experimental Mean		105	107	239	104	90	284	109	111	246	106	103	257
Standard Error		0.45			1.24			1.46			0.7		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IM, Kharif 2024

Entry No	IET NO	Zone III- Eastern									Zone III- Eastern (8)		
		West Bengal						West Bengal (2)			Mean		
		Malda			chinsurah			Mean			Mean		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
3801	32492	94	104	342	119	118	231	107	111	287	114	110	266
3802	32493	102	108	447	110	114	214	106	111	331	109	104	288
3803	32494	97	122	304	120	110	198	108	116	251	111	103	262
3804	32495	93	112	278	110	102	363	102	107	320	112	102	296
3805	32496	103	108	283	109	120	182	106	114	232	110	109	243
3806	32497	98	110	372	105	134	214	102	122	293	104	116	243
3807	32498	93	106	446	118	124	214	106	115	330	113	113	276
3808	32499	94	120	395	110	118	214	102	119	305	108	103	282
3809	31700	100	108	352	98	102	198	99	105	275	102	98	257
3810	32500	95	118	253	107	148	198	101	133	226	106	130	236
3811	32501	94	120	413	100	112	330	97	116	372	102	112	281
3812	32502	97	122	320	113	128	264	105	125	292	116	113	265
3813	32503	98	111	292	110	106	231	104	109	261	111	108	270
3814	32504	102	129	235	102	109	248	102	119	241	106	111	241
3815	NDR 359(NC)	93	104	448	102	102	231	98	104	340	101	97	279
3816	32505	102	110	358	120	108	182	111	109	270	118	106	272
3817	32506	104	105	298	101	104	182	102	104	240	102	100	249
3818	32507	95	109	312	102	111	280	99	110	296	105	102	271
3819	32508	93	112	371	109	124	214	101	118	293	109	109	253
3820	32509	98	104	388	97	114	198	98	109	293	102	106	277
3821	32510	102	110	282	102	118	330	102	114	306	108	110	284
3822	32511	94	108	364	104	116	198	99	112	281	104	117	257
3823	32512	96	106	442	108	123	214	102	114	328	107	111	275
3824	32513	100	104	356	100	125	214	100	114	286	104	111	249
3825	32514	92	116	374	116	130	214	104	123	294	114	115	275
3826	32515	97	112	388	106	106	214	102	109	301	107	106	276
3827	32516	104	117	402	102	109	248	103	113	325	103	102	276
3828	32517	99	111	358	104	118	182	101	115	270	106	109	253
3829	32518	101	111	294	118	142	314	109	126	304	114	121	299
3830	32519	91	120	298	106	108	214	99	114	256	109	102	262
3831	ZC	95	126	334	120	120	198	108	122	266	117	113	270
3832	32520	100	108	389	119	191	231	109	150	310	116	149	259
3833	32521	100	114	424	112	97	198	106	106	311	107	107	274
3834	32522	104	124	338	98	118	280	101	121	309	102	111	262
3835	32523	98	124	413	108	108	214	104	116	314	104	108	264
3836	31810	94	113	292	108	114	214	101	114	254	106	104	275
3837	32524	91	134	271	109	108	264	100	121	268	104	92	276
3838	32525	98	123	260	108	98	363	103	111	311	109	100	290
3839	32526	104	126	303	120	114	214	112	120	259	114	110	274
3840	32527	99	126	271	118	116	182	108	121	226	109	109	256
3841	32528	92	126	423	102	104	264	97	115	344	101	104	278
3842	32529	96	110	292	109	103	214	103	106	254	109	101	275
3843	32530	92	126	264	110	134	380	101	130	322	110	112	262
3844	32531	99	110	395	108	140	214	103	125	305	108	118	291
3845	32532	91	115	304	103	92	182	97	104	243	103	97	282
3846	32533	103	118	310	106	130	198	105	124	254	106	111	255
3847	32534	93	125	306	109	114	165	101	120	235	109	115	260
3848	32535	98	111	404	107	106	214	102	109	309	108	102	284
3849	32536	104	114	393	117	105	231	110	110	312	115	103	289
3850	32537	98	114	351	119	119	314	109	117	332	115	111	292
3851	32538	94	120	338	100	99	280	96	110	309	100	100	287
3852	32539	92	112	274	99	104	231	96	108	252	101	110	268
3853	32540	97	108	513	110	105	198	103	107	356	107	101	312
3854	32541	96	126	447	110	108	214	103	118	331	112	107	290
3855	32542	91	126	388	109	132	198	100	129	293	110	112	262
3856	32543	100	120	382	118	132	346	110	126	364	114	115	290
3857	32544	104	122	316	108	126	330	106	124	323	108	108	262
3858	32545	99	108	322	107	100	198	103	104	260	105	95	254
3859	32546	93	110	375	102	116	165	98	113	270	103	106	243
3860	32547	98	119	395	108	117	214	103	118	305	110	113	276
3861	32548	101	116	304	110	115	198	105	115	251	114	110	267
3862	32549	94	122	310	106	131	231	100	126	270	105	118	235
3863	32550	99	108	306	121	92	248	110	100	276	112	97	267
3864	LC	103	102	404	108	140	231	106	121	318	107	105	266
Experimental Mean		97	115	348	108	116	233	103	116	291	108	108	270
Standard Error		1.16			0.61			0.65			0.31		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IM, Kharif 2024

Entry No	IET NO	Zone IV-North Eastern			Zone V- Central								
		Assam			Chhattisgarh								
		Titabar			Raipur			Ambikhapur			Jagadalpur		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
3801	32492	124	113	228	104	130	272	114	106	196	110	110	275
3802	32493	118	117	251	98	121	278	106	101	220	109	102	233
3803	32494	122	100	252	108	125	236	98	100	202	117	98	248
3804	32495	123	97	252	106	129	240	106	98	196	110	95	278
3805	32496	116	110	242	100	120	277	98	106	190	104	110	265
3806	32497	115	110	246	86	136	194	88	115	176	92	112	246
3807	32498	124	114	258	101	139	188	104	119	210	110	108	310
3808	32499	118	88	261	100	116	240	98	105	197	110	96	282
3809	31700	102	116	238	90	133	162	94	106	204	105	102	247
3810	32500	116	130	298	90	155	202	92	127	194	97	142	250
3811	32501	117	112	246	90	127	274	92	112	191	99	119	260
3812	32502	131	107	280	120	138	334	106	102	198	125	107	298
3813	32503	127	120	280	102	127	247	102	107	195	108	106	226
3814	32504	61	114	260	104	128	257	92	107	210	98	105	248
3815	NDR 359(NC)	114	97	255	89	119	203	94	101	196	97	103	266
3816	32505	129	61	266	86	123	236	104	104	202	108	115	250
3817	32506	106	92	251	86	117	200	88	110	166	89	93	218
3818	32507	118	104	228	88	114	182	98	101	200	101	107	238
3819	32508	117	116	242	101	125	184	104	114	166	110	117	256
3820	32509	108	112	284	84	126	155	100	116	191	96	117	278
3821	32510	114	107	252	95	128	236	96	115	164	92	116	295
3822	32511	113	134	250	88	148	190	92	142	154	96	130	318
3823	32512	124	128	248	93	137	203	98	116	210	104	116	306
3824	32513	114	123	266	90	117	240	94	126	194	99	120	266
3825	32514	126	130	250	106	138	229	105	118	185	117	117	266
3826	32515	111	105	251	94	117	232	98	97	198	105	97	255
3827	32516	108	106	252	82	118	114	118	105	172	85	98	213
3828	32517	110	128	263	93	138	188	102	117	166	105	105	264
3829	32518	124	128	268	100	128	252	106	113	209	112	110	250
3830	32519	106	97	258	96	117	228	100	100	180	104	94	197
3831	ZC	123	111	256	93	114	190	98	95	191	99	87	186
3832	32520	122	169	238	112	191	182	96	153	154	125	161	346
3833	32521	116	108	244	93	111	274	98	106	202	107	118	261
3834	32522	105	114	289	84	142	220	88	129	208	84	111	282
3835	32523	114	113	262	88	135	190	92	114	188	98	116	292
3836	31810	116	122	260	92	124	256	98	111	190	101	112	250
3837	32524	114	104	266	90	123	189	106	111	183	99	112	306
3838	32525	124	99	255	98	109	217	102	101	185	110	107	278
3839	32526	128	111	272	110	126	299	113	112	188	117	116	300
3840	32527	122	105	225	102	129	223	114	110	205	110	108	312
3841	32528	114	107	268	90	117	154	96	107	206	100	107	260
3842	32529	127	97	238	96	118	264	100	104	238	100	107	278
3843	32530	118	111	263	100	132	256	106	111	198	108	111	244
3844	32531	116	122	257	90	141	191	98	119	198	104	126	280
3845	32532	110	99	252	90	123	214	95	93	206	96	100	242
3846	32533	116	116	283	100	124	260	100	113	205	56	118	206
3847	32534	118	110	262	102	139	235	102	112	220	107	119	285
3848	32535	119	97	233	100	114	189	100	93	178	110	104	240
3849	32536	118	106	236	104	118	207	103	102	192	117	108	294
3850	32537	127	116	218	104	132	294	106	111	192	117	111	318
3851	32538	108	94	258	84	107	140	102	100	174	85	92	196
3852	32539	110	122	284	84	136	216	86	107	168	96	105	222
3853	32540	117	100	248	100	109	190	100	97	215	105	94	237
3854	32541	119	114	256	102	125	240	102	109	201	107	104	266
3855	32542	119	117	258	100	136	178	103	117	161	110	117	302
3856	32543	121	131	256	102	128	272	98	116	176	105	110	302
3857	32544	118	115	260	96	118	238	104	106	186	106	124	301
3858	32545	109	101	246	94	103	252	100	98	212	104	98	244
3859	32546	114	97	250	88	124	178	98	107	176	101	104	276
3860	32547	122	116	271	100	136	290	98	118	198	110	114	298
3861	32548	124	102	268	102	127	290	98	102	194	110	95	240
3862	32549	122	135	258	91	144	263	94	134	198	101	126	314
3863	32550	118	98	274	105	109	244	108	94	190	117	94	246
3864	LC	110	132	254	102	124	240	148	112	180	96	107	295
Experimental Mean		116	111	256	96	126	225	100	109	192	103	109	265
Standard Error		6.34			1.13			6.43			5.69		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IM, Kharif 2024

Entry No	IET NO	Zone V- Central											
		Chhattisgarh (3)			Maharashtra						Maharashtra (2)		
		Mean			Sakoli			Sinde wahi			Mean		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3801	32492	109	115	248	114	124	247	118	97	270	116	111	258
3802	32493	104	108	244	106	113	250	106	110	338	106	112	294
3803	32494	108	108	228	116	107	137	122	98	234	119	102	186
3804	32495	108	107	238	110	99	262	112	86	286	110	92	274
3805	32496	101	112	244	104	130	268	110	106	255	107	118	261
3806	32497	89	121	205	96	130	231	96	133	281	96	132	256
3807	32498	105	122	236	106	128	138	112	109	242	108	119	190
3808	32499	103	106	239	106	100	210	112	104	312	109	102	261
3809	31700	96	114	204	102	132	272	100	105	292	101	118	282
3810	32500	93	141	215	102	150	228	108	128	286	106	139	257
3811	32501	94	120	242	100	144	222	98	121	248	99	132	235
3812	32502	117	116	276	126	139	270	128	108	322	127	124	296
3813	32503	104	113	223	110	120	224	120	81	208	115	100	216
3814	32504	98	113	238	96	138	262	96	106	286	96	122	274
3815	NDR 359(NC)	93	107	221	96	126	292	98	98	269	97	112	281
3816	32505	99	114	229	118	130	202	116	96	266	117	113	234
3817	32506	88	106	194	88	118	302	94	104	292	91	111	296
3818	32507	96	107	207	104	122	318	78	96	244	91	109	281
3819	32508	105	119	202	108	130	280	112	103	265	110	117	273
3820	32509	93	119	208	94	128	249	98	122	338	96	125	294
3821	32510	94	119	232	100	123	286	104	108	290	102	116	288
3822	32511	92	140	220	96	160	241	102	115	254	98	138	247
3823	32512	98	123	240	108	143	211	108	118	302	108	131	256
3824	32513	94	121	233	98	124	314	97	133	309	97	129	312
3825	32514	109	125	227	116	134	286	118	119	255	117	126	271
3826	32515	99	104	228	94	114	268	103	92	310	99	104	289
3827	32516	95	107	166	92	114	308	97	112	278	95	113	293
3828	32517	100	120	206	100	128	237	118	105	268	109	116	253
3829	32518	106	117	237	116	128	348	121	104	322	118	116	335
3830	32519	100	104	202	104	97	152	110	84	244	108	91	198
3831	ZC	97	98	189	102	94	221	108	97	270	106	96	245
3832	32520	111	168	227	126	181	258	122	148	257	124	165	257
3833	32521	100	112	246	98	132	274	118	104	258	108	118	266
3834	32522	85	127	237	94	144	234	90	131	296	92	138	266
3835	32523	93	122	224	98	131	287	101	116	274	99	124	280
3836	31810	97	116	232	104	124	252	108	108	256	106	116	254
3837	32524	98	115	226	100	95	220	104	109	284	102	102	252
3838	32525	104	105	227	108	102	308	110	94	282	109	98	295
3839	32526	114	118	263	118	123	332	120	109	243	118	116	287
3840	32527	108	116	247	108	116	286	112	118	284	110	117	285
3841	32528	95	111	206	96	110	237	100	113	334	98	112	285
3842	32529	98	109	260	100	93	263	106	85	298	103	89	280
3843	32530	104	118	233	108	122	268	109	111	276	108	116	272
3844	32531	98	129	223	104	142	299	109	129	226	107	135	263
3845	32532	94	105	220	94	124	358	102	84	276	98	104	318
3846	32533	85	119	224	96	130	278	101	108	258	98	119	268
3847	32534	104	123	247	108	114	288	110	118	272	108	116	280
3848	32535	103	104	202	106	110	209	110	95	280	108	102	245
3849	32536	108	109	231	114	120	188	120	107	255	117	114	222
3850	32537	109	118	268	118	118	249	118	96	223	118	107	236
3851	32538	90	100	170	88	99	338	90	98	272	90	98	305
3852	32539	89	116	202	96	124	219	94	105	226	96	115	223
3853	32540	102	100	214	106	104	310	110	81	305	108	92	308
3854	32541	104	113	235	104	125	268	111	116	262	108	121	265
3855	32542	104	123	214	109	131	233	112	111	232	110	121	232
3856	32543	102	118	250	106	119	378	110	108	296	108	114	337
3857	32544	102	116	242	108	125	268	110	108	302	109	116	285
3858	32545	99	100	236	100	96	232	104	101	306	102	98	269
3859	32546	96	111	210	100	122	268	103	86	239	101	104	254
3860	32547	103	123	262	108	131	284	108	128	334	108	130	309
3861	32548	104	108	241	114	120	286	108	97	306	112	108	296
3862	32549	95	135	258	100	163	240	104	112	261	102	138	250
3863	32550	110	99	226	110	100	283	120	76	308	115	88	296
3864	LC	115	114	238	106	110	294	104	96	340	105	103	317
Experimental Mean		100	115	228	104	122	261	107	106	277	106	115	269
Standard Error		2.3			0.48			0.43			0.35		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IM, Kharif 2024

Entry No	IET NO	Zone V- Central (5)			Zone VI- Western								
		Mean			Gujarat			Gujarat (2)			Mean		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3801	32492	112	113	252	106	146	212	125	126	284	116	136	248
3802	32493	105	110	264	102	138	174	121	104	284	112	121	229
3803	32494	112	105	211	102	133	264	126	110	278	114	121	270
3804	32495	109	101	252	83	141	224	126	110	276	105	125	250
3805	32496	103	114	251	95	164	252	120	114	278	107	139	266
3806	32497	92	125	226	90	172	233	104	134	272	97	153	252
3807	32498	106	121	218	100	134	278	122	122	282	111	128	280
3808	32499	105	104	248	92	158	224	122	100	268	107	129	246
3809	31700	98	116	235	98	146	238	108	113	274	104	129	256
3810	32500	98	140	232	90	175	249	110	149	271	100	162	260
3811	32501	96	125	239	90	152	209	104	118	266	98	135	238
3812	32502	121	119	284	116	131	277	136	113	268	126	122	272
3813	32503	108	108	220	102	131	252	122	113	278	112	122	265
3814	32504	97	117	253	87	139	272	102	111	286	94	125	279
3815	NDR 359(NC)	95	109	245				106	107	278	106	107	278
3816	32505	106	114	231	68	134	314	126	117	280	97	126	296
3817	32506	89	108	235	86	112	224	102	105	276	94	109	250
3818	32507	94	108	237	92	127	180	112	128	272	102	128	226
3819	32508	107	118	230	68	132	196	122	116	274	95	124	236
3820	32509	94	122	242	87	129	208	102	121	284	94	125	246
3821	32510	98	118	254	96	137	212	114	119	282	105	128	248
3822	32511	94	139	231	88	156	238	102	148	276	95	152	257
3823	32512	102	126	246	98	137	278	122	122	276	110	130	277
3824	32513	95	124	265	92	147	172	102	122	279	96	135	226
3825	32514	112	125	244	108	141	282	126	125	278	118	133	280
3826	32515	99	104	252	90	129	282	114	88	264	102	109	273
3827	32516	95	110	217	82	120	271	102	113	272	92	116	272
3828	32517	104	119	225	88	132	244	110	128	268	100	130	256
3829	32518	111	117	276	108	138	326	124	128	288	116	133	307
3830	32519	103	99	200	92	114	236	110	87	264	100	100	250
3831	ZC	100	97	212	97	156	208	106	125	280	102	141	244
3832	32520	116	167	239	118	207	158	106	143	264	112	175	210
3833	32521	103	114	254	90	124	232	102	118	280	96	121	256
3834	32522	88	132	248	82	151	189	102	133	272	92	142	231
3835	32523	96	122	246	90	143	262	102	113	288	96	128	275
3836	31810	101	116	241	91	127	208	116	116	278	104	122	243
3837	32524	100	110	236	92	132	222	108	103	267	100	117	245
3838	32525	106	102	254	100	98	162	122	98	276	111	98	219
3839	32526	116	117	272	104	127	218	124	116	284	114	122	250
3840	32527	109	116	262	105	139	240	122	116	279	114	127	260
3841	32528	96	111	238	89	110	236	106	113	284	98	112	260
3842	32529	100	101	268	92	112	192	108	104	280	100	108	236
3843	32530	106	117	249	104	129	222	122	118	286	112	124	254
3844	32531	101	131	239	89	144	242	122	136	288	105	140	266
3845	32532	96	105	259	86	107	218	104	93	273	95	100	245
3846	32533	90	119	241	94	135	194	104	133	266	98	134	230
3847	32534	106	120	260	102	131	186	122	115	280	112	123	232
3848	32535	105	103	219	97	105	194	126	90	274	111	98	234
3849	32536	112	111	227	95	120	228	122	104	274	108	112	251
3850	32537	112	114	255	104	135	186	124	120	289	114	127	237
3851	32538	90	99	224	81	117	232	102	98	278	91	107	255
3852	32539	92	116	210				104	120	256	104	120	256
3853	32540	104	97	252	93	125	194	118	104	286	105	115	240
3854	32541	105	116	247	92	132	264	118	113	278	105	122	271
3855	32542	107	122	221	101	133	122	122	143	272	112	138	198
3856	32543	104	116	285	100	139	162	122	125	282	112	132	222
3857	32544	105	116	259	96	126	234	122	112	280	109	119	257
3858	32545	100	99	249	90	100	222	104	102	278	97	101	250
3859	32546	98	108	227	86	120	258	106	105	284	96	112	270
3860	32547	105	125	281	100	131	223	120	120	278	110	126	251
3861	32548	107	108	263	100	128	308	122	112	274	111	120	291
3862	32549	98	136	255	94	156	248	112	146	276	103	150	262
3863	32550	112	95	254	108	122	242	122	93	278	115	108	260
3864	LC	111	110	270	86	120	242	110	98	276	98	109	259
Experimental Mean		102	115	244	94	134	228	114	115	276	104	125	253
Standard Error		1.42			1.11			0.09			0.56		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IM, Kharif 2024

Entry No	IET NO	Zone VI- Western									Zone VI- Western		
		Maharashtra						Maharashtra (2)			(4)		
		Karjat			Shirgaon			Mean			Mean		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
3801	32492	110	134	209	103	122	148	107	128	178	111	132	214
3802	32493	98	112	239	95	119	139	96	115	189	104	118	209
3803	32494	112	116	168	102	112	163	107	114	166	111	118	218
3804	32495	107	113	194	101	111	120	104	112	157	104	119	203
3805	32496	103	125	198	90	122	156	97	123	177	102	131	221
3806	32497	95	128	178	75	127	162	85	128	170	91	140	211
3807	32498	101	124	184	92	127	111	96	126	148	104	127	214
3808	32499	97	106	232	94	104	140	96	105	186	101	117	216
3809	31700	102	126	176	88	118	130	95	122	153	99	125	205
3810	32500	97	145	190	77	152	146	87	149	168	94	155	214
3811	32501	96	118	180	78	126	146	87	122	162	92	129	200
3812	32502	122	108	246	109	134	125	116	121	185	121	122	229
3813	32503	99	108	198	94	122	127	96	115	162	104	118	214
3814	32504	97	114	239	77	120	128	87	117	184	91	121	231
3815	NDR 359(NC)	90	114	163	77	120	142	84	117	152	91	114	194
3816	32505	114	124	190	102	122	143	108	123	166	102	124	232
3817	32506	96	98	216	74	107	130	85	103	173	89	106	212
3818	32507	100	120	218	82	109	163	91	114	190	96	121	208
3819	32508	102	122	194	91	120	118	97	121	156	96	122	196
3820	32509	96	122	168	78	120	124	87	121	146	91	123	196
3821	32510	93	132	202	79	117	123	86	125	163	96	126	205
3822	32511	91	142	186	80	140	101	86	141	144	90	146	200
3823	32512	98	141	204	89	128	147	93	135	176	101	132	226
3824	32513	97	123	198	81	120	124	89	122	161	93	128	193
3825	32514	114	140	159	109	141	122	112	141	140	115	137	210
3826	32515	95	113	179	82	109	128	89	111	154	96	110	213
3827	32516	96	107	210	74	120	175	85	114	192	88	115	232
3828	32517	99	123	238	70	97	190	85	110	214	92	120	235
3829	32518	112	139	204	102	141	210	107	140	207	112	137	257
3830	32519	92	106	248	84	114	136	88	110	192	94	105	221
3831	ZC	98	126	154	83	122	204	90	124	179	96	132	212
3832	32520	123	180	178	117	166	102	120	173	140	116	174	176
3833	32521	93	114	230	82	105	136	87	110	183	92	115	220
3834	32522	93	113	186	73	140	108	83	127	147	87	134	189
3835	32523	98	120	180	81	119	147	89	119	164	93	124	219
3836	31810	100	125	196	88	135	126	94	130	161	99	126	202
3837	32524	98	116	197	82	110	126	90	113	161	95	115	203
3838	32525	107	104	183	91	103	114	99	104	149	105	101	184
3839	32526	111	133	207	104	126	128	108	129	168	111	125	209
3840	32527	113	126	214	92	119	165	102	122	190	108	125	224
3841	32528	96	112	177	78	114	126	87	113	152	92	112	206
3842	32529	92	112	192	87	111	123	90	112	158	95	110	197
3843	32530	99	118	208	90	118	156	95	118	182	104	121	218
3844	32531	95	131	186	83	146	112	89	139	149	97	139	207
3845	32532	94	98	195	79	102	113	87	100	154	91	100	200
3846	32533	98	118	228	80	129	144	88	124	186	94	129	208
3847	32534	107	128	209	91	131	151	99	130	180	106	126	206
3848	32535	105	105	250	90	108	130	98	106	190	104	102	212
3849	32536	106	124	157	106	118	136	106	121	146	107	116	199
3850	32537	113	126	234	104	121	128	108	124	182	111	126	209
3851	32538	86	98	195	71	108	142	78	103	168	85	105	212
3852	32539	94	115	165	76	122	158	85	118	162	91	119	193
3853	32540	100	121	198	90	108	182	95	114	190	100	115	215
3854	32541	100	121	212	83	118	134	91	119	173	98	121	222
3855	32542	105	140	176	109	138	130	107	139	152	109	139	175
3856	32543	98	122	188	92	124	136	96	123	162	104	128	192
3857	32544	102	113	190	90	127	124	96	120	156	102	119	207
3858	32545	96	105	188	82	110	206	90	107	196	93	104	224
3859	32546	98	109	206	86	121	164	92	115	185	94	114	228
3860	32547	106	128	199	90	130	132	98	129	165	104	127	208
3861	32548	107	120	199	101	120	140	104	120	169	107	120	230
3862	32549	98	144	240	77	144	136	88	144	188	95	147	225
3863	32550	105	108	209	100	104	236	103	106	222	109	107	241
3864	LC	98	103	242	95	110	146	96	107	194	97	108	227
Experimental Mean		100	120	199	88	121	141	95	121	171	99	123	211
Standard Error		1.07			0.6			0.65			0.42		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.3 (Contd): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IM, Kharif 2024

Entry No	IET NO	Zone VII- Southern											
		Andhra Pradesh						Andhra Pradesh (2)			Karnataka		
		Maruteru			Ragolu			Mean			Gangavati		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
3801	32492	102	139	330	96	128	251	99	134	290	108	88	289
3802	32493	105	116	314	96	121	228	100	119	271	102	87	292
3803	32494	102	116	330	102	128	251	102	122	290	106	85	267
3804	32495	109	117	346	100	114	254	105	116	300	111	84	179
3805	32496	95	136	396	92	133	277	94	134	337	102	96	352
3806	32497	85	132	264	84	153	244	84	143	254	103	100	237
3807	32498	97	127	314	98	146	284	97	136	299	106	89	215
3808	32499	92	125	330	96	117	300	94	121	315	108	74	212
3809	31700	80	109	297	86	118	297	83	113	297	88	88	184
3810	32500	90	162	314	88	163	248	89	162	280	108	106	202
3811	32501	93	141	330	88	146	271	90	143	300	96	89	314
3812	32502	122	140	363	84	141	320	103	140	342	117	92	180
3813	32503	102	110	346	98	116	271	100	113	309	106	95	342
3814	32504	74	121	346	88	123	251	81	122	299	101	95	289
3815	NDR 359(NC)	92	104	363	88	114	228	90	109	295	96	98	306
3816	32505	109	136	346	102	112	224	106	124	285	112	87	320
3817	32506	75	104	314	80	111	218	77	108	266	104	88	238
3818	32507	92	113	396	90	122	228	91	117	312	102	86	281
3819	32508	98	126	346	98	123	238	98	125	292	110	88	189
3820	32509	81	128	330	84	127	287	82	127	309	101	100	348
3821	32510	94	135	314	90	135	284	92	135	299	106	96	322
3822	32511	88	139	314	86	150	228	87	145	271	100	103	169
3823	32512	97	149	346	98	132	294	98	140	320	108	90	276
3824	32513	92	126	346	88	127	264	90	126	305	109	84	196
3825	32514	105	145	346	104	128	289	104	137	318	112	84	328
3826	32515	93	86	264	90	108	256	92	97	260	110	74	154
3827	32516	78	119	280	82	120	257	80	120	269	106	86	162
3828	32517	92	111	297	88	143	251	90	127	274	102	104	304
3829	32518	105	143	363	102	140	257	103	141	310	111	94	281
3830	32519	94	104	314	94	107	287	94	105	300	112	74	199
3831	ZC	78	104	297	90	108	241	84	106	269	106	86	253
3832	32520	102	186	330	106	178	211	104	182	271	100	134	298
3833	32521	81	119	297	86	113	233	84	116	265	106	105	287
3834	32522	102	143	280	82	150	218	92	147	249	98	122	300
3835	32523	82	135	363	86	105	323	84	120	343	106	83	216
3836	31810	97	127	363	98	122	271	98	125	317	102	105	254
3837	32524	90	120	314	88	122	307	90	121	310	102	85	228
3838	32525	95	125	363	96	108	218	96	116	290	112	78	164
3839	32526	112	140	346	103	126	221	107	133	284	112	92	254
3840	32527	99	133	280	98	144	218	99	139	249	109	95	196
3841	32528	86	122	346	86	123	238	86	123	292	103	96	292
3842	32529	92	122	396	90	116	277	91	119	337	110	86	285
3843	32530	113	133	297	94	148	210	104	141	253	112	87	174
3844	32531	94	150	314	90	180	261	92	165	287	103	124	330
3845	32532	80	81	280	86	133	304	83	107	292	104	95	320
3846	32533	99	137	330	90	140	317	94	139	323	111	80	184
3847	32534	98	134	346	96	138	261	98	136	304	104	94	348
3848	32535	97	109	346	97	110	214	97	109	280	109	78	184
3849	32536	107	124	330	100	113	218	104	118	274	108	77	175
3850	32537	106	133	314	102	126	261	104	130	287	112	92	288
3851	32538	83	104	264	80	110	205	81	107	234	98	96	286
3852	32539	78	122	363	86	146	320	82	134	342	96	108	318
3853	32540	92	112	412	92	109	297	92	110	355	110	79	254
3854	32541	100	128	330	94	126	267	97	127	299	109	86	284
3855	32542	96	144	330	96	146	214	96	146	272	100	116	334
3856	32543	98	137	314	94	137	266	96	137	290	108	95	272
3857	32544	98	126	363	96	126	269	98	126	316	110	86	219
3858	32545	92	112	346	90	110	251	91	111	299	112	84	188
3859	32546	88	126	363	92	135	262	90	131	313	112	86	158
3860	32547	96	143	412	100	132	310	98	138	361	108	116	344
3861	32548	100	124	380	100	124	277	100	124	328	111	76	256
3862	32549	97	150	297	98	158	264	98	154	280	110	112	226
3863	32550	100	117	330	100	101	320	100	109	325	107	76	196
3864	LC	106	113	346	101	121	254	104	117	300	98	108	336
Experimental Mean		94	126	332	92	128	259	94	128	296	105	92	255
Standard Error		1.16			0.51			0.59			1.38		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IM, Kharif 2024

Entry No	IET NO	Zone VII- Southern											
		Karnataka						Karnataka (3)			Kerala		
		Brahmavar			Mandya			Mean			Pattambi		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3801	32492	124	86	400	104	109	337	112	94	342	110	99	216
3802	32493	109	72	360	96	99	360	102	86	337	100	103	392
3803	32494	132	61	388	117	102	354	118	83	336	110	96	302
3804	32495	124	75	389	116	88	374	117	82	314	110	86	230
3805	32496	118	93	400	102	106	377	108	98	376	98	93	302
3806	32497	106	113	366	100	117	302	103	110	302	94	91	288
3807	32498	130	94	366	104	104	381	113	96	321	104	104	378
3808	32499	124	71	387	120	81	336	117	75	312	110	92	489
3809	31700	131	86	398	90	96	333	103	90	305	94	79	158
3810	32500	114	107	378	98	121	357	106	111	312	100	103	510
3811	32501	134	102	348	94	116	381	108	102	348	98	102	486
3812	32502	136	78	320	118	109	357	124	93	286	102	122	324
3813	32503	121	84	371	100	107	313	109	95	342	102	105	378
3814	32504	133	100	388	98	102	367	111	99	348	93	83	306
3815	NDR 359(NC)	112	73	376	100	98	316	103	89	332	101	77	152
3816	32505	131	97	360	108	113	326	117	99	336	115	110	302
3817	32506	133	96	352	102	101	289	113	95	293	90	71	205
3818	32507	112	90	380	90	89	310	101	88	324	102	88	176
3819	32508	121	98	372	124	104	292	118	97	284	106	80	270
3820	32509	120	102	390	100	108	347	107	103	362	92	88	410
3821	32510	106	96	397	98	111	292	104	101	337	96	98	324
3822	32511	108	103	398	100	133	316	103	113	294	96	110	338
3823	32512	127	92	396	100	112	330	112	98	334	102	100	392
3824	32513	111	81	389	98	118	340	106	94	308	96	82	342
3825	32514	120	98	366	102	116	289	111	99	328	99	112	276
3826	32515	115	74	362	102	96	303	109	81	273	88	83	223
3827	32516	109	96	381	92	105	320	102	96	288	92	78	205
3828	32517	112	99	376	96	111	354	104	105	344	110	105	456
3829	32518	130	102	368	102	108	370	114	101	340	119	113	270
3830	32519	114	88	390	126	96	368	118	86	319	102	79	248
3831	ZC	112	80	406	101	103	330	106	90	330	93	73	399
3832	32520	130	88	418	99	155	326	110	125	348	102	90	275
3833	32521	114	86	379	99	114	302	106	102	323	98	88	342
3834	32522	137	102	360	90	109	340	108	111	333	94	95	496
3835	32523	111	94	390	96	111	313	104	96	306	94	94	356
3836	31810	111	84	398	93	104	323	102	98	325	103	100	232
3837	32524	111	97	368	94	96	357	102	93	317	94	80	313
3838	32525	126	73	392	124	88	360	121	80	306	105	76	302
3839	32526	131	76	397	98	107	391	114	92	347	106	102	238
3840	32527	126	102	406	102	102	343	112	99	315	102	96	188
3841	32528	138	91	408	116	105	310	119	97	336	94	80	216
3842	32529	126	97	378	101	101	357	113	95	340	98	92	471
3843	32530	120	98	381	99	115	340	110	100	298	99	203	352
3844	32531	124	90	386	94	110	306	107	108	340	105	112	252
3845	32532	139	80	380	102	95	354	115	90	351	96	62	180
3846	32533	139	81	406	99	105	300	116	88	297	96	94	309
3847	32534	120	99	386	94	102	326	106	98	353	104	112	396
3848	32535	119	75	410	104	92	360	111	82	318	110	80	227
3849	32536	123	92	366	112	97	336	114	89	293	114	95	299
3850	32537	125	86	379	103	111	347	114	96	338	113	100	209
3851	32538	126	71	388	93	98	360	106	88	345	90	78	396
3852	32539	131	99	369	96	119	336	108	109	341	92	96	512
3853	32540	112	81	387	108	91	360	110	84	334	102	85	457
3854	32541	116	82	388	102	109	306	109	92	326	106	96	432
3855	32542				100	116	316	100	116	325	106	106	424
3856	32543	108	82	372	107	106	347	108	94	330	110	106	248
3857	32544	121	81	380	106	102	316	112	90	305	118	97	338
3858	32545	112	82	397	119	92	330	114	86	305	92	68	180
3859	32546	106	93	376	104	106	320	108	95	284	94	82	316
3860	32547	120	102	388	101	114	296	109	111	343	104	102	234
3861	32548	121	102	412	101	106	326	111	95	332	100	96	294
3862	32549	114	87	388	98	123	320	107	107	311	100	94	252
3863	32550	122	115	379	116	85	344	115	92	306	107	91	446
3864	LC	121	88	357	112	122	334	110	106	342	112	86	349
Experimental Mean		121	89	382	102	106	334	110	96	324	101	94	316
Standard Error		1.22			1.23			0.72			1.76		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IM, Kharif 2024

Entry No	IET NO	Zone VII- Southern											
		Telangana						Telangana (2)			Tamil Nadu		
		Rajendranagar			Warangal			Mean			Coimbatore		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
3801	32492	112	102	540	107	131	306	110	117	423	112	110	402
3802	32493	105	101	574	107	128	308	106	114	441	98	85	390
3803	32494	114	103	370	111	128	345	112	115	358	118	110	358
3804	32495	116	101	634	110	120	332	114	110	483	115	97	410
3805	32496	111	102	573	97	131	312	104	117	442	112	114	505
3806	32497	103	104	414	88	131	284	96	118	349	103	115	365
3807	32498	114	103	440	106	138	307	110	120	374	112	108	375
3808	32499	111	87	430	105	113	334	108	100	382	110	95	430
3809	31700	103	98	460	97	117	289	100	107	374	92	86	348
3810	32500	109	123	593	98	162	298	103	142	446	114	137	478
3811	32501	105	103	544	96	123	294	100	113	419	102	107	448
3812	32502	128	99	480	121	142	294	124	120	387	126	111	308
3813	32503	109	98	490	105	127	302	107	113	396	106	89	348
3814	32504	103	102	480	92	131	326	97	116	403	102	86	345
3815	NDR 359(NC)	111	98	696	94	99	297	102	98	497	105	95	348
3816	32505	113	100	530	114	138	307	114	119	418	112	109	312
3817	32506	105	99	500	85	93	282	95	96	391	104	95	368
3818	32507	107	99	510	96	128	308	101	113	409	99	84	280
3819	32508	114	99	520	107	128	298	110	113	409	114	115	358
3820	32509	107	103	560	90	102	302	99	103	431	104	113	395
3821	32510	105	103	516	95	123	335	100	113	426	104	124	368
3822	32511	109	116	413	91	152	315	100	134	364	104	127	335
3823	32512	114	104	447	106	126	316	110	115	381	111	115	355
3824	32513	109	109	394	94	153	290	102	131	342	104	109	338
3825	32514	117	103	410	110	146	305	114	124	358	112	108	345
3826	32515	111	95	444	97	118	300	104	106	372	106	86	300
3827	32516	103	102	374	87	111	294	95	106	334	92	105	425
3828	32517	108	104	407	95	123	330	102	113	368	104	112	345
3829	32518	119	111	440	112	136	314	116	124	377	110	112	472
3830	32519	111	99	456	98	113	316	104	106	386	112	86	345
3831	ZC	107	102	577	92	99	332	100	100	454	106	97	390
3832	32520	109	126	554	123	174	308	116	150	431	117	152	322
3833	32521	109	103	500	94	122	298	102	113	399	106	107	372
3834	32522	103	118	434	90	130	288	96	124	361	92	105	342
3835	32523	109	104	544	95	132	294	102	118	418	110	105	385
3836	31810	109	104	480	102	133	302	106	118	391	100	117	390
3837	32524	107	102	443	97	119	306	102	110	374	103	86	295
3838	32525	117	92	424	106	115	306	112	103	364	116	84	355
3839	32526	121	104	506	114	128	307	118	116	407	122	108	338
3840	32527	116	102	610	109	126	272	113	114	441	112	109	445
3841	32528	118	103	484	95	118	292	106	111	388	112	106	410
3842	32529	117	100	687	100	127	315	108	114	501	108	98	358
3843	32530	118	103	444	103	133	316	111	118	380	108	94	320
3844	32531	111	119	673	102	149	312	106	134	492	106	107	438
3845	32532	107	91	543	93	111	324	100	101	433	102	75	308
3846	32533	107	104	466	97	137	324	102	121	395	104	114	438
3847	32534	109	109	540	108	142	318	109	126	429	104	109	348
3848	32535	119	94	494	104	118	314	112	106	404	104	87	308
3849	32536	117	100	520	110	122	308	114	111	414	115	96	332
3850	32537	117	105	484	110	136	299	114	120	391	112	107	320
3851	32538	105	98	414	84	101	284	94	99	349	94	95	370
3852	32539	104	105	604	87	119	277	96	112	440	92	96	380
3853	32540	114	91	614	100	112	308	107	101	461	110	95	498
3854	32541	114	104	524	103	136	288	108	120	406	112	105	295
3855	32542	113	107	476	83	117	312	98	112	394	104	112	368
3856	32543	111	102	447	106	138	294	108	120	370	114	104	348
3857	32544	112	103	384	102	138	317	107	121	350	112	94	310
3858	32545	111	99	583	96	109	327	104	104	455	110	83	428
3859	32546	107	102	470	96	123	289	101	112	380	110	99	392
3860	32547	114	108	493	110	143	320	112	126	406	106	106	362
3861	32548	114	103	550	108	123	286	111	113	418	106	97	428
3862	32549	109	122	414	100	153	300	104	137	357	104	118	320
3863	32550	119	94	503	106	113	334	113	103	418	114	87	442
3864	LC	109	95	506	105	127	308	107	111	408	114	108	332
Experimental Mean		111	102	500	100	127	306	106	115	403	107	103	370
Standard Error		1.78			0.67			1.01			0.79		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IM, Kharif 2024

Entry No	IET NO	Zone VII- Southern (9)			Maharashtra (4)			Overall Mean (30)		
		Mean			Mean			Mean		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
3801	32492	108	110	341	111	119	218	110	113	271
3802	32493	102	101	357	101	114	241	105	106	294
3803	32494	112	103	329	113	108	176	111	104	262
3804	32495	112	98	350	107	102	216	110	101	284
3805	32496	103	112	388	102	121	219	104	115	290
3806	32497	96	117	307	90	130	213	96	122	254
3807	32498	108	113	340	102	122	169	108	116	277
3808	32499	108	95	361	102	103	223	106	101	289
3809	31700	96	97	307	98	120	217	98	106	257
3810	32500	102	132	375	96	144	213	100	136	280
3811	32501	101	114	380	93	127	199	99	117	288
3812	32502	117	115	327	121	122	241	117	115	281
3813	32503	105	104	351	106	108	189	108	109	283
3814	32504	98	105	344	92	120	229	97	111	276
3815	NDR 359(NC)	100	95	342	90	114	217	97	100	276
3816	32505	113	111	337	113	118	200	111	109	275
3817	32506	97	95	307	88	107	235	95	101	264
3818	32507	99	100	319	91	112	236	99	106	264
3819	32508	110	107	320	104	119	214	107	112	262
3820	32509	98	108	374	92	123	220	97	112	287
3821	32510	99	114	350	94	120	225	101	115	286
3822	32511	98	126	314	92	139	195	97	129	266
3823	32512	107	113	350	101	133	216	105	119	282
3824	32513	100	110	322	93	125	236	99	117	266
3825	32514	109	116	328	114	133	206	112	120	269
3826	32515	101	91	289	94	107	221	101	102	268
3827	32516	94	102	300	90	113	243	95	106	263
3828	32517	101	112	347	97	113	233	100	113	272
3829	32518	112	118	348	113	128	271	112	121	298
3830	32519	107	94	325	98	100	195	103	98	270
3831	ZC	98	95	358	98	110	212	103	105	276
3832	32520	110	142	338	122	169	199	113	156	264
3833	32521	99	106	335	98	114	225	101	110	277
3834	32522	99	119	340	88	132	206	95	122	277
3835	32523	99	107	354	94	121	222	98	113	278
3836	31810	102	111	335	100	123	208	102	113	275
3837	32524	99	101	325	96	108	207	99	104	275
3838	32525	111	93	321	104	101	222	108	97	272
3839	32526	113	109	333	113	123	227	113	113	280
3840	32527	108	112	329	106	120	237	108	114	270
3841	32528	105	105	333	92	112	218	100	107	272
3842	32529	105	104	391	96	100	219	104	103	303
3843	32530	107	124	315	102	118	227	107	117	271
3844	32531	103	127	363	98	137	206	103	127	289
3845	32532	101	92	332	93	102	236	98	97	283
3846	32533	105	110	342	93	121	227	99	116	277
3847	32534	104	116	363	104	123	230	107	117	283
3848	32535	107	94	317	102	104	217	106	98	263
3849	32536	112	102	321	112	117	184	111	105	268
3850	32537	111	111	322	113	115	209	112	113	281
3851	32538	95	94	330	84	101	237	93	98	272
3852	32539	96	112	387	90	117	192	95	113	284
3853	32540	104	95	399	101	103	249	104	100	310
3854	32541	106	108	346	99	120	219	106	111	288
3855	32542	100	121	347	109	130	192	105	119	262
3856	32543	106	112	323	102	118	250	107	117	285
3857	32544	108	106	322	102	118	221	106	110	268
3858	32545	104	93	337	96	103	233	101	96	274
3859	32546	101	106	327	96	110	219	99	107	266
3860	32547	106	119	351	103	129	237	107	119	290
3861	32548	107	106	357	108	114	233	109	109	285
3862	32549	103	124	309	95	141	219	101	129	259
3863	32550	110	98	366	109	97	259	110	98	291
3864	LC	109	108	347	101	105	255	105	108	289
Experimental Mean		104	108	340	100	118	220	104	111	277
Standard Error			0.39			0.35			0.37	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IM, Kharif 2024 (Not considered)

Entry No	IET NO	ZONE II-NORTHERN			ZONE III-EASTERN						ZONE IV- NORTH EASTERN		
		Uttar Pradesh			Uttar Pradesh						Assam		
		@Nagina			@Prayagraj			@Masodha			@Gerua		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3801	32492	122	106	234	108	122	382	116	101	255	124	84	223
3802	32493	114	96	294	108	112	251	106	89	290	124	78	228
3803	32494	126	90	244	114	120	279	120	96	201	124	84	219
3804	32495	124	97	274	110	104	335	114	98	266	133	81	250
3805	32496	112	104	350	101	134	376	96	124	290	124	90	236
3806	32497	98	110	265	92	140	328	90	100	298	124	98	233
3807	32498	121	108	274	108	112	322	114	100	252	124	89	220
3808	32499	112	108	241	111	116	391	92	110	277	116	68	258
3809	31700	112	95	205	97	136	278	88	97	358	108	74	235
3810	32500	104	128	293	98	152	302	92	126	290	133	99	268
3811	32501	109	105	281	98	126	239	88	120	256	116	90	234
3812	32502	140	97	218	124	124	326	120	107	250	133	89	220
3813	32503	126	102	290	110	118	318	110	100	272	116	88	222
3814	32504	108	95	287	96	128	342	98	107	277	116	75	228
3815	NDR 359(NC)	102	99	278	98	117	268	90	90	306	116	76	226
3816	32505	131	105	241	120	124	336	116	96	304	124	89	224
3817	32506	94	97	323	90	112	474	92	90	326	124	66	200
3818	32507	114	94	261	99	120	272	90	102	312	116	82	216
3819	32508	124	93	274	108	106	297	108	110	278	124	92	217
3820	32509	108	98	304	92	128	316	90	100	317	116	84	206
3821	32510	108	106	312	108	115	246	88	101	298	124	83	237
3822	32511	102	128	248	96	148	332	90	122	309	124	107	206
3823	32512	122	107	280	108	122	335	90	116	320	133	89	244
3824	32513	104	108	290	100	143	279	104	88	271	124	86	200
3825	32514	132	108	265	112	125	318	116	108	252	133	88	214
3826	32515	103	95	290	101	113	314	90	106	391	124	72	250
3827	32516	100	108	261	98	136	314	90	106	396	124	82	228
3828	32517	102	117	241	100	135	310	92	116	337	116	93	226
3829	32518	130	110	294	115	144	307	116	112	279	124	98	231
3830	32519	114	86	211	105	118	286	92	90	321	116	72	246
3831	ZC	114	79	350	98	118	246	111	111	187	133	88	227
3832	32520	139	116	221	118	164	221	120	138	260	116	108	214
3833	32521	102	104	287	93	126	262	90	110	282	124	81	216
3834	32522	96	116	284	89	142	305	91	100	313	124	90	240
3835	32523	104	97	274	98	140	297	90	106	282	124	83	240
3836	31810	114	111	248	102	122	366	92	119	294	116	89	224
3837	32524	110	104	248	98	130	353	94	119	294	116	80	238
3838	32525	123	92	238	106	108	260	108	82	252	124	76	214
3839	32526	132	104	260	114	128	277	114	98	198	133	85	226
3840	32527	114	103	195	112	114	338	98	99	277	116	90	226
3841	32528	104	101	294	96	128	358	90	96	338	124	85	251
3842	32529	107	99	228	102	116	336	100	94	298	124	78	229
3843	32530	116	105	267	106	122	294	106	117	293	116	87	208
3844	32531	113	110	323	102	137	190	90	108	295	116	91	243
3845	32532	104	93	251	96	118	383	92	86	375	116	66	229
3846	32533	102	106	254	99	131	426	94	120	325	116	95	240
3847	32534	124	104	287	109	128	268	96	119	281	124	88	230
3848	32535	122	93	254	106	112	312	96	108	307	116	76	228
3849	32536	126	101	290	114	108	274	114	89	227	124	79	234
3850	32537	126	102	234	111	123	324	113	98	295	124	84	204
3851	32538	95	105	218	90	124	446	88	97	249	116	76	228
3852	32539	100	92	277	96	139	358	90	126	300	124	85	227
3853	32540	114	92	248	105	101	315	108	93	327	116	70	254
3854	32541	116	100	290	104	130	332	114	102	290	124	85	219
3855	32542	124	108	221	108	116	305	102	118	317			
3856	32543	115	103	320	107	130	310	114	118	310	124	90	220
3857	32544	120	98	241	106	118	204	96	106	290	116	85	223
3858	32545	113	93	274	103	112	315	98	90	330	116	70	223
3859	32546	104	100	290	96	126	289	97	100	298	116	78	212
3860	32547	123	113	304	107	129	336	96	100	256	116	86	232
3861	32548	124	96	257	109	98	277	112	91	212	124	85	264
3862	32549	108	111	201	102	142	307	96	98	238	116	96	238
3863	32550	123	98	261	107	110	558	114	74	275	124	73	256
3864	LC	102	99	241	105	117	287	92	134	284	116	84	218
Experimental Mean		113	102	266	103	124	315	100	104	289	121	84	228

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 6.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-IM, Kharif 2024 (Not considered)

Entry No	IET NO	ZONE IV- NORTH EASTERN			ZONE VII – SOUTHERN								
		Tripura			Karnataka						Tamil Nadu		
		@Lembucherra			@Mugad			@Kathalgerre			@Adutrai		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
3801	32492	106	112	334	106	59	17	84	94	357	102	92	281
3802	32493	118	104	200	106	48	13	68	88	385	104	88	284
3803	32494	108	102	250	124	52	20	92	100	371	104	94	306
3804	32495	108	86	316	106	52	19	82	84	315	102	114	268
3805	32496	106	100	334	118	59	20	72	84	378	103	116	256
3806	32497	106	100	375	106	74	18	68	101	343	100	103	300
3807	32498	106	109	316	114	64	22	76	92	336	104	124	324
3808	32499	105	103	275	118	56	18	72	68	350	101	102	388
3809	31700	108	90	266	100	58	16	60	71	385	103	102	268
3810	32500	106	106	316	108	92	22	72	102	364	101	106	290
3811	32501	120	106	466	106	87	18	66	90	350	103	84	370
3812	32502	102	117	325	133	82	20	93	96	448	101	84	278
3813	32503	106	106	308	108	66	18	72	85	462	104	96	338
3814	32504	108	111	484	112	75	22	72	91	497	102	93	230
3815	NDR 359(NC)	106	98	284	111	66	22	70	100	371	102	98	358
3816	32505	114	92	275	109	66	15	77	100	364	102	113	384
3817	32506	117	97	525	106	69	19	70	85	371	104	92	364
3818	32507	106	96	350	104	80	20	70	85	308	102	90	290
3819	32508	106	106	384	116	68	16	90	97	350	103	114	351
3820	32509	98	98	350	92	80	18	72	94	448	104	114	370
3821	32510	107	114	325	97	82	18	72	93	455	102	114	360
3822	32511	116	96	584	94	76	19	72	130	294	105	104	420
3823	32512	88	109	316	97	82	16	76	91	392	102	86	260
3824	32513	112	96	250	101	90	22	70	104	427	104	102	381
3825	32514	109	95	500	112	92	20	88	100	448	105	114	498
3826	32515	106	91	350	100	70	20	84	77	434	101	110	508
3827	32516	105	95	275	94	75	18	72	96	399	105	116	380
3828	32517	106	118	316	91	78	20	70	100	427	102	102	326
3829	32518	96	103	292	104	93	19	76	95	406	104	76	380
3830	32519	106	98	366	102	70	19	74	72	392	102	80	203
3831	ZC	115	90	284	100	91	20	72	90	413	102	80	194
3832	32520	108	105	250	108	100	20	70	130	392	104	112	304
3833	32521	107	101	266	106	80	21	72	98	343	104	110	332
3834	32522	114	84	300	97	82	16	66	106	462	102	124	332
3835	32523	106	87	275	92	70	20	72	94	357	106	92	227
3836	31810	107	82	300	95	74	20	70	93	357	103	71	195
3837	32524	107	99	300	97	71	20	72	100	448	102	94	306
3838	32525	114	97	316	100	68	19	86	79	322	104	93	300
3839	32526	106	105	342	106	86	16	82	94	441	106	83	219
3840	32527	116	95	258	109	80	19	86	101	441	104	94	306
3841	32528	107	108	300	112	66	22	72	90	336	106	84	272
3842	32529	110	98	250	102	66	20	72	87	413	104	94	318
3843	32530	104	108	325	106	70	20	76	100	336	104	114	404
3844	32531	102	112	266	97	88	18	70	122	427	102	90	304
3845	32532	105	93	292	97	63	20	70	87	392	104	82	282
3846	32533	103	98	334	78	70	20	67	90	434	100	82	240
3847	32534	107	107	366	101	85	18	68	100	308	102	86	307
3848	32535	114	100	250	97	60	20	72	89	350	102	84	276
3849	32536	108	107	275	113	76	21	88	91	371	100	84	340
3850	32537	108	108	484	106	70	20	92	99	308	104	114	370
3851	32538	107	105	308	102	62	18	66	85	406	102	95	267
3852	32539	108	115	366	96	68	22	68	100	469	104	94	458
3853	32540	108	121	384	108	65	18	72	76	420	103	94	348
3854	32541	105	104	350	106	66	18	82	98	343	104	112	382
3855	32542	104	86	225	109	70	20	69	85	322	103	114	242
3856	32543	108	112	284	110	59	20	72	99	287	104	124	302
3857	32544	112	106	292	114	56	18	72	97	357	102	96	330
3858	32545	108	87	342	110	54	17	70	76	434	105	90	342
3859	32546	114	84	158	110	60	18	74	95	343	102	83	258
3860	32547	106	112	392	106	63	20	72	99	392	100	116	318
3861	32548	120	140	366	108	63	20	70	86	413	104	102	275
3862	32549	105	103	300	104	68	16	72	127	364	103	103	232
3863	32550	107	96	308	102	52	14	76	77	427	105	93	386
3864	LC	108	100	425	104	70	20	68	102	448	102	93	325
Experimental Mean		107	101	325	104	71	18	74	93	385	102	98	317

Annual Progress Report 2024 Vol. I – Varietal Improvement

ADVANCE VARIETY TRIAL 2&1- IRRIGATED LATE

(AVT 2 & AVT 1-L)

Locations: 48

Test Entries: 17

Table: 7

Checks: Swarna (National), Pusa 44 (Northern), NDR 8002 (Eastern & Central), Ranjeet (North-Eastern), Salivahana (Western), Pushyami (Southern), PA 6444 - HC and Local check

Advance Variety Trial 2 & 1-Late (AVT 2 & 1-L) was constituted with 17 test entries including eight checks Swarna (National), Pusa 44 (Northern), NDR 8002 (Eastern & Central), Ranjeet (North-Eastern), Salivahana (Western), Pushyami (Southern), PA 6444 -HC and Local check. The 13 test entries included two entries in the third year of testing and 11 entries in the second year of testing. The trial was sent to 48 locations, data was received from 42 locations and 33 locations data was considered for analysis. The data about yield, days to 50% flowering, plant height, panicles/m², and quality are presented in Tables. **7.1, 7.2, 7.3 and 7.4.**

Zone-wise performance of

the entries Zone II

The trial was constituted of 7 entries *viz.*, one entry in the third year of testing, two entries in the second year of testing, and four checks. The trial was conducted at two locations *viz.*, Chata (Jammu & Kashmir) and Nagina (Uttar Pradesh). Data from both locations were utilized for further analysis. Mean grain yield of entries ranged from 3470 kg/ha (ZC) to 4997 kg/ha (Swarna -NC), days to 50% flowering ranged from 100 days (IET 29891) to 126 days (IET 31714). Among the checks, national check Swarna recorded the highest yield 4997 kg/ha. No test entry performed better than the best check, and therefore, none were promoted.

Zone III

The trial was constituted of 9 entries *viz.*, one entry was in the third year of testing, four entries in the second year of testing, and four checks. The trial was conducted at 11 locations, while data from Gorakhpur (3628 Kg/ha), Masodha (CV 2.08) and Chinsurah (F Val 1.82 ns) was not considered due to low experimental yield, CV and non-significant difference. Data from the remaining eight centers was considered for further analysis. Mean grain yield of entries ranged from 5030 kg/ha (IET 29891) to 7257 kg/ha (IET 31714); and days to 50% flowering ranged from 103 days (PA 6444 -HC) to 115 days (Local Check). Among the checks, the national check, Swarna recorded the highest grain yield of 6174 Kg/ha. Two Hybrid entries (IET 31709 and IET 31714) recorded required yield advantage over the best varietal and hybrid checks, and therefore, promoted to AVT 2. IET 31714 is promoted based on yield advantage, but final promotion will be made based on grain quality analysis.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Zone IV

The trial was constituted of 11 entries *viz.*, two entries in the third year of testing, five entries in the second year of testing, and four checks. The trial was conducted at three locations *viz.*, Gerua, Titabar and Lembucherra. Mean grain yield of entries ranged from 4189 kg/ha (IET 29891) to 6021 kg/ha (Local check); and days to 50% flowering ranged from 109 days (IET 29891 and PA6444) to 124 days (zonal check Pusa 44). Among the checks, local check recorded the highest yield of 6021 kg/ha. No test entries performed better than the best check, and therefore none were promoted.

Zone V

The trial was constituted of 7 entries *viz.*, one entry is in the third year of testing, two entries in the second year of testing, and four checks. The trial was conducted at 7 locations and data from one location, Waraseoni (F- 1.84) were not considered for analysis due to low F value. So, data from 6 locations were considered for analysis. Mean grain yield of entries ranged from 4851 kg/ha (Local check) to 6617 kg/ha (IET 31709); and days to 50% flowering ranged from 95 days (IET 29891) to 118 days (Zonal check). Among the checks, PA6444 (HC) recorded the highest grain yield of 5882 kg/ha. Two hybrid entries in the second year of testing IET 31709 (6617 kg/ha) and IET 31714 (6301 kg/ha) recorded required yield advantage over the best varietal and hybrid checks, and therefore promoted to AVT 2. IET 31714 is promoted based on yield advantage, but final promotion will be made based on grain quality analysis.

Zone VI

The trial was constituted of eight entries *viz.*, one entry is in the third year of testing, three entries in the second year of testing, and four checks. The trial was sent to six locations and data from all locations are considered for analysis. Mean grain yield of entries ranged from 4945 kg/ha (IET 29891) to 6365 kg/ha (IET 31686); and days to 50% flowering ranged from 104 days (Local check) to 121 days (IET 31714). Among the checks, PA 6664 (HC) recorded the highest grain yield of 5742 Kg/ha. Two hybrid entries in the second year of testing *i.e.*, IET 31686 (6353 kg/ha) and IET 31709 (6244 kg/ha) recorded required yield advantage over the best varietal and hybrid checks, and therefore promoted to AVT 2.

Zone VII

The trial was constituted of 11 entries *viz.*, one entry is in the third year of testing, six entries in the second year of testing, and four checks. The trial was sent to 13 locations and data from five locations *viz.*, Kathalagere (low CV - 0.5%), Pattambi (high CV – 38.54%), Kurumbapet (low CV – 2.92%), Karaikal (low and ns F value) and Aduthurai (low and ns F value) were not considered for analysis. Mean grain yield of entries ranged from 4545 kg/ha (IET 29891) to 7048 kg/ha (Zonal check); and days to 50% flowering ranged from 93 days (IET 29891) to 113 days (local check). The best check was zonal check Pusa 44 with a yield of 7048 kg/ha. No test entry performed better than the best varietal and hybrid checks, and therefore, none were promoted.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of the entries with required significant yield superiority over checks in AVT2 &1 Late during *kharif* 2024

IET No / Designation / Cross combination	Zonal performance-Yield (kg/ha); Rank						Promoted
	II	III	IV	V	VI	VII	
30882 (h)* (CRHR 166)	-	-	4388	-	-	-	3 years completed
29891 (R)* (MTU 1376)	4486	5030	4189	5119	4945	4545	
31686 (H) (PAN 21514)	-	-	5557	-	6353 (1)*#	-	VI
31709 (H) (PAN 21039)	4589	6611(2)*#	5476	6617(1)*#	6244(2)*#	6283(5)#	III, V, VI
31714 (H) (PHI-23104)	4965	7257(1)*#	5220	6301(2)*#	6086 (3*)	6299 (4)#	III, V,
ZC	3470	5649	5987	5271	5300	7048	
NC	4997	6174	5489	5433	5510	5191	
HC	4719	5330	5120	5882	5742	5762	
LC	4974	6040	6021	4851	5010	6259	
CD	547	363	999	416	433	378	
BC+CD	5544	6537	7020	5849	5943	7426	
HC+CD	5266	5693	6119	6298	6175	6140	

Performance of IET 29891 and 30882 (H) during three years of testing (2021-2024)

One varietal entry **IET 29891** has completed 4 years of testing (2021 to 2024) and one hybrid entry **IET 30882** completed three years of testing (2022-2024)..

IET 29891 (MTU 1376) derived from the cross MTU 2077 / WGL 3962 significantly outperformed the best varietal check in Zone VII for two years *ie.*, 1st year (7949*kg/ha) and 2nd year (8160* kg/ha) and Zone VI in second year (5512*). In the 3rd and 4th year it failed to show yield superiority in any zones **Hence, it is found not promising.**

IET 30882 (CRHR 166), a derivative of the cross CRMS 32A / CRL 123-122-21, significantly outperformed the best varietal check in Zone IV for first two years *ie.*, 1st year (6339*kg/ha) and 2nd year (6722* kg/ha). In the 3rd year it failed to show yield superiority in zone IV. Hence **It is found not promising..**

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of IET No. 29891 and IET 30882 entries

Entry	Year	ZII	ZIII	ZIV	ZV	ZVI	ZVII	Remark
IET 29891 (MTU 1376) Repeat	2021	-	4725	-	4433	6060	7949*	Not promising
	2022	4037	5205	5013	5679	5512*	8160*	
	2023	2987	5825	4558	5869	6039	5240	
	2024	4486	5030	4189	5119	4945	4545	
IET 30882 (H) (CRHR 166)	2022	-	7380*	6339*	5479	8145	7949	Not promising
	2023	3644	6739	6722*	6095	5781	5310	
	2024	-	-	4388	-	-	-	

Summary :

List of promising entries in AVT 1-L

Overall/Zones	Number of promoted entries	Entries promoted to AVT 2
Zone-II	None	-
Zone III	2	IET 31714 and IET 31709
Zone IV	None	-
Zone-V	2	IET 31709 and IET 31714
Zone-VI	2	IET 31686 and IET 31709
Zone VII	None	-

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 7.1: Composition of entries in Advance Variety Trial 2 & 1–Late (AVT 2 & 1 – Late) Kharif 2024

Entry No.	IET No.	Designation	Cross Combination	Zones	GT
3901	31678	Pusa 2082-40-3-19-1	Pusa 3039-4-12 / Pusa 1853-12-192	VII	LS
3902	31680	KJT 23-21-41	NPR 2 / NP 9534	VII	MS
3903	Swarna-NC			II to VII	SB
3904	31686 (H)	<i>PAN 21514</i>	<i>I2A / AN-5319</i>	VI	LS
3905	31689	RGL 7030 (MTU RM 403-15-1-1-1)	MTU 1226 / RP Bio 226	IV	MB
3906	Pusa 44 (Northern), NDR 8002 (Eastern & Central), Ranjeet (North Eastern), Salivahana (Western), Pushyami (Southern)-ZC			II to VII	
3907	31693	NLR 4021	MTU 1001 / RNR 19994	VII	MB
3908	31709 (H)	<i>PAN 21039</i>	<i>Hybrid</i>	II to VII	MS
3909	LC			II to VII	
3910	31714 (H)	<i>PHI-23104</i>	<i>Hybrid</i>	II to VII	MS
3911	PA 6444 -HC			II to VII	
3912	31715	OROI-12-IR 88250-20-1-1-3	Savitri / 2* IR 64- Sub 1	III	LS
3913	31726	CR 3856-44-22-2-1-11-4-2-4-1	IR 73963-86-1-5-2-2 / CR-2324-1	VII	SB
3914	31731	CR 4455-197-4-2-1	MTU 1010 / IR 132759-3-39-3	III	MS
3915	30882 (h)*	CRHR 166	CRMS 32A / CRL 123-122-21	IV	LS
3916	29891 (R)*	MTU 1376	MTU 2077 / WGL 3962	II to VII	LS
3917	31733	SVMM11	MTU 1010 mutant	IV	

*3rd year testing entries

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 7.2: Grain Yield (kg/ha) in AVT - 2 & 1 Late, Kharif 2024

Entry No	IET No	Zone II-Northern				Zone II-Northern (2)	
		Jammu & Kashmir		Uttar Pradesh		Mean	
		Chata		Nagina			
3903	Swarna(NC)		5	4997	1	4997	1
3906	ZC		5	3470	7	3470	7
3908	31709 (H)	5244	3	3933	5	4589	5
3909	LC	5484	1	4463	4	4974	2
3910	31714 (H)		5	4965	2	4965	3
3911	PA 6444(HC)	4556	4	4883	3	4719	4
3916	29891 (R)*	5356	2	3617	6	4486	6
Experimental Mean		5160		4332		4600	
CD(0.05)		977		739		547	
CV(%)		9.48		9.58		6.69	
F val		2.16 ns		7.47**		9.17**	
DOS		12-06-24		29-06-24			
DOP		09-07-24		30-07-24			
Local Check Name		SJR-5		Pusa 44			

Table No. 7.2 (Contd.): Grain Yield (kg/ha) in AVT - 2 & 1 Late, Kharif 2024

Entry No	IET No	Zone III- Eastern											
		Bihar		Jharkhand		Odisha				Odisha			
		Bikramganj		Ranchi		Bhubaneswar		NRRI		Chiplima		Jeypore	
3903	Swarna(NC)	8193	2	5044	7	5920	2	5383	5	3211	8	7456	3
3906	ZC		8	4867	9		8		8	4340	4	7188	4
3908	31709 (H)	7351	5	5222	5	5858	3	7549	2*	4395	3	6760	5#
3909	LC	7919	3	4911	8	4947	6	5989	4	3616	7	8228	2
3910	31714 (H)	10246	1*	5911	2*	5760	4	7890	1*	3974	6	8383	1#
3911	PA 6444(HC)		8	5844	3		8		8	4748	1	5529	8
3912	31715	7135	6	5844	3	5147	5	7084	3	4493	2	5106	9
3914	31731	7383	4	5978	1*	6080	1	5237	6	4308	5	6008	6
3916	29891 (R)*	6291	7	5156	6	4107	7	3409	7	3211	8	5659	7
Experimental Mean		7788		5420		5403		6077		4033		6702	
CD(0.05)		847		837		489		1098		629		1122	
CV(%)		6.11		8.92		5.08		10.15		9.01		9.68	
F val		20.41**		2.77*		19.97**		19.41**		7.24**		10.22**	
DOS		18-06-24		28-06-24		05-07-24		07-06-24		05-07-24		07-06-24	
DOP		18-07-24		30-07-24		31-07-24		01-08-24		11-08-24		05-07-24	
Local Check Name		Rajendra Mahasuri		Swarna		Kalinga dhan 1501		CR DHAN 404		Pratikshya937090		Hasanta	

Table No. 7.2 (Contd.): Grain Yield (kg/ha) in AVT - 2 & 1 Late, Kharif 2024

Entry No	IET No	Zone III- Eastern								Zone III- Eastern	
		Odisha (4)		West Bengal			West Bengal (2)			(8)	
		Mean		Malda		Bankura	Mean			Mean	
3903	Swarna(NC)	5493	5	5711	4	8471	4	7091	3	6174	3
3906	ZC	5764	3	6200	3		8	6200	7	5649	7
3908	31709 (H)	6140	2*#	7917	1*#	7840	5	7878	2#	6611	2*#
3909	LC	5695	4	4133	9	8580	3	6357	5	6040	5
3910	31714 (H)	6502	1*#	7278	2#	8615	2	7946	1#	7257	1*#
3911	PA 6444(HC)	5139	8	5200	6		8	5200	9	5330	8
3912	31715	5457	6	4633	8	7579	6	6106	8	5878	6#
3914	31731	5408	7	5183	7	8978	1	7081	4#	6144	4#
3916	29891 (R)*	4096	9	5356	5	7051	7	6203	6	5030	9
Experimental Mean		5522		5735		8159		6674		6013	
CD(0.05)		328		1567		872		1016		363	
CV(%)		3.44		15.79		6.01		8.79		3.49	
F val		37.82**		5.43**		5.86**		7.03**		30.08**	
DOS				19-06-24		10-07-24					
DOP				20-07-24		05-08-24					
Local Check Name				Kanak		Sampriti					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 7.2 (Contd.): Grain Yield (kg/ha) in AVT - 2 & 1 Late, Kharif 2024 (Not considered)

Entry No	IET No	Zone III- Eastern					
		Uttar Pradesh				West Bengal	
		@Gorakhpur		@Masodha		@Chinsurah	
3903	Swarna(NC)	3039	5	6124	2	5096	7
3906	ZC	2859	6	6091	3		8
3908	31709 (H)	2673	9	5391	7	5905	4
3909	LC	5338	1	5535	5	5590	5
3910	31714 (H)	2805	7	4995	9	6265	1
3911	PA 6444(HC)	4956	3	5185	8		8
3912	31715	2691	8	6170	1	6169	3
3914	31731	3270	4	5922	4	6228	2
3916	29891 (R)*	5018	2	5415	6	5412	6
Experimental Mean		3628		5648		5809	
CD(0.05)		547		204		1038	
CV(%)		8.72		2.08		10.05	
F val		38.09**		41.89**		1.82ns	
DOS		12-06-24		29-06-24		20-06-24	
DOP		20-07-24		05-08-24		01-08-24	
Local Check Name		Samba Sub-1		Sambha Mahsuri-Sub 1		Kaushalya	

Table No. 7.2 (Contd.): Grain Yield (kg/ha) in AVT - 2 & 1 Late, Kharif 2024

Entry No	IET No	Zone IV-North Eastern									
		Assam				Assam (2)		Tripura		Zone IV-North Eastern (3)	
		Gerua		Titabar		Mean		Lembucherra		Mean	
3903	Swarna(NC)	6750	1	4659	9	5704	5	5059	9	5489	5
3904	31686 (H)	3647	8	6455	3	5051	8	6570	1	5557	4
3905	31689	6240	3	5274	7	5757	4	5559	7	5691	3
3906	ZC	6240	3	6000	5	6120	1	5722	6	5987	2
3908	31709 (H)	3553	9	7037	1#	5295	6	5837	5	5476	6
3909	LC	6413	2	5157	8	5785	2	6493	2	6021	1
3910	31714 (H)	4040	6	6492	2#	5266	7	5130	8	5220	7
3911	PA 6444(HC)	4007	7			4007	10	6233	3	5120	8
3915	30882 (h)*	2200		6138	4#	4169	9	4826	10	4388	10
3916	29891 (R)*	2463	10	3900	10	3182		6204	4	4189	
3917	31733	5840	5	5688	6	5764	3	2022		4517	9
Experimental Mean		4672		5680		5100		5423		5241	
CD(0.05)		1716		795		1167		1425		999	
CV(%)		21.56		8.16		13.44		15.42		11.19	
F val		8.21**		12.51**		5.47**		6.92**		3.46*	
DOS		14-06-24		27-06-24				13-07-24			
DOP		19-07-24		25-07-24				02-08-24			
Local Check Name		Ranjit		Ranjit				Gomati			

Table No. 7.2 (Contd.): Grain Yield (kg/ha) in AVT - 2 & 1 Late, Kharif 2024

Entry No	IET No	Zone V- Central																	
		Chhattisgarh						Chhattisgarh (4)		Maharashtra		Maharashtra (2)	Zone V- Central (6)						
		Ambikhapur		Bilaspur		Jagadapur		Raipur		Mean		Sakoli	Sindewahi	Mean	Mean				
3903	Swarna(NC)	5373	1	5550	7	4686	6	7118	1	5682	3		7	4437	5	4437	7	5433	4
3906	ZC	4276	6	5583	5	5392	2	5177	6	5107	5	5778	5	5420	3	5599	5	5271	5
3908	31709 (H)	5154	2	7547	2#	7117	1#	6583	2	6600	1#	6156	4	7147	2*	6651	3*	6617	1#
3909	LC	3640	7	5583	5	4707	5	5529	5	4865	6	5222	6	4423	6	4823	6	4851	7
3910	31714 (H)	4638	4	7767	1#	4554	7	6392	3	5838	2	7244	2*	7213	1*	7229	2*	6301	2#
3911	PA 6444(HC)	4605	5	6587	3	4907	3	5912	4	5503	4	7400	1		7	7400	1	5882	3
3916	29891 (R)*	4956	3	6133	4	4717	4	3276	7	4771	7	6311	3	5320	4	5816	4	5119	6
Experimental Mean		4663	6393	5154	5713	5481	6352	5660	5993	5639									
CD(0.05)		673	808	1385	699	453	899	1539	956	416									
CV(%)		8.11	7.1	15.11	6.88	4.65	7.78	14.94	8.97	4.15									
F val		7.09**	12.97**	4.07*	30.77**	18.83**	8.69**	6.56**	13.7**	23.06**									
DOS		03-07-24	15-06-24	14-06-24	27-06-24		14-06-24	26-06-24											
DOP		03-08-24	05-07-24	04-07-24	18-07-24		19-07-24	06-08-24											
Local Check Name			KarmaMah	CG1919	Chhattisgarh Dhan 1919		SAKOLI-8	PDKV Tilak											

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 7.2 (Contd.): Grain Yield (kg/ha) in AVT - 2 & 1 Late, Kharif 2024 (Not considered)

Entry No	IET No	Zone V- Central	
		Madhya Pradesh	
		@ Waraseoni	
3903	Swarna(NC)	6679	
3906	ZC	5195	
3908	31709 (H)	4667	
3909	LC	5891	
3910	31714 (H)	5683	
3911	PA 6444(HC)	5455	
3916	29891 (R)*	5227	
Experimental Mean		5542	
CD(0.05)		1444	
CV(%)		14.65	
F val		1.84	
DOS		28-06-24	
DOP		30-07-24	
Local Check Name		MTU7029	

Table No. 7.2 (Contd.): Grain Yield (kg/ha) in AVT - 2 & 1 Late, Kharif 2024

Entry No	IET No	Zone VI- Western									
		Gujarat				Gujarat (2)		Maharashtra			
		Navasari		Nawagam		Mean		Phondaghat		Shirgaon	
3903	Swarna(NC)	6605	1	3445	8	5025	5	6551	4	3852	6
3904	31686 (H)	5868	3	6509	3**	6189	3**	7403	2**	3687	8
3906	ZC	3682	7	4180	6	3931	8	5968	5	5387	3
3908	31709 (H)	5418	4	7370	1**	6394	2**	7593	1**	3736	7
3909	LC	4349	6	4242	5	4296	6	4843	7	5771	1
3910	31714 (H)	6173	2	7025	2**	6599	1**	7361	3**	5479	2
3911	PA 6444(HC)		8	4090	7	4090	7	5718	6	5268	4
3916	29891 (R)*	5096	5	6147	4**	5622	4#	4019	8	3976	5
Experimental Mean		5313		5376		5268		6182		4645	
CD(0.05)		1002		1181		974		590		712	
CV(%)		10.6		12.55		10.56		5.45		8.76	
F val		10.03**		15.71**		11.35**		44.35**		14.81**	
DOS		13-06-24		19-06-24				08-06-24		11-06-24	
DOP		09-07-24		25-07-24				02-07-24		29-06-24	
Local Check Name		Masuri		GAR 22				Karjat-2		Ratnagiri 8	

Table No. 7.2 (Contd.): Grain Yield (kg/ha) in AVT - 2 & 1 Late, Kharif 2024

Entry No	IET No	Zone VI- Western							
		Maharashtra				Maharashtra (4)			
		Vadgaonmaaval		Karjat		Mean		Mean	
3903	Swarna(NC)	6453	4	6155	4	5753	6	5510	5
3904	31686 (H)	7479	2*	7171	1	6435	1	6353	1**
3906	ZC	6375	5	6209	3	5985	4	5300	6
3908	31709 (H)	7807	1*	5541	5	6169	2	6244	2**
3909	LC	5342	7	5513	6	5367	7	5010	7
3910	31714 (H)	5030	8	5451	7	5830	5	6086	3*
3911	PA 6444(HC)	7220	3	6414	2	6155	3	5742	4
3916	29891 (R)*	5636	6	4794	8	4606	8	4945	8
Experimental Mean		6418		5906		5787		5649	
CD(0.05)		821		1082		474		433	
CV(%)		7.31		10.46		4.68		4.37	
F val		14.42**		4.2**		13.52**		14.7**	
DOS		01-07-24		13-06-24					
DOP		07-08-24		10-07-24					
Local Check Name		KJT-2		KJT-2					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 7.2 (Contd.): Grain Yield (kg/ha) in AVT - 2 & 1 Late, Kharif 2024

Entry No	IET No	Zone VII- Southern													
		Andhra Pradesh			Andhra Pradesh (2)		Karnataka				Karnataka (3)				
		Maruteru	Ragolu		Mean		Gangavati	Mugad	Mandya	Mean					
3901	31678	5591	7	7181	9	6386	9	7264	3	4779	10	6713	6	6252	5
3902	31680	6982	2	7801	6	7391	2	6837	6	6543	3	6725	5	6702	3
3903	Swarna(NC)			8065	4	8065	1	6254	9	6251	5	3252	10	5253	
3906	ZC	6151	4	7097	10	6624	8	8826	1	6032	6	7659	2	7506	1
3907	31693	4447	9	8116	1	6282	10	6631	7	6371	4	5593	7	6198	6
3908	31709 (H)	5662	6	8028	5	6845	5	6879	5	7063	2#	6999	4	6980	2#
3909	LC	6018	5	7301	8	6660	7	6437	8	4233		9259	1	6643	4
3910	31714 (H)	5532	8	8069	3	6801	6	5391	10	7237	1#	4716	9	5782	9
3911	PA 6444(HC)	6508	3	8106	2	7307	4			5105	9	7150	3	6127	7
3913	31726	7076	1*	7694	7	7385	3	8593	2	5344	8	2616		5518	10
3916	29891 (R)*	3799	10	4824		4312		7186	4	5721	7	4994	8	5967	8
Experimental Mean		5777		7480		6732		7030		5880		5971		6266	
CD(0.05)		893		742		542		1198		1516		880		729	
CV(%)		9.01		5.83		4.72		9.93		15.14		8.65		6.83	
F val		11.88**		14.62**		27.24**		6.57**		3.38**		43.33**		7.07**	
DOS		08-07-24		02-07-24				26-07-24		22-06-24		05-07-24			
DOP				31-07-24				17-08-24				02-08-24			
Local Check Name		MTU1319		MTU 1318				BPT 5204		Abhilasha		Rajamudi			

Table No. 7.2 (Contd.): Grain Yield (kg/ha) in AVT - 2 & 1 Late, Kharif 2024

Entry No	IET No	Zone VII- Southern									
		Telangana			Telangana (2)		Tamil Nadu		Zone VII- Southern (8)		
		Rajendranagar	Warangal		Mean		Coimbatore		Mean		
3901	31678	5786	5#	6981	3	6384	3#	6248	5#	6318	3#
3902	31680	5980	3#	7188	2	6584	2#	7936	1#	6999	2#
3903	Swarna(NC)	3429		4406	8	3917	10	4681	8	5191	10
3906	ZC	6802	2	7561	1	7181	1	6259	4	7048	1
3907	31693	4976	7	5886	4	5431	5#	5392	7#	5926	7
3908	31709 (H)	5972	4#	4189	9	5081	6#	5476	6#	6283	5#
3909	LC	5131	6	4881	6	5006	7	6813	3	6259	6
3910	31714 (H)	7508	1#	4880	7	6194	4#	7054	2#	6299	4#
3911	PA 6444(HC)	4250	8			4250	9	3450	10	5762	8
3913	31726	3909	9	5782	5	4845	8	4643	9	5707	9
3916	29891 (R)*	3690	10	4016	10	3853		2126		4545	
Experimental Mean		5221		5577		5339		5462		6031	
CD(0.05)		993		1034		631		1440		378	
CV(%)		11.17		10.81		6.94		15.48		3.68	
F val		15.42**		14.07**		27.55**		11.84**		32.53**	
DOS		24-06-24		13-06-24				06-06-24			
DOP		23-07-24		09-07-24				03-07-24			
Local Check Name		RNR 11718		WGL 44 (Siddi)				CO 56			

Table No. 7.2 (Contd.): Grain Yield (kg/ha) in AVT - 2 & 1 Late, Kharif 2024 (Not considered)

Entry No	IET No	Zone VII- Southern									
		Karnataka		Kerala		Puducherry			Tamil Nadu		
		@Kathalger		@Pattambi		@Kurumbapet		@Karaikal		@Adutrai	
3901	31678	5733	4	6096	7	10733	6	4733	5	5081	2
3902	31680	5439	6	7752	3	11844	4	4333	9	4301	7
3903	Swarna(NC)	5838	3	8472	1	9333	8	4544	7		9
3906	ZC	4879	10	8448	2	6852	10	5478	2	5188	1
3907	31693	5508	5	6816	6	17180	2	4011	10	4516	6
3908	31709 (H)	5251	7	5256	9	9603	7	3978		4570	5
3909	LC	7698	1	7392	4	12484	3	5689	1		9
3910	31714 (H)	5248	8	3024	10	18005	1	4767	4	4731	3
3911	PA 6444(HC)	5034	9	1776		11503	5	4589	6		
3913	31726	6080	2	6936	5	9299	9	5200	3	4677	4
3916	29891 (R)*	4679		5661	8	5037		4489	8	4269	8
Experimental Mean		5581		6148		11079		4710		4667	
CD(0.05)		48		4036		552		1430		633	
CV(%)		0.5		38.54		2.92		17.83		7.74	
F val		2540.74**		2.45*		431.26**		1.3ns		2.53ns	
DOS		06-08-24		09-06-24		10-07-24		02-09-24		29-07-24	
DOP		14-09-24		09-07-24		10-08-24		07-10-24		29-08-24	
Local Check Name		RNR-15048		Karuna		CR-1009 Sub-1		CR1009		ADT 51	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 7.3: Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT - 2 & 1 Late, Kharif 2024

Entry No	IET No	Zone II-Northern						Zone II-Northern (2)		
		Jammu & Kashmir			Uttar Pradesh			Mean		
		Chata			Nagina					
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3903	Swarna(NC)				117	89	372	117	89	372
3906	ZC				125	90	349	125	90	349
3908	31709 (H)	130	92	298	118	94	375	124	93	336
3909	LC	121	101	298	107	94	316	114	98	307
3910	31714 (H)				126	99	305	126	99	305
3911	PA 6444(HC)	122	102	301	103	103	343	112	103	322
3916	29891 (R)*	111	100	315	90	94	340	100	97	328
Experimental Mean		121	98	303	112	94	342	117	96	331
Standard Error		0.29			0.58					

Table No. 7.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT - 2 & 1 Late, Kharif 2024

Entry No	IET No	Zone III- Eastern														
		Bihar			Jharkhand			Odisha								
		Bikramganj			Ranchi			Bhubaneswar			NRRI			Chiplima		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3903	Swarna(NC)	128	114	318	117	102	182	115	121	189	128	112	253	87	103	233
3906	ZC				98	107	138							86	103	193
3908	31709 (H)	119	135	291	115	105	158	105	119	169	124	129	352	88	102	231
3909	LC	123	130	328	118	105	212	122	140	176	121	134	242	86	100	220
3910	31714 (H)	122	125	360	120	104	226	112	131	194	124	131	264	86	101	180
3911	PA 6444(HC)				102	101	220							87	103	207
3912	31715	127	113	337	111	99	186	107	106	189	128	123	374	85	96	173
3914	31731	126	119	322	110	103	260	105	100	257	123	118	330	89	99	192
3916	29891 (R)*	125	100	333	95	93	270	79	123	214	126	99	242	101	98	179
Experimental Mean		124	119	327	109	102	205	106	120	198	124	120	293	88	100	200
Standard Error		0.31			0.51			0.57			0.49			1.42		

Table No. 7.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT - 2 & 1 Late, Kharif 2024

Entry No	IET No	Zone III- Eastern															Zone III- Eastern (8)		
		Odisha			Odisha (4)			West Bengal						West Bengal (2)			Mean		
		Jeypore			Mean			Malda			Bankura			Mean					
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3903	Swarna(NC)	125	95	297	114	108	243	108	105	418	96	117	431	102	111	424	113	109	290
3906	ZC	122	113	359	104	108	276	112	104	453				112	104	453	104	107	286
3908	31709 (H)	122	112	404	110	115	289	107	111	451	94	131	355	100	121	403	109	118	301
3909	LC	122	114	418	113	122	264	116	104	309	110	143	283	113	124	296	115	121	273
3910	31714 (H)	125	115	400	112	119	259	110	114	448	108	149	449	109	132	448	113	121	315
3911	PA 6444(HC)	115	116	462	101	110	335	107	110	401				107	110	401	103	108	323
3912	31715	118	100	413	110	106	287	113	106	336	98	130	339	106	118	338	111	109	293
3914	31731	115	94	416	108	103	299	118	103	356	101	112	476	109	108	416	111	106	326
3916	29891 (R)*	111	97	344	104	104	245	105	106	389	81	109	475	93	108	432	103	103	306
Experimental Mean		119	106	390	108	111	277	110	107	395	98	127	401	106	115	401	109	111	301
Standard Error		1.15						0.86			0								

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 7.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT - 2 & 1 Late, Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN								
		Uttar Pradesh						West Bengal		
		@Gorakhpur			@Masodha			@Chinsurah		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3903	Swarna(NC)	123	111	252	115	116	340	119	93	253
3906	ZC	100	116	208	118	107	343			
3908	31709 (H)	114	126	300	117	88	300	121	102	308
3909	LC	114	111	247	111	95	298	123	108	374
3910	31714 (H)	125	130	267	115	90	326	122	112	418
3911	PA 6444(HC)	100	125	245	118	99	308			
3912	31715	125	118	265	116	105	325	125	110	385
3914	31731	125	109	231	118	123	317	123	108	495
3916	29891 (R)*	93	112	300	114	81	294	118	106	341
Experimental Mean		113	117	257	115	100	316	121	105	367

Table No. 7.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT - 2 & 1 Late, Kharif 2024

Entry No	IET No	Zone IV-North Eastern												Zone IV-North Eastern (3)		
		Assam						Assam (2)			Tripura			Mean		
		Gerua			Titabar			Mean			Lembucherra			Mean		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3903	Swarna(NC)	119	121	264	125	100	300	122	111	282	106	95	358	117	105	308
3904	31686 (H)	115	124	244	123	116	239	119	120	241	99	105	167	112	115	216
3905	31689	129	123	221	129	113	237	129	118	229	110	108	292	123	115	250
3906	ZC	129	135	265	130	121	257	130	128	261	112	109	367	124	122	296
3908	31709 (H)	115	127	276	123	113	243	119	120	260	113	108	300	117	116	273
3909	LC	124	139	252	125	119	244	124	129	248	111	117	325	120	125	273
3910	31714 (H)	124	137	248	125	119	252	124	128	250	116	112	325	122	123	275
3911	PA 6444(HC)	101	111	278				101	111	278	117	113	417	109	112	347
3915	30882 (h)*	119	130	220	123	115	246	121	122	233	123	109	242	122	118	236
3916	29891 (R)*	94	95	282	102	104	262	98	99	272	131	106	317	109	101	287
3917	31733	129	130	262	126	112	294	127	121	278	97	98	300	117	113	285
Experimental Mean		118	124	255	123	113	257	119	119	257	112	107	310	117	115	277
Standard Error		0			0.52						0.72					

Table No. 7.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT - 2 & 1 Late, Kharif 2024

Entry No	IET No	Zone V-Central													
		Chhattisgarh											Chhattisgarh (4)		
		Ambikhapur			Bilaspur		Jagadapur			Raipur			Mean		
		DDF	PH	PAN	DDF	PH	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3903	Swarna(NC)	109	90	206	110	105	109	102	269	107	113	263	109	102	246
3906	ZC	110	112	209	117	127	119	109	299	109	137	245	114	121	251
3908	31709 (H)	108	112	168	107	116	109	105	299	103	121	257	107	114	241
3909	LC	109	118	158	97	113	102	109	267	105	105	232	103	111	219
3910	31714 (H)	111	116	207	112	127	114	108	260	106	137	238	111	122	235
3911	PA 6444(HC)	101	111	164	98	125	101	110	290	108	116	208	102	116	220
3916	29891 (R)*	110	107	170	88	119	94	113	267	92	88	187	96	107	208
Experimental Mean		108	109	183	104	118	106	108	278	104	116	232	106	113	231
Standard Error		0.67			0		0			1.45			0.35		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 7.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT - 2 & 1 Late, Kharif 2024

Entry No	IET No	Zone V-Central									Zone V- Central (6)		
		Maharashtra						Maharashtra (2)			Mean		
		Sakoli			Sindewahi			Mean			Mean		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3903	Swarna(NC)				116	113	275	116	113	275	110	105	253
3906	ZC	127	143	273	123	136	264	125	139	269	118	127	258
3908	31709 (H)	117	133	282	116	125	263	116	129	272	110	119	254
3909	LC	110	98	273	113	135	250	112	116	262	106	113	236
3910	31714 (H)	120	136	294	121	134	254	120	135	274	114	126	251
3911	PA 6444(HC)	101	127	300				101	127	300	102	118	240
3916	29891 (R)*	90	125	265	96	119	285	93	122	275	95	112	235
Experimental Mean		110	127	281	114	127	265	112	126	275	108	117	247
Standard Error		0.55			0.36			0.35			0.25		

Table No. 7.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT - 2 & 1 Late, Kharif 2024 (Not considered)

Entry No	IET No	Zone V- Central		
		Madhya Pradesh		
		@Waraseoni		
		DDF	PH	PAN
3903	Swarna(NC)	109	114	224
3906	ZC	117	130	244
3908	31709 (H)	109	124	195
3909	LC	110	126	227
3910	31714 (H)	112	121	213
3911	PA 6444(HC)	111	129	225
3916	29891 (R)*	90	117	197
Experimental Mean		108	123	217

Table No. 7.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT - 2 & 1 Late, Kharif 2024

Entry No	IET No	Zone VI- Western														
		Gujarat						Gujarat (2)			Maharashtra					
		Navasari			Nawagam			Mean			Phondaghat			Shirgaon		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3903	Swarna(NC)	113	131	175	113	139	263	113	135	219	111	105	166	118	91	207
3904	31686 (H)	106	135	212	110	124	282	108	130	247	101	112	177	119	108	281
3906	ZC	114	155	320	110	92	268	112	124	294	109	125	145	97	109	309
3908	31709 (H)	105	155	300	107	138	286	106	146	293	109	114	188	110	103	265
3909	LC	82	165	230	108	131	267	95	148	248	109	93	239	108	99	318
3910	31714 (H)	82	175	214	111	140	285	96	157	249	113	117	194	116	99	293
3911	PA 6444(HC)				108	95	267	108	95	267	93	124	152	95	99	266
3916	29891 (R)*	81	130	193	112	122	279	96	126	236	85	112	161	82	70	204
Experimental Mean		97	149	234	109	122	274	104	133	257	103	112	177	105	97	267
Standard Error		1.24			0.79						0.25			0.37		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 7.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT - 2 & 1 Late, Kharif 2024

Entry No	IET No	ZONE VI- WESTERN									ZONE VI- WESTERN (6)		
		Maharashtra						Maharashtra (4)			Mean		
		Vadgaonmaval			Karjat			Mean			Mean		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3903	Swarna(NC)	111	91	331	106	110	183	111	99	222	112	111	221
3904	31686 (H)	116	109	294	101	124	188	109	113	235	109	119	239
3906	ZC	112	120	243	114	130	195	108	121	223	109	122	247
3908	31709 (H)	111	108	350	103	122	187	108	112	247	108	123	263
3909	LC	111	91	322	105	110	208	108	98	272	104	115	264
3910	31714 (H)	115	82	274	190	134	187	134	108	237	121	125	241
3911	PA 6444(HC)	105	109	265	189	114	177	120	111	215	118	108	225
3916	29891 (R)*	95	100	248	181	113	176	111	99	197	106	108	210
Experimental Mean		109	101	290	136	119	187	114	108	231	111	116	239
Standard Error		0.52			0.71								

Table No. 7.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT - 2 & 1 Late, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN																				
		Andhra Pradesh						Andhra Pradesh (2)			Karnataka						Karnataka (3)					
		Maruteru			Ragolu			Mean			Gangavati			Mugad			Mandya			Mean		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3901	31678	111	135	368	104	120	283	108	128	325	109	105	318	106	74	338	116	106	331	110	95	329
3902	31680	109	136	435	100	143	243	104	140	339	109	115	349	115	73	333	119	102	333	114	97	339
3903	Swarna(NC)				97	112	317	97	112	317	103	97	373	111	65	317	113	84	320	109	82	336
3906	ZC	106	133	409	104	121	249	105	127	329	107	117	339	109	79	309	101	104	329	106	100	325
3907	31693	106	127	308	101	119	258	103	123	283	105	99	374	106	78	388	103	97	358	105	91	373
3908	31709 (H)	102	140	423	97	130	230	100	135	327	105	109	323	106	75	381	103	102	331	104	95	345
3909	LC	120	107	427	114	122	249	117	114	338	105	85	382	114	103	303	124	176	340	114	121	341
3910	31714 (H)	107	141	395	100	135	242	104	138	319	109	105	284	106	81	340	119	99	317	111	95	314
3911	PA 6444(HC)	109	134	426	90	123	307	100	129	367				104	76	294	101	101	311	102	89	302
3913	31726	105	160	431	97	134	227	101	147	329	100	133	322	106	85	322	101	119	309	102	112	318
3916	29891 (R)*	86	115	274	108	111	235	97	113	255	84	117	400	92	69	319	100	90	285	92	92	335
Experimental Mean		106	132	389	101	124	258	103	128	321	103	108	346	106	78	331	109	107	324	106	97	332
Standard Error		0.86			0.37						0.62			0.82			1.06					

Table No. 7.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT - 2 & 1 Late, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN												ZONE VII- SOUTHERN (8)		
		Telangana						Telangana (2)			Tamil Nadu			Mean		
		Rajendranagar			Warangal			Mean			Coimbatore			Mean		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
3901	31678	115	103	522	116	130	350	115	116	436	114	117	375	111	111	360
3902	31680	114	104	427	115	137	284	115	121	355	117	117	400	112	116	351
3903	Swarna(NC)	112	94	498	116	117	316	114	105	407	113	94	460	109	94	371
3906	ZC	111	104	478	117	123	309	114	113	394	110	116	363	108	112	348
3907	31693	109	96	513	117	130	311	113	113	412	115	103	377	108	106	361
3908	31709 (H)	113	101	513	114	125	307	114	113	410	107	106	363	106	111	359
3909	LC	109	103	433	103	111	308	106	107	371	115	115	377	113	115	352
3910	31714 (H)	116	104	471	119	129	310	117	117	391	114	125	368	111	115	341
3911	PA 6444(HC)	110	104	473				110	104	473	103	91	358	103	105	362
3913	31726	111	102	409	113	153	283	112	128	346	111	123	360	105	126	333
3916	29891 (R)*	92	103	396	87	114	311	90	109	354	94	85	335	93	100	320
Experimental Mean		110	101	466	111	126	308	111	113	395	110	108	376	107	110	351
Standard Error		1.63			0.34						1.06					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 7.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT - 2 & 1 Late, Kharif 2024 (Not considered)

Entry No	IET No	ZONE VII- SOUTHERN														
		Karnataka			Kerla			Puducherry						Tamilnadu		
		@Kathalgere			@Pattambi			@Kurumbapet			@Karaikal			@Adutrai		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
3901	31678	90	92	439	118	93	374	111	122	580	97	109	363	112	105	314
3902	31680	87	101	364	112	100	319	111	122	380	97	101	331	111	92	287
3903	Swarna(NC)	88	82	420	107	112	367	110	122	390	96	84	267			
3906	ZC	87	95	420	113	99	281	112	122	290	97	85	352	116	94	316
3907	31693	92	84	401	119	101	362	115	126	660	97	78	339	114	84	322
3908	31709 (H)	79	85	317	109	97	197	110	126	380	92	75	341	117	115	316
3909	LC	69	101	453	118	128	297	119	113	490	96	84	363			
3910	31714 (H)	75	85	317	115	88	192	110	133	680	99	92	277	120	112	325
3911	PA 6444(HC)	69	95	299	113	84	216	107	122	660	95	121	341			
3913	31726	72	112	331	115	119	312	110	141	370	93	78	288	119	114	328
3916	29891 (R)*	74	90	285	111	83	648	96	111	280	97	87	341	110	97	266
Experimental Mean		80	92	367	113	100	324	110	123	469	96	90	327	114	101	309

Table No. 7.4: Grain quality characteristics of entries in AVT - 2 & 1 Late, Kharif 2024

Code	Entry No.	Designation / IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1457	3901	31678	77.3	67.8	51.7	5.84	1.83	3.19	SS	VOC	4.0	21.64	22
1458	3902	31680	75.8	61.4	30.4	5.75	1.95	2.94	MS	VOC	4.0	24.37	67
1459	3903	Swarna (HC)	79.3	70.4	66.6	5.03	2.17	2.31	SB	A	4.0	24.31	32
1460	3904	31686	79.6	71.7	60.5	6.67	2.04	3.26	LS	VOC	5.5	25.75	23
1461	3905	31689	79.6	71.7	60.5	5.61	2.52	2.22	SB	VOC	5.0	21.26	22
1462	3906	Pushyami(ZC)	78.3	68.7	55.3	5.66	2.01	2.81	MS	VOC	4.0	23.58	22
1463	3907	31693	77.6	68.1	59.6	4.81	2.11	2.27	SB	A	7.0	22.64	22
1464	3908	31709 (H)	80.2	71.7	61.2	5.61	2.02	2.77	MS	A	4.0	23.37	47
1465	3909	(LC)	79.9	69.1	57.1	5.65	2.16	2.61	MS	VOC	5.7	26.01	51
1466	3910	31714 (H)	79.0	66.5	44.5	5.63	2.02	2.78	MS	VOC	4.0	26.51	55
1467	3911	PA-6444 (HC)	77.7	61.5	55.1	6.15	2.08	2.95	LB	VOC	5.0	23.70	71
1468	3912	31715	77.8	69.1	54.0	6.52	2.11	3.09	LS	VOC	4.0	23.55	42
1469	3913	31726	76.9	57.7	8.7	5.10	2.47	2.06	SB	VOC	4.0	24.55	54
1470	3914	31731	80.3	69.7	49.1	5.20	2.12	2.45	SB	OC	4.0	21.38	37
1471	3915	30882 (H)	79.6	69.0	55.2	6.25	2.23	2.80	LB	VOC	7.0	25.78	66
1472	3916	29891 (R)	79.1	67.4	52.8	6.47	2.13	3.03	LS	VOC	5.0	22.14	22
1473	3917	31733	78.0	67.2	36.9	5.66	2.05	2.76	MS	VOC	4.0	24.81	33

HULL: Hulling(%) MILL: Milling(%) HRR: Head Rice Recovery KL: Kernel length (mm) KB: Kernel Breadth(mm) L/B : Length and Breadth(mm) KLAC: Kernel length after cooking WU: Water uptake ER: Elongation ratio AC: Amylose content (%)ASV: Alkali Spreading Value AC: Amylose Content GC: Gel consistency

INITIAL VARIETY TRIAL – LATE (IVT – LATE)

Locations: 48
Entries: 60

Test

Table: 8

Checks: Swarna(National); Zonal checks - Pusa 44 (Northern), NDR 8002 (Eastern & Central), Ranjeet(North Eastern), Salivahana(Western), Pushyami(Southern); CRHR 702(Hybrid check); Local Check(LC).

IVT-Late trial constituted with 64 entries including 4 checks was sent to 48 locations across zones II, III, IV, V, VI, and VII. The test entries included 52 varietal, 8 hybrids and 4 checks. Swarna served as the national check, while NDR 8002 in Eastern and Central, Ranjeet in North Eastern, Salivahana in Western and Pushyami in Southern as zonal checks and CRHR 702 as hybrid check.

Overall performance:

Mean grain yield ranged from 4293 kg/ha (IET 32593) to 6589 kg/ha (IET 32558); while days to 50% flowering ranged from 90 days (IET 32583) to 144 days (IET 32593). Among the checks, hybrid check **CRHR 702** showed the highest yield followed by the varietal check (zonal check (5941 kg/ha)). Three varietal entries i.e., IET 32571, IET 32560, IET 32554 out yielded significantly over the best check (ZC), and therefore these varietal entries promoted to AVT-1. Among hybrids, five hybrids viz., IET 32558 (6589 kg/ha), IET 32582 (6532 kg/ha), IET 32576 (618 kg/ha), IET 32566 (6496 kg/ha), IET 32574 (6299 kg/ha) recorded significant yield gain over the hybrid check (CRHR 702) and best varietal check, and therefore promoted to AVT-1.

Performance of the entries based on overall means and promoted to AVT 1

Sl No	IET No. and Designation	Yield kg/ha/DFP	Remarks
1	32558 (BAYR 4511)	6589 (1*#) /109	Promoted
2	32582(BAYR 4512)	6532 (2*#) / 112	Promoted
3	32576 (BAYR 4509)	6518(3*#)/ 111	Promoted
4	32566 (BAYR 4513)	6496(4*#)/110	Promoted
5	32574 (BAYR 4510)	6299(5*#)/111	Promoted
6	32571 (BRR-2028)	6027(8*)/114	Promoted
7	32560 (NP 7315)	5992(9*)/115	Promoted
8	32554 (R 2447-1027-1-456-1)	5980(10*)/114	Promoted
	HC	6034/111	
	ZC	5941/ 112	
	NC	5733/ 114	
	LC	5650/ 115	
	CD	240	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Zone - wise performance

Zone II

The trial was sent to 3 locations (Pantnagar, Chata, and Nagina), and data was received only from one location i.e, Nagina, which was included in data analysis. Among hybrids, **one hybrid IET 32558 (6310 kg/ha)** performed significantly superior than the best varietal and hybrid checks, **hence, IET 32558 (H) is promoted to AVT 1.**

Performance of entries

SI No	IET No. and Designation	Yield kg/ha/DFP	Remarks
1	32558 (BAYR 4511)	6310 (1*#)/123	Promoted
	NC	5618/ 120	
	ZC	4761 /120	
	LC	4747/104	
	HC	4701 /126	
	CD	652	

Zone III:

The trial was sent to 12 locations and data was received from 11 locations, except Chiplima. The data from Masodha (low CV), and Gorakpur (low mean yield and Fns - 1.39ns) was not considered for analysis. In this zone, none of the entries showed **superior performance than the best hybrid check (6882 Kg /ha) and best varietal check Local check (6124kg/ha), therefore none were promoted.**

Zone IV

The trial was sent to 4 locations (Titabar, Gerua (Assam), Arundatinagar, and Lembucherra (Tripura)). The data was received from three locations- Titabar, Gerua and Lembucherra. The data from Titabar, (low CV), and Gerua (low mean yield) was not considered for analysis. None of the entries showed **superior performance than the best hybrid check (4800 Kg /ha) and best varietal check (NC – 5100 kg/ha), therefore none were promoted.**

Zone V:

The data was sent to 7 locations, while received from five locations (RPR, ABK, JDP, SKL, SDN). One varietal entry IET 32587 (7252 kg/ha) and two hybrid entries i.e., IET 32558 (7527 kg/ha) and IET 32596 (7304 kg/ha) performed significantly higher yield than the best varietal check (Swarna) 6574 Kg/ha) as well as the hybrid check (6203 Kg/ha). Whereas, IET 32596 (H) was not promoted due to variation in days to 50% flowering. **Therefore, IETs 32587 and 32558 (H) was promoted to AVT 1.**

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of entries in Zone V

SI No	IET No. and Designation	Yield kg/ha/DFP	Remarks
1	32558 (BAYR 4511)	7527 (1*#) /110	Promoted
2	32596 (BAYR 4514)	7304 (2*#) /100	Not Promoted due to variation in the DFP
3	32587 (R 2358-109-1-86-1)	7252 (3*#) /113	Promoted
	NC	6574/ 110	
	HC	6203/ 109	
	ZC	6093/ 108	
	LC	5698/ 119	
	CD	659	

Zone VI:

The trial was sent to 6 locations and data was received from five locations - Karjat, Vadagaon, Pondaghat, Navsari and Nawagam. In this zone, one hybrid entry, IET 32566 (6893 kg/ha) performed significantly superior to the hybrid check (5891 kg/ha) and best inbred check (NC-6258 kg/ha). Therefore, **IET 32566 is promoted to AVT 1.**

Performance of entries in Zone VI

SI No	IET No. and Designation	Yield kg/ha/DFP	Remarks
1	32566 (BAYR 4513)	6893 (1*#) /111	Promoted
	NC	6258/110	
	HC	5891/109	
	ZC	4968/108	
	LC	4739/ 119	
	CD	469	

Zone VII:

The trial was sent to 16 locations and data was received from 14 locations - Maruteru, Ragolu, Rajendranagar, Warangal, Aduthurai, Coimbatore, Patambi, Mandya, Mugad, Brahmavar, Gangavathi, Kathalagere, Kurumbapet and Karaikal. The data of Kathalagere, was not considered for analysis due to low CV%. Mean grain yield ranged from 3960 kg/ha (IET 32598) to 7016 kg/ha (IET 32576). One hybrid entry ie., IET No 32576 (7016* kg/ha), showed significant yield superiority over the best check (ZC-6611 Kg/ha) and the best hybrid check HC- 5648 kg/ha. Therefore, **IET 32576 is promoted to AVT 1.**

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of entries in Zone VII

SI No	IET and designation	Yield kg/ha/DFP	Remarks
1	32576 (BAYR 4509)	7016 (1*#) /108	Promoted to AVT-1-L
	ZC	6611/107	
	LC	5812/ 111	
	HC	5648/ 106	
	NC	5089/ 111	
	CD	368	

Summary:

List of promising entries in IVT-L 2024

Overall/Zones	Number of promoted entries	Entries promoted
Overall	08	IET 32558 (H), IET 32582 (H), IET 32576 (H), IET 32566 (H), IET 32574 (H), IET 32571, IET 32560 and IET 32554
Zone II	1	IET 32558 (H)
Zone III	Nil	
Zone IV	Nil	
Zone-V	2	IET 32558 (H) and IET 32587
Zone-VI	1	IET 32566 (H)
Zone VII	1	IET 32576 (H)

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.1: Composition of entries in Initial Variety Trial –Late (IVT – L) Kharif 2024

Entry No.	IET No.	Designation	Cross Combination	Grain type
4001	32551	BPT 3485	BPT 5204/BPT 2605	MS
4002	32552	NP 126	NPG 12/NPG 26	SB
4003	32553	HURS 24-11-IR 143526-168-1-1-245-13-1	Swarna /NX 3533::IRGC 63796	SB
4004	32554	R 2447-1027-1-456-1	Pusa 1121/Chattri	MS
4005	32555	SPE-27	SM-111/BPT 5204	SS
4006	32556	NDR 2023-CP-6	Rajendra Mahsuri/IR64	LB
4007	32557	CR 2916-92-2-1-1	Tapaswini/IET 16952	MS
4008	32558 (H)	BAYR 4511		
4009	32559	CR 3987-6-3-1-1-2	Pooja/ CR CR 3820-1-5-2-1-1	SB
4010	32560	NP 7315	NPG 02/NPG 34	LB
4011	32561	K2020SY23	SWARNA/RP5976-RIL158	MS
4012	32562	AD 21303	CO 50/WGL32100//CR1009/BPT2270	MS
4013	32563	MLD 270-IR16F1053	IR09F436/IR10N237	LS
4014	32564	SRPV-1818		MS
4015	32565	RP 6615-45-6-7-1	MTU1010/Karruppanel	MS
4016	32566 (H)	BAYR 4513		MS
4017	32567	RP6811-8-1-3-2-1-1-B	RPBIO-226/MTU-1081	MS
4018	32568	KNM 12466	BPT 5204/ RNR 15048//JGL 11727	MS
4019		National Check (Swarna)		SB
4020	32569	RGL 7042 (MTU RM 403-8-1-1-1)	MTU 1226/RP Bio 226	MB
4021	32570	BAS 54	BAS-C K 009/BAS K 072	MB
4022	32571	BRR-2028	Radhey/RAU724-48-33	SB
4023	32572	RP 6458-DB-C1-234	Swarna//166S-Swarna/O.nivara	LS
4024	32573	NVSR-1299	GAR-13/IET-24774	LS
4025	32574 (H)	BAYR 4510		
4026	32575	CR4491-6-1-1-1-2-1-1-1	Swarna /MER 26	LB
4027	32576 (H)	BAYR 4509		LS
4028	32577	MTU 1436 (MTU 2823-23-1-1)	MTU 1121/MTU 1061	MS
4029	32578	CR 4205-229-110-6-3	CR Dhan 307/ <i>O. longistaminata</i> (AC-110404)//CR Dhan 307	SB
4030	32579	AD 20364	RP2260/NP9381	MS
4031	32580 (H)	PHI 24104		MS
4032	32581	CR 4626-9-1-1-1-1-2	Swarna / IR 1182-90-4-78	LB
4033	32582 (H)	BAYR 4512		MB
4034	32583	RP5285-142-4-2-2-1-1-B	Sona/Malaysia//Sona	LS
4035	32584	RGL 7043 (MTU RM 410-25-1-1-1)	MTU 1210/MTU 1121	MB
4036	32585	Makdo Mutant-29	Mutant of Makdo Dhan	SB
4037	32586	HURS 24-12- IR	Swarna/CUNGUN NAO:: IRGC 63576-1	SB

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entry No.	IET No.	Designation	Cross Combination	Grain type
		143529-190-10-10-416-26-12		
4038	32587	R 2358-109-1-86-1	Swarna Sub-1/Kala Namak	MB
4039		Zonal Check	Pusa 44 (Northern), NDR 8002 (Eastern & Central), Ranjeet (North Eastern), Salivahana (Western), Pushyami (Southern),	
4040	32588	TRC 2024-8/TRC TNTJ 5370-B-B-1-17	Tripura Nirog/Tripura Jala	MS
4041	32589	NVSR-1222	GAR-13/IET-23467	MS
4042	32590	CR 4492-3-1-1-1	CR 3856-44-22-2-1-11-5/ Moti Gold	LB
4043	HC	(CRHR 702)		LS
4044	32591	MTU 1431 (MTU 2632-15-1-4-2)	MTU 1166/BPT 5204	MB
4045	32592	WGL-1750	MTU 1061/MTU 1155	LS
4046	32593	MLD 268-IR22LT1511	IR15A1479/IR 127155-1-22-B//IR15A1479/IR 93312-30-101-20-3-66-6	LS
4047	32594	CR 6324-3-2-1-2-1	CR 3582-5-2-1-2-2-1/CR 3541-1-2-5-4-1	MS
4048	32595	MTU 1432 (MTU 2681-15-1-1)	MTU 4870/JGL 2503	MS
4049	32596 (H)	BAYR 4514		LS
4050	32597	VDN 2018	Phule Samruddhi/Karjat 2	LS
4051	32598	BKR 455	Lalat/Pusa 1176	SB
4052	32599	OR 2573-3	Birupa/IR76561-AC-8-8	LS
4053	32600	RP 6835-62-10-5-3-22	CR Dhan 310/NLR 34449	MS
4054	32601	TRC 2024-7/TRC TNTJ 5370-B-B-11-9	Tripura Nirog/Tripura Jala	LB
4055	32602	NDR 2023-9-CP-22	Rajendra Mahsuri/NDR359	LB
4056	32603	VPSY 21	Swarne/RIL(Ism/WPK)	SB
4057	32604	CR4413-1-2-1-1-2	CR3759-1-1-2-1-1 / CR3504 -7-2-2-1-1-1	MB
4058	32605	TKR 35	PB1/RTN 24	LS
4059	32606	ORS-MBB 12	Lalat Mutant	MS
4060	32607	MSN-124	INTAN/KMR-3 (83-1-1-1-1-B)	LB
4061	32608	CR 3969-24-1-2-1-1-2-1	IR73930-31-3-2-2/ Pratikshya	MS
4062	32609	NP 7373	PRN 9369/PRN 1024	SS
4063	32610	SYE-723-33-14	SYE-63-28-84/SYE-381-19-46-15	LS
4064		Local Check		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.2: Grain Yield (kg/ha) in IVT -Late Kharif 2024

Entry No	IET No	ZONE II-NORTHERN		ZONE III- EASTERN									
		Uttar Pradesh		Bihar			Bihar (2)		Jharkhand	Odisha			
		Nagina		Sabour	Bikramganj		Mean	Ranchi	Bhubaneswar				
4001	32551	4741		3295		5456		4376		4730		2963	
4002	32552	5386	#	5978	3	9333	7	7656	4	5790	9#	4815	
4003	32553	4309		5163		10694	1*#	7929	2*#	5720		4389	
4004	32554	5066		5371	9	7972		6671		4940		5000	
4005	32555	4940		3113		6072		4592		5155		3574	
4006	32556	4980		2994		4800		3897		5295		3519	
4007	32557	5133		5124		7311		6217		4800		5000	
4008	32558	6310	1*#	5450	7	9694	4	7572	5	7835	1*#	6204	4*#
4009	32559	4947		5005		5278		5141		5790	9#	4444	
4010	32560	4834		4293		8078		6186		4660		4074	
4011	32561	4847		3241		5306		4273		4515		5000	
4012	32562	4508		4190		5428		4809		4800		4630	
4013	32563	5445	#	3187		5967		4577		4025		3093	
4014	32564	5332		4056		5589		4823		3880		3241	
4015	32565	4934		4150		5656		4903		4870		4167	
4016	32566	5585	#	6374	1	9161	8	7767	3	7340	2*#	5741	5#
4017	32567	4561		4229		9789	3	7009	10	5155		4481	
4018	32568	4634		4214		7000		5607		5365		2685	
4019	Swarna (NC)	5618		5188		8750	10	6969		5010		5278	
4020	32569	4169		4956		8483		6719		4450		5648	9#
4021	32570	5738	8#	4303		8033		6168		4515		4630	
4022	32571	4880		5089		9161	8	7125	8	4660		5278	#
4023	32572	5592	#	2974		3961		3468		4805		2593	
4024	32573	6177	2#	4358		5822		5090		4870		3519	
4025	32574	4920		5968	4	10589	2*#	8279	1*#	6495	3#	7778	1*#
4026	32575	4747		3567		7589		5578		4380		5741	5#
4027	32576	4847		5262		9450	5	7356	6	5505		3889	
4028	32577	5060		5287		6389		5838		4235		3833	
4029	32578	5811	5#	4797		6911		5854		6215	4#	6611	3*#
4030	32579	4973		5178		6839		6008		4305		4722	
4031	32580	4973		6354	2	7633		6994		5435		5741	5#
4032	32581	6077	3#	4600		7506		6053		4870		4815	
4033	32582	5638	10#	5124		9428	6	7276	7	4660		7037	2*#
4034	32583	5711	9#	4521		5811		5166		4165		4259	
4035	32584	4781		4111		6144		5128		4095		5741	5#
4036	32585	5286		3439		4450		3944		4165		2870	
4037	32586	5758	7#	4792		5489		5141		4375		4444	
4038	32587	4388		5791	5	8422		7106	9	6070	6#	5000	
4039	ZC	4761		3666		6467		5066		4590		4167	
4040	32588	5193		3478		6383		4931		4800		4130	
4041	32589	5618	#	4689		6183		5436		5365		3333	
4042	32590	5545	#	4644		7161		5903		5295		5278	#
4043	CRHR 702 (HC)	4701		5361	10	8578		6969		4870		4352	
4044	32591	5093		5697	6	7078		6387		4730		4722	
4045	32592	4973		5450	7	8567		7008		4520		3907	
4046	32593	5372	#	3582		7217		5399		4730		2981	
4047	32594	5765	6#	5094		6561		5827		5085		5352	#
4048	32595	4914		4570		8578		6574		4590		4537	
4049	32596	4887		5301		7122		6212		5010		5556	10#
4050	32597	6017	4#	4313		4317		4315		6215	4#	4907	
4051	32598	4920		5227		7956		6591		4025		3333	
4052	32599	4701		4886		8322		6604		5155		5037	
4053	32600	5140		4550		5456		5003		5155		3796	
4054	32601	5372	#	4135		6706		5420		4660		4852	
4055	32602	5180		4209		5428		4819		5295		4259	
4056	32603	5013		3132		5478		4305		4945		2778	
4057	32604	5113		4298		7228		5763		4520		4074	
4058	32605	4761		4625		8206		6415		5735		5185	#
4059	32606	4820		5089		6839		5964		3670		3796	
4060	32607	5366	#	2905		4744		3825		5010		2778	
4061	32608	5618	#	4506		7483		5995		5860	8#	2148	
4062	32609	4880		2989		5489		4239		3390		4704	
4063	32610	4794		3928		5983		4956		5365		3241	
4064	LC	4747		5321		7322		6322		5930	7	4630	
Experimental Mean		5139		4543		7067		5805		5007		4442	
CD(0.05)		652		1078		1382		861		899		781	
CV(%)		6.35		11.88		9.79		7.43		8.98		8.8	
F val		4 **		5.31 **		10.56 **		13.88 **		6.12 **		16.07 **	
DOS		29-06-24		26-06-24		19-06-24		26-06-24		04-07-24			
DOP		28-07-24		22-07-24		19-07-24		18-07-24		03-08-24			
Local Check Name		PUSA 44		Sabour Sampanna Dhan		Sabour Heera		Swarna		Kalinga Dhan 1502			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.2 (Contd.): Grain Yield (kg/ha) in IVT -Late Kharif 2024

Entry No	IET No	ZONE III- EASTERN											
		Odisha				Odisha (3)		West Bengal					
		NRRRI		Jeypore		Mean		Malda		Bankura		chinsurah	
4001	32551	6074		5188		4742		5908		6653		4218	
4002	32552	5955		5727		5499		6633		9656	10	4614	
4003	32553	5870		4698		4986		6342		6601		4367	
4004	32554	5255		5015		5090		6050		8889		4120	
4005	32555	5530		4442		4515		5467		7063		4450	
4006	32556	4675		5545		4580		6250		6812		4064	
4007	32557	6034		5594		5543		6067		6839		4074	
4008	32558	6820		5288		6104	7	6983	9	10106	6	5257	
4009	32559	5020		7192	5*	5552		5425		9352		4167	
4010	32560	6510		6500	10	5695		5417		8624		6379	8
4011	32561	3870		4752		4541		7375	5*	6720		4681	
4012	32562	6820		5461		5637		5758		8148		4552	
4013	32563	4005		6017		4372		5433		7672		4434	
4014	32564	3475		4362		3692		6983	9	6667		3971	
4015	32565	5430		4076		4558		5633		7288		4151	
4016	32566	7054	10	5902		6232	6*	6992	8	7354		6224	
4017	32567	4025		5541		4683		4408		8466		4259	
4018	32568	4090		3433		3403		5350		6931		4136	
4019	Swarna (NC)	7300	7	3127		5235		5783		10238	5	4069	
4020	32569	6970		5324		5981	9	5742		9696	9	4090	
4021	32570	5995		4564		5063		7308	6*	7394		3976	
4022	32571	7264	8	4550		5697		6825		8082		6656	3
4023	32572	2995		4868		3485		7850	3*	6521		3781	
4024	32573	4054		4148		3907		5250		6693		3832	
4025	32574	6815		4817		6470	3*	6958		10661	1	5556	
4026	32575	7455	4	4008		5734		6283		8042		6512	6
4027	32576	6605		5511		5335		8233	2*	7659		6373	9
4028	32577	4595		6561	9	4996		6200		6495		3940	
4029	32578	5101		5242		5651		6850		7500		6425	7
4030	32579	5295		4439		4819		5725		8426		4239	
4031	32580	7345	6	4038		5708		6467		7937		6584	4
4032	32581	6851		7394	4*	6353	4*	6417		6455		4048	
4033	32582	7514	2	7430	1*	7327	1*#	5342		10000	7	6739	2*
4034	32583	5240		6168		5222		5500		9974	8	5854	
4035	32584	5895		6652	8	6096	8	5250		6958		4115	
4036	32585	3635		4400		3635		6383		6534		4943	
4037	32586	5440		5197		5027		6300		9286		6111	
4038	32587	6284		6309		5865		6650		8770		4300	
4039	ZC	6230		5192		5196		6500		10489	3	3925	
4040	32588	4685		4495		4437		5450		6495		4486	
4041	32589	3389		4695		3806		5133		6971		4038	
4042	32590	7460	3	4808		5848		5900		8611		6327	10
4043	CRHR 702 (HC)	7260	9	7402	3	6338	5	8675	1	9299		6142	
4044	32591	6050		6471		5748		5583		6508		4388	
4045	32592	6440		3223		4523		7275	7*	9272		6986	1*
4046	32593	3905		4339		3742		5775		6442		6523	5
4047	32594	7570	1	7185	6*	6702	2*	6542		8902		6188	
4048	32595	5770		7182	7*	5830		5500		6931		3945	
4049	32596	6155		5992		5901		6925		8836		5288	
4050	32597	4764		7430	1*	5701		6683		6786		4990	
4051	32598	5125		5614		4691		5250		6905		4784	
4052	32599	6105		4973		5372		6975		10357	4	6096	
4053	32600	5405		6483		5228		6250		8294		3925	
4054	32601	6805		6167		5941	10	5725		6587		6111	
4055	32602	7410	5	6086		5919		6217		8201		5298	
4056	32603	5175		5914		4622		6125		6415		4861	
4057	32604	4895		5621		4863		6125		6415		5412	
4058	32605	4715		5224		5041		6192		10569	2	5854	
4059	32606	5295		5011		4701		6083		8651		4820	
4060	32607	4725		3530		3678		5500		7090		4012	
4061	32608	6186		4591		4308		7433	4*	8122		6111	
4062	32609	3635		5642		4660		5625		7857		3030	
4063	32610	5716		5624		4860		5408		6944		4342	
4064	LC	6270		5061		5320		5942		9193		5448	
Experimental Mean		5661		5366		5156		6197		7974		4962	
CD(0.05)		1756		1935		873		1169		1934		1289	
CV(%)		15.52		18.05		8.47		9.44		12.14		13	
F val		3.81 **		2.43 **		7.44 **		3.69 **		3.64 **		4.88 **	
DOS		17-06-24		16-07-24				21-06-24		03-07-24		20-06-2024	
DOP		01-08-24		16-08-24				22-07-24		22-08-24		01-08-24	
Local Check Name		CR Dhan 404		Hasanta				Kanak		Sampriti		Kaushalya	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.2 (Contd.): Grain Yield (kg/ha) in IVT -Late Kharif 2024

Entry No	IET No	ZONE III- EASTERN		ZONE III- EASTERN (9)		ZONE IV-NORTH EASTERN		ZONE V- CENTRAL					
		West Bengal (3)				Tripura		Chhattisgarh		Chhattisgarh (2)			
		Mean		Mean		Lembucherra		Ambikhapur	Raipur		Mean		
4001	32551	5593		4943		3825		5531		4087		4809	
4002	32552	6968		6500	6	4462		7062		6861		6961	
4003	32553	5770		5983		4250		6543		6337		6440	
4004	32554	6353		5846		4238		7469	10#	8035	7*#	7752	7*#
4005	32555	5660		4985		2638		6537		3982		5260	
4006	32556	5709		4884		4562		5802		4557		5180	
4007	32557	5660		5649		4338		5877		6737		6307	
4008	32558	7449	6	7071	2*	5950	3	7204	#	9856	1*#	8530	4*#
4009	32559	6315		5741		4400		7414	#	4916		6165	
4010	32560	6807		6059		3538		6457		6262		6359	
4011	32561	6259		5051		3562		6543		4588		5566	
4012	32562	6153		5532		6150	2	6759		4581		5670	
4013	32563	5846		4870		4338		7444	#	3794		5619	
4014	32564	5874		4692		3038		6642		4989		5816	
4015	32565	5691		5047		3638		5728		3841		4785	
4016	32566	6857		6905	4*	5638	5	7512	9*#	9595	2*#	8554	3*#
4017	32567	5711		5595		4812		7062		5129		6095	
4018	32568	5472		4801		3125		6809		3709		5259	
4019	Swarna (NC)	6697		6083		5100	10	6216		7017		6617	
4020	32569	6509		6151		4575		6728		5371		6050	
4021	32570	6226		5635		3100		6247		7483	#	6865	
4022	32571	7188		6396		4325		6191		7363		6777	
4023	32572	6051		4483		3188		5457		5075		5266	
4024	32573	5258		4727		4425		7654	7*#	5383		6519	
4025	32574	7725	4*	7293	1*	5875	4	7327	#	7711	9#	7519	8*#
4026	32575	6946		5953		4975		6685		7472	#	7079	#
4027	32576	7422	7	6499	7	2662		6432		8319	6*#	7376	9#
4028	32577	5545		5282		4475		6241		4874		5557	
4029	32578	6925		6184		4088		6093		7094		6593	
4030	32579	6130		5463		3612		6130		5903		6016	
4031	32580	6996		6393		5025		6302		7088		6695	
4032	32581	5640		5884		4500		6691		3981		5336	
4033	32582	7360	8	7030	3*	6288	1#	8457	2*#	8810	3*#	8633	2*#
4034	32583	7109		5721		4500		6265		7104		6684	
4035	32584	5441		5440		4500		6062		6263		6163	
4036	32585	5954		4536		3988		5580		3239		4410	
4037	32586	7232	9	5715		4275		5636		6644		6140	
4038	32587	6573		6400	10	4500		7821	6*#	8560	5*#	8190	5*#
4039	ZC	6971		5692		4912		6346		6310		6328	
4040	32588	5477		4934		4000		6704		5448		6076	
4041	32589	5381		4866		4412		6667		5888		6277	
4042	32590	6946		6165		5162	8	6494		6929		6712	
4043	CRHR 702 (HC)	8039	1	6882	5	4800		5994		6429		6212	
4044	32591	5493		5692		4338		8272	3*#	5999		7135	#
4045	32592	7844	2*	6182		5000		6105		7555	10#	6830	
4046	32593	6246		5055		3062		5025		1692		3358	
4047	32594	7211		6498	8	4438		6290		5163		5727	
4048	32595	5459		5734		4025		7593	8*#	4200		5896	
4049	32596	7016		6243		4925		8710	1*#	8696	4*#	8703	1*#
4050	32597	6153		5601		5262	7	7833	5*#	7782	8#	7808	6*#
4051	32598	5646		5358		4425		6765		4003		5384	
4052	32599	7809	3*	6434	9	5575	6	5759		7061		6410	
4053	32600	6156		5479		4175		6883		6934		6908	
4054	32601	6141		5750		3662		7265	#	6519		6892	
4055	32602	6572		5823		5125	9	5877		6946		6411	
4056	32603	5800		4980		3600		6889		4857		5873	
4057	32604	5984		5399		4500		6494		6374		6434	
4058	32605	7538	5	6256		4050		6340		6666		6503	
4059	32606	6518		5473		4800		8210	4*#	6084		7147	10#
4060	32607	5534		4477		4662		6747		4992		5870	
4061	32608	7222	10	5827		3762		6630		7034		6832	
4062	32609	5504		4707		3150		6222		3688		4955	
4063	32610	5565		5172		3962		5679		4758		5218	
4064	LC	6861		6124		4562		6426		5883		6154	
Experimental Mean		6378		5691		4357		6638		6039		6338	
CD(0.05)		861		477		1448		1071		959		775	
CV(%)		6.76		4.2		16.63		8.08		7.95		6.12	
F val		6.03 **		16.49 **		2.44 **		4.07 **		23.21 **		13.97 **	
DOS						02-07-24		03-07-24		01-07-24			
DOP						28-07-24		09-08-24		21-07-24			
Local Check Name						Gomati		Vikram TCR		Chhattisgarh Dhan 1919			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.2 (Contd.): Grain Yield (kg/ha) in IVT -Late Kharif 2024

Entry No	IET No	ZONE V- CENTRAL						ZONE V- CENTRAL (4)		ZONE VI- WESTERN Gujarat			
		Maharashtra			Maharashtra (2)			Mean		Navasari		Nawagam	
		Sakoli	Sindewahi	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean		
4001	32551	5325		4325		4825		4817		2943		2052	
4002	32552	5275		5241		5258		6110		3757		4434	
4003	32553	3750		5206		4478		5459		5291		3604	
4004	32554	6325		5497		5911		6832	7	4239		2987	
4005	32555	5350		3168		4259		4759		6455	10#	2700	
4006	32556	3875		4013		3944		4562		6045		3580	
4007	32557	4900		3388		4144		5225		6402		4257	
4008	32558	6825	5	6222	6	6523	5	7527	1*#	7169	5#	4874	10
4009	32559	6125		4091		5108		5636		4464		2835	
4010	32560	6275		4794		5535		5947		5549		3519	
4011	32561	2875		3601		3238		4402		4524		2820	
4012	32562	6075		2678		4376		5023		4067		2388	
4013	32563	4375		5270		4822		5221		6171		3933	
4014	32564	3775		5952	9	4863		5339		5311		4009	
4015	32565	3150		3445		3297		4041		6058		2923	
4016	32566	6050		4893		5472		7013	5#	8042	2#	4868	
4017	32567	6325		5163		5744		5920		3108		3506	
4018	32568	5675		5064		5369		5314		4874		4269	
4019	Swarna (NC)	6500		6562	4	6531	4	6574		7341	4	3940	
4020	32569	6050		4474		5262		5656		3697		3412	
4021	32570	6250		5483		5866		6366		6481	9#	5223	6
4022	32571	6600		4254		5427		6102		6243		4668	
4023	32572	3550		3011		3281		4273		4590		3052	
4024	32573	4275		4673		4474		5496		6634	8#	5375	3
4025	32574	6525		5192		5858		6689	9	6700	7#	5234	5
4026	32575	3725		5277		4501		5790		7851	3#	3358	
4027	32576	6625	10	6584	3	6604	3	6990	6#	6243		4592	
4028	32577	5925		3963		4944		5251		2090		3887	
4029	32578	5500		4737		5119		5856		4325		3458	
4030	32579	5975		4616		5296		5656		2685		3625	
4031	32580	5475		5249		5362		6028		2388		4136	
4032	32581	5450		5788	10	5619		5478		2348		3336	
4033	32582	5800		5426		5613		7123	4#	5681		5343	4
4034	32583	4625		5369		4997		5841		5351		3330	
4035	32584	3325		4062		3694		4928		2665		4036	
4036	32585	3300		2940		3120		3765		2030		3182	
4037	32586	5300		5043		5171		5656		5146		3472	
4038	32587	7300	1	5327		6313	6	7252	3*#	4802		3611	
4039	ZC	6225		5490		5858		6093		3981		3784	
4040	32588	3625		3828		3727		4901		4676		3800	
4041	32589	3825		4893		4359		5318		7149	6#	4116	
4042	32590	6400		4837		5618		6165		5377		4051	
4043	CRHR 702 (HC)	6900	4	5490		6195	8	6203		5198		4496	
4044	32591	7000	3	5099		6050	10	6592	10	3399		3551	
4045	32592	6825	5	6676	2	6751	1	6790	8	4603		4826	
4046	32593	4625		3991		4308		3833		2440		4040	
4047	32594	5000		4439		4719		5223		6071		3384	
4048	32595	2775		3146		2961		4429		1938		4407	
4049	32596	5700		6108	7	5904		7304	2*#	8095	1#	6639	1*#
4050	32597	4925		4922		4923		6366		5800		4501	
4051	32598	5075		4091		4583		4984		5754		4098	
4052	32599	6675	9	6818	1#	6747	2	6578		4312		4004	
4053	32600	6800	7	5611		6205	7	6557		3684		4315	
4054	32601	3725		4070		3897		5395		5952		5525	2#
4055	32602	4150		4993		4571		5491		4940		3521	
4056	32603	2550		3544		3047		4460		3347		3951	
4057	32604	7075	2	3913		5494		5964		6157		3782	
4058	32605	6750	8	5135		5942		6223		4980		5093	7
4059	32606	5525		4496		5010		6079		5370		4402	
4060	32607	3350		3217		3284		4577		3638		4945	9
4061	32608	4775		6548	5	5662		6247		4134		3858	
4062	32609	4625		4105		4365		4660		2831		4412	
4063	32610	6175		6001	8	6088	9	5653		2183		4427	
4064	LC	5875		4609		5242		5698		4101		4977	8
Experimental Mean		5271		4783		5027		5683		4842		4012	
CD(0.05)		1392		1328		1057		659		1227		1014	
CV(%)		13.22		13.9		10.52		5.8		12.68		12.64	
F val		6.68 **		4.51 **		7.03 **		14.35 **		13.56 **		5.25 **	
DOS		02-07-24		27-06-24						25-06-24		22-06-24	
DOP		05-08-24		08-08-24						16-07-24		08-08-24	
Local Check Name		Sakoli-8		PDKV-Tilak						Masuri		GAR 22	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.2 (Contd.): Grain Yield (kg/ha) in IVT -Late Kharif 2024

Entry No	IET No	ZONE VI- WESTERN										ZONE VI- WESTERN (5)	
		Gujarat (2)		Maharashtra				Maharashtra (3)		Mean			
		Mean		Phondaghat	Vadgaonmaval		Karjat		Mean		Mean		
4001	32551	2497		1354		4750		6408		4171		3502	
4002	32552	4095		2616		5643		6200		4819		4530	
4003	32553	4448		4815		5327		4201		4781		4648	
4004	32554	3613		4468		7031	4	5915		5804		4928	
4005	32555	4578		2963		3095		3769		3275		3796	
4006	32556	4812		4039		6532	9	4916		5162		5022	
4007	32557	5330		6366	7*	5744		4348		5486		5423	
4008	32558	6021	3#	6111		8051	1*#	5973		6712	3	6436	4#
4009	32559	3650		3600		5898		3969		4489		4153	
4010	32560	4534		5104		6398		6297		5933	9	5373	
4011	32561	3672		4398		6353		3224		4658		4264	
4012	32562	3228		1238		3857		5632		3576		3437	
4013	32563	5052		4410		6952	5	4093		5151		5112	
4014	32564	4660		2986		4959		3670		3872		4187	
4015	32565	4491		4653		5431		4569		4884		4727	
4016	32566	6455	2*#	6840	3*#	7920	2*#	6796	8	7185	1#	6893	1*#
4017	32567	3307		4942		5430		5594		5322		4516	
4018	32568	4572		3275		6376		5120		4924		4783	
4019	Swarna (NC)	5640	8	5579		6587	8	7844	2	6670	4	6258	5
4020	32569	3555		1296		5795		4726		3939		3785	
4021	32570	5852	6#	5278		6168		5457		5634		5722	
4022	32571	5456		6458	5*	6531	10	6618	10	6536	6	6104	6
4023	32572	3821		4120		5430		3247		4266		4088	
4024	32573	6004	4#	4317		7107	3	3036		4820		5294	
4025	32574	5967	5#	6447	6*	5382		5729		5853	10	5898	8
4026	32575	5604	10	6169	10	6660	7	4627		5819		5733	10
4027	32576	5418		6678	4*#	5588		6841	7	6369	7	5988	7
4028	32577	2989		2419		4982		3115		3505		3299	
4029	32578	3892		4954		5434		4256		4881		4485	
4030	32579	3155		2373		4175		3791		3446		3330	
4031	32580	3262		2905		6455		7606	4	5655		4698	
4032	32581	2842		4826		5847		5727		5467		4417	
4033	32582	5512		7083	2*#	6685	6	7632	3	7134	2	6485	3#
4034	32583	4340		5764		5086		5722		5524		5050	
4035	32584	3351		1551		4724		4411		3562		3477	
4036	32585	2606		1655		5278		6560		4498		3741	
4037	32586	4309		5822		5479		4997		5433		4983	
4038	32587	4206		4954		5219		3403		4525		4398	
4039	ZC	3883		4676		6323		6073		5691		4968	
4040	32588	4238		4155		4692		3030		3959		4071	
4041	32589	5633	9	4734		4253		3792		4259		4809	
4042	32590	4714		7708	1*#	4647		4764		5706		5309	
4043	CRHR 702 (HC)	4847		5972		6419		7368	5	6586	5	5891	9
4044	32591	3475		2373		5663		5088		4375		4015	
4045	32592	4715		5544		6220		5356		5707		5310	
4046	32593	3240		1748		5403		3394		3515		3405	
4047	32594	4728		4965		4749		5501		5072		4934	
4048	32595	3173		1146		3806		3739		2897		3007	
4049	32596	7367	1*#	5521		5899		6645	9	6022	8	6560	2#
4050	32597	5150		4155		4933		8019	1	5702		5482	
4051	32598	4926		3542		4170		3031		3581		4119	
4052	32599	4158		6296	8*	5067		5255		5539		4987	
4053	32600	3999		3958		4615		6051		4875		4525	
4054	32601	5739	7#	4977		4385		4193		4518		5006	
4055	32602	4231		5868		4359		5904		5377		4918	
4056	32603	3649		3657		2803		3047		3169		3361	
4057	32604	4970		4097		4488		4890		4492		4683	
4058	32605	5037		3542		4433		4819		4265		4574	
4059	32606	4886		6181	9*	4383		6889	6	5817		5445	
4060	32607	4291		4421		4881		3544		4282		4286	
4061	32608	3996		4572		4858		3703		4377		4225	
4062	32609	3622		3287		4093		5659		4346		4057	
4063	32610	3305		1366		3881		4893		3380		3350	
4064	LC	4539		4005		5034		5580		4873		4739	
Experimental Mean		4427		4333		5388		5098		4939		4734	
CD(0.05)		786		593		1217		1019		594		469	
CV(%)		8.88		6.85		11.3		10.01		6.02		4.96	
F val		13.17 **		60.99 **		6.13 **		13.97 **		23.69 **		30.05 **	
DOS				11-06-24		01-07-24		14-06-24					
DOP				04-07-24		06-08-24		11-07-24					
Local Check Name				Karjat-2		Karjat-2		KJT-2					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.2 (Contd.): Grain Yield (kg/ha) in IVT -Late Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN											
		Andhra Pradesh			Andhra Pradesh (2)			Karnataka					
		Maruteru	Ragolu	Mean	Mugad	Mandya	Gangavati						
4001	32551	5234	4674	4954	4706	5711	5353						
4002	32552	5227	6203	5715	6289	#	6691	8*	5936				
4003	32553	4848	6949	5899	4689		4926		4526				
4004	32554	3472	7297	5385	6239	#	7010	3*	7160	6			
4005	32555	6667	4	4913	5790		4444		5018		4359		
4006	32556	3213		5899	4556		4350		4301		6224		
4007	32557	4905		7196	6050		4456		2537		4808		
4008	32558	5593		8043	9	6818	7	7144	7*#	4081	6840	8	
4009	32559	6976	1	6094		6535		5156		5619	8910	1*#	
4010	32560	4059		6942		5501		6739	#	6863	5*	3955	
4011	32561	3857		5406		4632		3883		4265		4737	
4012	32562	5316		4043		4680		7272	6*#	5466		4756	
4013	32563	3220		4464		3842		6161		5031		6731	
4014	32564	4545		4551		4548		5217		4007		6487	
4015	32565	6932	2	4862		5897		4094		4222		4506	
4016	32566	2759		8109	4	5434		7544	3*#	6832	7*	6603	
4017	32567	4924		5014		4969		5294		4473		7160	6
4018	32568	5271		4493		4882		6100		4963		6353	
4019	Swarna (NC)	4571		8080	6	6325		4761		4424		4385	
4020	32569	3302		6101		4702		8572	1*#	5392		4006	
4021	32570	5057		6986		6021		6794	#	5196		4635	
4022	32571	5467		7094		6281		5989		6495	10*	5917	
4023	32572	3674		3971		3823		4222		4933		4090	
4024	32573	4148		4391		4270		4039		4718		6417	
4025	32574	5189		8167	2	6678	10	7283	5*#	6458	*	5962	
4026	32575	6225		8029	10	7127	2	4006		5594			
4027	32576	6237	10	7986		7111	3	7483	4*#	7433	2*#	7333	5
4028	32577	3573		6101		4837		5428		6023		5686	
4029	32578	6730	3	6797		6763	9	5378		4951		4551	
4030	32579	4287		5804		5045		5639		5049		4814	
4031	32580	2519		5732		4125		6806	10#	6936	4*	5974	
4032	32581	5808		6797		6303		4594		4626		6737	10
4033	32582	3668		8051	8	5859		6811	9#	7806	1*#	6840	8
4034	32583	6010		5413		5712		4717		3309		6506	
4035	32584	5802		5290		5546		5472		5300		4571	
4036	32585	5455		7442		6448		3911		4105		5981	
4037	32586	3516		6623		5070		4889		5723		3878	
4038	32587	5657		6152		5904		4600		4933		5853	
4039	ZC	4508		6761		5634		4728		6507	9	7808	3
4040	32588	2437		4964		3700		4033		4853		4949	
4041	32589	3150		5601		4376		5161		4020		5135	
4042	32590	4501		8290	1	6396		4450		4510		5558	
4043	CRHR 702 (HC)	5997		8065	7	7031	4	4083		5913		6660	
4044	32591	5455		5884		5669		6711	#	5398		5615	
4045	32592	6319	7	5971		6145		4050		5888		6115	
4046	32593	2588		4833		3711		4194		5404		3692	
4047	32594	4558		6000		5279		4056		3817		4962	
4048	32595	5189		4370		4779		6850	8#	5202		3744	
4049	32596	6370	6	8159	3	7265	1	7794	2*#	6857	6*	6635	
4050	32597	4186		6833		5509		5567		5386		5712	
4051	32598	4539		4362		4451		3861		2898		4013	
4052	32599	5802		6428		6115		4261		5987		5712	
4053	32600	5960		7891		6925	6	5906		6091		7385	4
4054	32601	3024		6471		4748		5911		4926		3692	
4055	32602	3428		7942		5685		4150		6115		3622	
4056	32603	6433	5	5007		5720		4217		4589		4391	
4057	32604	5492		8087	5	6790	8	4806		6134		6128	
4058	32605	5537		5710		5623		5594		5852		6500	
4059	32606	6294	9	5949		6122		4278		5135		8635	2*#
4060	32607	3952		4022		3987		5478		6262	*	3545	
4061	32608	4773		5406		5089		4028		5104		5128	
4062	32609	6319	7	4768		5544		4417		3554		5346	
4063	32610	5429		4659		5044		4683		4859		4744	
4064	LC	6162		7717		6940	5	4167		4822		6205	
Experimental Mean		4880		6192		5536		5291		5274		5574	
CD(0.05)		1084		1022		785		2154		1319		1264	
CV(%)		11.12		8.26		7.09		20.38		12.52		11.34	
F val		9.98 **		13.27 **		11.47 **		2.46 **		5.28 **		7.84 **	
DOS		08-07-24		02-07-24				24-06-24		05-07-24		28-07-24	
DOP		05-08-24		31-07-24				Drill Sowing		03-08-24		23-08-24	
Local Check Name		MTU 1318		MTU 1318				Abhilasha		Rajamudi		BPT 5204	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.2 (Contd.): Grain Yield (kg/ha) in IVT -Late Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN											
		Karnataka		Karnataka (4)		Kerala		Puducherry			Puducherry (2)		
		Brahmavar	Mean	Pattambi	Karaikal	Kurumbapet	Mean						
4001	32551	4236		5001		5352		5858	1*#	10508	10*#	8183	7*#
4002	32552	4343		5815	10*	5604		5210		6217		5713	
4003	32553	2734		4219		5604		3515		9138		6326	
4004	32554	4261		6168	5*#	4196		5438	#	10937	8*#	8187	6*#
4005	32555	3302		4281		5128		5387	#	8381		6884	
4006	32556	4211		4772		4728		5410	#	4392		4901	
4007	32557	4324		4031		4182		5435	#	8439		6937	
4008	32558	4343		5602		5388		5700	6*#	4360		5030	
4009	32559	4470	4	6039	6*	8376	1*#	5406	#	13339	2*#	9372	2*#
4010	32560	4230		5447		6684	3*#	5300		11524	6*#	8412	5*#
4011	32561	4217		4276		4056		5298				5298	
4012	32562	4261		5439		5028		5182		10593	9*#	7887	10*#
4013	32563	4659	2	5645		4372		4576		5254		4915	
4014	32564	4463	6	5044		4044		4798		8471		6634	
4015	32565	4470	4	4323		4416		5278		10196	*#	7737	*#
4016	32566	4186		6291	4*#	3948		5267		9545		7406	*#
4017	32567	3144		5018		5164		5824	3*#	4831		5328	
4018	32568	4217		5408		4084		5740	4*#	6894		6317	
4019	Swarna (NC)	3598		4292		4380		4978		7101		6039	
4020	32569	4217		5547		6144	7*#	4245		11852	5*#	8048	9*#
4021	32570	4337		5241		5048		4614		8349		6481	
4022	32571	4230		5658		5856	8	5440	#	5857		5649	
4023	32572	4350	10	4399		4366		5360		6661		6011	
4024	32573	4331		4876		4404		5740	5*#	4847		5293	
4025	32574	4230		5983	8*	4304		3416		8074		5745	
4026	32575			4800		4596		4830		8931		6881	
4027	32576	4331		6645	1*#	4344		5030		12222	4*#	8626	4*#
4028	32577	4274		5353		5312		4442		13026	3*#	8734	3*#
4029	32578	4205		4771		4668		4807		9556		7181	
4030	32579	4350		4963		5856	8	4934		11344	7*#	8139	8*#
4031	32580	4312		6007	7*	4632		4773		10344	*#	7558	*#
4032	32581	4261		5055		5496		5450	#	8434		6942	
4033	32582	4407	9	6466	2*#	6684	3*#	5417	#	6683		6050	
4034	32583	4457	7	4747		4200		4860		10122	*#	7491	*#
4035	32584	3586		4732		5100		4756		6577		5667	
4036	32585	4343		4585		4196		5834	2*#	7265		6549	
4037	32586	4280		4693		5064		4580		5164		4872	
4038	32587	4230		4904		4984		5490	9#	6354		5922	
4039	ZC	2614		5414		8016	2	3768		15275	1	9522	1
4040	32588	4129		4491		4524		4317		6471		5394	
4041	32589	4337		4663		5235		4685		6460		5573	
4042	32590	4028		4636		4264		3870		3974		3922	
4043	CRHR 702 (HC)	4508	3	5291		4289		4830		8799		6814	
4044	32591	4230		5489		4884		3412		7132		5272	
4045	32592	3718		4943		4516		4923		8053		6488	
4046	32593	2519		3953		4040		5484	10#	8376		6930	
4047	32594	3851		4171		6588	5*#	3642		5857		4750	
4048	32595	2955		4688		4103		4473		9413		6943	
4049	32596	4324		6403	3*#	5424		4556		5360		4958	
4050	32597	4085		5187		4358		5395	#	7106		6250	
4051	32598	4438	8	3803		4092		5521	7#	4624		5073	
4052	32599	3788		4937		4020		4667		5053		4860	
4053	32600	4122		5876	9*	5568		4825		8672		6748	
4054	32601	4110		4660		5712	10	5500	8#	7418		6459	
4055	32602	3876		4441		4228		4884		10011	*#	7447	*#
4056	32603	3681		4219		4484		4434		8032		6233	
4057	32604	4198		5316		6216	6*#	4382		8418		6400	
4058	32605	4236		5546		4092		5120		4238		4679	
4059	32606	2879		5232		5172		3995		7000		5498	
4060	32607	3845		4782		4028		3945		5481		4713	
4061	32608	4160		4605		5124		3935		7503		5719	
4062	32609	4028		4336		4444		4808		8958		6883	
4063	32610	2727		4253		4221		4973		4937		4955	
4064	LC	5025	1	5055		4012		4416		8831		6624	
Experimental Mean		4045		5046		4932		4881		7988		6413	
CD(0.05)		585		753		1603		547		1020		574	
CV(%)		7.24		7.47		16.26		5.61		6.39		4.48	
F val		6.34 **		6.26 **		2.7 **		10.58 **		47.38 **		37.99 **	
DOS		28-06-24								10-07-24			
DOP		07-08-24								14-08-24			
Local Check Name		Sahyadri Brahma								CR-1009 SUB-1			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.2 (Contd.): Grain Yield (kg/ha) in IVT -Late Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN										
		Telangana				Telangana (2)		Tamil Nadu			Tamil Nadu (2)	
		Rajendranagar		Warangal		Mean		Coimbatore	Adutrai		Mean	
4001	32551	5470		4390		4930		4199		6076		5138
4002	32552	6566	8#	5576		6071	#	5357		6994	#	6176
4003	32553	5806	#	6716	10#	6261	8#	3354		6582	#	4968
4004	32554	6472	#	6518	#	6495	4#	7145	8*#	7310	10#	7228
4005	32555	4308		3256		3782		6322		6962	#	6642
4006	32556	6062	#	3466		4764		2974		5430		4202
4007	32557	5854	#	6199		6026	#	3923		5949		4936
4008	32558	6660	7#	6065		6362	7#	8525	1*#	6519	#	7522
4009	32559	6351	#	5548		5949	#	5712		5854		5783
4010	32560	5948	#	6862	8*#	6405	6#	8020	2*#	7057	#	7539
4011	32561	4086		2797		3442		2293		5253		3773
4012	32562	4254		4914		4584		7985	3*#	5981		6983
4013	32563	3327		2850		3088		3690		5316		4503
4014	32564	3172		2936		3054		3644		5570		4607
4015	32565	3555		3396		3476		4004		5728		4866
4016	32566	5806	#	3936		4871		7674	7*#	6266		6970
4017	32567	4012		2948		3480		3887		6582	#	5235
4018	32568	6216	#	4457		5337		5675		6582	#	6129
4019	Swarna (NC)	5255		5021		5138		2414		7184		4799
4020	32569	2944		5873		4408		2452		8228	3#	5340
4021	32570	4214		5292		4753		6587		6108		6347
4022	32571	6277	#	3890		5083		6849	*	7816	7#	7333
4023	32572	6230	#	3041		4635		1903		4937		3420
4024	32573	4785		4210		4498		1955		5253		3604
4025	32574	7587	2*#	3140		5364		5702		5677		5690
4026	32575	3448		2768		3108		2170		4835		3503
4027	32576	6720	6#	6781	9#	6751	1#	7837	6*#	7468	9#	7653
4028	32577	5040		7460	4*#	6250	9#	5767		7943	6#	6855
4029	32578	4227		4362		4294		3632		5760		4696
4030	32579	2399		7868	2*#	5133		5393		8006	4#	6699
4031	32580	7923	1*#	4326		6125	#	6582		7253	#	6918
4032	32581	5887	#	5064		5476		4863		5892		5378
4033	32582			3431		3431		7109	9*#	6013		6561
4034	32583	5349		6542	#	5945	#	1874		7949	5#	4912
4035	32584	4886		7083	6*#	5984	#	5985		8513	2*#	7249
4036	32585	3481		2686		3084		3671		4968		4320
4037	32586	4153		5152		4653		6496		6392	#	6444
4038	32587	4839		6874	7*#	5856	#	7026	10*#	6044		6535
4039	ZC	4153		7152	5	5653		7980	4	6677		7328
4040	32588	3837		2913		3375		4276		5063		4670
4041	32589	2655		3006		2831		3488		4905		4197
4042	32590	3313		3943		3628		4198		5886		5042
4043	CRHR 702 (HC)	4671		5251		4961		5101		5253		5177
4044	32591	4953		5385		5169		6082		8671	1*#	7377
4045	32592	4550		4885		4717		6309		5886		6098
4046	32593	2184		3222		2703		3469		5380		4424
4047	32594	2392		3105		2749		3501		6266		4883
4048	32595	3192		7478	3*#	5335		4025		7563	8#	5794
4049	32596	6747	5#	4926		5836	#	5131		5127		5129
4050	32597	5914	#	4234		5074		7901	5*#	5000		6450
4051	32598	2513		3070		2792		2300		5253		3777
4052	32599	4839		4117		4478		4927		5253		5090
4053	32600	4886		8538	1*#	6712	2#	6971	*#	6994	#	6982
4054	32601	5296		3832		4564		3887		5772		4830
4055	32602	6505	9#	4206		5356		5427		6203		5815
4056	32603	3300		4094		3697		4194		5506		4850
4057	32604	7581	3*#	4088		5834	#	6525		6620	#	6573
4058	32605	6250	#	6588	#	6419	5#	5846		7152	#	6499
4059	32606	6284	#	5518		5901	#	4510		4905		4708
4060	32607	3622		2750		3186		3757		5000		4379
4061	32608	7124	4#	6065		6594	3#	1973		5981		3977
4062	32609	4960		4780		4870		2499		5981		4240
4063	32610	5484		3239		4361		3996		5253		4625
4064	LC	6472	10	5798		6135	10	4994		6930		5962
Experimental Mean		4972		4779		4864		4905		6230		5568
CD(0.05)		1085		1048		765		1824		1123		1000
CV(%)		10.92		10.98		7.87		18.6		9.02		8.99
F val		14.6 **		17.2 **		19.06 **		8.12 **		6.31 **		11.16 **
DOS		24-06-24		13-06-24				14-06-24		29-07-24		
DOP		19-07-24		10-07-24				11-07-24		02-09-24		
Local Check Name		RNR 11718		Siddi (WGL 44)				CO 56		ADT 51		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.2 (Contd.): Grain Yield (kg/ha) in IVT -Late Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN (13)		Maharashtra (5)		Overall Mean (33)	
		Mean		Mean		Mean	
4001	32551	5520		4433		4897	
4002	32552	5863		4995		5808	
4003	32553	5338		4660		5360	
4004	32554	6420	6#	5847		5980	10*
4005	32555	5265		3669		4815	
4006	32556	4666		4675		4773	
4007	32557	5247		4949		5350	
4008	32558	6097	8#	6636	1	6589	1*#
4009	32559	6755	2#	4737		5822	
4010	32560	6476	4#	5774		5992	9*
4011	32561	4179		4090		4467	
4012	32562	5773		3896		5235	
4013	32563	4588		5020		4840	
4014	32564	4762		4268		4691	
4015	32565	5051		4249		4832	
4016	32566	6037	#	6500	4	6496	4*#
4017	32567	4866		5491		5129	
4018	32568	5465		5102		5066	
4019	Swarna (NC)	5089		6614	2	5733	
4020	32569	5641		4468		5424	
4021	32570	5632		5727		5662	
4022	32571	5937		6092	8	6027	8*
4023	32572	4441		3872		4376	
4024	32573	4557		4682		4874	
4025	32574	5784		5855		6299	5*#
4026	32575	5039		5292		5502	
4027	32576	7016	1*#	6463	5	6518	3*#
4028	32577	6160	7#	4081		5292	
4029	32578	5356		4976		5486	
4030	32579	5826		4186		5235	
4031	32580	6009		5538		5856	
4032	32581	5685		5528		5498	
4033	32582	6077	9#	6525	3	6532	2*#
4034	32583	5485		5313		5504	
4035	32584	5609		3615		5099	
4036	32585	4872		3947		4461	
4037	32586	5070		5328		5301	
4038	32587	5618		5240		5773	
4039	ZC	6611	3	5758		5941	
4040	32588	4367		3866		4555	
4041	32589	4449		4299		4757	
4042	32590	4676		5671		5399	
4043	CRHR 702 (HC)	5648		6430	6	6034	7
4044	32591	5678		5045		5482	
4045	32592	5476		6124	7	5773	
4046	32593	4260		3832		4293	
4047	32594	4507		4931		5238	
4048	32595	5274		2922		4904	
4049	32596	5955		5975	10	6225	6*
4050	32597	5513		5391		5643	
4051	32598	3960		3982		4533	
4052	32599	4989		6022	9	5584	
4053	32600	6447	5#	5407		5797	
4054	32601	5042		4270		5241	
4055	32602	5431		5055		5450	
4056	32603	4797		3120		4559	
4057	32604	6052	10#	4893		5580	
4058	32605	5594		4936		5624	
4059	32606	5427		5495		5484	
4060	32607	4284		3883		4417	
4061	32608	5100		4891		5280	
4062	32609	4989		4354		4672	
4063	32610	4554		4463		4663	
4064	LC	5812		5020		5650	
Experimental Mean		5378		4974		5365	
CD(0.05)		368		572		240	
CV(%)		3.42		5.75			
F val		27.4 **		19.42**			
DOS							
DOP							
Local Check Name							

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.2 (Contd.): Grain Yield (kg/ha) in IVT -Late Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN				ZONE IV-NORTH EASTERN	
		Uttar Pradesh				Assam	
		@Gorakhpur		@Masodha		@Titabar	
4001	32551	1933		5146		4465	
4002	32552	3780	9	5568		4360	
4003	32553	5158	1	5924		4255	
4004	32554	2836		6449		4190	
4005	32555	2814		6070		5190	
4006	32556	1424		3697		4775	
4007	32557	3693		3783		4255	
4008	32558	4504	3	4222		4565	
4009	32559	2378		5725		4360	
4010	32560	2804		6084		4980	
4011	32561	1776		4202		4670	
4012	32562	1098		3730		4465	
4013	32563	1838		5725		5395	
4014	32564	1930		6217		5190	
4015	32565	2006		6695	7	4465	
4016	32566	3878	7	5898		5190	
4017	32567	3002		4368		4465	
4018	32568	3059		6695	7	4565	
4019	Swarna (NC)	3706		6250		4465	
4020	32569	3442		4688		4360	
4021	32570	3110		5326		4565	
4022	32571	4738	2	4362		4565	
4023	32572	1220		4555		5295	
4024	32573	2484		5931		6020	5
4025	32574	3415		6536		5810	
4026	32575	2219		6403		4670	
4027	32576	2512		4688		6020	5
4028	32577	2046		4239		5810	
4029	32578	2970		5944		5710	
4030	32579	3158		6815	2	4255	
4031	32580	3626		6350		5915	9
4032	32581	2866		4428		4565	
4033	32582	4451	4	4940		6435	1
4034	32583	3342		5412		5915	9
4035	32584	2658		4016		6330	2
4036	32585	2256		4820		4565	
4037	32586	3248		5991		5395	
4038	32587	3629		6749	6	6330	2
4039	ZC	3882	6	6928	1	4670	
4040	32588	3466		5718		6020	5
4041	32589	2554		5957		5190	
4042	32590	3790	8	6676	9	4880	
4043	CRHR 702 (HC)	1806		3730		4465	
4044	32591	3151		4920		4775	
4045	32592	2744		5725		5500	
4046	32593	1384		6762	4	4880	
4047	32594	3214		6765	3	5710	
4048	32595	2736		4688		5085	
4049	32596	2695		4422		5395	
4050	32597	3536		6217		6225	4
4051	32598	1951		6476		4980	
4052	32599	2522		6755	5	5295	
4053	32600	3402		6343		4775	
4054	32601	1714		4322		5085	
4055	32602	2402		4761		5810	
4056	32603	1462		5751		5915	
4057	32604	2439		6150		5085	
4058	32605	3739	10	6456		4670	
4059	32606	2956				5395	
4060	32607	1695		6602	10	6020	5
4061	32608	3226		6536		5500	
4062	32609	3141		5818		4775	
4063	32610	3330		5891		4255	
4064	LC	4399	5	5585		4465	
Experimental Mean		2880		5565		5088	
CD(0.05)		2148		381		23	
CV(%)		37.32		3.42		0.23	
F val		1.39ns		51.06**		6004.8**	
DOS		12-06-24		03-07-24			
DOP		22-07-24		08-08-24			
Local Check Name		Samba-Sub1		Samba Mahsuri-Sub 1			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.2 (Contd.): Grain Yield (kg/ha) in IVT -Late Kharif 2024 (Not considered)

Entry No	IET No	ZONE IV-NORTH EASTERN		ZONE V- CENTRAL		ZONE VII- SOUTHERN	
		Assam @Gerua		Chhattisgarh @Jagadalpur		Karnataka @Kathalgere	
4001	32551	1275		5964		5196	
4002	32552	3690		6009		5290	
4003	32553	3060		7832		5556	
4004	32554	3115		7871	9	5272	
4005	32555	3165		6074		6172	
4006	32556	3425		4941		4686	
4007	32557	4590	3	5117		7071	8
4008	32558	4975	1	6803		5172	
4009	32559			7826		5472	
4010	32560	4265	7	6868		5512	
4011	32561	3860		5039		7274	4
4012	32562	3565		8018	1	4022	
4013	32563			7412		6854	
4014	32564	2590		4909		5889	
4015	32565	3025		5488		4038	
4016	32566	4535	5	4980		8112	1
4017	32567	2835		7725		4856	
4018	32568	1120		5404		5982	
4019	Swarna (NC)	3555		6309		6836	
4020	32569	3465		7949	5	4263	
4021	32570	3815		7859	10	5172	
4022	32571	3740		7041		3612	
4023	32572	1900		5143		3532	
4024	32573	2475		5212		5515	
4025	32574	4120	9	7854		4128	
4026	32575			6810		3927	
4027	32576	3665		7210		6642	
4028	32577			7952	4	4682	
4029	32578	3510		7930	6	4196	
4030	32579	2780		7718		4138	
4031	32580	3080		6048		4428	
4032	32581			5114		6396	
4033	32582			7887	8	7131	7
4034	32583	4055	10	6117		3188	
4035	32584	1345		7796		3194	
4036	32585	3500		5166		6988	9
4037	32586	4030		6569		5555	
4038	32587	3030		7969	2	5424	
4039	ZC	2270		7725		4572	
4040	32588	2335		4987		4663	
4041	32589	2965		5127		6169	
4042	32590	4245	8	6536		5314	
4043	CRHR 702 (HC)	3085		7217		4880	
4044	32591	2315		7858		4906	
4045	32592	3640		7135		7255	5
4046	32593	2385		5075		4906	
4047	32594	3800		5088		6857	10
4048	32595	2630		7214		4112	
4049	32596	3410		7643		5060	
4050	32597	4555	4	7965	3	6291	
4051	32598	3865		5371		6324	
4052	32599			7728		7144	6
4053	32600			5257		4572	
4054	32601	1610		5169		4164	
4055	32602			6628		5348	
4056	32603			4958		3896	
4057	32604			6302		5188	
4058	32605	3550		7900	7	5428	
4059	32606			7646		7879	2
4060	32607	4360	6	5088		5422	
4061	32608	3140		6891		5382	
4062	32609	1795		6452		3882	
4063	32610	4770	2	5833		5470	
4064	LC	3085		6517		7696	3
Experimental Mean			3249		6551		5377
CD(0.05)			1667		2853		176
CV(%)			25.56		21.8		1.64
F val			2.42**		1.26ns		370.6**
DOS			26-06-24		16-06-24		06-08-24
DOP			28-08-24		08-07-24		14-09-24
Local Check Name			Ranjit		CG 1919		RNR-15048

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.3: Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-Late, Kharif 2024

Entry No	IET No	ZONE II-NORTHERN			ZONE III- EASTERN								
		Uttar Pradesh			Bihar						Bihar (2)		
		Nagina			Sabour			Bikramganj			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4001	32551	134	84	194	124	110	322	141	124	287	133	117	304
4002	32552	124	90	250	125	108	288	127	122	254	126	114	270
4003	32553	124	80	288	114	94	352	125	109	304	120	101	328
4004	32554	134	91	231	125	121	298	129	130	246	127	125	272
4005	32555	140	77	228	124	102	372	121	115	331	122	108	352
4006	32556	108	91	246	102	104	305	88	102	326	95	103	316
4007	32557	113	92	244	112	124	270	107	124	238	110	124	254
4008	32558	123	97	228	114	116	311	117	142	264	116	129	288
4009	32559	136	82	227	136	128	346	129	139	256	133	133	301
4010	32560	134	78	206	121	110	275	127	120	232	124	115	254
4011	32561	120	84	214	108	120	162	106	122	204	107	121	184
4012	32562	140	82	244	130	106	296	135	117	235	132	112	266
4013	32563	110	87	248	102	114	250	102	122	312	102	118	281
4014	32564	109	88	192	105	100	257	95	108	256	100	104	256
4015	32565	118	95	214	110	127	200	108	134	224	109	130	212
4016	32566	126	98	192	114	116	283	118	134	296	116	125	290
4017	32567	122	88	238	115	102	286	118	121	262	116	111	274
4018	32568	140	88	261	126	98	309	127	116	255	126	108	282
4019	Swarna (NC)	120	80	211	122	93	285	124	110	274	123	102	280
4020	32569	134	94	270	139	100	250	129	121	242	134	110	246
4021	32570	120	88	260	117	106	185	112	115	262	114	111	223
4022	32571	124	84	224	122	122	256	122	124	275	122	122	266
4023	32572	116	90	211	104	88	260	97	107	260	101	98	260
4024	32573	108	98	212	109	109	290	108	117	278	108	113	284
4025	32574	129	83	214	116	116	309	119	132	275	118	124	292
4026	32575	120	96	231	109	105	180	110	125	198	110	115	189
4027	32576	134	84	237	116	123	298	118	133	256	117	128	277
4028	32577	136	92	234	123	112	308	139	126	249	131	119	278
4029	32578	136	99	257	116	119	214	121	136	241	118	127	228
4030	32579	130	69	236	128	98	302	131	106	304	130	102	304
4031	32580	131	89	244	126	119	285	131	128	249	128	123	267
4032	32581	110	105	230	108	136	225	107	136	285	108	136	255
4033	32582	124	92	214	114	116	274	121	122	244	118	119	259
4034	32583	120	86	247	118	90	309	119	99	269	119	94	289
4035	32584	120	87	211	134	110	270	139	131	278	136	120	274
4036	32585	128	127	204	132	172	166	139	178	272	136	175	218
4037	32586	124	88	240	118	110	312	121	126	266	120	118	290
4038	32587	124	79	227	124	108	314	126	112	275	125	110	294
4039	ZC	120	76	257	126	112	396	129	117	276	128	114	336
4040	32588	120	105	230	110	128	280	110	142	281	110	135	281
4041	32589	112	94	240	110	112	325	107	124	262	108	118	293
4042	32590	113	101	221	118	124	208	117	136	272	118	130	240
4043	CRHR 702 (HC)	126	84	247	115	108	274	118	125	282	116	117	278
4044	32591	134	76	240	137	115	272	131	124	248	134	120	260
4045	32592	132	99	204	121	122	340	125	114	261	123	118	300
4046	32593	125	119	211	125	178	289	126	182	270	126	180	280
4047	32594	120	98	221	118	121	229	111	138	282	114	130	256
4048	32595	136	96	231	137	120	239	139	131	274	138	126	256
4049	32596	123	95	280	113	120	262	121	135	254	117	128	258
4050	32597	114	102	218	118	123	261	121	124	254	120	124	257
4051	32598	112	88	247	95	102	300	93	134	271	94	118	285
4052	32599	102	80	228	116	118	236	118	134	251	117	126	244
4053	32600	131	86	270	137	102	225	129	133	290	133	118	257
4054	32601	123	96	228	108	124	310	107	129	263	108	126	286
4055	32602	115	83	247	104	107	321	105	131	282	104	119	302
4056	32603	109	95	234	111	118	134	110	129	276	110	124	205
4057	32604	130	93	210	122	110	278	123	144	310	122	126	294
4058	32605	134	88	212	126	106	200	129	125	313	128	116	256
4059	32606	112	96	257	105	104	348	103	176	334	104	140	341
4060	32607	124	114	234	113	154	276	116	117	133	114	136	204
4061	32608	127	94	214	116	114	288	124	117	286	120	115	286
4062	32609	132	76	199	118	98	250	123	114	238	120	106	244
4063	32610	100	100	208	130	125	300	129	135	296	129	130	298
4064	LC	104	97	264	124	99	290	132	126	280	128	113	285
Experimental Mean		123	90	231	118	114	275	119	126	266	119	121	271
Standard Error		0.84			0.48			0			0.24		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-Late, Kharif 2024

Entry No	IET No	ZONE III- EASTERN											
		Jharkhand			Odisha								
		Ranchi			Bhubaneswar			NRRI			Jeypore		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
4001	32551	134	90	186	122	122	238	125	130	314	115	94	378
4002	32552	122	90	218	107	117	216	124	124	330	113	94	376
4003	32553	122	70	276	104	104	299	120	102	231	114	69	366
4004	32554	136	90	232	110	111	260	124	136	264	110	92	362
4005	32555	131	87	208	116	106	270	121	118	380	118	88	432
4006	32556	108	92	206	90	112	237	106	102	264	118	101	328
4007	32557	116	86	206	98	111	236	114	132	248	106	92	336
4008	32558	122	98	232	104	119	202	119	138	412	105	102	389
4009	32559	126	96	255	116	128	250	125	137	330	102	95	352
4010	32560	122	85	180	120	127	189	121	130	346	119	98	386
4011	32561	118	94	118	101	124	219	115	129	248	106	94	366
4012	32562	138	86	213	122	106	228	130	121	231	116	86	342
4013	32563	112	98	145	90	122	196	113	126	396	104	102	432
4014	32564	112	90	154	89	111	234	107	100	264	102	86	372
4015	32565	120	92	226	99	126	211	108	137	280	109	92	315
4016	32566	124	95	227	107	128	243	123	142	346	116	97	375
4017	32567	131	90	235	104	102	237	121	102	330	113	93	412
4018	32568	136	80	247	107	106	300	122	118	297	113	87	392
4019	Swarna (NC)	130	74	216	108	102	268	124	119	314	116	74	345
4020	32569	108	87	234	116	108	260	126	128	346	124	97	316
4021	32570	124	86	196	105	114	207	124	118	264	115	84	334
4022	32571	124	92	234	110	122	196	120	144	297	116	100	506
4023	32572	122	80	210	90	102	210	127	103	330	106	86	296
4024	32573	118	88	205	97	101	294	112	128	330	108	96	368
4025	32574	122	88	304	105	116	236	118	136	346	116	95	372
4026	32575	118	92	214	98	109	162	117	122	264	102	99	438
4027	32576	122	88	195	105	118	241	120	138	214	112	100	422
4028	32577	132	84	176	121	112	204	127	131	396	116	97	402
4029	32578	124	94	238	105	124	282	125	130	412	107	101	372
4030	32579	140	79	248	118	98	235	126	120	346	118	83	474
4031	32580	136	94	186	121	118	241	130	133	396	121	96	366
4032	32581	118	103	182	91	123	265	118	134	264	102	101	345
4033	32582	124	92	183	110	123	248	122	133	264	113	99	392
4034	32583	122	74	234	102	98	266	122	104	330	102	84	365
4035	32584	132	88	213	120	134	188	131	130	330	101	92	409
4036	32585	122	114	234	116	166	218	126	169	280	106	118	342
4037	32586	132	132	220	109	110	248	126	127	429	113	91	392
4038	32587	124	78	265	109	116	274	124	118	280	112	90	418
4039	ZC	118	82	169	109	110	284	124	117	280	108	91	402
4040	32588	122	104	204	94	130	274	115	124	231	108	105	318
4041	32589	118	88	280	96	112	256	113	118	280	108	96	389
4042	32590	126	98	243	102	124	266	124	150	396	108	101	342
4043	CRHR 702 (HC)	118	84	193	107	128	206	120	136	264	116	89	462
4044	32591	138	86	252	117	120	232	129	129	264	115	102	298
4045	32592	122	104	243	104	127	284	121	134	231	110	105	396
4046	32593	124	109	220	110	152	310	121	147	314	105	138	452
4047	32594	118	86	216	102	122	314	122	136	280	106	100	332
4048	32595	138	88	210	139	116	226	132	128	363	104	103	378
4049	32596	120	94	192	99	138	242	122	136	330	106	92	378
4050	32597	122	94	312	105	118	214	120	132	346	107	105	362
4051	32598	110	96	266	89	114	194	110	126	214	106	112	396
4052	32599	122	90	230	100	110	220	124	126	314	111	101	385
4053	32600	134	88	175	107	93	202	122	127	330	108	99	422
4054	32601	118	101	308	98	104	186	116	132	314	114	106	326
4055	32602	116	92	222	101	104	195	112	114	346	106	98	376
4056	32603	118	98	234	103	118	205	116	127	264	114	104	318
4057	32604	122	96	170	108	114	248	120	142	280	104	115	399
4058	32605	130	95	164	109	102	224	125	128	214	116	100	342
4059	32606	114	94	212	98	105	208	114	127	346	106	103	392
4060	32607	122	118	238	101	154	202	121	168	264	106	130	365
4061	32608	122	96	198	102	114	220	124	130	280	105	99	368
4062	32609	122	140	162	105	97	220	121	102	264	114	93	345
4063	32610	122	103	292	110	129	247	122	131	231	106	102	358
4064	LC	126	86	238	120	124	282	119	136	264	107	104	302
Experimental Mean		123	92	218	106	116	237	120	128	303	110	97	374
Standard Error		0.29			0.49			1.09			1.59		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-Late, Kharif 2024

Entry No	IET No	ZONE III- EASTERN											
		Odisha (3)			West Bengal								
		Mean			Malda			Bankura			chinsurah		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
4001	32551	121	115	310	106	104	332	107	122	442	124	91	314
4002	32552	115	112	307	110	108	356	115	112	403	120	100	396
4003	32553	113	92	299	116	110	341	116	96	490	121	84	330
4004	32554	115	113	295	119	112	312	112	128	382	124	94	346
4005	32555	118	104	360	112	108	344	113	113	410	106	64	314
4006	32556	104	105	276	107	112	346	107	104	379	110	148	314
4007	32557	106	112	273	114	104	324	114	122	503	118	92	412
4008	32558	109	119	334	118	106	358	115	106	445	104	131	446
4009	32559	114	120	311	113	120	322	119	133	446	120	106	429
4010	32560	120	118	307	109	110	318	120	132	470	110	108	380
4011	32561	107	115	278	107	112	324	113	133	384	118	108	412
4012	32562	122	104	267	114	108	308	121	126	433	108	102	380
4013	32563	102	117	342	118	100	303	110	116	420	110	96	676
4014	32564	99	99	290	110	108	295	111	124	446	113	69	346
4015	32565	106	119	269	112	106	349	123	146	392	119	110	446
4016	32566	116	122	322	106	114	362	120	118	420	110	104	446
4017	32567	113	99	326	102	104	333	119	94	376	110	85	544
4018	32568	114	104	330	119	110	338	118	102	428	134	97	297
4019	Swarna (NC)	116	98	309	113	102	328	117	126	422	122	77	528
4020	32569	122	111	307	117	113	326	106	94	458	114	96	363
4021	32570	115	105	268	112	106	364	117	95	412	118	105	297
4022	32571	116	122	333	106	104	344	120	106	358	114	87	314
4023	32572	108	97	278	104	108	364	115	93	278	127	86	346
4024	32573	106	108	331	102	116	327	112	118	405	115	101	363
4025	32574	113	116	318	109	118	346	123	123	382	117	106	396
4026	32575	106	110	288	114	113	340	112	123	446	104	106	346
4027	32576	112	119	292	118	107	368	123	120	380	104	112	280
4028	32577	122	113	334	113	118	310	116	112	352	107	103	314
4029	32578	112	118	355	106	120	343	121	132	494	120	106	346
4030	32579	121	100	352	110	104	330	122	98	420	107	68	363
4031	32580	124	116	334	105	116	334	119	129	422	120	96	676
4032	32581	103	120	291	108	106	314	112	98	302	108	118	396
4033	32582	115	118	301	113	110	336	119	116	486	111	96	478
4034	32583	108	95	320	119	110	344	116	113	351	118	98	314
4035	32584	117	118	309	114	106	334	120	116	388	131	97	346
4036	32585	116	151	280	111	166	301	119	153	420	112	118	380
4037	32586	116	109	356	105	114	336	114	119	424	120	104	578
4038	32587	115	108	324	103	112	358	119	112	428	128	93	314
4039	ZC	114	106	322	109	110	345	115	109	429	107	79	280
4040	32588	106	120	274	102	112	316	112	102	434	118	107	346
4041	32589	106	109	309	112	104	312	111	132	441	107	92	462
4042	32590	111	125	334	109	108	326	120	122	422	114	142	478
4043	CRHR 702 (HC)	114	118	311	117	112	361	121	132	391	114	104	297
4044	32591	120	117	265	110	116	322	112	126	342	130	90	314
4045	32592	112	122	304	118	112	360	125	144	311	112	110	346
4046	32593	112	145	358	109	118	320	112	163	289	107	127	495
4047	32594	110	119	308	115	112	316	122	122	420	116	102	544
4048	32595	125	116	322	112	110	302	120	142	379	118	102	346
4049	32596	109	122	317	118	115	361	119		330	106	106	346
4050	32597	111	118	308	109	111	350	106	133	433	106	106	264
4051	32598	102	117	268	114	118	320	112	118	490	106	107	314
4052	32599	112	112	306	117	108	346	118	106	332	128	104	412
4053	32600	112	106	318	108	118	335	121	122	462	120	96	297
4054	32601	109	114	275	105	112	320	123	123	434	110	109	544
4055	32602	106	105	306	114	108	354	111	122	368	109	96	297
4056	32603	111	116	262	103	112	322	120	122	434	118	106	330
4057	32604	111	124	309	107	113	330	114	146	432	114	118	429
4058	32605	116	110	260	115	108	354	120	114	364	116	108	264
4059	32606	106	112	315	102	104	346	112	108	426	118	106	264
4060	32607	109	150	277	118	114	296	118	148	343	110	148	264
4061	32608	110	114	290	112	114	352	118	132	386	115	96	280
4062	32609	113	97	276	108	106	334	119	112	433	122	78	314
4063	32610	112	121	279	116	117	299	117	122	492	117	106	314
4064	LC	115	122	282	112	102	308	120	120	480	118	108	363
Experimental Mean		112	114	305	111	111	333	116	120	409	115	101	377
Standard Error		0.68			1.02			0			1.08		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-Late, Kharif 2024

Entry No	IET No	ZONE III- EASTERN			ZONE III- EASTERN (9)			ZONE IV-NORTH EASTERN			ZONE V- CENTRAL		
		West Bengal (3)			EASTERN (9)			Tripura			Chhattisgarh		
		Mean			Mean			Lembucherra			Ambikhapur		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
4001	32551	112	105	362	122	109	312	132	96	250	116	110	194
4002	32552	115	107	385	118	108	315	134	86	212	116	103	168
4003	32553	118	96	387	117	93	332	125	76	238	114	86	204
4004	32554	118	111	347	121	113	300	96	96	212	116	121	160
4005	32555	110	95	356	118	100	340	132	74	212	118	94	171
4006	32556	108	121	346	104	108	301	114	92	225	98	101	202
4007	32557	116	106	413	111	110	308	116	96	238	104	101	202
4008	32558	112	114	416	113	117	340	112	94	488	116	96	188
4009	32559	117	120	399	121	120	332	130	104	312	116	117	242
4010	32560	113	117	389	119	113	308	120	98	238	115	109	182
4011	32561	113	118	374	110	115	271	124	86	188	108	111	142
4012	32562	114	112	374	124	107	296	134	94	300	118	84	212
4013	32563	113	104	466	107	111	348	117	102	275	102	112	210
4014	32564	111	100	362	105	99	292	114	102	250	98	98	218
4015	32565	118	121	395	112	119	294	118	111	225	110	113	158
4016	32566	112	112	409	116	116	333	118	94	162	114	119	180
4017	32567	110	94	418	115	99	335	118	86	375	114	100	222
4018	32568	124	103	354	122	102	318	130	86	312	118	102	262
4019	Swarna (NC)	117	102	426	119	97	331	130	91	250	114	85	192
4020	32569	112	101	382	120	105	310	99	76	250	116	101	192
4021	32570	116	102	358	116	103	280	129	88	388	113	107	169
4022	32571	114	99	339	117	111	309	128	94	188	112	108	200
4023	32572	115	96	329	110	95	284	112	96	225	106	86	184
4024	32573	110	112	365	109	108	318	113	86	262	105	107	182
4025	32574	116	116	375	116	114	330	124	101	400	110	109	204
4026	32575	110	114	378	109	111	288	117	94	238	106	111	142
4027	32576	115	113	343	115	116	295	116	98	225	116	108	177
4028	32577	112	111	325	122	111	301	134	95	288	116	99	168
4029	32578	116	119	394	116	118	327	129	102	250	114	101	186
4030	32579	113	90	371	122	95	336	132	73	200	118	82	158
4031	32580	115	114	478	123	114	351	113	101	238	116	96	220
4032	32581	109	108	337	108	117	286	115	102	400	104	115	168
4033	32582	114	108	433	116	112	323	119	93	288	114	110	146
4034	32583	118	107	336	115	97	309	116	78	388	106	78	126
4035	32584	122	107	356	125	112	306	134	91	238	114	102	205
4036	32585	114	146	367	120	151	290	98	88	238	115	120	207
4037	32586	113	113	446	118	115	356	129	92	262	114	99	185
4038	32587	116	106	367	119	104	325	125	100	300	114	102	214
4039	ZC	110	99	352	116	103	318	131	96	188	111	96	178
4040	32588	110	107	366	110	117	298	123	107	438	116	108	194
4041	32589	110	109	405	109	109	334	113	94	262	98	103	176
4042	32590	114	124	408	115	123	328	118	110	262	108	120	212
4043	CRHR 702 (HC)	118	116	350	116	113	303	116	108	212	108	122	192
4044	32591	117	111	326	124	112	283	118	81	375	118	104	200
4045	32592	118	122	339	118	119	308	118	119	338	112	111	184
4046	32593	109	136	368	115	146	329	122	104	312	110	146	144
4047	32594	118	112	427	114	115	326	117	100	500	106	106	184
4048	32595	117	118	343	126	116	302	100	91	300	116	104	168
4049	32596	114	111	346	114	117	300	118	112	300	106	111	147
4050	32597	107	117	349	113	116	311	124	96	288	108	112	146
4051	32598	110	114	374	104	114	307	113	98	338	98	110	207
4052	32599	121	106	364	117	111	303	118	108	312	112	116	152
4053	32600	116	112	365	121	109	304	127	96	238	116	106	217
4054	32601	112	115	433	111	116	334	120	96	250	110	105	191
4055	32602	111	109	340	109	108	307	120	91	300	104	108	158
4056	32603	114	113	362	113	115	280	126	110	238	112	109	141
4057	32604	112	126	397	115	122	320	126	96	400	112	107	197
4058	32605	117	110	327	121	110	271	128	81	188	114	107	192
4059	32606	111	106	346	108	114	320	119	92	200	102	113	178
4060	32607	116	136	301	114	139	264	120	141	175	108	153	164
4061	32608	115	114	339	115	112	295	126	108	375	105	90	180
4062	32609	116	98	360	117	104	284	118	91	275	112	94	198
4063	32610	116	115	368	119	119	314	118	94	288	114	111	218
4064	LC	117	110	383	120	112	312	133	91	388	148	100	155
Experimental Mean		114	111	373	116	112	311	120	95	280	111	105	184
Standard Error		0.52			0.28			1.58			6.37		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-Late, Kharif 2024

Entry No	IET No	ZONE V- CENTRAL											
		Chhattisgarh			Chhattisgarh (2)			Maharashtra					
		Raipur			Mean			Sakoli			Sinde wahi		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
4001	32551	116	118	222	116	114	208	119	128	348	125	128	294
4002	32552	110	129	245	113	116	206	110	120	360	120	102	262
4003	32553	103	109	258	108	97	231	108	99	281	114	95	281
4004	32554	112	126	248	114	124	204	109	138	391	119	126	264
4005	32555	113	124	239	115	109	205	112	126	342	123	103	278
4006	32556	86	125	210	92	113	206	87	126	360	98	112	262
4007	32557	92	117	191	98	109	197	96	124	340	106	95	298
4008	32558	104	136	236	110	116	212	108	138	385	113	118	284
4009	32559	115	140	248	115	128	245	112	138	402	125	116	296
4010	32560	110	131	208	112	120	195	110	127	421	118	126	284
4011	32561	100	130	187	104	121	164	100	118	296	105	121	259
4012	32562	119	119	222	118	101	218	118	118	320	118	120	252
4013	32563	88	119	229	95	115	220	91	128	309	100	120	282
4014	32564	92	99	231	95	98	224	92	98	304	102	87	272
4015	32565	100	138	248	105	125	203	98	128	300	106	122	260
4016	32566	105	136	288	109	127	234	108	128	363	116	120	264
4017	32567	107	131	266	110	115	244	104	118	299	114	104	274
4018	32568	104	108	232	111	105	247	106	118	324	118	121	268
4019	Swarna (NC)	107	115	234	111	100	213	106	110	392	114	103	298
4020	32569	118	121	234	116	111	213	116	118	319	124	118	260
4021	32570	102	128	217	108	117	193	100	109	404	116	114	260
4022	32571	108	139	238	110	124	219	106	129	378	118	118	270
4023	32572	91	109	199	99	98	192	94	98	306	104	102	250
4024	32573	94	108	202	100	108	192	94	118	359	108	98	227
4025	32574	106	128	231	108	118	218	106	123	419	116	114	246
4026	32575	97	120	210	102	116	176	96	124	288	108	122	296
4027	32576	105	134	244	111	121	210	109	129	410	114	140	274
4028	32577	118	120	244	117	110	206	118	124	352	126	119	264
4029	32578	104	128	195	110	114	191	108	118	389	114	134	304
4030	32579	118	107	272	118	95	215	119	120	383	126	120	256
4031	32580	114	128	230	114	112	225	118	127	348	120	122	257
4032	32581	90	142	206	97	128	186	96	128	262	100	124	256
4033	32582	107	126	267	110	118	206	109	128	341	114	113	230
4034	32583	94	108	256	100	93	191	96	98	272	106	88	243
4035	32584	118	119	209	116	110	207	116	128	236	125	124	311
4036	32585	116	186	214	116	153	210	110	166	222	120	188	260
4037	32586	106	114	265	110	106	225	104	128	352	118	120	248
4038	32587	112	120	264	113	111	239	109	128	424	118	107	309
4039	ZC	106	119	216	108	108	196	104	128	380	112	124	264
4040	32588	101	151	265	108	130	230	94	128	268	108	132	236
4041	32589	94	110	240	96	106	208	95	118	240	103	97	256
4042	32590	99	127	253	104	123	233	101	128	378	108	121	316
4043	CRHR 702 (HC)	104	128	266	106	125	229	108	120	384	116	122	266
4044	32591	115	108	225	116	106	213	110	112	378	126	124	279
4045	32592	104	136	246	108	123	215	104	129	436	114	141	268
4046	32593	110	175	191	110	161	167	108	177	351	114	168	251
4047	32594	96	128	252	101	117	218	98	120	358	106	117	200
4048	32595	123	130	244	119	117	206	120	114	258	128	125	258
4049	32596	92	140	265	100	125	206	96	130	380	104	129	271
4050	32597	106	128	238	107	120	192	102	120	376	113	119	295
4051	32598	88	127	199	94	119	203	89	130	376	98	96	258
4052	32599	98	138	254	105	127	203	102	136	390	108	128	291
4053	32600	108	122	286	112	114	251	108	116	370	116	124	266
4054	32601	96	127	257	104	116	224	94	118	266	108	114	249
4055	32602	92	117	280	98	113	220	96	120	310	104	124	254
4056	32603	98	136	210	104	123	176	102	129	262	108	117	261
4057	32604	108	135	228	110	121	213	106	136	432	112	134	254
4058	32605	106	129	268	110	118	230	110	118	308	116	104	292
4059	32606	90	126	206	96	120	192	94	128	263	104	113	250
4060	32607	100	131	216	104	142	190	101	176	218	110	156	260
4061	32608	98	131	187	102	110	184	101	127	364	110	120	277
4062	32609	106	105	225	109	99	212	106	138	379	115	113	320
4063	32610	113	143	273	113	127	246	108	126	370	116	125	252
4064	LC	98	116	224	123	108	190	118	95	398	114	123	266
Experimental Mean		103	126	235	108	116	210	104	124	342	113	119	268
Standard Error		0.99			3.24			0.63			0.4		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-Late, Kharif 2024

Entry No	IET No	ZONE V- CENTRAL Maharashtra (2)			ZONE V- CENTRAL (4)			ZONE VI- WESTERN Gujarat					
		Mean			Mean			Navasari			Nawagam		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
4001	32551	122	128	320	119	121	264	121	118	132	117	101	244
4002	32552	114	112	312	114	114	259	111	132	168	124	114	260
4003	32553	112	97	281	110	97	256	103	137	160	114	85	255
4004	32554	114	132	328	114	128	266	112	146	152	118	110	250
4005	32555	118	114	310	116	112	257	107	135	148	120	88	248
4006	32556	92	119	311	92	116	258	82	116	222	110	96	256
4007	32557	101	109	318	99	109	258	97	122	178	112	104	259
4008	32558	110	128	335	110	122	273	86	127	172	114	108	264
4009	32559	119	127	349	117	128	297	113	136	172	108	110	248
4010	32560	114	127	353	113	123	274	110	122	178	116	96	254
4011	32561	102	120	278	103	120	221	97	130	132	114	100	249
4012	32562	118	119	286	118	110	252	117	122	202	104	90	246
4013	32563	95	124	296	95	120	258	88	130	226	110	106	259
4014	32564	96	92	288	96	95	256	88	101	158	108	92	259
4015	32565	102	124	280	104	125	242	92	118	216	110	116	248
4016	32566	112	124	313	111	126	274	90	120	232	114	109	264
4017	32567	110	111	287	110	113	265	122	134	152	112	93	254
4018	32568	112	120	296	112	112	272	101	103	212	110	92	259
4019	Swarna (NC)	110	106	345	110	103	279	103	104	238	110	86	257
4020	32569	120	118	290	118	114	251	111	132	158	110	102	254
4021	32570	108	112	332	108	114	262	98	130	212	108	101	272
4022	32571	112	124	324	111	124	272	109	139	200	116	109	262
4023	32572	100	100	278	99	99	235	84	119	164	112	93	250
4024	32573	102	108	293	101	108	242	88	135	190	110	108	268
4025	32574	111	119	332	110	119	275	101	131	192	112	102	266
4026	32575	102	123	292	102	119	234	94	137	208	120	112	249
4027	32576	112	135	342	111	128	276	90	145	188	114	109	263
4028	32577	122	122	308	119	116	257	116	151	172	120	102	246
4029	32578	111	126	346	110	120	269	103	152	182	116	108	254
4030	32579	122	120	320	120	107	267	114	132	214	119	92	254
4031	32580	120	125	302	117	118	264	119	141	178	116	110	258
4032	32581	98	126	258	97	127	222	96	137	168	108	112	255
4033	32582	112	120	285	111	119	246	129	104	208	116	105	268
4034	32583	101	93	257	101	93	224	129	120	192	128	88	248
4035	32584	120	126	273	118	118	240	118	139	178	120	105	242
4036	32585	115	177	241	115	165	226	115	159	214	116	130	252
4037	32586	112	124	300	110	115	262	103	139	258	110	98	252
4038	32587	113	118	366	113	114	303	110	131	188	108	90	254
4039	ZC	108	126	322	108	117	259	108	154	188	112	104	256
4040	32588	102	130	252	105	130	241	86	142	182	112	114	254
4041	32589	99	108	248	98	107	228	94	133	202	110	99	258
4042	32590	105	124	348	104	124	290	103	140	204	108	113	244
4043	CRHR 702 (HC)	112	122	324	109	123	277	101	150	168	114	108	261
4044	32591	118	118	328	117	112	271	116	145	172	114	96	254
4045	32592	109	135	352	108	129	284	109	150	192	106	111	264
4046	32593	111	172	301	111	167	234	103	188	232	114	146	258
4047	32594	102	118	279	101	118	249	96	118	178	114	120	254
4048	32595	124	120	258	121	118	232	120	117	188	118	110	251
4049	32596	100	129	325	100	127	266	86	137	200	114	110	270
4050	32597	107	119	335	107	120	264	109	134	232	112	103	262
4051	32598	94	114	318	94	116	260	84	116	188	108	108	258
4052	32599	105	132	340	105	129	272	97	142	202	112	110	258
4053	32600	112	120	318	112	117	284	107	135	192	114	106	260
4054	32601	101	116	258	102	116	241	88	150	214	114	118	262
4055	32602	100	122	282	99	117	251	97	140	152	108	98	254
4056	32603	105	123	262	105	123	219	100	144	142	114	102	248
4057	32604	108	135	343	109	128	278	104	146	192	114	108	256
4058	32605	113	111	300	111	115	265	108	129	142	110	109	255
4059	32606	99	120	256	98	120	224	92	137	162	112	100	260
4060	32607	106	166	239	105	154	214	100	162	192	114	147	262
4061	32608	106	124	320	104	117	252	88	128	172	118	96	246
4062	32609	110	126	349	110	112	280	102	132	142	118	86	242
4063	32610	112	125	311	112	126	278	104	156	172	114	118	261
4064	LC	116	109	332	119	108	261	121	164	182	112	114	252
Experimental Mean		109	122	305	108	119	258	102	134	185	113	105	255
Standard Error		0.4			1.68			1.05			0.96		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-Late, Kharif 2024

Entry No	IET No	ZONE VI- WESTERN											
		Gujarat (2)			Maharashtra								
		Mean			Phondaghat			Vadgaonmaval			Karjat		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4001	32551	119	109	188	123	107	197	114	95	212	117	138	243
4002	32552	117	123	214	122	104	206	118	87	330	114	124	178
4003	32553	108	111	207	114	85	191	112	76	254	112	102	259
4004	32554	114	128	202	116	110	172	114	96	338	112	134	217
4005	32555	113	111	198	118	103	186	122	113	254	115	118	158
4006	32556	96	106	239	90	105	154	98	96	316	100	104	194
4007	32557	105	114	218	103	100	134	102	85	268	104	116	256
4008	32558	100	117	218	114	111	182	106	104	321	107	132	174
4009	32559	111	124	210	118	116	191	112	112	315	115	148	208
4010	32560	113	109	216	116	112	184	116	90	326	114	128	161
4011	32561	105	115	191	105	112	117	112	104	318	103	128	188
4012	32562	111	106	224	124	97	208	118	94	250	114	130	208
4013	32563	99	118	242	98	112	176	94	109	324	94	116	207
4014	32564	98	97	208	98	89	176	96	84	311	100	102	169
4015	32565	101	117	232	106	116	150	112	100	287	94	129	157
4016	32566	102	114	248	114	110	167	108	104	332	108	126	212
4017	32567	117	114	203	116	96	172	112	103	270	110	118	214
4018	32568	106	98	236	114	97	207	108	99	320	110	120	221
4019	Swarna (NC)	106	95	247	115	92	210	112	86	336	110	106	254
4020	32569	110	117	206	128	104	133	118	94	319	120	134	218
4021	32570	103	115	242	104	107	147	108	96	273	105	113	140
4022	32571	112	124	232	118	111	136	112	105	333	114	126	198
4023	32572	98	106	207	100	97	161	108	96	262	96	112	214
4024	32573	100	122	229	99	95	146	112	95	324	94	117	214
4025	32574	106	116	230	114	104	196	102	99	269	111	122	184
4026	32575	108	125	228	105	118	113	112	109	321	104	128	216
4027	32576	102	127	225	112	115	148	106	107	277	107	142	176
4028	32577	118	127	209	123	110	165	114	96	317	121	130	254
4029	32578	110	130	218	114	106	122	114	92	224	108	129	198
4030	32579	116	112	234	120	88	194	118	88	254	119	118	228
4031	32580	118	126	218	121	116	168	116	96	344	119	139	228
4032	32581	102	124	211	105	124	154	98	112	242	98	136	200
4033	32582	122	105	238	115	103	152	106	98	262	107	121	163
4034	32583	128	104	220	104	86	206	100	81	287	101	92	228
4035	32584	119	122	210	125	114	151	116	101	302	110	146	220
4036	32585	116	145	233	124	150	152	106	143	285	116	176	252
4037	32586	106	118	255	113	102	187	112	96	256	108	118	197
4038	32587	108	111	221	116	107	188	112	96	226	109	123	208
4039	ZC	110	129	222	117	108	160	112	117	290	113	138	202
4040	32588	99	128	218	104	115	198	106	126	284	102	142	174
4041	32589	102	116	230	103	105	165	104	96	173	100	112	201
4042	32590	106	126	224	111	121	178	112	113	282	103	135	204
4043	CRHR 702 (HC)	107	129	214	114	108	152	112	104	306	110	130	210
4044	32591	116	120	213	120	108	142	116	99	314	119	130	182
4045	32592	108	130	228	115	114	172	112	117	375	112	134	176
4046	32593	109	167	245	110	149	150	108	143	256	104	183	254
4047	32594	105	119	216	104	106	206	102	92	231	104	118	159
4048	32595	119	114	219	129	116	180	120	103	258	121	134	214
4049	32596	100	124	236	112	115	123	104	102	222	102	132	188
4050	32597	110	119	247	116	111	170	116	96	281	111	124	178
4051	32598	96	112	223	93	110	178	96	92	273	98	126	157
4052	32599	105	126	230	109	116	174	112	99	280	106	122	204
4053	32600	111	120	226	117	109	169	104	94	198	110	132	159
4054	32601	101	134	238	104	110	200	106	95	236	99	146	212
4055	32602	103	119	204	102	108	165	108	93	226	98	119	150
4056	32603	107	123	196	111	118	112	112	94	174	96	127	164
4057	32604	109	127	224	116	107	184	112	96	255	102	132	178
4058	32605	108	119	199	116	105	177	112	93	194	114	129	176
4059	32606	102	118	211	97	108	190	100	94	224	98	108	176
4060	32607	107	154	227	107	135	151	112	123	228	107	160	226
4061	32608	103	112	210	114	111	174	108	97	286	101	130	218
4062	32609	110	109	192	116	94	208	112	93	282	114	118	159
4063	32610	109	137	217	124	115	196	112	98	346	118	138	157
4064	LC	117	139	218	112	89	202	112	87	301	108	114	222
Experimental Mean		108	120	221	112	108	169	109	99	278	107	127	198
Standard Error		0.72			0.62			0.5			1.75		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-Late, Kharif 2024

Entry No	IET No	ZONE VI- WESTERN Maharashtra (3)			ZONE VI- WESTERN (5)			ZONE VII- SOUTHERN Andhra Pradesh					
		Mean			Mean			Maruteru			Ragolu		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
4001	32551	118	113	217	118	112	206	116	129	389	112	121	297
4002	32552	118	105	238	118	112	228	106	129	370	108	120	287
4003	32553	113	88	235	111	97	224	103	119	349	106	86	304
4004	32554	114	113	242	114	119	226	105	135	226	106	113	257
4005	32555	118	112	199	116	111	199	104	135	435	112	112	315
4006	32556	96	102	222	96	103	229	90	124	254	82	106	249
4007	32557	103	101	219	104	106	219	97	127	350	90	109	238
4008	32558	109	116	226	106	117	222	99	151	397	104	128	218
4009	32559	115	125	238	114	124	227	103	136	424	112	136	290
4010	32560	115	110	224	114	110	221	105	131	283	106	103	251
4011	32561	106	114	208	106	114	201	100	120	224	96	125	228
4012	32562	119	107	222	116	107	223	110	153	317	116	112	201
4013	32563	95	112	236	96	115	238	104	125	247	86	103	241
4014	32564	98	92	218	98	94	214	100	116	297	86	92	261
4015	32565	104	115	198	103	116	212	102	151	436	90	131	224
4016	32566	110	114	237	107	114	242	105	156	226	102	129	290
4017	32567	112	106	219	114	109	212	104	133	370	94	102	280
4018	32568	111	105	250	109	102	244	110	129	382	102	107	294
4019	Swarna (NC)	112	95	267	110	95	259	110	124	316	106	101	252
4020	32569	122	110	223	118	113	216	115	129	251	116	108	252
4021	32570	106	106	186	105	109	208	100	135	344	106	111	224
4022	32571	115	114	222	114	118	226	110	132	388	106	125	269
4023	32572	101	102	213	100	104	210	98	115	216	90	103	274
4024	32573	102	102	228	101	110	228	100	118	296	90	109	271
4025	32574	109	108	217	108	112	222	105	146	375	104	112	304
4026	32575	107	118	216	107	121	221	100	137	406	98	130	218
4027	32576	108	121	200	106	124	210	100	147	417	104	126	244
4028	32577	120	112	246	119	118	231	106	128	294	113	128	214
4029	32578	112	109	181	111	117	196	102	145	432	102	115	182
4030	32579	119	98	225	118	104	229	113	131	314	110	110	271
4031	32580	118	117	246	118	120	235	112	129	231	110	130	300
4032	32581	100	124	199	101	124	204	88	146	334	80	126	208
4033	32582	110	108	192	115	106	210	105	148	316	100	124	280
4034	32583	102	87	240	112	94	232	101	104	404	90	98	294
4035	32584	117	120	224	118	121	218	104	136	352	112	118	248
4036	32585	116	156	230	116	152	231	114	184	384	108	180	198
4037	32586	111	105	213	109	110	230	100	141	216	106	105	257
4038	32587	112	109	207	111	109	213	106	136	403	106	104	254
4039	ZC	114	121	218	112	124	219	105	142	330	104	113	238
4040	32588	104	128	219	102	128	218	102	141	216	94	131	254
4041	32589	102	104	180	102	109	200	103	117	250	90	106	248
4042	32590	108	123	222	107	124	223	100	156	271	98	137	231
4043	CRHR 702 (HC)	112	114	223	110	120	219	103	140	374	104	119	223
4044	32591	118	112	212	117	116	213	111	132	322	116	126	248
4045	32592	113	122	241	111	125	236	106	154	398	106	135	310
4046	32593	108	158	220	108	162	230	106	194	233	106	168	284
4047	32594	104	106	199	104	111	206	99	140	284	92	120	274
4048	32595	123	118	217	122	116	218	123	135	290	118	129	172
4049	32596	106	116	178	104	119	201	99	144	410	104	131	231
4050	32597	114	110	210	113	114	225	102	137	334	106	126	294
4051	32598	96	109	203	96	110	211	106	145	326	110	120	224
4052	32599	109	113	219	107	118	223	98	153	342	96	128	267
4053	32600	110	112	176	110	115	196	110	131	386	106	115	248
4054	32601	103	117	216	102	124	224	100	136	300	92	119	224
4055	32602	102	106	180	103	112	190	103	138	320	90	116	221
4056	32603	106	113	150	107	117	168	106	148	420	96	124	208
4057	32604	110	112	206	110	118	213	108	158	359	96	124	267
4058	32605	114	109	182	112	113	189	104	133	405	106	108	284
4059	32606	98	103	197	100	109	203	96	132	388	116	110	261
4060	32607	109	139	202	108	145	212	100	196	322	104	166	315
4061	32608	108	113	226	106	112	219	102	152	326	106	114	305
4062	32609	114	102	216	112	104	207	102	124	420	108	107	211
4063	32610	118	117	233	114	125	226	102	152	377	106	121	300
4064	LC	110	97	242	113	114	232	118	111	401	116	108	284
Experimental Mean		110	112	216	109	115	218	104	138	335	102	119	255
Standard Error		0.69			0.52			1.09			0.51		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-Late, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN											
		Andhra Pradesh (2)			Karnataka								
		Mean			Mugad			Mandya			Gangavati		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
4001	32551	114	125	343	116	86	299	108	102	323	104	116	382
4002	32552	107	124	329	119	81	276	114	93	302	110	102	340
4003	32553	105	103	326	106	68	290	104	78	344	108	81	232
4004	32554	106	124	241	106	68	448	103	103	368	108	108	332
4005	32555	108	123	375	120	68	269	111	96	320	112	98	256
4006	32556	86	115	252	108	72	236	98	93	268	93	101	348
4007	32557	94	118	294	100	82	226	98	79	323	94	99	264
4008	32558	101	139	307	104	98	298	106	100	268	104	112	370
4009	32559	108	136	357	109	58	228	109	99	320	104	122	372
4010	32560	105	117	267	107	81	187	118	98	302	108	97	220
4011	32561	98	123	226	106	72	230	114	100	289	102	107	224
4012	32562	112	132	259	104	70	273	118	93	312	114	97	315
4013	32563	94	114	244	100	73	312	96	102	340	92	123	292
4014	32564	93	104	279	96	59	272	94	85	314	88	96	347
4015	32565	96	141	330	102	90	206	104	102	282	102	112	172
4016	32566	104	142	258	106	92	258	104	99	336	104	118	322
4017	32567	99	118	325	106	76	304	104	88	326	103	109	232
4018	32568	106	118	338	104	72	354	104	92	360	106	100	385
4019	Swarna (NC)	108	113	284	118	58	300	111	83	368	108	90	243
4020	32569	116	119	252	120	85	377	120	89	326	114	99	282
4021	32570	103	123	284	105	72	278	120	90	306	108	93	246
4022	32571	108	129	329	106	78	282	120	100	349	109	113	316
4023	32572	94	109	245	104	68	284	106	87	306	94	90	261
4024	32573	94	113	284	103	72	220	104	94	323	94	100	302
4025	32574	104	129	339	97	74	286	118	96	320	104	104	306
4026	32575	99	134	312	106	75	249	104	98	299			
4027	32576	102	137	331	96	80	272	121	101	296	106	116	316
4028	32577	110	128	254	104	90	224	120	98	310	114	104	296
4029	32578	102	130	307	104	92	255	116	104	279	108	94	196
4030	32579	112	120	292	100	72	363	119	79	276	112	88	243
4031	32580	112	130	266	120	92	306	118	100	336	112	104	328
4032	32581	84	136	271	100	69	294	99	112	302	92	122	278
4033	32582	103	136	298	108	86	276	118	98	280	107	108	268
4034	32583	96	101	349	105	69	284	95	73	282	94	96	310
4035	32584	108	127	300	106	98	240	114	100	289	108	102	300
4036	32585	111	182	291	106	105	249	100	105	276	92	147	290
4037	32586	103	123	237	102	79	249	109	93	302	108	94	258
4038	32587	106	120	329	104	78	218	112	84	310	110	92	261
4039	ZC	104	128	284	104	80	260	102	96	292	106	106	354
4040	32588	98	136	235	100	82	222	102	118	326	96	122	254
4041	32589	97	112	248	99	92	339	102	94	310	94	96	253
4042	32590	99	147	251	121	79	311	97	109	330	100	124	324
4043	CRHR 702 (HC)	103	129	299	101	70	244	118	94	296	104	104	316
4044	32591	113	129	284	122	102	364	104	93	330	106	100	202
4045	32592	106	145	354	101	81	264	104	102	320	106	116	320
4046	32593	106	181	258	104	93	321	97	137	296	98	151	282
4047	32594	96	130	279	98	77	380	94	88	320	98	109	286
4048	32595	121	132	231	117	83	314	120	98	320	114	95	284
4049	32596	101	138	320	97	78	286	101	100	330	102	116	304
4050	32597	104	132	314	102	80	328	121	102	333	102	116	298
4051	32598	108	132	275	102	102	290	96	96	309	92	122	238
4052	32599	96	141	305	102	90	362	103	107	306	102	122	308
4053	32600	108	123	317	103	93	272	104	104	289	105	106	365
4054	32601	96	128	262	100	90	361	100	105	320	103	110	242
4055	32602	97	127	271	105	72	248	124	101	318	104	102	264
4056	32603	101	136	314	104	65	266	120	114	274	106	109	240
4057	32604	102	141	313	102	78	297	104	104	330	102	118	263
4058	32605	105	121	344	102	88	348	106	102	279	106	113	320
4059	32606	106	121	324	100	72	308	104	97	368	97	130	291
4060	32607	102	181	319	104	104	338	114	127	304	102	146	232
4061	32608	104	134	316	101	73	284	104	110	287	100	116	366
4062	32609	105	115	316	102	80	256	106	85	265	104	100	310
4063	32610	104	137	339	102	67	271	104	115	343	96	112	232
4064	LC	117	110	342	106	100	259	126	158	391	110	84	339
Experimental Mean		103	129	296	105	80	285	108	99	312	103	107	288
Standard Error		0.59			1.82			1.87			1.19		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-Late, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN											
		Karnataka			Karnataka (4)			Kerala			Puducherry		
		Brahmavar			Mean			Pattambi			Karaikal		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
4001	32551	120	80	360	112	96	341	97	104	360	92	97	366
4002	32552	116	81	386	115	89	326	92	99	407	94	102	336
4003	32553	113	60	379	108	72	311	91	82	428	93	98	363
4004	32554	120	76	388	109	88	384	93	102	385	92	118	400
4005	32555	124	71	378	117	83	306	91	101	292	94	88	368
4006	32556	126	75	369	106	85	306	83	81	350	90	88	336
4007	32557	110	84	396	100	86	303	92	84	389	93	105	342
4008	32558	114	88	390	107	99	332	92	100	443	92	108	396
4009	32559	120	79	388	111	90	327	89	102	500	90	105	330
4010	32560	120	82	397	113	89	277	90	110	428	93	95	359
4011	32561	104	84	426	107	91	292	106	98	202	90	85	336
4012	32562	119	80	372	114	85	318	94	103	298	92	98	344
4013	32563	102	86	404	98	96	337	84	98	334	92	88	304
4014	32564	101	76	396	95	79	332	85	84	317	92	84	338
4015	32565	110	91	408	104	99	267	80	94	296	90	84	374
4016	32566	122	86	374	109	99	323	83	104	230	93	77	420
4017	32567	118	76	394	108	87	314	85	99	342	92	82	367
4018	32568	117	74	374	108	84	368	80	101	295	96	82	374
4019	Swarna (NC)	121	75	358	115	77	317	87	98	410	92	76	331
4020	32569	123	76	377	119	87	341	96	98	475	100	83	271
4021	32570	122	74	407	114	82	310	80	80	216	99	86	260
4022	32571	116	90	396	113	95	336	90	100	338	90	96	330
4023	32572	101	63	411	101	77	315	84	84	198	98	88	336
4024	32573	104	89	418	101	89	316	83	91	320	91	98	368
4025	32574	113	77	396	108	88	327	86	94	280	90	77	426
4026	32575				105	87	274	89	73	281	92	92	352
4027	32576	118	83	376	110	95	315	80	100	284	97	85	348
4028	32577	124	78	384	116	92	303	84	105	270	92	90	342
4029	32578	117	82	371	112	93	275	86	93	223	90	80	352
4030	32579	124	72	386	114	78	317	89	96	500	89	105	360
4031	32580	126	75	374	119	93	336	82	102	346	90	78	342
4032	32581	103	91	389	99	99	316	80	94	421	91	90	373
4033	32582	120	83	402	113	94	306	88	101	493	98	86	398
4034	32583	118	60	379	103	74	314	83	92	360	92	84	352
4035	32584	126	73	384	114	93	303	85	101	302	94	102	304
4036	32585	121	121	390	105	120	301	86	76	367	96	84	379
4037	32586	122	86	366	110	88	294	82	99	400	92	82	304
4038	32587	118	75	382	111	82	292	79	92	382	89	80	374
4039	ZC	114	70	358	106	88	316	84	100	586	90	82	240
4040	32588	106	99	391	101	105	298	85	117	432	92	92	400
4041	32589	112	76	387	102	90	322	95	81	468	97	83	304
4042	32590	116	90	348	108	101	328	82	100	332	96	112	240
4043	CRHR 702 (HC)	118	76	375	110	86	308	94	95	400	92	82	304
4044	32591	119	74	370	113	93	316	92	114	349	88	105	208
4045	32592	114	88	380	106	97	321	83	98	270	96	88	336
4046	32593	106	105	388	101	122	322	84	94	288	90	81	400
4047	32594	109	70	368	100	86	338	85	103	328	90	82	384
4048	32595	108	72	372	115	87	323	100	112	248	90	83	336
4049	32596	110	73	388	103	92	327	97	114	324	93	82	304
4050	32597	110	74	368	108	93	332	88	90	349	90	105	431
4051	32598	118	69	370	102	97	302	87	90	331	92	80	368
4052	32599	112	72	346	105	98	330	84	92	346	90	78	432
4053	32600	116	74	366	107	94	323	104	108	346	94	84	342
4054	32601	106	74	356	102	95	320	96	101	548	90	89	368
4055	32602	109	71	368	110	86	299	82	97	360	92	80	400
4056	32603	108	84	387	110	93	292	80	98	248	90	88	272
4057	32604	117	84	372	106	96	315	96	112	461	96	84	336
4058	32605	103	74	328	104	94	319	101	102	227	92	80	368
4059	32606	113	72	372	104	93	334	92	101	292	92	110	272
4060	32607	117	86	387	109	116	315	92	108	457	91	98	272
4061	32608	120	71	386	106	92	330	87	98	280	92	79	240
4062	32609	120	61	356	108	82	297	93	88	299	98	84	267
4063	32610	119	76	370	105	93	304	97	95	404	94	104	352
4064	LC	111	80	366	113	105	339	91	141	270	96	84	352
Experimental Mean		114	78	380	108	91	316	88	97	350	92	89	341
Standard Error		2.86			1.06			2.01			0.86		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-Late, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN											
		Puducherry			Puducherry (2)			Telangana					
		Kurumbapet			Mean			Rajendranagar			Warangal		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
4001	32551	120	124	570	106	110	468	117	102	533	125	134	298
4002	32552	114	104	390	104	104	363	118	106	514	116	132	316
4003	32553	118	130	450	106	114	406	112	87	584	113	107	314
4004	32554	124	116	525	108	117	462	112	102	433	116	139	327
4005	32555	120	108	615	108	98	492	115	98	390	111	127	315
4006	32556	111	98	345	100	93	340	101	98	440	91	96	318
4007	32557	114	99	345	103	102	344	103	95	464	101	123	312
4008	32558	111	97	330	102	103	363	112	106	407	111	127	320
4009	32559	120	130	600	104	117	465	113	103	493	122	147	340
4010	32560	116	122	510	104	108	434	117	99	417	114	133	332
4011	32561				90	85	336	113	103	440	106	112	314
4012	32562	112	114	615	102	106	480	126	88	463	124	134	310
4013	32563	109	112	420	100	100	362	103	104	376	93	129	328
4014	32564	106	91	450	99	88	394	103	86	380	94	102	318
4015	32565	116	120	450	103	102	412	105	100	424	106	133	332
4016	32566	107	118	420	100	98	420	110	101	424	114	134	328
4017	32567	108	85	315	100	84	341	112	98	416	116	128	317
4018	32568	115	108	435	105	95	404	115	88	466	114	132	328
4019	Swarna (NC)	118	106	390	105	91	360	117	88	413	116	113	324
4020	32569	120	103	570	110	93	420	126	103	430	126	132	297
4021	32570	120	110	390	110	98	325	112	98	417	106	117	314
4022	32571	116	122	330	103	109	330	116	105	496	115	138	316
4023	32572	106	98	645	102	92	490	105	84	360	100	102	322
4024	32573	118	102	405	104	100	386	103	97	406	101	121	317
4025	32574	115	90	420	102	84	423	112	99	476	115	124	317
4026	32575	108	100	435	100	96	394	104	103	374	102	128	318
4027	32576	114	112	690	105	99	519	112	103	470	112	134	304
4028	32577	123	118	525	108	104	434	128	99	500	126	135	298
4029	32578	119	116	375	104	98	364	115	103	426	112	131	286
4030	32579	122	113	630	106	109	495	126	80	534	126	113	324
4031	32580	116	120	540	104	98	441	120	99	676	126	137	333
4032	32581	109	104	375	100	97	374	101	102	554	96	126	318
4033	32582	106	114	405	102	100	401				115	131	322
4034	32583	117	94	540	104	89	446	101	79	490	101	98	328
4035	32584	112	95	450	103	99	377	117	96	390	128	124	316
4036	32585	114	150	450	104	117	414	107	116	340	104	173	308
4037	32586	117	108	285	105	95	294	115	91	404	113	137	332
4038	32587	115	100	480	102	90	427	116	98	410	114	136	316
4039	ZC	119	109	495	104	96	368	115	103	394	118	130	316
4040	32588	107	122	390	100	106	395	101	105	396	98	138	334
4041	32589	103	102	360	100	92	332	103	101	467	100	118	317
4042	32590	117	132	300	106	122	270	105	103	480	109	136	330
4043	CRHR 702 (HC)	109	106	405	101	94	354	110	102	384	114	137	295
4044	32591	120	114	330	104	109	269	113	101	460	120	124	332
4045	32592	114	127	525	105	107	430	110	105	456	113	135	308
4046	32593	110	140	450	100	110	425	113	122	410	105	170	318
4047	32594	118	123	525	104	102	454	103	102	356	103	123	328
4048	32595	120	121	420	105	102	378	132	100	420	128	127	320
4049	32596	106	120	465	99	101	384	105	103	420	101	136	324
4050	32597	112	115	450	101	110	440	112	111	440	109	129	328
4051	32598	104	120	435	98	100	402	103	104	414	121	112	306
4052	32599	114	111	390	102	95	411	112	104	476	111	132	338
4053	32600	118	113	450	106	98	396	116	102	497	116	136	300
4054	32601	116	114	435	103	101	402	103	104	393	100	130	314
4055	32602	114	110	540	103	95	470	107	98	464	99	112	290
4056	32603	113	108	390	101	98	331	118	101	373	105	130	320
4057	32604	114	130	450	104	107	393	112	103	420	113	147	307
4058	32605	117	112	390	104	96	379	117	103	417	114	128	318
4059	32606	115	115	465	103	112	368	107	106	396	95	132	326
4060	32607	120	130	390	105	114	331	117	125	470	110	168	317
4061	32608	114	118	465	103	99	352	115	104	480	111	141	314
4062	32609	120	100	585	109	92	426	117	96	456	110	118	297
4063	32610	108	105	360	101	104	356	117	104	616	116	136	322
4064	LC	120	114	465	108	99	408	112	102	596	101	108	334
Experimental Mean		114	112	451	103	101	396	111	100	447	110	128	317
Standard Error		1.2			0.71			0			0.64		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-Late, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN											
		Telangana (2)			Tamil Nadu						Tamil Nadu (2)		
		Mean			Coimbatore			Adutrai			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4001	32551	121	118	416	121	119	428	122	110	325	122	114	376
4002	32552	118	119	415	120	100	400	126	116	330	123	108	365
4003	32553	113	97	448	118	86	430	126	79	256	122	82	343
4004	32554	114	120	380	120	110	498	122	104	262	121	108	380
4005	32555	113	113	352	123	104	415	122	107	292	123	106	354
4006	32556	96	97	379	106	94	491	107	112	240	107	103	366
4007	32557	102	109	388	110	94	362	108	102	292	109	98	327
4008	32558	112	117	364	118	124	420	114	113	350	116	118	385
4009	32559	117	125	416	119	128	428	114	114	290	116	121	358
4010	32560	116	116	374	130	111	402	125	116	272	128	113	338
4011	32561	110	107	377	110	109	358	123	125	290	117	117	324
4012	32562	125	111	387	134	108	495	124	120	304	129	114	400
4013	32563	98	116	352	106	98	382	125	110	330	115	104	356
4014	32564	98	94	349	106	88	488	111	88	234	109	88	360
4015	32565	106	117	378	118	119	440	113	120	256	115	120	348
4016	32566	112	117	376	110	117	378	110	114	320	110	115	348
4017	32567	114	113	367	109	105	355	106	88	300	108	96	328
4018	32568	114	110	398	118	107	515	114	90	250	116	98	383
4019	Swarna (NC)	116	100	368	120	96	472	123	87	270	122	92	372
4020	32569	126	117	364	134	104	498	118	110	314	126	107	406
4021	32570	110	108	365	120	99	385	128	111	270	124	105	328
4022	32571	115	122	406	116	122	440	124	91	340	120	107	390
4023	32572	102	93	341	103	96	412	111	94	280	107	95	346
4024	32573	102	109	362	106	95	452	106	109	312	106	102	382
4025	32574	114	112	397	116	108	478	122	109	271	119	109	374
4026	32575	104	115	346	106	103	350	110	122	238	108	113	294
4027	32576	112	118	387	114	115	445	126	112	282	120	114	364
4028	32577	127	117	399	128	104	438	128	119	304	128	112	371
4029	32578	114	117	356	128	123	438	126	122	282	127	122	360
4030	32579	126	97	428	130	105	512	124	98	310	127	102	411
4031	32580	123	118	505	131	119	498	122	108	324	127	113	411
4032	32581	99	114	436	102	117	415	104	111	299	102	114	357
4033	32582	115	131	322	116	117	448	106	103	296	111	110	372
4034	32583	101	89	409	104	79	425	111	76	240	108	77	332
4035	32584	122	110	353	120	104	415	120	113	322	120	108	369
4036	32585	105	144	324	110	134	455	120	98	248	115	116	352
4037	32586	114	114	368	120	105	450	130	108	320	125	107	385
4038	32587	115	117	363	116	95	432	123	98	302	120	97	368
4039	ZC	116	117	355	118	93	352	114	91	297	116	92	325
4040	32588	100	121	365	110	126	455	106	110	312	108	118	383
4041	32589	102	109	392	108	102	360	102	88	324	104	95	342
4042	32590	107	120	405	110	122	408	107	112	300	108	117	354
4043	CRHR 702 (HC)	112	119	339	112	102	432	104	111	340	108	107	386
4044	32591	117	112	396	128	114	412	122	128	365	125	121	389
4045	32592	111	120	382	112	104	400	112	124	293	112	114	346
4046	32593	109	146	364	117	153	519	108	122	276	112	137	397
4047	32594	103	113	342	110	105	458	112	118	282	111	112	370
4048	32595	130	113	370	133	112	425	126	120	330	130	116	378
4049	32596	103	120	372	110	105	540	112	125	258	111	115	399
4050	32597	111	120	384	114	115	490	106	104	352	110	110	421
4051	32598	112	108	360	97	98	365	123	119	324	110	108	344
4052	32599	112	118	408	108	104	350	106	98	290	106	102	320
4053	32600	116	119	398	120	105	525	126	122	328	123	114	427
4054	32601	102	117	354	114	110	420	112	122	290	113	116	355
4055	32602	103	105	377	114	114	478	110	123	253	112	119	365
4056	32603	112	116	347	106	114	352	111	108	302	108	111	327
4057	32604	112	125	364	112	115	345	113	117	320	112	116	333
4058	32605	116	116	368	118	102	420	114	119	325	116	110	372
4059	32606	101	119	361	107	98	375	110	98	308	108	98	342
4060	32607	114	146	394	122	145	450	112	158	307	118	151	378
4061	32608	113	122	397	105	94	392	116	120	305	111	107	349
4062	32609	114	107	377	116	93	450	124	98	318	120	96	384
4063	32610	116	120	469	114	115	475	104	104	312	110	109	394
4064	LC	107	105	465	111	114	480	123	117	332	117	116	406
Experimental Mean		111	115	382	115	108	432	116	109	297	116	109	365
Standard Error		1.06			0.88			1.82			1		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-Late, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN (13)			Maharashtra (5)			Overall Mean (33)		
		Mean			Mean			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4001	32551	113	109	379	120	119	258	118	110	311
4002	32552	112	105	358	117	107	268	116	107	307
4003	32553	109	89	363	112	91	253	112	92	314
4004	32554	110	107	373	114	121	276	114	112	309
4005	32555	112	101	359	118	113	243	116	102	309
4006	32556	99	95	327	95	109	257	100	102	291
4007	32557	101	99	331	102	104	259	105	104	293
4008	32558	106	112	354	110	121	269	109	114	321
4009	32559	110	112	385	117	126	282	115	117	329
4010	32560	111	106	336	115	117	275	115	110	296
4011	32561	106	103	297	105	116	236	108	109	259
4012	32562	114	105	355	118	112	248	119	105	302
4013	32563	99	104	332	95	117	260	101	109	309
4014	32564	97	88	339	97	92	246	100	93	290
4015	32565	103	111	331	103	119	231	106	115	285
4016	32566	105	111	333	111	118	268	110	114	302
4017	32567	104	98	332	111	108	246	110	101	305
4018	32568	107	98	370	112	111	268	114	101	320
4019	Swarna (NC)	111	92	342	111	99	298	114	95	312
4020	32569	117	101	363	121	113	250	118	105	307
4021	32570	110	98	312	107	108	245	111	103	282
4022	32571	110	109	353	113	118	263	114	111	303
4023	32572	100	90	331	100	101	239	104	95	281
4024	32573	100	100	339	102	104	254	103	104	299
4025	32574	107	101	358	110	113	263	111	108	317
4026	32575	102	106	320	105	120	247	106	111	278
4027	32576	108	109	365	110	127	257	111	114	304
4028	32577	115	107	338	120	116	270	119	110	297
4029	32578	110	108	315	112	116	247	113	113	291
4030	32579	114	97	386	120	107	263	119	97	324
4031	32580	114	107	380	119	120	269	118	112	327
4032	32581	96	108	351	99	125	223	101	115	293
4033	32582	107	108	349	110	113	229	112	109	301
4034	32583	101	85	361	101	89	247	108	90	308
4035	32584	111	105	332	118	123	244	118	110	290
4036	32585	106	129	333	115	164	234	113	141	286
4037	32586	109	102	319	111	113	248	113	108	305
4038	32587	108	98	348	112	112	271	113	103	311
4039	ZC	107	101	347	112	123	259	112	106	302
4040	32588	100	116	337	103	129	232	105	119	297
4041	32589	101	97	337	101	106	207	103	103	297
4042	32590	104	116	323	107	124	272	108	120	300
4043	CRHR 702 (HC)	106	103	338	112	117	263	111	110	296
4044	32591	113	110	330	118	115	259	118	110	291
4045	32592	106	112	352	111	127	286	111	118	309
4046	32593	103	133	344	109	164	252	109	144	304
4047	32594	101	105	352	103	111	231	106	110	311
4048	32595	118	107	327	123	118	234	121	111	288
4049	32596	103	110	353	104	122	237	107	115	301
4050	32597	106	108	369	112	114	260	110	112	311
4051	32598	104	106	331	95	111	249	102	109	295
4052	32599	103	107	350	107	120	268	108	112	304
4053	32600	111	107	363	111	115	232	115	109	305
4054	32601	102	108	352	102	117	232	106	113	307
4055	32602	104	103	348	101	113	221	105	106	296
4056	32603	105	107	312	106	117	195	108	112	265
4057	32604	106	114	348	110	121	261	111	117	309
4058	32605	108	105	341	113	110	229	114	107	281
4059	32606	103	106	340	99	110	221	104	110	293
4060	32607	108	135	351	108	150	216	110	139	281
4061	32608	106	107	341	107	117	264	109	110	296
4062	32609	109	95	345	112	111	270	113	100	293
4063	32610	106	108	364	116	120	264	112	115	312
4064	LC	111	109	375	113	102	278	115	110	319
Experimental Mean		107	105	346	109	116	252	111	110	300
Standard Error		0.48			0.48			0.32		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-Late, Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN						ZONE IV-NORTH EASTERN		
		Uttar Pradesh						Assam		
		@Gorakhpur			@Masodha			@Titabar		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
4001	32551	141	105	260	113	114	258	112	104	236
4002	32552	126	119	252	114	104	292	114	99	212
4003	32553	122	95	274	116	90	317	114	82	210
4004	32554	129	118	253	118	94	333	113	102	186
4005	32555	130	105	241	114	97	307	119	101	220
4006	32556	93	111	206	118	118	270	118	81	203
4007	32557	135	115	248	120	114	270	118	84	208
4008	32558	115	131	241	122	110	240	118	100	198
4009	32559	119	124	224	113	90	333	116	102	202
4010	32560	121	126	208	116	94	348	118	110	220
4011	32561	104	128	268	118	93	262	120	98	189
4012	32562	136	102	256	120	98	258	114	103	202
4013	32563	99	127	240	116	107	306	108	98	210
4014	32564	130	109	240	114	110	323	108	84	220
4015	32565	107	124	229	113	119	359	120	94	210
4016	32566	118	123	196	118	107	306	118	104	253
4017	32567	118	110	251	120	114	268	116	99	195
4018	32568	130	107	244	116	122	332	120	101	205
4019	Swarna (NC)	104	101	242	114	94	348	118	98	214
4020	32569	134	115	238	122	110	260	118	98	196
4021	32570	113	114	259	116	113	282	118	80	210
4022	32571	120	130	272	122	89	258	120	100	183
4023	32572	102	105	229	122	97	288	113	84	264
4024	32573	132	121	232	117	120	358	116	91	252
4025	32574	114	122	230	116	95	358	113	94	273
4026	32575	111	129	252	114	104	318	115	73	210
4027	32576	119	124	236	122	116	272	120	100	270
4028	32577	138	112	239	122	104	274	120	105	250
4029	32578	115	127	238	114	106	357	120	93	254
4030	32579	131	99	230	116	118	368	120	96	206
4031	32580	134	122	232	114	120	340	118	102	263
4032	32581	100	127	256	120	97	282	118	94	224
4033	32582	116	122	236	116	95	272	120	101	282
4034	32583	110	103	252	114	104	270	120	92	285
4035	32584	136	117	252	120	112	308	120	101	285
4036	32585	136	150	254	112	98	284	114	76	252
4037	32586	120	108	232	114	104	319	116	99	260
4038	32587	124	109	280	114	98	333	112	92	276
4039	ZC	130	108	256	114	100	348	120	100	254
4040	32588	120	111	222	116	94	260	120	117	246
4041	32589	105	120	258	118	101	295	115	81	226
4042	32590	118	128	283	118	112	346	112	100	196
4043	CRHR 702 (HC)	103	135	252	121	116	252	116	95	205
4044	32591	133	114	246	114	97	284	112	114	220
4045	32592	123	130	240	112	104	308	106	98	257
4046	32593	132	141	274	110	108	348	102	94	202
4047	32594	112	122	208	110	110	360	102	103	252
4048	32595	135	118	248	120	98	278	104	112	208
4049	32596	118	131	260	122	90	252	102	114	255
4050	32597	123	128	243	112	97	305	102	90	254
4051	32598	96	126	233	114	100	308	102	90	242
4052	32599	117	126	284	116	104	333	102	92	205
4053	32600	132	111	226	110	108	305	102	108	203
4054	32601	135	129	232	122	84	252	104	101	226
4055	32602	102	108	204	124	88	266	102	97	273
4056	32603	110	128	208	114	98	288	102	98	270
4057	32604	121	130	221	116	107	307	105	112	255
4058	32605	129	115	238	116	112	317	112	102	186
4059	32606	102	126	228	124			114	101	238
4060	32607	111	159	258	116	120	305	106	108	285
4061	32608	119	125	266	116	120	323	106	98	246
4062	32609	125	103	240	120	92	274	106	88	224
4063	32610	130	127	244	118	98	292	104	95	201
4064	LC	125	109	246	116	79	298	106	141	206
Experimental Mean		120	119	242	116	103	302	112	97	230

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 8.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-Late, Kharif 2024 (Not considered)

Entry No	IET No	ZONE IV-NORTH EASTERN			ZONE V- CENTRAL			ZONE VII- SOUTHERN		
		Assam			Chhattisgarh			Karnataka		
		@ Gerua			@ Jagadapur			@ Kathalgera		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
4001	32551	147	88	242	110	106	272	90	99	385
4002	32552	147	83	249	117	106	316	90	82	329
4003	32553	139	71	238	110	89	218	90	68	385
4004	32554	139	94	251	113	106	220	78	94	343
4005	32555	139	79	240	117	108	308	94	98	217
4006	32556	131	83	240	96	98	220	70	92	287
4007	32557	131	85	230	99	94	202	84	100	504
4008	32558	135	98	242	117	116	288	70	100	336
4009	32559				120	123	346	88	102	406
4010	32560	131	86	258	116	119	315	86	98	392
4011	32561	131	93	222	115	104	218	84	103	448
4012	32562	147	81	263	119	110	328	92	95	357
4013	32563				95	113	270	68	100	329
4014	32564	131	75	258	96	98	261	64	83	378
4015	32565	139	85	222	105	105	278	82	101	224
4016	32566	139	80	244	110	100	264	86	100	483
4017	32567	139	84	218	114	109	280	81	94	294
4018	32568	139	77	248	116	108	302	92	79	231
4019	Swarna (NC)	147	78	236	110	90	268	58	76	280
4020	32569	147	91	236	92	110	292	92	91	294
4021	32570	139	81	234	105	103	224	92	83	322
4022	32571	139	86	234	114	119	319	84	100	259
4023	32572	131	73	252	99	90	245	72	87	238
4024	32573	131	81	235	100	102	269	70	88	371
4025	32574	131	94	234	110	113	316	88	95	266
4026	32575				104	118	330	86	91	315
4027	32576	131	86	242	110	114	319	84	97	441
4028	32577				120	110	266	78	79	322
4029	32578	139	95	226	110	114	286	90	93	266
4030	32579	147	76	260	121	94	274	94	84	294
4031	32580	147	88	261	116	113	309	86	98	280
4032	32581				101	122	260	74	104	350
4033	32582				110	111	288	84	95	420
4034	32583	147	74	268	100	88	224	70	74	231
4035	32584	147	87	258	117	110	272	94	99	287
4036	32585	131	102	238	117	153	292	62	102	399
4037	32586	139	84	242	110	106	274	58	89	371
4038	32587	139	82	244	116	98	292	90	97	322
4039	ZC	156	98	256	109	117	266	84	98	371
4040	32588	139	101	248	105	120	282	82	103	252
4041	32589	131	80	234	105	104	225	70	90	371
4042	32590	147	103	248	105	121	248	80	101	350
4043	CRHR 702 (HC)	131	86	239	110	116	286	88	84	287
4044	32591	156	82	248	117	109	242	86	91	308
4045	32592	139	94	254	104	122	305	72	100	371
4046	32593	131	112	238	117	151	240	68	134	287
4047	32594	139	92	266	98	106	226	68	93	462
4048	32595	156	95	238	121	110	305	92	90	287
4049	32596	139	90	248	105	112	234	72	96	301
4050	32597	139	91	249	114	118	294	70	103	392
4051	32598	139	92	254	94	119	247	68	98	413
4052	32599				110	123	257	72	103	399
4053	32600				110	109	298	86	98	308
4054	32601	139	85	244	101	113	302	72	100	287
4055	32602				104	112	288	70	91	385
4056	32603				105	107	246	84	106	273
4057	32604				106	117	318	72	100	350
4058	32605	147	85	248	110	112	310	74	93	371
4059	32606				96	113	317	70	100	448
4060	32607	139	122	252	104	149	296	72	138	308
4061	32608	139	89	242	103	116	269	72	93	392
4062	32609	139	72	242	110	102	258	80	83	329
4063	32610	139	87	244	116	116	275	75	99	399
4064	LC	139	100	256	109	91	194	68	102	448
Experimental Mean		139	87	244	108	110	274	79	95	340

Annual Progress Report 2024 Vol. I – Varietal Improvement

ADVANCE VARIETY TRIAL - 1 & INITIAL VARIETY TRIAL – BORO (AVT 1 & IVT - BORO)

Locations: 12

Checks: Gautam (National), IR 64 (Zonal), Rajalaxmi (Hybrid), and Local check

Test Entries: 37

Table: 9

AVT-1 & IVT-Boro trial was constituted with 37 test entries (36 inbreds + 1 hybrid) and four checks including Gautam (National), IR 64 (Zonal), Rajalaxmi (Hybrid), and Local check. Among the test entries, one entry IET 30465 was in 3rd year of testing and three entries *viz.*, IET 31309, IET 31319 & IET 31338 are in 2nd year of testing, and the remaining 33 were in 1st year of testing. The trial was sent in two zones i.e., Zone III (8 locations) and Zone IV (4 locations) and data was received from all the locations. However, the data received from three locations namely Chiplima (Odisha) from Zone III and Gerua (Assam) and Arundhutinagar (Tripura) in Zone VI were not considered for analysis, due to low experimental mean and high CV in Chiplima and Gerua and low CV in Arundhutinagar.

The data from the remaining nine locations was considered for assessing the performance of test entries. The data pertaining to yield, days to 50% flowering, plant height and panicles/m² are presented in the Tables 7a.1, 7a.2, 7a.3 and 7a.4, respectively. The findings are discussed in the following paragraphs

Overall

Overall mean grain yield ranged from 6719 kg/ha (IET 31338) to 4447 kg/ha (IET 32261) and days to 50% flowering from 104 (IET 32261) to 122 days (IET 32237). Among checks, Local check (LC) recorded the highest grain yield of 6424 kg/ha followed by Rajalaxmi (HC) 6332 kg/ha, Gautam (6017 kg/ha), and IR-64 (5907 kg/ha) and among the entries IET 31338 recorded highest yield of 6719 kg/ha. Among test entries, none of the inbreds and hybrids recorded significant yield advantage over best check; and **hence none were promoted to the next stage of testing.**

Zone III (Eastern)

Data from seven locations (Cuttack, Jeypore, Pusa, Chinsurah, Pundibhari, Malda and Bankura) was considered for assessing the performance of test entries in Zone III. The grain yield ranged from 4559 (IET 32261) to 7117 kg/ha Rajalaxmi (HC) and days to 50% flowering ranged from 103 (IET 32261) to 121 days (IET 32235 and Rajalaxmi (HC)). Among checks, Rajalaxmi (HC), yielded the highest with 7117 kg/ha followed by a local check (6823 kg/ha), IR 64 (6314 kg/ha) and Gautam (6192 kg/ha). Among the test entries, none of the entry exhibited significant yield superiority over best check (Local check); and **hence, not promoted to next level of testing**

Annual Progress Report 2024 Vol. I – Varietal Improvement

Zone IV (North Eastern)

Data was received from four locations and only two locations i.e., Titabar and Lembucherra are considered. The grain yield ranged from 541 (IET 32235) to 5757 kg/ha (IET 32240) and days to 50% flowering from 99 (IET 32251) to 132 days (IET 32237). Among checks, Gautam recorded the highest grain yield (5407 kg/ha) followed by local check (5029 kg/ha), IR 64 (4484 kg/ha) and hybrid check (Rajalaxmi (HC) (833 kg/ha). None of the entries showed significant yield superiority over best check (Gautam); and **hence, not promoted to the second year of testing.**

Entries which completed three years of evaluation

One entry viz., IET 30465 (CR 3582-5-2-1-2-2-1) was evaluated in boro trials during 2022, 2023 and 2024, which was derived from the cross Lalat/Supriya. In first year, it recorded significant yield superiority (7165* kg/ha) in Zone 4, while, in 2nd year of testing, it showed significant yield superiority (7561* kg/ha) in Zone 3. In 3rd year of testing, it showed no yield superiority over the best check, and **hence, it is discontinued due to its inconsistent performance.**

IET No.	Year	Over all Yield (kg/ha)	Zones	Yield	Remarks
IET 30465	2022	5014 ^{NS}	Zone-III	4584 ^{NS}	Discontinued due to its inconsistent performance
			Zone-IV	7165*	
	2023	6431 ^{NS}	Zone-III	7561* [#]	
			Zone- IV	5018 ^{NS}	
	2024	6526 ^{NS}	Zone-III	6906 ^{NS}	
			Zone- IV	5199 ^{NS}	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 9.1: Composition of entries in Advance Variety Trial and Initial Variety Trial-Boro 2023-24 (AVT 1 & IVT - BORO 2023-24).

Entry No.	IET No.	Designation	Cross Combination	GT	Zone
2nd year of testing:					
2101	31309	JR- BORO-1	MTU 1081 / NPT 13-01 / IR 64	MS	III
2102	31319	CR 3969-24-1-2-2-1	IR-73930-31-3-2-2 / Pratiksyta	MS	IV
2103	Gautam (Check)				
2104	31338	CR 4443-7-1-2-1-1-1-1	Annapurna / Vandana	LB	III
3rd year of testing:					
2105	30465	CR 3582-5-2-1-2-2-1	Lalat / Supriya	SB	III, IV
1st year of testing:					
2106	32234	MLD 217		LS	
2107	32235	CR 4428-1-1-2-1-3-1	CR3562-2-1-2-1-1-1/CR3561-7-1-3-1-2-1	SB	
2108	32236	CRAC 3998-124-2	Doubled haploid of 27P63	MS	
2109	32237	RP 6458-C1-166-2	166-2S Swarna / O.nivara// Swarna	LS	
2110	32238	CR 4468-RGA-209	CR 4385-RGA-7 X Annada	LS	
2111	32239	CRAC 3998-324-2	Doubled haploid of 27P63	MS	
2112	32240	Fatty (Hybrid)	-	LB	
2113	32241	CR3504-19-3-1-1-1-1	IR 36/Birupa	MS	
2114	32242	CRAC 3998-154-2	Doubled haploid of 27P63	MS	
2115	32243	MLD 221		LS	
2116	32244	CRAC 4424-118-1	Doubled haploid of 8433DT	LS	
2117	32245	CR 4557-IR16T1662 (IR117676-318-1-1-1)	BRR1 DHAN 55/IR 58443-6B-10-3//BRR1 DHAN 55	LS	
2118	32246	MLD 229	Bhupesh / IET 28867	LB	
2119	32247	CR-4560-3-4-2-1	MTU 1010/Tapaswini MAS	LS	
2120	32248	CRAC 3998-43-2	Doubled haploid of 27P63	MS	
2121	32249	MLD 218	Lalat / IET 28867	LS	
2122	32250	CR 4121-170-36-24-1-1	Swarna sub-1/IRBB 60	LS	
2123	32251	CRAC 3998-325-3	Doubled haploid of 27P63	MS	
2124	IR 64 (Check)				
2125	32252	CR 4465-RGA-149	CR DHAN 202 X Dandi	MS	
2126	32253	CU 136	Swati/ IET 28867	LS	
2127	32254	CR 4558-IR95781-15-1-1-4 (IR14L247)	IR09L224/IR09L34	LS	
2128	32255	RP 6459-C2-sel 19	166S-Swarna / O.nivara // 14S-Swarna / O.nivara	LS	
2129	32256	CR 4429-1-1-2-1-1	CR 3497-7-1-3-1-1-1/CR 3505-3-1-1-1-1-1	SB	
2130	32257	CR 4561-7-4-1-1-1-1	CR Dhan 316/ IR 71701-28-1-1-4-11-1-3/Sarbati	MS	
2131	32258	CU 135	Puspo / IET 28867	LS	
2132	32259	CR 4469-RGA-126-6	CR 4384-RGA-20 X CR 4389-	MS	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entry No.	IET No.	Designation	Cross Combination	GT	Zone
			RGA-12		
2133	32260	CR 4488-19-2-2-1-1	Naveen/Surjamukhi	LS	
2134	Rajalaxmi (Hybrid Check)				
2135	32261	CR3516-11-2-2-1-1-3	Birupa/Pusa 44	SB	
2136	32262	MLD 233	PNR 546 / IET 28867	LS	
2137	32263	CR 4379-4-3-1-1-1-1	CR Dhan 307/MTU1010	MS	
2138	32264	CR 4418-4-1-3-1-1-1	CR3553-9-2-1-1-1-1/CR 3510-1-2-1-1-3-1-1	MS	
2139	32265	MLD 231	Gontra Bidhan 3/IET 28859	MS	
2140	32266	CR 4487-9-3-2-5-1	Lalat/Surajmukhi	LS	
2141	Local Check (LC)				

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 9.2: Grain Yield (kg/Ha) of AVT 1 & IVT - Boro, 2023-24.

Entry No	IET No	ZONE III - EASTERN													
		Odisha				Odisha (2)		Bihar		West Bengal					
		Cuttack		Jeypore		Mean		Pusa		Chinsurah		Pundihari		Malda	
2101	31309	5938		6328		6133		7951	7	6282	9	4533		7287	7 #
2102	31319	5938		6587		6263				6722	3 #	6042	9 *		
2103	Gautam (Check)	6024		6339		6182		8472	5	5846		4589		5080	
2104	31338	6410		6365		6388		10174	1 *	7480	1 * #	4053		7000	#
2105	30465	6403		7185		6794		8785	3	6928	2 #	3860		6333	
2106	32234	4561		5048		4805		5903		5798		6604	5 * #		
2107	32235	10744	1 * #	9852	1 *	10298	1 *		#	5466		3349		4033	
2108	32236	8142	4 * #	5365		6754						3576		5667	
2109	32237	3998		7912	10	5955				4139		6198	8 *	4998	
2110	32238	4255		6820		5538		10069	2 *	5183		3827		5998	
2111	32239	8848	2 * #	7238		8043	2	6250				4469		5829	
2112	32240 (Fatty Hybrid)	6691		9161	2 *	7926	3	4514				5618	10 *	4249	
2113	32241	6777	9	6603		6690		7292	10	5851		4904		7302	6 #
2114	32242	8105	5 * #	5291		6698						3629		7173	9 #
2115	32243	5571		8759	4 *	7165	8	4861		6572	5	4453		4900	
2116	32244	3655		4487		4071		5903		5117		5084		5351	
2117	32245	5756		7730		6743		6424		6582	4	6604	5* #	7007	#
2118	32246	6054		6397		6226				6042		5167			
2119	32247	4836		8376	6 *	6606		6076		5846		3727		5353	
2120	32248	7009	7	7296		7153	9	4931				3118		5667	
2121	32249	3942		6778		5360		4792		4346		3533		7318	3 #
2122	32250	5479		4294		4887		5556		4176		3011		7313	4 #
2123	32251	8509	3 * #	5750		7130	10					3542			
2124	IR 64 (Check)	6587		6885		6736		5382		5778		4727		7018	10 #
2125	32252	4721		6930		5826		3993		4923		4322		6669	#
2126	32253	4236		8247	7 *	6242		5556		4631		6602	7 * #	5342	
2127	32254	5779		5610		5695		6076		6463	7	6853	3 * #		
2128	32255	6771	10	8711	5 *	7741	4	6007		4626		4711		6693	#
2129	32256	7518	6	4587		6053		5903		6137		3844			
2130	32257	4346		5249		4798		7639	8			4282		7307	5 #
2131	32258	5308		7241		6275		6319		4581		3869		7322	1 #
2132	32259	6807	8	7651		7229	6	7292	10	4822		3520		7276	8 #
2133	32260	5234		4983		5109		6944				6651	4 * #	4771	
2134	Rajalaxmi (Hybrid Check)	6397		8891	3 *	7644	5	7986	6	5331		5549	*	5796	
2135	32261			5542		5542						3576			
2136	32262	6139		8214	8 *	7177	7	5035		6353	8	7376	1 * #	4904	
2137	32263			5249		5249		7639	8	6209	10	3644		4176	
2138	32264	6544		6284		6414		5903		5972		3233		5684	
2139	32265	5767		5101		5434		7118		6542	6	4153		7322	1 #
2140	32266	5253		5323		5288		5382				6876	2 * #	6907	#
2141	Local Check (LC)	6238		7928	9	7083		8750	4	5754		4716		6347	
Experimental Mean		6084		6697		6374		6572		5693		4683		6100	
CD		1356		1250		969		588		1369		640		632	
CV%		13.7		11.49		9.35		5.48		14.72		8.41		6.36	
F Value		9.08		9.67		10.06		51.52		3.01		27.32		21.31	
DOS		26-12-23		29-12-23				19-12-23		20-12-23		18-01-24			
DOP		30-01-24		01-02-24				20-01-24		30-01-24		20-02-24			
Local Check Name		Tapaswini		Chandragiri				Rajendra Nilam		Shatabdi (IET 4786)		Uttar Sona (IET 2471)			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 9.2 (Contd.): Grain Yield (kg/Ha) of AVT 1 & IVT - Boro, 2023-24.

Entry No	IET No	ZONE III - EASTERN				ZONE III - EASTERN (7)		ZONE IV- NORTH EASTERN			ZONE IV- NORTH EASTERN (2)		Overall Mean (9)		
		West Bengal		West Bengal (4)		Mean		Assam		Tripura	Mean				
		Bankura		Mean		Mean	Titabar	Lembucherra	Mean						
2101	31309	8226		6582		6649		4637	6	6222	3	5430	3	6378	6
2102	31319	7778		6847	7	6613		4297	9	4815		4556		6026	
2103	Gautam (Check)	6994		5627		6192		4887	3	5926	6	5407	4	6017	
2104	31338	8286		6705	8	7110	2	4040		6667	1	5354	5	6719	1
2105	30465	8846	9	6492		6906	4	4657	5	5741	9	5199	7	6526	2
2106	32234	8786	10	7063	4 *	6117		3957		5444		4701		5763	
2107	32235	8725		5393		7028	3			541		541		6101	10
2108	32236	8639		5961		6278				663		663		5342	
2109	32237	8028		5841		5879		2858		1556		2207		4961	
2110	32238	8536		5886		6384		3947		4333		4140		5885	
2111	32239	7657		5985		6715	9	3960		4407		4184		6082	
2112	32240 (Fatty Hybrid)	9500	4 *	6456		6622		5810	1 *	5704		5757	1	6406	4
2113	32241	9406	6 *	6866	6	6876	6	4190		1407		2799		5970	
2114	32242	8303		6368		6500				5167		5167	8	6278	9
2115	32243	8407		6083		6218		3940		2741		3341		5578	
2116	32244	7580		5783		5311		3553		4963		4258		5077	
2117	32245	8088		7070	3 *	6884	5	4173		4926		4550		6366	7
2118	32246	9440	5 *	6883	5	6620		4237	10	4778		4508		6016	
2119	32247	8208		5784		6060		4030		4667		4349		5680	
2120	32248	7571		5452		5932				4704		4704		5757	
2121	32249	7330		5632		5434		2687		3370		3029		4900	
2122	32250	7003		5376		5262		3747		6130	4	4939		5190	
2123	32251	9664	2 *	6603	10	6866	7			1519		1519		5797	
2124	IR 64 (Check)	7821		6336		6314		4190		4778		4484		5907	
2125	32252	7924		5960		5640		3540		4778		4159		5311	
2126	32253	7295		5968		5987		3943		3519		3731		5486	
2127	32254	9509	3 *	7608	1 *	6715	9	4470	8	6444	2	5457	2	6401	5
2128	32255	7700		5933		6460		2136		5037		3587		5821	
2129	32256			4991		5598				3241		3241		5205	
2130	32257	7278		6289		6017		3957		5741	9	4849		5725	
2131	32258	7209		5745		5978		4163		3889		4026		5545	
2132	32259	9302	7 *	6230		6667		3247		4926		4087		6094	
2133	32260	8088		6503		6112		3337		5759	7	4548		5721	
2134	Rajalaxmi (Hybrid Check)	9871	1 *	6637	9	7117	1			833		833		6332	8
2135	32261			3576		4559				4222		4222		4447	
2136	32262	7580		6553		6514		3527		4963		4245		6010	
2137	32263	8596		5656		5919				4185		4185		5671	
2138	32264	7028		5479		5807		3833		6111	5	4972	10	5621	
2139	32265	8183		6550		6312		4777	4	5741	9	5259	6	6078	
2140	32266	8863	8	7549	2 *	6434		4580	7	4296		4438		5935	
2141	Local Check (LC)	8028		6211		6823	8	5020	2	5037		5029	9	6424	3
Experimental Mean		8238		6159		6279		4010		4388		4064		5818	
CD		1430		606		448		838		1015		673		395	
CV%		10.68		6.05		4.39		12.8		14.23		10.19		4.18	
F Value		2.36		10.62		11.71		5.57		19.74		28.4		11.58	
DOS		22-12-23						26-12-23		16-01-24					
DOP		20-02-24						17-02-24		05-02-24					
Local Check Name		Puspa						Joymoti		Hakuchuk-2					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 9.2 (Contd.): Grain Yield (kg/Ha) of AVT 1 & IVT - Boro, 2023-24. (Not considered)

Entry No	IET No	ZONE III - EASTERN		ZONE IV- NORTH EASTERN			
		Odisha		Assam		Tripura	
		@Chiplima		@Gerua		@Arundhutinagar	
2101	31309	3148		4138	6	3782	#
2102	31319	3796		3682		5473	4 * #
2103	Gautam (Check)	2407		3754		5157	7 #
2104	31338	4444	3	3554		4427	#
2105	30465	3611		4526	2	3909	#
2106	32234	2731		2949		3597	
2107	32235	4074	10			4319	#
2108	32236	1806				3435	
2109	32237	1019		1517		4490	10 #
2110	32238	3241		2356		4518	9 #
2111	32239	2593		2628		3722	#
2112	32240 (Fatty Hybrid)	2593		3814	10	2379	
2113	32241	1204				2147	
2114	32242	4074	10			3992	#
2115	32243	2361		2425		3934	#
2116	32244	2593		2283		3919	#
2117	32245	3565		2395		5233	6 #
2118	32246	4120	7	866		2528	
2119	32247	3333		2425		3066	
2120	32248	1898				3128	
2121	32249	2269		2844		3969	#
2122	32250	2639		1634		3820	#
2123	32251	1435				2982	
2124	IR 64 (Check)	3796		3590		3066	
2125	32252	4676	2	3957	8	5823	1 * #
2126	32253	3333		2952		5757	3 * #
2127	32254	4120	7	4797	1	3066	
2128	32255	3472		1791		5774	2 * #
2129	32256	1991				3655	
2130	32257	2963		710		5473	4 * #
2131	32258	3241		4060	7	5157	7 #
2132	32259	3426		3935	9	4459	#
2133	32260	3519		3764		3934	#
2134	Rajalaxmi (Hybrid Check)	4444	3			3597	
2135	32261	5000	1			4319	#
2136	32262	2546		4167	5	3066	
2137	32263	2500				3066	
2138	32264	4306	5	2991		4384	#
2139	32265	3565		4359	3	2379	
2140	32266	4074	10	3337		2147	
2141	Local Check (LC)	4120	7	4302	4		
Experimental Mean		3172		3113		3926	
CD		1229		1533		109	
CV%		23.85		30.16		1.7	
F Value		4.87		3.7		662.71	
DOS		09-01-24		08-01-24		08-01-24	
DOP		29-02-24		05-03-24		27-01-24	
Local Check Name		MTU 1156		Chandrama		Tripura Chikan Dhan (2129)	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 9.3: Days to 50% flowering, Plant Height (cm) & Panicles/m² in AVT 1 & IVT - Boro, 2023-24.

Entry No	IET No	ZONE III-EASTERN														
		Odisha						Odisha (2)			Bihar			West Bengal		
		Cuttack			Jeypore			Mean			Pusa			Chinsurah		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
2101	31309	107	108	414	97	96	339	102	102	376	125	105	194	113	107	286
2102	31319	109	104	420	101	90	419	105	97	420				122	105	352
2103	Gautam (Check)	96	96	543	97	87	432	97	92	488	124	93	227	110	97	330
2104	31338	107	107	417	107	102	406	107	104	411	125	101	197	119	105	396
2105	30465	105	107	487	99	96	443	102	101	465	123	85	181	121	104	319
2106	32234	102	87	452	105	81	424	104	84	438	124	114	198	110	94	308
2107	32235	111	108	542	111	99	603	111	104	572				128	101	275
2108	32236	107	102	440	96	93	379	102	98	410						
2109	32237	113	98	524	105	88	465	109	93	494				126	102	275
2110	32238	111	100	385	100	108	290	106	104	338	126	103	210	120	105	319
2111	32239	110	109	406	111	95	497	110	102	452	128	89	176			
2112	32240 (Fatty Hybrid)	101	99	356	94	96	394	97	97	375	117	105	159			
2113	32241	108	89	450	95	85	504	102	87	477	132	102	189	121	97	319
2114	32242	101	102	521	103	88	346	102	95	433						
2115	32243	106	103	328	107	100	367	107	101	348	127	97	167	119	101	330
2116	32244	98	87	396	99	86	456	98	87	426	142	83	168	114	103	209
2117	32245	108	97	430	102	100	437	105	99	433	124	94	185	116	101	286
2118	32246	109	98	460	103	88	374	106	93	417				120	96	264
2119	32247	97	92	458	98	84	387	98	88	422	124	83	147	117	100	341
2120	32248	113	91	408	94	89	371	104	90	390	115	81	145			
2121	32249	112	96	368	102	101	420	107	98	394	111	78	142	117	107	253
2122	32250	93	108	437	105	95	290	99	101	363	121	95	161	116	107	209
2123	32251	106	106	458	102	91	464	104	98	461						
2124	IR 64 (Check)	111	94	413	111	93	380	111	94	397	128	78	156	112	100	319
2125	32252	113	92	363	107	92	331	110	92	347	118	80	131	119	106	297
2126	32253	110	94	415	104	96	449	107	95	432	121	81	136	118	104	264
2127	32254	91	87	502	103	86	381	97	87	442	131	101	152	113	96	308
2128	32255	112	97	456	107	99	392	110	98	424	120	97	175	124	103	275
2129	32256	93	98	346	100	92	391	97	95	368	128	99	198	116	89	319
2130	32257	109	112	317	100	103	354	105	108	335	121	84	169			
2131	32258	100	103	438	104	88	392	102	95	415	140	103	198	115	101	253
2132	32259	109	98	351	103	100	295	106	99	323	119	92	182	117	102	264
2133	32260	100	99	486	94	96	366	97	97	426	133	104	170			
2134	Rajalaxmi (Hybrid Check)	113	109	388	103	104	397	108	107	392	128	99	197	130	105	242
2135	32261				98	93	395	98	93	395						
2136	32262	104	100	386	101	102	496	102	101	441	122	97	178	120	103	297
2137	32263				100	77	316	100	77	316	136	105	215	114	100	275
2138	32264	108	97	408	99	84	399	104	90	404	126	103	189	114	102	242
2139	32265	95	93	402	95	90	391	95	91	397	125	101	183	113	100	297
2140	32266	99	87	516	105	91	501	102	89	508	117	91	191			
2141	Local Check (LC)	101	92	462	93	94	439	97	93	450	131	100	206	112	100	352
Experimental Mean		105	98	429	101	93	404	103	96	415	125	94	177	117	101	292

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 9.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in AVT 1 & IVT - Boro, 2023-24.

Entry No	IET No	ZONE III-EASTERN												ZONE III-EASTERN (7)		
		West Bengal									West Bengal (4)			Mean		
		Pundibhari			Malda			Bankura			Mean			Mean		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
2101	31309	107	113	329	114	126	441	129	75	417	116	105	368	113	104	346
2102	31319	125	109	293				135	85	409	127	100	351	119	99	379
2103	Gautam (Check)	106	96	329	115	92	381	119	77	394	113	91	358	110	91	377
2104	31338	112	112	366	119	122	405	134	80	394	121	105	390	118	104	369
2105	30465	110	107	276	118	105	373	133	90	382	120	102	337	116	99	352
2106	32234	113	95	250				129	72	410	117	87	323	114	90	340
2107	32235	129	102	343	118	102	352	130	82	403	126	97	343	121	99	420
2108	32236	111	105	303	119	100	345	129	83	422	120	96	356	112	97	378
2109	32237	124	98	300	118	109	374	128	83	419	124	98	342	119	96	393
2110	32238	112	120	248	117	102	364	128	96	424	119	106	339	116	105	320
2111	32239	121	108	233	118	110	381	129	83	401	123	100	338	119	99	349
2112	32240 (Fatty Hybrid)	102	100	295	113	102	398	120	67	414	112	90	369	108	95	336
2113	32241	117	100	355	112	90	426	125	71	402	119	89	375	116	91	378
2114	32242	106	112	298	114	91	433	126	63	390	115	89	373	110	91	397
2115	32243	110	109	277	114	100	380	127	77	349	117	97	334	116	98	314
2116	32244	108	101	305	110	100	398	124	78	404	114	95	329	114	91	334
2117	32245	113	106	254	117	104	363	131	81	393	119	98	324	116	98	335
2118	32246	107	107	336				132	77	419	120	93	340	114	93	371
2119	32247	107	103	363	111	105	341	125	81	398	115	97	361	111	93	348
2120	32248	115	110	284	118	109	363	124	82	416	119	100	354	113	94	331
2121	32249	117	111	231	116	109	416	128	88	423	120	104	331	115	98	322
2122	32250	108	107	187	118	103	416	126	89	460	117	102	318	112	101	308
2123	32251	102	96	244				129	82	406	116	89	325	110	94	393
2124	IR 64 (Check)	102	93	288	112	95	366	124	73	428	112	90	350	114	90	336
2125	32252	116	105	249	112	103	400	135	77	292	121	98	310	117	94	295
2126	32253	108	100	223	117	103	395	131	75	376	118	95	314	116	93	322
2127	32254	102	95	301				121	81	387	112	91	332	110	91	339
2128	32255	116	108	346	117	102	366	130	91	400	122	101	347	118	100	344
2129	32256	117	109	247							116	99	283	111	97	300
2130	32257	108	115	194	113	100	418	137	84	393	119	100	335	115	100	308
2131	32258	108	103	291	113	91	412	136	83	368	118	95	331	116	96	336
2132	32259	115	97	315	116	116	435	125	96	391	118	103	351	115	100	319
2133	32260	108	103	305	112	95	382	125	93	357	115	97	348	112	98	344
2134	Rajalaxmi (Hybrid Check)	125	103	251	116	111	332	134	92	412	126	103	309	121	103	317
2135	32261	108	93	246							108	93	246	103	93	321
2136	32262	107	112	255	119	104	404	132	78	404	120	99	340	115	99	346
2137	32263	108	116	239	116	105	390	125	81	401	116	100	326	116	97	306
2138	32264	106	105	258	112	99	377	125	85	367	114	98	311	113	96	320
2139	32265	111	100	272	110	95	420	124	83	383	115	94	343	110	94	335
2140	32266	108	106	294	112	103	395	118	75	370	113	95	353	110	92	378
2141	Local Check (LC)	99	106	362	112	100	391	124	72	373	112	95	369	110	95	369
Experimental Mean		111	104	283	114	103	389	127	81	396	118	97	338	114	96	345

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 9.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in AVT 1 & IVT - Boro, 2023-24.

Entry No	IET No	ZONE IV-NORTH EASTERN						ZONE IV-NORTH EASTERN (2)			Overall Mean (9)		
		Assam			Tripura			Mean					
		Titabar			Lembucherra			DFF	PH	PAN			
		DFF	PH	PAN	DFF	PH	PAN				DFF	PH	PAN
2101	31309	130	131	261	103	115	175	117	123	218	114	108	317
2102	31319	141	140	280	110	88	317	125	114	298	120	103	356
2103	Gautam (Check)	126	126	329	102	95	233	114	111	281	111	96	355
2104	31338	134	134	310	101	110	208	117	122	259	118	108	344
2105	30465	138	138	301	112	105	167	125	122	234	118	104	325
2106	32234	122	122	307	99	83	175	110	103	241	113	93	316
2107	32235				105	112	225	105	112	225	119	101	392
2108	32236				104	94	308	104	94	308	111	96	366
2109	32237	144	144	261	120	90	192	132	117	226	122	102	351
2110	32238	137	138	293	106	96	175	122	117	234	117	108	301
2111	32239	140	140	299	111	105	183	126	122	241	121	105	322
2112	32240 (Fatty Hybrid)	124	124	252	105	98	208	114	111	230	109	99	310
2113	32241	138	138	277	109	112	183	124	125	230	117	98	345
2114	32242				115	98	200	115	98	200	111	92	364
2115	32243	135	134	290	113	105	175	124	119	232	117	103	296
2116	32244	120	120	260	101	115	225	110	117	242	113	97	313
2117	32245	138	137	294	103	90	200	120	114	247	117	101	316
2118	32246	134	133	293	109	97	217	122	115	255	116	99	338
2119	32247	125	125	273	97	92	217	111	109	245	111	96	325
2120	32248				105	118	333	105	118	333	112	97	332
2121	32249	137	137	285	104	105	200	120	121	242	116	103	304
2122	32250	130	129	247	130	102	192	130	116	219	116	104	289
2123	32251				99	114	200	99	114	200	108	98	354
2124	IR 64 (Check)	131	131	298	101	100	183	116	115	241	115	95	314
2125	32252	136	137	285	112	96	225	124	117	255	119	99	286
2126	32253	132	132	280	99	100	200	116	116	240	116	98	304
2127	32254	126	126	280	98	105	192	112	116	236	111	97	313
2128	32255	142	143	295	113	98	200	128	120	248	120	104	323
2129	32256				107	110	233	107	110	233	110	100	289
2130	32257	137	137	256	102	102	208	119	119	232	116	105	289
2131	32258	127	127	301	103	75	167	115	101	234	116	97	313
2132	32259	137	137	280	106	107	175	122	122	228	116	105	299
2133	32260	122	122	272	102	110	208	112	116	240	112	103	318
2134	Rajalaxmi (Hybrid Check)				113	108	167	113	108	167	120	104	298
2135	32261				106	97	183	106	97	183	104	94	275
2136	32262	138	138	253	102	90	150	120	114	202	116	103	314
2137	32263				101	110	158	101	110	158	114	99	285
2138	32264	120	120	303	98	112	183	109	116	243	112	101	303
2139	32265	123	123	260	102	97	167	112	110	213	111	98	308
2140	32266	124	123	296	100	90	167	112	107	231	110	96	341
2141	Local Check (LC)	131	131	312	105	110	167	118	121	240	112	101	340
Experimental Mean		131	131	283	105	101	201	116	114	236	115	100	321

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 9.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in AVT 1 & IVT - Boro, 2023-24. (Not considered)

Entry No	IET No	ZONE III-EASTERN			ZONE IV- NORTH EASTERN					
		Odisha			Assam			Tripura		
		@Chiplima			@Gerua			@Arundhatinagar		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
2101	31309	113	93	22	129	105	371	108	105	366
2102	31319	122	87	22	139	103	371	109	116	329
2103	Gautam (Check)	114	76	19	121	83	372	112	121	323
2104	31338	114	92	22	134	104	344	115	107	298
2105	30465	115	89	21	134	98	375	115	114	330
2106	32234	103	82	19	124	87	365	113	109	329
2107	32235	123	96	23				120	107	399
2108	32236	121	88	23				115	127	400
2109	32237	121	91	21	139	92	418	121	100	389
2110	32238	115	95	24	134	107	384	101	86	352
2111	32239	114	82	21	139	95	386	101	104	382
2112	32240 (Fatty Hybrid)	109	89	21	122	95	379	123	108	278
2113	32241	111	85	22				124	159	343
2114	32242	85	86	21				115	113	440
2115	32243	117	90	22	133	104	360	121	108	335
2116	32244	106	91	21	128	99	392	112	108	334
2117	32245	113	87	32	133	100	393	119	118	351
2118	32246	116	142	22	133	93	387	97	82	330
2119	32247	108	80	22	135	98	363	127	106	374
2120	32248	116	87	20				102	135	369
2121	32249	117	87	21	133	102	376	111	123	373
2122	32250	108	90	22	132	95	385	116	123	306
2123	32251	119	81	22				105	122	339
2124	IR 64 (Check)	109	91	21	134	89	404	127	106	393
2125	32252	115	88	22	133	95	363	113	102	327
2126	32253	114	84	22	124	92	393	111	121	381
2127	32254	103	85	20	133	96	408	127	106	393
2128	32255	119	89	22	136	106	382	118	115	305
2129	32256	102	98	22				110	105	366
2130	32257	114	88	23	131	98	399	109	116	329
2131	32258	119	93	21	132	3005	342	116	121	337
2132	32259	119	95	23	131	102	352	116	107	298
2133	32260	105	102	22	127	96	378	115	114	330
2134	Rajalaxmi (Hybrid Check)	114	90	26				113	109	329
2135	32261	109	88	21				120	107	408
2136	32262	113	86	22	127	90	362	127	106	393
2137	32263	111	85	22				127	106	393
2138	32264	111	83	22	123	89	412	105	108	267
2139	32265	107	82	20	126	90	369	123	108	278
2140	32266	107	89	21	136	95	401	124	159	343
2141	Local Check (LC)	111		22	136	103	390			
Experimental Mean		112	89	21	131	190	379	115	112	348

Annual Progress Report 2024 Vol. I – Varietal Improvement

ADVANCE AND INITIAL VARIETY TRIAL- IRRIGATED EARLY TRANSPLANTED

(AVT1 and IVT-E TP Rabi-2024)

Locations: 18

Test Entries: 29

Table: 10

Checks: CO-51 (National), Narendra 97 (Eastern) & MTU 1153 (Southern)- Zonal and Local check

Advance & Initial Variety Trial - Early Transplanted (AVT & IVT- ETP) Rabi was constituted with 29 test entries and 3 checks namely CO-51 (National check); Narendra 97 (Eastern), and MTU 1153 (Southern) as Zonal checks, and a Local check. The trial was sent to 18 locations however, data was not received from 2 locations namely Kampasagar, and Gangavathi. Data from two centers were excluded from analysis viz., Chiplima (2843 kg/ha) and Brahmawar (2655 kg/ha) due to low experimental mean yield. The data pertaining to yield, days to 50% flowering, plant height and panicles/m² are presented in the Tables 8a.1, 8a.2, 8a.3 and 8a.4, respectively. The findings are discussed in the following paragraphs

Among the centres from which data was included in the analysis, location-wise mean grain yield ranged from 4122 kg/ha (Moncompu - Kerala) to 7806 kg/ha (Jagtial- Telangana); while, CV ranged from 5.77% (Rajendranagar) to 15.47% (Moncompu - Kerala). Overall mean grain yield of the entries ranged from 4833 kg/ha (BTP5204) to 7030 kg/ha (IET 31368); days to 50% flowering from 92 days (IET 32276 and CO51) to 114 days (IET 31346); plant height ranged from 83cm (IET 31346) to 116cm (IET 32284); number of panicles per sq. m ranged from 307 (IET 31368) to 536 (CO 51).

Overall Mean basis:

The trial was evaluated at 14 locations viz., Cuttack, Jeypore (Odisha); Bankura, Chinsura (West Bengal); Maruteru, Nellore (AP), Mandya (KA), Pattambi, Moncompu (KR), Jagityal, Rajendranagar, Warangal (TS), Aduthurai, and Coimbatore (TN). Experimental mean yield at the locations ranged from 4122 kg/ha (Moncompu) to 7806 kg/ha (Jagityal) and CV% from 5.77 (Rajendranagar) to 15.47 (Moncompu). Mean yield of the entries ranged from 4833 kg/ha (BPT 5204) to 7030 kg/ha (IET 31368); days to 50% flowering ranged from 92 days (IET 32276 and CO 51) to 122 days (IET 31346); plant height ranged from 83 cm ((IET 31346) to 116 cm (IET 32284) and panicles per square meter ranged from 307 (IET 31368) to 536 (CO 51).

Annual Progress Report 2024 Vol. I – Varietal Improvement

Overall Performance of the entries in AVT-1 and IVT ETP Rabi 2024

Rank	IET No	Designation	Cross Combination	GY(Kg /ha)	FD (days)
1	31368	MTU1407 (MTU2460-17-2-1-1-1)	(MTU1010 / KMP105) / (MTU1075 /MTU1081)	7030	109
2	32290	RNR 41789	RNR 21219 / MTU 1001	6312	97
3	32282	RP 6458-C1-28-2	Swarna // 166S-Swarna / O.nivara	7204	120
4	32279	WGL 1874	RNR 15048/ MTU 1156	6395	97
CO 51 (NC)				6106	90
Narendra 97 (ZC)				5646	88
Local Check				5996	93
CD				268	

On overall mean basis, four entries viz., IET 31368 (from AVT1), IET 32290, IET 32282 and IET 32279 (from IVT) recorded significant yield advantages over the best check CO51 (NC) and got promoted for next level of testing.

Zone III:

The trial was evaluated at 4 locations viz., Cuttack, Jeypore (Odisha); Bankura, Chinsura (West Bengal) in Eastern Zone. Experimental mean yield at the locations ranged from 4770 kg/ha (Cuttack) to 7670 kg/ha (Bankura) and CV% from 8.72 (Bankura) to 14.84 (Jeypore). Mean yield of the entries ranged from 4664 kg/ha (ZC) to 7654 kg/ha (IET 32277); days to 50% flowering ranged from 99 days (IET 32276) to 122 days (IET 32277); plant height ranged from 71 cm (Narendra 97) to 119 cm (IET 32284) and panicles per square meter ranged from 259 (IET 32072) to 405 (IET 32283). In zone III, entry **IET 31368 (7030 kg/ha)** recorded significantly superior yield performance over best check CO51(NC) and promoted to 3rd year of testing (AVT-2- ETP (Zone III)) In addition, **four entries viz., IET 32268, IET 32277, IET 32282, and IET 32290 (from IVT)** recorded significantly superior yield performance over best check CO51(NC) and got promoted to AVT-1-E-TP, Rabi in Zone III (Eastern Zone).

Annual Progress Report 2024 Vol. I – Varietal Improvement

Zone III: Performance of the entries in AVT-1 and IVT ETP Rabi 2024

Rank	IET No	Designation	Cross Combination	GY(Kg/Ha)	FD(days)
1	32277	RP 6458-C1-200	Swarna // 166S	7654	122
2	32268	CR 4406-14155-1-3-4-6-4	1368 x NLR 34449	7211	120
3	32282	RP 6458-C1-28-2	Swarna // 166S-Swarna /O.nivara	7204	120
4	32290	RNR 41789	RNR 21219 / MTU 1001	7190	117
5	31368	MTU1407 (MTU2460-17-2-1-1-1)	(MTU1010 / KMP105) / (MTU1075 /MTU1081)	7030	109
CO 51 (NC)				6209	103
Narendra 97 (ZC)				4664	106
Local check				6081	111
CD				684	

Zone VII:

The trial was evaluated at 10 locations viz., Maruteru, Nellore, Mandya, Pattambi, Moncompu, Jagityal, Rajendranagar, Warangal, Aduthurai, and Coimbatore and were considered for analysis. The mean grain yield of entries ranged from 4408 kg/ha (BPT 5204) to 6312 kg/ha (IET 32290), while days to 50% flowering ranged from 88 days (IET 32269 and CO 51) to 104 days (IET 32277). Plant height ranged from 84 days (BPT5204) to 115 days (IET 32284); Number of panicles/m² ranged from 420 (IET 32072) to 554 (CO 51).

In zone VII, one varietal entry IET 32290 showed significant yield superiority over the best check NC(CO51) and hence promoted to AVT 1-E-TP, Rabi. Whereas, *gene edited line*, IET 32072 (5059 kg/ha) showed significant yield superiority over its parent BPT 5204 (4408 kg/ha) and hence promoted to 3rd year of testing (AVT-2- ETP Rabi (Zone VII)).

Annual Progress Report 2024 Vol. I – Varietal Improvement

Zone VII: Performance of the entries in AVT & IVT - ETP Rabi 2024

Rank	IET No	Designation	Cross Combination	GY	FD
1	32290	RNR 41789	RNR 21219 / MTU 1001	6312	97
	CO-51 (NC)			6064	88
	Zonal check (ZC)			6039	90
	Local check (LC)			5962	92
2	32072	RP 6764-BGIR- 7-26-3	GEL of Samba Mahsuri (BPT 5204)	5059	96
	BPT 5204 (Parent)			4408	102
	CD			247	

Summary

Overall basis: four entries viz., IET 31368 (from AVT1), IET 32290, IET 32282 and IET 32279 (from IVT) got promoted for next level of testing.

Zone III: IET 31368 promoted to 3rd year of testing in AVT-2-ETP Rabi and four entries viz., **IET 32268, IET 32277, IET 32282, and IET 32290** were promoted to 2nd year of testing in AVT-1-ETP Rabi

Zone VII:

IET 32290 promoted for 2nd year of testing in AVT-1-ETP Rabi

The gene edited line IET 32072 promoted for 3rd year of testing i.e., AVT-2-ETP Rabi

Annual Progress Report 2024 Vol. I – Varietal Improvement

Trial No. 10.1: Composition of entries in AVT 1 & Initial Variety Trial- Early Transplanted Rabi 2023-24 (IVT- E TP RABI 2023-24).

Entry No.	IET No.	Designation	Cross Combination	GT	Zone
2nd year of testing:					
2201	31368	MTU1407 (MTU2460-17-2-1-1-1)	(MTU1010 / KMP105) / (MTU1075 / MTU1081)	LS	III (OD, WB)
2202	31346	RP 6495-JB 19396-1-1-1	Krishna Hamsa / IRBB 60 // Krishna Hamsa / Tetep	LS	III (OD, WB)
1st year of testing:					
2203	32267	CRAC 3998-94	Doubled haploid of 27P63	SS	
2204	32268	CR 4406-14155-1-3-4-6-4	1368 x NLR 34449	LS	
2205	32269	WGL-1560	WGL 32100/ MTU 1936-12-1-2-1// 80154B/ 80155B	LS	
2206	32270	CRAC 3998-101	Doubled haploid of 27P63	MS	
2207	32271	NLR 3774	(NLR 20084 / NLR 33359) / NLR 34449	MS	
2208	32272	CR 3543-4-3-2-1-1-3	Prasad/Divya	MB	
2209	32273	RNR 41240	JGL 24423 / NLR 3513	LS	
2210	32274	RP 5507-JBB-680-4-B-1-1-1	Swarna/IRGC 63248//Swarna Sub1	LS	
2211	CO 51 (NC)				
2212	32275	CR 4457- IR 129477-1510-100-7-5-2	IR09N538/IR 93312-30-101-20-3-66-6//IR09N538/ IR11L101/// IR09N538/TADUKAN//IR09N538/RATHU HEENATI /4/ IR09N538/ ABHAYA//IR09N538/IR BB 60 (IR 72920-1-44-4)///IR09N538/IR 94225-B-82-B//IR09N538/IR 94226-B-177-B/5//IR09N538/WHD IS-75-1-127//IR09N538/IR 96322-34-223-B//IR09N538/IR 91648-B-32-B	LS	
2213	32276	RP 6775-IR 143511-78-2-2-965-51-29	MTU1010/C1016-1::IRGC 50368-1	LS	
2214	32277	RP 6458-C1-200	Swarna // 166S	LS	
2215	32278	CR4415-3-1-3-1-1	CR3580-7-3-1-1-1/CR3561-3-2-1-1-1	MS	
2216	32279	WGL 1874	RNR 15048/ MTU 1156	LS	
2217	32280	RP 6727-19241-B-1-1-1	Krishna Hamsa/IRBB60//Krishna Hamsa/IR81896-96-B-B-195	LS	
2218	32281	CR 3561-3-1-2-2-1-1	Surendra/Annapurna	MB	
2219	32282	RP 6458-C1-28-2	Swarna // 166S-Swarna /O.nivara	LS	
2220	32283	NLR 3877	MTU 1010 / IR 64	MS	
2221	32284	CR 4405-1442-4-1-3-1-1-3-7	1321 X N 54	LS	
2222	Narendra 97-Eastern and MTU 1153-Southern-- ZC				

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entry No.	IET No.	Designation	Cross Combination	GT	Zone
2223	32285	RP 6429-RN 88	Jaya / Adithya	LS	
2224	32286	RP 5507-JBB-689-1	Swarna/IRGC 63248//Swarna Sub1	LS	
2225	32287	WGL 1741	Gontrabidhan-3 / MTU 1159	LS	
2226	32288	RNR 34982	KKP 9/KTL-8-2-5-12 / IR 64	LS	
2227	32289	CRAC 4559-17	Doubled haploid of Arize 6453	MB	
2228	32290	RNR 41789	RNR 21219 / MTU 1001	LS	
2229	32291	NLR 3900	MTU 2077 / IR 64	MS	
2230	32292	RP 6776- IR 143534-123-4-4-497-93-29	DRR dhan 44/MELEKE::IRGC 56823-1	LS	
2231	32072	RP 6764-BGIR-7-26-3	Genome edited line of Samba Mahsuri (BPT 5204)	MS	
2232	BPT 5204 (Parent)			MS	
2233	Local Check (LC)				

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 10.2: Grain Yield (kg/Ha) of IVT – E TP (Rabi), 2023-2024.

Entry No	IET No	ZONE III- EASTERN											
		Odisha				Odisha (2)		West Bengal				West Bengal (2)	
		Cuttack		Jeypore		Mean		Bankura		Chinsurah		Mean	
2201	31368	4916		8099	2	6507	6	7598		7508	5*	7553	6
2202	31346	5267	10	3706		4487		8061	9	6391		7226	
2203	32267	6491	4	4588		5540		7830				7830	2
2204	32268	8043	2*	6359		7201	3	7778		6664		7221	
2205	32269	4745		7672	6	6209	9	7517		6899		7208	
2206	32270	4571		7514	9	6042		8166	5	6311		7238	
2207	32271	4221		6167		5194		7135		5205		6170	
2208	32272	4353		7727	4	6040		7072		7626	2*	7349	10
2209	32273	3380		4838		4109		6748		6942	10	6845	
2210	32274	4167		6006		5087		6834				6834	
2211	CO 51 (NC)	4639		5958		5299		8102	7	6138		7120	
2212	32275	3557		5321		4439		7043		6618		6830	
2213	32276	4621		7187		5904		8015	10	6710		7362	9
2214	32277	6406	5	9006	1*	7706	2*	7946		7258	6	7602	5
2215	32278	5108		7710	5	6409	7						
2216	32279	5931	6	6117		6024		7807		7545	4*	7676	4
2217	32280	4430		6536		5483		8733	2	5544		7138	
2218	32281	4692		6689		5691		8142	6	7784	1*	7963	1*
2219	32282	6518	3	7569	8	7044	4	7940		6787		7364	8
2220	32283	4539		4471		4505		7604		6965	9	7285	
2221	32284	5763	7	6320		6041		8513	3	5564		7038	
2222	Narendra 97 (ZC)	2492		3463		2977		7604		5099		6352	
2223	32285	4837		6689		5763		7789		7232	7	7511	7
2224	32286	5200		7898	3	6549	5	7610		6756		7183	
2225	32287	2574		7587	7	5081		7002		7560	3*	7281	
2226	32288	3359		7066		5213		8200	4	5811		7006	
2227	32289	3910		6490		5200		7269		7120	8	7194	
2228	32290	8240	1*	7415	10	7828	1*	7170		5935		6552	
2229	32291	4471		6752		5611		8796	1	6670		7733	3
2230	32292	5365	9	6803		6084	10	7743		5656		6700	
2231	32072	1764		4632		3198		7668		4976		6322	
2232	BPT 5204(Parrent)	3158		6743		4951		8084	8	5604		6844	
2233	LC	5689	8	7035		6362	8	5914		5685		5800	
Experimental Mean		4770		6489		5630		7670		6485		7104	
CD(0.05)		1089		1571		1023		1091		1344		735	
CV(%)		13.99		14.84		11.14		8.72		12.68		6.34	
F val		13.57 **		5.46 **		9.21 **		2.44 **		2.96 **		3.56 **	
DOS		20-12-23		29-12-23				22-12-23		21-12-23			
DOP		24-01-24		02-02-24				27-02-24		05-02-24			
Local Check Name		CR Dhan 210		Chandragiri				Lalat		Ajit (2233)			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 10.2 (Contd.): Grain Yield (kg/Ha) of IVT – E TP (Rabi), 2023-2024.

Entry No	IET No	ZONE III- EASTERN (4)		ZONE VII - SOUTHERN									
				Andhra Pradesh			Andhra Pradesh (2)		Karnataka		Kerala		
		Mean		Maruteru	Nellore		Mean	Mandya		Pattambi			
2201	31368	7030	5*										
2202	31346	5856											
2203	32267	6303		3869		4020		3944		4605		5740	
2204	32268	7211	2*	5056		5461	4	5259	6	5543		5667	
2205	32269	6709	9	5291		3852		4571		5107		5589	
2206	32270	6640		4573		2731		3652		4737		6733	7
2207	32271	5682		6193	2	4750		5472	3	5996	4	6798	6
2208	32272	6694	10	5319		4928	9	5123	10	6210	1*	6045	
2209	32273	5477		3971		4345		4158		5354		7145	2
2210	32274	5669		3382		5832	2	4607		5992	5	6090	
2211	CO 51 (NC)	6209		4822		4148		4485		5086		6085	
2212	32275	5635		4859		3368		4113		5136		6920	4
2213	32276	6633		3630		4182		3906		5642	10	5722	
2214	32277	7654	1*	5121		3965		4543		5946	6	6398	8
2215	32278	6409				2943		2943				5862	
2216	32279	6850	7	4895		5540	3	5218	7	5642		5513	
2217	32280	6311		5797	7	4592		5195	9	5811	7	7007	3
2218	32281	6827	8	5797	7	4059		4928		5601		6145	10
2219	32282	7204	3*	5176		5259	5	5217	8	5720	8	5438	
2220	32283	5895		4840		5007	8	4924		5366		6121	
2221	32284	6540		6377	1	5106	6	5741	2	5469		6130	
2222	Narendra 97 (ZC)	4664		6193	2	2955		4574		5588		6195	9
2223	32285	6637		5622	9	4528		5075		6033	2	6847	5
2224	32286	6866	6	5530		3629		4580		5695	9	5349	
2225	32287	6181		5447		2262		3855		5572		6095	
2226	32288	6109		5291		4350		4821		6033	2	5221	
2227	32289	6197		5576	10	5017	7	5297	5	4535		8193	1*
2228	32290	7190	4*	5029		4810	10	4919		4519		5344	
2229	32291	6672		6119	4	4647		5383	4	5469		5978	
2230	32292	6392		4297		3896		4097		5099		5164	
2231	32072	4760		5834	5	2760		4297		3840		5299	
2232	BPT 5204(Parrent)	5897		4753		3101		3927		4177		5697	
2233	LC	6081		5820	6	5871	1	5846	1	4967		5892	
Experimental Mean		6336		5149		4255		4667		5350		6078	
CD(0.05)		684		886		673		555		566		1173	
CV(%)		6.62		10.53		9.68		7.28		6.47		11.81	
F val		7.53 **		6.03 **		16.14 **		11.56 **		8.68 **		2.66 **	
DOS				08-01-24						14-12-23			
DOP				30-01-24						10-01-24			
Local Check Name				MTU1273						CTH-1			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 10.2 (Contd.): Grain Yield (kg/Ha) of IVT – E TP (Rabi), 2023-2024.

Entry No	IET No	ZONE VII - SOUTHERN											
		Kerala		Kerala (2)		Telangana				Telangana (3)			
		Moncompu		Mean		Jagtial	Rajendranagar	Warangal		Mean			
2201	31368												
2202	31346												
2203	32267	3048		4394		7851				7851	7		
2204	32268	4196		4931		8128		5658		6375	6720		
2205	32269	4611	9	5100		10208	1			7894	7	9051	1*
2206	32270	2837		4785		5675				6601		6138	
2207	32271	3788		5293	10	8280		6080	8	7692	10	7351	10
2208	32272	4428		5237		7464		5453		7848	9	6921	
2209	32273	3067		5106		9152	5	6584	5	6637		7458	9
2210	32274	3543		4817		8542	10	4475		4250		5756	
2211	CO 51 (NC)	3717		4901		9402	2	6914	2	8302	5	8206	2
2212	32275	3543		5232		9109	6	4393		5629		6377	
2213	32276	3992		4857		8757	8	4465		6231		6484	
2214	32277	3909		5154		5086		4722		7473		5760	
2215	32278			5862	4	8205						8205	3
2216	32279	4346		4930		9022	7	6271	7	8867	2	8053	5
2217	32280	4360		5683	6	6712		4414		6736		5954	
2218	32281	4761	7	5453	8	7219		3637		6702		5853	
2219	32282	3575		4506		7271		7819	1*	9117	1*	8069	4
2220	32283	4796	6	5459	7	6916		4522		6138		5859	
2221	32284	5327	4	5729	5	7027		3796		8408	4	6411	
2222	Narendra 97 (ZC)	6079	2	6137	3	9369	3	4573		6521		6821	
2223	32285	3949		5398	9	8224		5674		7534		7144	
2224	32286	4838	5	5093		7091		6708	4	4794		6198	
2225	32287	4483	10	5289		7305		3565		6951		5940	
2226	32288	4173		4697		8544	9	6440	6	8237	6	7740	8
2227	32289	5460	3	6827	1	6797		5437		6877		6371	
2228	32290	7095	1	6220	2	8464		6759	3	8764	3	7996	6
2229	32291	2692		4335		7454		5967	9	7862	8	7094	
2230	32292	3524		4344		9281	4	3133		6353		6256	
2231	32072	2809		4054		6616		5916	10	5436		5989	
2232	BPT 5204(Parrent)	2048		3873		4822		3786		4377		4328	
2233	LC	4653	8	5273		8004		5622		6437		6688	
Experimental Mean		4122		5128		7806		5288		6933		6808	
CD(0.05)		1042		719		857		500		761		474	
CV(%)		15.47		8.58		6.72		5.77		6.71		4.27	
F val		8.1 **		6.29 **		17.65 **		47.41 **		22.84 **		36.11 **	
DOS		17-01-24			18-12-23			02-12-23		09-12-23			
DOP		07-02-24			23-01-24			04-01-24		05-01-24			
Local Check Name		MO 21 Prathyasa			JGL 18047			RNR 29325		KNM 118			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 10.2 (Contd.): Grain Yield (kg/Ha) of IVT – E TP (Rabi), 2023-2024.

Entry No	IET No	ZONE VII - SOUTHERN					ZONE VII - SOUTHERN (10)		Overall Mean (14)		
		Tamil Nadu		Tamil Nadu (2)		Mean	Mean				
		Adutrai	Coimbatore								
2201	31368								7030	1*	
2202	31346								5856		
2203	32267			6794	5	6794	2	5132	5484		
2204	32268	5316		6417		5867		5782	6190	6	
2205	32269	5063		7176	3	6120	9	6088	4	6279	5
2206	32270	7595	1*	6387		6991	1*	5319		5725	
2207	32271	5949	5	6244		6097	10	6177	3	6036	
2208	32272	4873		6013		5443		5858		6097	10
2209	32273	5380		6927	4	6153	8	5856		5748	
2210	32274	5665	10	6400		6032		5417		5475	
2211	CO 51 (NC)	5633		6533		6083		6064	6	6106	9
2212	32275	5823	7	6024		5923		5480		5524	
2213	32276	5823	7	6649	9	6236	5	5509		5830	
2214	32277	6646	2*	6063		6354	4	5533		6139	8
2215	32278			6062		6062		5768		5982	
2216	32279	5380		6659	8	6019		6213	2	6395	4*
2217	32280	5443		6067		5755		5694		5870	
2218	32281	5633		6352		5992		5590		5944	
2219	32282	5506		5972		5739		6085	5	6405	3*
2220	32283	5538		6033		5785		5528		5633	
2221	32284	4715		6519		5617		5887		6074	
2222	Narendra 97 (ZC)	5506		7408	1	6457	3	6039	7	5646	
2223	32285	5570		5709		5639		5969	9	6160	7
2224	32286	6013	4	5825		5919		5547		5924	
2225	32287	5411		6675	7	6043		5376		5606	
2226	32288	6139	3	5752		5946		6018	8	6044	
2227	32289	5886	6	5590		5738		5937		6011	
2228	32290	5759	9	6579	10	6169	7	6312	1*	6563	2*
2229	32291	5380		5630		5505		5720		5992	
2230	32292	5316		5652		5484		5172		5520	
2231	32072	4810		7273	2	6041		5059		4974	
2232	BPT 5204(Parent)	5506		5809		5658		4408		4833	
2233	LC	5570		6784	6	6177	6	5962	10	5996	
Experimental Mean		5615		6322		5995		5694		5912	
CD(0.05)		567		780		499		247		268	
CV(%)		6.17		7.55		5.09		2.66		2.78	
F val		7.56 **		3.24 **		3.88 **		21.83 **		19.72 **	
DOS		12-12-23		29-12-23							
DOP		10-01-24		23-01-24							
Local Check Name		ADT 56		CO 54							

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 10.2 (Contd.): Grain Yield (kg/Ha) of IVT – E TP (Rabi), 2023-2024. (Not Considered)

Entry No	IET No	ZONE III- EASTERN		ZONE VII - SOUTHERN	
		Odisha		Karnataka	
		@Chiplima		@Brahmavar	
2201	31368	3452	9		
2202	31346	1071		2500	
2203	32267	1270		3002	7
2204	32268	3095		2301	
2205	32269	3889	4	2002	
2206	32270	2024		2539	
2207	32271	2659		2164	
2208	32272	4008	3		
2209	32273	3690	7	2377	
2210	32274	2500		2904	9
2211	CO 51 (NC)	2817		3450	2
2212	32275	3214		3189	4
2213	32276	3095			
2214	32277	2421		3394	3
2215	32278	833		3104	6
2216	32279	3452	9	4016	1
2217	32280	3135		2385	
2218	32281	3849	5	2399	
2219	32282	3056		3152	5
2220	32283	3571	8	1933	
2221	32284	3690	6	2792	
2222	Narendra 97 (ZC)	913		1608	
2223	32285	2024		2102	
2224	32286	3254		2896	10
2225	32287	3016		2540	
2226	32288	3016		2315	
2227	32289	2897		2318	
2228	32290	2817		2760	
2229	32291	3373		2491	
2230	32292	4286	1	2943	8
2231	32072	992		2724	
2232	BPT 5204(Parrent)	2183		2787	
2233	LC	4246	2	2549	
Experimental Mean		2843		2655	
CD(0.05)		999		442	
CV(%)		21.54		10.19	
F val		7.51**		10.45**	
DOS		09-01-24		10-02-24	
DOP		01-03-24		28-02-24	
Local Check Name		MTU-1156		MO 21	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 10.3: Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – E TP (Rabi), 2023-2024.

Entry No	IET No	ZONE III- EASTERN											
		Odisha						Odisha (2)			West Bengal		
		Cuttack			Jeypore			Mean			Bankura		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
2201	31368	104	88	259	87	84	293	96	86	276	127	74	333
2202	31346	111	85	269	101	77	376	106	81	323	120	72	435
2203	32267	103	91	267	88	79	359	96	85	313	126	75	432
2204	32268	123	121	273	109	103	338	116	112	306	120	113	410
2205	32269	105	96	279	89	85	342	97	90	310	130	87	416
2206	32270	116	84	265	101	81	319	109	83	292	128	67	440
2207	32271	113	90	272	102	82	373	108	86	322	136	84	413
2208	32272	111	113	253	109	96	345	110	105	299	130	106	363
2209	32273	103	80	267	89	79	289	96	79	278	124	67	346
2210	32274	104	80	265	91	79	335	98	80	300	127	72	400
2211	CO 51 (NC)	110	89	263	96	80	489	103	85	376	91	78	383
2212	32275	104	82	283	92	79	362	98	81	322	122	73	377
2213	32276	105	88	268	89	80	366	97	84	317	91	93	336
2214	32277	121	96	283	110	91	478	116	94	380	129	72	333
2215	32278	105	89	264	98	89	412	101	89	338			
2216	32279	108	97	248	91	82	317	100	90	283	128	68	382
2217	32280	113	88	265	101	78	325	107	83	295	127	83	324
2218	32281	117	119	257	101	94	328	109	107	292	127	82	313
2219	32282	121	102	270	109	90	486	115	96	378	126	78	328
2220	32283	103	101	294	94	81	544	98	91	419	91	67	410
2221	32284	123	129	262	108	112	367	116	121	315	122	102	407
2222	Narendra 97 (ZC)	107	71	272	87	66	431	97	68	352	125	63	416
2223	32285	116	105	288	101	91	431	108	98	359	127	80	410
2224	32286	107	102	240	101	89	391	104	96	316	125	75	322
2225	32287	105	86	272	88	86	335	96	86	304	126	78	420
2226	32288	115	106	288	97	87	391	106	97	340	126	81	284
2227	32289	115	109	264	98	83	334	106	96	299	127	85	415
2228	32290	118	103	286	99	87	303	108	95	294	131	77	420
2229	32291	116	94	281	104	88	342	110	91	312	126	83	395
2230	32292	102	106	264	86	94	403	94	100	334	131	88	427
2231	32072	117	76	272	102	85	261	110	81	266	129	81	317
2232	BPT 5204(Parrent)	121	86	273	106	78	378	114	82	326	128	83	417
2233	LC	110	123	294	94	86	437	102	105	366	128	77	383
Experimental Mean		111	96	270	97	85	372	104	91	321	123	80	381

Table No. 10.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – E TP (Rabi), 2023-2024.

Entry No	IET No	ZONE III- EASTERN						ZONE III- EASTERN (4)			ZONE VII- SOUTHERN		
		West Bengal			West Bengal (2)			Mean			Andhra Pradesh		
		Chinsurah			Mean			Mean			Maruteru		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
2201	31368	117	96	341	122	85	337	109	85	307			
2202	31346	122	98	275	121	85	355	114	83	339			
2203	32267				126	75	432	106	82	353	76	107	367
2204	32268	128	117	275	124	115	343	120	114	324	83	123	381
2205	32269	115	88	286	122	88	351	110	89	331	72	115	323
2206	32270	128	87	264	128	77	352	118	80	322	88	106	337
2207	32271	122	81	187	129	82	300	118	84	311	84	117	367
2208	32272	122	105	308	126	105	335	118	105	317	79	137	381
2209	32273	115	88	286	120	78	316	108	79	297	79	109	323
2210	32274				127	72	400	108	77	333	76	100	396
2211	CO 51 (NC)	117	98	231	104	88	307	103	86	342	70	111	352
2212	32275	114	92	363	118	83	370	108	82	346	78	109	323
2213	32276	112	96	341	101	94	338	99	89	328	71	116	352
2214	32277	128	97	407	128	84	370	122	89	375	83	120	396
2215	32278							101	89	338			
2216	32279	116	100	253	122	84	318	111	87	300	71	116	352
2217	32280	119	94	220	123	89	272	115	86	284	82	108	337
2218	32281	121	107	319	124	94	316	117	101	304	80	124	337
2219	32282	125	108	275	125	93	302	120	95	340	82	120	352
2220	32283	118	93	374	104	80	392	102	85	405	75	108	352
2221	32284	126	131	242	124	117	324	120	119	320	78	145	367
2222	Narendra 97 (ZC)	103	86	242	114	75	329	106	71	340	75	116	308
2223	32285	118	100	407	122	90	408	116	94	384	84	122	396
2224	32286	117	96	253	121	86	288	113	91	302	79	122	367
2225	32287	113	103	319	119	91	370	108	88	336	71	114	352
2226	32288	122	104	275	124	93	280	115	95	310	79	121	367
2227	32289	121	96	352	124	90	383	115	93	341	78	116	323
2228	32290	122	92	220	126	84	320	117	89	307	80	117	323
2229	32291	124	97	341	125	90	368	117	91	340	87	117	352
2230	32292	110	114	242	120	101	334	107	100	334	67	126	367
2231	32072	124	87	187	127	84	252	118	82	259	77	109	323
2232	BPT 5204(Parrent)	130	89	231	129	86	324	121	84	325	87	100	337
2233	LC	111	97	242	120	87	312	111	96	339	78	112	352
Experimental Mean		119	97	285	122	88	337	112	90	328	78	116	352

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 10.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – E TP (Rabi), 2023-2024.

Entry No	IET No	ZONE VII- SOUTHERN											
		Andhra Pradesh			Andhra Pradesh (2)			Karnataka			Kerala		
		Nellore			Mean			Mandya			Pattambi		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
2201	31368												
2202	31346												
2203	32267	91	97	739	83	102	553	105	80	254	83	87	269
2204	32268	93	118	493	88	121	437	112	100	278	84	83	316
2205	32269	88	107	400	80	111	361	104	88	259	87	71	326
2206	32270	95	91	493	92	99	415	105	81	282	91	84	325
2207	32271	94	92	435	89	104	401	113	82	282	91	88	308
2208	32272	91	111	475	85	124	428	100	91	257	88	91	345
2209	32273	92	95	431	86	102	377	116	74	238	91	98	301
2210	32274	88	97	457	82	98	427	113	89	261	85	84	300
2211	CO 51 (NC)	84	99	542	77	105	447	108	80	271	89	81	383
2212	32275	91	89	493	84	99	408	103	77	243	83	80	301
2213	32276	83	96	480	77	106	416	101	82	268	83	85	373
2214	32277	95	105	426	89	112	411	109	85	285	85	69	365
2215	32278	98	106	417	98	106	417				94	82	284
2216	32279	86	105	462	78	110	407	101	84	271	89	78	299
2217	32280	89	99	497	85	103	417	111	85	303	80	84	436
2218	32281	88	108	471	84	116	404	116	95	280	87	83	332
2219	32282	95	102	506	88	111	429	113	92	245	87	92	327
2220	32283	87	83	519	81	96	436	104	74	313	83	82	284
2221	32284	91	131	431	85	138	399	103	98	264	91	77	352
2222	Narendra 97 (ZC)	85	105	408	80	110	358	104	82	247	81	75	293
2223	32285	87	103	417	86	112	406	102	91	292	84	78	265
2224	32286	88	96	408	83	109	388	111	89	252	93	83	290
2225	32287	87	100	369	79	107	360	104	93	250	89	79	340
2226	32288	88	99	466	83	110	416	102	89	243	83	78	314
2227	32289	86	101	404	82	108	363	105	89	275	83	75	422
2228	32290	92	100	488	86	108	405	105	92	285	83	96	306
2229	32291	95	95	395	91	106	374	112	85	280	87	88	231
2230	32292	85	117	497	76	122	432	105	91	250	90	82	317
2231	32072	84	86	453	80	97	388	113	80	247	84	74	262
2232	BPT 5204(Parrent)	97	86	413	92	93	375	115	77	289	87	84	271
2233	LC	84	83	435	86	98	394	105	90	240	94	77	336
Experimental Mean		89	100	461	84	108	408	107	86	266	86	82	318

Table No. 10.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – E TP (Rabi), 2023-2024.

Entry No	IET No	ZONE VII- SOUTHERN											
		Kerala			Kerala (2)			Telangana					
		Moncompu			Mean			Jagtial		Rajendranagar			
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
2201	31368												
2202	31346												
2203	32267	97	102	464	90	94	410	98	93	411			
2204	32268	98	117	441	91	100	438	115	110	378	120	90	578
2205	32269	83	109	428	85	90	435	96	102	359			
2206	32270	99	100	408	95	92	415	116	91	433			
2207	32271	94	101	399	92	94	403	117	86	409	118	68	520
2208	32272	89	110	403	89	101	432	106	106	405	112	87	493
2209	32273	82	98	297	86	98	348	101	91	383	108	78	560
2210	32274	85	95	450	85	89	428	101	95	348	117	74	493
2211	CO 51 (NC)	82	107	527	85	94	529	95	95	429	104	79	489
2212	32275	82	95	455	83	87	428	99	97	367	108	79	520
2213	32276	81	103	510	82	94	497	95	100	411	108	74	662
2214	32277	95	107	505	90	88	499	115	96	363	131	88	533
2215	32278			87	94	82	371	101	89	394		106	
2216	32279	82	107	357	86	93	379	98	99	354	108	82	480
2217	32280	89	105	440	85	95	514	117	86	436	110	72	502
2218	32281	89	123	477	88	103	460	106	109	405	112	82	422
2219	32282	90	119	397	89	106	416	115	100	359	120	83	529
2220	32283	88	91	519	86	87	450	99	83	559	106	79	471
2221	32284	97	122	434	94	100	460	117	134	385	121	103	613
2222	Narendra 97 (ZC)	83	109	366	82	92	379	99	106	354	108	84	476
2223	32285	88	98	453	86	88	402	107	105	367	112	75	476
2224	32286	88	103	471	90	93	416	97	101	343	106	82	480
2225	32287	81	110	403	85	94	429	96	98	339	105	74	449
2226	32288	89	111	393	86	94	395	101	99	381	108	77	507
2227	32289	89	111	433	86	93	506	100	100	354	106	78	524
2228	32290	93	119	322	88	108	364	108	98	372	108	78	467
2229	32291	96	100	433	92	94	366	100	95	394	108	81	498
2230	32292	87	118	415	88	100	412	94	115	429	106	93	364
2231	32072	85	101	260	84	88	302	116	92	372	107	76	387
2232	BPT 5204(Parrent)	86	78	291	86	81	326	117	82	453	108	72	520
2233	LC	87	106	556	90	91	514	93	96	449	107	89	498
Experimental Mean		88	105	412	88	94	423	104	98	393	110	81	500

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 10.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – E TP (Rabi), 2023-2024.

Entry No	IET No	ZONE VII- SOUTHERN											
		Telangana			Telangana (3)			Tamil Nadu					
		Warangal			Mean			Adutrai			Coimbatore		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
2201	31368												
2202	31346												
2203	32267				98	93	411				95	93	322
2204	32268	108	101	445	114	101	467	96	112	336	105	109	348
2205	32269	92	92	442	94	97	400	77	81	321	92	99	342
2206	32270	112	82	497	114	87	465	98	88	350	106	94	342
2207	32271	103	80	477	112	78	469	77	83	423	98	86	367
2208	32272	99	98	472	106	97	457	98	97	350	96	114	332
2209	32273	99	81	431	102	83	458	86	72	352	92	93	318
2210	32274	101	90	422	106	86	421	77	93	370	91	92	360
2211	CO 51 (NC)	96	92	434	98	88	451	78	74	393	75	94	373
2212	32275	97	80	461	101	85	449	77	84	321	93	92	313
2213	32276	95	91	445	99	88	506	97	88	329	78	94	358
2214	32277	116	94	434	121	93	444	97	102	360	113	106	343
2215	32278				101	97	394				109	94	333
2216	32279	96	99	457	100	93	430	99	91	426	91	101	372
2217	32280	102	89	473	110	83	470	97	85	341	93	96	372
2218	32281	100	89	454	106	93	427	97	107	390	95	113	343
2219	32282	107	92	466	114	92	451	77	91	335	105	103	343
2220	32283	93	71	472	99	78	501	94	104	367	89	86	378
2221	32284	106	123	402	114	120	467	78	74	313	103	142	323
2222	Narendra 97 (ZC)	97	84	425	101	91	418	78	94	389	96	91	358
2223	32285	104	89	449	108	90	431	96	94	418	99	103	318
2224	32286	102	94	471	102	92	431	99	103	434	92	102	360
2225	32287	91	97	431	97	90	406	77	90	400	87	105	352
2226	32288	98	83	472	102	86	453	97	98	462	94	97	349
2227	32289	98	93	447	101	90	442	97	97	387	94	100	363
2228	32290	102	94	477	106	90	439	99	100	395	97	96	336
2229	32291	104	92	439	104	89	443	78	84	437	97	99	353
2230	32292	95	103	408	98	104	400	98	101	408	87	113	322
2231	32072	102	81	418	108	83	392	97	84	422	96	87	320
2232	BPT 5204(Parrent)	105	79	468	110	78	480	114	93	392	101	90	363
2233	LC	93	93	449	98	93	465	75	73	426	91	96	383
Experimental Mean		100	90	449	105	91	443	89	90	380	95	99	347

Table No. 10.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – E TP (Rabi), 2023-2024.

Entry No	IET No	ZONE VII- SOUTHERN			ZONE VII- SOUTHERN			Overall Mean (14)		
		Tamil Nadu (2)			(10)					
		Mean			Mean					
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
2201	31368							109	85	307
2202	31346							114	83	339
2203	32267	95	93	322	92	94	478	96	90	466
2204	32268	100	110	342	101	106	506	107	108	488
2205	32269	84	90	331	88	96	459	94	94	456
2206	32270	102	91	346	101	91	472	106	88	456
2207	32271	88	85	395	99	88	488	104	87	466
2208	32272	97	105	341	96	104	495	102	104	477
2209	32273	89	83	335	94	89	451	98	86	435
2210	32274	84	93	365	93	91	481	97	88	472
2211	CO 51 (NC)	76	84	383	88	91	554	92	90	536
2212	32275	85	88	317	91	88	469	96	86	463
2213	32276	88	91	344	89	93	518	92	92	495
2214	32277	105	104	352	104	97	516	109	95	512
2215	32278	109	94	333	100	95	444	101	93	437
2216	32279	95	96	399	92	96	474	97	94	454
2217	32280	95	90	356	97	91	550	102	89	517
2218	32281	96	110	367	97	103	490	102	102	469
2219	32282	91	97	339	99	99	484	105	98	473
2220	32283	91	95	373	92	86	511	95	86	509
2221	32284	90	108	318	98	115	509	104	116	493
2222	Narendra 97 (ZC)	87	92	374	90	94	452	95	88	449
2223	32285	97	98	368	96	96	463	102	95	465
2224	32286	96	103	397	95	97	452	100	96	429
2225	32287	82	97	376	89	96	472	94	94	466
2226	32288	95	98	406	94	95	469	100	95	447
2227	32289	96	98	375	94	96	534	100	95	523
2228	32290	98	98	366	97	99	467	103	96	450
2229	32291	87	92	395	96	94	442	102	93	432
2230	32292	92	107	365	91	106	461	96	104	452
2231	32072	96	85	371	96	87	420	102	86	398
2232	BPT 5204(Parrent)	107	92	378	102	84	462	107	84	449
2233	LC	83	84	404	92	91	533	97	93	516
Experimental Mean		93	95	362	95	95	483	101	93	460

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 10.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – E TP (Rabi), 2023-2024. (Not considered)

Entry No	IET No	ZONE III- EASTERN			ZONE VII - SOUTHERN		
		Odisha			Karnataka		
		@Chiplima			@Brahmavar		
		DDF	PH	PAN	DDF	PH	PAN
2201	31368	108	89	353			
2202	31346	111	82	359	125	78	405
2203	32267	112	84	409	106	65	344
2204	32268	119	95	363	121	54	379
2205	32269	106	84	440	128	70	395
2206	32270	120	76	343	107	60	399
2207	32271	120	86	418	113	72	393
2208	32272	119	89	452			
2209	32273	105	73	374	107	58	406
2210	32274	107	85	431	107	62	387
2211	CO 51 (NC)	105	86	425	124	86	402
2212	32275	109	76	432	110	72	412
2213	32276	103	79	419			
2214	32277	117	75	341	107	61	400
2215	32278	108	88	446	117	66	385
2216	32279	111	85	398	120	69	409
2217	32280	112	72	418	121	65	391
2218	32281	113	87	408	110	64	376
2219	32282	117	84	347	121	57	423
2220	32283	108	80	430	104	56	423
2221	32284	118	96	411	131	76	410
2222	Narendra 97 (ZC)	105	78	401	121	66	378
2223	32285	119	85	414	121	74	390
2224	32286	114	88	430	122	85	410
2225	32287	106	82	444	123	102	423
2226	32288	116	81	338	102	82	406
2227	32289	114	87	401	130	66	395
2228	32290	114	85	390	136	64	382
2229	32291	115	85	425	120	64	401
2230	32292	110	94	434	123	56	380
2231	32072	116	72	199	120	84	407
2232	BPT 5204(Parrent)	123	79	323	114	73	409
2233	LC	113	85	424	123	54	384
Experimental Mean		112	83	395	117	68	396

Hybrid Rice

Hybrid rice is a proven technology for increasing rice production and productivity and is playing an important role in increasing the rice production in our country. As a result of concerted efforts over the last three decades, 162 hybrids have been released and notified for commercial cultivation. Among these, 44 hybrids have been developed by the public sector, while the remaining 118 have been developed by the private sector. During the year 2024, 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 (2024-25), ten rice hybrids viz., DRRH-6; ADV 8222; ADV 8283 & Arize 6585 ST (early duration); 27P34; 27P38; & RNC-0457 (mid early duration); Arize Dhan DT; Arize 655 ST; & HRI- 211 (medium duration) were released and notified by the Central Sub Committee on Crop standards, Notification & Release of varieties (CSCCSN & RV) for commercial cultivation in different parts of the country. The details of rice hybrids released and notified during 2024-25 are given in Table 1.

Table 1: Details of rice hybrids released and notified during 2024-25

S. No.	Hybrid	IET No	Recommended states
Early			
1	DRRH-6 (IIRRH-130)	28123	Bihar, Odisha and Uttar Pradesh
2	ADV 8222	29692	Chhattisgarh and Maharashtra
3	ADV 8283	29690	Bihar Uttar Pradesh, Chhattisgarh, Maharashtra, and Madhya Pradesh
4	Arize 6585 ST	29689	Haryana, Punjab, Uttar Pradesh, Bihar, Jharkhand, Odisha, Madhya Pradesh,
Mid-early			
5	27P34 (PHI- 21103)	29726	Odisha, Uttar Pradesh, Andhra Pradesh, Tamil Nadu, Karnataka and Puducherry
6	27P38 (PHI- 21104)	29734	Uttar Pradesh, Jharkhand, Maharashtra, Madhya Pradesh, Andhra Pradesh, Kerala
7	RNC-0457/NK4101	29738	Uttar Pradesh, Bihar, Jharkhand, Odisha, Andhra Pradesh and Kerala
Medium			
8	Arize Dhan DT (HRI-205)	29000	Uttar Pradesh, Bihar, Jharkhand, Odisha, West Bengal, Madhya Pradesh, Chhattisgarh, Telangana, Andhra Pradesh. Tamil Nadu and Karnataka
9	Arize 655 ST (HRI-209)	29741	Haryana, Punjab, Uttar Pradesh, Bihar, Jharkhand, Odisha, Madhya Pradesh, Chhattisgarh, Maharashtra and Gujarat
10	HRI- 211 (2)	29743	Haryana, Punjab, Uttar Pradesh, Bihar, Jharkhand, Odisha, West Bengal, Madhya Pradesh,

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

Annual Progress Report 2024 Vol. I – Varietal Improvement

approximately 35 or more locations across the country and these trials consist of test hybrids, national varietal/hybrid checks, zonal and local varietal checks in the respective maturity and grain type groups. Private sector companies also participate in the IHRT evaluation.

The location data is considered for analysis and the hybrids are promoted to the next stage of testing *i.e.*, Advance Varietal Trial-1 (AVT-1) based on criterion mentioned in the proceeding of 56th ARGGM (p14-15).

1. The significance of the trial is determined based on F-value. If the F value at individual location is not significant, data from such locations are not considered for assessment of entries.
2. ‘Minimum experimental mean yield of 4 t/ha for inbreds and 5 t/ha for hybrid trial is a requirement for inclusion of location data for assessment of entries.’ However, it has been slightly modified this year to include the yield data upto 4 t/ha for IHRTs as many locations were getting dropped, if 5 t/ha limit is applied.
3. CV for trial acceptance is in the range of 5-20%.
4. CD @ 5% is considered as criterion for promotion of entries.

The quality data of IHRT’s was not considered for promotion this year, in tune with the promotion criteria adapted for IVT trials.

During Kharif 2024, four hybrid trials were conducted and evaluated, and test locations are given in Table 2 and Table 3 respectively.

Table 2: Details of Initial Hybrid Rice Trials conducted during Kharif 2024

S. No	Name of the trial	No. of hybrids evaluated		No. of test locations
		Public	Private	
1.	Initial Hybrid Rice Trial - Early	07	07	35
2.	Initial Hybrid Rice Trial - Mid Early	12	30	36
3.	Initial Hybrid Rice Trial - Medium	08	22	37
4.	Initial Hybrid Rice Trial - Medium Slender	01	05	28

Table 3: Zone wise test centres for Initial Hybrid Rice Trials, Kharif 2024

Zone	No. of Locations	Name of Locations
Zone I (Hills)	01	Public Sector: Malan (MLN)
Zone II (Northern)	05	Public Sector: , New Delhi (IAR), Kaul (KUL), Ludhiana (LDN), Nagina (NGN), Pantnagar (PNT)
Zone III (Eastern)	15	Public Sector: Chinsurah (CHN), Chiplima (CHP), ICAR-NRRI(CTK), Dhangain (BKG), Masodha (MSD), Ranchi (RCI), Sabour (SBR), Varanasi (VRN) Private Sector: Bayer Seeds (BYR), Bio seeds (BIS), Indo-American Seeds(IDAS) Nuziveedu Seeds (NZV), PAN Seeds (PANS) Trimurthi Seeds Ranchi (TMRH_RCI) Trimurthi Seeds_Bareilly (TMRH_BE)

Annual Progress Report 2024 Vol. I – Varietal Improvement

Zone IV (North-Eastern)	02	Public Sector: Titabar (TTB), Arundhatinagar (ARD)
Zone V (Central)	07	Public Sector: Jabalpur (JBP), Raipur (RPR), Sakoli (SKL), Sindewahi (SND), Waraseoni (WRS) Private Sector: Ankur Seeds (ANKN), VNR Seeds (VNS)
Zone VI (Western)	08	Public Sector: Dabhoi (DBI), Karjat (KJT), Navsari (NVS), Nawagam (NWG), Pondaghat (PDG), Radhanagari (RDN), Shirgaon (SHG), Vadgaon Maval (VDG)
Zone VII (Southern)	09	Public Sector: Aduthurai (ADT), Bapatla (BPT), Brahmavar (BRM), Coimbatore (CBT), ICAR-IIRR (IIRR), Karaikal (KRK), Mandya (MND), Maruteru (MTU), Warangal (WGL)

1. Initial Hybrid Rice Trial - Early (IHRT-E)

Fourteen test hybrids (seven each from private and public sector) were evaluated in 35 locations comprising Zone I, II, III, IV, V, VI and VII along with national hybrid check (US 314), national varietal check (CO-51), zonal varietal checks (PR 124 - Zone II; NDR 97 - Zone III; Luit - Zone IV; Shabhagidhan - Zone V & VI; MTU 1153 - Zone VII) and local varietal checks of their respective locations. The details of the composition of the trial are given in Table 4. Besides these, an observational hybrid check viz., VNR 2111Plus was included in the trial to evaluate its performance vis-à-vis the existing hybrid check US-314 and if found promising to replace the US-314 as national hybrid check.

Table 4: Composition of Initial Hybrid Rice Trial - Early (IHRT-E), Kharif 2024

S.No.	IET No.	Name	Nominating Agency
1	32995	Rallis-230280	Rallis (I) Ltd., Hyderabad
2	32996	KJTRH-2249	RARS, Karjat
3	32997	VNR-237	VNR Seeds, Raipur
4	32998	KRH-14	ZARS, Mandya
5	32999	BRI-22008	Bio-seed, Hyderabad
6	33000	KRH-15	ZARS, Mandya
7	33001	BAYR-4201	Bayer Bioscience, Hyderabad
8	33002	Indam 200-58	Indo-American, Hyderabad
9	33003	BAYR-4202	Bayer Bioscience, Hyderabad
10	33004	Pusa RH-71	ICAR-IARI, New Delhi
11	33005	TNTRH-61	TNAU, Coimbatore
12	33006	Pusa RH-72	ICAR-IARI, New Delhi
13	33007	PHI-24105	Pioneer, Hyderabad
14	33008	Pusa RH-73	ICAR-IARI, New Delhi
15	VNR-2111 Plus		Observational Check Hybrid
16	US-314		National Check Hybrid
17	CO-51		National Check Variety
18	Zonal Check Variety		Zonal Check Variety
19	Local Check Variety		Local Check Variety

Northern: PR-124; North Eastern: Luit; Eastern: NDR-97; Central and Western: Shabhagidhan; Southern: MTU-1153

The detailed location wise and zone wise performance for grain yield and days to 50% flowering (DFP) is given in Appendix 1&2 respectively. The overall DFP ranged from 83 to

Annual Progress Report 2024 Vol. I – Varietal Improvement

96 days. The national hybrid check (US-314) had overall mean of 90 days; varietal check (CO-51) of 84 days, zonal check of 88 days, and local check had 87 days. The details of the centres (low performance) whose data is not considered for analysis is given in Appendix 3.

Based on the overall mean, one hybrid *viz.*, PHI 24105; based on zonal means, four hybrids *viz.*, Pusa RH-72 (Zone II & V); BAYR-4202 & KRH-15 (Zone V); Indam 200-058 (Zone V & VI)); were found promising. Considering this, all the five hybrids *viz.*, PHI-24105; Pusa RH-72; BAYR-4202; KRH-15 & Indam 200-058 are promoted to AVT-1-E-TP. Though the hybrid BAYR-4201 has recorded significant yield superiority over the checks (on overall mean basis), it has recorded very high DFF (97 days) and hence is dropped for further evaluation. The promising hybrids identified in IHRT-Early, Kharif 2024 are given in Table 5.

Table 5: Promising hybrids identified in IHRT-E, Kharif 2024

S. No	Hybrid	IET No	DFF	Mean Yield (kg/ha)						Remarks
				Over all	Zone II	Zone III	Zone V	Zone VI	Zone VII	
1	BAYR-4201	33001	97	6854 *#	6944	6438	6775 *#	6445 *#	7280	Dropped, High DFF
2	PHI-24105	33007	90	6765 *#	6668	6146	6922 *#	6250	7331	Promoted to AVT-1-E-TP
3	Pusa RH-72	33006	90	6092	7996 *#	5738	6713 *#	5008	5676	Promoted to AVT-1-E-TP
4	BAYR-4202	33003	91	6697	6861	6242	6831 *#	6105	7101	Promoted to AVT-1-E-TP
5	KRH-15	33000	91	6203	6318	5777	6621 *#	5746	6078	Promoted to AVT-1-E-TP
6	Indam 200-058	33002	90	6753	6504	6380	6448 *#	6454 *#	7491	Promoted to AVT-1-E-TP
	US 314	NCH	90	6572	7349	6363	6009	5974	6906	
	CO 51	NCV	84	5451	5346	5777	5232	4668	5907	
		ZCV	88	5867	6491	5149	5696	4875	7110	
		LCV	87	5640	6250	5026	5991	5178	5682	
	CD (0.05)			217	329	320	368	441	483	
	HC + CD (0.05)			6789	7678	6683	6377	6415	7389	
	BVC + CD (0.05)			6084	6820	6097	6359	5619	7593	

#: Denotes superior to Hybrid Check; *: Denotes superior to Best Varietal Check.

The observational hybrid check VNR-2111 Plus has shown ‘NO’ significant yield superiority over the national hybrid check (US-314) (Table-6) both on overall mean basis as well as zonal mean basis (except Zone II). It’s inferior to US-314 in Zone-III, Zone-V, Zone-VI, Zone-VII and overall mean basis (only in Zone-II, it has shown its yield superiority over US-314). Because of its inferior and inconsistent yield performance across the zones, it is ‘NOT’ considered to replace US-314 as national hybrid check.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table 6: Performance of Observational Hybrid Check VNR-2111 Plus over the existing national hybrid check US-314 in IHRT-E, Kharif 2024

S. No	Hybrid	DFF	Mean Yield (kg/ha)					
			Over all	Zone II	Zone III	Zone V	Zone VI	Zone VII
1	VNR-2111 Plus	83	5911	7718 *#	5719	5317	4971	5711
2	US-314	90	6572	7349	6363	6009	5974	6906
	CD (0.05)		217	329	320	368	441	483
	NCH + CD (0.05)		6789	7678	6683	6377	6415	7389

#: Denotes superior to Hybrid Check;

2. Initial Hybrid Rice Trial - Mid Early (IHRT-ME)

Mid Early trial comprising of 42 hybrids and four checks *viz.*, Gontra Bidhan-3 (National varietal check); US 312 (National hybrid check); Zonal checks - PR 113 (Zone II); Lalat (Zone III); Karjat-7 (Zone V&VI); MTU 1010 (Zone VII) and respective local checks were conducted at 36 locations. Among the 42 hybrids evaluated, 30 were from private sector and 12 from public sector. The composition of the trial is given in Table 7. Besides these, two observational hybrid checks *viz.*, 27P37 and VNR-2228 were included in the trial to evaluate their performance vis-à-vis the existing hybrid check US-312 and if found promising to replace the US-312 as national hybrid check.

Table 7: Composition of Initial Hybrid Rice Trial - Mid Early (IHRT-ME), Kharif 2024

S.No.	IET No.	Name	Nominating Agency
1	33009	KSRH-1016	Kurnool Seeds, Hyderabad
2	33010	SRPH-213	Sri Rama Agri. Genetics, Hyderabad
3	33011	TMRH-5544	Trimurti, Hyderabad
4	33012	KSRH-1209	Kurnool Seeds, Hyderabad
5	33013	Mahagold-786	Invicta Agritech, Hyderabad
6	33014	NS-6120	Namdhari Seeds, Hyderabad
7	33015	NDLRH-562	RARS, Nandyal
8	33016	NK-4009	Syngenta, Hyderabad
9	33017	LG 90304	Limagrain, Hyderabad
10	33018	Indam 200-060	Indo-American, Hyderabad
11	33019	KJTRH-2232	RARS, Karjat
12	33020	VNR-238	VNR Seeds, Raipur
13	33021	KJTRH-2243	RARS, Karjat
14	33022	SRH-306	Eldorado Agritech, Hyderabad
15	33023	Dhoom-09	Nath Bio-Gene, Aurangabad
16	33024	BRI-21044	Bio-seed, Hyderabad
17	33025	Kaveri-7429	Kaveri Seeds, Hyderabad
18	33026	BAYR-4303	Bayer Bioscience, Hyderabad
19	33027	PAN-21001	PAN Seeds, Hyderabad
20	33028	BAYR-4304	Bayer Bioscience, Hyderabad
21	33029	MASLPH-01	Mahindra Agri. Solution, Mumbai
22	33030	ADVRH-209008	Advanta, Hyderabad
23	33031	BESST-230	Besst Agri. Science, Hyderabad
24	33032	JRH-140	JNKVV, Jabalpur
25	33033	US-322	Seed Works, Hyderabad
26	33034	IIRRH-177	ICAR-IIRR, Hyderabad

Annual Progress Report 2024 Vol. I – Varietal Improvement

27	33035	JRH-143	JNKVV, Jabalpur
28	33036	US-325	Seed Works, Hyderabad
29	33037	IIRRH-178	ICAR-IIRR, Hyderabad
30	33038	Pusa RH-69	ICAR-IARI, New Delhi
31	33039	3A9202	Tierra Agrotech, Hyderabad
32	33040	NPH-X24	Nuziveedu Seeds, Hyderabad
33	33041	Pusa RH-70	ICAR-IARI, New Delhi
34	33042	PBNPH-2008	Prabhat Agri-Biotech, Hyderabad
35	33043	BS-310	Yanganti Agrotech, Hyderabad
36	33044	DLRH-10	Delta Agri. Genetics, Hyderabad
37	33045	TNTRH-102	TNAU, Coimbatore
38	33046	PHI-24106	Pioneer, Hyderabad
39	33047	CRHR-190	ICAR-NRRI, Cuttack
40	33048	PHI-24107	Pioneer, Hyderabad
41	33049	CRHR-191	ICAR-NRRI, Cuttack
42	33050	PHI-24108	Pioneer, Hyderabad
43	27P37		Observational Check Hybrid-1
44	VNR-2228		Observational Check Hybrid-2
45	US-312		National Check Hybrid
46	Gontra Bidhan-3		National Check Variety
47	Zonal Check Variety		Zonal Check Variety
48	Local Check Variety		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 details of the centres (low performance) whose data is not considered for analysis is given in Appendix 6.

Performance of promising hybrids identified in different zones is given in Table 8. In the trial, mean DFF of checks ranged from 93-95 days, the hybrid check US 312 had mean DFF of 95 days. The varietal checks *viz.*, national, zonal and local checks had mean DFF of 94, 93 and 95 days respectively.

Table 8: Promising hybrids identified in IHRT-ME, Kharif 2024

S. No	Hybrid	IET No	DFF	Mean Yield (kg/ha)						Remarks
				Over all	Zone II	Zone III	Zone V	Zone VI	Zone VII	
1	Kaveri-7429	33025	99	7565 *#	7645 *#	7415 *#	7128 *#	6770 *#	8856 *#	Promoted to AVT-1-ME-TP
2	PHI-24108	33050	95	7411 *#	7301 *#	7466 *#	6901 *#	6806 *#	8403	Promoted to AVT-1-ME-TP
3	PHI-24106	33046	97	7203 *#	7049 *#	6946 *#	6503	7075 *#	8677 *#	Promoted to AVT-1-ME-TP
4	VNR-238	33020	99	7141 *#	6349	7257 *#	6793	6506	8555 *#	Promoted to AVT-1-ME-TP
5	Indam 200-060	33018	95	7122 *#	6920 *#	6798	6895 *#	6647	8583 *#	Promoted to AVT-1-ME-TP
6	BAYR-4304	33028	95	7042 *#	6234	6962 *#	6413	7395 *#	8354	Promoted to AVT-1-ME-TP
7	PHI-24107	33048	96	6999 *#	6614	7094 *#	6293	6312	8453	Promoted to AVT-1-ME-TP
8	BRI-21044	33024	94	6976 *#	6983 *#	7216 *#	6742	5351	8023	Promoted to AVT-1-ME-TP

Annual Progress Report 2024 Vol. I – Varietal Improvement

S. No	Hybrid	IET No	DFF	Mean Yield (kg/ha)						Remarks
				Over all	Zone II	Zone III	Zone V	Zone VI	Zone VII	
9	NK-4009	33016	95	6946 *#	6992 *#	6954 *#	6579	5858	8119	Promoted to AVT-1-ME-TP
10	NS-6120	33014	97	6900 *#	6340	6870 *#	6232	6307	8663 *#	Promoted to AVT-1-ME-TP
11	Dhoom-09	33023	93	6803	7111 *#	6765	6450	6078	7505	Promoted to AVT-1-ME-TP
12	Pusa RH-69	33038	94	6455	6070	7423 *#	5640	4290	7453	Promoted to AVT-1-ME-TP
	US 312	NCH	96	6603	6046	6484	6370	6237	7925	
	Gontra Bidhan-3	NCV	93	5725	6128	6161	5472	5606	4798	
		ZCV	95	5546	6402	5818	4741	3740	6393	
		LCV	96	5801	5974	6057	5142	4672	6679	
	CD (0.05)			225	497	381	454	522	480	
	HC + CD (0.05)			6828	6543	6865	6824	6759	8405	
	BVC + CD (0.05)			6026	6899	6542	5926	6128	7159	

#: Denotes superior to Hybrid Check; *: Denotes superior to Best Varietal Check.

Based on the overall mean, 10 hybrids viz., Kaveri-7429, PHI-24108, PHI-24106, VNR-238, Indam 200-060, BAYR-4304, PHI-24107, BRI-21044; NK-4009 & NS-6120 and based on zonal means, two hybrids viz., Dhoom-09 (Zone II) & Pusa RH-69 (Zone III) were found promising and all these 12 hybrids are promoted to AVT-1-ME.

Of the two observational hybrid checks viz., 27P37 and VNR-2228 which were included in the trial to evaluate their performance vis-à-vis the existing hybrid check US-312, 27P37 has shown 'NO' significant yield superiority over the national hybrid check (US-312), whereas VNR-2228 has shown significant yield superiority over US-312, both on overall mean basis and in majority of the Zones (except Zone VI) (Table-9). Considering its superior performance, it's proposed to replace the existing National Hybrid Check US-312 with VNR-2228 as National Hybrid Check in the IHRT Mid Early Trial.

Table 9: Performance of Observational Hybrid Checks viz., 27P37 and VNR-2228 over the existing national hybrid check US-312 in IHRT-ME, Kharif 2024

S. No	Hybrid	DFF	Mean Yield (kg/ha)					
			Over all	Zone II	Zone III	Zone V	Zone VI	Zone VII
1	27P37	99	6770	6757	6578	5894	6126	8557 *#
2	VNR-2228	98	7149 *#	7041 *#	6915 *#	7081 *#	6245	8517 *#
3	US-312	96	6603	6046	6484	6370	6237	7925
	CD (0.05)		225	497	381	454	522	480
	NCH + CD (0.05)		6828	6543	6865	6824	6759	8405

#: Denotes superior to Hybrid Check; *: Denotes superior to Best Varietal Check.

Annual Progress Report 2024 Vol. I – Varietal Improvement

3. Initial Hybrid Rice Trial - Medium (IHRT-M)

The IHRT-M conducted at 37 locations, with 30 hybrids (public sector - 08; private sector - 22) along with four checks viz., HRI-174 (National hybrid check); NDR-359 (National varietal check); Zonal varietal checks (PR 121 - Zone II; CR Dhan 300 - Zone III&IV); IR-64 - Zone V; Akshayadhan - Zone VI; Jaya - Zone VII) and local checks of their respective locations. The composition of the trial is given in Table 10.

Table 10: Composition of Initial Hybrid Rice Trial - Medium (IHRT-M), Kharif 2024

S.No.	IET No.	Name	Nominating Agency
1	33051	TMRH-2151	Trimurti, Hyderabad
2	33052	SHX-2783	Savannah Seed, Hyderabad
3	33053	NDLRH-563	RARS, Nandyal
4	33054	Indam 200-059	Indo-American, Hyderabad
5	33055	VNR-239	VNR Seeds, Raipur
6	33056	BRI-22021	Bio-Seed, Hyderabad
7	33057	BAYR-4405	Bayer Bioscience, Hyderabad
8	33058	ADVRH-200685	Advanta, Hyderabad
9	33059	STAR-130	Star Agrotech, Hyderabad
10	33060	BAYR-4406	Bayer Bioscience, Hyderabad
11	33061	ADVRH-21-0056	Advanta, Hyderabad
12	33062	JRH-141	JNKVV, Jabalpur
13	33063	BAYR-4407	Bayer Bioscience, Hyderabad
14	33064	3A9029	Tierra Agrotech, Hyderabad
15	33065	BAYR-4408	Bayer Bioscience, Hyderabad
16	33066	JRH-142	JNKVV, Jabalpur
17	33067	NPH-X86	Nuziveedu Seeds, Hyderabad
18	33068	NK-7010	Syngenta, Hyderabad
19	33069	NPH-X92	Nuziveedu Seeds, Hyderabad
20	33070	BS-336	Yanganti Agrotech, Hyderabad
21	33071	NK-7012	Syngenta, Hyderabad
22	33072	DLRH-11	Delta Agri. Genetics, Hyderabad
23	33073	IIRRH-179	ICAR-IIRR, Hyderabad
24	33074	TNTRH-80	TNAU, Coimbatore
25	33075	PHI-24109	Pioneer, Hyderabad
26	33076	TNTRH-81	TNAU, Coimbatore
27	33077	PHI-24110	Pioneer, Hyderabad
28	33078	CRHR-192	ICAR-NRRI, Cuttack
29	33079	PHI-24111	Pioneer, Hyderabad
30	33080	CRHR-193	ICAR-NRRI, Cuttack
31	AZ8433DT		National Check Hybrid
32	NDR-359		National Check Variety
33	Zonal Check Variety		Zonal Check Variety
34	Local Check Variety		Local Check Variety

Northern: PR-121; Eastern and North Eastern: CR Dhan-300; Central: IR-64; Western: Akshayadhan; Southern: Jaya

Performance of the hybrids with respect to grain yield and days to 50% flowering (DFF) are given in Appendix 7&8 respectively. The details of the centres (low performance) whose data is not considered for analysis is given in Appendix 9.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Based on the overall mean, one hybrid *viz.*, NK-7010, based on zonal means, nine hybrids *viz.*, PHI-24109 (Zone II); NK-7012, CRHR-192, PHI-24110, PHI-24111 (Zone III); BAYR-4407, VNR-239 (Zone V), SHX-2783 (Zone V& VI), BAYR-4408 (Zone VI) were found promising. All these nine hybrids are promoted to AVT-1-M (Table 11).

Table 11: Promising hybrids identified in IHRT-M, Kharif 2024

S. No	Hybrid	IET No	DFP	Mean Yield (kg/ha)						Remarks
				Over all	Zone II	Zone III	Zone V	Zone VI	Zone VII	
1	NK-7010	33068	102	7451 *#	8064	6998	7398 *#	6455 *#	8642	Promoted to AVT-1-M-TP
2	PHI-24109	33075	100	7020	8084 *#	7079	6300	6101	7655	Promoted to AVT-1-M-TP
3	NK-7012	33071	103	6890	7240	7732 *#	6383	5614	6844	Promoted to AVT-1-M-TP
4	CRHR-192	33078	112	6311	5200	7673 *#	5940	5387	6152	Promoted to AVT-1-M-TP
5	PHI-24110	33077	100	7103	7215	7615 *#	6020	6031	8018	Promoted to AVT-1-M-TP
6	PHI-24111	33079	102	7182	7519	7511 *#	6581	5820	8031	Promoted to AVT-1-M-TP
7	BAYR-4407	33063	103	7232	8056	6983	7473 *#	5579	8457	Promoted to AVT-1-M-TP
8	VNR-239	33055	109	6860	5467	6982	6945 *#	5738	8192	Promoted to AVT-1-M-TP
9	SHX-2783	33052	102	6890	7806	6192	6833 *#	6331 *#	7863	Promoted to AVT-1-M-TP
10	BAYR-4408	33065	100	7245	7752	7173	6715	6442 *#	8204	Promoted to AVT-1-M-TP
	AZ8433DT	NCH	104	6969	7475	6799	6409	5955	8092	
	NDR-359	NCV	100	6151	6775	6184	5683	4818	7213	
		ZCV	103	5464	5851	5394	4180	4938	6812	
		LCV	103	6062	6438	6468	5269	5539	6381	
	CD (0.05)			277	623	630	406	308	593	
	HC + CD (0.05)			7246	8098	7429	6815	6263	8685	
	BVC + CD (0.05)			6428	7398	7098	6089	5847	7806	

#: Denotes superior to Hybrid Check; *: Denotes superior to Best Varietal Check.

4. Initial Hybrid Rice Trial - Medium Slender (IHRT-MS), Kharif 2024

The trial consisting of six hybrids (one from public and five from private sector) was conducted at 28 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 12.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table 12: Composition of Initial Hybrid Rice Trial - Medium Slender (IHRT-MS), Kharif 2024

S.No.	IET No.	Name	Nominating Agency
1	33081	BAYR-4614	Bayer Bioscience, Hyderabad
2	33082	TNTRH-151	TNAU, Coimbatore
3	33083	BAYR-4615	Bayer Bioscience, Hyderabad
4	33084	PHI-24101	Pioneer, Hyderabad
5	33085	PHI-24102	Pioneer, Hyderabad
6	33086	PHI-24103	Pioneer, Hyderabad
7	27P63		National Check Hybrid
8	WGL-14		National Check Variety-1
9	BPT-5204		National Check Variety-2
10	Zonal Check Variety		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, DFF and grain type are given in Appendix 10 & 11 respectively. The details of the centres (low performance) whose data is not considered for analysis is given in Appendix 12

Based on overall mean, two hybrids viz., PHI 24102 & PHI 24101 were found promising with required yield advantage over the varietal and hybrid checks (Table 13). These two hybrids are promoted to AVT-1 MS trial.

Table 13: Promising hybrids identified in IHRT-MS, Kharif 2024

S. No	Hybrid	IET No	DFF	Grain Type	Mean Yield (kg/ha)					Remarks
					Over all	Zone III	Zone V	Zone VI	Zone VII	
1	PHI-24102	33085	102	MS	6681 *#	7165	6153	6919 *#	6693	Promoted to AVT-1-MS
2	PHI-24101	33084	101	MS	6563 *#	6172	6733 *#	6492 *#	6724	Promoted to AVT-1-MS
	27P63	NCH	100	MS	6205	6345	6335	5895	6196	
	WGL-14	NCV-1	105	MS	6081	6934	5430	5455	6570	
	BPT 5204	NCV-2	101	MS	5628	6281	5483	4966	5781	
		ZCV	101	MS	5149	6197	4726	3444	6042	
	CD (0.05)				209	400	392	410	547	
	NCH + CD (0.05)				6414	6745	6727	6305	6743	
	BVC + CD (0.05)				6290	7334	5875	5865	7117	

#: Denotes superior to Hybrid Check; *: Denotes superior to Best Varietal Check.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix- 1: Grain Yield (kg/ha) of hybrids in IHRT-Early, Kharif 2024

S. No.	IET No.	Name	Zone-1										Zone-2										Zone-3 Contd..									
			HP-Z1		HR-Z2		UK-Z2		PB-Z2		DL-Z2		UP-Z2		Zone-2 (5)		TRMH_BE		IDAS		UP-Z3 (2)		UP Overall (3)									
			MLN	KUL	PNT	LDN	IAR	NGN	Zone-2 (5)	Zone-2 (5)	TRMH_BE	IDAS	UP-Z3 (2)	UP Overall (3)																		
1	32995	Rallis-230280	9224(8)	7205(9)	5654	6674(6)	8370(7)	5595	6700(7)	7056(2)	6672(6)	6864(2)	6441(3)																			
2	32996	KJTRH-2249	8404	6789	5681	5813	7666(10)	5590	6308	4355	3931	4143	4625																			
3	32997	VNR-237	9117	7091(10)	4819	6232(10)	8022(8)	5411	6315	5925(5)	5060	5492	5465																			
4	32998	KRH-14	10470(1)	6809	4155	4350	5764	5653	5346	5382	3792	4587	4942																			
5	32999	BRI-22008	10043(4)	7431(4)	5696(10)	7621(2)	8494(6)	5457	6940(5)	5882(6)	7729(1)	6805(3)	6356(5)																			
6	33000	KRH-15	9188(10)	7046	4733	5171	7311	7330(2)	6318	5151	4723	4937	5735(10)																			
7	33001	BAYR-4201	9758	8572(1)	6178(6)	7443(4)	7356	5169	6944(4)	5338	5853(8)	5596(10)	5454																			
8	33002	Indam 200-58	10114(3)	7433(3)	5455	6002	7922(9)	5707(10)	6504(10)	5638(9)	6925(5)	6282(7)	6090(7)																			
9	33003	BAYR-4202	9259(7)	6985	6192(5)	5657	9452(2)	6020(7)	6861(6)	5738(7)	7418(3)	6578(5)	6392(4)																			
10	33004	Pusa RH-71	7692	7253(7)	5754(9)	6348(9)	7548	6150(5)	6611(9)	5720(8)	7127(4)	6424(6)	6332(6)																			
11	33005	TNTRH-61	5983	5573	558	6000	6675(4)	4702	4639	4639	4639	4639	5657																			
12	33006	Pusa RH-72	4986	10789(1)	6429(7)	9010(4)	5757(9)	7996(1)	5494	5994(7)	5744(8)	5748(9)	5518																			
13	33007	PHI-24105	10185(2)	7847(2)	5810(8)	5597	8978(5)	5106	6668(8)	6481(3)	4966	5724(9)	5524																			
14	33008	Pusa RH-73	5841	6020(7)	4644	6076	6028(6)	5692	5276	5276	5276	5276	5524																			
15	VNR-2111 Plus (OBCH)	9224(9)	7317(6)	6867(2)	7379(5)	9637(1)	7388(1)	7718(2)	7480(1)	5825(9)	6652(4)	6898(1)	6898(1)																			
16	US-314 (NCH)	9687	7343(5)	6537(4)	7465(3)	9395(3)	6007(8)	7349(3)	6153(4)	7604(2)	6878(1)	6588(2)	6588(2)																			
17	CO-51 (NCV)	7194	4941	3681	4436	6541	7134(3)	5346	5501(10)	5209	5355	5948(8)	5948(8)																			
18	Zonal Check Variety	7443	6896	6695(3)	6429(7)	6993	5440	6491	3746	4351	4048	4512	4512																			
19	Local Check Variety	6944	7213(8)	3422	7988(1)	7504	5123	6250	5158	4518	4838	4933	4933																			
Exp. Mean	8461	7044	5510	6204	7791	5934	5934	6477	5585	5720	5624	5745	5745																			
CD (0.05)	801	729	856	649	621	845	845	329	1120	664	704	580	580																			
CV (%)	5.72	6.22	9.38	6.3	4.81	8.6	8.6	3.07	12.11	7	7.56	6.1	6.1																			
F value	34.73	10.03	42.9	24.21	30.33	5.88	5.88	49.66	4.92	30.42	14.37	11.09	11.09																			
NHC+CD (0.05)	10488	8072	7393	8114	10016	6852	6852	7678	7273	8268	7582	7168	7168																			
BVC+CD (0.05)	8244	7942	7551	8637	8125	7979	7979	6820	6621	5873	6059	6528	6528																			
D/S	4.6.24	28.5.24	3.6.24	29.5.24	21.6.24	27.6.24	27.6.24	27.6.24	12.6.24	22.6.24																						
D/P	3.7.24	1.7.24	25.6.24	28.6.24	20.7.24	27.7.24	27.7.24	27.7.24	7.7.24	15.7.24																						
Gross Plot Size (Sq. m)	4.68	10	10.13	10.87	10	10	10	10	12.6	9.9																						
Net Plot Size (Sq. m)	4.68	10	10.13	8.98	10	7.99	7.99	10.8	10.8	9																						
Zonal Check Variety	PR-124	PR-124	PR-124	PR-124	PR-124	PR-124	PR-124	PR-124	NDR-97	NDR-97	NDR-97																					
Local Check Variety	HPR 2143	HKR 49	Govind	PR 126	Pusa 2090	NDR 97	NDR 97	TMRV 1617	Indam Roshni																							

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix- 1(contd.): Grain Yield (kg/ha) of hybrids in IHRT-Early, Kharif 2024

S. No.	IET No.	Name	Zone-3										Zone-5 Contd.					
			WB-Z3		OD-Z3		JH-Z3				Zone -3 (7)	MP-Z5			CG-Z5			
			CHN	CTK	RCI	BYR	TRMH_RCI	JH-Z3 (3)	JH-Z3	JBP		WRS	MP-Z5 (2)	RPR	VNS	CG-Z5 (2)		
1	32995	Rallis-230280	5156(4)	5391(10)	4867	5031	6731(5)	5543	5843(7)	5340	6019(2)	5680	7736(5)	2122	4929			
2	32996	KJTRH-2249	5320	6340(4)	5000	4569	6578(8)	5382	5156	6813(6)	5339	6076(8)	6038	4947	5492			
3	32997	VNR-237	5747(7)	5407(9)	5667	4920	5988	5525	5530	6613(8)	5409(10)	6011(9)	6513	6893(5)	6703(7)			
4	32998	KRH-14	6831(3)	5643(7)	5367	5778(10)	6038	5728	5547	8440(2)	5328	6884(3)	6350	4490	5420			
5	32999	BRI-22008	5517(8)	5557(8)	6333(5)	7017(2)	6206	6519(3)	6320(4)	5596	4946	5271	7249(8)	6001(9)	6625(8)			
6	33000	KRH-15	6995(2)	4197	5967(10)	6359(7)	7046(3)	6457(4)	5777(10)	8297(3)	5917(4)	7107(1)	7571(7)	4954	6262			
7	33001	BAYR-4201	7291(1)	5196	7733(1)	6663(4)	6990(4)	7129(1)	6438(1)	8090(4)	5170	6630(4)	7893(4)	6367(8)	7130(5)			
8	33002	Indam 200-58	5123(3)	7849(1)	5833	5611	7680(1)	6375(6)	6380(2)	6330(10)	5207	5768	7899(3)	7177(3)	7538(2)			
9	33003	BAYR-4202	5222(5)	6435(3)	6333(5)	6594(6)	5957	6295(8)	6242(5)	6790(7)	6237(1)	6513(5)	8022(1)	7986(1)	8004(1)			
10	33004	Pusa RH-71	5452(9)	5082	6307(7)	4207	6709(6)	5741	5800(8)	7183(5)	5795(5)	6489(6)	7574(6)	4963	6268(10)			
11	33005	TNTRH-61	5780(6)	4164	3880	6018(9)	3665	4521	4691	5733	2905	4319	3319	3182	3251			
12	33006	Pusa RH-72	5944(5)	4433	6800(4)	4826	6675(7)	6100	5738	6417(9)	5744(6)	6080(7)	5944	6652(7)	6298(9)			
13	33007	PHI-24105	5386(10)	5956(6)	6167(9)	6709(3)	7359(2)	6745(2)	6146(6)	5800	6016(3)	5908(10)	7976(2)	6666(6)	7321(4)			
14	33008	Pusa RH-73	4105	4439	7320(3)	5657	5882	6286(9)	5421	8660(1)	5416(9)	7038(2)	4649	3246	3947			
15	VNR-2111 Plus (OBCH)	5090	6219(5)	3767	3767	5452	6197	5139	5719	6233	5578(7)	5906	6605(10)	3514	5060			
16	US-314 (NCH)	4696	6896(2)	6267(8)	6267(8)	6626(5)	6297	6397(5)	6363(3)	5754	4372	5063	7113(9)	7636(2)	7374(3)			
17	CO-51 (NCV)	6108(4)	4507	5067	5067	7478(1)	6569(9)	6371(7)	5777(9)	6210	4648	5429	5322	3120	4221			
18	Zonal Check Variety	4171	5250	7677(2)	5482	5370	5370	6176(10)	5149	6023	4666	5345	5676	5556(10)	5616			
19	Local Check Variety	4729	5079	3000	6246(8)	6453(10)	5233	5026	5026	5690	5527(8)	5608	6463	7118(4)	6791(6)			
Exp. Mean		5509	5476	5755	5855	6336	6336	5982	5740	6632	5276	5954	6627	5399	6013			
CD (0.05)		1013	998	1240	668	1182	1182	556	320	553	421	371	901	792	602			
CV (%)		11.11	11.01	13.01	6.89	11.27	11.27	5.62	3.37	5.04	4.82	3.77	8.21	8.86	6.05			
F value		5.97	7.82	8.81	14.66	4.25	10.96	20.23	20.23	28.95	26.9	30.76	16.35	40.03	38.76			
NHC+CD (0.05)		5709	7894	7507	7294	7479	6953	6683	6683	6307	4793	5434	8014	8428	7976			
BVC+CD (0.05)		7121	6248	8917	8146	7751	6927	6097	6097	6763	5948	5979	7364	7910	7393			
D/S		10.6.24	6.6.24	29.6.24	25.6.24	6.7.24	6.7.24			26.6.24	28.6.24		1.7.24	6.6.24				
D/P		3.7.24	12.7.24	6.8.24	7.8.24	2.8.24	2.8.24			17.7.24	17.7.24		1.8.24	29.6.24				
Gross Plot Size (Sq. m)		12.57	10.5	10	10	12.6				10	10		11.1					
Net Plot Size (Sq. m)		10.15	7.56	10	10	10.8				7.99	9.07		8.4	7.56				
Zonal Check Variety		NDR-97	NDR-97	NDR-97	NDR-97	NDR-97	NDR-97	NDR-97	NDR-97	Sahbhagi dhan	Sahbhagi dhan		Sahbhagi dhan	Sahbhagi dhan				
Local Check Variety		Ajit	Annada	BVD-110	IR 36	TMRV	1617			MTU 1010	JR 206		Danteshwari	MTU 1010				

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix- 1(contd.): Grain Yield (kg/ha) of hybrids in IHRT-Early, Kharif 2024

S. No.	IET No.	Name	Zone-5							Zone-6 Contd..						
			MH-Z5				Zone-5 (7)	MH-Z6			MH Overall (6)	GI-Z6 Contd..				
			SND	SKL	ANKN	MH-Z5 (3)		KJT	VDG	RDN		MH-Z6 (3)	NWG	NVS		
1	32995	Rallis-230280	5645(8)	8167(5)	4881	6231(6)	5702	4486	7015(2)	6254(10)	5919(8)	6075(6)	3127	6240(10)		
2	32996	KJTRH-2249	5675(7)	6067	4754	5499	5662	6394(1)	5513	6393(4)	6100(6)	5799(8)	5820(5)	6836(6)		
3	32997	VNR-237	6144(5)	5933	4421	5499	5989(9)	5332(7)	5092	6310(8)	5578	5539	6790(3)	6133		
4	32998	KRH-14	5355(10)	5740	4974(10)	5356	5811(10)	4542	6256(9)	6315(7)	5704(10)	5530	5057(9)	5042		
5	32999	BRI-22008	3706	7433(10)	4561	5233	5642	5301(8)	6002	6707(2)	6003(7)	5618	3798	7468(4)		
6	33000	KRH-15	6301(4)	8233(4)	5075(9)	6536(4)	6621(5)	4330	5894	6585(3)	5603	6070(7)	6508(4)	5445		
7	33001	BAYR-4201	6626(3)	7733(9)	5548(3)	6636(3)	6775(3)	6383(2)	6529(7)	5879	6264(3)	6450(2)	7088(1)	5888		
8	33002	Indam 200-58	5015	8067(7)	5443(5)	6175(7)	6448(6)	5607(4)	6786(4)	6380(5)	6257(4)	6216(4)	6918(2)	7382(5)		
9	33003	BAYR-4202	5126	8133(6)	5526(4)	6262(5)	6831(2)	5580(5)	7002(3)	6359(6)	6314(2)	6288(3)	5648(6)	6053		
10	33004	Pusa RH-71	3639	6700	4680	5006	5791	6090(3)	5851	6777(1)	6240(5)	5623(10)	3816	6481(9)		
11	33005	TNTRH-61	4292	3100		3696	3755	3205	5664	5714	4861	4395	1297	1202		
12	33006	Pusa RH-72	7188(1)	8333(3)		7761(1)	6713(4)	5273(9)	4987	4759	5006	6108(5)	1760	9910(1)		
13	33007	PHI-24105	6877(2)	9283(1)	5833(1)	7331(2)	6922(1)	5459(6)	7821(1)	5777	6352(1)	6842(1)	4941(10)	7989(2)		
14	33008	Pusa RH-73	5740(6)	6267		6003(8)	5663	3830	6573(6)	3977	4793	5277	1700	4943		
15	VNR-2111 Plus (OBCH)		5567(9)	4633	5088(8)	5096	5317	4252	6490(8)	5274	5339	5217	4471	5023		
16	US-314 (NCH)		4202	7400	5583(2)	5729	6009(7)	4893(10)	6187(10)	6310(8)	5797(9)	5763(9)	5435(8)	7586(3)		
17	CO-51 (NCV)		4510	8067(7)	4750	5775(10)	5232	3306	5725	4858	4630	5203	4062	5654		
18	Zonal Check Variety		3966	8700(2)	5285(7)	5984(9)	5696	3669	6594(5)	5287	5183	5584	3267	6641(8)		
19	Local Check Variety		4935	6767	5434(6)	5712	5991(8)	4886	5024	4672	4861	5286	5622(7)	6645(7)		
Exp. Mean			5290	7092	5115	5870	5925	4885	6158	5820	5621	5731	4585	6240		
CD (0.05)			1173	1477	789	780	368	878	760	1193	538	445	545	1437		
CV (%)			13.39	12.58	9.25	8.03	3.75	10.85	7.45	12.38	5.78	4.69	7.18	13.91		
F value			6.72	8.82	2.37	10.68	33.18	9.92	7.96	3.69	9.78	12.78	88.46	11.72		
NHC+CD (0.05)			5375	8877	6372	6509	6377	5771	6947	7503	6335	6208	5980	9023		
BVC+CD (0.05)			6108	10177	6223	6764	6359	5764	7354	6480	5721	6029	6167	8082		
D/S			24.6.24	13.6.24	19.6.24			11.6.24	1.7.24	10.6.24			19.6.24	15.6.24		
D/P			17.7.24	16.7.24	15.7.24			04.7.24	7.8.24	9.7.24			23.7.24	8.7.24		
Gross Plot Size (Sq. m)			10	10	9.36			10.8	14	8.91			10	12.87		
Net Plot Size (Sq. m)			7.48	10	7.6			7.92	10	6.53			8	10.4		
Zonal Check Variety			Sahbhagi dhan	Sahbhagi dhan	Sahbhagi dhan			Sahbhagidhan	Sahbhagi dhan	Sahbhagi dhan			Sahbhagi dhan	Sahbhagi dhan		
Local Check Variety			PDKV Sadhana	PDKV Sadhana	MTU 1010			Karjat 7	P. Radha	Phule Radha			Mahisagar	GR-17		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix- 1(contd.): Grain Yield (kg/ha) of hybrids in IIRT-Early, Kharif 2024

S. No.	IET No.	Name	Zone-6			Zone-7				Overall (32)					
			DBI	GJ-z6(3)	Zone-6 (6)	AP-Z7	TG-Z7		TN-Z7						
						MTU	IIRR	WGL	TG-Z7(2)	MND	CBT	ADT	TN(2)	Zone-7 (6)	
1	32995	Rallis-230280	4069	4478	5199	7019(2)	6334(7)	7985(4)	7160(5)	9380(4)	8408(1)	5773(10)	7091(4)	7483(2)	6238(7)
2	32996	KJTRH-2249	5010(10)	5889(7)	5994(5)	6614(3)	6154	6490	6322	7642	6595	5967(7)	6281	6577	5972
3	32997	VNR-237	5446(7)	6123(5)	5850(7)	7533(1)	6680(1)	6091	6385	9446(3)	7316(8)	4807	6062	6979(8)	6197(9)
4	32998	KRH-14	5025(9)	5041	5373(10)	4345	5983	6916	6449(10)	8077(10)	6333	7133(2)	6733(7)	6464	5867
5	32999	BRI-22008	5775(3)	5680(9)	5842(8)	5556	6318(8)	7141(9)	6730(8)	8345(9)	8247(2)	5033	6640(9)	6773(10)	6380(6)
6	33000	KRH-15	5711(4)	5888(8)	5746(9)	4339	5941	6755	6348	6987	7065(9)	5383	6224	6078	6203(8)
7	33001	BAYR-4201	6902(1)	6626(2)	6445(2)	5725(10)	6417(5)	7519(6)	6968(6)	8926(7)	7527(7)	7567(1)	7547(1)	7280(4)	6854(1)
8	33002	Indam 200-58	5652(5)	6651(1)	6454(1)	6343(6)	6263(9)	8627(3)	7445(3)	9575(2)	8003(4)	6133(6)	7068(5)	7491(1)	6753(3)
9	33003	BAYR-4202	5990(2)	5897(6)	6105(4)	6195(7)	6660(2)	7893(5)	7277(4)	9021(5)	7004(10)	5833(8)	6419	7101(6)	6697(4)
10	33004	Pusa RH-71	3201	4499	5369	5699	6243(10)	6943	6593(9)	8677(8)	8152(3)	6200(5)	7176(3)	6986(7)	6125(10)
11	33005	TNTRH-61	4981	2493	3677	2315	2573		2573	6253	6691		6691(8)	4458	4273
12	33006	Pusa RH-72	3358	5009	5008		2290	7194(7)	4742	7543(6)			7543(2)	5676	6092
13	33007	PHI-24105	5515(6)	6148(4)	6250(3)	5331	6634(3)	9106(1)	7870(1)	9760(1)	6939	6217(4)	6578(10)	7331(3)	6765(2)
14	33008	Pusa RH-73	3471	3371	4082	6424(5)	2504	7039(10)	4771		6099	5367	5733	5487	5257
15	VNR-2111 Plus (OBCH)	4319	4604	4971	4984	4984	4721	6292	5507	6397	6657	5217	5937	5711	5911
16	US-314 (NCH)	5432(8)		5974(6)	6609(4)	6349(6)	6349(6)	9041(2)	7695(2)	7617	6017	5800(9)	5908	6906(9)	6572(5)
17	CO-51 (NCV)	4402	4706	4668	4907	4907	5756	6460	6108	6958	5811	5550	5680	5907	5451
18	Zonal Check Variety	3794	4567	4875	5957(9)	6619(4)	6619(4)	7191(8)	6905(7)	8980(6)	7598(5)	6317(3)	6958(6)	7110(5)	5867
19	Local Check Variety	4216	5494(10)	5178	6054(8)	4715	4715	6418	5567	6622	5150	5133	5142	5682	5640
Exp. Mean		4856	5227	5424	5664	5664	5535	7283	6285	8157	7008	5849	6495	6499	6059
CD (0.05)		830	555	441	932	932	1027	966	830	1167	962	936	731	483	217
CV (%)		10.32	6.42	4.91	9.92	9.92	11.21	7.99	7.98	8.6	8.29	9.62	6.8	4.48	2.16
F value		12.23	31.51	24.83	13.73	13.73	17.03	7.41	18.81	8.57	7.09	4.96	6.62	24.3	67.4
NHC+CD (0.05)		6262	6706	6415	7541	7541	7376	10007	8525	8784	6979	6736	6639	7389	6789
BVC+CD (0.05)		5232	6049	5619	6986	6986	7646	8157	7735	10147	8560	7253	7689	7593	6084
D/S		6.6.24			7.7.24	7.7.24	21.6.25	24.6.24		14.8.24	14.6.24	12.6.24			
D/P		23.7.24			30.7.24	30.7.24	26.7.25	27.7.24		5.9.24	13.7.24	12.7.24			
Gross Plot Size (Sq. m)		12.96			9.9	9.9	6.728	9.78		9.4	7.56	10			
Net Plot Size (Sq. m)		10.2			7.56	7.56	5.198	9.78		8.32	5.32	10			
Zonal Check Variety		Sahbhagi dhan			MTU-1153	MTU-1153	1153	MTU-1153	MTU-1153	MTU-1153	MTU-1153	MTU-1153	MTU-1153		
Local Check Variety		Gurjari			MTU 1156	MTU 1156	Rasi	KNM 118		Raksha	Co 55	CoRH 3			

Appendix-2: Days to 50% Flowering (DFF) of hybrids in IIRT-Early, Kharif 2024

Annual Progress Report 2024 Vol. I – Varietal Improvement

S. No.	IET No.	Name	Zone-1		Zone-2								Zone-3 Contd..			
			HP	MLN	HR-Z2	UK-Z2	PB-Z2	DL-Z2	UP-Z2	IAR	LDN	NGN	Zone-2 (5)	TRMH_BE	IDAS	UP-Z3 (2)
1	32995	Rallis-230280	99	87	89	85	67	94	84	83	82	86	82	86	86	
2	32996	KJTRH-2249	103	101	106	104	84	109	101	93	95	99	94	99		
3	32997	VNR-237	108	101	102	99	85	100	97	94	94	96	94	96		
4	32998	KRH-14	103	102	106	103	84	104	100	92	93	97	93	97		
5	32999	BRI-22008	100	96	93	97	85	95	93	91	88	91	89	91		
6	33000	KRH-15	100	97	102	100	86	101	97	94	91	95	92	95		
7	33001	BAYR-4201	106	102	106	105	87	110	102	95	94	99	94	99		
8	33002	Indam 200-58	98	91	94	89	85	95	91	88	86	89	87	89		
9	33003	BAYR-4202	99	94	90	90	83	94	90	87	83	88	85	88		
10	33004	Pusa RH-71	102	93	94	91	83	99	92	88	86	91	87	91		
11	33005	TNTRH-61	101	97	105	106	87	115	102	93	101	103	97	103		
12	33006	Pusa RH-72	100		101	87	80	95	91	86	84	88	85	88		
13	33007	PHI-24105	98	92	94	93	83	98	92	88	85	90	87	90		
14	33008	Pusa RH-73	95		91	87	66	85	82	81	77	81	79	81		
15	VNR-2111 Plus (OBCH)		95	88	88	90	70	89	85	80	78	83	79	83		
16	US-314 (NCH)		97	97	96	96	81	94	93	88	85	89	87	89		
17	CO-51 (NCV)		90	81	80	82	74	88	81	79	81	83	80	83		
18	Zonal Check Variety		101	100	103	103	83	98	97	73	77	83	75	83		
19	Local Check Variety		94	90	83	90	88	88	88	77	79	82	78	82		
Exp. Mean			99	94	95	94	81	97	93	86	86	90	87	90		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix-2 (contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Early, Kharif 2024

		Zone-3										Zone-5 Contd..						
		WB-Z3		OD-Z3		JH-Z3						MP-Z5					CG-Z5	
S. No.	IET No.	Name	CHN	CTK	RCI	BYR	TRMH_RCI	JH-Z3(3)	Zone-3 (7)	JBP	WRS	MP (2)	RPR	VNS	CG-Z5(2)			
1	32995	Rallis-230280	100	86	97	86	82	88	87	88	81	84	89	78	84			
2	32996	KJTRH-2249	101	84	101	88	84	91	92	95	86	91	96	97	97			
3	32997	VNR-237	120	80	100	86	88	91	91	99	89	94	95	95	95			
4	32998	KRH-14	112	82	101	88	87	92	93	94	85	90	95	95	95			
5	32999	BRI-22008	106	85	98	84	83	88	88	86	87	86	90	86	88			
6	33000	KRH-15	119	85	95	90	86	90	91	97	82	90	93	93	93			
7	33001	BAYR-4201	110	80	101	88	92	93	92	99	90	94	96	97	96			
8	33002	Indam 200-58	102	80	99	85	86	90	88	93	84	88	91	89	90			
9	33003	BAYR-4202	96	82	98	86	89	91	88	92	84	88	92	83	88			
10	33004	Pusa RH-71	113	80	99	88	83	90	88	95	86	90	94	84	89			
11	33005	TNTRH-61	107	86	102	85	94	94	95	100	90	95	72	97	84			
12	33006	Pusa RH-72	102	82	97	87	84	89	87	91	83	87	91	81	86			
13	33007	PHI-24105	99	82	98	87	87	90	89	91	83	87	93	81	87			
14	33008	Pusa RH-73	98	78	92	86	83	87	84	87	81	84	88	79	84			
15	VNR-2111 Plus (OBCH)	89	80	80	86	89	80	85	83	83	73	78	79	77	78			
16	US-314 (NCH)	93	81	81	97	87	86	90	88	90	82	86	90	89	90			
17	CO-51 (NCV)	96	86	86	97	84	79	87	85	92	76	84	86	80	83			
18	Zonal Check Variety	71	73	73	80	84	77	81	78	88	80	84	87	90	89			
19	Local Check Variety	95	87	87	78	89	76	81	82	91	83	87	89	86	88			
Exp. Mean		101	82	82	95	86	84	89	88	92	83	88	89	87	89			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix-2 (contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Early, Kharif 2024

S. No.	IET No.	Name	Zone-5					Zone-6 Contd..						
			MH-Z5					MH-Z6						
			SND	SKL	ANKN	MH-Z5 (3)	Zone-5 (7)	KJT	VDG	RDN	MH-Z6 (3)	MH Overall(6)	NWG	NVS
1	32995	Rallis-230280	90	85	89	88	86	82	89	93	88	88	87	83
2	32996	KJTRH-2249	94	100	98	98	95	91	92	99	94	96	103	90
3	32997	VNR-237	100	98	99	99	96	97	95	101	98	98	104	93
4	32998	KRH-14	89	99	96	95	93	87	89	98	91	93	103	90
5	32999	BRI-22008	90	91	89	90	88	91	86	90	89	89	86	88
6	33000	KRH-15	93	99	95	96	93	83	88	99	90	93	97	84
7	33001	BAYR-4201	93	101	98	97	96	94	95	102	97	97	96	94
8	33002	Indam 200-58	88	91	93	91	90	86	90	100	92	91	98	89
9	33003	BAYR-4202	92	89	91	91	89	88	89	99	92	91	95	87
10	33004	Pusa RH-71	92	91	94	92	91	84	89	99	91	92	105	85
11	33005	TNTRH-61	105	104	92	101	94	90	99	102	97	99	108	95
12	33006	Pusa RH-72	91	89		90	88	85	90	94	90	90	102	88
13	33007	PHI-24105	92	80	90	88	87	84	100	90	91	89	104	85
14	33008	Pusa RH-73	89	85		87	85	81	88	90	86	87	101	83
15	VNR-2111 Plus (OBCH)		80	78	86	81	79	103	82	85	90	86	81	76
16	US-314 (NCH)		87	92	91	90	89	82	86	95	88	89	101	84
17	CO-51 (NCV)		82	89	87	86	84	73	82	91	82	84	84	81
18	Zonal Check Variety		86	90	89	88	87	88	86	90	88	88	99	85
19	Local Check Variety		91	90	91	91	89	88	89	96	91	91	83	87
Exp. Mean			90	91	92	92	89	87	89	95	91	91	96	86

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix-2 (contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Early, Kharif 2024

S. No.	IET No.	Name	Zone-6				Zone-7							Overall(32)	
			GJ-Z6		Zone-6 (6)	MTU	TG-Z7			KA-Z7			TN-Z7		
			DBI	GJ(3)			IIRR	WGL	TG(2)	MND	CBT	ADT	TN(2)		Zone-7(6)
1	32995	Rallis-230280	91	87	87	73	73	88	85	94	93	95	94	86	87
2	32996	KJTRH-2249	103	98	96	84	84	97	96	102	99	99	99	93	96
3	32997	VNR-237	103	100	99	83	83	95	94	112	100	113	106	96	96
4	32998	KRH-14	106	99	95	84	84	95	95	107	98	104	101	93	95
5	32999	BRI-22008	98	90	90	76	76	90	89	96	94	100	97	89	90
6	33000	KRH-15	102	94	92	82	82	96	94	103	95	101	98	92	91
7	33001	BAYR-4201	105	98	98	84	84	99	100	99	101	100	101	96	97
8	33002	Indam 200-58	97	95	93	75	75	92	90	102	95	99	97	89	90
9	33003	BAYR-4202	92	91	92	82	82	94	92	95	98	103	101	93	91
10	33004	Pusa RH-71	97	96	93	75	75	95	94	104	98	101	100	92	91
11	33005	TNTRH-61	103	102	99	94	94		103	84	101		101	98	98
12	33006	Pusa RH-72	99	96	93			98	92	107	93		93	91	90
13	33007	PHI-24105	92	93	92	77	77	92	91	109	96	104	100	91	90
14	33008	Pusa RH-73	91	92	89	78	78	100	90	100	93	97	95	89	86
15	VNR-2111 Plus (OBCH)		89	82	86	83	83	86	82	81	82	96	89	84	83
16	US-314 (NCH)		97	94	91	74	74	92	89	94	91	100	96	87	90
17	CO-51 (NCV)		89	84	83	68	68	85	87	94	90	97	93	85	84
18	Zonal Check Variety		97	93	91	74	74	91	90	106	94	99	97	88	88
19	Local Check Variety		91	87	89	91	91	93	86	100	91	100	96	88	87
Exp. Mean			96	93	92	79	79	93	92	99	94	100	98	91	91

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix-3: Centres (Low performance) not considered for analysis in IHRT-Early, Kharif 2024

S.No.	IET No.	Name	Grain Yield (kg/ha)				Days to 50% Flowering (DFF)				
			Z7	Z3	Z4	Z4	Z7	Z3	Z4	Z4	
			TG-Z7	UP-Z3	AS-Z4	TG-Z7	UP-Z3	AS-Z4	TG-Z7	UP-Z3	AS-Z4
			@BIS	@MSD	@TTB	@BIS	@MSD	@TTB	@BIS	@MSD	@TTB
1	32995	Rallis-230280	8050(8)	7326(2)	5743	91	90	97	91	90	97
2	32996	KJTRH-2249	6681	6391(8)	5480	99	93	109	99	93	109
3	32997	VNR-237	5474	6904(3)	6930(1)	98	87	102	98	87	102
4	32998	KRH-14	6281	6220(9)	6533(5)	95	91	107	95	91	107
5	32999	BRI-22008	9182(1)	5073	6767(3)	94	90	97	94	90	97
6	33000	KRH-15	9105(2)	5444	5790(10)	96	94	106	96	94	106
7	33001	BAYR-4201	8980(4)	5269	6737(4)	100	94	109	100	94	109
8	33002	Indam 200-58	7329	5528	5853(9)	95	88	104	95	88	104
9	33003	BAYR-4202	8517(5)	6062(10)	5897(8)	98	90	104	98	90	104
10	33004	Pusa RH-71	8349(6)	6771(4)	5070	99	76	104	99	76	104
11	33005	TNTRH-61	4414	3146	5393	103	96	117	103	96	117
12	33006	Pusa RH-72	4636	7434(1)	6800(2)	96	102	97	96	102	97
13	33007	PHI-24105	9090(3)	6441(6)	6270(6)	98	92	104	98	92	104
14	33008	Pusa RH-73	4837	5522		93	103		93	103	
15	VNR-2111 Plus (OBCH)		7419(10)	5194	5180	79	75	90	79	75	90
16	US-314 (NCH)		8265(7)	6583(5)	5970(7)	91	88	103	91	88	103
17	CO-51 (NCV)		6460	4464	4480	88	75	100	88	75	100
18	Zonal Check Variety		4728	6441(6)	4530	81	77	98	81	77	98
19	Local Check Variety		7929(9)	4439	4390	93	78	87	93	78	87
Exp. Mean			7143	5824	5767	94	88	101	94	88	101
CD (0.05)			803	289	92						
CV (%)			6.79	3	0.97						
F value			35.76	116.42	648.21						
NHC+CD (0.05)			9068	6872	6062						
BVC+CD (0.05)			8732	6730	4622						
D/S			21.6.24	29.06.24	10.07.24						
D/P			20.7.24	29.07.24	16.08.24						
Gross Plot Size (Sq. m)			10	10	10						
Net Plot Size (Sq. m)			10	7.99	10						
Zonal Check Variety				PR-124	Luit						
Local Check Variety			Bioseed 786	NDR 97	Luit						

@ Data of centre BIS(Bioseed) not included in the analysis because the trial was allotted to Zone-3 (Barabanki) but tested in Zone-7 (Shankarpally, Telangana), Data of centres MSD (Masodha) and TTB (Titabar) not included in the analysis due to low C. V.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix- 4: Grain Yield (kg/ha) of hybrids in IHRT-Mid Early, Kharif 2024

S. No.	IET No.	Name	Zone-2										Zone-3 Contd..				
			HR-Z2	UK-Z2	PB-Z2	DL-Z2	UP-Z2	UP-Z3					UP-Z3(4)	UP Overall (5)			
			KUL	PNT	LDN	IAR	NGN	Zone-2 (5)	VRN	NUZ	TRMH_BE	IDAS					
1	33009	KSRH-1016	8086	4479	7244	6726	5131	6333	4472	6004	8677	6186	6335	6094			
2	33010	SRPH-213	7963	6509(2)	6804	6193	4964	6487	4345	6537	8710	7648(7)	6810	6441			
3	33011	TMRH-5544	8707	4583	5393	6819	5115	6123	6112	6908	9066	7231	7329	6886			
4	33012	KSRH-1209	6415	3480	6400	6207	5211	5543	3755	5576	7577	6185	5773	5661			
5	33013	Mahagold-786	7913	6388(3)	7898(4)	6335	4789	6665	4242	6801	9300	7530	6968	6532			
6	33014	NS-6120	9407	5233	6690	4425	5945(7)	6340	5415	6357	8818	7779(4)	7092	6863			
7	33015	NDLRH-562	5955			4621	5136	5237	5503	5765	9085	3519	5968	5801			
8	33016	NK-4009	9425(8)	6100(4)	7416(10)	7298(6)	4723	6992(6)	5111	7408(9)	9947(5)	7569(10)	7509(8)	6951(10)			
9	33017	LG 90304	8505	4556	6081	7824(4)	6229(4)	6639	5091	8150(4)	11791(3)	7672(6)	8176(2)	7786(1)			
10	33018	Indam 200-060	9051	4897	8738(1)	7229(8)	4685	6920(8)	6200	6962	8532	8033(1)	7432(10)	6882			
11	33019	KTRH-2232	8313	4287	5177	6673	5369	5964	4369	6037	7773	7052	6308	6120			
12	33020	VNR-238	8913	5688(8)	7264	4216	5665	6349	6721(5)	7797(8)	9291	7267	7769(4)	7348(5)			
13	33021	KTRH-2243	8150	4200	5747	3286	5616	5400	4124	5529	8064	5940	5914	5854			
14	33022	SRH-306	8935	4112	7195	6592	5724	6512	4335	7012	8570	6410	6582	6410			
15	33023	Dhoom-09	8330	5018	8270(2)	8219(3)	5716	7111(3)	5871	5159	10265(4)	7451	7187	6892			
16	33024	BRI-21044	8710	5949(5)	7773(7)	7754(5)	4727	6983(7)	5449	6730	9300(10)	7630(9)	7277	6767			
17	33025	Kaveri-7429	9617(5)	4853	7085	9885(1)	6787(2)	7645(1)	8125(1)	6310	8953	6566	7488(9)	7348(4)			
18	33026	BAYR-4303	9334	5011	7450(8)	4495	5336	6325	6323(9)	7052	9141	6580	7274	6886			
19	33027	PAN-21001	9320	4876	4785	5868	5048	5979	4360	8209(2)	8298	7632(8)	7125	6709			
20	33028	BAYR-4304	9423(10)	5540	6796	3770	5640	6234	5793	6559	8987	7258	7149	6847			
21	33029	MASLPH-01	9423(9)	5201	6887	6300	5428	6648	5469	7092(10)	7727	7763(5)	7013	6696			
22	33030	ADVRH-209008	8222	5633	8027(3)	6370	5357	6722(10)	4570	8025(6)	8687	6890	7043	6706			
23	33031	BESST-230	8015	4542	5967	7177(10)	5736	6287	4781	6974	8167	7404	6832	6612			
24	33032	JRH-140	8368	3301	6169	5652	5236	5745	4183	5043	7492	3154	4968	5021			
25	33033	US-322	8420	4907	6545	6763	5812(10)	6489	5901	6746	8382	6190	6805	6606			
26	33034	IIRRH-177	8957	5597	6074	5510	5428	6313	4865	6216	7980	6604	6416	6218			
27	33035	JRH-143	7747	5257	6085	4623	5023	5747	4997	4833	12175(1)	6593	7150	6724			
28	33036	US-325	5549	2303	2807	3519	6329(3)	4101	3868	4984	6683	4488	5006	5270			
29	33037	IIRRH-178	6899	4083	5466	6939	5402	5758	3874	5121	9394(8)	4561	5737	5670			
30	33038	Pusa RH-69	8790	4923	6488	4829	5319	6070	6171	6801	12147(2)	7923(2)	8261(1)	7672(2)			
31	33039	3A9202	7585	5050	7328	5822	5065	6170	4988	6195	8429	7052	6666	6346			
32	33040	NPH-X24	10230(2)	4521	5994	5092	4931	6154	6755(4)	8115(5)	9319(9)	7410	7900(3)	7306(6)			
33	33041	Pusa RH-70	8197	5946(6)	6226	5926	4960	6251	6254(10)	6239	8902	6294	6922	6530			

Annual Progress Report 2024 Vol. I – Varietal Improvement

S. No.	IET No.	Name	Zone-2										Zone-3 Contd..				
			HR-Z2	UK-Z2	PB-Z2	DL-Z2	UP-Z2	UP-Z3					UP Overall (5)				
			KUL	PNT	LDN	IAR	NGN	Zone-2 (5)	VRN	NUZ	TRMH_BE	IDAS		UP-Z3(4)			
34	33042	PBNPH-2008	8721	5375	5230	8229(2)	5540	6619	5631	7976(7)	7980	5408	6749	6507			
35	33043	BS-310	8013	4998	6294	7192(9)	5519	6403	6392(8)	6763	8008	6310	6868	6598			
36	33044	DLRH-10	9925(3)	4441	4158	4791	5536	5770	5729	6899	7652	4503	6196	6064			
37	33045	TNTRH-102	6323	4821	5454	3496	5144	5048	4642	4924	7366	5475	5602	5510			
38	33046	PHI-24106	10449(1)	5494	7111	6708	5482	7049(4)	6461(6)	6578	8991	7517	7387	7006(9)			
39	33047	CRHR-190	7350	5597	4310	3526	5590	5275	6146	4813	8265	5512	6184	6065			
40	33048	PHI-24107	9440(7)	5640(10)	5564	7256(7)	5169	6614	7565(2)	6031	9052	7455	7526(7)	7054(8)			
41	33049	CRHR-191	7567	4507	5447	4558	5553	5526	6181	5334	7291	5565	6093	5985			
42	33050	PHI-24108	9699(4)	7005(1)	7442(9)	6333	6024(6)	7301(2)	4310	8231(1)	9829(6)	7842(3)	7553(6)	7247(7)			
43	27P37 (OBCH-1)		9275	5702(7)	6925	5679	6204(5)	6757(9)	6412(7)	7085	7154	6833	6871	6737			
44	VNR-2228(OBCH-2)		9533(6)	5110	7852(5)	5897	6812(1)	7041(5)	7285(3)	8201(3)	9740(7)	5799	7756(5)	7567(3)			
45	US-312 (NCH)		8695	4601	5021	6178	5736	6046	6078	6365	6294	5180	5979	5931			
46	Gontra Bidhan-3 (NCV)		8265	5161	6910	4485	5820(8)	6128	4330	7030	7685	6403	6362	6254			
47	Zonal Check Variety		7950	5677(9)	7305	5259	5820(8)	6402	4468	4935	7680	4269	5338	5434			
48	Local Check Variety		7797	4536	7803(6)	4030	5703	5974	5155	4920	7071	6920	6017	5954			
Exp. Mean			8456	5015	6449	5887	5484	6254	5399	6486	8660	6510	6764	6508			
CD(0.05)			945	1544	784	1279	776	497	403	680	2418	775	646	556			
CV(%)			6.89	18.98	7.5	13.4	8.73	4.9	4.6	6.46	17.22	7.34	5.89	5.27			
F val			9.92	2.33	17.9	10.11	3.06	13.04	52.64	18.05	2.06	19.01	11.46	10.13			
NHC+CD (0.05)			9640	6145	5805	7457	6512	6543	6481	7045	8712	5955	6625	6487			
BVC+CD (0.05)			9210	7221	8587	6538	6596	6899	5558	7710	10103	7695	7008	6810			
D/S			4.6.24	1.6.24	30.5.24	21.6.24	30.6.24		10.6.24	14.6.24	12.6.24	18.6.24					
D/P			8.7.24	27.6.24	29.6.24	21.7.24	1.8.24		12.7.24	13.7.24	7.7.24	14.7.24					
Gross Plot Size (Sq. m)			10	10.13	10.71	10	10		8	10	12.6	9.9					
Net Plot Size (Sq. m)			10	10.13	8.77	10	7.99		6.79	10	10.8	9					
Zonal Check Variety			PR-113	PR-113	PR-113	PR-113	PR-113		Lalat	Lalat	Lalat	Lalat					
Local Check Variety			HKR 47	Pant Dhan 12	PR 130	IR 64	PR 126		HUR 4-3		TMRV1632						

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix- 4(Contd..): Grain Yield (kg/ha) of hybrids in IHRT-Mid Early, Kharif 2024

S. No.	IET No.	Name	Zone-3										Zone-5 (Contd..)					CG-Z5 (Contd..)
			WB-Z3		OD-Z3		JH-Z3				BR-Z3		MP-Z5					
			CHN	CTK	RCI	BYR	TRMH-RCI	JH-Z3(3)	DNG	Zone-3 (10)	JBP	WRS	MP-Z5 (2)	RPR				
1	33009	KSRH-1016	6891	6899	6320(6)	7961(9)	8921	7734(4)	5094	6742	8077(9)	4485	6281	5634				
2	33010	SRPH-213	5355	5163	3720	8079(6)	8737	6846	4226	6252	5370	4017	4694	4836				
3	33011	TMRH-5544	5770	6054	4640	5628	9089(10)	6452	4927	6628	8160(7)	4550	6355	5553				
4	33012	KSRH-1209	6891	4365	4920	9360(2)	7793	7358(8)	4087	5939	5490	4364	4927	5339				
5	33013	Mahagold-786	7015(10)	5419	5960	6892	8776	7210	4919	6673	6007	4850	5428	4971				
6	33014	NS-6120	6019	7422(6)	5000	6459	8995	6818	5435	6870	6067	4507	5287	6968(2)				
7	33015	NDLRH-562	7057(9)	6993(10)	3280	10731(1)	7933	7315(9)	4730	6356	5820	5274	5547	5079				
8	33016	NK-4009	5106	6421	5680	7553	7879	7037	4919	6954(9)	5890	5830(4)	5860	6335				
9	33017	LG 90304	7264(5)	6914	4400	7330	10084(2)	7271(10)	4166	7070(7)	5773	5833(3)	5803	6269				
10	33018	Indam 200-060	5023	6032	5680	5873	8964	6839	4438	6798	8133(8)	4890	6512(8)	7138(1)				
11	33019	KJTRH-2232	6808	4590	5600	5471	8273	6448	4542	5873	5920	4561	5241	5338				
12	33020	VNR-238	6476	6701	4520	7662	9342(5)	7175	6464(6)	7257(4)	7532	5245	6388	6818(3)				
13	33021	KJTRH-2243	6683	4669	4400	4603	8542	5848	6384(7)	5873	5620	4474	5047	5000				
14	33022	SRH-306	6849	5591	5733	6503	8859	7032	6015(10)	6571	6270	4408	5339	6383(10)				
15	33023	Dhoom-09	6766	4954	6600(2)	6344	9245(6)	7396(7)	4912	6765	8649(3)	4342	6496(9)	5988				
16	33024	BRI-21044	7265(4)	7753(4)	6080	7781	9557(3)	7806(3)	5111	7216(5)	8322(4)	5490(8)	6906(3)	6405(9)				
17	33025	Kaveri-7429	7181(6)	7160(8)	6360(5)	8431(5)	9202(7)	7998(1)	5781	7415(3)	7931(10)	5318	6624(7)	6642(6)				
18	33026	BAYR-4303	4981	4824	6080(10)	6533	8761	7125	6154(8)	6863	6999	5402	6201	5695				
19	33027	PAN-21001	6932	4938	4240	6013	8710	6321	4437	6182	6120	5223	5671	3769				
20	33028	BAYR-4304	7389(3)	6959	5120	5806	8941	6622	7269(3)	6962(8)	7813	5808(5)	6810(6)	5798				
21	33029	MASLPH-01	6683	6071	6113(9)	5719	8663	6832	5748	6775	6988	4448	5718	6554(7)				
22	33030	ADVRRH-209008	5189	5304	5040	7021	7609	6557	5563	6539	5362	5413	5388	5470				
23	33031	BEEST-230	5189	6546	5400	6419	9374(4)	7064	4030	6478	6009	4324	5166	5901				
24	33032	JRH-140	5189	4824	4680	6168	7711	6186	4625	5307	5563	5011	5287	5573				
25	33033	US-322	5231	6600	6480(4)	6392	8616	7163	4373	6715	6028	4854	5441	6237				
26	33034	IIRRH-177	5811	6583	4440	5790	7099	5776	4343	5915	6759	5150	5954	5330				
27	33035	JRH-143	4981	5229	4960	7962(8)	8102	7008	4098	6476	6031	4898	5464	5050				
28	33036	US-325	6227	6384	4400	8687(4)	6462	6517	3201	5414	5453	4229	4841	3464				
29	33037	IIRRH-178	7099(8)	4533	5080	7247	7660	6662	3175	5687	4150	4503	4326	3996				
30	33038	Pusa RH-69	6268	6187	4600	8752(3)	10583(1)	7978(2)	3962	7423(2)	6050	4437	5244	5214				
31	33039	3A9202	6268	6107	4880	6273	8702	6618	3894	6279	7235	4145	5690	5660				

Annual Progress Report 2024 Vol. I – Varietal Improvement

S. No.	IET No.	Name	Zone-3										Zone-5 (Contd..)					CG-Z5 (Contd..)	
			WB-Z3		JH-Z3				BR-Z3		MP-Z5			Zone-3 (10)	JBP	WRS	MP-Z5 (2)		RPR
			CHN	CTK	OD-Z3	RCI	BYR	TRMH-RCI	JH-Z3(3)	DNG	Zone-3 (10)	JBP	WRS						
32	33040	NPH-X24	5936	5146	5360	5836	8960	6719	5299	6814	6333	4602	5468	6523(8)					
33	33041	Pusa RH-70	5230	5018	4880	7674	7727	6760	4234	6245	6036	4331	5184	5129					
34	33042	PBNPH-2008	6185	7568(5)	6600(2)	7772	8374	7582(6)	3887	6738	6162	5084	5623	6773(4)					
35	33043	BS-310	5770	7197(7)	7240(1)	6633	7883	7252	4708	6690	8163(6)	5526(6)	6845(4)	5843					
36	33044	DLRH-10	6600	6851	4280	7120	9190(8)	6863	4395	6322	6653	5490(8)	6072	4762					
37	33045	TNTRH-102	6849	6248	4600	6222	7442	6088	3774	5754	5314	5040	5177	4008					
38	33046	PHI-24106	7845(1)	5844	6240(7)	5929	8640	6936	5412	6946(10)	6016	5874(2)	5945	5126					
39	33047	CRHR-190	6517	5799	5920	6578	9151(9)	7216	5036	6374	6598	4664	5631	5550					
40	33048	PHI-24107	6476	7762(3)	5280	5109	7820	6070	8388(2)	7094(6)	7507	4865	6186	4856					
41	33049	CRHR-191	6849	8173(1)	5520	7832	8262	7204	8422(1)	6943	9454(2)	4404	6929(2)	4189					
42	33050	PHI-24108	6351	8080(2)	6120(8)	7651	9023	7598(5)	7221(4)	7466(1)	9761(1)	6499(1)	8130(1)	5712					
43	27P37 (OBCH-1)	6933	5789	5840	5840	5923	8995	6919	4817	6578	5944	4978	5461	5986					
44	VNR-2228(OBCH-2)	5604	4696	6000	6000	7483	8312	7265	6030(9)	6915	8263(5)	5406	6834(5)	6767(5)					
45	US-312 (NCH)	6974	6714	5520	5520	8007(7)	7914	7147	5793	6484	7447	5501(7)	6474(10)	5276					
46	Gontra Bidhan-3 (NCV)	7181(6)	7111(9)	3720	7047	7770	6179	3337	3337	6161	5580	5490(8)	5535	5464					
47	Zonal Check Variety	4774	5035	5040	7891(10)	7563	6831	6531(5)	5818	5818	4923	5402	5163	4657					
48	Local Check Variety	4732	5414	5200	7372	8667	7080	5115	5115	6057	6127	5088	5607	4131					
Exp. Mean		6323	6097	5287	6990	8518	6932	5071	5071	6535	6622	4969	5796	5524					
CD(0.05)		915	1715	1040	1288	1150	652	550	550	381	491	647	397	1028					
CV(%)		8.93	17.35	12.14	11.36	8.33	5.8	6.69	6.69	3.6	4.57	8.03	4.22	11.48					
F val		6.45	2.89	5.29	6.51	3.53	4.93	36.99	36.99	14.49	48.15	5.76	25.74	5.78					
NHC+CD (0.05)		7889	8429	6560	9295	9064	7799	6343	6343	6865	7938	6148	6871	6304					
BVC+CD (0.05)		8096	8826	6240	9179	9817	7732	7081	7081	6542	6618	6137	6004	6492					
D/S		14.6.24	6.6.24	29.6.24	25.6.24	6.7.24	28.6.24	28.6.24	28.6.24	28.6.24	26.6.24	28.6.24	28.6.24	1.7.24					
D/P		15.7.24	10.7.24	8.8.24	2.8.24	2.8.24	1.8.24	1.8.24	1.8.24	10.98	17.7.24	2.8.24	2.8.24	1.8.24					
Gross Plot Size (Sq. m)		9.83	10.5	10	10	12.6	10.98	10.98	10.98	10	10	10	10	11.1					
Net Plot Size (Sq. m)		8.03	7.56	10	10	10.8	8.85	8.85	8.85	7.99	7.99	9.12	9.12	8.4					
Zonal Check Variety		Lalat	Lalat	Lalat	Lalat	Lalat	Lalat	Lalat	Lalat	Lalat	Karjat-7	Karjat-7	Karjat-7	Karjat-7					
Local Check Variety		Khitish	Naveen	BVD-203	Lalat	TMRV1632	Sabour Harshit				JK 206	JR 206		Durgeshwari					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix- 4(Contd..): Grain Yield (kg/ha) of hybrids in IHRT-Mid Early, Kharif 2024

S. No.	IET No.	Name	Zone-5					Zone-6(Contd..)					
			CG-Z5	VNS	CG-Z5_(2)	SND	Zone-5_(5)	KIT	RDN	MH-Z6_(2)	MH overall_(3)	NWG	NVS
1	33009	KSRH-1016	8202(10)	8114	6918	5887	6457(10)	4576	6704	5640	5722	6042	6177
2	33010	SRPH-213	7786	786	6475	4753	5418	4700	6081	5391	5178	3832	6290
3	33011	TMRH-5544	4412	4875	6670	4289	4779	5709(10)	5282	5496	5239	3802	6703
4	33012	KSRH-1209	7625	6298	4875	3663	5423	4766	4877	3836	3987	5603	4012
5	33013	Mahagold-786	6888	6928	6298	6733(4)	6232	5091	6054	5134	4644	6034	6698
6	33014	NS-6120	5621	5350	4817	4817	5322	4620	4655	4638	4697	7567(4)	6515
7	33015	NDLRH-562	8986(4)	7661(4)	7025(9)	5855	6579(7)	4965	5710	5338	5510	4464	4195
8	33016	LG 90304	7782	9115(2)	8127(2)	6607(6)	6453	2431	6640	4535	5226	6087	6757(10)
10	33018	Indam 200-060	7424	6381	6381	5197	6895(4)	4436	6931	5683	5521	8936(1)	6284
11	33019	KJTRH-2232	8670(5)	7744(3)	5711	5573	5763	3979	5203	4591	4918	6868(6)	7004(8)
12	33020	VNR-238	6422	6488	6912	5699	6793(5)	5877(8)	7892(4)	6885(2)	6490(5)	5521	6733
13	33021	KJTRH-2243	7264	7339	6872	4360	5175	5177	4727	4952	4755	4378	5087
14	33022	SRH-306	8128	8128	7583(5)	7087(3)	6148	3841	6930	5386	5953	6059	6950(9)
15	33023	Dhoom-09	7614	7622	6912	6007	6450	4729	6699	5714	5812	6660(8)	6224
16	33024	BRI-21044	6920	6920	6912	6157(10)	6742(6)	4000	6035	5017	5397	6157	5211
17	33025	Kaveri-7429	7958	7384	7583(5)	7227(2)	7128(1)	6184(2)	7075	6630(5)	6829(2)	7696(3)	6126
18	33026	BAYR-4303	6920	6920	6912	5460	6337	6149(4)	6228	6189	5946	5807	6472
19	33027	PAN-21001	7958	7384	5344	4114	5229	4586	5248	4917	4649	6644(9)	4267
20	33028	BAYR-4304	7384	6969(10)	6878	4690	6413	5738(9)	7943(3)	6840(3)	6124(8)	8193(2)	7706(2)
21	33029	MASLPH-01	8129	6800	6800	6153	6305	6034(5)	5965	6000	6051(9)	4699	6426
22	33030	ADVRH-209008	7614	6758	6800	4066	5688	3746	7135(9)	5440	4982	4490	5790
23	33031	BESST-230	7622	6597	6597	4644	5698	4415	6135	5275	5065	3877	4266
24	33032	JRH-140	7697	6967	6597	5347	5823	4554	4868	4711	4923	5960	5914
25	33033	US-322	7148	6239	6967	3854	5734	5006	7527(6)	6266(10)	5462	2965	7115(7)
26	33034	IIRRH-177	8374(8)	4811	6712	4726	5823	4103	5394	4749	4741	6313	5002
27	33035	JRH-143	6041	5018	6712	4492	5769	3841	5274	4558	4536	6145	4999
28	33036	US-325	6041	5018	4138	3895	4370	3068	4647	3857	3870	4033	3236
29	33037	IIRRH-178	7573	6393	5018	4403	4618	3236	4569	3902	4069	5898	4724
30	33038	Pusa RH-69	6412	6036	6393	4924	5640	3846	5815	4830	4862	1867	5632
31	33039	3A9202	7886	7204(6)	6036	4802	5651	4499	5324	4911	4875	4122	6683
32	33040	NPH-X24	6776	5952	7204(6)	6691(5)	6407	6033(6)	5294	5663	6006	6753(7)	6384
33	33041	Pusa RH-70	6776	5952	5952	4696	5394	4090	5796	4943	4861	2872	7164(6)

Annual Progress Report 2024 Vol. I – Varietal Improvement

S. No.	IET No.	Name	Zone-5				Zone-6(Contd..)					
			CG-Z5	CG-Z5_(2)	MH-Z5	Zone-5_(5)	MH-Z6		GJ-Z6 (Contd..)			
			VNS		SND		KJT	RDN	MH-Z6_(2)	MH overall_(3)	NWG	NVS
34	33042	PBNPH-2008	9489(1)	8131(1)	4934	6488(9)	3652	6881	5266	5155	3919	6491
35	33043	BS-310	7195	6519	5373	6420	4328	5884	5106	5195	6079	6321
36	33044	DLRH-10	7430	6096	6233(9)	6114	3672	6225	4948	5377	6637(10)	3981
37	33045	TNTRH-102	6132	5070	4906	5080	3979	5070	4524	4652	5335	4989
38	33046	PHI-24106	9096(3)	7111(8)	6404(8)	6503(8)	6421(1)	7130(10)	6775(4)	6651(3)	6064	8685(1)
39	33047	CRHR-190	6891	6220	6542(7)	6049	5181	6819	6000	6181(6)	4614	4822
40	33048	PHI-24107	8636(6)	6746	5600	6293	6166(3)	7976(2)	7071(1)	6581(4)	3847	7258(4)
41	33049	CRHR-191	6605	5397	4968	5924	5917(7)	7244(8)	6580(6)	6043(10)	4799	4617
42	33050	PHI-24108	8091	6902	4443	6901(3)	4416	8239(1)	6328(9)	5700	6950(5)	7619(3)
43	27P37 (OBCH-1)		8374(8)	7180(7)	4188	5894	5329	6174	5752	5230	6496	6503
44	VNR-2228(OBCH-2)		6830	6798	8137(1)	7081(2)	5593	7532(5)	6562(7)	7087(1)	5516	6338
45	US-312 (NCH)		7925	6600	5702	6370	5396	7359(7)	6378(8)	6153(7)	6325	5867
46	Gontra Bidhan-3 (NCV)		7065	6264	3760	5472	2814	6249	4532	4275	6139	7221(5)
47	Zonal Check Variety		4505	4581	4220	4741	3239	3853	3546	3771	2493	5376
48	Local Check Variety		5989	5060	4376	5142	5046	4926	4986	4783	2379	6338
Exp. Mean			7364	6444	5237	5943	4624	6119	5372	5327	5421	5993
CD(0.05)			1202	852	916	454	997	1195	719	546	677	1425
CV(%)			10.07	8.16	10.79	4.72	13.3	12.04	8.26	6.32	7.7	14.67
F val			7.04	8.39	9.96	16.71	8.02	6.19	11.38	16.33	41.06	4.95
NHC+CD (0.05)			9127	7452	6618	6824	6393	8554	7097	6699	7002	7292
BVC+CD (0.05)			8267	7116	5292	5926	6043	7444	5705	5329	6816	8646
D/S			06.06.24		24.06.24		10.06.24	10.06.24	5640		19.06.24	15.06.24
D/P			29.06.24		17.07.24		03.07.24	09.07.24	5391		23.07.24	08.07.24
Gross Plot Size (Sq. m)					10		8.55	5.67	5496		9	8.66
Net Plot Size (Sq. m)			5.94		7.48		6.12	3.78	3836		6.72	6.68
Zonal Check Variety			Karjat-7		Karjat-7		Karjat-7	Karjat-7	5134		Karjat-7	Karjat-7
Local Check Variety			MTU 1010		PKV Ganesh		Karjat-3	Phule Radha	5572		GR-21	GNR-3

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix- 4(Contd..): Grain Yield (kg/ha) of hybrids in IHRT-Mid Early, Kharif 2024

S. No.	IET No.	Name	Zone-6				Zone-7				Overall_ (29)	
			GJ-Z6_(2)	Zone-6_(4)	AP-Z7	IIRR	WGL	TG-Z7_(2)	MND	TN-Z7		Zone-7_(5)
1	33009	KSRH-1016	6110	5875	6067	7744	4583	6164	10457	9606(6)	7691	6667
2	33010	SRPH-213	5061	5226	5871	6030	5941	5985	9041	5441	6465	6044
3	33011	TMRH-5544	5252	5374	5990	6489	5990	6240	10513	7421	7281	6391
4	33012	KSRH-1209	4808	4322	4261	5342	3222	4282	9777	5454	5611	5391
5	33013	Mahagoid-786	6366	5750	4651	5602	6438	6020	8422	4848	5992	6211
6	33014	NS-6120	7041(5)	6307(8)	5917	8344(2)	7599(10)	7972(7)	10658	10798(1)	8663(3)	6900
7	33015	NDLRH-562	4329	4484	6407	5809	6889	6349	3400	5514	5604	5624
8	33016	NK-4009	6378	5858	5176	7654	5806	6730	11533	10427(2)	8119	6946(10)
9	33017	LG 90304	6422	5479	4253	7406	3412	5409	11070	9745(4)	7177	6688
10	33018	Indam 200-060	7610(2)	6647(5)	7518(2)	7256	8619(5)	7938(8)	11575(10)	7945	8583(4)	7122(6)
11	33019	KJTRH-2232	6936(6)	5763	6023	6564	5741	6153	9063	7831	7045	6057
12	33020	VNR-238	6127	6506(6)	6702(6)	7940	7869(9)	7904	11713(7)	8550	8555(6)	7141(5)
13	33021	KJTRH-2243	4732	4842	6329	6273	6106	6190	8573	6671	6790	5687
14	33022	SRH-306	6504(10)	5945	5699	7589	5554	6572	12029(1)	8788	7932	6636
15	33023	Dhoom-09	6442	6078	5234	7350	5685	6517	11705(8)	7550	7505	6803
16	33024	BRI-21044	5684	5351	5771	7194	7499	7346	11081	8570	8023	6976(9)
17	33025	Kaveri-7429	6911(7)	6770(4)	6406(10)	8178(3)	8453(8)	8315(4)	11940(2)	9305(8)	8856(1)	7565(1)
18	33026	BAYR-4303	6140	6164	5974	7784	6903	7344	11243	8345	8050	6788
19	33027	PAN-21001	5456	5186	7516(3)	4200	4926	4563	10111	6871	6725	5939
20	33028	BAYR-4304	7949(1)	7395(1)	5262	6887	8946(3)	7917(10)	11881(3)	8796	8354	7042(7)
21	33029	MASLPH-01	5562	5781	5117	7150	4868	6009	11767(4)	8617	7504	6661
22	33030	ADVRH-209008	5140	5290	5168	7998(10)	8904(4)	8451(2)	11344	8569	8396	6572
23	33031	BESST-230	4071	4673	6606(7)	8080(7)	6657	7368	11026	7547	7983	6321
24	33032	JRH-140	5937	5324	6250	7116	7067	7091	9610	7862	7581	5866
25	33033	US-322	5040	5653	5844	7210	9090(1)	8150(5)	9788	6816	7750	6539
26	33034	IIRRH-177	5658	5203	5780	7919	5902	6910	10524	8240	7673	6173
27	33035	JRH-143	5572	5065	5844	6563	6460	6512	8640	7516	7005	6125
28	33036	US-325	3634	3746	3749	6445	4626	5535	8651	6810	6056	4888
29	33037	IIRRH-178	5311	4606	5095	7540	7004	7272	8707	7561	7181	5624
30	33038	Pusa RH-69	3749	4290	5295	6121	5939	6030	11717(6)	8193	7453	6455
31	33039	3A9202	5402	5157	5179	6061	7310	6686	10413	6878	7168	6150
32	33040	NPH-X24	6568(9)	6116	5895	8060(8)	7076	7568	11472	9672(5)	8435(9)	6813
33	33041	Pusa RH-70	5018	4980	5174	6282	5626	5954	11416	8393	7378	6120

Annual Progress Report 2024 Vol. I – Varietal Improvement

S. No.	IET No.	Name	Zone-6			Zone-7						Overall_ (29)
			GJ-Z6_(2)	Zone-6_(4)	AP-Z7	IIRR	WGL	TG-Z7_(2)	KA-Z7	TN-Z7	Zone-7_(5)	
34	33042	PBNPH-2008	5205	5236	5357	8095(6)	8592(6)	8344(3)	10904	8530	8296	6736
35	33043	BS-310	6200	5653	5260	7368	7344	7356	11339	6411	7545	6598
36	33044	DLRH-10	5309	5129	6481(8)	8163(4)	5828	6996	10233	9023(10)	7946	6306
37	33045	TNTRH-102	5162	4843	4914	6534	5772	6153	9609	6480	6662	5547
38	33046	PHI-24106	7374(3)	7075(2)	6310	8026(9)	9083(2)	8555(1)	10665	9300(9)	8677(2)	7203(3)
39	33047	CRHR-190	4718	5359	5787	6554	5980	6267	10324	7102	7149	6122
40	33048	PHI-24107	5552	6312(7)	7789(1)	7338	8521(7)	7929(9)	10766	7852	8453(8)	6999(8)
41	33049	CRHR-191	4708	5644	5908	5845	6985	6415	10850	7662	7450	6431
42	33050	PHI-24108	7284(4)	6806(3)	7427(4)	7710	6846	7278	11759(5)	8273	8403(10)	7411(2)
43	27P37	(OBCH-1)	6500	6126	5913	8631(1)	7345	7988(6)	11009	9888(3)	8557(5)	6770
44	VNR-2228	(OBCH-2)	5927	6245(9)	6949(5)	7847	6708	7278	11655(9)	9424(7)	8517(7)	7149(4)
45	US-312	(NCH)	6096	6237(10)	6271	8129(5)	6655	7392	11215	7353	7925	6603
46	Gontra Bidhan-3	(NCV)	6680(8)	5606	3695	5003	3378	4190	6020	5895	4798	5725
47	Zonal Check Variety		3935	3740	4641	5458	6443	5950	9147	6278	6393	5546
48	Local Check Variety		4358	4672	6001	6576	6075	6326	8584	6160	6679	5801
Exp. Mean			5707	5539	5765	7030	6547	6789	10311	7850	7501	6414
CD(0.05)			798	522	872	1101	1053	824	906	1061	480	225
CV(%)			8.63	5.82	9.33	9.66	9.92	7.49	5.42	8.34	3.94	2.17
F val			12.89	18.82	8.48	6.47	14.85	12.78	25.08	13.24	29.33	52.45
NHC+CD (0.05)			6894	6759	7143	9230	7708	8216	12121	8414	8405	6828
BVC+CD (0.05)			7478	6128	6873	7677	7496	7150	10053	7339	7159	6026
D/S					7.7.24	19.6.24	24.6.24		14.8.24	10.6.24		
D/P					30.7.24	26.7.24	26.7.24		4.9.24	08.7.24		
Gross Plot Size (Sq. m)					9.9	6.728	7.43		7.02	7.84		
Net Plot Size (Sq. m)					7.56	5.198	7.43		5.98	5.2		
Zonal Check Variety					MTU-1010	MTU-1010	MTU-1010		MTU-1010	MTU-1010		
Local Check Variety					MTU 1121	Varadhan	RNR 15043		IR 64	TKM 13		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix- 5: Days to 50% Flowering (DFF) of hybrids in IHRT-Mid Early, Kharif 2024

S. No.	IET No.	Name	Zone-2										Zone-3 (Contd..)				
			HR-Z2	UK-Z2	PB-Z2	DL-Z2	UP-Z2	Zone-2_(5)		UP-Z3			Zone-3 (Contd..)				
			KUL	PNT	LDN	IAR	NGN	VRN	NZV	TRMH_BE	IDAS	UP-Z3(4)	UP Overall_(5)				
1	33009	KSRH-1016	95	95	95	87	89	96	103	96	95	90	88	94	96		
2	33010	SRPH-213	95	97	100	89	97	96	96	95	92	90	90	93	94		
3	33011	TMRH-5544	94	95	100	78	100	93	99	95	91	91	91	94	95		
4	33012	KSRH-1209	87	90	87	79	96	88	87	91	91	82	88	88	89		
5	33013	Mahagold-786	96	96	101	86	99	96	91	93	89	90	90	91	92		
6	33014	NS-6120	103	102	106	84	103	100	98	102	94	91	91	96	98		
7	33015	NDLRH-562	109	143		84	125	115	123	108	95	122	112	112	115		
8	33016	NK-4009	96	98	97	85	103	96	96	95	91	90	90	93	95		
9	33017	LG 90304	94	92	96	81	104	93	94	96	91	90	90	92	95		
10	33018	Indam 200-060	94	96	98	87	112	98	98	102	96	90	90	96	100		
11	33019	KJTRH-2232	98	97	97	86	110	98	97	98	88	91	91	93	97		
12	33020	VNR-238	106	110	110	82	110	104	99	97	93	98	98	97	99		
13	33021	KJTRH-2243	100	101	96	88	112	99	98	95	93	92	92	94	98		
14	33022	SRH-306	95	95	96	86	113	97	99	96	86	87	87	92	96		
15	33023	Dhoom-09	94	95	95	81	102	93	93	97	91	91	91	93	95		
16	33024	BRI-21044	98	103	97	86	109	99	95	98	93	91	91	94	97		
17	33025	Kaveri-7429	106	104	107	87	110	103	96	102	94	94	94	96	99		
18	33026	BAYR-4303	102	104	99	90	109	101	97	99	92	95	95	96	98		
19	33027	PAN-21001	96	96	100	84	100	95	98	95	92	89	89	93	95		
20	33028	BAYR-4304	100	102	99	83	110	99	98	99	91	93	93	95	98		
21	33029	MASLPH-01	92	97	96	84	113	96	103	96	97	92	92	97	100		
22	33030	ADVRH-209008	95	96	93	84	105	95	96	95	90	90	90	93	95		
23	33031	BESST-230	92	94	95	84	105	94	95	99	90	88	88	93	95		
24	33032	JRH-140	100	102	98	86	106	98	99	98	93	91	91	95	97		
25	33033	US-322	97	99	98	86	104	97	97	96	86	93	93	93	95		
26	33034	IIRRH-177	97	101	99	77	108	97	98	104	92	92	92	96	99		
27	33035	JRH-143	100	99	96	89	101	97	93	92	90	90	90	92	93		
28	33036	US-325	108	97	95	84	112	99	99	101	92	92	92	96	99		
29	33037	IIRRH-178	94	94	94	84	110	95	97	93	89	90	90	92	96		
30	33038	Pusa RH-69	95	95	94	82	111	95	100	98	90	89	89	94	98		

Annual Progress Report 2024 Vol. I – Varietal Improvement

S. No.	IET No.	Name	Zone-2										Zone-3 (Contd..)					UP Overall _ (5)										
			HR-Z2					PB-Z2					DL-Z2						UP-Z2					Zone-2 _ (5)				
			HR-Z2	UK-Z2	PB-Z2	LDN	IAR	DL-Z2	UP-Z2	NGN	Zone-2 _ (5)	VRN	NZV	TRMH_BE	IDAS	UP-Z3(4)	UP Overall _ (5)											
31	33039	3A9202	94	95	94	86	109	95	94	86	109	95	94	91	92	91	95	92	94	91	92	92	95	92	95			
32	33040	NPH-X24	103	102	102	90	112	102	102	90	112	102	102	99	94	93	95	94	99	93	95	95	95	95	99			
33	33041	Pusa RH-70	93	96	93	83	104	96	93	83	104	94	94	97	98	94	87	98	97	94	87	94	94	94	96			
34	33042	PBNPH-2008	93	95	96	88	112	95	96	88	112	97	97	99	95	94	91	95	99	94	91	95	95	95	98			
35	33043	BS-310	101	102	98	84	108	102	98	84	108	99	99	98	98	92	93	98	98	92	93	95	95	98	98			
36	33044	DLRH-10	100	101	95	85	107	101	95	85	107	98	98	98	98	92	92	98	98	92	92	95	95	97	97			
37	33045	TNTRH-102	105	104	105	87	109	104	105	87	109	102	102	99	97	92	95	97	99	92	95	96	96	98	98			
38	33046	PHI-24106	102	102	103	85	110	102	103	85	110	100	100	100	101	95	96	101	100	95	96	98	98	100	100			
39	33047	CRHR-190	106	107	101	81	111	107	101	81	111	101	101	93	100	90	95	100	93	90	95	94	94	98	98			
40	33048	PHI-24107	101	104	104	87	109	104	104	87	109	101	101	98	99	94	95	99	98	94	95	96	96	99	99			
41	33049	CRHR-191	105	105	104	84	113	105	104	84	113	102	102	99	105	93	97	105	99	93	97	98	98	101	101			
42	33050	PHI-24108	99	100	98	91	103	100	98	91	103	98	98	98	99	88	93	99	98	88	93	94	94	96	96			
43	27P37 (OBCH-1)		104	104	106	84	113	104	106	84	113	102	102	100	100	98	96	100	100	96	98	98	98	101	101			
44	VNR-2228(OBCH-2)		104	107	110	88	110	107	110	88	110	104	104	99	96	97	96	96	99	97	96	97	97	99	99			
45	US-312 (NCH)		100	101	99	85	105	101	99	85	105	98	98	95	101	91	91	101	95	91	91	94	94	97	97			
46	Gontra Bidhan-3 (NCV)		94	93	93	83	98	93	93	83	98	92	92	100	95	90	88	95	100	88	88	93	93	94	94			
47	Zonal Check Variety		107	105	109	88	111	105	109	88	111	104	104	103	101	94	98	101	103	98	98	99	99	101	101			
48	Local Check Variety		99	93	108	77	100	93	108	77	100	95	95	104	97	97	88	97	104	88	88	96	96	97	97			
	Exp. Mean		98	100	98	84	107	100	98	84	107	98	98	98	97	92	92	97	98	92	92	95	95	97	97			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix- 5(Contd..): Days to 50% Flowering (DFF) of hybrids in IHRT-Mid Early, Kharif 2024

S. No.	IET No.	Name	Zone-3										Zone-5 (Contd..)				
			WB-Z3	OD-Z3	JH-Z3			BR-Z3		MP-Z5			CG-Z5(Contd..)				
			CHN	CTK	RCI	BYR	TRMH_RCI	JH-Z3_(3)	DNG	Zone-3_(10)	JBP	WRS		MP-Z5_(2)	RPR		
1	33009	KSRH-1016	98	92	104	92	90	95	95	101	95	101	95	95	97	96	92
2	33010	SRPH-213	88	94	93	93	87	87	91	97	92	97	92	93	94	94	91
3	33011	TMRH-5544		92	92	96	93	93	94	105	95	105	95	96	99	98	95
4	33012	KSRH-1209	94	94	105	96	88	88	97	99	93	99	93	86	94	90	87
5	33013	Mahagold-786	89	92	95	92	88	88	92	92	92	97	92	92	95	93	91
6	33014	NS-6120	99	90	103	93	94	94	97	106	97	106	97	99	101	100	97
7	33015	NDLRH-562	125	98	115	95	98	98	103	127	111	127	111	111	115	113	112
8	33016	NK-4009	102	92	101	97	88	88	95	103	96	103	96	94	98	96	94
9	33017	LG 90304	95	93	98	95	93	93	95	102	94	102	94	94	97	96	122
10	33018	Indam 200-060	97	90	102	96	92	92	96	95	96	95	96	101	98	100	94
11	33019	KJTRH-2232	95	94	99	96	93	93	96	101	95	101	95	96	96	96	93
12	33020	VNR-238	103	91	104	96	98	98	100	106	99	106	99	100	99	100	98
13	33021	KJTRH-2243	99	92	105	97	87	87	96	98	96	98	96	95	100	98	96
14	33022	SRH-306	100	95	105	96	94	94	98	101	96	101	96	97	98	98	95
15	33023	Dhoom-09	95	93	104	97	93	93	98	98	95	98	95	95	98	96	95
16	33024	BRI-21044	102	92	99	94	88	88	94	104	96	104	96	97	98	98	93
17	33025	Kaveri-7429	99	98	105	96	93	93	98	110	99	110	99	99	103	101	99
18	33026	BAYR-4303	101	90	102	98	92	92	97	103	97	103	97	98	98	98	96
19	33027	PAN-21001	94	90	103	94	83	83	93	97	93	97	93	92	94	93	87
20	33028	BAYR-4304	95	94	103	96	87	87	95	97	95	97	95	94	97	96	96
21	33029	MASLPH-01	96	92	106	95	95	95	99	95	97	95	97	95	98	97	96
22	33030	ADVRH-209008	98	90	103	97	90	90	97	103	95	103	95	94	97	96	93
23	33031	BESST-230	96	94	101	96	88	88	95	101	95	101	95	92	97	94	91
24	33032	JRH-140	97	90	99	96	88	88	95	101	95	101	95	97	96	96	91
25	33033	US-322	105	94	103	95	95	95	98	99	96	99	96	97	98	98	95
26	33034	IIRRH-177	100	93	105	95	92	92	97	103	97	103	97	94	98	96	92
27	33035	JRH-143	98	94	102	96	87	87	95	101	94	101	94	93	95	94	89
28	33036	US-325	95	92	103	96	90	90	96	105	96	105	96	97	96	96	94
29	33037	IIRRH-178	100	96	101	97	95	95	98	98	96	98	96	95	98	96	91
30	33038	Pusa RH-69	99	95	100	95	95	95	97	101	96	101	96	94	97	95	92

Annual Progress Report 2024 Vol. I – Varietal Improvement

S. No.	IET No.	Name	Zone-3										Zone-5 (Contd..)				
			WB-Z3		OD-Z3		JH-Z3			BR-Z3		MP-Z5			CG-Z5(Contd..)		
			CHN	CTK	RCI	BYR	TRMH_RCI	JH-Z3_(3)	DNG	Zone-3_(10)	JBP	WRS	MP-Z5_(2)	RPR			
31	33039	3A9202	101	89	99	98	90	96	96	104	95	94	99	96	94		
32	33040	NPH-X24	98	94	104	97	97	99	99	104	97	99	100	100	96		
33	33041	Pusa RH-70	97	95	99	98	92	96	96	98	95	94	96	95	95		
34	33042	PBNPH-2008	102	92	105	96	92	98	98	103	97	95	98	96	94		
35	33043	BS-310	104	93	100	97	93	97	97	103	97	94	97	96	94		
36	33044	DLRH-10	97	90	102	95	92	96	96	105	96	94	97	96	95		
37	33045	TNTRH-102	105	90	111	97	95	101	101	109	99	100	98	99	96		
38	33046	PHI-24106	103	94	101	97	92	97	97	106	98	100	99	100	99		
39	33047	CRHR-190	105	94	111	98	97	102	102	109	99	101	103	102	97		
40	33048	PHI-24107	101	92	103	97	85	95	95	104	97	95	98	96	98		
41	33049	CRHR-191	101	93	110	96	94	100	100	109	100	101	101	101	96		
42	33050	PHI-24108	99	91	101	94	91	95	95	106	96	95	96	96	98		
43	27P37	(OBCH-1)	99	89	104	98	96	99	99	106	99	100	99	99	97		
44	VNR-2228	(OBCH-2)	102	97	99	97	92	96	96	106	98	97	99	98	96		
45	US-312	(NCH)	100	100	99	96	93	96	96	103	97	95	96	96	96		
46	Gontra Bidhan-3	(NCV)	98	94	106	98	91	98	98	106	97	95	97	96	94		
47	Zonal Check Variety		95	92	106	97	90	98	98	110	99	99	95	97	88		
48	Local Check Variety		95	92	101	97	102	100	100	103	98	91	95	93	93		
Exp. Mean			99	92	102	95	91	97	97	103	97	96	97	97	95		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix- 5(Contd..): Days to 50% Flowering (DFF) of hybrids in IHRT -Mid Early, Kharif 2024

S. No.	IET No.	Name	Zone-5					Zone-6(Contd..)				
			CG-Z5		MH-Z5		MH-Z6			GJ-Z6(Contd..)		
			VNS	CH-Z5_(2)	SND	Zone-5_(5)	KJT	RDN	MH-Z6_(2)	MH overall_(3)	NWG	NVS
1	33009	KSRH-1016	86	89	92	93	89	98	93	93	99	84
2	33010	SRPH-213	88	89	92	91	90	96	93	93	88	87
3	33011	TMRH-5544	86	90	94	94	94	98	96	95	86	86
4	33012	KSRH-1209	81	84	87	87	81	95	88	88	87	80
5	33013	Mahagold-786	88	90	92	92	90	96	93	93	90	86
6	33014	NS-6120	92	94	96	97	92	101	96	96	110	87
7	33015	NDLRH-562	116	114	119	115	115	114	115	116	96	113
8	33016	NK-4009	90	92	92	94	90	101	95	94	102	90
9	33017	LG 90304	84	103	93	98	87	96	92	92	97	84
10	33018	Indam 200-060	85	90	93	94	88	99	94	93	105	89
11	33019	KJTRH-2232	86	90	94	93	86	99	93	93	108	87
12	33020	VNR-238	96	97	99	99	98	100	99	99	110	93
13	33021	KJTRH-2243	93	94	93	95	85	100	92	93	106	86
14	33022	SRH-306	85	90	95	94	89	100	94	95	103	92
15	33023	Dhoom-09	84	90	94	93	90	99	94	94	88	83
16	33024	BRI-21044	89	91	96	95	85	98	92	93	107	87
17	33025	Kaveri-7429	95	97	99	99	91	105	98	98	109	95
18	33026	BAYR-4303	91	94	93	95	92	103	98	96	105	89
19	33027	PAN-21001	88	88	88	90	90	96	93	91	101	86
20	33028	BAYR-4304	94	95	94	95	87	100	93	94	105	88
21	33029	MASLPH-01	86	91	94	94	92	101	96	96	102	89
22	33030	ADVRH-209008	86	90	93	93	86	96	91	92	107	84
23	33031	BESST-230	86	88	88	91	86	99	92	91	102	86
24	33032	JRH-140	91	91	90	93	85	99	92	91	106	85
25	33033	US-322	90	92	93	94	90	99	94	94	104	93
26	33034	IIRRH-177	89	91	92	93	89	97	93	93	101	87
27	33035	JRH-143	86	88	90	91	84	94	89	89	103	84
28	33036	US-325	92	93	94	94	92	99	96	95	107	88
29	33037	IIRRH-178	85	88	92	92	88	95	91	92	105	84
30	33038	Pusa RH-69	84	88	93	92	86	97	91	92	105	85

Annual Progress Report 2024 Vol. I – Varietal Improvement

S. No.	IET No.	Name	Zone-5					Zone-6(Contd..)				
			CG-Z5		MH-Z5		MH-Z6			GJ-Z6(Contd..)		
			VNS	CH-Z5_(2)	SND	Zone-5_(5)	KJT	RDN	MH-Z6_(2)	MH overall_(3)	NWG	NVS
31	33039	3A9202	85	89	89	92	82	94	88	88	113	85
32	33040	NPH-X24	92	94	96	97	97	105	101	100	107	92
33	33041	Pusa RH-70	93	94	92	94	104	98	101	98	103	84
34	33042	PBNPH-2008	86	90	94	93	87	102	94	94	104	86
35	33043	BS-310	93	94	94	94	92	100	96	95	101	93
36	33044	DLRH-10	92	94	95	95	92	99	96	95	105	90
37	33045	TNTRH-102	96	96	101	98	94	101	98	99	104	92
38	33046	PHI-24106	93	96	94	97	93	99	96	95	101	90
39	33047	CRHR-190	95	96	96	98	97	106	101	100	106	93
40	33048	PHI-24107	95	97	96	96	95	100	97	97	105	89
41	33049	CRHR-191	95	96	100	99	100	105	103	102	106	91
42	33050	PHI-24108	90	94	92	94	90	100	95	94	100	87
43	27P37 (OBCH-1)		94	96	97	97	100	101	100	99	108	94
44	VNR-2228(OBCH-2)		94	95	94	96	92	102	97	96	107	94
45	US-312 (NCH)		93	95	97	96	95	101	98	98	105	90
46	Gontra Bidhan-3 (NCV)		84	89	92	93	88	101	95	94	95	84
47	Zonal Check Variety		80	84	88	90	90	97	94	92	89	86
48	Local Check Variety		86	89	96	92	91	96	93	94	104	89
Exp. Mean			89	92	94	95	90	99	95	95	102	88

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix- 5(Contd..): Days to 50% Flowering (DFF) of hybrids in IHRT-Mid Early, Kharif 2024

S. No.	IET No.	Name	Zone-6				Zone-7							Overall_(29)
			GJ-Z6		AP-Z7		TG-Z7			KA-Z7		TN-Z7		
			GJ-Z6(2)	Zone-6_(4)	MTU	IIRR	WGL	TG-Z7_(2)	MND	CBT	Zone-7_(5)			
1	33009	KSRH-1016	91	92	75	97	96	96	88	97	91	94		
2	33010	SRPH-213	87	90	82	89	90	90	84	92	87	92		
3	33011	TMRH-5544	86	91	80	95	93	94	90	97	91	93		
4	33012	KSRH-1209	84	86	78	87	88	88	81	87	84	88		
5	33013	Mahagold-786	88	90	80	89	89	89	85	93	87	91		
6	33014	NS-6120	98	97	86	97	95	96	94	99	94	97		
7	33015	NDLRH-562	104	109	106	112	104	108	94	113	106	111		
8	33016	NK-4009	96	96	81	99	95	97	89	99	92	95		
9	33017	LG 90304	90	91	75	98	93	96	91	96	91	94		
10	33018	Indam 200-060	97	95	76	101	95	98	93	97	92	95		
11	33019	KJTRH-2232	97	95	80	93	93	93	92	95	91	94		
12	33020	VNR-238	102	100	88	100	97	98	88	99	94	99		
13	33021	KJTRH-2243	96	94	84	94	94	94	88	95	91	95		
14	33022	SRH-306	97	96	78	96	90	93	89	96	90	95		
15	33023	Dhoom-09	86	90	79	93	91	92	88	94	89	93		
16	33024	BRI-21044	97	94	78	95	94	95	82	93	88	94		
17	33025	Kaveri-7429	102	100	89	99	100	99	93	101	96	99		
18	33026	BAYR-4303	97	97	85	99	95	97	88	99	93	97		
19	33027	PAN-21001	94	93	82	83	91	87	83	92	86	92		
20	33028	BAYR-4304	96	95	78	92	95	94	87	98	90	95		
21	33029	MASLPH-01	96	96	84	97	96	97	90	97	93	95		
22	33030	ADVRH-209008	96	93	79	91	92	92	84	96	89	93		
23	33031	BESST-230	94	93	81	95	93	94	89	95	91	93		
24	33032	JRH-140	95	94	75	94	94	94	81	94	87	94		
25	33033	US-322	98	96	78	93	93	93	84	95	89	95		
26	33034	IIRRH-177	94	93	81	97	94	96	87	96	91	95		
27	33035	JRH-143	94	91	75	91	92	92	81	91	86	92		
28	33036	US-325	98	97	81	92	96	94	82	94	89	95		
29	33037	IIRRH-178	94	93	78	94	93	94	87	95	89	94		
30	33038	Pusa RH-69	95	93	76	100	95	97	87	97	91	94		

Annual Progress Report 2024 Vol. I – Varietal Improvement

S. No.	IET No.	Name	Zone-6				Zone-7							Overall_(29)
			GJ-Z6	Zone-6_(4)	TG-Z7			KA-Z7	TN-Z7	Zone-7_(5)				
			GJ-Z6(2)	Zone-6_(4)	IIRR	WGL	TG-Z7_(2)	MND	CBT					
AP-Z7	MTU													
31	33039	3A9202	99	94	81	92	91	91	85	92	88	93		
32	33040	NPH-X24	100	100	83	96	98	97	91	100	94	98		
33	33041	Pusa RH-70	94	97	78	95	94	95	86	96	90	94		
34	33042	PBNPH-2008	95	95	78	97	95	96	89	98	91	95		
35	33043	BS-310	97	96	84	98	97	98	89	98	93	96		
36	33044	DLRH-10	97	96	79	97	96	97	87	99	92	95		
37	33045	TNTRH-102	98	98	86	103	99	101	89	102	96	99		
38	33046	PHI-24106	95	96	84	95	95	95	88	99	92	97		
39	33047	CRHR-190	100	100	86	100	98	99	92	101	96	99		
40	33048	PHI-24107	97	97	79	98	95	96	85	97	91	96		
41	33049	CRHR-191	98	100	83	103	98	100	94	102	96	99		
42	33050	PHI-24108	93	94	84	98	95	97	91	99	93	95		
43	27P37 (OBCH-1)		101	101	85	99	97	98	93	100	95	99		
44	VNR-2228(OBCH-2)		100	99	85	97	98	97	86	98	93	98		
45	US-312 (NCH)		98	98	78	101	96	98	90	99	93	96		
46	Gontra Bidhan-3 (NCV)		89	92	75	89	90	90	86	93	87	93		
47	Zonal Check Variety		87	90	72	90	89	89	83	91	85	95		
48	Local Check Variety		96	95	104	100	103	102	83	107	99	96		
	Exp. Mean		95	95	81	95	94	95	87	96	91	95		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix-6: Centres (Low performance) not included in the analysis of IHRT-Mid Early, Kharif 2024

S. No.	IET No.	Name	Grain Yield(Kg/ha)										Days to 50% Flowering (DFF)								
			Zone-3					Zone-4					Z3			Z4			Z6		
			BR-Z3 @ DAG	OD-Z3 @ CHP	UP-Z3 @ MSD	WB-Z3 @ PANS	AS-Z4 @ TTB	TR-Z4 @ ARD	GJ-Z6 @ DBI	BR-Z3 @ DAG	OR-Z3 @ CHP	UP-Z3 @ MSD	WB-Z3 @ PANS	AS-Z4 @ TTB	TR-Z4 @ ARD	GJ-Z6 @ DBI	BR-Z3 @ DAG	OR-Z3 @ CHP	UP-Z3 @ MSD	WB-Z3 @ PANS	AS-Z4 @ TTB
1	33009	KSRH-1016	5270	3010	6137	4122	6590	2675	5294(5)	103	82	102	75	96	88	104					
2	33010	SRPH-213	4796	3132	5382	5318	5900	2475	4074	102	88	98	77	90	79	98					
3	33011	TMRH-5544	5553	3636	6479(9)	4934	5923		3941	103	83	100	79	98		98					
4	33012	KSRH-1209	3810	3273	4305	3966	6427	2050	3529	100	88	97	72	88	82	98					
5	33013	Mahagold-786	5820	3737	5803	5784(6)	4847	1725	3853	105	87	101	78	90	79	93					
6	33014	NS-6120	5720	4182(9)	6233	6548(2)	6967(7)	2375	5711(1)	104	79	107	84	102	91	109					
7	33015	NDLRH-562	3490	3232	4468	4162	5580	1500	3741	105	115	118	114	120	101	98					
8	33016	NK-4009	5450	3475	5957	4575	6143		5343(2)	102	80	103	80	97		106					
9	33017	LG 90304	5633	3596	5824	5169	6810(10)	2075	3623	104	81	104	78	102	86	88					
10	33018	Indam 200-060	6583(6)	3677	5044	5578(9)	6000	2850	5209(6)	103	79	107	78	98	88	93					
11	33019	KJTRH-2232	3291	3657	5361	1749	6727	2500	3750	102	82	105	79	94	90	100					
12	33020	VNR-238	6193	2425	5803	2968	6023	3550(9)	5035(9)	103	73	105	88	100	88	115					
13	33021	KJTRH-2243	5673	2343	5198	7213(1)	6547	3000	4172	104	75	105	81	105	93	115					
14	33022	SRH-306	5617	4020	6562(7)	5009	6283		4495	106	82	102	77	98		90					
15	33023	Dhoom-09	6217	3939	5361	5329	5770	2500	3657	101	88	103	75	96	86	89					
16	33024	BRI-21044	5960	3556	5949	4868	6273	3675(5)	5089(7)	105	83	99	81	101	86	108					
17	33025	Kaveri-7429	6243(10)	4545(2)	6541(8)	5619(8)	7263(5)	2800	5334(3)	109	74	107	86	105	92	112					
18	33026	BAYR-4303	5600	3636	5428	3753	6590	2775	4851	104	80	106	83	103	92	113					
19	33027	PAN-21001	5057	2465	6003	2206	5887	2100	3907	105	95	102	76	90	87	99					
20	33028	BAYR-4304	5520	4243(6)	5461	6517(3)	6427	3450	5064(8)	102	79	106	81	95	93	107					
21	33029	MASLPH-01	5659	3859	7484(2)	4194	6727	3800(4)	3721	104	82	105	80	103	88	90					
22	33030	ADVRH-209008	5280	4323(3)	5624	4001	5363	3100	4481	108	77	116	77	97	87	100					
23	33031	BESST-230	4567	3939	6320	2573	5693	2575	3642	105	77	101	76	98	90	98					
24	33032	JRH-140	5677	3515	5607	2981	7290(4)	3625(8)	5324(4)	103	82	102	81	107	86	108					
25	33033	US-322	6620(5)	3151	4890	4586	5973	2950	4182	103	83	104	80	98	87	98					
26	33034	IIRRH-177	5553	3071	5824	4497	5180		4623	104	77	97	79	99		104					
27	33035	JRH-143	5620	3071	4981	4746	5837		4662	101	84	97	78	98		107					
28	33036	US-325	3993	2303	2361	3014	4823	2425	3853	101	82	104	80	98	86	107					
29	33037	IIRRH-178	3524	2182	4514	1306	4583	2550	3527	107	79	106	75	97	89	102					
30	33038	Pusa RH-69	6433(7)	2808	6304	5544	6763		2628	104	83	97	78	92		103					
31	33039	3A9202	4853	2909	6779(6)	5327	6940(9)	2800	2951	102	81	107	78	97	90	107					
32	33040	NPH-X24	5797	4222(7)	5862	5575(10)	7307(3)	3000	3917	106	79	106	83	102	88	108					

Annual Progress Report 2024 Vol. I – Varietal Improvement

S. No.	IET No.	Name	Grain Yield(Kg/ha)												Days to 50% Flowering (DFF)					
			Zone-3				Zone-4				Zone-6				Z3		Z4		Z6	
			BR-Z3 @ DAG	OD-Z3 @ CHP	UP-Z3 @ MSD	WB-Z3 @ PANS	AS-Z4 @ TTB	TR-Z4 @ ARD	GJ-Z6 @ DBI	BR-Z3 @ DAG	OR-Z3 @ CHP	UP-Z3 @ MSD	WB-Z3 @ PANS	AS-Z4 @ TTB	TR-Z4 @ ARD	GJ-Z6 @ DBI				
33	33041	Pusa RH-70	7113(3)	2788	6091	3984	9113(1)	6187	3675(5)	4069	79	101	83	103	78	92	106			
34	33042	PBNPH-2008	7973(1)	4323(3)	5507	2316	6187	3675(5)	4069	79	101	83	103	78	92	106	108			
35	33043	BS-310	6207	4263(5)	5866	5268	5180	2525	4216	81	103	90	110	110	110	110	110			
36	33044	DLRH-10	4677	2788	5574	4625	5940	2950	3520	80	100	105	105	105	105	105	105			
37	33045	TNTRH-102	4667	3677	4952	4128	6637	2950	2941	73	106	93	109	109	109	109	109			
38	33046	PHI-24106	5640	4909(1)	5861	5684(7)	6037	4750(2)	4525	77	107	90	97	97	97	97	97			
39	33047	CRHR-190	5217	4142(10)	7443(4)	2830	6967(7)	3675(5)	3309	79	107	102	108	108	108	108	108			
40	33048	PHI-24107	5007	3535	7543(1)	6351(4)	6703	3100	4118	82	111	91	108	108	108	108	108			
41	33049	CRHR-191	6417(8)	3495	7472(3)	3510	7057(6)	3325	3995	78	105	90	110	110	110	110	110			
42	33050	PHI-24108	7397(2)	4000	7025(5)	4199	5360	4875(1)	4363	80	104	88	103	103	103	103	103			
43	27P37	(OBCH-1)	4900	4040	5569	6287(5)	7327(2)	3450	4956(10)	81	102	93	110	110	110	110	110			
44	VNR-2228	(OBCH-2)	6853(4)	4222(8)	6091	4942	6730	3525(10)	4319	81	107	91	112	112	112	112	112			
45	US-312	(NCH)	4750	3353	6466(10)	4992	5867	4750(2)	4804	77	103	89	110	110	110	110	110			
46	Gontra Bidhan-3	(NCV)	5410	2525	4293	2360	5627	2725	3760	82	104	90	102	102	102	102	102			
47	Zonal Check Variety		6280(9)	3051	4739	2431	4460	2325	2696	83	108	91	95	95	95	95	95			
48	Local Check Variety		4343	3636	5060	4945	5207	3028	4289	82	89	75	115	115	115	115	115			
Exp. Mean			5498	3497	5738	4429	6205	2989	4155	81	103	89	103	103	103	103	103			
CD(0.05)			2056	1032	282	749	403	1100	584											
CV(%)			23.07	18.2	3.03	10.44	4	22.64	8.68											
F val			1.81	3.12	89.34	26	35.17	3.78	13.88											
NHC+CD (0.05)			6806	4385	6748	5741	6270	5850	5388											
BVC+CD (0.05)			8336	4668	5342	5694	6030	4128	4873											
D/S			4.7.24	18.7.24	29.6.24	24.6.24	10.7.24	6.6.24	6.6.24											
D/P			14.8.24	22.8.24	30.7.24	13.7.24	8.8.24	30.8.24	20.7.24											
Gross Plot Size (Sq. m)				11.25	10		10	9	12.96											
Net Plot Size (Sq. m)				8.25	7.99		10	9	10.2											
Zonal Check Variety			Lalat	Lalat	Lalat	Lalat	Lalat	Lalat	Karjat-7											
Local Check Variety				MMS-VMP	IR 64 Sub1		Chilarai	TRC-BN-1311-B-B-B-11.1	GAR-13											

@ Data of MSD(Miasodha) and TTB(Titabar) not included in the analysis due to low C.V. Values;

@ Data of CHP(Chiplima), PANS (PAN Seeds) and DBI(Dabhoi) not included in the analysis due to low exp. mean;

@ Data of ARD(Arundhatinagar) not included in the analysis due to low exp. mean and high C.V Values;

@ Data of DAG (Delta Agri. Genetics) not included in the analysis due to high C.V. Value.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix- 7: Grain Yield (kg/ha) of hybrids in IHRT-Medium, Kharif 2024

S. No.	IET No.	Name	Zone-2										Zone-3(Contd...)				
			HR-Z2	UK-Z2	PB-Z2	UP-Z2	Zone-2_(4)	UP-Z3			UP Overall_(4)	WB-Z3	OD-Z3				
			KUL	PNT	LDN	NGN	BIS	TRMH_BE	IDAS	UP-Z3_(3)	CHN	CTK					
1	33051	TMRH-2151	8160	5732	6275	5373	6385	6003(8)	7612	5183	6266	6043	7470(5)	5261			
2	33052	SHX-2783	8187	7159(5)	8385(3)	7493(2)	7806(5)	6050(5)	6350	5459	5953	6338	6586	4387			
3	33053	NDLRH-563	6220	4582		4752	5184	3032	6670	4366	4689	4705	6185	6144			
4	33054	Indam 200-059	8400	5545	7102	6341(8)	6847	5418	9187(3)	8390	7665(2)	7334(1)	6787	8590(3)			
5	33055	VNR-239	6163	3226		7013(3)	5467	5459	8278	6051	6596	6700(10)	7068(10)	6026			
6	33056	BRI-22021	8263	5578	6366	5494	6425	7464(2)	7831	8006(2)	7767(1)	7199(2)	5823	5959			
7	33057	BAYR-4405	9245(8)	8130(1)	7637	6696(6)	7927(4)	6045(6)	6171	5782	6000	6174	6908	7531			
8	33058	ADVRH-200685	8137	6921(9)	7268	5486	6953	4363	7422	5123	5636	5598	5823	4292			
9	33059	STAR-130	7977	8055(2)	3915	6775(5)	6681	3153	8042	5650	5615	5905	5703	4991			
10	33060	BAYR-4406	9432(7)	6563	8472(2)	5995	7615(7)	4739	7673	5883	6098	6072	6345	7540			
11	33061	ADVRH-21-0056	9049	6956(8)	7799(10)	5841	7411	4523	7917	5881	6107	6040	6707	4896			
12	33062	JRH-141	7155	3546	4236	5490	5107	5122	5583	3366	4690	4890	4458	4535			
13	33063	BAYR-4407	9981(3)	7071(7)	7454	7718(1)	8056(3)	6379(3)	7563	6853(10)	6932(9)	7128(4)	5623	7393			
14	33064	3A9029	7949	5883	7288	4994	6529	4828	9284(2)	3290	5800	5599	5944	5741			
15	33065	BAYR-4408	9621(6)	7961(3)	7478	5945	7752(6)	5976(9)	8541	7133(7)	7217(7)	6899(8)	7269(7)	5926			
16	33066	JRH-142	5555	2814	4711	5190	4568	838	6926	1945	3236	3725	6546	3165			
17	33067	NPH-X86	8275	6127	4830	4856	6022	4912	8769(9)	6080	6587	6154	7671(4)	7650			
18	33068	NK-7010	10013(2)	7217(4)	8104(8)	6921(4)	8064(2)	5172	7060	6898(9)	6377	6513	7871(2)	7151			
19	33069	NPH-X92	9230(9)	6860(10)	8211(5)	6120(10)	7605(8)	5394	8598(10)	5889	6627	6500	6747	8139(9)			
20	33070	BS-336	8310	5449	6441	5640	6460	5697	8375	5069	6380	6195	6627	8167(7)			
21	33071	NK-7012	8610	6469	7815(9)	6066	7240	7833(1)	9065(4)	5806	7568(4)	7192(3)	8032(1)	8148(8)			
22	33072	DLRH-11	6051	5445		6137(9)	5878	3557	8310	4186	5351	5548	6104	4217			
23	33073	IIRRH-179	8715	5419	5709	5557	6350	3266	8562	4287	5371	5418	7028	7217			
24	33074	TNTRH-80	6040	731		4189	3653	474	5181		2827	3281	6225	3732			
25	33075	PHI-24109	10486(1)	7083(6)	8698(1)	6070	8084(1)	4541	8890(7)	7398(5)	6943(8)	6725(9)	6627	8205(6)			
26	33076	TNTRH-81	5237	2757	3096	4673	3941	477	5437	2400	2771	3247	4297	6814			
27	33077	PHI-24110	9863(4)	5968	7055	5974	7215	5460	8797(8)	7956(3)	7404(5)	7047(5)	7269(8)	8457(4)			
28	33078	CRHR-192	6184	5018	4553	5044	5200	6031(7)	9418(1)	7410(4)	7619(3)	6976(6)	7791(3)	8386(5)			
29	33079	PHI-24111	9688(5)	6108	8167(7)	6112	7519(9)	6378(4)	8290	7086(8)	7251(6)	6967(7)	7470(5)	8609(2)			
30	33080	CRHR-193	8780	5628		5424	6610	5951(10)	7486	7272(6)	6903(10)	6533	7068(9)	8628(1)			
31	AZ8433DT (NCH)		8283	6799	8179(6)	6637(7)	7475(10)	5943	8984(5)	4607	6511	6543	5301	7825(10)			
32	NDR-359 (NCV)		9096(10)	5299	7415	5290	6775	4772	7190	6235	6066	5872	6546	5532			
33	Zonal Check Variety		7253	4731	6010	5411	5851	3922	6042	3978	4647	4838	6587	6861			

Annual Progress Report 2024 Vol. I – Varietal Improvement

		Zone-3(Contd..)												
S. No.	IET No.	Name	Zone-2					Zone-3					WB-Z3	OD-Z3
			HR-Z2	UK-Z2	PB-Z2	UP-Z2	Zone-2_(4)	BIS	TRMH_BE	IDAS	UP-Z3_(3)	UP Overall_(4)		
34		Local Check Variety	7987	4336	8306(4)	5123	6438	5274	8891(6)	5980	6715	6317	5623	6282
		Exp. Mean	8165	5681	6792	5819	6562	4837	7776	5664	6064	6006	6533	6541
		CD(0.05)	783	1484	762	1099	623	543	1952	586	720	621	1314	1461
		CV(%)	5.88	16.02	6.86	11.59	5.83	6.89	15.4	6.35	7.28	6.35	12.34	13.71
		F val	25.25	9.82	33.36	4.31	28.14	80.46	2.88	58.72	25.76	23.41	3.62	9.62
		NHC+CD (0.05)	9066	8283	8941	7736	8098	6486	10936	5193	7231	7164	6615	9286
		BVC+CD (0.05)	9879	6783	9068	6510	7398	5817	10843	6821	7435	6938	7901	8322
		D/S	2.6.24	1.6.24	29.5.24	27.6.24		25.6.24	12.6.24	14.6.24			5.6.24	6.6.24
		D/P	4.7.24	29.6.24	28.6.24	27.7.24		22.7.24	7.7.24	11.7.24			8.7.24	4.7.24
		Gross Plot Size (Sq. m)	10	10	10.26			10	12.6	9.9			10.64	8.1
		Net Plot Size (Sq. m)	10	10	8.42			10	10.8	9			8.3	7.02
		Zonal Check Variety	PR-121	PR-121	PR-121	PR-121		CR Dhan-300	CR Dhan-300	CR Dhan-300			CR Dhan-300	CR Dhan-300
		Local Check Variety	HKR 128	Pant Dhan 4	PR 131	NDR 3112		Bioseed 799	TMRV 3618	BB-11			Pratikshya	CR Dhan 316

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix- 7(Contd.): Grain Yield (kg/ha) of hybrids in IHRT-Medium, Kharif 2024

S. No.	IET No.	Name	Zone-3										Zone-4					Zone-5 (Contd..)									
			JH-Z5					BR-Z5					Zone-3					Zone-4					Zone-5 (Contd..)				
			RCI	BYR	TRMH_RCI	JH-Z3_(3)	DNG	Zone-3_(9)	TTB	WRS	RPR	VNS	CH-Z5_(2)	MP-Z5	CG-Z5_(2)	MH-Z5_(Contd..)											
1	33051	TMRH-2151	5400	7015	8446	6954	6264	6517	7247(6)	6167(7)	5228	5921	5574	4330	4768												
2	33052	SHX-2783	5800	7046(10)	7183	6677	6866(10)	6192	6753	7770(1)	7418(6)	6706	7062	5882	6390(3)												
3	33053	NDLRH-563	3500	5457	7504	5487	5348	5356	4733	6041(9)	6375	7098	6736	7000(6)	4930												
4	33054	Indam 200-059	4867	5818	10020(3)	6902	7334(6)	6540	6696(3)	6696(3)	4673	7798(10)	6235	4662	4798												
5	33055	VNR-239	6100(5)	7179(8)	9111	7463(6)	7563(5)	6982	7140(8)	5811	7622(3)	8858(4)	8240(3)	7257(4)	5175												
6	33056	BRI-22021	6000(7)	7573(7)	8665	7413(8)	5925	7027(8)	6623	5830	6204	7614	6909	6943(9)	5693(10)												
7	33057	BAYR-4405	6600(2)	8642(2)	7005	7416(7)	6828	6835	5947	5859(10)	7638(2)	4478	6058	6963(8)	5667												
8	33058	ADVRH-200685	5833	6937	8255	7008	5092	5904	6433	5018	6407	8085(9)	7246(8)	5787	5237												
9	33059	STAR-130	4600	6664	8876	6713	4249	5770	6483	4585	6080	8347(7)	7214(9)	5623	4864												
10	33060	BAYR-4406	5400	8027(3)	8507	7311	5096	6579	7560(3)	5045	7290(7)	5904	6597	5740	5469												
11	33061	ADVRH-21-0056	5133	6979	8750	6954	6245	6337	6300	4026	5989	8351(6)	7170(10)	6597	5127												
12	33062	JRH-141	3733	6323	6416	5491	2911	4716	4090	3585	4249	6374	5312	3725	4048												
13	33063	BAYR-4407	5867(10)	7762(5)	8397	7342	7009(7)	6983	5890	7041(2)	7559(4)	9610(1)	8585(2)	6759(10)	6395(2)												
14	33064	3A9029	6167(4)	6367	10118(2)	7551(4)	5476	6357	6827(10)	4804	6464	7194	6829	5597	6386(4)												
15	33065	BAYR-4408	5800	7696(6)	9375	7624(3)	6844	7173(6)	6770	6108(8)	6778(9)	7715	7246(7)	7203(5)	5772(9)												
16	33066	JRH-142	3767	6175	7760	5901	2806	4436	3037	3563	3332	5023	4177	3262													
17	33067	NPH-X86	4967	6592	9602(9)	7054	6068	6923	6453	6222(6)	5908	7278	6593	5007	5303												
18	33068	NK-7010	7333(1)	6601	7894	7276	6998(8)	6998(9)	7180(7)	6434(4)	8186(1)	9116(2)	8651(1)	7480(2)	5776(8)												
19	33069	NPH-X92	6600(2)	6411	9432(10)	7481(5)	5036	6916	7317(5)	4415	5990	6555	6272	6993(7)	5171												
20	33070	BS-336	4933	6804	9209	6982	6011	6766	6563	4959	6185	6955	6570	6140	4702												
21	33071	NK-7012	5133	8891(1)	9899(4)	7974(1)	6783	7732(1)	7090(9)	4978	7468(5)	8103(8)	7786(4)	6229	5136												
22	33072	DLRH-11	4633	6043	9144	6607	4335	5614	5133	4355	6042	5475	5758	5559	4114												
23	33073	IIRRH-179	5567	7009	9396	7324	4945	6364	5780	5704	6254	9048(3)	7651(5)	5910	6022(5)												
24	33074	TNTRH-80	4700	7149(9)	6015	5955	2663	4517	5980	2767	3411	5472	4442	3311													
25	33075	PHI-24109	5367	7843(4)	9724(6)	7645(2)	5119	7079(7)	6607	5100	6659(10)	5888	6274	7860(1)	5991(6)												
26	33076	TNTRH-81	3900	3921	6271	4697	2497	4001	5377	3078	3157	3979	3568	3425													
27	33077	PHI-24110	5767	6758	9631(8)	7385(9)	8441(1)	7615(3)	7323(4)	4948	6033	7200	6617	6590	5329												
28	33078	CRHR-192	4967	6787	10252(1)	7335	8019(2)	7673(2)	5930	4078	5639	7216	6428	6240	6526(1)												
29	33079	PHI-24111	5900(9)	7007	9124	7343	7733(4)	7511(4)	7607(1)	4729	6339	8586(5)	7462(6)	7341(3)	5912(7)												
30	33080	CRHR-193	4700	5622	8320	6214	7913(3)	6996(10)	6520	4085	5838	5751	5794	5543	4706												
31	AZ8433DT (NCH)		6033(6)	6255	9818(5)	7369(10)	6425	6799	7600(2)	6322(5)	7012(8)	7066	7039	6278	5368												
32	NDR-359 (NCV)		5367	6526	8024	6639	5465	6184	5977	5370	6049	6205	6127	5127	5662												
33	Zonal Check Variety		5933(8)	5138	6875	5982	3213	5394	5490	3922	3487	4823	4155	3533	5136												

Annual Progress Report 2024 Vol. I – Varietal Improvement

S. No.	IET No.	Name	Zone-3										Zone-4					Zone-5 (Contd..)				
			JH-Z5					BR-Z5		Zone-3_3_(9)	Zone-4		MP-Z5		CG-Z5_(2)			MH-Z5_(Contd..)				
			RCI	BYR	TRMH_RCI	JH-Z3_(3)	DNG	Zone-3_3_(9)	TTB	WRS	RPR	VNS	CH-Z5_(2)	SND	ANKN							
34		Local Check Variety	3600	5928	9724(7)	6417	6908(9)	6468	5573	5522	4913	5107	4308									
		Exp. Mean	5293	6734	8610	6879	5777	6415	6290	5145	5996	5798	5291									
		CD(0.05)	1087	1045	1952	897	475	630	1331	754	818	1126	584									
		CV(%)	12.6	9.52	13.91	8	5.04	6.02	12.98	8.99	8.36	11.92	6.77									
		F val	5.57	6.86	2.88	5.38	93.52	18.52	4.57	18.5	20.31	10.34	12.46									
		NHC+CD (0.05)	7120	7300	11770	8266	6900	7429	8931	7076	7830	7404	5952									
		BVC+CD (0.05)	7020	7571	11676	7536	7383	7098	7308	6276	6867	6253	6246									
		D/S	9.6.24	25.6.24	6.7.24		1.7.24		10.7.24	28.6.24	1.7.24	24.6.24	19.6.24									
		D/P	17.8.24	8.8.24	2.8.24		3.8.24		13.8.24	18.7.24	2.8.24	17.7.24	15.7.24									
		Gross Plot Size (Sq. m)	10	10	12.6		10.98		10	10	10.5	10	9.36									
		Net Plot Size (Sq. m)	10	10	10.8		8.85		10	9	7.92	7.48	7.6									
		Zonal Check Variety	CR Dhan-300	CR Dhan-300	CR Dhan-300		CR Dhan-300		CR Dhan-300	IR-64	IR-64	IR-64	IR-64									
		Local Check Variety		MTU 1001	TMRV 3618		R. Sweta		Shraboni	JR 206	Indira Maheshwari	Mahamaya	Ankur Padma									

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix- 7(Contd..): Grain Yield (kg/ha) of hybrids in IHRT-Medium, Kharif 2024

S. No.	IET No.	Name	Zone-5				Zone-6						
			MH-Z5 _(2)	Zone-5 _(5)	MH-Z6			GJ-Z6					
					KJT	SHR	PDG	MH_Z6 _(3)	MH overall _(5)	NWG	NVS	GJ-Z6 _(2)	Zone- 6 _(5)
1	33051	TMRH-2151	4549	5283	4391	4157	4410	4319	4411	3976	4919	4448	4371
2	33052	SHX-2783	6136(10)	6833(4)	4825	6564(4)	6235	5875(8)	5979(8)	8616(1)	5413	7014(4)	6331(3)
3	33053	NDLRH-563	5965	6289	5326	5504	4913	5248	5535	5419	2616	4018	4756
4	33054	Indam 200-059	4730	5726	5446	6234(10)	4696	5458	5167	6023	5193	5608	5518
5	33055	VNR-239	6216(9)	6945(3)	6684(1)	6461(6)	6861(1)	6669(1)	6488(1)	4691	3996	4343	5738
6	33056	BRI-22021	6318(7)	6457(8)	5991(7)	6863(1)	5931	6262(3)	6284(4)	5657	6386(10)	6021	6166(4)
7	33057	BAYR-4405	6315(8)	6121	5956(9)	4054	6082	5364	5744	6238(8)	6834(8)	6536(7)	5833(10)
8	33058	ADVRH-200685	5512	6107	4958	4661	5610	5076	5251	4825	5588	5206	5128
9	33059	STAR-130	5244	5900	4052	4894	6182(9)	5043	5123	5172	5888	5530	5238
10	33060	BAYR-4406	5605	5890	5894(10)	5733	6500(4)	6042(7)	5867(10)	6391(7)	6234	6312(10)	6150(5)
11	33061	ADVRH-21-0056	5862	6018	4796	4889	5908	5197	5463	7127(3)	4019	5573	5348
12	33062	JRH-141	3887	4396	3062	3804	3258	3375	3580	4076	3981	4028	3636
13	33063	BAYR-4407	6577(4)	7473(1)	5736	3866	6147	5250	5780	4554	7594(5)	6074	5579
14	33064	3A9029	5991	6089	5124	6234(9)	5870	5743	5842	5837	6146	5992	5842(9)
15	33065	BAYR-4408	6488(5)	6715(5)	4197	6547(5)	5795	5513	5903(9)	7294(2)	8376(2)	7835(1)	6442(2)
16	33066	JRH-142	3262	3795	3021	5035	2523	3526	3460	2294	3047	2670	3184
17	33067	NPH-X86	5155	5943	4533	4202	5847	4861	4978	6445(5)	7867(4)	7156(2)	5779
18	33068	NK-7010	6628(2)	7398(2)	6242(6)	5330	6649(3)	6074(6)	6295(3)	6087(10)	7968(3)	7027(3)	6455(1)
19	33069	NPH-X92	6082	5825	5170	4059	6337(6)	5189	5546	5819	6872(7)	6345(9)	5651
20	33070	BS-336	5421	5788	5425	3516	5792	4911	5115	5517	6150	5833	5280
21	33071	NK-7012	5683	6383(10)	5843	6410(7)	6491(5)	6248	6022(7)	3976	5348	4662	5614
22	33072	DLRH-11	4837	5109	4836	5927	4753	5172	5038	4536	5538	5037	5118
23	33073	IIRRH-179	5966	6588	3670	3528	6153(10)	4451	5057	4762	4106	4434	4444
24	33074	TNTRH-80	3311	3740	4840	3780	2228	3616	3540	1845	2522	2184	3043
25	33075	PHI-24109	6926(1)	6300	6440(3)	4324	5747	5504	6073(6)	7082(4)	6914(6)	6998(5)	6101(6)
26	33076	TNTRH-81	3491	3439	3036	3558	2028	2874	3121	1526	2249	1887	2479
27	33077	PHI-24110	5960	6020	5965(8)	5349	5931	5748(10)	5833	6417(6)	6496(9)	6456(8)	6031(7)
28	33078	CRHR-192	6383(6)	5940	6385(4)	6741(2)	5822	6316(2)	6343(2)	5322	2663	3992	5387
29	33079	PHI-24111	6626(3)	6581(7)	6329(5)	4978	6222(8)	5843(9)	6156(5)	5916	5656	5786	5820
30	33080	CRHR-193	5125	5185	6503(2)	6640(3)	5327	6157(5)	5744	5789	3263	4526	5504
31	AZ8433DT (NCH)		5823	6409(9)	5684	4239	6698(2)	5541	5654	3997	9157(1)	6577(6)	5955(8)
32	NDR-359 (NCV)		5394	5683	4238	3921	5043	4401	4798	5352	5538	5445	4818

Annual Progress Report 2024 Vol. I – Varietal Improvement

		Zone-5					Zone-6						
S. No.	IET No.	Name	MH-Z5	Zone-5	MH-Z6					GJ-Z6			Zone-6
			_(2)	_(5)	KJT	SHR	PDG	MH_Z6	MH overall	NWG	NVS	_(2)	
33		Zonal Check Variety	4335	4180	4820	3903	4547	4423	4388	6183(9)	5235	5709	4938
34		Local Check Variety	4707	5269	5326	6238(8)	4761	5442	5148	5980	5390	5685	5539
		Exp. Mean	5486	5818	5140	5063	5391	5198	5315	5316	5446	5381	5271
		CD(0.05)	711	406	907	906	465	449	409	731	827	546	308
		CV(%)	7.95	4.28	10.83	10.98	5.29	5.3	4.72	8.44	9.32	6.22	3.58
		F val	15.27	46.39	9.94	12.3	57.96	32.11	36.54	33.37	36.27	52.23	79.17
		NHC+CD (0.05)	6534	6815	6591	5145	7163	5990	6063	4728	9984	7123	6263
		BVC+CD (0.05)	6105	6089	6233	7144	5508	5891	5557	6914	6365	6255	5847
		D/S			10.6.24	10.6.24	8.6.24			19.6.24	13.6.24		
		D/p			4.7.24	1.7.24	2.7.24			23.7.24	9.7.24		
		Gross Plot Size (Sq. m)			7.92	6.68	8.55			9	10.71		
		Net Plot Size (Sq. m)			5.67	4.66	6.12			6.72	8.78		
		Zonal Check Variety			Akshayadhan	Akshayadhan	Akshayadhan	Akshayadhan		Akshayadhan	Akshayadhan		
		Local Check Variety			Karjat-5	Ratnagiri 4	Karjat-9			GAR-13	GNR-3		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix- 7(Contd..): Grain Yield (kg/ha) of hybrids in IHRT-Medium, Kharif 2024

		Zone-7												
S. No.	IET No.	Name	AP-Z7		TG-Z7			KA-Z7		TN-Z7		PY-Z7		Overall_ (30)
			MTU	IIRR	WGL	TG-Z7_(2)	MND	CBT	KRK	Zone-7_(6)				
1	33051	TMRH-2151	5809	7473	6299	6886	7294	4553	6011	6240	5905			
2	33052	SHX-2783	6113	9236(8)	8308(10)	8772(8)	9024	8165	6333(9)	7863	6890(10)			
3	33053	NDLRH-563	7090(10)	8463	8684(7)	8573	6043	8400(7)	5511	7365	5790			
4	33054	Indam 200-059	7329(6)	9111(9)	8217	8664(10)	9162	7147	5811	7796	6778			
5	33055	VNR-239	7944(1)	8214	9989(1)	9102(7)	8709	9741(2)	4556	8192(5)	6860			
6	33056	BRI-22021	7860(2)	9686(4)	8953(5)	9319(4)	9993(9)	6890	5522	8151(6)	6920(9)			
7	33057	BAYR-4405	6343	10207(1)	8400(9)	9303(5)	9638	8829(6)	6089	8251(3)	6948(8)			
8	33058	ADVRH-200685	6175	9353(7)	8075	8714(9)	9858	7801	4667	7655	6316			
9	33059	STAR-130	7218(8)	7950	6036	6993	9907	7547	5022	7280	6150			
10	33060	BAYR-4406	4590	8869	7815	8342	8145	7724	7000(4)	7357	6719			
11	33061	ADVRH-21-0056	5201	8513	8546(8)	8530	9115	6959	5844	7363	6466			
12	33062	JRH-141	2154	6954	4691	5823	4397	5639	5345	4863	4544			
13	33063	BAYR-4407	5842	9917(3)	8920(6)	9419(3)	10947(4)	7547	7567(1)	8457(2)	7232(3)			
14	33064	3A9029	5902	7043	8281	7662	11236(3)	7474	4745	7447	6483			
15	33065	BAYR-4408	5520	8123	8084	8104	10526(5)	9562(4)	7411(2)	8204(4)	7245(2)			
16	33066	JRH-142	2328	5086	3823	4454	290	5091	5678	3716	3953			
17	33067	NPH-X86	5492	7055	7202	7128	9824	7147	5167	6981	6445			
18	33068	NK-7010	6186	9925(2)	9749(2)	9837(1)	12682(1)	8143	5167	8642(1)	7451(1)			
19	33069	NPH-X92	5055	8206	7558	7882	4886	9694(3)	5322	6787	6603			
20	33070	BS-336	5573	8486	7920	8203	9893	5965	6033	7312	6417			
21	33071	NK-7012	4643	8435	6200	7317	9086	8255(8)	4444	6844	6890			
22	33072	DLRH-11	7791(3)	9508(5)	5624	7566	10259(6)	9848(1)	5233	8044(8)	5955			
23	33073	IIRRH-179	5183	8897	5831	7364	11330(2)	8124	4833	7366	6260			
24	33074	TNTRH-80	1777	6025	3411	4718	6665	3000	5289	4361	4053			
25	33075	PHI-24109	6113	8980(10)	7797	8388	9934(10)	8186(9)	4922	7655	7020(6)			
26	33076	TNTRH-81	3069	6233	3768	5001	9604	6525	6889(5)	6015	4094			
27	33077	PHI-24110	6854	9453(6)	9470(3)	9461(2)	7685	7336	7311(3)	8018(10)	7103(5)			
28	33078	CRHR-192	7132(9)	7661	7567	7614	3158	6984	4411	6152	6311			
29	33079	PHI-24111	7285(7)	8927	9428(4)	9178(6)	10187(8)	6727	5633	8031(9)	7182(4)			
30	33080	CRHR-193	6437	8747	6717	7732	2724	8895(5)	6578(8)	6683	6305			
31	AZ8433DT (NCH)		7563(4)	8290	7997	8144	10217(7)	8177(10)	6311(10)	8092(7)	6969(7)			
32	NDR-359 (NCV)		7469(5)	7663	7756	7710	8490	7034	4867	7213	6151			
33	Zonal Check Variety		4231	7889	6507	7198	8458	7179	6611(6)	6812	5464			

Annual Progress Report 2024 Vol. I – Varietal Improvement

		Zone-7											
S. No.	IET No.	Name	AP-Z7		TG-Z7			KA-Z7		TN-Z7	PY-Z7	Zone-7_(6)	Overall_(30)
			MTU	IIRR	WGL	TG-Z7_(2)	MND	CBT	KRK				
34		Local Check Variety	6109	5364	6256	5810	8329	5649	6578(7)	6381	6062		
		Exp. Mean	5805	8234	7349	7791	8462	7410	5727	7164	6292		
		CD(0.05)	838	1955	1205	1235	1202	1234	995	593	277		
		CV(%)	8.85	14.57	10.06	9.72	8.72	10.22	10.66	5.08	2.7		
		F val	29.89	3.36	15.9	9.76	39.87	11.7	6.33	29.13	87.02		
		NHC+CD (0.05)	8401	10245	9202	9379	11419	9411	7306	8685	7246		
		BVC+CD (0.05)	8307	9844	8961	8945	9692	8413	7606	7806	6428		
		D/S	7.7.24	1.7.24	18.6.24		14.8.24	6.6.24	3.9.24				
		D/P	30.7.24	13.8.24	12.7.24		10.9.24	3.7.24	10.10.24				
		Gross Plot Size (Sq. m)	9.9	6.435	7.29		9.4	11.88	4.2				
		Net Plot Size (Sq. m)	7.56	4.950	7.29		8.32	9	3				
		Zonal Check Variety	Jaya	Jaya	Jaya		Jaya	Jaya	Jaya				
		Local Check Variety	MTU 1239	DRR Dhan 38	WGL 14		Thanu	Co 56	KKLR 2				

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix-8: Days to 50% Flowering (DFF) of hybrids in IHRT-Medium, Kharif 2024

S.No.	IET No.	Name	Zone-2										Zone-3(Contd..)								
			HR-Z2		UK-Z2		PB-Z2		UP-Z2		Zone-2_(4)		UP-Z3			UP-Z3_(3)		UP overall_(4)	WB-Z3		OD-Z3
			KUL	PNT	LDN	NGN	LDN	NGN	LDN	NGN	BIS	TRMH_BE	IDAS	UP-Z3_(3)	UP-Z3_(3)	UP-Z3_(3)	UP-Z3_(3)	UP-Z3_(3)	UP-Z3_(3)	CHN	CTK
1	33051	TMRH-2151	96	99	92	95	92	95	95	96	81	89	90	87	89	97	96	97	96		
2	33052	SHX-2783	106	106	108	108	108	107	107	107	93	95	96	95	98	111	111	111	99		
3	33053	NDLRH-563	121	135		126	128	128	128	128	112	104	125	114	117	134	134	134	108		
4	33054	Indam 200-059	105	104	103	103	104	104	104	104	92	94	95	94	96	109	104	109	104		
5	33055	VNR-239	128	141		121	130	130	130	130	114	107	121	114	116	131	131	131	102		
6	33056	BRI-22021	98	104	105	103	102	102	102	102	89	93	95	92	95	107	107	107	103		
7	33057	BAYR-4405	108	113	113	113	112	112	112	112	97	102	103	101	104	112	112	112	99		
8	33058	ADVRH-200685	97	106	111	100	104	104	104	104	84	93	98	92	94	105	105	105	104		
9	33059	STAR-130	98	102	104	102	102	102	102	102	87	95	95	92	95	108	108	108	100		
10	33060	BAYR-4406	103	107	111	107	107	107	107	107	91	96	99	95	98	109	109	109	101		
11	33061	ADVRH-21-0056	104	108	109	104	106	106	106	106	91	97	96	95	97	108	108	108	98		
12	33062	JRH-141	102	101	105	100	102	102	102	102	84	92	94	90	92	104	104	104	105		
13	33063	BAYR-4407	109	109	111	113	111	111	111	111	93	100	101	98	102	117	117	117	99		
14	33064	3A9029	100	109	109	105	106	106	106	106	95	110	101	102	103	113	113	113	102		
15	33065	BAYR-4408	101	105	110	110	106	106	106	106	90	95	95	93	98	105	105	105	102		
16	33066	JRH-142	106	107	104	113	108	108	108	108	92	100	100	97	101	109	109	109	105		
17	33067	NPH-X86	101	101	102	104	102	102	102	102	90	95	96	93	96	104	104	104	105		
18	33068	NK-7010	110	108	110	113	110	110	110	110	95	100	99	98	102	112	112	112	101		
19	33069	NPH-X92	99	106	109	110	106	106	106	106	93	97	95	95	99	110	110	110	104		
20	33070	BS-336	110	106	107	103	107	107	107	107	97	96	97	97	98	110	110	110	102		
21	33071	NK-7012	105	106	111	109	108	108	108	108	100	99	100	102	104	109	109	109	104		
22	33072	DLRH-11	126	132		116	125	125	125	125	105	119	113	113	102	113	113	113	102		
23	33073	IIRRH-179	106	105	107	105	106	106	106	106	90	96	100	95	98	109	109	109	94		
24	33074	TNTRH-80	104	127	101	115	112	112	112	112	90	94	102	95	100	115	115	115	104		
25	33075	PHI-24109	102	106	111	106	106	106	106	106	93	96	100	96	99	110	110	110	100		
26	33076	TNTRH-81	101	103	105	108	104	104	104	104	90	95	99	95	98	110	110	110	95		
27	33077	PHI-24110	99	101	105	101	102	102	102	102	90	96	95	93	95	107	107	107	102		
28	33078	CRHR-192	125	128	126	122	125	125	125	125	106	108	116	110	113	125	125	125	101		
29	33079	PHI-24111	107	106	106	103	106	106	106	106	92	98	101	97	98	109	109	109	100		
30	33080	CRHR-193	105	128	106	120	118	118	118	118	102	92	115	103	107	123	123	123	102		
31	AZ8433DT (NCH)		111	108	110	111	110	110	110	110	98	99	101	99	102	117	117	117	104		
32	NDR-359 (NCV)		104	104	104	101	103	103	103	103	91	95	99	95	96	108	108	108	98		
33	Zonal Check Variety		107	109	103	111	107	107	107	107	108	90	129	110	133	133	133	133	105		
34	Local Check Variety		97	100	108	93	100	100	100	100	97	114	118	109	105	115	115	115	103		
Exp. Mean			105	110	107	108	108	108	108	108	94	98	102	98	101	112	112	112	101		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix-8 (contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Medium, Kharif 2024

S. No.	IET No.	Name	Zone-3					Zone-4		Zone-5(Contd..)						
			JH-Z3		BR-Z3		Zone-3 (9)	AS-Z4	MP-Z5	RPR	VNS	CG-Z5 (2)	MH-Z5(Contd..)			
			RCI	BYR	TRMH_RCI	JH-Z3 (3)	DNG	Zone-3 (9)	TTB	WRS					SND	ANKN
1	33051	TMRH-2151	103	105	88	99	108	95	106	83	89	93	91	88	92	
2	33052	SHX-2783	114	108	98	107	110	103	112	93	100	100	100	100	101	
3	33053	NDRH-563	119	111	108	113	120	116	115	104	111	115	113	118	117	
4	33054	Indam 200-059	109	108	97	105	108	102	107	89	98	96	97	97	99	
5	33055	VNR-239	113	111	93	106	115	112	106	103	104	117	110	83	114	
6	33056	BRI-22021	109	109	92	103	109	101	106	92	97	95	96	93	99	
7	33057	BAYR-4405	113	110	95	106	109	105	110	96	102	102	102	100	104	
8	33058	ADVRH-200685	110	106	92	103	110	100	104	87	101	98	100	95	98	
9	33059	STAR-130	110	106	85	100	108	99	105	93	96	96	96	95	98	
10	33060	BAYR-4406	114	109	100	108	109	103	110	93	100	100	100	93	105	
11	33061	ADVRH-21-0056	109	107	88	102	108	100	108	87	97	98	98	98	100	
12	33062	JRH-141	107	109	82	99	107	98	107	88	97	93	95	90	97	
13	33063	BAYR-4407	113	110	95	106	109	104	112	95	101	100	100	101	105	
14	33064	3A9029	109	108	91	103	109	104	110	94	100	102	101	100	104	
15	33065	BAYR-4408	110	108	92	103	108	100	109	89	99	96	98	97	99	
16	33066	JRH-142	113	109	102	108	113	105	111	95	100	91	96	97	102	
17	33067	NPH-X86	111	108	90	103	107	101	105	89	98	96	97	96	99	
18	33068	NK-7010	115	113	97	108	115	105	89	92	101	100	101	104	103	
19	33069	NPH-X92	108	110	97	105	108	102	110	95	101	97	99	97	104	
20	33070	BS-336	115	109	90	105	110	103	109	89	100	100	100	102	103	
21	33071	NK-7012	112	108	93	104	115	104	102	95	101	97	99	101	106	
22	33072	DLRH-11	109	108	96	104	110	108	103	99	102	112	107	114	108	
23	33073	IARRH-179	109	110	88	102	110	101	109	88	98	94	96	93	99	
24	33074	TNTRH-80	121	113	96	110	122	106	116	92	103	99	101	94	99	
25	33075	PHI-24109	109	108	93	103	108	102	109	92	100	97	98	94	101	
26	33076	TNTRH-81	113	112	100	108	109	103	108	92	103	98	100	95	100	
27	33077	PHI-24110	110	107	90	102	108	100	105	93	100	96	98	97	100	
28	33078	CRHR-192	120	114	102	112	118	112	115	104	111	114	112	114	109	
29	33079	PHI-24111	111	110	93	105	109	103	108	93	99	99	99	100	103	
30	33080	CRHR-193	120	117	107	115	116	110	120	98	111	110	110	113	116	
31	AZ8433DT (NCH)		114	108	93	105	109	105	110	95	100	99	100	102	105	
32	NDR-359 (NCV)		107	107	88	101	109	100	109	95	98	97	98	100	101	
33	Zonal Check Variety		120	116	105	114	133	115	119	82	92	85	89	89	90	
34	Local Check Variety		103	107	100	103	110	107	108	81	103	83	93	98	111	
Exp. Mean			111	109	94	105	111	104	108	92	100	98	100	98	102	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix-8 (contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Medium, Kharif 2024

S. No.	IET No.	Name	Zone-5					Zone-6					
			MH-Z5_(2)	Zone-5_(5)	KJT	SHR	PDG	MH-Z6_(3)	MH overall_(5)	NWG	NVS	GJ-Z6_(2)	Zone-6_(6)
1	33051	TMRH-2151	90	89	88	78	93	86	88	105	89	97	90
2	33052	SHX-2783	100	99	98	93	101	97	99	106	99	102	99
3	33053	NDLRH-563	118	113	108	115	114	113	115	120	125	122	116
4	33054	Indam 200-059	98	96	98	90	99	96	97	104	99	102	98
5	33055	VNR-239	98	104	114	111	110	112	106	117	116	116	113
6	33056	BRI-22021	96	95	92	92	96	93	94	102	97	99	96
7	33057	BAYR-4405	102	101	100	98	105	101	102	107	101	104	102
8	33058	ADVRH-200685	96	96	92	86	93	91	93	105	87	96	93
9	33059	STAR-130	96	96	99	93	99	97	97	104	99	101	99
10	33060	BAYR-4406	99	98	96	95	101	97	98	107	100	103	100
11	33061	ADVRH-21-0056	99	96	98	92	100	97	98	105	88	96	97
12	33062	JRH-141	94	93	88	85	97	90	91	102	89	95	92
13	33063	BAYR-4407	103	100	96	97	100	98	100	108	97	102	100
14	33064	3A9029	102	100	97	94	105	99	100	105	89	97	98
15	33065	BAYR-4408	98	96	97	92	98	96	97	103	94	98	97
16	33066	JRH-142	100	97	92	95	98	95	97	112	97	104	99
17	33067	NPH-X86	98	96	94	95	98	96	96	102	94	98	97
18	33068	NK-7010	103	100	90	90	100	93	97	105	97	101	96
19	33069	NPH-X92	101	99	101	96	101	99	100	109	97	103	101
20	33070	BS-336	102	98	99	98	99	99	100	108	89	98	99
21	33071	NK-7012	104	100	102	97	102	100	102	106	95	100	100
22	33072	DLRH-11	111	107	109	91	109	103	106	115	88	101	102
23	33073	IRRH-179	96	94	91	91	96	93	94	104	98	101	96
24	33074	TNTRH-80	96	97	95	96	97	96	96	113	95	104	99
25	33075	PHI-24109	98	97	95	96	101	97	97	105	98	101	99
26	33076	TNTRH-81	97	98	92	88	97	92	94	102	94	98	94
27	33077	PHI-24110	99	97	94	93	100	96	97	105	99	102	98
28	33078	CRHR-192	112	110	113	112	113	113	112	113	112	112	112
29	33079	PHI-24111	102	99	100	95	102	99	100	107	101	104	101
30	33080	CRHR-193	114	109	110	113	112	112	113	113	110	111	112
31	AZ8433DT (NCH)		104	100	101	96	102	99	101	106	99	102	101
32	NDR-359 (NCV)		100	98	97	91	100	96	98	104	95	99	97
33	Zonal Check Variety		89	88	99	93	100	97	94	105	98	102	99
34	Local Check Variety		104	95	93	99	106	99	101	105	91	98	99
Exp. Mean			101	99	97	95	101	98	99	107	97	102	100

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix-8 (contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Medium, Kharif 2024

S. No.	IET No.	Name	Zone-7										Overall (30)			
			AP-Z7	TG-Z7			KA-Z7	TN-Z7	PY-Z7	Zone-7 (6)						
			MTU	IIRR	WGL	TG-Z7 (2)	MND	CBT	KRK							
1	33051	TMRH-2151	77	96	89	93	87	92	91	89	92	91	89	92	92	92
2	33052	SHX-2783	94	108	100	104	101	104	102	101	104	102	101	104	102	102
3	33053	NDRH-563	108	114	112	113	101	109	104	108	109	104	108	108	115	115
4	33054	Indam 200-059	86	103	96	99	101	102	101	98	102	101	98	102	100	100
5	33055	VNR-239	97	98	107	102	80	106	82	95	106	82	95	109	109	109
6	33056	BRI-22021	88	106	94	100	102	102	97	98	102	97	98	102	99	99
7	33057	BAYR-4405	100	110	100	105	101	105	91	101	105	91	101	104	104	104
8	33058	ADVRH-200685	81	102	91	96	91	94	93	92	94	93	92	97	97	97
9	33059	STAR-130	83	103	96	100	94	99	92	94	99	92	94	98	98	98
10	33060	BAYR-4406	96	106	96	101	101	103	102	101	103	102	101	102	102	102
11	33061	ADVRH-21-0056	89	104	95	99	96	99	91	96	99	91	96	99	99	99
12	33062	JRH-141	82	99	91	95	89	95	102	93	95	102	93	96	96	96
13	33063	BAYR-4407	97	110	100	105	102	103	101	102	103	101	102	103	103	103
14	33064	3A9029	94	105	99	102	98	101	101	100	101	101	100	102	102	102
15	33065	BAYR-4408	90	105	95	100	101	102	100	99	102	100	99	100	100	100
16	33066	JRH-142	89	105	96	100	106	103	102	100	103	102	100	102	102	102
17	33067	NPH-X86	86	105	97	101	100	101	104	99	101	104	99	99	99	99
18	33068	NK-7010	90	110	100	105	98	102	103	101	102	103	101	102	102	102
19	33069	NPH-X92	90	107	96	101	105	105	104	101	105	104	101	102	102	102
20	33070	BS-336	100	104	96	100	99	99	95	99	99	95	99	101	101	101
21	33071	NK-7012	93	108	101	104	103	104	100	101	104	100	101	103	103	103
22	33072	DLRH-11	99	97	102	100	85	105	82	95	105	82	95	106	106	106
23	33073	IIRRH-179	97	100	98	99	87	98	85	94	98	85	94	98	98	98
24	33074	TNTRH-80	102	111	100	105	108	103	105	105	103	105	105	104	104	104
25	33075	PHI-24109	89	105	96	100	94	101	95	97	101	95	97	100	100	100
26	33076	TNTRH-81	89	107	99	103	96	102	102	99	102	102	99	100	100	100
27	33077	PHI-24110	89	106	95	100	103	105	101	100	105	101	100	100	100	100
28	33078	CRHR-192	96	111	107	109	105	110	106	106	110	106	106	112	112	112
29	33079	PHI-24111	96	106	99	102	98	105	105	101	105	105	101	102	102	102
30	33080	CRHR-193	96	112	108	110	108	111	99	106	111	99	106	111	111	111
31	AZ8433DT (NCH)		100	109	100	105	102	106	102	103	106	102	103	104	104	104
32	NDR-359 (NCV)		89	106	97	101	100	103	105	100	103	105	100	100	100	100
33	Zonal Check Variety		84	100	93	97	101	101	91	95	101	91	95	103	103	103
34	Local Check Variety		108	108	104	106	99	113	111	107	113	111	107	103	103	103
Exp. Mean			92	105	98	102	98	102	98	99	102	98	99	102	102	102

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix 9: Centres (low performance) not included in the analysis of IHRT-Medium, Kharif 2024

S. No.	IET No.	Name	Grain Yield (Kg/ha)										Days to 50% Flowering (DFF)						
			Zone-3			Zone-4	Zone-5	Zone-6	Zone-7	Zone-3			Zone-4	Zone-5	Zone-6	Zone-7			
			UP-Z3	UP-Z3	BR-Z3	TR-Z4	MP-Z5	GJ-Z6	KA-Z7	UP-Z3	UP-Z3	BR-Z3	TR-Z4	MP-Z5	GJ-Z6	KA-Z7			
1	33051	TMRH-2151	@VRN	@MSD	@DAG	@ARD	@JBP	@DBI	@BRM	3367	100	90	114	77	95	95	95	101	
2	33052	SHX-2783	5930	6266	4383	6610(9)	6377	5013(7)	4579	109	100	112	75	101	101	105	110	110	
3	33053	NDLRH-563	5881	3108	5980	7100(6)	5420	4726	4608	126	114	130		106	106	109	121	121	
4	33054	Indam 200-059	5611	6408	7100(6)	7070(7)	5623	4843	4591	108	96	112	79	97	97	107	104	104	
5	33055	VNR-239	6068	4739	5547		6630(7)	5931(2)	4488	124	109	108		102	102	115	119	119	
6	33056	BRI-22021	5501	6012	5200	7450(4)	5770	4687	4772(10)	106	96	113	79	96	96	102	111	111	
7	33057	BAYR-4405	6416(7)	6821(6)	6950(7)	5420	6473	5206(4)	3203	109	104	116	78	100	100	108	113	113	
8	33058	ADVRH-200685	6308(8)	6041	5773	6350(10)	5510	4181	4687	100	94	113	78	95	95	95	111	111	
9	33059	STAR-130	6780(4)	5982	5523	4645	6530(10)	3357	4390	105	95	111	74	94	94	102	109	109	
10	33060	BAYR-4406	6078	5273	6217	7190(5)	6630(8)	5030(6)	2737	108	100	114	74	101	101	108	112	112	
11	33061	ADVRH-21-0056	5893	5553	7480(3)	5070	6230	4687	4495	104	95	112	75	99	99	102	102	102	
12	33062	JRH-141	4615	3646	4050	4810	4353	2696	4475	100	91	98	72	100	100	103	109	109	
13	33063	BAYR-4407	7629(2)	6475(10)	5743	7475(3)	5443	4584	5188(7)	111	103	113	77	99	99	110	111	111	
14	33064	3A9029	5520	4489	3463	9115(1)	5677	3427	4536	105	95	112	72	99	99	104	113	113	
15	33065	BAYR-4408	6244(9)	5473	7687(2)	7110(6)	7533(2)	4647	4541	133	96	108	82	98	98	107	113	113	
16	33066	JRH-142	3598	3872	3983	5130	4297	2445	5381(3)	111	107	129	83	106	106	105	128	128	
17	33067	NPH-X86	6549(5)	6208	5380	6095	7117(3)	5005(8)	4796(9)	106	96	112	73	97	97	105	111	111	
18	33068	NK-7010	6478(6)	5832	7267(4)	8795(2)	7667(1)	4397	4829(8)	110	101	115	77	100	100	107	116	116	
19	33069	NPH-X92	6205(10)	6529(9)	6227(10)	4965	6430	3750	4565	108	99	113	82	104	104	108	119	119	
20	33070	BS-336	5758	5941	7250(5)	5735	6160	5147(5)	4425	104	96	114	77	101	101	105	115	115	
21	33071	NK-7012	7315(3)	6692(8)	5743	5760	6470	4284	2707	108	97	111	78	100	100	109	128	128	
22	33072	DLRH-11	4715	7034(3)	4253	4020	6080	3084	2679	119	102	104	76	109	109	112	118	118	
23	33073	IIRH-179	5930	5832	6430(9)	5755	6603	3456	4670	107	98	112	81	97	97	107	106	106	
24	33074	TNTRH-80	3436	3596		2720	4333	4755	5295(4)	123	117	129	83	103	103	105	120	120	
25	33075	PHI-24109	8400(1)	6846(5)	7693(1)	4980	6147	6123(1)	3896	106	96	113	73	97	97	106	116	116	
26	33076	TNTRH-81	3790	3730	2430	2575	2710	3799	4215	105	96	117	82	98	98	104	116	116	
27	33077	PHI-24110	5243	7388(2)	5027	6000	6283	4863(9)	5427(2)	105	98	115	74	100	100	105	116	116	
28	33078	CRHR-192	6033	7447(1)	6473(8)	7025(8)	6180	4780	2754	121	105	115	83	107	107	108	120	120	
29	33079	PHI-24111	5930	7029(4)	6207	6170	6651(5)	4853(10)	2692	108	92	112	78	100	100	107	115	115	
30	33080	CRHR-193	6156	6750(7)	5747	5600	6056	5892(3)	3397	122	112	107	82	111	111	115	121	121	
31	AZ8433DT	(NCH)	6186	6141	4630	5095	6270	4028	4678	111	99	114	77	98	98	112	126	126	

Annual Progress Report 2024 Vol. I – Varietal Improvement

S. No.	IET No.	Name	Grain Yield (Kg/ha)										Days to 50% Flowering (DFF)						
			Zone-3			Zone-4		Zone-5		Zone-6	Zone-7	Zone-3			Zone-4	Zone-5	Zone-6	Zone-7	
			UP-Z3 @ VRN	UP-Z3 @ MSD	BR-Z3 @ DAG	TR-Z4 @ ARD	TR-Z4 @ JBP	MP-Z5 @ JBP	GJ-Z6 @ DBI	KA-Z7 @ BRM	UP-Z3 @ VRN	UP-Z3 @ MSD	BR-Z3 @ DAG	TR-Z4 @ ARD	MP-Z5 @ JBP	GJ-Z6 @ DBI	KA-Z7 @ BRM		
32	NDR-359 (NCV)		5398	5198	4880	5820	6660(4)	3848	5238(6)	108	98	115	85	101	105	119			
33	Zonal Check Variety		3608	4276	4433	5250	5653	3186	5755	124	105	130	82	86	109	117			
34	Local Check Variety		5184	5569	5513	6065	6640(6)	3660	5262(5)	106	102	111	78	101	111	110			
	Exp. Mean		5750	5700	5625	5845	6013	4387	4333	110	99	113	78	99	106	114			
	CD(0.05)		334	266	2119	279	287	497	993										
	CV(%)		3.57	2.87	23.1	2.92	2.93	6.95	14.06										
	F val		84.76	151.88	2.85	207.54	90.19	25.38	6.24										
	NHC+CD (0.05)		6520	6407	6749	5374	6557	4525	5671										
	BVC+CD (0.05)		5732	5835	7632	6344	6947	4345	6748										
	D/S		7.6.24	29.6.24	1.7.24	1.8.24	26.6.24	6.6.24	10.6.24										
	D/P		1.7.24	31.7.24	3.8.24	24.8.24	17.7.24	20.7.24	5.7.24										
	Gross Plot Size (Sq. m)		10	10.98	10	10	10	12.96	10										
	Net Plot Size (Sq. m)		4.86	7.99	8.85	10	7.99	10.2	7.12										
	Zonal Check Variety		CR Dhan-300	Dhan-300	Dhan-300	Dhan-300	IR-64	Akshayadhan	Jaya										
	Local Check Variety		Mahamaya	NDR 2064	R. Sweta	Indam 200-017	Kranti	GAR-13	MO 4										

@Data of MSD(Masodha), JBP(Jabalpur), ARD(Arundhatinagar) and VRN(Varanasi) not included in the analysis due to low C.V. Value;

@Data of DBI(Dabhoi) and BRM(Brahmavar) not included in the analysis due to low Exp.mean;

@Data of DAG (Delta Agri. Genetics) not included in the analysis due to high C.V. Value.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix- 10: Grain Yield (kg/ha) of hybrids in IIRT-Medium Slender, Kharif 2024

S. No.	IET No.	Name	Zone-3										Zone-5(Contd..)				
			WB-Z3		OD-Z3		JH-Z3		BR-Z3		MP-Z5		CG-Z5				
			CHN	CTK	RCI	BYR	JH-Z3_(2)	DNG	Zone-3_(5)	JBP	WRS	MP-Z5_(2)	RPR	VNS	CH-Z5(2)		
1	33081	BAYR-4614	6109(4)	4390(10)	4803(9)	6680(6)	5742(8)	6780(4)	5752(9)	6547(5)	5922(2)	6234(4)	5216(5)	7496(4)	6356(4)		
2	33082	TNTRH-151	4401(10)	5595(9)	4657(10)	6541(7)	5599(9)	4384(10)	5116(10)	4367(9)	4358(10)	4362(10)	3907(10)	3460(10)	3684(10)		
3	33083	BAYR-4615	5714(5)	7021(6)	5097(6)	6806(4)	5951(6)	6621(6)	6252(5)	6537(6)	5737(3)	6137(6)	4869	7330(5)	6100(7)		
4	33084	PHI-24101	4532(9)	6983(8)	6490(1)	6224(9)	6357(4)	6629(5)	6172(8)	7463(2)	6441(1)	6952(1)	5216(5)	8538(1)	6877(1)		
5	33085	PHI-24102	7192(2)	7642(3)	6123(3)	6787(5)	6455(3)	8079(1)	7165(1)	6613(4)	5734(4)	6174(5)	5787(2)	7808(2)	6798(2)		
6	33086	PHI-24103	5451(6)	7138(4)	5133	6494(8)	5814(7)	6908(3)	6225(6)	7003(3)	5588(6)	6296(3)	5418(3)	7708(3)	6563(3)		
7	27P63 (NCH)	4598(8)	7081(5)	6343(2)	7134(2)	6739(1)	6345(3)	6571(8)	6345(3)	8160(1)	5624(5)	6892(2)	5418(3)	6858(7)	6138(5)		
8	WGL-14 (NCV-1)	6995(3)	7710(2)	5097(6)	7893(1)	6495(2)	6934(2)	6975(2)	6934(2)	4603(8)	5236(8)	4920(8)	5903(1)	6351(8)	6127(6)		
9	BPT-5204 (NCV-2)	5255(7)	6993(7)	5463(4)	7085(3)	6274(5)	6610(7)	6610(7)	6281(4)	5800(7)	5432(7)	5616(7)	4857(8)	6957(6)	5907(8)		
10	Zonal Check Variety	7258(1)	7746(1)	4840(8)	6003(10)	5421(10)	6197(7)	5137(9)	6197(7)	4367(9)	4644(9)	4506(9)	4132(9)	6069(9)	5101(9)		
Exp. Mean		5750	6830	5405	6765	6085	6469	6469	6244	6146	5472	5809	5072	6858	5965		
CD(0.05)		1498	1101	749	731	412	538	538	400	510	768	439	742	1032	664		
CV(%)		15.19	9.4	8.08	6.3	3.95	4.85	4.85	3.73	4.84	8.18	4.41	8.52	8.77	6.49		
F val		4.81	8.09	7.14	4.63	9.98	31.62	31.62	17.55	59.98	5.49	39.45	6.79	16.14	17.92		
NHC+CD (0.05)		6096	8182	7092	8624	7151	7109	7109	6745	8616	6392	7331	6160	7890	6802		
BVC+CD (0.05)		8756	8847	6212	8624	6907	7513	7513	7334	6310	6200	6055	6645	7989	6791		
D/S		5.6.24	6.6.24	29.6.24			1.7.24	1.7.24		26.6.24	28.6.24		1.7.24	7.6.24			
D/P		3.7.24	8.7.24	7.8.24			3.8.24	3.8.24		17.7.24	1.8.24		2.8.24	1.7.24			
Gross Plot Size (Sq. m)		12.57	10.5	10			10.98	10.98		10	10		10.5				
Net Plot Size (Sq. m)		10.15	7.56	10			8.85	8.85		7.99	9.18		7.92	11.88			
Zonal Check Variety		Improved Samba Mahsuri	Improved Samba Mahsuri	Improved Samba Mahsuri	Improved Samba Mahsuri	Improved Samba Mahsuri	Improved Samba Mahsuri	Improved Samba Mahsuri	Improved Samba Mahsuri	Improved Samba Mahsuri	Improved Samba Mahsuri	Improved Samba Mahsuri	Improved Samba Mahsuri	Improved Samba Mahsuri	Improved Samba Mahsuri		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix- 10(Contd..): Grain Yield (kg/ha) of hybrids in IHRT-Medium Slender, Kharif 2024

S. No.	IET No.	Name	Zone-5						Zone-6					
			MH-Z5			MH-V_ (3)	Zone-5_ (7)	MH-Z6			MH-Z6_ (3)	MH Overall_ (6)	GJ-Z6 (Contd..)	
			SND	SKL	ANKN			KJT	SHR	PDG			NWG	NVS
1	33081	BAYR-4614	4897(8)	6567(6)	6292(2)	5919(4)	6134(6)	5099(8)	6688(3)	5345(7)	5711(7)	5815(6)	4068(9)	5470(5)
2	33082	TNTRH-151	4554(9)	4433(9)	4533(9)	4507(10)	4230(10)	3538(9)	4543(9)	3007(10)	3696(9)	4101(9)	4150(8)	3245(10)
3	33083	BAYR-4615	6137(3)	6667(5)	6712(1)	6505(1)	6284(3)	5126(7)	6280(6)	5889(6)	5765(6)	6135(4)	5348(3)	5713(3)
4	33084	PHI-24101	7297(4)	6833(4)	5341(3)	6490(2)	6733(1)	6451(2)	6930(1)	7795(1)	7059(2)	6775(1)	4993(4)	6292(2)
5	33085	PHI-24102	5404(4)	7167(2)	4556(8)	5709(6)	6153(5)	7737(1)	6874(2)	7014(3)	7208(1)	6458(2)	6466(1)	6505(1)
6	33086	PHI-24103	6384(2)	6533(7)	4642(6)	5853(5)	6182(4)	6420(3)	6547(5)	6269(4)	6412(3)	6132(5)	4954(5)	5595(4)
7	27P63 (NCH)		5305(6)	7933(1)	5048(4)	6095(3)	6335(2)	6346(4)	5195(7)	7495(2)	6345(4)	6220(3)	5465(2)	4972(7)
8	WGL-14 (NCV-1)		5187(7)	6100(8)	4627(7)	5305(7)	5430(8)	5281(5)	6596(4)	6175(5)	6017(5)	5661(7)	4859(6)	4363(8)
9	BPT-5204 (NCV-2)		3720(10)	6867(3)	4750(5)	5112(8)	5483(7)	5224(6)	4748(8)	5306(8)	5093(8)	5102(8)	4518(7)	5034(6)
10	Zonal Check Variety		5380(5)	4000(10)	4493(10)	4624(9)	4726(9)	3227(10)	4214(10)	3122(9)	3521(10)	4073(10)	3230(10)	3427(9)
Exp. Mean			5427	6310	5099	5612	5769	5445	5862	5742	5683	5647	4805	5062
CD(0.05)			1326	1200	520	721	392	779	881	516	548	455	900	944
CV(%)			14.25	11.09	5.94	7.49	3.96	8.34	8.76	5.24	5.62	4.7	10.92	10.87
F val			4.99	8.92	20.4	8.51	35.93	27.29	12.85	88.82	46.59	37.48	8.57	12.06
NHC+CD (0.05)			6631	9133	5568	6816	6727	7125	6076	8011	6893	6675	6365	5916
BVC+CD (0.05)			6706	8067	5270	6026	5875	6060	7477	6691	6565	6116	5759	5978
D/S			24.6.24	13.6.24	19.6.24			11.6.24	10.6.24	8.6.24			19.6.24	13.6.24
D/P			17.7.24	167.24	15.7.24			4.7.24	1.7.24	2.7.24			23.7.24	9.7.24
Gross Plot Size (Sq. m)			10	10	9.36			8.1	9.36	9.95			10.44	10.71
Net Plot Size (Sq. m)			7.48	10	7.6			5.76	6.93	7.43			8.1	8.78
Zonal Check Variety								Karjat-6	Karjat-6	Karjat-6			Karjat-6	Karjat-6

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix-10(Contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Medium Slender, Kharif 2024

S. No.	IET No.	Name	Zone-6					Zone-7										Overall_ (24)
			GI- Z6_(2)	Zone- 6_(5)	AP-Z7			TG-Z7			KA-Z7	TN-Z7	PY-Z7	Zone- 7_(7)				
					MTU	BPT	AP- Z7_(2)	IIRR	WGL	TG- Z7_(2)					MND	CBT	KRK	
1	33081	BAYR-4614	4769(7)	5334(7)	5087(6)	4286(7)	4686(7)	6299(7)	4176(9)	5238(9)	7145(7)	6697(7)	5322(6)	5573(9)	5724(7)			
2	33082	TNTRH-151	3697(9)	3696(9)	2689(10)	3285(10)	2987(10)	4898(10)	3817(10)	4358(10)	7930(3)	7285(3)	7478(1)	5340(10)	4627(10)			
3	33083	BAYR-4615	5530(3)	5671(5)	6234(4)	4740(6)	5487(4)	5824(8)	7377(5)	6601(6)	7153(6)	5727(10)	5456(5)	6073(6)	6088(5)			
4	33084	PHI-24101	5642(2)	6492(2)	5050(7)	4927(5)	4989(6)	7023(2)	9485(1)	8254(1)	7887(4)	6243(9)	6456(4)	6724(1)	6563(2)			
5	33085	PHI-24102	6486(1)	6919(1)	6086(5)	5526(2)	5806(3)	7297(1)	7577(4)	7437(2)	8334(2)	7097(5)	4933(7)	6693(2)	6681(1)			
6	33086	PHI-24103	5275(4)	5957(3)	6985(1)	5183(3)	6084(2)	6372(5)	7975(2)	7174(3)	7723(5)	7162(4)	4533(9)	6562(4)	6255(3)			
7	27P63 (NCH)		5219(5)	5895(4)	3804(9)	4162(8)	3983(9)	6654(3)	7235(7)	6944(5)	9253(1)	7498(1)	4766(8)	6196(5)	6205(4)			
8	WGL-14 (NCV-1)		4611(8)	5455(6)	6290(3)	6128(1)	6209(1)	6359(6)	6482(8)	6421(7)	6075(9)	7378(2)	7278(2)	6570(3)	6081(6)			
9	BPT-5204 (NCV-2)		4776(6)	4966(8)	3983(8)	5060(4)	4522(8)	6501(4)	7588(3)	7044(4)	5967(10)	6888(6)	4478(10)	5781(8)	5628(8)			
10	Zonal Check Variety		3329(10)	3444(10)	6296(2)	3881(9)	5089(5)	5395(9)	7263	6329	6331(8)	6336(8)	6789(3)	6042(7)	5149(9)			
Exp. Mean			4933	5383	5250	4718	4984	6262	6898	6580	7380	6831	5749	6155	5900			
CD(0.05)			630	410	918	891	587	1324	1009	940	968	1030	1369	547	209			
CV(%)			7.45	4.44	10.2	11.01	6.86	12.33	8.53	8.33	7.64	8.79	13.88	5.18	2.06			
F val			19.07	64.35	19.98	7.75	25.5	2.62	25.39	12.27	10.47	2.74	6.23	6.94	81.44			
NHC+CD (0.05)			5849	6305	4722	5053	4570	7978	8244	7884	10221	8528	6135	6743	6414			
BVC+CD (0.05)			5406	5865	7214	7019	6796	7825	8597	7984	7299	8408	8647	7117	6290			
D/S					7.7.24	11.7.24		21.6.24	21.6.24		14.8.24	14.6.24	3.9.24					
D/P					31.6.24	DSR		26.7.24	12.7.24		5.9.24	13.7.24	10.10.24					
Gross Plot Size (Sq. m)					11.4	9.24		6.435	5.85		9.4	9.24	4.2					
Net Plot Size (Sq. m)					8.64	7.2		4.950	5.85		8.32	6.84	3					
Zonal Check Variety					ADT-49	ADT-49		ADT-49	ADT-49		ADT-49	ADT-49	ADT-49					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix-11: Days to 50% Flowering (DFF) of hybrids in IHRT-Medium Slender, Kharif 2024

		Zone-3										Zone-5 (Contd..)				
		WB-Z3		OD-Z3		JH-Z3		BR-Z3		MP-Z5		CG-Z5				
S. No.	IET No.	Name	CHN	CTK	RCI	BYR	JH-Z3_(2)	DNG	Zone-3_(5)	JBP	WRS	MP-Z5_(2)	RPR	VNS	CG-Z5_(2)	
1	33081	BAYR-4614	100	106	96	104	100	104	102	98	96	97	95	94	94	
2	33082	TNTRH-151	98	102	94	101	97	107	101	97	98	97	92	90	91	
3	33083	BAYR-4615	104	107	99	102	100	109	104	101	99	100	95	96	96	
4	33084	PHI-24101	106	104	102	102	102	110	105	101	102	102	101	100	100	
5	33085	PHI-24102	108	106	106	103	105	111	107	109	103	106	101	102	102	
6	33086	PHI-24103	106	103	106	103	105	109	106	109	103	106	103	103	103	
7	27P63 (NCH)		107	105	102	103	103	109	105	109	101	105	100	97	98	
8	WGL-14 (NCV-1)		114	108	106	102	104	114	109	116	107	111	105	106	105	
9	BPT-5204 (NCV-2)		105	102	105	104	104	111	105	111	102	107	100	101	101	
10	Zonal Check Variety		113	111	106	108	107	119	112	99	99	99	107	107	107	
Exp. Mean			106	105	102	103	103	110	106	105	101	103	99	99	100	

Appendix-11(Contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Medium Slender, Kharif 2024

		Zone-5										Zone-6					Zone-6 (contd..)	
		MH-Z5					MH-Z6					MH-Z6		GJ-Z6(Contd..)				
S. No.	IET No.	Name	SND	SKL	ANK	MH-Z5_(3)	Zone-5_(7)	KJT	SHR	PDG	MH_VI(3)	MH Overall_(6)	NWG	NVS				
1	33081	BAYR-4614	92	97	97	95	96	86	84	93	88	91	102	95				
2	33082	TNTRH-151	90	93	97	93	94	86	83	89	86	90	101	89				
3	33083	BAYR-4615	94	101	100	98	98	92	88	93	91	95	103	95				
4	33084	PHI-24101	102	100	103	101	101	100	94	101	99	100	103	100				
5	33085	PHI-24102	103	102	104	103	104	104	96	101	100	102	104	98				
6	33086	PHI-24103	104	104	104	104	105	101	96	102	100	102	105	98				
7	27P63 (NCH)		103	102	101	102	102	102	96	97	98	100	102	98				
8	WGL-14 (NCV-1)		105	106	107	106	107	109	97	103	103	104	114	101				
9	BPT-5204 (NCV-2)		97	102	104	101	103	101	94	96	97	99	102	97				
10	Zonal Check Variety		95	97	106	100	101	96	87	105	96	98	96	88				
Exp. Mean			98	100	102	100	101	97	91	98	96	98	103	95				

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix-11(Contd.): Days to 50% Flowering (DFF) and grain type of hybrids in IHRT-Medium Slender, Kharif 2024

S. No.	IET No.	Name	Zone-6			Zone-7						Overall (24)	Grain Type		
			GJ-Z6	Zone-6	AP-Z7			TG-Z7			PY-Z7			Zone-7 (7)	
					MTU	BPT	AP-Z7 (2)	IIRR	WGL	TG-Z7 (2)					KA-Z7
			GJ-Z6 (2)	Zone-6	MTU	BPT	AP-Z7 (2)	IIRR	WGL	TG-Z7 (2)	KA-Z7	TN-Z7	PY-Z7	Zone-7 (7)	
1	33081	BAYR-4614	99	92	86	79	83	100	87	94	84	94	91	89	SS
2	33082	TNTRH-151	95	90	84	83	83	98	92	95	86	97	89	90	LS
3	33083	BAYR-4615	99	94	86	81	84	99	91	95	83	95	87	89	SS
4	33084	PHI-24101	102	100	96	90	93	106	94	100	95	102	101	98	MS
5	33085	PHI-24102	101	101	88	92	90	104	96	100	95	104	102	97	MS
6	33086	PHI-24103	101	100	97	95	96	106	95	101	94	104	101	99	MS
7	27P63 (NCH)		100	99	89	94	92	102	93	97	94	101	96	95	MS
8	WGL-14 (NCV-1)		107	105	98	97	98	110	99	104	95	107	98	101	MS
9	BPT-5204 (NCV-2)		100	98	95	103	99	102	93	98	100	105	101	100	MS
10	Zonal Check Variety		92	94	97	94	96	107	92	100	95	105	101	99	MS
Exp. Mean			100	97	91	90	91	103	93	98	92	101	96	96	MS

Annual Progress Report 2024 Vol. I – Varietal Improvement

Appendix-12: Centres (low performance) data not considered for analysis in IHRT-Medium Slender, Kharif 2024

S. No.	IET No.	Name	Grain Yield (kg/ha)							Days to 50% Flowering (DFF)								
			Zone-3		Zone-4		Zone-6		Zone-7		Zone-3		Zone-4		Zone-6		Zone-7	
			UP-Z3	@MSD	AS-Z4	@TTB	GJ-Z6	@DBI	KA-Z7	@BRM	UP-Z3	@MSD	AS-Z4	@TTB	GJ-Z6	@DBI	KA-Z7	@BRM
1	33081	BAYR-4614	7005(1)	5643(4)	5299(6)	4886(2)		93	111	105	116							
2	33082	TNTRH-151	6863(2)	4710(9)	3191(10)	4273(5)		91	109	105	120							
3	33083	BAYR-4615	6800(3)	6535(2)	5456(5)	4795(3)		94	109	108	120							
4	33084	PHI-24101	4088(10)	6750(1)	4243(9)	3862(9)		102	110	113	120							
5	33085	PHI-24102	6062(6)	5553(5)	5692(3)	4124(7)		105	111	112	129							
6	33086	PHI-24103	5119(8)	5397(6)	5961(2)	4133(6)		101	112	117	124							
7	27P63 (NCH)		6312(5)	4757(8)	5981(1)	3869(8)		102	108	112	121							
8	WGL-14 (NCV-1)		5991(7)	5110(7)	5471(4)	4708(4)		100	112	117	130							
9	BPT-5204 (NCV-2)		6683(4)	5660(3)	5191(7)	3625(10)		98	105	113	120							
10	Zonal Check Variety		4380(9)	4577(10)	4285(8)	5071(1)		106	113	107	121							
Exp. Mean			5930	5469	5077	4334		99	110	110	122							
CD(0.05)			336	379	250	714												
CV(%)			3.31	4.03	2.87	9.6												
F val			86.42	33.3	113.65	4.29												
NHC+CD (0.05)			6648	5136	6231	4583												
BVC+CD (0.05)			7019	6039	5721	5785												
D/S			29.6.24	10.7.24	6.6.24	10.6.24												
D/P			31.7.24	14.8.24	18.7.24	3.7.24												
Gross Plot Size (Sq. m)			10	10	12.96	10												
Net Plot Size (Sq. m)			7.99	10	10.2	7.12												
Zonal Check Variety		Improved Samba Mahsuri		Ketekejo	Karjat-6	ADT-49												

@ Data of MSD(Masodha), TTB(Titabar) and DBI(Dabhoi) not included due to low C.V. Value; Data of BRM(Brahmavar)not included due to low Exp. Mean

Advance Variety Trial 2 & 1- Aerobic (AVT 2 & 1- Aerob) – Kharif 2024

Locations: 26 **Test Entries: 26**
Checks: CR Dhan 201, DRR Dhan 54 (National); CR Dhan 202 **Table: 15**
(Northern, Eastern, North Eastern and Central), AAUDR-1 (Western), MAS 946-1 (Southern)- Zonal; PA 6129 (Hybrid) and local check

The Advance Variety Trial 2 & 1- Aerobic (AVT 2& 1- Aerob) consisted of 26 test entries i.e., 25 entries in 2nd year of testing and one entry in 3rd year of testing alongwith five checks (NC: CR Dhan 201, DRR Dhan 54, ZC: CR Dhan 202 (Northern, Eastern, North Eastern and Central), AAUDR-1(Western), MAS 946-1(Southern), HC: PA 6129 and local check. The trial was sent to 26 locations and the data was not received from five locations i.e., Arundhutinagar, Jabalpur, Bhubaneswar, Kampasagar and Mugad. The data received from 9 centres was not considered for analysis due to low experimental mean (<3000 kg/ha) viz., Nagaland (1705 kg/ha), Derol (733 kg/ha) and Parbhani (2141 kg/ha), low CV% viz., Pusa (4.11%), Masodha (3.4%) and Rewa (2.4%), non-significant F value for Hazaribagh, Cuttack and Jagadalpur. Experimental mean grain yield ranged from 733 kg/ha at Derol to 5724 kg/ha at Patna-ICAR.

Performance of IET 30919 over three years:

The entry IET 30919 (IIRRH 159) possessing MS grains is a hybrid outperformed the best varietal check in overall mean yield performance and also in zone III and zone V in the first year of testing (2022), while, it showed significant yield superiority in zone VII (2023) and in the third year it showed non-significant yield superiority in Zone VII (2024). It showed quality parameters including high HRR (64.9 %), intermediate amylose (26.19%), GC (33mm) and ASV (5.0). Since, it showed yield superiority inconsistently in different zones in different years, hence, it is discontinued.

IET no.	Year	Zone	Yield (kg/ha)	Significant yield superiority over BC/HC	Remarks
30919 (IIRRH 159)	2022	Over all	4779	*# (Out yielded both BC and HC)	Discontinued
	2023	ZVII	5971	*# Out yielded both BC and HC)	
	2024	ZVII	3978	No significant yield superiority over BC and HC	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Zonal performance of test entries

Zone I (Hill Region)

The trial was sent to one location i.e., Nagaland and the data was not considered for analysis due to low experimental mean yield (1705 kg/ha). Hence, none of the entries are promoted.

Zone II (Northern)

The trial was sent to 3 locations viz., Ludhiana (Punjab); Kaul and Karnal (Haryana) and all the centres data was considered for analysis. Nine entries were evaluated and mean grain yield ranged from 5118 kg/ha (Local check) to 3144 kg/ha (PA 6129 Hybrid check). None of the entries exhibited significant superiority over the best check (LC). Hence none of the entries promoted.

Zone III (Eastern)

The trial was sent to 9 centres viz., Odisha (Cuttack, Bhubaneswar), Bihar (Bikramganj, Pusa and Patna), Jharkhand (Ranchi, Hazaribagh) and Uttar Pradesh (Varanasi, Masodha). Mean yield of entries ranged from 3974 kg/ha (Hybrid check) to 5400 kg/ha. (IET 31765). DFF varied from 80 days (NC CR Dhan 201) to 104 days (IET 31760). Zonal Check CR Dhan 202 was the top yielder among the checks (4946 kg/ha). **Six entries (IETs 31765, 31740, 31760, 30045, 31757 and 31741 recorded significant yield superiority over the best check (ZC). Also, they recorded desirable grain quality traits. Hence, they are promoted to AVT-2-Aerobic trial.**

Performance of the test entries in Zone III

S.No	Entry No/Designation	Yield (Kg/ha) DFF	Remarks
1	31765 PAU-IR 129477-1629-210-4-4-4 (RYT 4115)	5400 84 LS	Promoted (HRR-59.8 %, AC-24.99; GC-76; ASV-4.0)
2	31740 (NVSIR 1141) NAUR-1 / IR-28	5383 82 SB	Promoted (HRR-60.7 %, AC-25.81; GC-45; ASV-4.0)
3	31760 (RNR 28361) Bhadrakali / Rewa 671	5298 97 LS	Promoted (HRR-65.7 %, AC-22.70; GC-22; ASV-7.0)
4	30045 (BRR 2185) BP 11820-5F-KN-10-2-Selection	5238 78, LS	Promoted
5	31757 (JDP 5925) IR64 / TRC87-251	5234 82 LS	Promoted (HRR-60.7 %, AC-17.13; GC-70; ASV-7.0)
6	31741(CR 4457-IR 129477- 4026-249-15 1-4)	5200 85 MS	Promoted (HRR-58.5 %, AC-22.58; GC-63; ASV-4.0)
	NC (CR Dhan 201)	4820/79	
	NC (DRR Dhan 54)	4899/80	

Annual Progress Report 2024 Vol. I – Varietal Improvement

	ZC	4946/83	
	HC	3974/85	
	LC	4335/79	
	CD	216	

Zone IV (North Eastern)

The trial was sent to two centres in Tripura (Lembucherra and Arundhutinagar). Mean grain yield ranged from 4358 kg/ha (IET 31760) to 7750 (IET 31775). The DFF ranged from 113 days (NC: DRR Dhan 54 and IET 31741) to 121 days (ZC: CR Dhan 202). Zonal Check CR Dhan 202 was the top yielder among the checks (6167 kg/ha). The entry IET 31775 with 116 days to 50% flowering with LS grain type with 7750 kg/ha showed significant yield superiority over the best check with adequate quality parameters. Hence, it is promoted to AVT-2-Aerobic trial

Performance of the test entries in Zone IV

S.No	Entry No /Designation	Yield (kg/ha) DFF	Remarks
1	IET 31775 (RP 6763-CGR 28- IR144572-20-4 1-1-B) MTU 1010*2 / IR 144560	7750 116 LS	Promoted (HRR-56.5 %, AC-23.70; GC-50; ASV-4.0)
	NC(DRR Dhan 54)	4683, 113	
	ZC	6167, 121	
	HC	-	
	LC	-	
	CD	1047	

Zone V (Central)

The trial was sent to Madhya Pradesh (Rewa and Jabalpur) and Chhattisgarh (Raipur and Jagdalpur). Mean yield ranged from 1364 kg/ha (IET 31759) to 8701 kg/ha (IET 31741). The DFF ranged from 76 days (IET 31777) to 110 days (IET 31759). The entry 31741 showed significant yield superiority over the best check and having desirable quality parameters, the entry IET 31741 got promoted to AVT-2-Aerobic trial.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of the test entries in Zone V (Central)

S.No	Entry No /Designation	Yield (Kg/ha) DFF	Remarks
1	31741 (CR 4457-IR 129477-4026-249-15 1-4)	8701/86/MS	Promoted (HRR-58.5 %, AC-22.58; GC-63; ASV-4.0)
	NC (CR Dhan 201)	6957/81	
	NC(D 54)	5141/79	
	ZC	2344/85	
	HC	1589/93	
	LC	6154/79	
	CD	1259	

Zone VI (Western)

The trial was sent to 4 locations i.e., Parbhani, Navsari, Derol, and Vyara. Mean grain yield ranged from 899 kg/ha (hybrid check) to 4479 kg/ha (NC: DRR Dhan 54). Days to 50% flowering ranged from 67 days (ZC; CR Dhan 202) to 101 days (IET 31759). National check DRR Dhan 54 (4479 kg/ha) topped among all the entries in Zone VI. None of the entries showed significant yield superiority over the best check, hence, none of the entries were promoted.

Zone VII (Southern)

The trial was sent to 3 locations, i.e., Kampasagar, Mandya and Mugad. Among the nine entries, one entry (IET 30919, a hybrid) is in third year of testing and remaining are in second year of testing. Mean yield ranged from 1135 kg/ha (IET 31759) to 4735 kg/ha (Local check). The flowering duration ranged from 90 days (IETs 31741, 31775, NC: DRR Dhan 54 and local check) to 110 days (IET 31760). Local check (4735 kg/ha) topped among all the entries in Zone VII, hence, none of the entries were promoted.

List of entries promoted to AVT-2-Aerobic

Zones /Locations	Entries promoted
Zone III	IETs 31765, 31740, 31760, 30045, 31757 and 31741
Zone IV	IET 31775
Zone V	IET 31741

Summary:

The trial AVT 2 & 1- Aerob consisted of 26 test entries (25 entries in 2nd year of testing and one entry in 3rd year of testing) including five checks. The following entries are promoted zone wise to AVT-2 for third year of testing.

List of entries promoted

Zone III (IETs 31765, 31740, 31760, 30045, 31757 and 31741)
 Zone IV IET 31775
 Zone V IET 31741

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 15.1: Composition of entries in Advance Variety Trial 2 & 1 – Aerobic (AVT 2 & 1 - Aerobic) Kharif 2024

Entry No.	IET No.	Designation	Cross combination	Grain type
4101	30919* (H)	IIRRH 159	Hybrid	MS
4102	Hybrid Check (PA-6129)			LS
4103	30893 (R)	RP 6616-CGR 7	Samba Mahsuri *2 /Oryza rufipogon-VN90 1032-58 (3)	LS
4104	31779	RNR 37982	PSBRC 68 / DSN 82 (K-18)	
4105	30932 (R)	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
4106	30928 (R)	NWGR 17133	GR-12 / NWGR-7022 / 1-5-1-1-1-1-1	MS
4107	31784	CR-4460-8-1-1-1-1	CR Dhan 206 / IET 26089	
4108	30934(R)	CR 3553-1-5-1-2-1-1	ADT 43 /Ananga	SB
4109	30907(R)	RP 5594-97-5-1 (PSV222)	MTU 1010 / RPHR 1005	
4110	NC (CR Dhan 201)			MB
4111	30911(R)	CR 4338-2-1-1	CR 3856-29-2-1-2 / Heera	LS
4112	30910 (R)	IIABR-13/IIAB-4/IR15L1505	IR 10L411 / IR11L261	LS
4113	30904 (R)	CR 4403-5-1-IR117841-4-1 RGA-1 RGA-1 RGA-2	IR 91648-B-1-B-3-1 / Abhaya // IR11L101 /// IR 91648-B-1-B-3-1 / IRBB 23 // IR23 // IR 96322 34-223-B /// IR 91648-B-1-B-3-1 / IR BB60 (IR 72920-1-44-4) // Tadukan	LS
4114	30045 (R)	BRR 2185	BP 11820-5F-KN-10-2-Selection	LS
4115	31740	NVSR 1141	NAUR-1 / IR-28	SB
4116	31741	CR 4457-IR 129477-4026-249-15 1-4	IR 09N538 / IR 93312-30-101-20-3-66-6 // IR 09N538 / IR 11L101 /// IR 09N538 / Tadukan // IR 09N538 / Rathu Heenati / 4 / IR 09N538 / Abhaya // IR 09N538 / IRBB 60 (IR 72920-1-44-4) /// IR 09N538 / IR 94225-B-82-B // IR 09N538 / IR 94226-B-177-B / 5 / IR 09N538 / WHD IS-75-1-127 // IR 09N538 / IR 96322 34-223-B /// IR 09N538 / IR 91648-B-32-B	MS
4117	31757	JDP 5925	IR64 / TRC87-251	LS
4118	31759	CR 4073-1339-2-3-4-5	IET 22296 / RR 2-6	LS
4119	31760	RNR 28361	Bhadrakali / Rewa 671	LS
4120	CR-Dhan202 (Northern, Eastern, NorthEastern, Central), AAUD R-1(Western), MAS 946-1(Southern)-ZC			
4121	31787	CR 3783-3-2-1-1-1-2	Surendra / Abhaya	MS
4122	31761	BKR 542 (IR 129477-3425-97-4 3-3)	IR 09N538 / IR 93312-30-101-20-3-66-6 // IR09N538 / IR11L101 /// IR 09N538 / Tadukan // IR 09N538 / Rathu Heenati / 4 / IR 09N538 / Abhaya // IR 09N538 / IRBB 60 (IR 72920-1-44-4) /// IR 09N538 / IR 94225-B-82 B // IR 09N538 / IR 94226-B-177-B / 5 / IR 09N538 / WHD IS-75-1-127 // IR 09N538 / IR 96322-34-223-B /// IR 09N538 / IR 91648-B 32-B	LS
4123	31783	R 2773-C-8-1-1	Samaleshwari / IR 64	
4124	31765	PAU-IR 129477-1629-210-4-4-4 (RYT 4115)	R 91648-B / IR 91648-B-13-B // IRBL-9 / Aganni /// Abhaya / Rathu	LS

Annual Progress Report 2024 Vol. I – Varietal Improvement

			Hannati// IR 91648-B-289-B / IR 91648-B-336-B /// IR 94225-B-82-B / IR 94226-B-177-B // IR 94226-B-177-B / IR 93312-30-101-20-13-66-6	
4125	31770	NVSR 3674	Jaya / NVSR 2740	MB
4126	31775	RP 6763-CGR 28-IR144572-20-4 1-1-B	MTU 1010*2 / IR 144560	LS
4127	31790	CSR 2021-DSR-2-94-134	IRRI 163 / CSR MAGIC 167	
4128	NC (DRR Dhan 54)			SB
4129	31777	R 2341-252-2-165-1	Indira Barani Dhan-1 / Guang jiang-1	MB
4130	31778	HURS-23-3-IR18A1658	IR 99085-B-B-82 / IR 09A224 (AGGRi Alliance)	LS
4131	LC			

*3rd year testing entries

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 15.2: Grain Yield (kg/ha) in AVT 2 & 1 – Aerobic, Kharif 2024

Entry No	IET No	Zone II-Northern								Zone II-Northern	
		Haryana				Haryana (2)		Punjab		(3)	
		Karnal		Kaul		Mean		Ludhiana		Mean	
4102	PA 6129 (HC)			3144		3144				3144	
4110	CR Dhan 201 (NC)	3917	8	4862	3	4389	6	4393	5	4391	6
4114	30045 (R)	3220		4547	5#	3883	9#	6005	2	4591	5#
4116	31741	4633	6	3796	7#	4214	7#	3009	10	3812	9#
4117	31757	4867	4	4089	6#	4478	5#	4847	4	4601	4#
4118	31759	3300		3204		3252				3252	
4119	31760	4720	5	3378		4049	8#			4049	8#
4120	ZC	3347	10	3633	8	3490		3192	9	3391	
4124	31765	5390	2	5273	1#	5332	1*#	3428	7	4697	3#
4126	31775	4990	3	4796	4#	4893	2#	3232	8	4339	7#
4128	DRR Dhan 54 (NC)	5850	1	3511	10	4681	3	5227	3	4863	2
4127	31790	3877	9	3562	9	3719	10#	3787	6	3742	10#
4131	LC	4100	7	4944	2	4522	4	6311	1	5118	1
Experimental Mean		4351		4057		4157		4343		4153	
CD(0.05)		1125		472		537		579		471	
CV(%)		15.27		6.91		7.67		7.78		6.73	
F val		5**		20.72**		12.44**		38.46**		15.76**	
DOS		14-07-24		25-06-24				09-07-24			
DOP								09-07-24			
Local Check Name		CSR 105		HKR 49				PR 126			

Table No. 15.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – Aerobic, Kharif 2024

Entry No	IET No	Zone III- Eastern								Zone III- Eastern			
		Bihar				Bihar (2)		Jharkhand		Uttar Pradesh		(4)	
		Bikramganj		Patna-ICAR		Mean		Ranchi		Varanasi		Mean	
4102	PA 6129 (HC)							3376		4572	8	3974	
4110	CR Dhan 201 (NC)	4860	5	5777	7	5318	8	4256	9	4389	9	4820	10
4114	30045 (R)	6917	1*	5943	5	6430	1*	3852		4239		5238	4*#
4115	31740	4314		6963	1*	5638	3	4328	8#	5928	2#	5383	2*#
4116	31741	4613	6	5537	8	5075	9	4494	6#	6156	1#	5200	6*#
4117	31757	6698	2*	4393		5545	4	4779	5#	5067	5	5234	5*#
4118	31759	4863	4			4863		3828		5233	4#	4642	#
4119	31760	6100	3*	5920	6	6010	2*	4898	4#	4272	10	5298	3*#
4120	ZC	4413	9	5337	9	4875	10	4351	7	5683	3	4946	8
4124	31765	4543	7	6427	3	5485	6	5231	2*#			5400	1*#
4126	31775	4407	10	4300		4353		4993	3#			4567	#
4128	DRR Dhan 54 (NC)	4373		6290	4	5332	7	3995	10	4939	6	4899	9
4130	31778	4414	8	6590	2	5502	5	5398	1*#	3907		5077	7#
4131	LC	4139		5207	10	4673		3234		4759	7	4335	
Experimental Mean		4973		5724		5315		4358		4929		4929	
CD(0.05)		784		399		390		668		524		216	
CV(%)		9.35		4.12		4.35		9.14		6.27		2.61	
F val		12.48**		36.49**		17.47**		8.21**		15.93**		32.7**	
DOS		Direct Sowing		29-06-24				01-07-24		11-07-2024			
DOP		10-07-24		Direct Seeded									
Local Check Name		Sabour. Harshit		Rajendra Bhagwati				BVD-110		HUR-1309			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 15.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – Aerobic, Kharif 2024 (Not considered)

Entry No	IET No	Zone III- Eastern							
		Bihar		Jharkhand		Odisha		Uttar Pradesh	
		@Pusa		@Hazaribagh		@Cuttack		@Masodha	
4102	PA 6129 (HC)								
4110	CR Dhan 201 (NC)	5219	4	2917	7	4001	6	3871	8
4114	30045 (R)	5000	8	4000	1	3319	10	4067	7
4115	31740	5177	5	3333	3	3777	7	4269	6
4116	31741	4792		2917	7	3509	9	2624	
4117	31757	4948	10	3250	5	4269	4	4351	4
4118	31759			2167				2900	
4119	31760	5281	3	3333	3	4172	5	4291	5
4120	ZC	5365	2	1833		3748	8	3074	
4124	31765	5104	6	2917	7	4800	1	3663	9
4126	31775	5000	8	2417		3236		4460	3
4128	DRR Dhan 54 (NC)	5458	1	3167	6	4381	2	3350	10
4130	31778	5073	7	2917	7	4376	3	4711	1
4131	LC	4865		3833	2	3124		4604	2
Experimental Mean		5107		3000		3893		3864	
CD(0.05)		291		1598		1038		222	
CV(%)		3.37		31.61		15.76		3.4	
F val		4.11 **		1.23 ns		2.22 ns		81.54 **	
DOS				11-07-24		25-06-24		26-07-24	
DOP									
Local Check Name				Sahbhagi dhan		CR Dhan 203		NDR 97	

Table No. 15.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – Aerobic, Kharif 2024

Entry No	IET No	Zone IV-North Eastern	
		Tripura	
		Lembucherra	
4102	PA 6129(HC)		
4103	30893 (R)		
4105	30932 (R)		
4106	30928 (R)		
4107	31784		
4108	30934(R)		
4109	30907(R)		
4110	CR Dhan 201(NC)		
4111	30911(R)	4500	
4112	30910 (R)	5092	8
4113	30904 (R)	5667	4
4114	30045 (R)	5233	7
4116	31741	5283	6
4117	31757	5300	5
4118	31759	4592	10
4119	31760	4358	
4120	ZC	6167	3
4124	31765	6208	2
4126	31775	7750	1*
4128	DRR Dhan 54(NC)	4683	9
4131	LC		
Experimental Mean		5403	
CD(0.05)		1047	
CV(%)		11.45	
F val		7.16**	
DOS		12-07-24	
DOP			
Local Check Name		TRC 2015-5	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 15.2 (Contd.) : Grain Yield (kg/ha) in AVT 2 & 1 – Aerobic, Kharif 2024 (Not considered)

Entry No	IET No	Zone IV-North Eastern	
		Nagaland @Nagaland	
4102	PA 6129(HC)	1589	
4103	30893 (R)	1611	
4105	30932 (R)	2967	1
4106	30928 (R)	833	
4107	31784	2367	2
4108	30934(R)	1989	6
4109	30907(R)	1244	
4110	CR Dhan 201(NC)	1278	
4111	30911(R)	2300	3
4112	30910 (R)	1478	
4113	30904 (R)	1778	9
4114	30045 (R)	1622	
4116	31741	2033	5
4117	31757	1856	8
4118	31759	1289	
4119	31760	2189	4
4120	ZC	1956	7
4124	31765	1233	
4126	31775	1222	
4128	DRR Dhan 54(NC)	1278	
4131	LC	1689	10
Experimental Mean		1705	
CD(0.05)		851	
CV(%)		30.24	
F val		2.79**	
DOS			
DOP			
Local Check Name			

Table No. 15.2 (Contd.) : Grain Yield (kg/ha) in AVT 2 & 1 – Aerobic, Kharif 2024

Entry No	IET No	Zone V- Central	
		Chhattisgarh Raipur	
4102	PA 6129(HC)	1589	
4110	CR Dhan 201(NC)	6957	3
4114	30045 (R)	5247	5#
4116	31741	8701	1*#
4117	31757	3151	9#
4118	31759	1364	
4119	31760	3925	8#
4120	ZC	2344	
4122	31761	2309	
4123	31783	7501	2#
4124	31765	2647	
4125	31770	2704	
4126	31775	2806	10
4128	DRR Dhan 54(NC)	5141	6
4129	31777	4476	7#
4131	LC	6154	4
Experimental Mean		4188	
CD(0.05)		1259	
CV(%)		18.03	
F val		26.05**	
DOS		28-06-24	
DOP			
Local Check Name		Indira Aerobic 1	

Table No. 15.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – Aerobic, Kharif 2024 (Not considered)

Entry No	IET No	Zone V- Central			
		Chhattisgarh @Jagadapur		Madhya Pradesh @Rewa	
4102	PA 6129(HC)	4103		1263	
4110	CR Dhan 201(NC)	4911	5	3626	4
4114	30045 (R)	5199	1	2798	
4116	31741	4927	4	3487	5
4117	31757	4961	3	3042	
4118	31759	4092		1676	
4119	31760	4348	7	3460	6
4120	ZC	4013		2911	
4122	31761	4109		3220	8
4123	31783	4298	8	3710	3
4124	31765	4088		3954	1
4125	31770	4100		3197	9
4126	31775	5009	2	3923	2
4128	DRR Dhan 54(NC)	4116	10	3099	10
4129	31777	4264	9	3307	7
4131	LC	4826	6	2674	
Experimental Mean		4460		3084	
CD(0.05)		1065		123	
CV(%)		14.32		2.4	
F val		1.33ns		297.22**	
DOS		28-06-24			
DOP					
Local Check Name		Indira Aerobic 1			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 15.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – Aerobic, Kharif 2024

Entry No	IET No	Zone VI- Western				Zone VI- Western (2)	
		Gujarat				Mean	
		Navasari		Vyra			
4102	PA 6129(HC)			899		899	
4104	31779	4053	8	3563	6#	3808	8#
4110	CR Dhan 201(NC)	4847	3	3471	8	4159	4
4114	30045 (R)	3736	10	4172	2#	3954	7#
4116	31741	4058	7	3920	3#	3989	6#
4117	31757	4131	6	4216	1#	4173	3#
4118	31759			3185	10#	3185	#
4119	31760	3886	9	3560	7#	3723	9#
4120	ZC	3728		1711		2719	
4124	31765	4692	4	3658	5#	4175	2#
4126	31775	4253	5	2644	#	3449	10#
4128	DRR Dhan 54(NC)	5061	1	3898	4	4479	1
4131	LC	4886	2	3363	9	4125	5
Experimental Mean		4303		3251		3603	
CD(0.05)		870		510		593	
CV(%)		11.87		9.3		9.77	
F val		2.7*		31**		21.41**	
DOS		06-07-24		27-06-24			
DOP							
Local Check Name		GNR-8		GNR 8			

Table No. 15.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – Aerobic, Kharif 2024 (Not considered)

Entry No	IET No	Zone VI- Western			
		Gujarat		Maharashtra	
		@Derol		@Parabhani	
4102	PA 6129(HC)				
4104	31779	667	2	2667	2
4110	CR Dhan 201(NC)	667	2	2644	3
4114	30045 (R)	667	2	3067	1
4116	31741	667	2	2422	5
4117	31757	667	2	2333	8
4118	31759			733	
4119	31760			1200	
4120	ZC	667	2	1667	10
4124	31765	667	2	1756	9
4126	31775	667	2	2400	6
4128	DRR Dhan 54(NC)	667	2	2356	7
4131	LC	1333	1	2444	4
Experimental Mean		733		2141	
CD(0.05)		0		214	
CV(%)		0		5.91	
F val		0ns		84.44**	
DOS		11-07-24			
DOP					
Local Check Name		AAUDR 1			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 15.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – Aerobic, Kharif 2024

Entry No	IET No	Zone VII- Southern	
		Karnataka	
		Mandya	
4101	30919* (H)	3978	8
4102	PA 6129(HC)		
4110	CR Dhan 201(NC)	2952	
4114	30045 (R)	2802	
4116	31741	4081	6
4117	31757	3394	9
4118	31759	1135	
4119	31760	4135	5
4120	ZC	4188	2
4121	31787	4014	7
4124	31765	4166	4
4126	31775	3119	10
4128	DRR Dhan 54(NC)	4184	3
4131	LC	4735	1
Experimental Mean		3606	
CD(0.05)		509	
CV(%)		8.37	
F val		28.89**	
DOS		09-08-24	
DOP			
Local Check Name		KMP-175	

Table No. 15.3: Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 2 & 1 – Aerobic, Kharif 2024

Entry No	IET No	Zone II-Northern												Zone II-Northern		
		Haryana						Haryana (2)			Punjab			(3)		
		Karnal			Kaul			Mean			Ludhiana			Mean		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
4102	PA 6129 (HC)				103	113	268	103	113	268				103	113	268
4110	CR Dhan 201 (NC)	87	89	368	81	115	287	84	102	328	73	114	473	80	106	376
4114	30045 (R)	88	80	352	82	103	304	85	91	328	75	107	437	82	97	364
4116	31741	93	82	408	89	115	252	91	98	330	81	111	433	88	102	364
4117	31757	89	76	392	83	105	262	86	90	327	73	95	497	82	92	384
4118	31759	111	74	472	99	82	280	105	78	376				105	78	376
4119	31760	108	73	520	99	96	300	104	85	410				104	85	410
4120	ZC	104	80	432	94	109	254	99	95	343	84	124	443	94	104	376
4124	31765	96	84	472	88	109	287	92	96	380	81	98	510	88	97	423
4126	31775	87	92	384	83	112	208	85	102	296	75	102	417	82	102	336
4128	DRR Dhan 54 (NC)	90	90	451	86	124	228	88	107	339	77	125	490	84	113	390
4127	31790	88	95	384	89	114	248	88	104	316	77	131	460	84	113	364
4131	LC	89	88	408	86	92	248	88	90	328	85	93	467	87	91	374
Experimental Mean		94	83	420	89	106	263	92	96	336	78	110	462	89	99	370
Standard Error		1.97			0.39						0.69					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 15.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 2 & 1 – Aerobic, Kharif 2024

Entry No	IET No	Zone III- Eastern															Zone III- Eastern (4)		
		Bihar						Bihar (2)			Jharkhand			Uttar Pradesh			Mean		
		Bikramganj			Patna-ICAR			Mean			Ranchi			Varanasi			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4102	PA 6129 (HC)										88	99	67	81	84	154	85	92	110
4110	CR Dhan 201 (NC)	77	127	251	76	121	219	76	124	235	78	102	141	83	87	173	79	109	196
4114	30045 (R)	73	114	285	76	111	245	74	112	265	82	94	144	82	85	200	78	101	218
4115	31740	82	127	215	79	125	191	81	126	203	87	100	137	81	90	177	82	111	180
4116	31741	82	126	232	88	104	267	85	115	250	84	101	170	86	97	236	85	107	226
4117	31757	79	107	240	85	103	267	82	105	253	81	94	167	82	79	217	82	96	223
4118	31759	97	112	284				97	112	284	108	89	202	113	83	272	106	95	253
4119	31760	92	109	234	98	100	286	95	105	260	96	93	226	101	82	212	97	96	240
4120	ZC	79	122	226	87	126	275	83	124	250	77	92	162	88	96	195	83	109	214
4124	31765	80	99	241	88	110	315	84	104	278	84	95	188				84	101	248
4126	31775	76	110	243	86	113	224	81	112	233	77	99	178				80	107	215
4128	DRR Dhan 54 (NC)	77	130	243	82	132	217	80	131	230	80	111	132	82	94	205	80	117	199
4130	31778	82	103	249	89	106	314	86	105	282	84	97	198	87	78	243	86	96	251
4131	LC	77	124	231	87	122	255	82	123	243	69	115	134	82	77	273	79	109	223
Experimental Mean		81	116	244	85	114	256	84	115	251	83	98	160	87	86	213	85	103	214
Standard Error		0.09			0.36						0.64			0.87					

Table No. 15.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 2 & 1 – Aerobic, Kharif 2024 (Not considered)

Entry No	IET No	Zone III- Eastern																		
		Bihar			Jharkhand			Odisha			Uttar Pradesh									
		@Pusa			@Hazaribagh			@Cuttack			@Masodha									
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN							
4102	PA 6129 (HC)																			
4110	CR Dhan 201 (NC)	73	99	226	75	93	81	96	280	70	95	241								
4114	30045 (R)	70	85	250	79	84	79	85	234	73	86	260								
4115	31740	79	115	253	76	99	79	100	271	70	101	266								
4116	31741	81	94	223	82	94	88	107	247	111	91	186								
4117	31757	78	74	247	79	85	79	87	225	72	91	234								
4118	31759				118	73				115	81	204								
4119	31760	91	86	243	90	80	87	100	292	77	100	249								
4120	ZC	78	96	236	84	95	88	113	273	93	89	200								
4124	31765	77	93	228	73	91	100	99	298	73	79	229								
4126	31775	72	96	270	82	88	97	96	259	90	81	256								
4128	DRR Dhan 54 (NC)	74	98	230	78	94	84	101	295	106	106	225								
4130	31778	85	83	248	80	107	82	97	318	71	109	256								
4131	LC	79	96	231	81	81	77	99	313	90	93	263								
Experimental Mean		78	92	240	82	89	85	98	275	85	92	236								

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 15.3 (Contd.) : Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 2 & 1 – Aerobic, Kharif 2024

Entry No	IET No	Zone IV-North Eastern		
		Tripura		
		Lembucherra		
		DFE	PH	PAN
4102	PA 6129(HC)			
4103	30893 (R)			
4105	30932 (R)			
4106	30928 (R)			
4107	31784			
4108	30934(R)			
4109	30907(R)			
4110	CR Dhan 201(NC)			
4111	30911(R)	115	96	283
4112	30910 (R)	115	102	200
4113	30904 (R)	116	95	283
4114	30045 (R)	118	86	258
4116	31741	113	81	242
4117	31757	120	93	333
4118	31759	118	76	258
4119	31760	116	98	308
4120	ZC	121	88	358
4124	31765	118	102	275
4126	31775	116	91	317
4128	DRR Dhan 54(NC)	113	104	283
4131	LC			
Experimental Mean		116	92	283
Standard Error		1.33		

Table No. 15.3 (Contd.) : Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 2 & 1 – Aerobic, Kharif 2024 Not considered)

Entry No	IET No	Zone IV-North Eastern		
		Nagaland		
		@Nagaland		
		DFE	PH	PAN
4102	PA 6129(HC)	83	89	240
4103	30893 (R)	89	85	279
4105	30932 (R)	89	98	299
4106	30928 (R)	103	75	209
4107	31784	91	91	368
4108	30934(R)	101	77	280
4109	30907(R)	100	83	254
4110	CR Dhan 201(NC)	83	90	240
4111	30911(R)	90	78	307
4112	30910 (R)	78	79	295
4113	30904 (R)	82	82	375
4114	30045 (R)	85	68	265
4116	31741	97	94	301
4117	31757	81	75	265
4118	31759	120	69	143
4119	31760	104	100	322
4120	ZC	78	76	351
4124	31765	90	97	271
4126	31775	88	96	237
4128	DRR Dhan 54(NC)	90	112	197
4131	LC	82	117	199
Experimental Mean		90	87	271

Table No. 15.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 2 & 1 – Aerobic, Kharif 2024

Entry No	IET No	Zone V- Central		
		Chhattisgarh		
		Raipur		
		DFE	PH	PAN
4102	PA 6129(HC)	93	87	86
4110	CR Dhan 201(NC)	81	88	165
4114	30045 (R)	78	87	110
4116	31741	86	107	136
4117	31757	78	83	189
4118	31759	110	95	79
4119	31760	90	108	170
4120	ZC	85	110	106
4122	31761	78	112	127
4123	31783	80	106	99
4124	31765	80	104	108
4125	31770	89	110	100
4126	31775	78	98	59
4128	DRR Dhan 54(NC)	79	114	81
4129	31777	76	95	81
4131	LC	79	98	102
Experimental Mean		83	100	112
Standard Error		0.83		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 15.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 2 & 1 – Aerobic, Kharif 2024 (Not considered)

Entry No	IET No	Zone V- Central					
		Chhattisgarh			Madhya Pradesh		
		@Jagadapur			@Rewa		
		DFE	PH	PAN	DFE	PH	PAN
4102	PA 6129(HC)	96	98	174	87	80	131
4110	CR Dhan 201(NC)	84	106	259	83	91	182
4114	30045 (R)	90	100	270	83	88	181
4116	31741	96	112	233	95	89	187
4117	31757	87	95	268	83	93	194
4118	31759	106	87	192	93	80	160
4119	31760	97	91	272	99	91	144
4120	ZC	97	106	248	97	82	131
4122	31761	86	107	225	85	95	197
4123	31783	90	90	262	86	90	238
4124	31765	90	92	267	95	90	248
4125	31770	89	102	234	84	85	212
4126	31775	87	100	238	84	97	207
4128	DRR Dhan 54(NC)	87	111	257	85	102	157
4129	31777	84	92	249	84	95	209
4131	LC	90	90	273	83	99	220
Experimental Mean		91	98	245	87	90	187

Table No. 15.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 2 & 1 – Aerobic, Kharif 2024

Entry No	IET No	Zone VI- Western						Zone VI- Western (2)		
		Gujarat						Mean		
		Navasari			Vyra					
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4102	PA 6129(HC)				91	106	113	91	106	113
4104	31779	77	107	317	93	104	111	85	106	214
4110	CR Dhan 201(NC)	74	136	286	91	107	137	82	121	211
4114	30045 (R)	78	124	447	87	109	146	82	117	296
4116	31741	83	131	427	97	104	132	90	118	280
4117	31757	80	105	392	87	105	151	84	105	272
4118	31759				101	107	209	101	107	209
4119	31760	91	112	338	101	107	174	96	109	256
4120	ZC	67	149	380	67	107	152	67	128	266
4124	31765	84	116	367	96	107	153	90	112	260
4126	31775	84	115	294	95	111	165	90	113	230
4128	DRR Dhan 54(NC)	81	130	251	89	113	158	85	122	205
4131	LC	82	132	241	84	105	151	83	118	196
Experimental Mean		80	123	340	90	107	150	87	114	231
Standard Error		0.85			2.09					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 15.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 2 & 1 - Aerobic, Kharif 2024 (Not considered)

Entry No	IET No	Zone VI- Western					
		Gujarat			Maharashtra		
		@Derol			@Parabhani		
		DFE	PH	PAN	DFE	PH	PAN
4102	PA 6129(HC)						
4104	31779	93	74	152	81	54	356
4110	CR Dhan 201(NC)	93	75	121	78	86	350
4114	30045 (R)	90	70	95	84	64	363
4116	31741	95	82	93	85	70	330
4117	31757	93	73	93	85	53	289
4118	31759				93	51	135
4119	31760				89	54	157
4120	ZC	72	84	159	64	75	207
4124	31765	99	78	145	84	60	156
4126	31775	98	93	175	86	67	334
4128	DRR Dhan 54(NC)	88	95	165	83	78	331
4131	LC	69	82	159	83	77	348
Experimental Mean		89	80	135	82	65	279

Table No. 15.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 2 & 1 - Aerobic, Kharif 2024

Entry No	IET No	Zone VII- Southern		
		Karnataka		
		Mandya		
		DFE	PH	PAN
4101	30919* (H)	108	99	333
4102	PA 6129(HC)			
4110	CR Dhan 201(NC)	92	98	380
4114	30045 (R)	91	79	367
4116	31741	90	97	331
4117	31757	92	81	403
4118	31759	94	79	406
4119	31760	110	87	383
4120	ZC	94	79	374
4121	31787	107	81	365
4124	31765	92	90	356
4126	31775	90	85	313
4128	DRR Dhan 54(NC)	90	107	369
4131	LC	90	113	388
Experimental Mean		95	90	366
Standard Error		0.71		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 15.4: Grain quality characteristics of entries in AVT 2 & 1 - Aerobic, Kharif 2024

Code	Entry No.	Designation / IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1373	4101	30919 (H)	79.1	70.2	64.9	4.97	1.94	2.56	MS	A	5.0	26.19	33
1374	4102	PA-6129 (HC)											
1375	4103	30893 (R)	80.0	71.7	64.6	5.56	1.75	3.17	SS	A	3.0	22.20	55
1376	4104	31779	79.9	71.7	67.6	6.33	2.04	3.10	LS	VOC	4.0	24.46	60
1377	4105	30932 (R)	79.5	71.9	60.0	6.80	2.15	3.16	LS	A	4.0	26.84	22
1378	4106	30928 (R)											
1379	4107	31784											
1380	4108	30934 (R)	81.1	72.8	67.0	5.01	2.43	2.06	SB	VOC	4.0	24.40	22
1381	4109	30907 (R)											
1382	4110	CR Dhan-201 (NC)											
1383	4111	30911 (R)	80.2	60.8	47.6	5.43	2.02	2.68	MS	VOC	4.0	26.01	58
1384	4112	30910 (R)	77.2	68.2	62.0	6.33	1.96	3.22	LS	A	4.0	25.40	48
1385	4113	30904 (R)	79.7	68.6	56.7	6.16	2.00	3.08	LS	A	4.0	23.76	22
1386	4114	30045 (R)											
1387	4115	31740	80.4	71.9	60.7	6.17	2.39	2.58	LB	OC	4.0	25.81	45
1388	4116	31741	79.4	70.2	58.5	5.95	2.11	2.81	MS	A	4.0	22.58	63
1389	4117	31751	79.7	71.9	60.7	6.05	1.85	3.27	LS	A	7.0	17.13	70
1390	4118	31759											
1391	4119	31760	79.4	70.8	65.7	6.47	2.08	3.11	LS	VOC	7.0	22.70	22
1392	4120	MAS 946-1 (ZC)	79.0	70.6	65.8	6.46	1.93	3.34	LS	A	3.0	22.85	27
1393	4121	31787	77.3	69.0	58.5	4.98	1.91	2.60	MS	VOC	4.0	23.23	22
1394	4122	31761	80.1	71.8	60.4	6.55	2.06	3.17	LS	VOC	4.0	22.96	26
1395	4123	31783	79.0	69.2	56.2	5.58	2.13	2.61	MS	VOC	4.0	24.34	37
1396	4124	31765	78.7	69.5	59.8	6.85	2.06	3.32	LS	VOC	4.0	24.99	76
1397	4125	31770	79.8	70.3	53.6	6.29	2.51	2.51	LB	VOC	7.0	24.84	44
1398	4126	31775	79.0	69.5	56.5	6.11	1.99	3.07	LS	VOC	4.0	23.70	50
1399	4127	31790	75.7	66.0	58.8	5.67	2.08	2.72	MS	VOC	4.0	23.26	59
1400	4128	DRR Dhan-54 (NC)	81.1	72.0	61.0	6.15	2.52	2.44	LB	VOC	3.0	21.94	22
1401	4129	31777											
1402	4130	31778	79.8	71.4	64.1	6.62	1.97	3.36	LS	VOC	4.0	22.44	31
1403	4131	(LC)											

HULL: Hulling(%) MILL: Milling(%) HRR: Head Rice Recovery KL: Kernal length (mm) KB: Kernal Breadth(mm) L/B : Length and Breadth(mm) KLAC: Kernal length after cooking WU: Water uptake ER: Elongation ratio AC: Amylose content (%) ASV: Alkali Spreading Value AC: Amylose Content GC: Gel consistency

INITIAL VARIETAL TRIAL – AEROBIC (IVT-Aerobic)

Locations: 26

Test entries: 60

Table: 16

Checks: DRR Dhan 54 (National), CR Dhan 202 (Northern, Eastern, North Eastern and Central), AAUDR – (Western), MAS 942-1 (Southern) – Zonal, PA 6129 (Hybrid), DRR H-4 (Hybrid Observational Check) and Local check.

Initial Variety Trial – Aerobic was constituted with 60 test entries along with four checks National check was DRR Dhan 54, Zonal check was CR Dhan 202 (Northern, Eastern, North Eastern and Central), AAUDR-1 (Western), MAS942-1 (Southern), Hybrid check was PA6129, and local check (as per the regions) in Kharif 2024. The trial was sent to 26 locations in Zone I, II, III, IV, V, VI and VII. Data was received from 21 locations and not received from 5 centres viz., Bhubaneshwar, Varanasi, Arundhati Nagar, Jabalpur, Kampanagar. Additionally, Hybrid Observational Check- DRR H4 was included in the trial. Data from three centres viz. Nagaland (Zone I), Hazaribagh (Zone III) and Jagdalpur (Zone V) were excluded 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. The data of grain yield, DFF, plant height and number of panicles/m² is given in table 42.1, 42.2 and 42.3.

Overall mean performance of entries

Data from 18 locations was considered for overall mean yield of the test entries including checks. Mean grain yield ranged from 2790 kg/ ha (IET 32655) to 4676 kg/ha for DRRH 4 (OHC). None of the test entries performed superior to the best check i.e. National Check (4521 kg/ha). **Hence, none of the test entries were promoted..**

Zonal performance :

Zone II (Northern)

Data from three locations viz. Karnal, Kaul, Ludhiana was considered. Mean grain yield ranged from 1215 kg/ha (IET 32655) to 5389 kg/ha (IET 32642). None of the test entries performed superior to the best check i.e. Local Check (5144 kg/ha). **Hence, none of the test entries were promoted.**

Zone III (Eastern)

Data from six locations viz. Bikramganj, Pusa, Patna, Ranchi, NRRI, Cuttack and Masoda were considered. Mean grain yield ranged from 2709 kg/ha (IET 32655) to 5149 kg/ha (IET 32612). Two entries viz. IET 32612 (BRR-2266) with 5149 kg/ha; and IET 32650 (IIRRH181) with 5021 kg/ha showed yield superiority than best check i.e., National Check (4588 kg/ha), and also outperformed and showed superiority in yield than hybrid check (2304 kg/ ha). **Hence the two entries, IET 32612 (BRR-2266) and IET 32650 (IIRRH181) were promoted to AVT-1.**

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of the superior entries in Zone III

Rank	IET No/ Designation/ Cross combination	GY(kg/ha)	GT	DFP	Remarks
1	IET 32612 (BRR-2266 (CRL22/MTU1071(TCN-188-SEL- 2186)	5149	MS	91	Promoted
2	IET 32650 (IIRRH181) (HYBRID)*	5021	LS	81	Promoted
BC	National Check (NC)	4588		78	
	Zonal Check (ZC)	4462		86	
	Hybrid Check (HC)	2304		91	
	Local Check (LC)	4094		77	
	OBSERVATIONAL HC	4645		83	
	CD	377			

*Hybrid was checked for superiority over hybrid check and best check

Zone IV (North Eastern)

Data from only one location, Lembucherra was considered. Mean grain yield ranged from 3575 kg/ha (IET 32628/IET32639) to 7888 kg/ha (IET32625). One test entry i.e., IET 32625 (RNR 35119) (7888 kg/ha) showed superior grain yield than the best check, i.e., ZC (5375 kg/ha). **However, since only one test location data is available in this zone, IET32625 is recommended for repeat for one more year of testing in IVT-aerobic to generate more data points in this zone.**

Performance of the superior entries in Zone IV

Rank	IET No/ Designation/ Cross combination	GY(kg/ha)	GT	DFP	Remarks
1	IET32625 (RNR 35119) (JGL24423/MTU1156)	7888	LB	110	Repeat
	National Check (NC)	3600		106	
BC	Zonal Check (ZC)	5375		102	
	Hybrid Check (HC)	4812		104	
	Local Check (LC)	4738		102	
	Observational Hybrid check (OHC)	5512		109	
	CD	1427			

Zone V (Central)

Data from two locations viz. Raipur and Rewa was considered. Mean grain yield ranged from 1577 kg/ha (IET 32655) to 5808 kg/ha (IET 32617). Three test entries viz. IET 32617 (5808 kg/ha), IET 32616 (5529 kg/ha) and IET 32654 (5486 kg/ ha) showed superior yield than the

Annual Progress Report 2024 Vol. I – Varietal Improvement

best check i.e. National check (4955 kg/ha). Hence, these three entries IET 32617, IET 32616 and IET 32654 are promoted to AVT-1. .

Performance of the superior entries in Zone V

Rank	IET No/ Designation/ Cross combination	GY(kg/ha)	GT	DFP	Remarks
1	IET 32617 (CRD DHAN6 IR 167-1662) BRRRI Dhan 55/IR58443-6B-10-3//BRRRI Dhan 55	5808	LS	85	Promoted
2	IET 32616 (CR 6322-RGA-59) (CR Dhan-318 X CR Dhan 801)	5529	LS	89	Promoted
3	IET 32654 (AD 22322-IR127364-46-2-1 (IR 84899-B-185-10-1-4-1/BPT5204)	5486	LB	88	Promoted
BC	National Check (NC)	4955		81	182
	Zonal Check (ZC)	4018		90	186
	Hybrid Check (HC)	1940		99	98
	Local Check (LC)	3967		89	221
	Observational Hybrid check (OHC)	4203		90	179
	CD	742			

Zone VI (Western)

Data from four locations viz. Vyara, Navsari, Derol, Parbhani were considered. Mean grain yield ranged from 2082 kg/ ha (ZC) to 4467 kg/ha (IET 32659). None of the test entries performed superior to the best check i.e. National check (4017 kg/ha). **Hence, none of the test entries were promoted.**

Zone VII (Southern)

Data from two locations viz. Mugad and Mandya were considered. Mean yield ranged from 2323 kg/ha (IET 32661) to 5849 kg/ha (IET 32624). None of the test entries performed superior to the best check i.e. National check (5185 kg/ha). **Hence, none of the test entries were promoted.**

Entries promoted from IVT to AVT 1 (Aerobic) :

Zone III : IET 32612 and IET 32650 (IRRH181)

Zone V : IET 32617, IET 32616 and IET 32654

Repeat :

Zone IV: IET 32625 (Repeat in IVT)

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 16.1: Composition of entries in Initial Variety Trial – Aerobic (IVT-Aerobic) Kharif 2024.

Entry No.	IET No.	Designation	Cross Combination	Grain type
4201	32611	KMP 260	KMP 175/DHMAS-70Q-164-1b-5	MS
4202	32612	BRR-2266	CRL22/MTU1071(TCN-188-SeL.-2186	MS
4203	32613	TRC 2024-4/TRC TJN 5806-B-B-9-6	Tripura Jala/Naveen	LS
4204	32614	NVSR-1225	GAR-13/IR 28	MS
4205	32615	CR 3522-4-1-1-1-2	Vijetha / ADT 43	LS
4206	32616	CR 6322-RGA-59	CR Dhan-318 x CR Dhan 801	LS
4207	32617	CRD Dhan -6 (IR 167-1662	BRR1 DHan55/IR58443-6B-10-3//BRR1 Dhan 55	LS
4208	32618	NWGR 19029	Gurjari/IR-66/5-4-4-1-1-3	MS
4209	32619	HURS 24-9-IR 143532-98-3-3-221-58-40	DRR Dhan 44/NX3533::IRGC 63796	LS
4210	32620	R 2311-142-1-122-1	Indira Barani Dhan-1/ Guang Jianr-1	LS
4211	32621	NDR-2023-2-CP-10	HAUR-10-9/Pusa Sugnadha 5	MS
4212	32622	CR 6310-IR 144574-47-7-B-1	IR 91648-B-89-B*2/IR 144560	MB
4213	32623	CR 6317-1-1-1-1	REETA/S 590//Swarna//SL 69-1-2	MS
4214	32624	AD 22310-IR143534-117-2-2-455-89-41	DRR Dhan 44/Jambali::IRGC73101-1	LS
4215	32625	RNR 35119	JGL24423/MTU1156	LB
4216	32626	RP CG-SLK-975-57	BPT5204/CGIL33	MB
4217	32627	KMP 271	KMP-175/DHMAS-70Q-164-1b-8	MS
4218	32628	HURS 24-10-IR 143533-103-7-7-279-66-6	DRR Dhan 44/NX3533::IRGC 63796	LS
4219	32629	IR 127285-124-2-1	BPT5204/ADT(R) 47	LS
4220		National Check	DRR Dhan 54	LB
4221	32630	TRC 2024-6/TRC TJN 5724-B-B-5-8	Tripura Jala/Naveen	MS
4222	32631	NVSR-1309	IET-23998/IET-23448	LB
4223	32632	CR 6308-IR18A1430	IR98418-B-B-15/IR10A134	LS
4224	32633	IR 144564-3-47-1-1-B (RYT 4173)	IR 91648-B-89-B/IR 144557	LS
4225	32634	IR 14F-717	RPCAU 717	MS
4226	32635	CSR 2021-2-94-181	IR29/PR126	LS
4227	32636	BRK 575 (IR 143509-2-7-7-38-3-29)	MTU 1010/AUS 295::IRGC 29083	LS
4228	32637	CRD IR Dhan 8(IR 82635-B-B-7-5-2)	IR 78875-176-B-2/IR 78875-207-B-3	LS
4229	32638	IIRRH 180	Hybrid	MS
4230	32639	CRAC-3994-7-4	Doubled Haploid of CR Dhan 701	LS
4231	32640	CR 4560-3-4-2-1	MTU-1010/ Tapswini mas	LS
4232	32641	SHUATS Dhan 11 (IR 18A1325)	IR 98418-B-B-15/IR10A134	LS
4233		Zonal Check	CR Dhan 202 (Northern, Eastern , North Eastern and Central) AAUDR-1 (Western), MAS 9461 (Southern)	
4234	32642	CSR MGC -80	CSR 36/CSR MAGIC 167	MB

Annual Progress Report 2024 Vol. I – Varietal Improvement

4235	31748 (R)	BRR-2274(R) IET No.31748	IR 11A 257-Sel	MS
4236	32643	(SVTCP 123) RP 5599-93-B-14-1	MTU1010/KMR3R	LS
4237	32644	RCPL-1-467	Pusa44/Nagina 22	LS
4238	32645	CRAC-3995-68-1	Doubled Haploid of BS6444G	LS
4239	32646	CR 4399-4393-A13-16-N7-4	CR Dhan 303/CR 4393-A13-16-N7-4//2*CR Dhan 303	MB
4240	32647	RNR 38999	R741-55-2-14-1/IR64	LS
4241	32648	RP CG-SLK-441-52	IR64/ GL147	MB
4242		Hybrid check	PA 6129	LS
4243	32649	CRR 837-IR 143533-106	DRR Dhan 44/NX3533::IRGC 63796	LS
4244	32650	IIRRH 181	Hybrid	LS
4245	32651	TRC 2024-5/TRC H2TJ 5516-B-B-11-5	Hakuchuk 2/Tripura Jala	LS
4246	32652	RCPL-1-468	IURON 8-19/Bhalum 1	MB
4247	32653	CR 6315-1-1-1-1-	CR 3856-29-14-2-1-1-7-1/ NP-9386	MS
4248	32654	AD 22322-IR127364-46-2-1	IR 84899-B-185-10-1-4-1/BPT 5204	LB
4249	32655	MGD 24-20	BPT-5204 x Doddiga-27	SB
4250	32656	CRR 838-IR09N202	IR04N114/IR01N144//IR 72102-4-159-1-3-3-3 (NSIC RC 112)	LS
4251	32657	NDR 2023-1-CP-7	Saurabh/IR 64	MB
4252	32658	NVSR 3860	NVSR 3009 x NVSR 2910	LS
4253	32659	CR4379-1-1-1-1-3	CR Dhan307/ MTU 1010	SB
4254	32660	CR 4708-15-2-1-1	Pooja / IR 75870-8-1-2-B-6-1-1-B	LS
4255		Observational Hybrid check	DRRH-4	MS
4256	32661	ODR-1-2-21-2	Geetanjali/Zhu 11-26	LS
4257	32662	(PS 614) RP 6464-163-10-B-1	RNR 17790/TEP 331	MS
4258	32663	PAU 6456-8-2-1-1-1 (RYT 4108)	PAU 3699-13-2-2-4/IR 78908-81-B-4-8//HKR 07-95	LS
4259	32664	RCPR 99-IR14L613	IR10L149/IR10L165	LS
4260	32665	NLR 3980	BPT 5204/NLR 145	SB
4261	32666	R 2272-515-2-287-1	R 1243-1224-578-1/Danteshwari	MS
4262	32667	NVSR 3816	NVSR 2970 x NVSR 2900	LS
4263	32668	BRK 580 (IR 129477-3873-201-5-1-5)	IR09N538/IR 93312-30-101-20-3-66--6//IR09N538/IR11L101//IR09N538/RATHUHEENATI/4/IR09N538/ABHAYA//IR09N538/IR BB 60 (IR 72920-1-44-4)//IR09N538/IR94225-B-82-B//IR09N538/IR94226-B-177-B/5/IR09N538/WHI IS-75-1-127//IR09N538/IR 96322-34-223-B//IR09N538/IR 91648-B-32-B	
4264		Local Check		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 16.2: Grain Yield (kg/ha) in Aerobic (IVT – Aerobic) Kharif 2024

Entry No	IET No	ZONE II-NORTHERN								ZONE II-NORTHERN (3)		ZONE III- EASTERN	
		Haryana				Haryana (2)		Punjab		Mean		Bihar	
		Karnal		Kaul		Mean		Ludhiana				Bikramganj	
4201	32611	2510		3950		3230		2321		2927		4198	
4202	32612	4165		4350		4258		3611		4042		8157	2*#
4203	32613	2625		4800		3712		4884		4103		6637	7
4204	32614	4750		4800		4775		4433		4661		5208	
4205	32615	3925		4700		4312		2697		3774		6067	
4206	32616	3055		4500		3778		3212		3589		5985	
4207	32617	5105	6	4400		4752		4097		4534		5919	
4208	32618	5050	8	4100		4575		3119		4090		5304	
4209	32619	2690		5400	8	4045		6076	3	4722	10	5780	
4210	32620	5205	5	4450		4828	9	4473		4709		5679	
4211	32621	1420		3900		2660		3403		2908		5242	
4212	32622	2945		4150		3548		3779		3625		5163	
4213	32623	5350	2	4100		4725		4381		4610		5302	
4214	32624	5410	1#	4800		5105	4	4369		4860	7	6230	
4215	32625	3365		4050		3708		5689	7	4368		6036	
4216	32626	4865		5200		5032	7	4682		4916	6	5892	
4217	32627	3960		4200		4080		4311		4157		5004	
4218	32628	4445		4800		4622		4699		4648		5718	
4219	32629	1205		3800		2502		4115		3040		6583	8
4220	DRR Dhan 54(NC)	3415		5950	3	4682		4531		4632		6442	
4221	32630	985		4150		2568		2818		2651		5765	
4222	32631	4775		4550		4662		4722		4682		5686	
4223	32632	2120		5300		3710		5203	10	4208		5386	
4224	32633	3465		3950		3708		4062		3826		5164	
4225	32634	2105		3250		2678		4676		3344		5524	
4226	32635	3765		4750		4258		6030	4	4848	8	5674	
4227	32636	2690		4750		3720		5023		4154		5960	
4228	32637	5245	4	5650	7	5448	1	5064		5320	2	6067	
4229	32638	4065		4300		4182		4502		4289		7111	3#
4230	32639	2180		4500		3340		4016		3565		5369	
4231	32640	5090	7	4300		4695		3738		4376		5702	
4232	32641	4205		4100		4152		5156		4487		5943	
4233	ZC	1955		4500		3228		2963		3139		6074	
4234	32642	4690		6200	2	5445	2	5278	9	5389	1	5386	
4235	31748 (R)	2255		4300		3278				3278		8592	1*#
4236	32643	2315		3450		2882		3565		3110		4967	
4237	32644	2135		4300		3218		3576		3337		5580	
4238	32645	1875		4950		3412		3067		3297		5869	
4239	32646	1530		4050		2790		3345		2975		5476	
4240	32647	2065		5400	8	3732		6181	1	4549		5544	
4241	32648	5305	3	3900		4602		4583		4596		6717	6
4242	PA 6129(HC)	1165		4200		2682				2682			
4243	32649	4865	10	5800	5	5332	3	4844		5170	4	4625	
4244	32650	2395		6300	1	4348		4786		4494		7002	4#
4245	32651	1425		4300		2862		2633		2786		6260	
4246	32652	2650		3500		3075		4913		3688		5892	
4247	32653	2495		4300		3398		3600		3465		4947	
4248	32654	2985		5150		4068		5775	6	4637		6315	
4249	32655	1215				1215				1215		4407	
4250	32656	2170		5000		3585		4572		3914		6136	
4251	32657	2105		5750	6	3928		4780		4212		6510	9
4252	32658	2020		5400	8	3710		2934		3451		5360	
4253	32659	4945	9	4750		4848	8	3686		4460		6454	10
4254	32660	2580		4900		3740		3715		3732		6404	
4255	DRRH-4(OHC)	4175		5950	3	5062	5	5590	8	5238	3	5777	
4256	32661	885		4500		2692		2321		2569		4091	
4257	32662	3150		4550		3850		3906		3869		4910	
4258	32663	2565		5150		3858		6128	2	4614		6899	5
4259	32664	3365		4650		4008				4008			
4260	32665	3665		4750		4208		4265		4227		5710	
4261	32666	4825		5300		5062	5	4404		4843	9	4766	
4262	32667	3625		4800		4212		4456		4294		5138	
4263	32668	4710		4850		4780	10	4028		4529		5116	
4264	LC	4540		4950		4745		5943	5	5144	5	5379	
Experimental Mean		3262		4663		3936		4296		4025		5777	
CD(0.05)		1226		800		750		804		616		1215	
CV(%)		18.81		8.58		9.53		9.36		7.66		10.52	
F val		9.42 **		5.45 **		10.37 **		11.79 **		13.77 **		3.51 **	
DOS		13-07-24		25-06-24				28-06-24				Direct Sowing	
DOP												14-07-24	
Local Check Name		CSR 105		HKR 49				PR 126				Sabour. Harshit	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 16.2 (Contd.): Grain Yield (kg/ha) in Aerobic (IVT - Aerobic) Kharif 2024

Entry No	IET No	ZONE III- EASTERN											
		Bihar				Bihar (3)		Jharkhand		Odisha		Uttar Pradesh	
		Pusa		Patna-ICAR		Mean		Ranchi		NRR1		Masodha	
4201	32611	4306		506		3003		3455		4149		4189	*
4202	32612	4444		3494		5365	2#	5615	1*	5469	3#	3717	
4203	32613	4306		1562		4168		4860		5217	#		
4204	32614	4028		3581		4272		3615		3333		3457	
4205	32615	4861	2	2238		4389		4860		5078	#		
4206	32616	4583	8	3606		4725		1785		2734		3923	
4207	32617	4375		3888	9	4727		3780		4922	#	4747	1*
4208	32618	4583	8	3800		4562		3240		5486	1#		
4209	32619	4403		1731		3971		4590		5286	#	3996	
4210	32620	4750	4	4212	5#	4880	8	3780		3915		3590	
4211	32621	4417		948		3536		3835		2882		3005	
4212	32622	4653	7	2050		3955		5130		4314		3996	
4213	32623	4444		3369		4372		2915		5486	2#	4036	
4214	32624	4514		3900	8	4881	7	4645		5391	8#	3757	
4215	32625	4306		2238		4193		4425		3828		4648	3*
4216	32626	4167		3981	6	4680		5295	8*	5095	#	4029	
4217	32627	4236		2431		3890		3240		2786		4239	9*
4218	32628	4236		3381		4445		3185		5339	10#	3258	
4219	32629	4417		1738		4246		3995		3212		3092	
4220	DRR Dhan 54(NC)	4347		3975	7	4921	6	3780		5269		3717	
4221	32630	4028		1342		3712		4480		5382	9#	2061	
4222	32631	4333		4869	1*#	4963	5	5615	1*	2812		3757	
4223	32632	4528		1988		3967		3730		5312	#	4202	*
4224	32633	4028		2150		3781		5290	9*	2595		3996	
4225	32634	4389		1900		3938		5130		4149		3750	
4226	32635	4458		2769		4300		4590		3247		4461	6*
4227	32636	4514		2206		4227		4860		5234	#	4235	10*
4228	32637	4403		3250		4573		3345		4661		3836	
4229	32638	4222		3756		5030	4	5345	6*	5408	5#	3723	
4230	32639	4278		2512		4053		3185		3238		4488	5*
4231	32640	4472		3869	10	4681		4375		3941		4202	*
4232	32641	4319		3700		4654		3725		5469	3#	3358	
4233	ZC	4569		3600		4748	10	4375		4592		3564	
4234	32642	4278		3231		4298		2645		4557		4235	*
4235	31748 (R)	4236		301		4377		3080		4002			
4236	32643	4139		861		3322		3565		3741		3324	
4237	32644	3958		1550		3696		3620		4583			
4238	32645	4111		2169		4050		3400		3793			
4239	32646	4458		554		3496		3290		4731	#		
4240	32647	4583	8	1121		3749		4590		4323		3344	
4241	32648	4694	6	4531	4#	5314	3#	2540		5269	#	3969	
4242	PA 6129(HC)	3472				3472		1135					
4243	32649	4083		2412		3707		2270		2752		3338	
4244	32650	4542		4831	3*#	5458	1*#	5345	6*	5217	#	3191	
4245	32651	3944		469		3558		4430		2665		4422	7*
4246	32652	4486		2088		4155		4695		5399	6#	4189	*
4247	32653	4125		1712		3595		4430		4705	#	3524	
4248	32654	3750		2869		4311		4050		5312	#	4388	8*
4249	32655			369		2388		3350					
4250	32656	4444		2881		4487		4375		3064		3743	
4251	32657	4431		1136		4026		4915		5399	6#	3910	
4252	32658	4472		2994		4275		3240		2899		2926	
4253	32659	4347		3462		4755	9	3295		4175		3258	
4254	32660	4028		2000		4144		3400		3455		2892	
4255	DRRH-4(OHC)	4917	1	3488		4727		5400	3	3568		4721	2
4256	32661	4278		482		2950		3510		3793		3730	
4257	32662	4167		2006		3694		4700		3481			
4258	32663	3889		2606		4465		5240	10	4193		3517	
4259	32664	4583				4583		4050				4621	4*
4260	32665	4028		3612		4450		2540		3776		2892	
4261	32666	4167		4840	2*#	4591		5400	3*	5252	#	3158	
4262	32667	4722	5	2119		3993		3830		4384		3816	
4263	32668	4472		3338		4309		5400	3*	3958		3610	
4264	LC	4861	2	3238		4492		3455		3932		3697	
Experimental Mean		4343		2610		4230		4020		4289		3768	
CD(0.05)		435		637		480		880		1100		338	
CV(%)		5.01		12.2		5.68		10.96		12.83		4.47	
F val		3.04 **		29.46 **		11.65 **		9.87 **		5.73 **		20.51 **	
DOS		27-06-24		29-06-24				27-06-24		25-06-24		27-07-24	
DOP		Direct Sowing		Direct Seeded Condition									
Local Check Name		Rajendra Nilam		Rajendra Bhagwati				BVD-110		CR Dhan 203		NDR 97	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 16.2 (Contd.): Grain Yield (kg/ha) in Aerobic (IVT - Aerobic) Kharif 2024

Entry No	IET No	ZONE III- EASTERN (6)		ZONE IV-NORTH EASTERN		ZONE V- CENTRAL			ZONE V- CENTRAL (2)		ZONE VI- WESTERN		
		Mean		Tripura		Chhattisgarh	Madhya Pradesh		Mean		Gujarat		
		Lembucherra		Raipur	Rewa		Mean		Vyra				
4201	32611	3467		3912		1502		3290		2396		3053	
4202	32612	5149	1*#	3950		4404		4235	5*#	4319		6420	1*#
4203	32613	4516		3925		5473		3368		4421		5367	7
4204	32614	3871		4375		4836		2206		3521		2407	
4205	32615	4621	7	3925		4912		4852	2*#	4882	8	4840	
4206	32616	3769		4762		7270	4#	3788	9*#	5529	2#	4333	
4207	32617	4605	9	4375		7628	3#	3988	7*#	5808	1*#	4253	
4208	32618	4483		3712		6943	8	2206		4574		4240	
4209	32619	4298		6188	2	7031	6#	2841		4936	5	4233	
4210	32620	4321		3562		7031	6#	2654		4842	9	3033	
4211	32621	3388		4600		3215		2984		3099		1800	
4212	32622	4218		4988		4819		2163		3491		3627	
4213	32623	4259		4150		5931		2939		4435		3480	
4214	32624	4739	5	3962		6833	9	2614		4724	10	4820	
4215	32625	4247		7888	1*#	6002		2906		4454		2827	
4216	32626	4743	4	5288	10	6171		1928		4049		3287	
4217	32627	3656		6125	3	1803		3057		2430		2820	
4218	32628	4186		3575		5157		1980		3569		4140	
4219	32629	3839		5462	8	4417		3038		3728		3953	
4220	DRR Dhan 54(NC)	4588		3600		8115	1	1795		4955	4	5440	4
4221	32630	3843		5138		5990		1967		3978		5087	9
4222	32631	4512		5012		4988		1980		3484		2080	
4223	32632	4191		4262		4255		1910		3083		3600	
4224	32633	3871		4088		2949		2037		2493		2480	
4225	32634	4140				6099		3284		4692		5393	6
4226	32635	4200		5612	6	5051		1904		3478		3920	
4227	32636	4502		4500		6037		2250		4144		4713	
4228	32637	4260		4788		7838	2#	2022		4930	6	5073	10
4229	32638	4928	3	4750		5457		3458	10	4458		5393	5
4230	32639	3845		3575		4439		2084		3261		4280	
4231	32640	4427		3875		4995		1949		3472		4173	
4232	32641	4419		6000	4	4855		2455		3655		4407	
4233	ZC	4462		5375	9	5038		2997		4018		2067	
4234	32642	4055		4762		5564		1993		3779		3987	
4235	31748 (R)	4042		4488		1515		2037		1776		4740	
4236	32643	3433				2166		1893		2030		3127	
4237	32644	3858		4075		5354		4504	3*#	4929	7	6347	2#
4238	32645	3869		3462		2404		2169		2286		3087	
4239	32646	3702		4675		4543		2225		3384		4320	
4240	32647	3918		4938		3906		4455	4*#	4180		4567	
4241	32648	4620	8	3725		6007		2656		4332		3407	
4242	PA 6129(HC)	2304		4812				1940		1940		3307	
4243	32649	3247		5212		5454		1738		3596		3827	
4244	32650	5021	2*	4312		6396	10	1731		4063		4540	
4245	32651	3698		5000		3410		4079	6*#	3745		3760	
4246	32652	4458		5200		4652		2008		3330		3547	
4247	32653	3907				4370		1691		3031		3780	
4248	32654	4447		4625		7075	5#	3898	8*#	5486	3#	5027	
4249	32655	2709		4588		1336		1818		1577		2153	
4250	32656	4107		4538		5786		1950		3868		4173	
4251	32657	4383		4175		5552		1897		3725		4233	
4252	32658	3648		4762		5738		1889		3813		2813	
4253	32659	4165		4312		5340		3082		4211		4853	
4254	32660	3696		4625		3396		1878		2637		5560	3
4255	DRRH-4(OHC)	4645	6	5512	7	5549		2857		4203		5027	
4256	32661	3314		4525		3038		3074		3056		3787	
4257	32662	3853		5262		5333		3203		4268		2913	
4258	32663	4391				6340		2441		4390		4027	
4259	32664	4418		4525				2132		2132		3787	
4260	32665	3760				6234		2436		4335		4920	
4261	32666	4597	10	3825		5531		2720		4126		5133	8
4262	32667	4002		3975		2791		4908	1*#	3849		3833	
4263	32668	4316		5938	5	6226		1780		4003		3333	
4264	LC	4094		4738		5805		2129		3967		4380	
Experimental Mean		4113		4642		5069		2630		3802		4021	
CD(0.05)		377		1427		1395		617		742		957	
CV(%)		4.59		15.36		13.76		11.74		9.76		11.91	
F val		14.54 **		2.53 **		10.46 **		14.97 **		12.59 **		9 **	
DOS				12-07-24		26-06-24		10-07-24				27-06-24	
DOP													
Local Check Name				TRC 2015-5		Indira Aerobic 1		IR64 (E.N.4264)				GNR 8	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 16.2 (Contd.): Grain Yield (kg/ha) in Aerobic (IVT - Aerobic) Kharif 2024

Entry No	IET No	ZONE VI- WESTERN								ZONE VI- WESTERN (4)	
		Gujarat				Gujarat (3)		Maharashtra		Mean	
		Navasari		Derol		Mean		Parabhani			
4201	32611	3383		1168		2535		2900		2626	
4202	32612	4482		2480		4461	5	3400	6	4196	3
4203	32613	4292		3374	8	4344	6	3300	9	4083	6
4204	32614	4613		1912		2977		3750	2#	3171	
4205	32615	2839		2435		3372		3100		3304	
4206	32616	2795		2061		3063		2850		3010	
4207	32617	5164	4*	618		3345		2700		3184	
4208	32618	4845		2980		4022		3050		3779	
4209	32619	4244		2808		3762		2650		3484	
4210	32620	4286		2291		3203		2750		3090	
4211	32621	2744		2255		2266		2800		2400	
4212	32622	3173		2532		3111		2800		3033	
4213	32623	4369		2759		3536		2750		3340	
4214	32624	4768		3154		4247	9	3000		3936	
4215	32625	3720		2857		3135		3000		3101	
4216	32626	4302		3653	5	3747		2850		3523	
4217	32627	3310		1259		2463		2750		2535	
4218	32628	3762		2629		3510		3150		3420	
4219	32629	4765		2515		3744		2500		3433	
4220	DRR Dhan 54(NC)	3970		3059		4157		3600	4	4017	9
4221	32630	3016		2569		3557		2600		3318	
4222	32631	4714		2682		3159		3400	6	3219	
4223	32632	3667		2823		3363		2850		3235	
4224	32633	5190	3*	2734		3468		3300	9	3426	
4225	32634	4393		2331		4039		2100		3554	
4226	32635	3875		2728		3508		2850		3343	
4227	32636	3548		2395		3552		2650		3326	
4228	32637	4665		2684		4141		2900		3831	
4229	32638	4935	6	3998	4*	4775	1*	3300		4406	2
4230	32639	3362		3023		3555		3000		3416	
4231	32640	5089	5*	2392		3885		1700		3339	
4232	32641	4420		974		3267		2100		2975	
4233	ZC	3152		1258		2159		1850		2082	
4234	32642	3893		1816		3232		1950		2911	
4235	31748 (R)	3768		606		3038		2850		2991	
4236	32643	3024		2003		2718		2700		2713	
4237	32644	4857	10	2836		4680	2	2450		4123	4
4238	32645	3048		3147		3094		2900		3045	
4239	32646	3333		2559		3404		2200		3103	
4240	32647	3744		3319	9	3876		3300		3732	
4241	32648	4756		3227	10	3797		3400	6	3697	
4242	PA 6129(HC)	4024				3665		1100		2810	
4243	32649	3131		2860		3273		3750	2#	3392	
4244	32650	4601		3448	7	4196		3600	4	4047	7
4245	32651	2962		2868		3197		2750		3085	
4246	32652	5206	2*	2244		3665		2850		3462	
4247	32653	3315		1664		2920		2700		2865	
4248	32654	5250	1*	2744		4340	7	3050		4018	8
4249	32655	2417				2285		2950		2507	
4250	32656	3905		2176		3418		2800		3264	
4251	32657	4607		4147	2*	4329	8	3000		3997	10
4252	32658	3047		2989		2950		2850		2925	
4253	32659	4726		4388	1*	4656	3	3900	1#	4467	1
4254	32660	4190		2881		4211	10	3100		3933	
4255	DRRH-4(OHC)	4887	8	3612	6	4509	4	2900		4106	5
4256	32661	3131		3159		3359		2700		3194	
4257	32662	4095		2749		3253		2950		3177	
4258	32663	3601		2677		3435		2950		3314	
4259	32664	4185		2355		3442		2850		3294	
4260	32665	4923	7	2462		4102		2900		3801	
4261	32666	4875	9	2549		4186		3250		3952	
4262	32667	3833		4096	3*	3921		2700		3616	
4263	32668	3423		2710		3155		2850		3079	
4264	LC	4083		1498		3320		2750		3178	
Experimental Mean		4011		2600		3548		2862		3374	
CD(0.05)		989		877		534		782		466	
CV(%)		12.34		16.86		7.54		13.68		6.9	
F val		4.54 **		6.34 **		10.13 **		3 **		9.06 **	
DOS		16-07-24		09-07-24				05-07-24			
DOP											
Local Check Name		GNR-8		AAUDR 1				Avishkar			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 16.2 (Contd.): Grain Yield (kg/ha) in Aerobic (IVT - Aerobic) Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN						ZONE VII- SOUTHERN (2)		Overall Mean (18)	
		Karnataka			Karnataka (2)			Mean		Mean	
		Mugad	Mandya		Mean		Mean		Mean		
4201	32611	4879		2953		3916		3916		3146	
4202	32612	5293		3591		4442		4442		4515	7
4203	32613	6686		2972		4829		4829		4332	
4204	32614	5179		4430	4	4804		4804		3940	
4205	32615	6207		2175		4191		4191		4101	
4206	32616	6221		2543		4382		4382		3889	
4207	32617	6693	10	4338	5	5516	3	5516	3	4499	8
4208	32618	4200		2923		3561		3561		4105	
4209	32619	5771		2647		4209		4209		4354	
4210	32620	5650		2806		4228		4228		4118	
4211	32621	4414		1605		3010		3010		3082	
4212	32622	4193		2819		3506		3506		3738	
4213	32623	6379		2132		4255		4255		4126	
4214	32624	7457	2	4240	6	5849	1	5849	1	4659	2
4215	32625	7636	1#	2598		5117	10	5117	10	4334	
4216	32626	6607		3431		5019		5019		4485	10
4217	32627	5171		2482		3827		3827		3510	
4218	32628	6329		2138		4234		4234		3996	
4219	32629	4743		1918		3330		3330		3637	
4220	DRR Dhan 54(NC)	6614		3756		5185	8	5185	8	4521	6
4221	32630	5800		1526		3663		3663		3595	
4222	32631	5993		5178	2*#	5585	2	5585	2	4286	
4223	32632	5879		2335		4107		4107		3853	
4224	32633	6429		2990		4709		4709		3717	
4225	32634	5221		5398	1*#	5310	7	5310	7	4064	
4226	32635	6586		4044	8	5315	6	5315	6	4240	
4227	32636	5079		2408		3743		3743		4058	
4228	32637	5771		3511		4641		4641		4487	9
4229	32638	4214		3934		4074		4074		4548	4
4230	32639	5371		1366		3369		3369		3570	
4231	32640	6679		3989	10	5334	5	5334	5	4141	
4232	32641	5250		2102		3676		3676		4030	
4233	ZC	5771		2904		4338		4338		3700	
4234	32642	5507		2843		4175		4175		4045	
4235	31748 (R)	5657		1697		3677		3677		3383	
4236	32643	4621		2702		3662		3662		3068	
4237	32644	4893		3009		3951		3951		3978	
4238	32645	5686		2420		4053		4053		3386	
4239	32646	6514		2194		4354		4354		3529	
4240	32647	7393	3	2904		5149	9	5149	9	4204	
4241	32648	7321	4	2911		5116		5116		4384	
4242	PA 6129(HC)	4464		2212		3338		3338		2894	
4243	32649	4136		2230		3183		3183		3740	
4244	32650	6793	9	3958		5376	4	5376	4	4610	3
4245	32651	4993		1317		3155		3155		3427	
4246	32652	6971	6	2433		4702		4702		4051	
4247	32653	6886	7	2776		4831		4831		3589	
4248	32654	6493		3033		4763		4763		4544	5
4249	32655	6250		2623		4436		4436		2790	
4250	32656	7200	5	2800		5000		5000		3984	
4251	32657	6007		1863		3935		3935		4134	
4252	32658	4721		2733		3727		3727		3544	
4253	32659	6407		3358		4882		4882		4374	
4254	32660	6800	8	2665		4733		4733		3804	
4255	DRRH-4(OHC)	6236		3995	9	5115		5115		4676	1
4256	32661	3936		711		2323		2323		3092	
4257	32662	3986		3033		3509		3509		3788	
4258	32663	3893		2359		3126		3126		4028	
4259	32664	3936		2230		3083		3083		3636	
4260	32665	4157		2322		3240		3240		3858	
4261	32666	3957		3627		3792		3792		4310	
4262	32667	3600		2506		3053		3053		3841	
4263	32668	4064		4240	6	4152		4152		4114	
4264	LC	4064		4436	3	4250		4250		4104	
Experimental Mean		5592		2880		4236		4236		3942	
CD(0.05)		1344		545		762		762		226	
CV(%)		12.03		9.47		9		9		2.87	
F val		5.31 **		22.94 **		8.21 **		8.21 **		31.94 **	
DOS		24-06-24		08-08-24							
DOP		Drill Sowing									
Local Check Name		MAS-946-1		Daksha (KMP-175)							

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 16.2 (Contd.): Grain Yield (kg/ha) in Aerobic (IVT - Aerobic) Kharif 2024 (Not considered)

Entry No	IET No	ZONE I- HILLY REGION		ZONE III- EASTERN		ZONE V- CENTRAL	
		Nagaland		Jharkhand		Chhattisgarh	
		@Nagaland		@Hazaribagh		@Jagadapur	
4201	32611	1675		1820		4277	
4202	32612	2175		2520	2	4375	
4203	32613	2300		1960		4661	
4204	32614	2150		1400		4440	
4205	32615	2175		1960		6139	9
4206	32616	2725		1400		4857	
4207	32617	2350		2240	4	4069	
4208	32618	2775				4225	
4209	32619	3075	8	2100	6	5703	
4210	32620	2325		1820		5671	
4211	32621	1850		1540		4840	
4212	32622	2125		1680		4290	
4213	32623	3300	5	1960		5498	
4214	32624	2100		1820		6263	7
4215	32625	3300	5	2520	2	5299	
4216	32626	3500	4	1540		6868	3
4217	32627	2275		1960		5299	
4218	32628	2250		1540		4336	
4219	32629	1800		1820		4437	
4220	DRR Dhan 54(NC)	1925		980		5117	
4221	32630	2100		1960		4287	
4222	32631	2725		1960		6908	2
4223	32632	2500		2100	6	5111	
4224	32633	1775		1540		4619	
4225	32634	3225	7	840		5638	
4226	32635	2800	9	2660	1	5876	
4227	32636	2775	10	1680		6188	8
4228	32637	2175		1820		5153	
4229	32638	4050	2	2100	6	4779	
4230	32639	2400		1540		5531	
4231	32640	2100		1680		5544	
4232	32641	2750		1960	9	5547	
4233	ZC	4100	1	1960	9	4694	
4234	32642	3675	3	1260		5879	
4235	31748 (R)	1850		1260		4023	
4236	32643	2075		1400		4352	
4237	32644	2125		1820		6380	5
4238	32645	1975		1680		4124	
4239	32646	1875		2240	4	4766	
4240	32647	2225		1820		6771	4
4241	32648	1625		1680		5964	10
4242	PA 6129(HC)	2300		1400		4141	
4243	32649	1825		1540		4154	
4244	32650	1950		980		4740	
4245	32651	1900		1820		4157	
4246	32652	2250		1260		6296	6
4247	32653	1425		1260		5719	
4248	32654	1975		1680		4759	
4249	32655	2025		1820		4277	
4250	32656	1575		980		5586	
4251	32657	1925		840		4951	
4252	32658	1650		1540		5140	
4253	32659	1675		1820		4066	
4254	32660	1475		1400		5387	
4255	DRRH-4(OHC)	1600		1820		7373	1
4256	32661	2075		1400		4134	
4257	32662	1575		1260		5098	
4258	32663	1200		1820		5085	
4259	32664	1925		1400		4854	
4260	32665	1200		1960		4010	
4261	32666	1550		1540		4847	
4262	32667	1600				4049	
4263	32668	1775		1540		5186	
4264	LC	2025		1120		5078	
Experimental Mean		2211		1673		5092	
CD(0.05)		164		890		2229	
CV(%)		3.72		26.6		21.9	
F val		117.66**		1.53*		1.1ns	
DOS		14-07-24		11-07-24		26-06-24	
DOP							
Local Check Name		Bhalum-3		Sahbhagi dhan		Indira Aerobic 1	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 16.3: Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT - Aerobic, Kharif 2024

Entry No	IET No	ZONE II-NORTHERN											
		Haryana						Haryana (2)			Punjab		
		Karnal			Kaul			Mean			Ludhiana		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
4201	32611	80	98	215	83	127	271	81	113	243	80	142	305
4202	32612	112	66	370	104	82	290	108	74	330	106	88	370
4203	32613	100	68	286	88	104	256	94	86	271	101	110	350
4204	32614	102	79	246	90	104	252	96	92	249	104	101	355
4205	32615	100	76	244	73	118	262	86	97	253	105	114	385
4206	32616	96	79	342	88	107	286	92	93	314	90	106	405
4207	32617	94	92	460	90	103	296	92	98	378	92	110	400
4208	32618	102	92	290	113	112	250	107	102	270	111	116	320
4209	32619	88	80	366	85	128	278	86	104	322	84	122	330
4210	32620	84	94	298	84	112	273	84	103	286	84	122	330
4211	32621	100	47	309	92	67	269	96	57	289	82	83	335
4212	32622	94	78	362	90	132	290	92	105	326	86	121	335
4213	32623	100	89	380	92	124	311	96	107	346	92	134	395
4214	32624	95	91	296	92	120	299	94	106	298	92	132	320
4215	32625	98	70	262	90	90	281	94	80	272	92	110	365
4216	32626	92	80	266	90	93	284	91	86	276	90	103	355
4217	32627	80	109	366	81	158	318	81	133	342	82	150	300
4218	32628	84	97	376	88	110	304	86	104	340	82	116	395
4219	32629	106	62	200	104	84	280	105	73	240	105	89	400
4220	DRR Dhan 54(NC)	94	98	250	90	100	308	92	99	279	84	127	315
4221	32630	114	56	198	116	69	265	115	63	232	108	102	320
4222	32631	87	89	413	86	119	280	86	104	346	87	114	340
4223	32632	94	70	272	91	74	272	92	72	272	82	102	390
4224	32633	102	80	166	96	97	280	99	88	224	96	100	385
4225	32634	100	72	320	95	90	284	98	81	302	90	102	415
4226	32635	82	75	338	91	95	258	87	85	298	88	108	425
4227	32636	94	69	486	90	113	248	92	91	367	87	101	370
4228	32637	80	87	410	88	112	308	84	100	359	84	108	435
4229	32638	92	92	343	91	108	304	92	100	324	90	109	340
4230	32639	104	66	383	88	111	284	96	89	334	90	111	380
4231	32640	102	76	358	93	108	286	97	92	322	92	112	350
4232	32641	80	80	302	90	100	281	86	90	291	86	96	370
4233	ZC	98	78	226	92	128	286	95	103	256	92	126	325
4234	32642	78	90	412	86	115	294	82	102	354	82	110	370
4235	31748 (R)	116	83	444	116	75	224	116	79	334			
4236	32643	78	94	206	88	124	268	84	109	238	88	120	315
4237	32644	109	65	294	104	76	266	106	70	280	102	88	350
4238	32645	99	75	233	96	92	258	97	83	245	89	110	340
4239	32646	116	58	304	102	87	292	110	72	298	107	105	355
4240	32647	90	78	277	89	92	257	90	85	267	87	105	360
4241	32648	94	86	328	103	112	272	98	99	300	103	106	315
4242	PA 6129(HC)	114	75	236	88	111	282	101	93	259			
4243	32649	94	90	440	90	125	310	92	107	376	87	114	420
4244	32650	80	90	263	92	122	264	86	106	264	90	122	335
4245	32651	118	81	280	96	114	298	107	97	290	98	137	325
4246	32652	100	72	302	95	96	314	98	84	308	90	98	355
4247	32653	100	70	238	89	120	308	94	95	273	86	126	370
4248	32654	100	81	201	96	110	255	98	96	228	96	122	345
4249	32655	115	93	278				115	93	278			
4250	32656	102	73	337	90	113	314	96	93	325	84	102	365
4251	32657	95	65	228	88	101	237	91	83	232	82	99	320
4252	32658	86	79	357	84	110	252	85	95	304	90	105	350
4253	32659	102	80	293	113	80	246	107	80	270	106	102	330
4254	32660	112	63	235	95	101	272	103	82	253	102	91	360
4255	DRRH-4(OHC)	86	97	239	90	143	276	88	120	258	88	134	310
4256	32661	104	63	168	92	106	299	98	84	234	64	88	305
4257	32662	96	78	358	96	94	318	96	86	338	96	106	375
4258	32663	100	63	246	92	83	278	96	73	262	86	104	350
4259	32664	82	67	227	87	106	226	85	86	227			
4260	32665	80	81	326	85	86	260	83	84	293	84	102	310
4261	32666	78	85	410	88	97	274	83	91	342	87	100	395
4262	32667	104	77	392	80	108	264	92	92	328	78	100	380
4263	32668	92	85	367	87	104	290	90	95	328	86	118	395
4264	LC	92	84	229	90	108	268	91	96	248	85	88	370
Experimental Mean		95	79	305	92	104	278	94	92	292	90	109	356
Standard Error		1.22			0.55						1.29		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 16.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT - Aerobic, Kharif 2024

Entry No	IET No	ZONE II- NORTHERN (3)			ZONE III- EASTERN							
		Mean			Bihar						Patna-ICAR	
		DDF	PH	PAN	Bikramganj			Pusa			DDF	PH
4201	32611	81	122	264	69	134	402	80	95	164	90	92
4202	32612	108	78	343	91	111	358	88	77	169	101	92
4203	32613	96	94	297	90	126	392	100	98	162	112	105
4204	32614	99	95	284	85	112	386	98	86	164	95	101
4205	32615	93	103	297	92	124	406	100	102	162	109	96
4206	32616	91	97	344	84	114	364	90	84	161	88	87
4207	32617	92	102	385	78	126	329	88	76	160	87	98
4208	32618	108	106	287	92	128	422	102	95	156	104	117
4209	32619	86	110	324	99	122	367	84	79	167	87	100
4210	32620	84	110	300	78	111	382	76	86	178	85	104
4211	32621	91	66	304	102	86	362	92	69	150	94	93
4212	32622	90	110	329	76	124	389	90	90	174	86	93
4213	32623	95	116	362	83	135	404	91	94	172	96	124
4214	32624	93	114	305	103	132	384	92	104	164	96	114
4215	32625	94	90	303	79	114	399	92	74	155	94	102
4216	32626	91	92	302	80	117	342	89	69	167	83	117
4217	32627	81	139	328	78	147	344	79	110	174	78	116
4218	32628	85	108	358	74	116	366	84	82	178	84	111
4219	32629	105	78	294	104	100	408	100	80	176	110	80
4220	DRR Dhan 54(NC)	89	108	291	78	128	408	82	92	166	86	120
4221	32630	113	76	261	106	109	387	106	79	168	118	105
4222	32631	87	108	344	79	131	388	86	84	153	86	104
4223	32632	89	82	312	101	114	352	82	85	164	85	101
4224	32633	98	92	277	86	127	337	104	81	157	103	102
4225	32634	95	88	340	78	132	339	90	94	172	99	87
4226	32635	87	93	340	76	109	372	82	75	194	82	95
4227	32636	90	94	368	72	116	390	86	87	160	91	83
4228	32637	84	103	384	74	120	356	82	84	176	82	104
4229	32638	91	103	329	80	127	404	78	80	150	83	103
4230	32639	94	96	349	81	123	386	87	89	163	98	102
4231	32640	96	99	332	79	121	368	90	78	150	90	104
4232	32641	86	92	318	76	108	411	89	66	148	84	96
4233	ZC	94	111	279	78	126	377	92	82	162	97	103
4234	32642	82	105	359	76	116	374	78	78	152	77	99
4235	31748 (R)	116	79	334	105	115	470	111	76	188	127	107
4236	32643	85	113	263	78	130	390	84	90	164	87	87
4237	32644	105	76	303	107	95	377	102	74	153	108	77
4238	32645	94	92	277	83	137	346	95	83	156	101	103
4239	32646	109	83	317	92	106	378	106	84	156	114	92
4240	32647	89	92	298	104	100	332	80	63	156	85	108
4241	32648	100	101	305	91	124	399	98	104	162	96	112
4242	PA 6129(HC)	101	93	259				90	87	182		
4243	32649	90	110	390	78	119	356	87	90	158	82	101
4244	32650	88	111	287	87	119	410	86	82	150	84	98
4245	32651	104	111	301	91	150	356	100	107	162	114	88
4246	32652	95	89	324	80	115	376	89	81	152	93	93
4247	32653	92	105	305	85	132	343	86	95	173	87	92
4248	32654	97	105	267	84	128	422	92	98	156	100	115
4249	32655	115	93	278	104	152	375		86		124	126
4250	32656	92	96	338	80	127	341	79	94	176	90	108
4251	32657	88	88	262	78	115	408	89	84	184	92	102
4252	32658	87	98	320	81	120	306	90	80	150	82	100
4253	32659	107	88	290	90	119	402	104	94	164	109	105
4254	32660	103	85	289	103	110	413	100	82	181	105	87
4255	DRRH-4(OHC)	88	125	275	79	126	376	88	88	160	87	115
4256	32661	87	86	257	66	115	290	84	90	162	70	81
4257	32662	96	93	350	82	116	324	96	81	158	95	91
4258	32663	93	83	292	78	113	380	88	76	156	94	88
4259	32664	85	86	227				86	78	170		
4260	32665	83	90	299	80	108	352	86	78	178	82	87
4261	32666	84	94	360	78	105	305	86	81	172	82	106
4262	32667	87	95	345	70	104	302	80	72	182	72	105
4263	32668	88	102	350	78	110	380	87	84	183	86	110
4264	LC	89	93	289	75	114	358	88	98	180	85	113
Experimental Mean		93	97	312	84	119	372	89	85	165	93	100
Standard Error						0			2.44			0.4

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 16.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT - Aerobic, Kharif 2024

Entry No	IET No	ZONE III- EASTERN											
		Bihar (3)			Jharkhand			Odisha			Uttar Pradesh		
		Mean			Ranchi			NRRI			Masodha		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4201	32611	80	107	282	74	114	175	74	128	248	68	81	175
4202	32612	93	94	264	104	94	176	94	88	303	72	81	176
4203	32613	101	109	277	90	116	263	70	98	308	96	113	263
4204	32614	93	99	276	90	105	176	96	88	300	76	92	176
4205	32615	100	107	284	102	112	290	96	120	316	116	87	290
4206	32616	87	95	263	96	95	190	86	120	288	68	88	190
4207	32617	84	100	244	86	100	188	82	90	288	68	95	188
4208	32618	100	113	289	105	111	185	91	122	313	86	98	185
4209	32619	90	101	267	84	112	278	78	113	314	82	102	278
4210	32620	80	100	280	80	112	188	78	100	296	74	104	188
4211	32621	96	82	256	86	87	232	80	82	274	73	70	232
4212	32622	84	102	281	86	114	229	84	106	318	96	94	229
4213	32623	90	118	288	88	118	147	101	116	320	70	116	147
4214	32624	97	117	274	98	114	193	94	128	301	82	108	193
4215	32625	88	97	277	84	104	209	76	84	284	74	93	209
4216	32626	84	101	254	86	87	218	82	86	294	70	90	218
4217	32627	78	124	258	76	104	186	80	132	235	66	128	186
4218	32628	80	103	272	86	104	197	78	99	286	74	97	197
4219	32629	105	87	292	90	92	144	90	97	284	77	86	144
4220	DRR Dhan 54(NC)	82	113	287	82	114	186	71	114	307	72	90	186
4221	32630	110	98	278	88	100	210	101	102	299	83	106	210
4222	32631	84	106	270	86	102	206	82	90	257	70	86	206
4223	32632	89	100	258	80	100	224	82	104	286	70	98	224
4224	32633	98	103	247	88	104	203	88	104	292	83	108	203
4225	32634	89	104	255	86	111	194	86	106	284	72	83	194
4226	32635	80	93	282	84	98	166	78	86	265	80	90	166
4227	32636	83	95	275	80	96	236	76	94	304	70	78	236
4228	32637	79	103	266	82	98	187	78	88	257	72	73	187
4229	32638	80	103	276	82	112	200	78	98	280	68	98	200
4230	32639	88	105	274	86	103	166	84	90	313	74	92	166
4231	32640	86	101	260	86	100	226	84	98	308	76	86	226
4232	32641	83	90	280	84	89	138	80	92	308	72	111	138
4233	ZC	89	104	270	88	106	198	92	108	245	68	106	198
4234	32642	77	98	263	82	96	108	78	95	290	68	74	108
4235	31748 (R)	114	100	329	106	102	200	101	108	262	114	84	200
4236	32643	83	102	277	84	121	108	74	119	255	66	88	108
4237	32644	106	82	265	72	90	194	102	92	275	86	100	194
4238	32645	93	108	251	88	128	186	92	106	307	96	103	186
4239	32646	104	94	267	97	102	216	94	102	276	114	74	216
4240	32647	90	90	244	82	99	208	78	88	255	70	75	208
4241	32648	95	113	280	100	100	136	86	111	284	69	107	136
4242	PA 6129(HC)	90	87	182	93	100	80						80
4243	32649	82	104	256	87	103	190	81	104	275	66	92	190
4244	32650	86	100	280	82	110	162	78	96	268	70	100	162
4245	32651	102	115	259	94	118	259	108	111	282	76	87	259
4246	32652	87	96	264	88	106	149	81	98	278	68	84	149
4247	32653	86	106	258	88	112	164	76	95	307	74	79	164
4248	32654	92	114	289	90	106	170	82	79	282	78	102	170
4249	32655	114	122	375	124	144	126				102	118	126
4250	32656	83	110	259	82	98	163	84	103	273	70	104	163
4251	32657	86	100	296	86	105	244	80	102	266	72	104	244
4252	32658	85	100	228	86	106	126	88	104	296	66	79	126
4253	32659	101	106	284	100	100	122	98	104	275	83	81	122
4254	32660	103	93	297	92	103	174	103	112	295	80	87	174
4255	DRRH-4(OHC)	84	110	268	84	112	315	78	104	280	83	104	315
4256	32661	74	95	226	64	94	110	72	98	305	66	67	110
4257	32662	91	96	240	90	108	220	82	102	299	100	97	220
4258	32663	87	92	268	88	102	170	76	96	292	68	86	170
4259	32664	86	78	170	87	98	162				68	96	162
4260	32665	83	91	264	85	90	172	82	78	288	64	83	172
4261	32666	82	97	238	86	110	178	78	103	288	68	68	178
4262	32667	74	94	242	76	102	207	74	88	272	66	70	207
4263	32668	84	101	282	82	105	231	86	91	294	69	99	231
4264	LC	83	108	269	64	122	248	76	84	301	74	82	248
Experimental Mean		89	101	268	87	105	189	84	100	286	76	92	189
Standard Error						0.67			1.1			0.54	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 16.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT - Aerobic, Kharif 2024

Entry No	IET No	ZONE III- EASTERN (6)			ZONE IV-NORTH EASTERN			ZONE V- CENTRAL					
		Mean			Lembucherra			Chhattisgarh			Madhya Pradesh		
		DDF	PH	PAN	DDF	PH	PAN	Raipur			Re wa		
								DDF	PH	PAN	DDF	PH	PAN
4201	32611	76	107	232	107	86	412	60	112	133	83	110	224
4202	32612	91	91	237	106	101	475	90	102	262	92	93	210
4203	32613	93	109	278	118	126	412	88	130	199	100	112	212
4204	32614	90	97	240	102	96	212	88	112	192	87	91	139
4205	32615	102	107	293	105	80	312	87	142	210	97	98	210
4206	32616	85	98	239	109	72	250	83	118	240	95	108	210
4207	32617	82	98	230	121	96	312	82	119	225	89	102	230
4208	32618	97	112	252	104	98	275	94	129	246	102	42	126
4209	32619	86	105	281	108	94	388	78	105	190	88	102	180
4210	32620	78	103	246	104	88	438	76	132	185	102	92	181
4211	32621	88	81	250	106	96	375	72	92	138	101	94	148
4212	32622	86	104	268	102	96	362	78	130	223	109	89	215
4213	32623	88	117	238	102	108	312	82	139	192	89	104	212
4214	32624	94	117	247	108	86	275	82	134	263	96	101	166
4215	32625	83	95	251	110	86	250	78	122	232	100	102	162
4216	32626	82	94	248	106	91	262	78	120	239	91	71	148
4217	32627	76	123	225	108	80	312	68	136	213	88	87	190
4218	32628	80	102	245	106	96	275	77	121	210	105	84	140
4219	32629	95	89	231	109	96	300	88	104	212	102	97	217
4220	DRR Dhan 54(NC)	78	109	251	106	96	225	76	140	292	86	80	73
4221	32630	100	100	255	110	98	362	92	120	250	88	101	142
4222	32631	81	100	242	106	86	288	74	115	232	104	77	170
4223	32632	84	100	250	108	80	375	76	131	164	97	92	82
4224	32633	92	104	238	112	86	288	88	121	303	95	95	226
4225	32634	85	102	236				82	132	223	106	81	222
4226	32635	80	92	233	106	101	288	76	105	208	99	89	162
4227	32636	79	92	265	107	106	462	75	91	173	108	84	114
4228	32637	78	94	232	105	108	388	77	120	268	96	84	76
4229	32638	78	103	247	104	86	488	78	132	196	100	91	93
4230	32639	85	100	238	108	111	300	82	131	228	100	73	140
4231	32640	84	97	256	108	76	325	81	115	200	94	90	176
4232	32641	81	93	228	102	86	400	76	97	202	96	84	124
4233	ZC	86	105	236	102	81	450	84	134	227	97	96	144
4234	32642	76	93	206	108	102	325	75	107	198	108	107	111
4235	31748 (R)	111	99	264	104	82	338	98	100	139	97	77	94
4236	32643	79	106	205				72	130	185	102	91	122
4237	32644	96	88	239	106	81	412	90	98	234	102	94	224
4238	32645	93	110	236	104	96	275	84	122	125	102	86	162
4239	32646	103	93	249	109	111	488	94	117	204	96	88	200
4240	32647	83	89	232	108	94	338	78	106	218	94	102	222
4241	32648	90	110	224	104	90	412	88	122	217	86	83	114
4242	PA 6129(HC)	91	93	114	104	90	300				99	68	98
4243	32649	80	102	234	104	92	312	79	133	199	89	88	207
4244	32650	81	101	230	121	80	350	77	132	185	99	101	210
4245	32651	97	110	264	105	84	312	92	136	200	96	96	162
4246	32652	83	96	221	108	92	288	86	117	210	97	83	142
4247	32653	83	101	230				80	130	244	97	96	104
4248	32654	88	105	240	100	94	300	86	132	228	89	98	250
4249	32655	114	126	209	116	120	438	114	155	176	101	87	124
4250	32656	81	106	223	103	86	438	78	105	206	97	93	132
4251	32657	83	102	269	104	80	188	75	111	176	98	85	102
4252	32658	82	98	201	104	114	225	78	126	222	84	70	133
4253	32659	97	101	217	104	90	312	90	131	170	95	87	142
4254	32660	97	97	248	105	108	438	88	115	222	88	92	138
4255	DRRH-4(OHC)	83	108	289	109	86	425	76	143	200	104	95	158
4256	32661	70	91	196	103	90	338	58	97	168	97	92	150
4257	32662	91	99	244	110	91	462	78	124	230	94	91	139
4258	32663	82	93	233				76	107	198	88	86	164
4259	32664	80	91	165	106	96	162				98	94	168
4260	32665	80	87	232				77	115	194	96	83	194
4261	32666	80	96	224	116	98	288	78	135	187	104	89	172
4262	32667	73	90	234	108	80	262	68	109	196	91	85	117
4263	32668	81	100	264	108	104	400	80	126	266	88	82	246
4264	LC	77	102	267	102	92	362	77	107	244	101	96	198
Experimental Mean		86	100	238	106	93	339	80	120	209	96	90	161
Standard Error						1.51			1.14			1.39	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 16.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT - Aerobic, Kharif 2024

Entry No	IET No	ZONE V- CENTRAL (2)			ZONE VI- WESTERN								
		Mean			Gujarat			Navasari			Derol		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4201	32611	71	111	179	66	129	119	71	101	204	72	110	270
4202	32612	91	98	236	100	121	172	100	91	349	94	91	300
4203	32613	94	121	206	94	133	200	99	93	274	88	115	260
4204	32614	88	102	166	79	130	176	86	99	284	86	93	370
4205	32615	92	120	210	100	147	185	107	96	272	101	117	388
4206	32616	89	113	225	86	127	177	92	89	276	88	102	362
4207	32617	85	111	228	80	130	188	92	102	235	91	84	252
4208	32618	98	86	186	94	138	190	99	109	321	94	117	252
4209	32619	82	104	185	67	124	162	89	112	248	84	105	352
4210	32620	90	112	183	67	129	190	88	94	333	78	109	294
4211	32621	87	93	143	67	88	138	82	55	203	81	71	366
4212	32622	94	109	219	84	140	178	94	97	273	82	104	402
4213	32623	85	122	202	86	135	138	96	103	164	90	96	224
4214	32624	89	117	214	87	143	196	96	107	251	90	115	308
4215	32625	90	112	197	84	124	192	96	94	286	82	102	358
4216	32626	85	95	194	85	121	190	94	98	343	92	102	392
4217	32627	78	112	201	70	146	132	76	124	302	82	127	328
4218	32628	91	102	175	76	128	174	88	101	388	82	103	402
4219	32629	95	101	214	90	111	192	84	79	364	102	84	430
4220	DRR Dhan 54(NC)	81	110	182	82	144	178	82	106	300	76	120	284
4221	32630	90	111	196	100	128	204	102	95	294	94	96	370
4222	32631	89	96	201	78	137	190	85	112	250	98	101	352
4223	32632	86	112	123	67	126	166	86	100	367	78	105	358
4224	32633	92	108	264	87	128	164	98	96	274	94	102	428
4225	32634	94	107	222	87	122	178	83	89	222	86	114	428
4226	32635	88	97	185	77	119	154	85	94	262	82	99	290
4227	32636	92	88	144	80	124	183	82	85	270	78	83	356
4228	32637	86	102	172	77	117	210	87	98	348	77	79	376
4229	32638	90	112	145	77	132	182	86	96	358	78	102	294
4230	32639	92	102	184	87	135	110	95	98	210	84	108	372
4231	32640	88	103	188	87	121	184	95	97	236	88	94	252
4232	32641	86	90	162	87	125	188	88	92	311	91	82	314
4233	ZC	90	115	186	62	124	186	70	108	188	72	97	304
4234	32642	92	107	155	76	118	182	82	83	260	84	97	358
4235	31748 (R)	98	89	116	100	125	193	103	103	244	102	106	338
4236	32643	87	111	154	83	129	198	84	97	306	78	119	250
4237	32644	96	96	229	87	112	192	103	86	276	99	100	258
4238	32645	93	104	144	83	144	178	97	102	362	102	108	358
4239	32646	95	103	202	94	136	192	98	77	142	98	107	388
4240	32647	86	104	220	71	111	162	86	81	263	80	84	270
4241	32648	87	103	166	100	138	148	96	90	330	92	108	298
4242	PA 6129(HC)	99	68	98	82	123	135	87	80	314			
4243	32649	84	110	203	82	128	184	90	100	234	84	114	330
4244	32650	88	117	197	82	113	188	86	96	257	81	97	258
4245	32651	94	116	181	88	142	138	98	97	212	96	123	382
4246	32652	92	100	176	88	122	134	90	106	271	91	102	320
4247	32653	88	113	174	86	144	180	94	105	224	98	109	336
4248	32654	88	115	238	87	143	192	96	116	266	91	108	252
4249	32655	107	121	150	116	140	164	92	127	220		123	
4250	32656	88	99	168	87	123	182	92	89	372	90	100	270
4251	32657	87	98	139	72	124	192	86	97	240	80	95	358
4252	32658	82	98	178	74	125	144	82	97	242	84	99	264
4253	32659	93	109	156	100	139	164	100	94	302	96	105	240
4254	32660	88	103	180	87	122	153	85	80	282	98	104	266
4255	DRRH-4(OHC)	90	119	179	80	137	184	88	102	258	79	110	328
4256	32661	77	95	159	57	110	134	70	93	297	72	94	260
4257	32662	86	108	184	79	123	189	96	93	264	90	100	228
4258	32663	82	96	181	77	104	176	86	88	192	82	98	282
4259	32664	98	94	168	87	124	142	88	98	311	93	95	308
4260	32665	86	99	194	78	112	166	84	86	296	84	83	346
4261	32666	91	112	180	84	127	175	88	93	373	80	104	276
4262	32667	80	97	157	62	104	168	78	84	312	72	86	286
4263	32668	84	104	256	83	128	192	94	93	354	94	104	356
4264	LC	89	101	221	67	128	165	84	104	301	68	100	256
Experimental Mean		89	105	185	82	126	172	89	96	278	86	101	319
Standard Error						3.6			3.21			0.95	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 16.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT - Aerobic, Kharif 2024

Entry No	IET No	ZONE VI- WESTERN						ZONE VI- WESTERN (4)			ZONE VII- SOUTHERN			
		Gujarat (3)			Maharashtra			Mean			Karnataka			
		Mean						Parabhani			Mugad			
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	
4201	32611	70	113	198	78	92	315	72	108	227	76	80	262	
4202	32612	98	101	274	94	59	338	97	90	290	106	97	299	
4203	32613	94	114	245	91	64	338	93	102	268	98	80	374	
4204	32614	84	107	277	85	60	370	84	95	300	80	72	317	
4205	32615	103	120	282	98	76	358	102	109	301	100	96	324	
4206	32616	88	106	272	85	53	331	88	93	286	82	69	333	
4207	32617	88	105	225	89	60	295	88	94	242	84	76	308	
4208	32618	95	121	254	94	79	348	95	111	278	98	92	298	
4209	32619	80	114	254	87	60	338	82	100	275	80	72	302	
4210	32620	78	110	272	86	56	340	80	97	289	76	87	337	
4211	32621	76	71	236	88	47	338	80	65	261	80	54	298	
4212	32622	87	114	284	89	70	322	87	103	294	82	86	350	
4213	32623	90	111	176	86	70	335	89	101	215	108	88	265	
4214	32624	91	122	252	92	70	335	91	109	273	100	96	365	
4215	32625	88	107	279	87	54	330	87	94	292	85	76	298	
4216	32626	90	107	308	90	51	315	90	93	310	86	73	314	
4217	32627	76	132	254	82	102	334	78	125	274	82	94	355	
4218	32628	82	111	321	90	63	315	84	99	320	92	82	332	
4219	32629	92	91	329	93	59	353	92	83	335	94	74	362	
4220	DRR Dhan 54(NC)	80	123	254	84	71	371	81	110	283	102	96	309	
4221	32630	99	106	289	90	62	285	96	95	288	89	82	329	
4222	32631	87	117	264	86	71	364	87	105	289	102	82	360	
4223	32632	77	110	297	85	63	345	79	98	309	84	77	300	
4224	32633	93	109	288	89	60	338	92	97	301	82	88	330	
4225	32634	85	108	276	88	52	215	86	94	261	85	100	284	
4226	32635	81	104	236	90	58	285	83	93	248	102	64	341	
4227	32636	80	97	270	87	50	295	81	86	276	85	84	326	
4228	32637	80	98	311	90	52	275	83	86	302	90	80	292	
4229	32638	80	110	278	87	63	338	82	98	293	108	60	260	
4230	32639	88	114	231	91	61	303	89	101	249	105	74	324	
4231	32640	90	104	224	92	54	200	90	92	218	98	72	278	
4232	32641	88	100	271	90	50	270	89	87	271	85	84	347	
4233	ZC	68	110	226	66	78	150	68	102	207	80	66	353	
4234	32642	81	99	267	88	54	225	82	88	256	76	65	324	
4235	31748 (R)	102	112	258	89	64	322	98	100	274	98	80	261	
4236	32643	82	115	251	91	89	338	84	108	273	95	93	318	
4237	32644	96	99	242	90	54	118	95	88	211	96	70	318	
4238	32645	94	118	299	97	70	160	95	106	264	96	103	326	
4239	32646	97	107	241	98	60	115	97	95	210	98	88	332	
4240	32647	79	92	232	89	54	325	81	83	255	91	72	322	
4241	32648	96	112	258	92	62	302	95	100	270	86	95	339	
4242	PA 6129(HC)	84	102	225	89	60	85	86	88	178	87	64	193	
4243	32649	85	114	249	92	68	335	87	102	271	82	86	348	
4244	32650	83	102	234	88	59	315	84	91	255	79	74	312	
4245	32651	94	121	244	93	78	308	94	110	260	98	102	346	
4246	32652	90	110	242	93	62	298	90	98	256	97	80	262	
4247	32653	92	119	246	92	71	325	92	107	266	94	96	322	
4248	32654	91	122	237	92	77	328	91	111	260	100	83	320	
4249	32655	104	130	192	98	108	368	102	125	251	104	108	274	
4250	32656	90	104	274	89	60	320	90	93	286	95	80	308	
4251	32657	80	106	264	88	62	345	82	95	284	82	80	320	
4252	32658	80	107	216	84	53	330	82	93	245	86	74	315	
4253	32659	98	113	235	98	67	365	98	101	268	92	92	314	
4254	32660	90	102	234	90	63	345	90	92	262	98	92	336	
4255	DRRH-4(OHC)	82	116	257	86	72	352	83	105	281	90	84	325	
4256	32661	66	99	230	61	56	292	65	88	246	80	50	254	
4257	32662	88	105	227	88	62	338	88	95	255	102	68	278	
4258	32663	82	97	216	86	59	302	83	87	238	114	62	253	
4259	32664	89	106	254	87	60	295	89	94	264	112	67	218	
4260	32665	82	94	269	87	59	352	83	85	290	113	54	266	
4261	32666	84	108	275	80	68	305	83	98	282	108	59	221	
4262	32667	71	92	255	80	60	280	73	84	261	102	65	264	
4263	32668	91	108	301	86	73	287	90	100	298	99	62	261	
4264	LC	73	111	241	87	73	335	77	101	264	92	56	250	
Experimental Mean		86	108	256	88	64	304	87	97	268	92	79	306	
Standard Error								1.52				4.19		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 16.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT - Aerobic, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN						ZONE VII-SOUTHERN (2)			Overall Mean (18)		
		Karnataka			Karnataka (2)			Mean			Mean		
		Mandya			Mean			Mean			Mean		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
4201	32611	90	110	270	83	95	266	83	95	266	78	108	245
4202	32612	104	70	323	106	84	311	106	84	311	98	89	291
4203	32613	106	89	357	102	85	366	102	85	366	96	104	289
4204	32614	86	85	376	84	78	346	84	78	346	90	95	264
4205	32615	104	87	402	102	91	363	102	91	363	99	105	295
4206	32616	88	79	381	85	74	357	85	74	357	88	94	282
4207	32617	91	89	391	88	82	350	88	82	350	88	97	279
4208	32618	106	100	262	102	96	280	102	96	280	99	105	261
4209	32619	93	87	299	86	80	300	86	80	300	86	101	284
4210	32620	92	90	299	84	88	318	84	88	318	83	101	278
4211	32621	99	59	300	90	56	298	90	56	298	88	74	263
4212	32622	90	90	404	86	88	378	86	88	378	89	103	297
4213	32623	91	100	279	100	94	272	100	94	272	91	111	259
4214	32624	92	108	336	96	102	351	96	102	351	94	111	273
4215	32625	94	71	292	90	74	295	90	74	295	89	93	268
4216	32626	91	69	276	88	71	295	88	71	295	88	91	272
4217	32627	92	110	404	87	102	380	87	102	380	80	120	275
4218	32628	94	87	404	93	85	368	93	85	368	86	100	291
4219	32629	94	65	354	94	70	358	94	70	358	97	86	284
4220	DRR Dhan 54(NC)	109	96	394	106	96	352	106	96	352	86	107	268
4221	32630	90	69	391	90	75	360	90	75	360	100	93	276
4222	32631	110	91	401	106	86	380	106	86	380	88	100	285
4223	32632	90	68	384	87	73	342	87	73	342	86	94	278
4224	32633	92	83	391	87	86	360	87	86	360	93	98	280
4225	32634	99	75	384	92	87	334	92	87	334	89	97	272
4226	32635	102	73	398	102	69	369	102	69	369	87	91	269
4227	32636	91	70	386	88	77	356	88	77	356	85	90	294
4228	32637	88	78	380	89	79	336	89	79	336	84	94	290
4229	32638	94	81	344	101	70	302	101	70	302	86	98	281
4230	32639	94	76	391	99	75	358	99	75	358	91	98	272
4231	32640	96	76	268	97	74	273	97	74	273	91	93	258
4232	32641	92	70	276	89	77	311	89	77	311	86	89	266
4233	ZC	91	69	378	86	67	365	86	67	365	84	101	259
4234	32642	98	797	377	87	431	351	87	431	351	83	133	263
4235	31748 (R)	99	80	388	99	80	324	99	80	324	105	92	269
4236	32643	108	90	392	101	91	355	101	91	355	85	106	245
4237	32644	104	66	384	100	68	351	100	68	351	98	84	266
4238	32645	107	80	382	101	92	354	101	92	354	95	103	255
4239	32646	102	96	391	100	92	361	100	92	361	102	94	273
4240	32647	92	81	398	92	77	360	92	77	360	86	88	269
4241	32648	94	83	394	90	89	367	90	89	367	93	102	270
4242	PA 6129(HC)	98	75	313	92	69	253	92	69	253	94	85	192
4243	32649	94	84	333	88	85	341	88	85	341	86	102	284
4244	32650	95	85	292	87	79	302	87	79	302	86	99	258
4245	32651	104	99	320	101	101	332	101	101	332	98	108	271
4246	32652	103	69	286	100	75	274	100	75	274	91	93	252
4247	32653	102	79	347	98	87	334	98	87	334	89	103	259
4248	32654	101	90	344	100	87	332	100	87	332	92	105	263
4249	32655	100	102	350	102	105	312	102	105	312	108	119	251
4250	32656	94	80	350	94	80	329	94	80	329	88	97	277
4251	32657	104	89	350	93	84	335	93	84	335	86	94	259
4252	32658	91	82	391	88	78	353	88	78	353	85	96	249
4253	32659	99	82	334	96	87	324	96	87	324	99	97	253
4254	32660	103	100	384	100	96	360	100	96	360	96	95	275
4255	DRRH-4(OHC)	94	72	301	92	78	313	92	78	313	87	107	282
4256	32661	97	89	310	88	69	282	88	69	282	76	87	232
4257	32662	102	71	302	102	69	290	102	69	290	93	94	277
4258	32663	106	82	336	110	72	295	110	72	295	87	88	247
4259	32664	88	64	282	100	65	250	100	65	250	90	88	218
4260	32665	88	87	289	100	71	278	100	71	278	84	87	260
4261	32666	96	61	357	102	60	289	102	60	289	87	94	268
4262	32667	91	71	320	96	68	292	96	68	292	81	87	259
4263	32668	92	80	279	96	72	270	96	72	270	88	98	295
4264	LC	89	83	282	90	70	266	90	70	266	83	96	270
Experimental Mean		96	93	345	95	86	326	95	86	326	90	98	268
Standard Error		1.2			2.24			2.24			0.4		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 16.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT - Aerobic, Kharif 2024 (Not considered)

Entry No	IET No	ZONE I- HILLY REGION			ZONE III- EASTERN		ZONE V- CENTRAL		
		Nagaland			Jharkhand		Chhattisgarh		
		@Nagaland			@Hazaribagh		@Jagadapur		
		DFP	PH	PAN	DFP	PH	DFP	PH	PAN
4201	32611	71	87	86	69	91	75	113	256
4202	32612	84	95	122	74	78	103	79	310
4203	32613	88	78	184	84	76	100	100	332
4204	32614	88	86	153	78	68	90	85	256
4205	32615	80	95	151	76	74	95	127	288
4206	32616	87	64	220	78	78	91	96	248
4207	32617	80	73	167	78	74	90	96	276
4208	32618	77	100	246			105	98	240
4209	32619	90	92	226	82	77	85	116	279
4210	32620	78	93	176	79	77	82	114	262
4211	32621	80	68	142	82	74	85	72	206
4212	32622	79	59	190	94	59	90	112	246
4213	32623	80	93	228	76	60	93	122	318
4214	32624	80	88	144	84	67	92	120	330
4215	32625	78	75	230	85	70	92	96	286
4216	32626	75	72	240	79	72	88	97	296
4217	32627	76	85	170	75	63	75	136	272
4218	32628	76	105	178	85	69	88	89	236
4219	32629	76	84	172	104	79	103	87	255
4220	DRR Dhan 54(NC)	89	85	136	104	64	88	119	211
4221	32630	76	77	141	76	64	105	88	240
4222	32631	92	84	152	83	63	82	109	307
4223	32632	74	84	170	79	88	86	100	288
4224	32633	76	81	144	104	75	100	100	365
4225	32634	82	84	200	84	65	88	116	295
4226	32635	78	80	210	83	70	87	99	293
4227	32636	72	85	200	84	66	88	101	242
4228	32637	80	87	200	76	65	88	76	178
4229	32638	76	95	274	83	77	89	90	332
4230	32639	82	92	176	104	58	85	98	276
4231	32640	82	108	98	104	61	79	104	241
4232	32641	78	92	176	72	73	77	91	264
4233	ZC	78	73	302	82	57	78	115	310
4234	32642	80	72	264	104	82	77	103	265
4235	31748 (R)	80	90	90	83	62	82	93	238
4236	32643	95	74	159	83	61	73	94	282
4237	32644	78	81	181	74	74	76	125	292
4238	32645	92	95	112	84	61	73	108	184
4239	32646	83	73	86	77	75	73	90	227
4240	32647	88	94	125	78	71	71	91	272
4241	32648	80	61	78	79	68	78	110	352
4242	PA 6129(HC)	86	75	108	76	77	73	94	164
4243	32649	76	84	102	105	54	77	112	349
4244	32650	82	68	104	95	81	85	83	266
4245	32651	80	81	82	80	74	79	130	284
4246	32652	94	87	109	94	62	78	97	299
4247	32653	81	75	54	92	62	71	130	326
4248	32654	84	82	134	74	69	78	107	262
4249	32655	83	78	111	78	72	73	99	235
4250	32656	100	90	86	105	82	86	100	290
4251	32657	79	77	104	105	62	71	100	254
4252	32658	82	67	83	74	56	71	102	180
4253	32659	80	48	106	78	63	74	99	290
4254	32660	93	50	64	72	90	73	100	308
4255	DRRH-4(OHC)	80	54	68	105	56	84	112	304
4256	32661	82	56	101	83	68	76	91	308
4257	32662	76	60	76	80	67	71	96	238
4258	32663	74	61	54	72	63	77	84	245
4259	32664	75	49	101	95	54	92	119	192
4260	32665	76	65	50	80	55	76	78	266
4261	32666	79	48	60	105	64	76	92	273
4262	32667	90	46	76			79	84	242
4263	32668	79	42	82	76	65	91	95	264
4264	LC	90	63	102	85	71	76	85	196
Experimental Mean		81	77	142	84	68	83	101	268

Advance Variety Trial 2 & 1– Medium Slender (AVT 2 & 1 – MS)

Locations: 40

Test Entries: 22

Table: 17

Checks: National Checks (NC): WGL 14 (NC, Medium), BPT 5204 (NC, Late), Telangana Sona (NC, Early)
 Zonal Checks (ZC): Improved Samba Mashuri (Eastern & Central), ADT-49 (Southern), Ketekijoha (North Eastern), Karjat-6 (Western)
 Local Check (LC); Hybrid Check (HC): 27P63

AVT 2 & 1 – MS trial is evaluated with 22 test entries along with 6 checks (three NCs, one each of ZC, LC and hybrid check). The trial was sent to 40 locations and data was not received from 6 centers (Arundhuti Nagar, Dabhoi, Kampasagar, Tirur, Malagi and Puducherry). Though the data was received from 34 locations, data from Pusa, Varanasi, and Masodha in Zone III was not considered to low CV (2.83%, 3.42% and 2.55%). Similarly, data from Gerua in Zone IV was not considered due to low experimental mean (402 kg/ha) and high CV of 27.5%. The data from Sirsi in Zone VII was not considered due to low experimental yield (3139 kg/ha).

Performance of entries on Zonal basis during Kharif 2024

In **Zone III**, No entry out-yielded the best varietal check (6319 kg/ha) and hybrid check (5848 kg/ha) yield in this zone, hence none of the entries were promoted based on their yield performance.

In **Zone IV**, One varietal entry (IET 30961; 6044 kg/ha) and one hybrid (IET 31494; 6176) showed better performance than the BVC (LC; 4933 kg/ha) and HC (5665 kg/ha). Hence, IET 31494 was promoted to AVT 2 and IET 30961 is a third-year varietal entry.

Zone IV: Performance of promising entries in AVT - 2 &1 Medium Slender - Kharif 2024

Rank	IET No./ Designation/Cross Combination	GY DFF / GT	Remarks
1	IET 30961	6044* 117/MS	Exhibited an yield advantage of 651 kg/ha over the BVC in its III rd year of testing.
	WGL 14 (NC - Medium)	4297	
	BPT 5204 (NC - Late)	4541	
	Telangana Sona (NC – Early)	3264	
	Zonal check (ZC)	3953	
	Local check (LC)	4933	
	Hybrid Check (HC)	5665	
	CD	460	
2	IET 31494	6176* 118/MS	Promoted to AVT 2 in Zone IV.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Rank	IET No./ Designation/Cross Combination	GY DFF / GT	Remarks
	WGL 14 (NC - Medium)	4297	
	BPT 5204 (NC - Late)	4541	
	Telangana Sona (NC – Early)	3264	
	Zonal check (ZC)	3953	
	Local check (LC)	4933	
	Hybrid Check (HC)	5665	
	CD	460	

In Zone V, No entry exhibited yield advantage over the best varietal check (NC-MD; 5395 kg/ha) and hybrid check (5314 kg/ha) yield in this zone, hence, none of the entries were promoted based on their yield performance.

In Zone VI, No entry out-yielded the best varietal check (LC; 5276 kg/ha) and hybrid check (5152 kg/ha) in this zone, hence, none of the entries were promoted based on their yield performance.

In Zone VII, No entry exhibited yield advantage over the best varietal check (LC; 5839 kg/ha) and hybrid check yielded 5136 kg/ha. None of the varieties or hybrids out-performed the BVC or/and HC in this zone, hence, none of the entries were promoted based on their yield performance.

Performance of three years: IET 30961: IVT (2021), AVT 1 (2022) and AVT 2 (2023)

IET 30961 (CR 4425-1-1-3-1-1) a derivative of CR 3969-24-1-2-1-1-1 / CB 09123 cross-showed a yield advantage over the BVC during 2022, 2023, and 2024 in Zone IV. Furthermore, it has shown yield superiority in Zones VI and VII during 2022 and 2023 respectively. The quality of IET 30961 is HRR – 59.2%; AC – 22.05; GC – 55.0; ASV – 4.0. *Based on its yield performance for the past three years and desirable grain quality, IET 30961 is found promising for Zone IV.*

Three-year performance of the entries on Zonal basis in IVT (2022), AVT – 1 (2023), AVT - 2 (2024)

S. No	IET	Years	Overall		Zone IV		Zone VI		Zone VII	
			Yield	BVC	Yield	BVC	Yield	BVC	Yield	BVC
1	30961	2022	5957	5448	-	-	5837	4793	-	-
		2023	-	-	5345	4590	-	-	6090	5424
		2024	-	-	6044	5393	-	-	-	-

Promotions: Entries promoted to AVT 2 – IV Zone: IET 31494 (H)

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 17.1: Composition of entries in Advance Variety Trial 2 & 1– Medium Slender Grain (AVT-2 & 1 MS), Kharif 2024

Entry No	IET No.	Designation	Cross combination	Grain Type
4301	29019*	KAVERI-7623	Hybrid	MS
4302	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
4303	30622	HRI-215	Hybrid	MS
4304	NC (Medium duration) WGL -14			MS
4305	30961*	CR 4425-1-1-3-1-1	CR 3969-24-1-2-1-1-1 / CB 09 123	MS
4306	31001*	NVSR 934	NAUR-1 / Danteshwari	MS
4307	31494 (H)	Shakthi5455		MS
4308	HC	27P63		MS
4309	31496 (H)	PHI-23102		MS
4310	31795	CB 20166	CO 52 // CO 52 / ISM	MS
4311	ZC			MS
4312	31804	NVSR-933	NAUR-1 / Danteshwari	MS
4313	31806	CRAC 3998-128-2	Doubled Haploid of 27P63	MS
4314	31808	NP 9993	PRN 39 / PRN 99	MS
4315	NC (Late duration) BPT 5204			MS
4316	31820	CR 3856-44-22-2-1-11-4-5-5	IR 73963-86-1-5-2-2 / CR 2324-1	MS
4317	31822	MTU 1418 (MTU 2789-6-1-2)	MTU 1224 / MTU1075	MS
4318	NC (Early duration) Telangana Sona			MS
4319	31835	NP 6161	PRN 1026 / PRN 1061	MS
4320	31839	CRAC 3998-325-3	Doubled Haploid of 27P63	MS
4321	31850	RP 6769-1144-12-1-2-1-2	MTU 1121 / Chittimutyalu	MS
4322	31827	SYE 930-8-25	SKL 30-39-24-8-9 / SYE 273-7-9	MS
4323	LC			MS
4324	31802	RP 6681-RMS-1-79-64-43	Improved Samba Mahsuri*2 / ST 12	MS
4325	31002 (R)	RP Bio 4918-NPS 58-1-2	Swarna / O.nivara	MS
4326	30989*	WGL 1367	WGL 32100 / NR 6226	MS
4327	31816	CB 20143	CB 12132 / Sriramsena	MS
4328	31826	RGL 7033 (MTU RM 428-2-1-1)	MTU 1262 / MTU 1075	MS

***3rd year testing entries**

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 17.2: Grain Yield (kg/ha) in AVT-2 & 1 MS, Kharif 2024

Entry No	IET No	Zone III- Eastern									
		Bihar		Jharkhand		Odisha					
		Bikramganj		Ranchi		Bhubaneswar		Chiplima		Jeypore	
4304	WGL-14 (NC-MD)	6372	4	4279		5107	5	10234	10	5050	3
4307	31494 (H)	5359	10	4729	10	5000	7	15716	1*#	5361	2#
4308	27P63(HC)	6657	3	5905	4	5227	4	11001	9	3833	
4309	31496 (H)	6954	1	6481	1	5733	2*	12098	7	3824	
4310	31795	5074		5755	5	4167		13670	2#	4281	6
4311	ZC			3778				12317	6	4082	8
4314	31808	5210		5980	3	5800	1*	13560	3#	6114	1*#
4315	BPT 5204 (NC-LD)	6220	5	4854	9	4953	8	8918		4261	7
4316	31820	6098	6	3928		4500	10	9942		4078	9
4318	Telangana Sona (NC-ED)	5644	8	3703				3728		4062	10
4319	31835	6866	2	5280	7	5020	6	12829	5	3709	
4323	LC	5109		6030	2	4700	9	11111	8	4563	4
4325	31002 (R)	5826	7	5104	8	4267		9613		4383	5
4327	31816	5576	9	5430	6	5400	3	13450	4#	3960	
Experimental Mean		5920		5088		4989		11299		4397	
CD(0.05)		680		619		617		2261		721	
CV(%)		6.82		7.25		7.3		11.92		9.77	
F val		8.02**		18.17**		6.12**		13.71**		7.48**	
DOS		29-06-24		25-06-24		11-07-24		05-07-24		04-07-24	
DOP		03-08-24		30-07-24		02-08-24		10-08-24		30-07-24	
Local Check Name		Rajendra Sweta		swarna		Pratibha		MTU1156		Kalinga Dhan 1203	

Table No. 17.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 MS, Kharif 2024

Entry No	IET No	Zone III- Eastern						Zone III- Eastern	
		Odisha		Odisha (4)		West Bengal		(7)	
		NRRI		Mean		chinsurah		Mean	
4304	WGL-14 (NC-MD)	3193	8	5896	10	4761	8	5571	10
4307	31494 (H)	5573	1*#	7913	2#	4481		6603	1#
4308	27P63(HC)	3847	6	5977	9	4465		5848	8
4309	31496 (H)	4153	4	6452	6	4411		6236	5
4310	31795	2871		6247	8	4815	7	5805	9
4311	ZC			8200	1	4842	6	6255	4
4314	31808	3004	10	7120	3#	5000	4	6381	2#
4315	BPT 5204 (NC-LD)	2820		5238		5111	3	5305	
4316	31820	3167	9	5422		4670	9	5198	
4318	Telangana Sona (NC-ED)	4278	3	4023		4407		4304	
4319	31835	3513	7	6268	7	4667	10	5983	7
4323	LC			6792	4	6397	1	6319	3
4325	31002 (R)	4482	2	5686		4990	5	5524	
4327	31816	4007	5	6704	5#	5290	2#	6159	6
Experimental Mean		3742		6281		4879		5821	
CD(0.05)		684		698		758		444	
CV(%)		10.79		6.62		9.25		4.54	
F val		12.17**		20.08**		3.89**		15.8**	
DOS		03-07-24				19-06-24			
DOP		04-08-24				07-08-24			
Local Check Name		CR Dhan 327				AJIT			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 17.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 MS, Kharif 2024 (Not considered)

Entry No	IET No	Zone III- Eastern					
		Bihar		Uttar Pradesh			
		@Pusa		@Varanasi		@Masodha	
4304	WGL-14 (NC-MD)	4821	5	6716	8	6364	4
4307	31494 (H)	5065	3	4891		5442	9
4308	27P63(HC)	5119	1	8053	2	5057	
4309	31496 (H)	4940	4	8144	1	5521	8
4310	31795	4702	9	4456		6631	3
4311	ZC	4643		6102		5229	10
4314	31808	4667	10	7241	5	5085	
4315	BPT 5204 (NC-LD)	4494		6480	10	5627	6
4316	31820	4583		7342	4	4446	
4318	Telangana Sona (NC-ED)	4524		6619	9	6743	2
4319	31835	4786	7	8049	3	6901	1
4323	LC	5089	2	6365		5922	5
4325	31002 (R)	4792	6	6869	7	5567	7
4327	31816	4738	8	6995	6	4847	
Experimental Mean		4783		6737		5670	
CD(0.05)		227		386		243	
CV(%)		2.83		3.42		2.55	
F val		6.86**		66.97**		80.71**	
DOS		21-06-24		13-06-24			
DOP		11-07-24		21-07-24			
Local Check Name		Rajendra Sweta		HUR-917			

Table No. 17.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 MS, Kharif 2024

Entry No	IET No	Zone IV-North Eastern				Zone IV-North Eastern (2)	
		Assam		Tripura		Mean	
		Titabar		Lembucherra			
4302	30957*	4689		5478	5*	5083	6
4303	30622	5309	6	5185	8	5247	5
4304	WGL-14(NC-MD)	4849	9	3744		4297	
4305	30961*	5811	1	6278	2*	6044	2*
4306	31001*	4829	10	5281	7	5055	8
4307	31494 (H)	5330	5	7022	1*#	6176	1*#
4308	27P63(HC)	5800	2	5530	4	5665	3
4309	31496 (H)	5303	7	5804	3*	5553	4*
4311	ZC	4773		3133		3953	
4314	31808	5483	3	4170		4827	10
4315	BPT 5204(NC-LD)	4449		4633	10	4541	
4318	Telangana Sona(NC-ED)	4177		2352		3264	
4319	31835	4829		5319	6	5074	7
4323	LC	5396	4	4470		4933	9
4325	31002 (R)	4866	8	4015		4440	
4326	30989*	4417		5085	9	4751	
Experimental Mean		5019		4844		4932	
CD(0.05)		435		773		460	
CV(%)		5.19		9.57		5.59	
F val		10.44**		19.41**		22.23**	
DOS		26-06-24		12-07-24			
DOP		24-07-24		03-08-24			
Local Check Name		Ranjit Sub1		Hakuchuk-2			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 17.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 MS, Kharif 2024 (Not considered)

Entry No	IET No	Zone IV-North Eastern	
		Assam	
		@Gerua	
4302	30957*	427	6
4303	30622	358	
4304	WGL-14(NC-MD)	322	
4305	30961*	393	9
4306	31001*	346	
4307	31494 (H)	478	2
4308	27P63(HC)	457	3
4309	31496 (H)	484	1
4311	ZC		
4314	31808	375	10
4315	BPT 5204(NC-LD)	370	
4318	Telangana Sona(NC-ED)	418	7
4319	31835	446	5
4323	LC	299	
4325	31002 (R)	406	8
4326	30989*	450	4
Experimental Mean		402	
CD(0.05)		185	
CV(%)		27.5	
F val		0.78ns	
DOS		28-06-2024	
DOP		8/13/2024	
Local Check Name		Swarna Dhan	

Table No. 17.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 MS, Kharif 2024

Entry No	IET No	Zone V- Central						Zone V- Central (3)	
		Chhattisgarh		Maharashtra		Madhya Pradesh		Mean	
		Raipur		Sinde wahi		Jabalpur			
4304	WGL-14 (NC-MD)	6049	2	5387	1	4750	7	5395	2
4307	31494 (H)	5238	6	5297	2	5463	4#	5333	3
4308	27P63 (HC)	6231	1	4972	5	4740	8	5314	5
4309	31496 (H)	4371		4812	7	5087	5	4756	7
4311	ZC	5050	8	4087	10	3287		4141	
4313	31806	5965	3	3754		3587		4435	10
4314	31808	4629	10	5126	4	2217		3991	
4315	BPT 5204 (NC-LD)	5171	7	3974		3460		4201	
4317	31822	4328		4224	9	7393	2*#	5315	4
4318	Telangana Sona (NC-ED)	5335	5	4010		4867	6	4737	8
4319	31835			4947	6	3703	9	4325	
4320	31839	4854	9			3420		4137	
4322	31827	4615		5128	3	3631	10	4458	9
4323	LC	4537		3954		6587	3	5026	6
4325	31002 (R)	1575		4357	8	3140		3024	
4328	31826	5622	4	3664		8150	1*#	5812	1
Experimental Mean		4905		4513		4593		4650	
CD(0.05)		832		849		669		551	
CV(%)		10.14		11.25		8.73		7.11	
F val		14.81**		4.21**		50.29**		13.56**	
DOS		01-07-24		26-06-24		27-06-24			
DOP		25-01-24		07-08-24		22-07-24			
Local Check Name		Chhattisgarh Devbhog		PDKV-Kisan		JR 206			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 17.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 MS, Kharif 2024

Entry No	IET No	Zone VI- Western									
		Gujarat						Gujarat (3)		Maharashtra	
		Navsari		Nawagam		Vyra		Mean		Karjat	
4304	WGL-14 (NC-MD)	5893	5	5295	5	4109	8	5099	6	4591	7
4307	31494 (H)	6926	1	5320	3	3870	9	5372	4	4852	5
4308	27P63 (HC)	6551	3	5334	2	4164	7	5349	5	4576	9
4309	31496 (H)	6924	2	5282	6	5008	6	5738	1	3658	
4311	ZC	4122	8	3890	9	2429		3480		5213	4
4314	31808	3807	10	5312	4	5414	2#	4844	7	5910	3#
4315	BPT 5204 (NC-LD)	3843	9	3374	10	3810	10	3676	10	5982	2
4318	Telangana Sona (NC-ED)	4347	7	4032	8	5215	3	4531	9	4589	8
4319	31835	5229	6	5856	1	5896	1#	5660	2	4835	6
4323	LC	5912	4			5014	5	5463	3	4151	10
4325	31002 (R)			4444	7	5182	4	4813	8	6418	1#
Experimental Mean		5356		4814		4556		4912		4980	
CD(0.05)		1042		946		1120		608		849	
CV(%)		11.35		11.45		14.43		7.27		10.01	
F val		12.82**		6.57**		6.72**		13.46**		8.37**	
DOS		25-06-24		19-06-24		15-06-24				13-06-24	
DOP		17-07-24		29-07-24		12-07-24				10-07-24	
Local Check Name		GNR-7		GAR 13		GNR 7				KJT-9	

Table No. 17.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 MS, Kharif 2024

Entry No	IET No	Zone VI- Western						Zone VI- Western	
		Maharashtra				Maharashtra (3)		(6)	
		Radhanagari		Shirgaon		Mean		Mean	
4304	WGL-14 (NC-MD)	5097	5	5722	4	5137	5	5118	6
4307	31494 (H)	6232	2*	4620	8#	5235	3	5303	3
4308	27P63 (HC)	6695	1	3592		4955	9	5152	5
4309	31496 (H)	5205	3	6488	2#	5117	6	5428	2
4311	ZC	3807	9	4362	9	4461	10	3971	
4314	31808	4524	7	5311	6#	5248	2	5046	7
4315	BPT 5204 (NC-LD)	3634		5713	5	5110	7	4393	10
4318	Telangana Sona (NC-ED)	4470	8	4246	10	4435		4483	9
4319	31835	4773	6	6615	1#	5408	1	5534	1
4323	LC	5106	4	6197	3	5152	4	5276	4
4325	31002 (R)	3779	10	5024	7#	5074	8	4970	8
Experimental Mean		4848		5263		5030		4970	
CD(0.05)		764		890		516		428	
CV(%)		9.25		9.93		6.02		5.05	
F val		14.23**		10.69**		3.13*		11.23**	
DOS		14-06-24		11-06-24					
DOP		11-07-24		01-07-24					
Local Check Name		Phule Radha		Ratnagiri 8					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 17.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 MS, Kharif 2024

Entry No	IET No	Zone VII- Southern											
		Andhra Pradesh				Andhra Pradesh (2)		Karnataka			Karnataka (2)		
		Bapatla		Maruteru		Mean		Mugad	Mandya		Mean		
4301	29019*	3867		5498	8	4683		6253	2#	5455	4	5854	3*#
4304	WGL-14 (NC-MD)	4827		4825		4826		5026		4732		4879	
4305	30961*	6004	2#	4333		5169	10#	6677	1*#	5104	8	5890	2*#
4307	31494 (H)	5244	9#	5239	10	5242	9#	5852	3#	4745		5299	4
4308	27P63 (HC)	3550		5212		4381		5055	9	5258	5	5156	6
4309	31496 (H)	5849	3#	5771	5	5810	3#	4473		5617	3*	5045	8
4310	31795	4729	#	5771	5	5250	8#	5085	8	5253	6	5169	5
4311	ZC	5476	5	4115		4795		5572	5	4004		4788	
4312	31804	4720	#	5980	4	5350	5#	5463	6	4534		4999	9
4314	31808	6282	1*#	6764	2#	6523	1#	4489		5814	2*	5151	7
4315	BPT 5204 (NC-LD)	5421	6	6842	1	6131	2	4478		4114		4296	
4317	31822	5266	8#	4983		5125	#	5035	10	4905	10	4970	10
4318	Telangana Sona (NC-ED)	3145		4542		3844		4500		3489		3994	
4319	31835	5545	4#	4384		4964	#	4536		5058	9	4797	
4321	31850	5078	10#	5252	9	5165	#	4482		5161	7	4821	
4323	LC	4929		5610	7	5269	7	5190	7	4714		4952	
4324	31802	4221		6761	3#	5491	4#	4685		3958		4322	
4325	31002 (R)	5353	7#	5199		5276	6#	5618	4	6373	1*#	5996	1*#
Experimental Mean		4973		5393		5183		5137		4905		5021	
CD(0.05)		687		1086		572		689		791		522	
CV(%)		8.33		12.13		6.66		8.09		9.72		6.27	
F val		12.28**		4.8**		9.27**		7.55**		6.78**		8.5**	
DOS		30-07-24		08-07-24				29-06-24		12-07-24			
DOP				06-08-24						12-08-24			
Local Check Name		BPT 2782		MTU1224				Siri-1253		Thanu			

Table No. 17.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 MS, Kharif 2024

Entry No	IET No	Zone VII- Southern											
		Kerala		Puducherry		Puducherry		Puducherry (2)		Telangana			
		Pattambi		Karaikal		Kurumbapet		Mean		Rajendranagar			
4301	29019*	4416		3790		8473	4#	6131	10#	7585	4		
4304	WGL-14 (NC-MD)	5952	8	5544	3	9199	1	7371	1	7080	10		
4305	30961*	6144	7	4959		5361	#	5160		7330	8		
4307	31494 (H)	4296		5505	4	6982	10#	6244	7#	6995			
4308	27P63 (HC)	7800	4	5211	7	4526		4869		7809	1		
4309	31496 (H)	5472	10	5202	8	7832	7#	6517	5#	7456	7		
4310	31795	7632	5	5416	5	7046	9#	6231	9#	5818			
4311	ZC	5461		5611	1	5468		5539		5186			
4312	31804	4344		4826		5407	#	5116		5972			
4314	31808	8040	3	3707		5404	#	4555		7140	9		
4315	BPT 5204 (NC-LD)	4680		4420		8130	6	6275	6	7667	3		
4317	31822	5328		4006				4006		5294			
4318	Telangana Sona (NC-ED)	7488	6	4509				4509		5950			
4319	31835	4584		5115	9	9147	2#	7131	3#	7557	5		
4321	31850	5001		5588	2	8959	3#	7273	2#	6013			
4323	LC	8747	2	5289	6	8443	5	6866	4	7554	6		
4324	31802	5635	9	4994		7480	8#	6237	8#	7775	2		
4325	31002 (R)	8892	1	5112	10	6746	#	5929	#	6812			
Experimental Mean		6106		4934		7163		5887		6833			
CD(0.05)		1119		466		526		349		1190			
CV(%)		11.04		5.69		4.4		3.58		10.49			
F val		16.33**		14.08**		71.69**		68.06**		4.55**			
DOS		09-07-24		03.09.24		10-07-24				26-06-24			
DOP		12-08-24		15.10.24		08-08-24				20-07-24			
Local Check Name		Red Mahsuri		BPT 5204		I.Samba Mashuri				RNR 11718			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 17.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 MS, Kharif 2024

Entry No	IET No	Zone VII- Southern										Zone VII- Southern (11)	
		Telangana		Telangana (2)		Tamil Nadu				Tamil Nadu (2)		Mean	
		Warangal	1*#	Mean	1*#	Coimbatore	Adutrai	Mean	1#	2#			
4301	29019*	6945	1*#	7265	1*#	6157	1#	4722	4	5440	1#	5742	3#
4304	WGL-14 (NC-MD)	4046		5563		6115	2	4167	6	5141	2	5592	6
4305	30961*	5153	8	6241	8	5029	5#	3086		4058	9#	5380	9
4307	31494 (H)	5111	9	6053	9	4382	8#	4753	3	4567	7#	5373	10
4308	27P63 (HC)	5204	6	6507	4	2425		4444	5	3435		5136	
4309	31496 (H)	5191	7*	6323	6	4206	10#	5586	1*#	4896	4#	5696	5#
4310	31795	3455		4636		4310	9#	5494	2*#	4902	3#	5455	7#
4311	ZC	4321		4754		2627		3256		2942		4645	
4312	31804	5439	5*	5706		2310		2994		2652		4726	
4314	31808	5803	4*	6472	5	5996	3#	3519		4758	5#	5723	4#
4315	BPT 5204 (NC-LD)	3450		5558		3196		4136	7	3666	10	5139	
4317	31822	4505		4899		2104		3611	10	2857		4504	
4318	Telangana Sona (NC-ED)	4465		5208		1593		3704	9	2648		4338	
4319	31835	5011	10	6284	7	4846	6#	3519		4182	8#	5391	8#
4321	31850	3799		4906		4761	7#	2191		3476		5117	
4323	LC	4469		6011	10	5163	4	4120	8	4642	6	5839	1
4324	31802	5815	3*	6795	2*	3567	#	2253		2910		5195	
4325	31002 (R)	6406	2*#	6609	3	3941	#	3179		3560		5785	2#
Experimental Mean		4922		5877		4041		3819		3930		5265	
CD(0.05)		695		604		1022		682		622		250	
CV(%)		8.51		6.19		15.24		10.76		9.54		2.86	
F val		15.78**		13.3**		16.06**		16.31**		18.07**		27.84**	
DOS		21-06-24				12.06.2024		29-08-24					
DOP		12-07-24				10.07.2024		10-02-24					
Local Check Name		WGL 32100				CO 52		ADT 52					

Table No. 17.2 (Contd.): Grain Yield (kg/ha) in AVT-2 & 1 MS, Kharif 2024 (Not considered)

Entry No	IET No	Zone VII- Southern	
		Karnataka	
		@ Sirsi	
4301	29019*	3260	6
4304	WGL-14 (NC-MD)	2570	
4305	30961*	3580	5
4307	31494 (H)	2920	10
4308	27P63 (HC)	3200	7
4309	31496 (H)	2930	9
4310	31795	2120	
4311	ZC	2500	
4312	31804	2160	
4314	31808	4230	3
4315	BPT 5204 (NC-LD)	2890	
4317	31822	3150	8
4318	Telangana Sona (NC-ED)	2210	
4319	31835	4800	1
4321	31850	4160	4
4323	LC	4330	2
4324	31802	2730	
4325	31002 (R)	2770	
Experimental Mean		3139	
CD(0.05)		400	
CV(%)		7.68	
F val		32.39**	
DOS			
DOP			
Local Check Name			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 17.3: Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 MS, Kharif 2024

Entry No	IET No	Zone III- Eastern														
		Bihar			Jharkhand			Odisha								
		Bikramganj			Ranchi			Bhubaneswar			Chiplima			Jeypore		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4304	WGL-14 (NC-MD)	111	109	368	116	100	193	100	105	179	119	102	196	103	96	371
4307	31494 (H)	110	114	371	113	86	182	95	121	148	136	106	165	105	98	315
4308	27P63(HC)	103	110	373	109	94	233	95	166	165	137	93	191	104	100	294
4309	31496 (H)	112	120	368	116	93	203	98	170	170	136	101	185	108	92	270
4310	31795	119	116	378	118	95	158	97	227	228	135	103	183	107	97	242
4311	ZC				111	77	150				104	96	183	103	89	388
4314	31808	122	114	369	121	97	193	103	210	164	129	96	203	105	103	353
4315	BPT 5204 (NC-LD)	114	99	373	120	83	195	101	96	242	129	75	227	109	84	351
4316	31820	114	110	353	118	105	192	99	128	153	128	96	213	109	114	270
4318	Telangana Sona (NC-ED)	105	122	385	113	101	228				103	89	230	90	113	271
4319	31835	111	116	390	113	99	233	97	126	175	131	99	210	110	99	236
4323	LC	107	97	381	116	99	213	83	105	168	102	96	189	106	99	268
4325	31002 (R)	107	94	372	111	82	211	95	98	249	122	81	201	110	86	369
4327	31816	106	106	401	109	98	232	94	124	173	133	99	160	109	96	297
Experimental Mean		110	109	375	114	93	201	96	139	184	124	95	195	105	97	306
Standard Error		0.2			0.93			0.58			9.52			1.55		

Table No. 17.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 MS, Kharif 2024

Entry No	IET No	Zone III- Eastern										Zone III- Eastern		
		Odisha			Odisha (4)			West Bengal				(7)		
		NRRI			Mean			chinsurah				Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF
4304	WGL-14 (NC-MD)	117	125	153	110	107	225	126	120	265	113	108	246	
4307	31494 (H)	112	127	250	112	113	220	125	121	239	114	110	239	
4308	27P63(HC)	108	118	350	111	119	250	115	104	240	110	112	264	
4309	31496 (H)	115	131	369	114	123	249	125	112	247	116	117	259	
4310	31795	117	142	247	114	142	225	128	116	232	117	128	238	
4311	ZC				104	92	286	129	99	322	112	90	261	
4314	31808	120	126	272	114	134	248	135	108	247	119	122	257	
4315	BPT 5204 (NC-LD)	119	114	445	115	92	316	138	96	310	119	92	306	
4316	31820	111	133	266	112	118	226	124	123	237	115	116	241	
4318	Telangana Sona (NC-ED)	103	118	404	99	107	302	119	123	349	106	111	311	
4319	31835	116	120	254	113	111	219	126	105	267	115	109	252	
4323	LC				97	100	208	96	92	292	102	98	252	
4325	31002 (R)	109	110	364	109	94	296	123	97	323	111	92	298	
4327	31816	117	131	285	113	113	229	125	121	245	113	111	256	
Experimental Mean		113	124	304	110	112	250	123	109	272	113	108	263	
Standard Error		1.36						1.08						

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 17.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 MS, Kharif 2024 (Not considered)

Entry No	IET No	Zone III- Eastern								
		Bihar			Uttar Pradesh					
		@Pusa			@Varanasi			@Masodha		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
4304	WGL-14 (NC-MD)	107	175	249	117	120	215	108	106	338
4307	31494 (H)	104	171	250	116	115	206	81	90	331
4308	27P63(HC)	101	166	256	111	119	235	91	103	272
4309	31496 (H)	107	163	265	116	115	214	81	96	289
4310	31795	119	150	260	125	115	216	110	127	325
4311	ZC	114	126	276	121	100	241	95	103	291
4314	31808	121	132	261	128	112	218	87	108	284
4315	BPT 5204 (NC-LD)	116	118	253	124	97	253	106	108	314
4316	31820	108	174	239	120	145	196	86	112	331
4318	Telangana Sona (NC-ED)	119	134	266	122	130	195	98	122	323
4319	31835	106	132	246	118	114	155	106	121	306
4323	LC	106	97	262	117	102	183	95	123	316
4325	31002 (R)	139	123	273	114	103	216	98	118	283
4327	31816	105	144	267	114	118	171	88	122	275
Experimental Mean		112	143	258	118	114	208	95	111	305

Table No. 17.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 MS, Kharif 2024

Entry No	IET No	Zone IV-North Eastern						Zone IV-North Eastern (2)		
		Assam			Tripura			Mean		
		Titabar			Lembucherra					
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
4302	30957*	114	113	266	117	71	225	116	92	246
4303	30622	111	113	255	115	96	258	113	105	257
4304	WGL-14(NC-MD)	118	118	274	118	102	208	118	110	241
4305	30961*	117	119	254	117	103	333	117	111	294
4306	31001*	114	114	274	112	97	292	113	106	283
4307	31494 (H)	120	120	267	115	95	317	118	107	292
4308	27P63(HC)	109	118	273	117	86	350	113	102	311
4309	31496 (H)	117	118	299	114	92	275	116	105	287
4311	ZC	125	149	300	110	117	233	118	133	267
4314	31808	123	115	243	130	90	333	126	102	288
4315	BPT 5204(NC-LD)	123	98	296	113	97	267	118	97	282
4318	Telangana Sona(NC-ED)	117	123	248	109	101	283	113	112	266
4319	31835	116	114	238	115	103	208	116	108	223
4323	LC	124	127	257	111	86	258	118	107	258
4325	31002 (R)	113	97	308	115	74	267	114	86	288
4326	30989*	113	122	237	113	94	317	113	108	277
Experimental Mean		117	117	268	115	94	276	116	106	272
Standard Error		0.69			1.06					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 17.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 MS, Kharif 2024 (Not considered)

Entry No	IET No	Zone IV-North Eastern		
		Assam		
		@Gerua		
		DDF	PH	PAN
4302	30957*	115	113	259
4303	30622	115	109	249
4304	WGL-14(NC-MD)	123	119	251
4305	30961*	123	123	249
4306	31001*	115	110	246
4307	31494 (H)	123	125	230
4308	27P63(HC)	115	113	236
4309	31496 (H)	123	110	234
4311	ZC			
4314	31808	129	115	261
4315	BPT 5204(NC-LD)	123	97	286
4318	Telangana Sona(NC-ED)	123	123	261
4319	31835	123	119	232
4323	LC	129	157	279
4325	31002 (R)	115	96	271
4326	30989*	115	126	217
Experimental Mean		120	117	250

Table No. 17.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 MS, Kharif 2024

Entry No	IET No	Zone V- Central									Zone V- Central (3)		
		Chhattisgarh			Maharashtra			Madhya Pradesh			Mean		
		Raipur			Sindewahi			Jabalpur					
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
4304	WGL-14 (NC-MD)	105	106	212	113	126	372	108	88	140	109	107	241
4307	31494 (H)	101	98	198	112	115	366	107	86	161	106	100	242
4308	27P63 (HC)	106	107	177	107	115	361	106	76	128	106	99	222
4309	31496 (H)	110	88	208	111	119	351	107	78	150	109	95	236
4311	ZC	109	88	201	112	98	285	107	70	183	110	85	223
4313	31806	115	86	162	114	84	328	108	64	196	112	78	229
4314	31808	111	77	271	119	124	359	124	76	148	118	92	259
4315	BPT 5204 (NC-LD)	115	113	175	116	86	331	114	63	193	115	87	233
4317	31822	105	104	204	128	146	327	135	88	143	123	112	225
4318	Telangana Sona (NC-ED)	110	85	144	106	131	344	101	92	115	106	103	201
4319	31835				114	114	288	119	75	140	116	94	214
4320	31839	110	107	208				112	75	127	111	91	168
4322	31827	109	78	143	115	118	313	112	86	135	112	94	197
4323	LC	104	76	167	113	117	309	116	85	156	111	92	211
4325	31002 (R)	127	95	189	111	90	328	107	64	183	115	83	233
4328	31826	105	109	163	122	119	280	110	74	140	112	100	194
Experimental Mean		109	94	188	114	113	329	112	77	152	112	94	220
Standard Error		1.23			0.37			0.85					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 17.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 MS, Kharif 2024

Entry No	IET No	Zone VI- Western														
		Gujarat									Gujarat (3)			Maharashtra		
		Navsari			Nawagam			Vyra			Mean			Karjat		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
4304	WGL-14 (NC-MD)	94	131	345	95	126	279	106	125	292	98	128	305	100	118	202
4307	31494 (H)	90	120	390	94	120	280	107	118	227	97	119	299	99	117	192
4308	27P63 (HC)	85	127	382	89	110	280	102	127	225	92	121	296	101	119	172
4309	31496 (H)	98	129	408	92	114	281	105	123	262	98	122	317	98	123	178
4311	ZC	101	107	461	90	98	270	111	109	247	101	105	326	109	111	156
4314	31808	104	143	405	96	113	280	118	123	263	106	126	316	109	127	187
4315	BPT 5204 (NC-LD)	103	104	404	96	96	266	112	108	310	104	103	327	102	102	190
4318	Telangana Sona (NC-ED)	102	135	303	94	129	271	112	135	248	103	133	274	108	138	176
4319	31835	97	119	329	95	112	284	109	124	222	100	118	278	103	116	186
4323	LC	94	114	285				106	106	278	100	110	282	107	117	197
4325	31002 (R)				94	100	273	105	106	337	99	103	305	100	99	175
Experimental Mean		96	122	371	93	111	276	108	118	264	100	117	302	103	117	182
Standard Error		0.63			0			1.18						2.03		

Table No. 17.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 MS, Kharif 2024

Entry No	IET No	Zone VI- Western									Zone VI- Western (6)		
		Maharashtra						Maharashtra (3)			Mean		
		Radhanagari			Shirgaon			Mean			Mean		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
4304	WGL-14 (NC-MD)	106	103	194	99	118	284	102	113	226	100	120	266
4307	31494 (H)	107	92	242	91	105	264	99	105	233	98	112	266
4308	27P63 (HC)	105	99	249	93	113	209	100	110	210	96	116	253
4309	31496 (H)	112	93	247	96	113	302	102	110	242	100	116	280
4311	ZC	114	86	244	104	98	223	109	99	208	105	102	267
4314	31808	115	99	239	107	112	215	110	112	214	108	119	265
4315	BPT 5204 (NC-LD)	112	80	243	104	91	308	106	91	247	105	97	287
4318	Telangana Sona (NC-ED)	106	102	246	110	129	202	108	123	208	105	128	241
4319	31835	111	94	232	103	122	312	106	111	244	103	114	261
4323	LC	95	99	236	102	116	279	102	111	237	101	110	255
4325	31002 (R)	106	78	241	101	102	297	102	93	238	101	97	265
Experimental Mean		108	93	237	100	110	263	104	107	228	102	112	264
Standard Error		0.49			0.58								

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 17.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 MS, Kharif 2024

Entry No	IET No	Zone VII- Southern																	
		Andhra Pradesh						Andhra Pradesh (2)			Karnataka						Karnataka (2)		
		Bapatla			Maruteru			Mean			Mugad			Mandya			Mean		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
4301	29019*	89	111	336	95	127	377	92	119	356	78	65	332	109	93	275	94	79	303
4304	WGL-14 (NC-MD)	97	118	311	103	131	366	100	125	339	84	60	272	113	102	376	99	81	324
4305	30961*	91	116	272	104	146	337	98	131	305	74	58	314	109	92	281	92	75	298
4307	31494 (H)	91	124	324	95	118	371	93	121	348	89	67	350	97	91	249	93	79	300
4308	27P63 (HC)	90	117	300	95	117	379	92	117	339	85	77	389	110	95	320	98	86	354
4309	31496 (H)	92	117	279	96	137	389	94	127	334	80	63	297	106	101	338	93	82	317
4310	31795	92	118	321	105	135	395	98	126	358	82	80	241	109	102	354	95	91	297
4311	ZC	92	121	326	98	148	353	95	134	340	91	68	313	97	91	347	94	79	330
4312	31804	82	113	344	91	117	411	87	115	378	84	82	339	97	129	326	90	106	333
4314	31808	94	126	291	100	135	429	97	131	360	74	65	344	107	106	313	90	86	328
4315	BPT 5204 (NC-LD)	96	97	343	101	117	426	98	107	384	74	53	330	110	79	322	92	66	326
4317	31822	110	122	290	110	161	361	110	142	325	77	56	322	110	123	360	93	89	341
4318	Telangana Sona (NC-ED)	83	105	270	92	139	360	88	122	315	90	65	274	91	100	340	90	82	307
4319	31835	95	119	287	94	134	407	94	126	347	78	60	297	116	100	388	97	80	342
4321	31850	96	112	332	101	138	440	98	125	386	67	74	216	100	102	360	84	88	288
4323	LC	107	116	302	108	107	396	108	112	349	84	62	323	102	120	349	93	91	336
4324	31802	84	102	358	104	119	430	94	111	394	73	59	307	108	90	363	90	75	335
4325	31002 (R)	94	96	359	96	121	371	95	109	365	89	88	249	110	84	375	100	86	312
Experimental Mean		93	113	313	99	130	388	96	122	351	80	66	306	105	100	335	93	83	321
Standard Error		1.33			0.83						0.92			0.99					

Table No. 17.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 MS, Kharif 2024

Entry No	IET No	Zone VII- Southern																	
		Kerala			Puducherry						Puducherry (2)			Telangana			Telangana		
		Pattambi			Karaikal			Kurumbapet			Mean			Rajendranagar			Warangal		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
4301	29019*	111	93	264	97	92	234	99	90	410	98	91	322	109	102	496	95	125	272
4304	WGL-14 (NC-MD)	105	84	261	94	90	351	104	102	390	99	96	370	109	101	442	100	127	300
4305	30961*	107	84	352	92	90	330	102	100	320	97	95	325	117	103	464	104	134	278
4307	31494 (H)	118	78	251	94	91	371	102	99	400	98	95	386	105	98	438	97	133	272
4308	27P63 (HC)	121	77	358	95	90	431	99	96	390	97	93	410	106	100	484	95	126	268
4309	31496 (H)	111	75	383	96	80	336	104	97	440	100	88	388	107	98	464	100	125	271
4310	31795	115	85	468	94	94	360	106	96	360	100	95	360	112	102	451	109	128	291
4311	ZC	121	86	199	98	83	367	101	98	320	100	90	344	102	103	427	100	127	280
4312	31804	121	86	299	92	83	271	98	97	320	95	90	295	104	99	446	95	121	284
4314	31808	121	81	253	92	90	246	104	93	320	98	91	283	116	103	404	110	127	292
4315	BPT 5204 (NC-LD)	124	78	321	96	75	358	110	94	420	103	85	389	117	80	505	105	112	316
4317	31822	102	93	359	99	85	247				99	85	247	119	104	380	118	145	264
4318	Telangana Sona (NC-ED)	113	85	511	98	104	251				98	104	251	105	104	387	103	147	271
4319	31835	120	77	249	93	90	344	108	96	460	100	93	402	112	103	475	101	125	255
4321	31850	117	85	272	94	74	362	101	100	490	98	87	426	112	103	484	98	127	287
4323	LC	107	92	352	92	104	418	109	105	430	101	105	424	109	104	409	98	117	301
4324	31802	104	83	360	95	71	332	99	98	360	97	84	346	106	99	369	93	119	266
4325	31002 (R)	120	75	240	95	79	332	106	97	430	101	88	381	109	89	442	97	114	314
Experimental Mean		114	83	319	94	86	330	103	97	391	99	92	353	109	99	442	101	126	282
Standard Error		1.92			0.6			1.06						1.43			0.43		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 17.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 MS, Kharif 2024

Entry No	IET No	Zone VII- Southern												Zone VII- Southern (11)		
		Telangana (2)			Tamil Nadu						Tamil Nadu (2)			Mean		
		Mean			Coimbatore			Adutrai			Mean			Mean		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
4301	29019*	102	114	384	105	117	383	103	92	311	104	105	347	99	100	335
4304	WGL-14 (NC-MD)	105	114	371	115	112	358	106	113	309	110	112	334	103	104	340
4305	30961*	110	119	371	120	109	350	101	110	363	110	110	356	102	104	333
4307	31494 (H)	101	116	355	114	110	377	104	97	331	109	103	354	101	100	339
4308	27P63 (HC)	100	113	376	110	107	342	104	108	410	107	108	376	101	101	370
4309	31496 (H)	104	112	368	118	111	365	103	101	466	110	106	416	101	101	366
4310	31795	111	115	371	120	121	368	102	114	461	111	118	415	104	107	370
4311	ZC	101	115	353	120	110	357	103	105	313	112	108	335	102	104	327
4312	31804	99	110	365	107	90	332	105	95	352	106	92	342	98	101	339
4314	31808	113	115	348	120	113	352	102	100	338	111	107	345	104	104	326
4315	BPT 5204 (NC-LD)	111	96	410	120	97	350	102	94	414	111	95	382	105	89	373
4317	31822	118	125	322	128	122	333	105	129	385	116	125	359	108	114	330
4318	Telangana Sona (NC-ED)	104	125	329	101	108	313	104	94	355	102	101	334	98	105	333
4319	31835	107	114	365	122	113	357	102	110	436	112	112	396	104	102	360
4321	31850	105	115	386	112	118	358	104	109	359	108	113	359	100	104	360
4323	LC	103	110	355	115	121	417	101	104	336	108	112	376	103	105	367
4324	31802	99	109	318	108	112	355	102	95	340	105	104	347	98	95	349
4325	31002 (R)	103	101	378	113	99	370	103	84	313	108	92	342	103	93	345
Experimental Mean		105	113	362	114	110	357	103	103	366	109	107	362	102	102	348
Standard Error					1			0.74								

Table No. 17.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT-2 & 1 MS, Kharif 2024 (Not considered)

Entry No	IET No	ZONE VII- SOUTHERN		
		Karnataka		
		@Sisri		
		DDF	PH	PAN
4301	29019*	113	87	291
4304	WGL-14 (NC-MD)	111	92	317
4305	30961*	111	95	324
4307	31494 (H)	112	91	334
4308	27P63 (HC)	111	87	334
4309	31496 (H)	115	90	393
4310	31795	119	92	320
4311	ZC	109	89	363
4312	31804	108	92	363
4314	31808	119	98	353
4315	BPT 5204 (NC-LD)	116	74	350
4317	31822	126	119	340
4318	Telangana Sona (NC-ED)	107	107	321
4319	31835	116	106	314
4321	31850	113	101	347
4323	LC	115	98	343
4324	31802	109	105	333
4325	31002 (R)	113	76	366
Experimental Mean		113	94	339

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 17.4: Grain quality characteristics of entries in AVT-2 & 1 MS, Kharif 2024

Code	Entry No.	Designation / IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1222	4301	IET-29019	79.8	69.9	50.5	5.09	1.92	2.65	MS	VOC	7.0	25.78	22
1223	4302	30957	79.9	71.8	66.1	5.15	1.98	2.60	MS	VOC	4.0	22.17	22
1224	4303	30622	80.2	70.7	60.4	5.19	1.95	2.66	MS	A	7.0	25.78	44
1225	4304	WGL-14(NC)	78.4	69.4	57.4	5.01	1.81	2.76	MS	A	4.0	24.05	22
1226	4305	30961 3rd Year	78.8	68.8	59.2	5.77	2.15	2.68	MS	VOC	4.0	22.05	55
1227	4306	31001	76.3	63.5	51.8	5.11	1.91	2.67	MS	VOC	4.0	23.08	22
1228	4307	31494 (H)	80.2	69.8	58.3	4.92	1.91	2.57	MS	A	4.0	23.43	36
1229	4308	27 P 63 (HC)	80.4	70.6	58.8	5.26	1.91	2.75	MS	VOC	4.0	24.17	22
1230	4309	31496 (H)	79.3	71.1	61.8	4.97	1.87	2.65	MS	A	4.0	24.43	22
1231	4310	31795	80.0	70.8	59.0	5.25	1.78	2.94	MS	A	4.0	22.41	25
1232	4311	ZC	73.7	65.2	55.6	4.99	1.89	2.64	MS	VOC	4.0	23.05	22
1233	4312	31804	78.3	68.2	51.7	5.08	1.86	2.73	MS	VOC	4.0	21.91	41
1234	4313	31806	78.1	67.2	48.6	5.00	1.82	2.74	MS	VOC	4.0	22.82	22
1235	4314	31808	79.2	70.6	61.2	5.37	2.01	2.67	MS	A	5.0	24.61	22
1236	4315	BPT 5204 (NC)	78.8	68.7	64.0	5.01	1.82	2.75	MS	VOC	4.0	23.37	22
1237	4316	31820	78.8	67.8	47.0	5.07	1.97	2.57	MS	VOC	4.0	23.02	22
1238	4317	31822	78.4	68.5	58.1	5.16	1.87	2.75	MS	A	7.0	25.66	38
1239	4318	Telangana Sona (NC)	78.6	70.0	64.1	5.16	1.55	3.32	SS	A	4.0	21.29	22
1240	4319	31835	80.6	71.1	57.3	5.33	1.80	2.96	MS	A	4.0	20.76	22
1241	4320	31839	—										
1242	4321	31850	79.8	70.1	53.0	5.11	1.88	2.71	MS	A	7.0	22.05	22
1243	4322	31827	79.3	67.5	34.1	5.40	1.95	2.76	MS	A	5.0	21.79	51
1244	4323	(LC)	75.6	65.5	57.4	5.29	2.07	2.55	MS	VOC	4.0	22.93	48
1245	4324	31802	78.9	70.7	65.8	5.42	1.88	2.88	MS	VOC	4.0	21.73	47
1246	4325	31002 (R)	78.6	67.4	57.2	4.76	1.75	2.72	MS	VOC	4.0	21.58	22
1247	4326	30989 3rd year	78.6	67.9	55.2	4.22	1.89	2.23	SB	VOC	5.0	25.40	22
1248	4327	31816	80.0	68.2	47.6	4.97	1.87	2.65	MS	VOC	4.0	26.48	22
1249	4328	31826	80.3	71.1	49.8	5.76	2.15	2.67	MS	VOC	4.0	21.73	22

HULL: Hulling(%) MILL: Milling(%) HRR: Head Rice Recovery KL: Kernal length (mm) KB: Kernal Breadth(mm) L/B : Length and Breadth(mm) KLAC: Kernal length after cooking WU: Water uptake ER: Elongation ratio AC: Amylose content (%) ASV: Alkali Spreading Value AC: Amylose Content GC: Gel consistency

INITIAL VARIETY TRIAL – MEDIUM SLENDER GRAIN (IVT-MS)

Locations: 39

Test Entries: 59

Table: 18

Checks: National (Telangana Sona, WGL 14, BPT 5204); Zonal: Improved Samba Mahsuri (Eastern and Central), Ketekejoha (North Eastern), Karjat-6 (Western) & ADT 44 (Southern) and Local Check

Initial Variety Trial – Medium Slender grain (IVT-MS) was constituted with 59 test entries and five checks. The trial was sent to 39 locations and data was not received from 10 locations viz. ICAR-NRRI, Cuttack, Chiplima, Arundhutinagar, Shirgoan, Dabhoi, Kampasagar, Tirur, Malagi, Kurumbapet, Puducherry and Karaikal. Data was not considered for analysis due to low experimental mean yield at following two locations viz., Geurua (688 kg/ha) and Aduthurai (3084 kg/ha) and one location Masoda due to low CV (3.58) were not considered for analysis. Critical difference value was found to be non-significant at Pusa and Maruteru locations, hence data was not considered for analysis.

Overall mean yield of the entries ranged from 6063 kg/ha (IET 32678) to 3835 kg/ha (IET 32687) with a mean yield of 4948 kg/ha. Among the checks, NC-medium (WGL14) was the highest yielder (5592 kg/ha) followed by local check (5337 kg/ha), NC-late (BPT5204) (4982 kg/ha), Zonal check (4809 kg/ha) and NC-early (Telangana Sona) (4387 kg/ha). The data pertaining to grain yield, days to 50% flowering, plant height, panicles/m² and quality are presented in tables 18.1, 18.2 and 18.3, respectively.

Across the locations on overall basis, two entries viz., IET 32678 and IET 21719 showed significant yield gain, whereas, they are not promoted as the grain type is **short bold**.

Zonal performance of entries:

Zone III (Eastern)

The trial was evaluated at ten locations. Data from ICAR-NRRI Cuttack and Chiplima was not received, and Pusa and Masodha was not included due to non-significant CD value and low CV% (3.58), respectively. Mean yield of the entries ranged from 6070 kg/ha (IET 32678) to 3529 kg/ha (IET 32727). None of the entries showed significant yield advantage over the best check i.e., NC Medium(WGL14) (5796 kg/ha), and **hence, none were promoted**.

North Eastern (Zone IV)

The trial was evaluated at three locations viz., Titaber, Gerua and Lembucherra. Data was received from all the centres, whereas, data of Gerua was not considered due to low experimental yield. Mean yield of the entries ranged from 6220 kg/ha (IET 32717) to 3303 kg/ha (IET 32680). Two entries namely IET Nos. 32717 and 32718 recorded significant yield performance and the details were furnished below

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of promising entries based on yield in Initial Variety Trial – Medium Slender grain in Zone IV Kharif 2024

Rank	IET No/ Designation/ Cross	GY/ FD/GT	Remarks
1	IET 32717 (CR3938-1-2-1-4-1-2) IR 73907-753-2-3-1/Pratikshya	6220* 114 MS	Promoted
2	IET 32718 (CR 4459-3-1-1-1-1) CR 3856-44-22-2-1-11-1-1-1/CR316//*NDR 1045*COR-50	6048* 117 MS	Promoted
	NC Early (Telangana Sona)	4302, 111	
	NC Medium(WGL14)	4758, 116	
	NC Late (BPT5204)	4491, 117	
	Zonal check	4000, 115	
	Local check	4902, 116	
	CD	896	

Central Zone (Zone V)

The trial was evaluated at three locations viz., Jabalpur, Raipur and Sindhewahi. Mean yield of the entries ranged from 6326 kg/ha (IET 32696) to 3416 kg/ha (IET 32704). None of the entries showed significant yield advantage over the best check i.e., NC Medium(WGL14) (5962 kg/ha), and hence, none were promoted.

Western Zone (Zone VI)

The trial was evaluated at seven locations, while, data was not received from two locations viz. Shirgoan and Dabhoi. Mean yield of the entries ranged from 7083 kg/ha (IET 32678) to 3025 kg/ha (IET 32714), days to 50% flowering ranged from 92 days (IET 32690) to 120 days (IETs 32683, 32693); plant height ranged from 92 cm (IET 32673) to 141 cm (IET 32693) and panicles per square meter ranged from 198 (IET 32707) to 257 (IET 32678). Five entries namely IET Nos. 32678, 32719, 32685, 32672 and 32680 recorded significant yield performance, whereas, IETs 32678 and 32719 were not promoted as they are having short bold grain type. The details were furnished below

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of promising entries based on yield in Initial Variety Trial – Medium Slender grain in Zone VI Kharif 2024

Rank	IET No/ Designation/ Cross Combination	GY/ FD/GT	Remarks
1	IET 32685 (BRR 0296) Rajendra Sweta/PRR 78-3	6436* 111 MS	Promoted
2	IET 32672 (TRC 2024-18/TRC TNTC 5516-B-B-5-22) Tripur Nirog /Tripura Chikan)	6386* 103 MS	Promoted
3	IET 32680 (MTU 1442 (MTU 2687-106-1-2-1) Ravi 003/MTU 1156/MTU 1156	6229* 116 MS	Promoted
	NC Early (Telangana Sona)	4679, 110	
	NC Medium(WGL14)	5223, 108	
	NC Late (BPT5204)	4867, 114	
	Zonal check	4867, 109	
	Local check	5644, 99	
	CD	474	

Southern Zone (Zone VII)

The trial was sent to sixteen locations and data considered for analysis from eight locations, whereas data was not received from Kampasagar, Tirur, Malagi, Kurumbapet, Puducherry and Karaikal. Data from two locations i.e., Aduthurai and Maruteru were not considered for analysis due to low experimental mean and non-significant CD value, respectively. Mean yield of the entries ranged from 6407 kg/ha (IET 32680) to 3558 kg/ha (IET 32687); days to 50% flowering ranged from 90 days (IET 32711) to 117 days (IET 32683); plant height ranged from 87 cm (IET 32702) to 135 cm (IET 32693) and panicles per square meter ranged from 316 (IET 32670) to 419 (National Late Check BPT 5204). Three entries namely IETs 32680, 32669 and 32675 showed significant yield advantage, whereas IET 32669 was dropped due to short bold grain type. Therefore, IETs 32680 and 32675 were promoted to second year of testing, and the details were summarized as below.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of promising entries based on yield in Initial Variety Trial – Medium Slender grain in Zone VII Kharif 2024

Rank	IET No/ Designation/ Cross	GY/ FD/GT	Remarks
1	IET 32680 (MTU 1442 (MTU 2687-106-1-2-1) Ravi 003/MTU 1156/MTU 1156	6407 111 MS	Promoted
2	IET 32675 (CB 21515) CO S1/CO 54	66305 99 MS	Promoted
	NC Early (Telangana Sona)	4242, 96	
	NC Medium(WGL14)	5740, 104	
	NC Late (BPT5204)	4809, 109	
	Zonal check	4760, 106	
	Local check	5626, 106	
	CD	418	

Entries promoted to AVT 1-MS:

Zone	Entries
Zone III	: None
Zone IV	: IET 32717 and 32718
Zone V	: None
Zone VI	: IETs 32685, 32672 and 32680
Zone VII	: IETs 32680 and 32675

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 18.1: Composition of entries in Initial Variety Trial – Medium Slender Grain (IVT - MS) Kharif 2024

Entry No.	IET No.	Designation	Cross Combination	Grain type
4401	32669	TTB 1395-1	Hatidotia/Ranjit/Ril29/Ranjit	MS
4402	32670	NP 3112	YNP 2112/YNP 2113	MS
4403	32671	RP 6848-JBABL-16	Swarna/IRGC 4059//Swarna*2/IRGC 48960	MS
4404	32672	TRC 2024-18/TRC TNTC 5516-B-B-5-22	Tripura Nirog/Tripura Chikan	MS
4405	32673	CRAC-3998-101-2	Doubled Haploid of 27P63	MS
4406	32674	JGL 44092	JGL 20779/IR 71604-4-1-4-4-4-2-22R	MS
4407	32675	CB 21515	CO S1/CO 54	MS
4408	32676	BPT 3278	RP Bio 226*/IRGC 48493	MS
4409	32677	BRR 0292	Sambha Mahsuri/Sathi	MS
4410	32678	CR 4054-5-3-4-2-1	Ranidhan X CR Dhan 800//swarna Sub 1	MS
4411	32679	NP 177	NPG17/NPG71	MS
4412	32680	MTU 1442 (MTU 2687-106-1-2-1)	Ravi 003/MTU 1156/MTU 1156	MS
4413	32681	AD19566	AD7302/CO50	MS
4414	32682	NWGR 19238	GAR-13/RRT-6/17-1-1-1-1-1-1	MS
4415	32683	TTB 1153-1-1	IRGC 67439/R*2	MS
4416	32684	KNM 15136	BPT 5204/MUT NS1//KNM 1638	MS
4417	32685	BRR 0296	Rajendra Sweta/PRR78-3	MS
4418	32686	Pusa 5483-47-6-1-1-2-1-4	P 36S/CMH 78	MS
4419	32687	RFS 2019-4	PKV HMT/Dubraj Sel.1	SS
4420	32688	SPE-21	BPT5204/ T1-140	MS
4421		National Check	Telangana Sona	
4422	32689	SKL-15-01-127-110-180-35	SYE-4/Sarathi	SS
4423	32690	RNR 37931	RNR-11718/NLR34449	MS
4424	32691	TRC 2024-10/TRC TNTC 5516-B-B-5-7	Tripura Nirog/Tripura Chikan	MS
4425	32692	NVSR-917	IET-22121/IET-24021	MS
4426	32693	CR 6319-3-2-2	CR Mas 31 A / OR 2310-33	MS
4427	32694	CRAC-3998-324-3	Doubled Haploid of 27P63	MS
4428	32695	CR 4374-3-1-2-1-1-2	CR 3497-7-1-3-1-1-1/CR3561-5-1-1-1-1-3	MS
4429	32696	NP 4114	PRN 41/PRN 51	MS
4430	32697	KJTRH-2239R	Gurjari/IR 64	MS
4431	32698	WGL-1929	(WGL 962/MIL 12)/(WGL 962/BM 71)	MS
4432		National Medium duration check	WGL 14	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entry No.	IET No.	Designation	Cross Combination	Grain type
4433	32699	Shriram Super 7755	SRPG 1602/ SPG 5	MS
4434	32700	AD 18559	I W Ponni/kala Joho	SS
4435	32701	NDR-2023-13-CP-10-1	HAUR-10-9/Pusa Sugnadha 5	MS
4436	32702	NLR 3648	BPT 5204/CR 1864-9-10-5-63	MS
4437	32703	CB 21112	CO 56/ Sriramsena	MS
4438	32704	SPE - 22	BPT 5204 X SM 111	SS
4439	32705	ACK 20026	ACK/2024/White Ponne	MS
4440	32706	NWGR 19222	Jaya/IIRON-M-I-204/4-8-1-5-1-2-1	MS
4441	32707	BPT 3357	MTU 7029/IRGC 18195/MTU 1081	MS
4442	32708	GNV 1806	Mutant of BPT 5204	MS
4443	32709	KMP 269	White Rajamudi/BR 2655-5	MS
4444	32710	SPE-26	SM111 X BPT 5204	MS
4445	32711	OR 2762-35	Jyotirmayee/26 P 29	MS
4446	32712	SYE-23-1-12-10-13-19-24	PKV Ganesh/Daya	MS
4447	32713	RP Bio 4918-DB-NPK 18	Swarna/O.nivara	MS
4448	32714	RP 6830-1536-70-4-2-1-3	IET23647/IET 25350	MS
4449	32715	RNR 41579	RNR 11718/RNR 21278	MS
4450	32716	NVSR-1057	GAR-13/IET-24765	MS
4451	32717	CR3938-1-2-1-2-4-1-2	IR 73907-753-2-3-1/Pratikshya	MS
4452	32718	CR 4459-3-1-1-1-1	CR 3856-44-22-2-1-11-1-1-1/CR 316//*NDR-1045*COR-50	MS
4453	32719	CR 6327-2-3-3-3-1	CR 3562-2-1-1-1-1-1/MTU 1010	MS
4454	32720	CR 6328-4-1-1-1-1	Maudamani/CR4413-1-2-1-1-2	MS
4455		National late duration check	BPT 5204	MS
4456	32721	P 3356	BPT 5204/ADT 39	MS
4457	32722	MTU 1438	MTU1075/NLR34449	MS
4458	32723	WGL-1977	KPS 3018/NLR 3354	MS
4459	32724	SYE-261-25-31-17-18-19	SYE-808/SYE-1195-56-16-7	MS
4460	32725	NVSR 3856	GAR 13 x GNR 7	MS
4461	32726	RP 6240-BP/RK-BP177	BPT5204/PTB1	MS
4462		Zonal check	Improved Samba Mahsuri (Eastern and Central), Ketekejoha (North Eastern), Karjat-6 (Western) and ADT 49 (Southern)	
4463	32727	KNM 15138	WG 962/JGL 11727	MS
4464		Local check		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 18.2: Grain Yield (kg/ha) in IVT - MS, Kharif 2024

Entry No	IET No	ZONE III- EASTERN											
		Bihar		Jharkhand		Odisha				Odisha (2)		Uttar Pradesh	
		Bikramganj		Ranchi		Bhubaneswar		Jeypore		Mean		Varanasi	
4401	32669	3376		3155		6716	1*	3148		4932		4667	
4402	32670	4562		4730		4084		3607		3845		5600	
4403	32671	4552		5075		1416		4919		3168		5558	
4404	32672	5838		5515		4666		5646	2	5156	4	4158	
4405	32673	3233		3765		2084		5394	6	3739		5833	
4406	32674	4524		3765		2584		4096		3340		6033	7
4407	32675	6619	7	5425		5334	6	5170		5252	2	4717	
4408	32676	3148		3020		4416		3415		3916			
4409	32677	5352		6740	2	4166		5465	5	4816		6192	5
4410	32678	7319	4	4815		5416	4	5480	4	5448	1	5700	
4411	32679	5286		4725		3750		3537		3644		5242	
4412	32680	5281		3155		5000		4067		4533		5192	
4413	32681	4990		5075		5166	9	4981		5074	9	4333	
4414	32682	5357		4375		4500		4154		4327		5258	
4415	32683	4071		3020		6334	2*	3959		5146	5	4858	
4416	32684	5919		5425		3834		5669	1	4751		5392	
4417	32685	7586	3	6125	9	5250	8	4922		5086	8	5583	
4418	32686	4643		6740	2	1600		4937		3269		5342	
4419	32687	3824		4205		3934		3248		3591		4058	
4420	32688	4581		3675		3817		3207		3512		3658	
4421	Telangana Sona(NC)	5500		5425		3150		3207		3179		5267	
4422	32689	4948		4900		4250		4143		4196		5358	
4423	32690	5110		5605		3767		3219		3493		6567	2*
4424	32691	5910		3765		4700		4259		4480		4617	
4425	32692	5319		5515		3584		4009		3796		5583	
4426	32693	2262		3765		4350		3250		3800		3742	
4427	32694	4257		6655	5	4234		4811		4522		5717	
4428	32695	5333		4815		4666		5035		4851		5875	
4429	32696	6290		4990		5516	3	4928		5222	3	5400	
4430	32697	6124		4905		3100		3861		3481		5983	10
4431	32698	4386		3940		3750		3898		3824		5400	
4432	WGL 14(NMC)	7662	2	4905		5050	10	4535		4793		5083	
4433	32699	6729	6	5340		3666		4348		4007		5092	
4434	32700	6048		4200		4500		4926		4713		4975	
4435	32701	3329		4990		3416		4707		4062		3992	
4436	32702	5976		5780		4250		3819		4034		5983	
4437	32703	5329		6740	2	3916		3426		3671		5283	
4438	32704			3240		4800		5387	7	5094	7	5275	
4439	32705	5724		4815		3134		3887		3510		5708	
4440	32706	5524		5865		4350		5074		4712		5817	
4441	32707	4186		3065		4250		4185		4218		3783	
4442	32708	5376		4990		3334		4537		3935		5350	
4443	32709	5086		4380		3750		3191		3470		4308	
4444	32710	4033		3065		4666		4007		4337		4367	
4445	32711	4386		4725		3834		4826		4330		6858	1*
4446	32712	5019		5255		4250		5287	10	4769		5383	
4447	32713	7719	1	4375		4334		3250		3792		6008	9
4448	32714	4900		3065		5283	7	4119		4701		3683	
4449	32715	6376	10	4025		3750		4281		4016		5500	
4450	32716	5852		5605		3783		5309	9	4546		6050	6
4451	32717	6071		5865	10	4166		3128		3647		5717	
4452	32718	5990		4640		4584		5563	3	5073	10	4858	
4453	32719	5876		6480	6	4666		4324		4495		6292	3*
4454	32720	6281		5425		4166		3565		3866		4458	
4455	BPT 5204(NLC)	6519	9	4725		4850		5374	8	5112	6	4350	
4456	32721	6529	8	5690		4333		4839		4586		4875	
4457	32722	5800		6475	8	5416	4	3411		4414		6225	4
4458	32723	6195		5515		4166		3296		3731		6017	8
4459	32724	4419		5080		4166		4322		4244		5592	
4460	32725	6314		4025		3667		3807		3737		5267	
4461	32726	5371		6915	1	2666		3806		3236		5167	
4462	ZC	6876	5	4815		3750		4289		4019		5650	
4463	32727	4167		3105		1500		3198		2349		4342	
4464	LC	5410		6480	6	4250		3865		4057		4442	
Experimental Mean		5342		4851		4122		4274		4198		5216	
CD(0.05)		774		701		1018		1579		909		606	
CV(%)		7.25		7.24		12.36		18.49		10.84		5.81	
F val		17.23 **		18.91 **		7.63 **		1.92 **		4.14 **		11.99 **	
DOS		25-06-24		25-06-24		13-07-24		20-07-24				18-06-24	
DOP		27-07-24		20-08-24		20-08-24		24-08-24				13-08-24	
Local Check Name		Rajendra Sweta		Swarna		Pradeep		Kalinga Dhan 1203				HUR-917	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 18.2 (Contd.): Grain Yield (kg/ha) in IVT - MS, Kharif 2024

Entry No	IET No	ZONE III- EASTERN		ZONE III- EASTERN (6)		ZONE IV-NORTH EASTERN		ZONE IV-NORTH EASTERN (2)		
		West Bengal				Assam		Tripura		
		chinsurah		Mean		Titabar		Lembucherra	Mean	
4401	32669	6991		4676		7070	2*	3562	5316	
4402	32670	5981		4761		6519	6	4338	5428	
4403	32671	4885		4401		3982		3362	3672	
4404	32672	6833		5443		5444		5412	5428	
4405	32673	6674		4497		3507		3612	3560	
4406	32674	4401		4234		4530		4650	4590	
4407	32675	7215	8	5747	6	5227		5250	5239	
4408	32676	7771	2	4354		5291		3512	4402	
4409	32677	6681		5766	5	5244		4238	4741	
4410	32678	7691	3	6070	1	5551		5212	5382	
4411	32679	5628		4695		5002		3500	4251	
4412	32680	6205		4817		4169		2438	3303	
4413	32681	7864	1	5402		5759		4525	5142	
4414	32682	6890		5089		5185		4362	4774	
4415	32683	6746		4831		6449	8	2400	4424	
4416	32684	7439	5	5613	8	4271		5688	4979	
4417	32685	6277		5957	2	5036		6112	5574	
4418	32686	6854		5019		4947		4438	4692	
4419	32687	4625		3982		3821		3162	3492	
4420	32688	4812		3959		4526		3938	4232	
4421	Telangana Sona(NC)	4863		4569		4892		3712	4302	
4422	32689	6638		5039		4947		4912	4930	
4423	32690	4762		4838		4956		3588	4272	
4424	32691	5952		4867		5597		4000	4799	
4425	32692	6306		5053		4765		3912	4339	
4426	32693	6566		3989		5984		3925	4954	
4427	32694	6739		5402		6218	10	3375	4796	
4428	32695	6320		5341		6681	5	4288	5484	
4429	32696	5224		5391		4216		4250	4233	
4430	32697	4798		4795		4679		3775	4227	
4431	32698	6854		4705		3982		3950	3966	
4432	WGL 14(NMC)	7540	4	5796	3	4803		4712	4758	
4433	32699	5916		5182		4909		4700	4805	
4434	32700	6147		5133		4654		4712	4683	
4435	32701	6443		4480		4237		3550	3893	
4436	32702	6270		5346		5125		3600	4363	
4437	32703	7143	9	5306		4926		5238	5082	
4438	32704	5671		4875		6078		4238	5158	
4439	32705	6898		5028		6065		4888	5476	
4440	32706	6638		5545	9	4969		4362	4666	
4441	32707	6962		4405		4858		3238	4048	
4442	32708	6494		5013		4025		3988	4006	
4443	32709	6025		4457		4989		2975	3982	
4444	32710	6724		4477		4552		3775	4163	
4445	32711	7027	10	5276		4930		4038	4484	
4446	32712	5859		5176		4819		4775	4797	
4447	32713	7251	7	5490		5432		5125	5278	
4448	32714	6926		4663		5419		4638	5028	
4449	32715	6710		5107		7004	3*	4275	5640	
4450	32716	5556		5359		5376		5262	5319	
4451	32717	5765		5119		7603	1*	4838	6220	
4452	32718	4798		5072		6396	9	5700	6048	
4453	32719	7006		5774	4	5193		4550	4872	
4454	32720	6544		5073		5678		4212	4945	
4455	BPT 5204(NLC)	7417	6	5539	10	5470		3512	4491	
4456	32721	5447		5285		5602		4100	4851	
4457	32722	6472		5633	7	5168		4438	4803	
4458	32723	6133		5220		6991	4*	4488	5739	
4459	32724	6421		5000		5827		4088	4957	
4460	32725	5382		4744		4650		4588	4618	
4461	32726	6205		5022		4905		4888	4896	
4462	ZC	6775		5359		4012		3988	4000	
4463	32727	4863		3529		3293		3362	3328	
4464	LC	6818		5211		6454	7	3350	4902	
Experimental Mean		6308		5016		5201		4212		4707
CD(0.05)		1184		410		525		1585		896
CV(%)		9.39		4.09		5.05		18.83		9.53
F val		4.14 **		12.57 **		23.29 **		1.81 *		3.93 **
DOS		21-06-24				04-07-24		12-07-24		
DOP		16-08-24				29-07-24		01-08-24		
Local Check Name		Swarna				Ranjit SUB-1		Hakuchuk-2		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 18.2 (Contd.): Grain Yield (kg/ha) in IVT - MS, Kharif 2024

Entry No	IET No	ZONE V- CENTRAL					ZONE V- CENTRAL (3)		ZONE VI- WESTERN		
		Chhattisgarh		Maharashtra		Madhya Pradesh	Mean	Gujarat			
		Raipur	Sindewahi	Jabalpur		Navasari		Nawagam			
4401	32669	4925	2514	3630		3690	3239	4499	6		
4402	32670	4200	4695	4860		4585	6521	6	4353		
4403	32671	3212	3089	5066		3789	3889		3947		
4404	32672	4744	4964	5040		4916	6237		4323		
4405	32673	3126	3295	4648		3690	6306		2990		
4406	32674	3328	3885	5173		4129	4792		3236		
4407	32675	3575	4844	5751		4723	4924		4659	4	
4408	32676	2362	2344	6396	5*	3701	3239		1714		
4409	32677	5362	3409	4581		4451	6424	10	4968	1	
4410	32678	5217	4425	4707		4783	6414		4204		
4411	32679	4603	4553	4701		4619	6534	5	3808		
4412	32680	5642	3210	3597		4150	5341		4262		
4413	32681	4280	4126	4688		4365	4205		2946		
4414	32682	4108	5369	5080	7	4852	6610	4	4048		
4415	32683	5342	2308	3624		3758	4590		4438	7	
4416	32684	4123	3572	5465		4387	6029		3876		
4417	32685	5199	5291	5199	9	5230	7102	2*	4841	2	
4418	32686	3520	3217	5133		3957	6837	3	3585		
4419	32687	5515	4041	4262		4606	5133		2602		
4420	32688	3317	5568	5000	2	4628	5852		3888		
4421	Telangana Sona(NC)	3538	3395	5013		3982	5297		3639		
4422	32689	4173	4162	5133		4489	6434	9	3388		
4423	32690	4391	4474	5372		4746	3939		3062		
4424	32691	5608	4304	5445		5119	7172	1*	2923		
4425	32692	4682	5220	6177	10	5360	6477	8	3732		
4426	32693	4108	2308	7055	3*	4490	3140		1772		
4427	32694	5572	3892	3916		4460	4160		3069		
4428	32695	4603	3984	3743		4110	6149		4327		
4429	32696	8272	5334	5372	8	6326	4950	1	3140		
4430	32697	4556	4048	5306		4637	5492		3610		
4431	32698	4412	4567	6390	6*	5123	4242	8	2891		
4432	WGL 14(NMC)	6803	5838	5246	1	5962	5423	2	4237		
4433	32699	4353	4190	5924	10	4823	4817		3882		
4434	32700	4896	3651	4900		4482	3668		4151		
4435	32701	3867	3601	3903		3790	3826		3205		
4436	32702	4683	4332	5532		4849	5612		4320		
4437	32703	4187	3849	4382		4139	5762		4361	9	
4438	32704	3708	2358	4182		3416	1812		3790		
4439	32705	5067	4723	5778		5189	4785	7	3479		
4440	32706	4083	3331	4934		4116	4242		2368		
4441	32707	3162	3260	8737	1*	5053	2950		2628		
4442	32708	4258	5483	5146	5	4963	5473		3519		
4443	32709	3203	3842	4309		3785	3952		2930		
4444	32710	3494	2301	5419		3738	2876		4358	10	
4445	32711	3294	4297	5884		4492	5486		3320		
4446	32712	4982	3743	2793		3839	3605		3987		
4447	32713	5457	5447	4295	6	5066	5297		3485		
4448	32714	3966	3338	7706	2*	5003	1521		2437		
4449	32715	4938	2351	6024	9	4438			4292		
4450	32716	4400	4489	5758		4882	6490	7	3783		
4451	32717	5495	5518	5372	4	5462	6073	4	3690		
4452	32718	4434	5533	4149	3	4705	4236		4431	8	
4453	32719	5408	4695	6469	4*	5524	6275	3	4808	3	
4454	32720	4361	4659	4847		4622	3561		4570	5	
4455	BPT 5204(NLC)	5012	4794	4741		4849	3624		4120		
4456	32721	4272	5170	3185		4209	4141		4034		
4457	32722	5512	4482	3052		4348	1622		4153		
4458	32723	4754	4865	5638		5086	5432	10	4173		
4459	32724	5799	2784	5086		4557	1855		3009		
4460	32725	3698	4467	6217	7	4794	5997		4054		
4461	32726	4231	3374	4761		4122	5947		3274		
4462	ZC	4452	3523	4820		4265	4362		3704		
4463	32727	2417	3473	3577		3156	4053		3188		
4464	LC	4469	4062	5273		4601	5941		3737		
Experimental Mean		4480	4066	5056		4534	4895		3691		
CD(0.05)		761	999	966		585	1152		1183		
CV(%)		8.51	12.29	9.56		6.46	11.77		16.04		
F val		13.29 **	7.17 **	9.3 **		8.19 **	12.02 **		2.88 **		
DOS		01-07-24	24-06-24	27-06-24			25-06-24		22-06-24		
DOP		27-07-24	30-07-24	19-07-24			18-07-24		08-08-24		
Local Check Name		Chhattisgarh Devbhog	PDKV-Kisan	JR 206			GNR-7		GAR 13		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 18.2 (Contd.): Grain Yield (kg/ha) in IVT - MS, Kharif 2024

Entry No	IET No	ZONE VI- WESTERN									ZONE VI- WESTERN (5)		
		Gujarat		Gujarat (3)		Maharashtra			Maharashtra (2)		Mean		
		Vyra	Mean	Mean	Radhanagari	Karjat	Mean	Mean	Mean	Mean	Mean	Mean	
4401	32669	5722	10	4486		6013		4117		5065		4718	
4402	32670	5153		5343	8	5714		4110		4912		5170	
4403	32671	4649		4162		5315		3684		4499		4297	
4404	32672	5268		5276	10	6394	6	9710	2*	8052	3*	6386	4*
4405	32673	4757		4684		4169		6120		5145		4868	
4406	32674	3621		3883		4645		5271		4958		4313	
4407	32675	4323		4636		6225	8	7307		6766	7	5488	
4408	32676	1941		2298		4490		4167		4328		3110	
4409	32677	5115		5502	6	4958		6046		5502		5502	
4410	32678	8327	1*	6315	1*	7151	1	9319	3*	8235	1*	7083	1*
4411	32679	5300		5214		6500	5	5058		5779		5440	
4412	32680	6865	2	5489	7	7016	2	7659	8	7338	5*	6229	5*
4413	32681	3557		3569		3698		5337		4517		3949	
4414	32682	4317		4991		4969		5520		5244		5093	
4415	32683	5549		4859		6015		5958		5987		5310	
4416	32684	4745		4883		5316		3562		4439		4705	
4417	32685	5013		5652	3	6569	4	8655	5	7612	4*	6436	3*
4418	32686	6507	3	5643	4	6019		3814		4916		5352	
4419	32687	2631		3455		4716		3806		4261		3777	
4420	32688	4470		4737		6365	7	4690		5528		5053	
4421	Telangana Sona(NC)	4138		4358		6119		4204		5162		4679	
4422	32689	3269		4364		4180		5457		4818		4546	
4423	32690	5140		4047		5706		4533		5119		4476	
4424	32691	5377		5157		4678		7520	10	6099		5534	10
4425	32692	5651		5287	9	5892		5121		5507		5375	
4426	32693	230		1714		3205		3682		3443		2406	
4427	32694	5811	8	4347		4912		5770		5341		4744	
4428	32695	6245	6	5574	5	5789		7380		6584	8	5978	6
4429	32696	4662		4250		5073		7352		6212		5035	
4430	32697	4681		4594		6106		5599		5852		5098	
4431	32698	4215		3783		5045		4664		4854		4211	
4432	WGL 14(NMC)	4802		4821		4050		7604	9	5827		5223	
4433	32699	2842		3847		5464		6275		5869		4656	
4434	32700	4559		4126		3496		7080		5288		4591	
4435	32701	4757		3929		4571		3738		4154		4019	
4436	32702	4840		4924		6730	3	5273		6002		5355	
4437	32703	3059		4394		4712		4831		4772		4545	
4438	32704	4413		3338		3477		3499		3488		3398	
4439	32705	4189		4151		6219	9	6804		6511	9	5095	
4440	32706	4080		3564		5455		4235		4845		4076	
4441	32707	3608		3062		2724		3813		3269		3145	
4442	32708	4144		4379		5401		4805		5103		4668	
4443	32709	4170		3684		3929		4501		4215		3896	
4444	32710	2963		3399		2361		3295		2828		3171	
4445	32711	6309	5	5038		2751		6115		4433		4796	
4446	32712	4591		4061		5671		5853		5762		4741	
4447	32713	5536		4773		5030		7427		6228		5355	
4448	32714	2963		2307		3819		4383		4101		3025	
4449	32715	4176		4234		5280		5954		5617		4926	
4450	32716	4195		4823		5685		5690		5688		5169	
4451	32717	5377		5047		5194		8976	4	7085	6	5862	7
4452	32718	4393		4354		6156	10	5526		5841		4949	
4453	32719	6086	7	5723	2	5756		10665	1*	8210	2*	6718	2*
4454	32720	4936		4356		5351		7443		6397	10	5172	
4455	BPT 5204(NLC)	4866		4203		5571		6153		5862		4867	
4456	32721	4432		4202		4621		4558		4590		4357	
4457	32722	6322	4	4033		5452		3507		4479		4211	
4458	32723	5619		5075		5952		6700		6326		5575	9
4459	32724	3461		2775		4313		4096		4204		3347	
4460	32725	5211		5087		3558		6656		5107		5095	
4461	32726	4387		4536		5731		5396		5564		4947	
4462	ZC	5485		4517		3086		7699	7	5392		4867	
4463	32727	3538		3593		4514		4385		4450		3936	
4464	LC	5779	9	5152		4919		7843	6	6381		5644	8
Experimental Mean		4646		4407		5093		5718		5406		4809	
CD(0.05)		1335		713		1197		1286		923		474	
CV(%)		14.38		8.1		11.77		11.25		8.54		4.93	
F val		6.83 **		11.98 **		6.67 **		14.02 **		12.11 **		29.32 **	
DOS		15-06-24				14-06-24		14-06-24					
DOP		06-07-024				13-07-24		10-07-24					
Local Check Name		GNR-7				Phuie Radha		KJT-9					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 18.2 (Contd.): Grain Yield (kg/ha) in IVT - MS, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN											
		Andhra Pradesh		Karnataka				Karnataka (3)		Kerala			
		Bapatla		Mugad	Mandya	Sirsi	Me an		Pattambi				
4401	32669	5075		6794	8	7806	1	7638	1*	7412	1*	8984	2*
4402	32670	6192	1	5142		5760		5001		5301		5740	
4403	32671	4292		4166		5251		1918		3778		5160	
4404	32672	5733		4406		6930	4	5158	9	5498		7692	10*
4405	32673	2733		4125		6379	10	4759		5088		7664	*
4406	32674	2267		5230		3027		2118		3458		6448	
4407	32675	6133	2	6153		6887	5	5564	6*	6201	7*	6664	
4408	32676	5958	4	8521	2*	5607		6564	2*	6897	2*	8388	5*
4409	32677	4358		4698		4951		3924		4524		7060	*
4410	32678	5950	5	5645		5993		3564		5067		6472	
4411	32679	4223		5083		6219		2601		4634		4048	
4412	32680	4844		6523		6109		6326	3*	6319	6*	5824	
4413	32681	5819	8	7268	5	5987		3039		5431		4012	
4414	32682	5312		4695		5184		3475		4451		7876	7*
4415	32683	5491		6402		6299		3918		5540		3548	
4416	32684	5385		4267		2904		1161		2778		6164	
4417	32685	4447		4791		6011		3640		4814		4396	
4418	32686	2703		5329		5466		2920		4572		5236	
4419	32687	3332		4622		4498		2400		3840		4592	
4420	32688	5523		4663		4577		2480		3907		7436	*
4421	Telangana Sona(NC)	4128		4513		4467		1723		3568		4200	
4422	32689	4240		4174		6060		3996		4744		9272	1*
4423	32690	4922		5174		4982		3885		4680		4700	
4424	32691	5528		4163		4988		2678		3943		6176	
4425	32692	3704		6518		4773		3402		4898		3692	
4426	32693	4191		4948		6152		4836		5312		7012	*
4427	32694	5534		3929		5386		1718		3678		6736	
4428	32695	3323		6487		7745	2	3120		5784		5348	
4429	32696	4703		5089		4761		3118		4323		8896	3*
4430	32697	2962		4390		6287		2281		4319		4552	
4431	32698	4157		4288		4982		3799		4356		7184	*
4432	WGL 14(NMC)	5732		6078		5650		4399		5375		4700	
4433	32699	4408		5162		5196		5760	5*	5373		6608	
4434	32700	4369		5330		5380		4966		5225		6736	
4435	32701	4051		4272		2690		1919		2960		7020	*
4436	32702	4070		5679		5239		2764		4561		6896	*
4437	32703	4162		7634	4	6121		5879	4*	6545	4*	4048	
4438	32704	5114		5282		5539		3118		4646		4792	
4439	32705	3928		4214		3002		1840		3019		3800	
4440	32706	5548		5200		4632		4520		4784		8820	4*
4441	32707	4853		6200		5214		3404		4940		5816	
4442	32708	5405		4261		5815		2798		4291		5564	
4443	32709	5522		4648		4718		4476		4614		7826	9*
4444	32710	6030	3	5642		5551		2803		4666		5936	
4445	32711	3930		4786		5110		2278		4058		5248	
4446	32712	5012		6747	9	7218	3	3759		5908	10	4608	
4447	32713	5626		4482		5472		3644		4532		7868	8*
4448	32714	5345		9073	1*	6483	9	4077		6544	5*	5060	
4449	32715	3822		4867		6311		2682		4620		3980	
4450	32716	5753	10	6006		5643		2522		4724		5120	
4451	32717	5382		4840		6373		3078		4763		6068	
4452	32718	5859	6	7860	3	6569	8	5240	8*	6556	3*	3840	
4453	32719	4062		6172		5159		4400		5244		8084	6*
4454	32720	5722		6814	7	4657		3320		4930		6634	
4455	BPT 5204(NLC)	3702		6535	10	5362		3118		5005		5132	
4456	32721	5059		7240	6	6091		4877		6069	8*	4988	
4457	32722	5841	7	5741		6734	7	5432	7*	5969	9	4320	
4458	32723	3588		5815		5509		5154	10	5493		4196	
4459	32724	4391		4127		6029		3197		4451		4336	
4460	32725	5792	9	5490		5374		4640		5168		5444	
4461	32726	2722		5025		5987		4123		5045		5528	
4462	ZC	4391		3933		5116		3040		4030		5262	
4463	32727	4255		4252		5294		3602		4383		5248	
4464	LC	5432		4297		6826	6	4556		5226		4608	
Experimental Mean		4719		5405		5539		3720		4888		5864	
CD(0.05)		1225		1404		1212		649		654		1576	
CV(%)		12.99		13		10.95		8.74		6.69		13.45	
F val		5.1 **		5.51 **		5.6 **		32.77 **		16.32 **		7.28 **	
DOS		01-08-24		20-06-24		12-07-24		21-06-24					
DOP		Dry direct sowing method		Drill sowing		11-08-24		13-07-24					
Local Check Name		BPT 2782		SIRI-1253		Thanu		SIRI 1253 (4064)					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 18.2 (Contd.): Grain Yield (kg/ha) in IVT - MS, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN						ZONE VII- SOUTHERN (8)		Maharashtra (3)	Overall Mean (24)			
		Telangana		Telangana (2)		Tamil Nadu		Mean	Mean	Mean	Mean			
		Rajendranagar	Warangal	Mean	Coimbatore	Mean								
4401	32669	7417	6318	6867	1212	6405	2*	4215	5191					
4402	32670	6333	6226	6279	4796	5649		4840	5176					
4403	32671	7472	3586	5529	1953	4225		4029	4183					
4404	32672	7583	5978	6781	5161	6080	5	7023	5785	3				
4405	32673	4704	3498	4101	1464	4416		4528	4368					
4406	32674	5009	4708	4858	2681	3936		4600	4168					
4407	32675	5676	7056	3*	6366	6305	3*	6125	5683	5				
4408	32676	5074	5236	5155	431	5722		3667	4479					
4409	32677	6370	5196	5783	4000	5070		4804	5229					
4410	32678	8380	4	7142	2*	7761	1	5415	6070	6				
4411	32679	7259	6926	6	7092	10	5563	8	5240	5370	4985			
4412	32680	7000	6843	10	6922	7784	1	6407	1*	5962	8	5431	9	
4413	32681	5907	4640	5274	4757	5179		4387	4873					
4414	32682	6648	5433	6041	4826	5431		5286	5148					
4415	32683	7444	4794	6119	2466	5045		4760	4834					
4416	32684	5537	6550	6043	3046	4377		4150	4806					
4417	32685	7611	6586	7098	9	6376	3	5482	6838	4*	5776	4		
4418	32686	5167	5155	5161	3729	4463		4350	4743					
4419	32687	4324	3190	3757	1510	3558		4188	3835					
4420	32688	4963	3236	4099	2891	4471		5541	4464					
4421	Telangana Sona(NC)	5565	5906	5736	3431	4242		4573	4387					
4422	32689	6370	4852	5611	4970	5492		4600	5009					
4423	32690	5083	4806	4944	3502	4632		4904	4635					
4424	32691	7722	10	6226	6974	5711	7	5399	5500	5209				
4425	32692	6759	5624	6191	4771	4905		5411	5050					
4426	32693	4935	3267	4101	1444	4598		3065	4005					
4427	32694	7093	5343	6218	3910	4956		4858	4948					
4428	32695	6741	7010	4	6875	4855		5579	5718	5411	10			
4429	32696	7796	9	4838	6317	5194		5549	5920	9	5390			
4430	32697	6259	5268	5764	3685	4461		5251	4679					
4431	32698	5704	5876	5790	3800	4974		4759	4682					
4432	WGL 14(NMC)	7648	4615	6132	7095	2	5740	5831	5592	6				
4433	32699	6889	5078	5983	4578	5460		5310	5089					
4434	32700	6565	4582	5574	6041	5	5496	4742	5022					
4435	32701	5241	3751	4496	2750	3962		3970	4076					
4436	32702	8574	3	6035	7305	4	3133	5299	5445	5188				
4437	32703	8370	5	3946	6158	6100	4	5783	4464	5142				
4438	32704	5713	4301	5007	5505	9	4921	3111	4404					
4439	32705	7389	6858	9	7124	8	3635	4333	5915	10	4868			
4440	32706	5620	5062	5341	4230	5454		4340	4957					
4441	32707	5463	4270	4866	5042	5033		3266	4403					
4442	32708	8315	6	5984	7149	7	5038	5397	5230	4979				
4443	32709	7250	4760	6005	3716	5365		4091	4519					
4444	32710	6315	6078	6196	5331	5461		2653	4414					
4445	32711	7657	4512	6085	5377	4862		4388	4874					
4446	32712	7648	5258	6453	4495	5593		5089	5026					
4447	32713	8194	7	6328	7261	5	4779	5799	10	5968	7	5494	7	
4448	32714	6065	5582	5823	2580	5533		3847	4685					
4449	32715	6241	5046	5643	3402	5444		4528	4839					
4450	32716	8194	7	6879	8	7537	3	5061	5647	5288	5353			
4451	32717	6389	6102	6245	3321	5194		6563	5	5433	8			
4452	32718	7380	5396	6388	4254	5800	9	5738	5324					
4453	32719	8981	1	6406	7693	2	5965	6	6154	4	7038	1*	5991	2*
4454	32720	5806	8376	1*	7091	5489	10	5852	8	5818	5286			
4455	BPT 5204(NLC)	6380	5417	5898	2828	4809		5506	4982					
4456	32721	7167	4687	5927	5414	5690		4783	5056					
4457	32722	7093	6904	7	6998	5455	5940	7	4480	5209				
4458	32723	6935	6998	5	6966	3862	5257	5839	5333					
4459	32724	6444	4612	5528	4688	4728		3731	4506					
4460	32725	6185	5148	5667	5421	5437		4894	5044					
4461	32726	6759	6246	6503	5241	5204		4834	4944					
4462	ZC	7463	5109	6286	3815	4766		4769	4809					
4463	32727	4796	4106	4451	3820	4422		4124	3848					
4464	LC	8796	2	5660	7228	6	4833	5626	5608	5337				
Experimental Mean		6654	5428	6041	4248	5201	4959	4948						
CD(0.05)		1396	1115	932	1422	418	738	254						
CV(%)		10.5	10.28	7.72	16.74	4.03	7.45	2.57						
F val		5.23 **	7.92 **	8.06 **	8.4 **	18.33 **	13.39 **	29.89 **						
DOS		26-06-24	21-06-24		25-06-24									
DOP		20-07-24	17-07-24		22-07-24									
Local Check Name		RNR 11718	WGL 32100		CO 52									

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 18.2 (Contd.): Grain Yield (kg/ha) in IVT - MS, Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN				ZONE IV-NORTH EASTERN		ZONE VII- SOUTHERN			
		Bihar		Uttar Pradesh		Assam		Andhra Pradesh	Tamil Nadu		
		@Pusa		@Masodha		@Gerua		@Maruteru	@Adutrai		
4401	32669	4375				761		6093		4606	6
4402	32670	4196		6915	1	780		5151		3148	
4403	32671	4732	1	6898	2	523		3207		2546	
4404	32672	3750		3777		758		3672		3241	
4405	32673	4554	6	6556	8	445		4891		3009	
4406	32674	4375	8	6436		706		5072		3102	
4407	32675	3929		4335		792	9	5803		4676	4
4408	32676	4036		4967		749		6099		4954	3
4409	32677	4107		5519		790	10	4825		2407	
4410	32678	4018				858	4	5489		2269	
4411	32679	3929		4621		864	3	4100		2870	
4412	32680	3482				693		6703	1	5463	2
4413	32681	4375		5691		674		6250		4074	9
4414	32682	4286		5399		516		4179		3009	
4415	32683	4107		4914		768		6546	2	2870	
4416	32684	4643	4	5319		767		5580		2199	
4417	32685	3839		4289		807	8	6401	7	3657	
4418	32686	3929		6170		838	6	5163		2037	
4419	32687	4375		5565		515		4946		2593	
4420	32688	3929		6044		662		5435		2083	
4421	Telangana Sona(NC)	4286		6150		733		5175		2500	
4422	32689	3571		4555		657		2880		2269	
4423	32690	4286		6702	5	461		6238		2037	
4424	32691	4107				692		5229		2500	
4425	32692	3571		6709	4	705		4831		2523	
4426	32693	4375				651		6292	10	2315	
4427	32694	3750		5379		766		3086		3981	10
4428	32695	3929		4302		848	5	6105		3565	
4429	32696	3750		6742	3	545		6359	8	3495	
4430	32697	3929		6430		566		3563		1944	
4431	32698	4732	1	5093		566		5223		2685	
4432	WGL 14(NMC)	4286		4840		668		5362		2519	
4433	32699	3571		5565		757		5302		3056	
4434	32700	4286		4235		611		6504	5	1898	
4435	32701	3929		5908		613		4263		3472	
4436	32702	4196		5113		711		3617		2500	
4437	32703	3750		4688		660		4408		3125	
4438	32704	4196		6456	10	702		5284		2986	
4439	32705	4464	7	6503	9	748		3152		2454	
4440	32706	4107		5432		782		6522	3	3519	
4441	32707	3929				560		5362		5556	1
4442	32708	3571		4854		706		4946		1968	
4443	32709	3750		2699		639		6504	4	3634	
4444	32710	3929		5891		501		6298	9	4444	7
4445	32711	3750		6656	7	601		5767		2037	
4446	32712	4375	8	4721		897	2	4909		2940	
4447	32713	3750				780		5157		3148	
4448	32714	4286		5239		584		4632		2917	
4449	32715	3214		6217				5568		2454	
4450	32716	4732	1	6217		616		5815		2963	
4451	32717	4107		4555				5236		4259	8
4452	32718	3750		4934		693		3219		2222	
4453	32719	3929		6017		967	1	5248		4630	5
4454	32720	4286		5426		689		6238		3657	
4455	BPT 5204(NLC)	3214		4887		714		4487		3194	
4456	32721	3929		6330		709		5374		3889	
4457	32722	3750				814	7	6479	6	3796	
4458	32723	3929		6695	6	727		5761		2431	
4459	32724	4375	8	4455		645		4909		2852	
4460	32725	3750		5635		775		4644		3704	
4461	32726	3482		6283		628		4632		2662	
4462	ZC	4107		4382				6033		2894	
4463	32727	4286		4820		349		4360		2176	
4464	LC	4554	5	5459		686		5948		2778	
Experimental Mean		4043		5475		688		5196		3084	
CD(0.05)		883		393		203		2637		651	
CV(%)		10.93		3.58		14.71		25.39		10.57	
F val		1.26ns		43.57**		2.67**		1.11ns		14.31**	
DOS		21-06-24		05-07-24		28-06-2024		08-07-24			
DOP		30-07-24		06-08-24		14-08-2024		01-08-24			
Local Check Name		Rajendra Swetha		Sambha Mahsuri-Sub 1		Keteki Joha Joha		MTU 1224		CO 52	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 18.3: Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT - MS, Kharif 2024

Entry No	IET No	ZONE III- EASTERN											
		Bihar			Jharkhand			Odisha					
		Bikramganj			Ranchi			Bhubaneswar			Jeypore		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4401	32669	123	128	386	138	92	224	116	94	182	100	86	258
4402	32670	107	120	352	118	80	221	104	90	182	100	79	238
4403	32671	107	122	346	116	81	161	96	95	171	102	91	328
4404	32672	107	131	298	118	82	185	105	102	202	106	83	356
4405	32673	102	94	374	118	84	175	104	86	262	92	79	265
4406	32674	108	108	426	118	86	226	99	100	220	98	86	265
4407	32675	107	123	376	124	86	226	111	102	236	105	82	362
4408	32676	128	124	362	138	88	220	121	102	189	108	92	322
4409	32677	111	109	378	118	73	216	105	88	246	96	87	318
4410	32678	116	110	384	128	68	186	113	94	296	103	76	325
4411	32679	107	122	358	114	86	201	104	106	244	102	69	228
4412	32680	119	122	394	134	84	266	120	111	316	108	90	295
4413	32681	114	137	440	134	92	157	115	122	217	107	98	275
4414	32682	107	119	377	115	90	238	95	104	257	102	72	346
4415	32683	123	135	373	138	89	248	117	119	211	104	96	395
4416	32684	108	117	366	118	84	248	105	102	290	100	93	315
4417	32685	114	150	426	122	92	204	103	101	160	99	95	287
4418	32686	108	118	352	120	84	238	104	96	246	100	89	546
4419	32687	106	119	378	110	82	282	94	102	310	92	81	406
4420	32688	109	113	383	116	80	182	92	108	190	94	82	302
4421	Telangana Sona(NC)	115	124	347	114	93	230	99	110	268	106	76	365
4422	32689	114	132	382	130	88	248	111	116	252	103	80	332
4423	32690	113	111	432	112	82	185	100	98	278	102	81	388
4424	32691	112	127	416	122	82	170	105	116	218	105	88	305
4425	32692	106	105	362	116	82	218	98	102	212	92	74	312
4426	32693	135	129	354	108	102	205	116	162	238	104	101	265
4427	32694	139	118	371	118	81	188	106	102	244	102	78	372
4428	32695	139	125	410	126	82	222	108	106	299	104	96	258
4429	32696	110	125	360	126	94	258	108	108	226	104	77	348
4430	32697	106	132	348	110	98	246	95	119	269	102	102	310
4431	32698	108	96	435	112	80	191	95	93	294	99	81	285
4432	WGL 14(NMC)	110	128	384	122	92	180	107	116	241	102	68	305
4433	32699	108	120	464	122	90	252	104	96	219	101	78	282
4434	32700	116	123	340	132	82	268	113	102	314	108	93	326
4435	32701	114	150	359	112	92	262	104	126	268	96	89	312
4436	32702	109	120	348	122	84	242	107	92	221	102	62	258
4437	32703	116	126	424	122	82	210	108	114	242	108	93	334
4438	32704				122	94	156	95	106	290	98	92	392
4439	32705	109	125	350	118	84	188	102	98	206	97	90	275
4440	32706	111	123	370	120	86	300	99	95	274	97	89	312
4441	32707	126	134	370	136	83	233	115	111	226	102	80	490
4442	32708	107	128	465	119	86	226	97	112	158	94	87	452
4443	32709	109	115	419	117	84	164	106	103	176	97	76	362
4444	32710	122	127	442	118	85	204	96	106	147	107	72	325
4445	32711	106	107	343	110	82	154	90	92	292	97	83	372
4446	32712	108	130	360	126	86	225	103	102	144	98	78	268
4447	32713	112	116	370	124	76	212	106	98	186	106	81	385
4448	32714	127	122	376	136	80	200	113	112	136	96	72	272
4449	32715	107	125	356	126	88	242	104	98	299	102	93	377
4450	32716	106	116	383	116	87	184	95	92	252	94	87	376
4451	32717	111	130	370	119	77	202	105	106	146	93	98	462
4452	32718	115	143	426	122	85	199	110	104	171	102	93	275
4453	32719	115	114	347	122	86	266	106	111	258	98	86	365
4454	32720	111	130	368	116	82	237	105	106	180	94	90	372
4455	BPT 5204(NLC)	106	110	400	130	75	265	114	94	188	106	68	362
4456	32721	110	134	408	122	88	192	107	103	226	94	89	392
4457	32722	123	122	378	136	84	168	114	96	218	102	80	336
4458	32723	108	118	346	112	83	164	99	91	220	94	65	302
4459	32724	119	140	392	134	93	264	112	105	208	98	91	269
4460	32725	109	122	392	122	80	208	106	92	216	104	71	342
4461	32726	109	122	392	114	90	194	97	114	164	94	92	380
4462	ZC	116	110	373	120	77	245	113	92	194	102	72	348
4463	32727	106	125	373	108	80	176	92	86	252	90	68	348
4464	LC	107	107	392	128	84	235	113	119	264	97	84	358
Experimental Mean		112	122	381	121	84	215	105	103	228	100	83	333
Standard Error		0			0.78			0.36			1.51		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 18.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-MS, Kharif 2024

Entry No	IET No	ZONE III- EASTERN									ZONE III- EASTERN (6)		
		Odisha (2)			Uttar Pradesh			West Bengal			Mean		
		Mean			Varanasi			chinsurah					
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4401	32669	108	90	220	123	108	164	140	111	223	123	103	240
4402	32670	102	84	210	116	90	140	122	93	240	111	92	229
4403	32671	99	93	250	116	108	144	116	102	260	109	100	235
4404	32672	106	92	279	142	97	208	124	102	243	117	99	249
4405	32673	98	83	264	104	86	156	122	87	250	107	86	247
4406	32674	98	93	243	106	105	169	119	89	256	108	96	261
4407	32675	108	92	299	123	104	151	128	107	280	116	101	272
4408	32676	114	97	255				143	112	276	128	103	274
4409	32677	100	87	282	110	102	162	126	85	280	111	91	267
4410	32678	108	85	311	124	91	166	132	93	283	119	89	273
4411	32679	103	88	236	108	102	148	120	97	223	109	97	234
4412	32680	114	101	305	124	110	154	139	104	263	124	104	281
4413	32681	111	110	246	128	112	142	136	120	230	122	114	243
4414	32682	98	88	301	102	104	140	117	97	276	106	98	272
4415	32683	110	108	303	124	108	180	138	107	243	124	109	275
4416	32684	102	98	302	120	101	157	122	96	274	112	99	275
4417	32685	101	98	224	114	115	146	128	112	196	113	111	237
4418	32686	102	93	396	112	101	178	118	100	220	110	98	297
4419	32687	93	92	358	110	100	172	114	91	273	104	96	303
4420	32688	93	95	246	102	102	100	121	92	236	106	96	232
4421	Telangana Sona(NC)	102	93	316	120	108	135	119	109	220	112	103	261
4422	32689	107	98	292	123	104	138	125	100	240	118	103	265
4423	32690	101	89	334	112	96	173	115	88	243	109	93	283
4424	32691	105	102	262	112	100	174	127	101	266	114	102	258
4425	32692	95	88	262	104	105	152	128	97	230	107	94	247
4426	32693	110	132	251	136	142	152	136	149	270	122	131	247
4427	32694	104	90	308	116	99	180	127	94	260	118	95	269
4428	32695	106	101	278	118	99	178	120	98	233	119	101	267
4429	32696	106	92	288	118	109	136	132	101	206	116	102	256
4430	32697	99	111	290	104	129	148	113	109	220	105	115	257
4431	32698	97	87	290	108	93	187	115	88	293	106	89	281
4432	WGL 14(NMC)	104	92	273	124	107	156	127	109	220	115	103	248
4433	32699	102	87	250	116	102	128	121	97	196	112	97	257
4434	32700	110	98	320	118	106	204	128	100	300	119	101	292
4435	32701	100	108	290	114	108	162	116	105	250	109	112	269
4436	32702	104	77	240	113	94	176	124	82	260	113	89	251
4437	32703	108	103	288	125	104	131	130	109	260	118	105	267
4438	32704	97	100	341	112	109	138	116	104	226	109	101	241
4439	32705	100	94	240	112	110	148	122	83	243	110	98	235
4440	32706	98	92	293	112	108	134	120	96	240	110	99	271
4441	32707	108	96	358	132	99	159	140	109	280	125	103	293
4442	32708	96	100	306	104	107	146	120	108	253	107	105	284
4443	32709	102	90	269	118	102	124	126	97	203	112	96	241
4444	32710	102	89	236	118	105	140	118	100	213	113	99	245
4445	32711	94	88	332	106	95	179	112	86	253	104	91	266
4446	32712	100	90	206	114	100	140	122	99	270	112	99	234
4447	32713	106	89	286	120	102	196	128	97	276	116	95	271
4448	32714	104	92	204	132	106	153	140	108	273	124	100	235
4449	32715	103	95	338	126	104	142	128	101	219	115	101	272
4450	32716	94	90	314	110	107	164	114	99	226	106	98	264
4451	32717	99	102	304	116	105	152	128	100	270	112	103	267
4452	32718	106	98	223	116	102	158	127	106	206	116	105	239
4453	32719	102	99	312	116	104	185	127	109	250	114	102	278
4454	32720	100	98	276	114	102	154	126	103	216	111	102	254
4455	BPT 5204(NLC)	110	81	275	126	90	178	136	88	260	120	87	275
4456	32721	100	96	309	114	109	186	122	98	270	111	103	279
4457	32722	108	88	277	130	106	144	137	107	203	124	99	241
4458	32723	97	78	261	104	101	158	116	85	210	106	90	234
4459	32724	105	98	238	128	113	138	128	114	246	120	109	253
4460	32725	105	82	279	108	103	140	116	92	236	111	94	256
4461	32726	96	102	272	110	107	164	119	98	243	107	104	256
4462	ZC	107	82	271	118	93	168	134	86	273	117	88	267
4463	32727	91	77	300	106	97	177	111	77	263	102	89	265
4464	LC	105	102	311	106	84	170	130	92	260	114	95	280
Experimental Mean		103	94	281	116	103	157	124	99	246	113	100	260
Standard Error					0.53			1.45					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 18.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-MS, Kharif 2024

Entry No	IET No	ZONE IV-NORTH EASTERN						ZONE IV-NORTH EASTERN (2)			ZONE V- CENTRAL		
		Assam			Tripura			EASTERN (2)			Chhattisgarh		
		Titabar			Lembucherra			Mean			Raipur		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4401	32669	124	128	277	124	93	275	124	111	276	121	113	190
4402	32670	114	110	290	106	94	200	110	102	245	112	102	188
4403	32671	106	102	252	114	97	250	110	99	251	102	109	216
4404	32672	117	112	206	114	95	400	116	104	303	110	118	226
4405	32673	104	183	256	108	96	362	106	140	310	104	129	236
4406	32674	110	114	270	108	96	375	109	105	323	103	107	242
4407	32675	117	114	262	114	96	188	115	105	224	114	122	224
4408	32676	119	120	278	131	100	250	125	110	264	118	109	183
4409	32677	116	104	234	115	84	450	116	94	342	106	99	182
4410	32678	118	106	239	115	82	338	117	94	288	118	100	219
4411	32679	112	105	236	122	88	300	117	96	268	104	105	219
4412	32680	124	112	208	108	95	388	116	103	298	116	120	244
4413	32681	120	121	293	120	90	312	120	105	303	111	136	194
4414	32682	108	109	250	109	90	288	109	99	269	100	115	181
4415	32683	124	114	221	124	95	288	124	104	254	108	117	210
4416	32684	116	108	267	107	98	350	112	103	308	109	105	223
4417	32685	120	118	288	116	105	262	118	111	275	114	126	196
4418	32686	110	104	264	109	92	300	110	98	282	113	104	196
4419	32687	110	106	250	108	91	350	109	99	300	99	98	223
4420	32688	107	111	312	110	85	200	108	98	256	104	96	206
4421	Telangana Sona(NC)	116	123	248	106	102	262	111	113	256	104	119	248
4422	32689	118	119	300	118	85	250	118	102	275	114	105	238
4423	32690	105	105	232	110	82	312	107	94	272	100	104	244
4424	32691	116	121	232	118	118	325	117	119	279	110	115	241
4425	32692	110	114	252	106	95	375	108	104	314	100	119	212
4426	32693	128	161	207	120	122	225	124	142	216	118	156	197
4427	32694	110	111	263	118	76	262	114	94	263	108	105	240
4428	32695	110	110	242	121	87	200	116	98	221	112	106	224
4429	32696	116	116	238	112	103	300	114	110	269	111	125	210
4430	32697	100	133	248	106	109	288	102	121	268	102	130	206
4431	32698	102	103	338	106	86	288	104	95	313	100	102	212
4432	WGL 14(NMC)	117	116	268	116	102	238	116	109	253	112	120	214
4433	32699	116	102	262	122	89	275	119	95	268	112	102	204
4434	32700	119	122	356	120	91	300	120	107	328	118	110	244
4435	32701	106	116	242	114	97	300	110	106	271	106	124	234
4436	32702	118	105	274	114	82	462	116	94	368	110	100	234
4437	32703	118	108	280	120	102	438	118	105	359	114	118	198
4438	32704	116	111	269	108	105	250	112	108	260	104	109	224
4439	32705	116	106	243	114	88	175	115	97	209	104	107	176
4440	32706	110	102	269	108	93	338	110	97	303	107	115	234
4441	32707	126	110	293	121	96	300	124	103	296	112	116	215
4442	32708	113	116	358	108	86	275	110	101	316	108	114	218
4443	32709	117	115	248	120	92	238	118	103	243	112	109	222
4444	32710	116	118	234	108	98	275	112	108	254	110	96	214
4445	32711	107	94	320	106	84	325	106	89	323	100	96	130
4446	32712	110	114	243	120	91	300	115	103	272	114	108	216
4447	32713	117	110	298	124	92	312	121	101	306	112	98	237
4448	32714	122	116	268	109	85	262	115	100	265	113	114	210
4449	32715	121	104	243	109	86	288	115	95	265	110	118	219
4450	32716	108	114	246	110	81	288	109	97	266	102	103	212
4451	32717	116	114	239	111	102	338	114	108	288	106	119	199
4452	32718	118	120	288	116	105	350	117	113	319	110	114	227
4453	32719	116	108	259	108	95	200	112	101	230	110	118	212
4454	32720	110	113	267	121	77	300	115	95	284	106	106	196
4455	BPT 5204(NLC)	118	103	286	116	86	312	117	94	300	112	90	244
4456	32721	114	107	288	116	91	375	114	99	331	112	104	147
4457	32722	124	114	212	120	89	200	122	101	206	112	114	222
4458	32723	111	99	296	110	101	650	110	100	473	104	107	183
4459	32724	119	126	272	108	95	312	114	111	292	112	120	244
4460	32725	110	101	235	110	93	425	110	97	330	109	105	162
4461	32726	109	108	258	110	106	312	110	107	286	102	109	204
4462	ZC	116	136	248	113	144	438	115	140	343	112	94	221
4463	32727	102	87	302	106	84	238	104	85	270	96	98	249
4464	LC	124	128	285	108	101	312	116	115	299	101	103	233
Experimental Mean		114	113	264	113	94	306	114	104	285	108	110	213
Standard Error		0.67			2.02						2.33		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 18.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-MS, Kharif 2024

Entry No	IET No	ZONE V- CENTRAL						ZONE V- CENTRAL (3)			ZONE VI- WESTERN		
		Maharashtra			Madhya Pradesh			Mean			Gujarat		
		Sinde wahi			Jabalpur						Navasari		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4401	32669	128	107	305	117	91	204	122	104	233	110	124	162
4402	32670	111	106	275	106	84	204	110	97	223	101	106	342
4403	32671	103	106	307	104	82	260	103	99	261	87	110	244
4404	32672	108	118	312	100	83	183	106	106	240	92	122	178
4405	32673	112	91	276	105	74	132	107	98	215	97	85	141
4406	32674	100	110	256	104	84	156	102	100	218	84	110	158
4407	32675	109	114	280	97	88	150	107	108	218	92	105	148
4408	32676	128	116	315	118	77	196	122	100	231	116	116	169
4409	32677	112	96	332	105	73	201	108	89	238	94	112	174
4410	32678	119	96	318	121	72	122	119	90	220	102	100	222
4411	32679	104	108	329	105	77	182	104	97	244	91	112	132
4412	32680	120	108	328	111	80	167	116	103	246	108	112	144
4413	32681	112	127	260	114	94	122	112	119	192	110	123	169
4414	32682	102	112	296	106	80	196	102	102	224	90	118	148
4415	32683	126	111	315	114	86	204	116	105	243	110	123	179
4416	32684	100	102	282	101	84	158	103	97	221	92	103	212
4417	32685	116	132	222	114	84	138	114	114	186	104	119	156
4418	32686	112	104	325	107	76	154	110	94	225	91	116	162
4419	32687	98	107	330	102	86	129	100	97	227	88	122	272
4420	32688	101	112	203	108	74	150	104	94	186	86	123	148
4421	Telangana Sona(NC)	79	122	318	103	97	162	96	113	242	103	133	188
4422	32689	118	124	315	111	84	166	114	104	240	98	131	244
4423	32690	100	99	372	92	81	122	97	95	246	86	102	182
4424	32691	108	124	308	102	86	127	106	108	225	93	131	208
4425	32692	102	108	273	102	85	134	102	104	206	92	122	178
4426	32693	122	143	285	122	116	126	120	138	203	118	155	114
4427	32694	110	108	300	101	78	132	106	97	224	88	118	198
4428	32695	118	107	387	114	76	136	115	97	249	93	116	203
4429	32696	111	114	314	110	94	118	111	111	214	101	128	222
4430	32697	100	128	268	106	96	132	103	118	202	88	146	238
4431	32698	97	108	336	98	71	136	98	94	228	90	110	194
4432	WGL 14(NMC)	112	119	311	110	86	122	111	108	216	100	136	252
4433	32699	110	103	282	109	72	152	110	92	212	99	120	234
4434	32700	113	120	331	116	67	165	116	99	246	104	114	208
4435	32701	104	103	368	100	86	119	103	104	241	92	128	178
4436	32702	110	86	346	118	66	244	113	84	274	96	103	188
4437	32703	110	125	302	116	86	258	113	110	253	98	122	158
4438	32704	119	118	278	112	78	138	112	102	214	114	133	144
4439	32705	102	100	265	101	82	127	102	96	189	93	114	218
4440	32706	105	111	345	97	79	156	103	102	245	90	124	178
4441	32707	120	123	305	96	78	142	110	106	221	108	130	142
4442	32708	102	118	258	119	84	135	110	105	204	98	131	188
4443	32709	104	109	226	95	88	142	104	102	197	98	134	178
4444	32710	117	125	266	90	82	156	106	101	212	108	137	138
4445	32711	93	108	334	103	82	181	98	96	215	84	114	204
4446	32712	118	109	264	116	77	176	116	98	218	98	129	188
4447	32713	119	116	312	116	74	154	116	96	234	105	118	234
4448	32714	113	108	280	115	75	192	114	99	227	104	143	212
4449	32715	109	118	248	103	80	126	108	105	198			
4450	32716	103	110	290	106	79	129	104	98	210	94	69	213
4451	32717	104	112	258	115	87	148	108	106	202	102	134	234
4452	32718	112	129	278	105	96	127	109	113	211	101	140	178
4453	32719	108	103	326	108	86	168	109	103	235	104	131	178
4454	32720	102	115	220	112	80	196	107	100	204	97	130	228
4455	BPT 5204(NLC)	113	85	332	106	65	120	110	80	232	114	122	208
4456	32721	102	116	336	112	79	131	109	100	204	96	113	192
4457	32722	117	108	299	104	75	148	111	99	223	110	140	178
4458	32723	101	108	284	112	72	121	106	95	196	95	127	214
4459	32724	122	128	269	108	81	164	114	109	226	117	151	202
4460	32725	110	116	195	111	75	184	110	99	180	96	123	176
4461	32726	98	106	345	100	89	170	100	101	240	89	128	232
4462	ZC	112	94	288	92	59	162	105	82	224	99	118	202
4463	32727	94	97	287	102	78	183	97	91	240	88	114	192
4464	LC	112	111	312	105	87	156	106	100	234	94	117	182
Experimental Mean		109	111	296	107	81	157	108	101	223	98	121	191
Standard Error		0.58			0.91						0.85		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 18.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-MS, Kharif 2024

Entry No	IET No	ZONE VI- WESTERN											
		Gujarat						Gujarat (3)			Maharashtra		
		Nawagam			Vyra			Mean			Radhanagari		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4401	32669	115	126	264	116	143	220	114	131	215	115	107	174
4402	32670	118	98	262	104	121	232	108	108	279	103	94	195
4403	32671	116	113	259	94	132	218	99	118	240	98	91	248
4404	32672	118	116	262	101	125	278	104	121	239	104	96	219
4405	32673	116	85	253	96	113	240	103	94	211	106	80	310
4406	32674	120	97	254	88	107	218	98	105	210	97	92	240
4407	32675	122	113	260	102	124	250	105	114	219	104	98	228
4408	32676	112	99	242	132	149	215	120	122	209	118	104	264
4409	32677	122	98	267	99	112	258	105	107	233	102	80	304
4410	32678	122	100	262	106	123	312	110	108	266	110	78	300
4411	32679	118	100	259	95	118	222	101	110	205	102	90	245
4412	32680	136	105	262	110	130	228	118	116	211	111	106	347
4413	32681	132	112	252	106	136	232	116	124	218	105	113	194
4414	32682	120	207	261	97	114	210	102	146	206	96	98	242
4415	32683	136	118	264	118	135	220	121	125	221	114	106	278
4416	32684	122	99	260	89	105	235	101	102	236	97	89	266
4417	32685	124	125	266	106	139	198	112	128	206	107	112	290
4418	32686	120	113	256	96	122	268	102	117	229	106	85	295
4419	32687	118	98	250	99	120	285	102	114	269	101	96	242
4420	32688	120	99	259	84	106	228	97	109	211	99	95	234
4421	Telangana Sona(NC)	122	120	257	113	141	200	112	131	215	105	104	222
4422	32689	122	108	256	102	119	250	107	119	250	112	106	245
4423	32690	99	96	252	84	110	258	90	103	231	96	84	285
4424	32691	122	115	252	96	133	258	104	126	239	106	96	246
4425	32692	120	100	258	96	122	220	102	115	218	98	95	302
4426	32693	138	144	242	139	157	212	132	152	190	106	90	275
4427	32694	122	90	254	102	130	242	104	113	231	105	92	325
4428	32695	122	106	263	102	129	230	106	117	232	112	88	154
4429	32696	124	110	254	106	131	250	110	123	242	108	98	226
4430	32697	114	118	256	93	148	228	98	137	240	104	118	303
4431	32698	116	83	253	87	108	265	98	100	237	96	99	216
4432	WGL 14(NMC)	124	108	262	100	134	265	108	126	260	105	103	275
4433	32699	122	99	260	102	105	205	108	108	233	103	89	204
4434	32700	122	106	261	100	122	260	109	114	243	108	93	276
4435	32701	120	110	255	104	136	248	105	125	227	100	100	324
4436	32702	118	90	265	95	105	250	103	99	234	102	83	318
4437	32703	122	116	264	102	132	230	107	123	217	106	93	297
4438	32704	120	116	259	119	138	240	118	129	214	112	98	280
4439	32705	122	97	256	109	115	250	108	109	241	98	89	235
4440	32706	122	93	250	90	120	225	100	112	217	104	92	248
4441	32707	140	104	250	116	138	270	122	124	221	112	106	153
4442	32708	122	108	258	95	111	242	105	117	229	98	99	249
4443	32709	124	93	251	106	126	222	109	118	217	104	94	158
4444	32710	120	107	264	119	133	188	116	126	196	116	93	288
4445	32711	114	86	256	83	110	258	94	104	239	96	93	210
4446	32712	122	108	260	103	132	265	108	123	238	114	98	301
4447	32713	122	96	256	101	120	272	110	112	254	108	84	300
4448	32714	124	112	253	115	120	225	114	125	230	103	103	262
4449	32715	122	110	262	97	136	248	110	123	255	106	90	294
4450	32716	122	106	259	102	128	225	106	101	232	100	91	252
4451	32717	120	110	258	99	122	210	107	122	234	104	78	258
4452	32718	122	133	264	99	124	235	108	132	225	105	104	284
4453	32719	120	119	268	96	120	245	107	123	230	98	81	246
4454	32720	122	115	264	90	117	250	103	120	247	96	79	316
4455	BPT 5204(NLC)	124	90	261	109	108	242	116	107	237	110	79	298
4456	32721	120	109	260	96	124	260	104	115	238	102	99	209
4457	32722	122	109	262	116	129	225	116	126	222	111	97	214
4458	32723	122	93	261	94	111	245	104	110	240	98	93	178
4459	32724	134	115	253	131	141	260	128	136	238	116	106	234
4460	32725	120	106	261	105	119	212	107	116	217	108	90	223
4461	32726	120	103	254	90	125	265	100	118	251	98	108	232
4462	ZC	122	86	257	90	123	222	104	109	227	118	77	258
4463	32727	116	84	254	76	99	222	93	99	223	96	96	285
4464	LC	102	99	258	98	121	260	98	112	234	95	101	195
Experimental Mean		121	106	257	101	124	239	107	117	230	104	94	254
Standard Error		0.26			1.43						0.83		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 18.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-MS, Kharif 2024

Entry No	IET No	ZONE VI- WESTERN						ZONE VI- WESTERN (5)			ZONE VII- SOUTHERN		
		Maharashtra			Maharashtra (2)			WESTERN (5)			Andhra Pradesh		
		Karjat			Mean			Mean			Bapatla		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
4401	32669	122	128	191	118	118	182	116	126	202	116	124	350
4402	32670	106	108	174	105	101	184	106	105	241	122	122	270
4403	32671	100	106	220	99	99	234	99	110	237	96	116	336
4404	32672	103	116	191	103	106	205	103	115	226	114	142	285
4405	32673	101	98	187	104	90	248	103	92	226	98	110	256
4406	32674	94	110	180	96	101	210	97	103	210	96	114	205
4407	32675	100	110	152	102	104	190	104	110	207	97	130	354
4408	32676	94	128	164	106	116	214	114	119	211	96	156	358
4409	32677	104	100	210	103	90	256	104	100	242	100	119	332
4410	32678	111	107	188	110	92	244	110	102	257	104	132	320
4411	32679	100	111	202	101	101	224	101	106	212	96	124	302
4412	32680	118	125	182	114	116	264	116	116	232	104	140	352
4413	32681	114	127	156	109	120	175	113	122	201	106	146	344
4414	32682	102	112	197	99	105	220	101	130	212	92	117	318
4415	32683	120	132	206	117	119	242	120	123	229	103	122	334
4416	32684	102	98	189	100	94	228	100	99	232	95	128	304
4417	32685	112	126	177	110	119	234	111	124	217	98	131	291
4418	32686	108	102	218	107	94	257	104	107	240	96	118	312
4419	32687	100	102	168	100	99	205	101	108	243	86	118	236
4420	32688	94	102	220	96	98	227	97	105	218	98	122	256
4421	Telangana Sona(NC)	110	127	164	108	116	194	110	125	206	86	124	329
4422	32689	107	114	220	110	110	232	108	115	243	104	129	322
4423	32690	95	100	176	96	92	230	92	99	231	97	112	265
4424	32691	108	120	188	107	108	217	105	119	230	95	138	305
4425	32692	104	106	214	101	100	258	102	109	234	92	120	263
4426	32693	96	157	208	101	124	242	120	141	210	101	136	295
4427	32694	103	116	196	104	104	261	104	109	243	106	118	345
4428	32695	108	114	174	110	101	164	107	111	205	95	128	337
4429	32696	110	118	192	110	108	209	110	117	229	98	137	320
4430	32697	101	120	186	102	119	244	100	130	242	98	132	305
4431	32698	92	99	207	94	99	212	96	100	227	96	113	231
4432	WGL 14(NMC)	110	112	180	107	107	228	108	118	247	98	138	284
4433	32699	108	101	174	106	95	188	107	103	215	95	119	274
4434	32700	112	116	202	110	105	240	110	110	242	103	121	284
4435	32701	106	115	192	103	108	258	104	118	239	100	130	346
4436	32702	104	106	193	103	95	255	103	98	243	97	116	334
4437	32703	100	126	146	103	109	222	105	118	219	95	126	275
4438	32704	114	126	153	113	112	216	116	122	215	101	116	262
4439	32705	105	108	147	102	98	191	106	104	221	104	118	282
4440	32706	98	115	187	101	103	218	101	109	217	98	124	303
4441	32707	108	125	174	110	116	163	117	121	198	106	136	324
4442	32708	99	108	208	99	103	229	102	111	229	96	124	305
4443	32709	108	108	190	106	101	174	108	111	200	96	134	328
4444	32710	122	126	174	119	109	230	117	119	210	93	124	310
4445	32711	95	94	176	96	94	193	95	100	221	84	123	289
4446	32712	112	115	188	113	106	244	110	116	240	100	134	308
4447	32713	111	111	198	110	98	249	110	106	252	104	114	304
4448	32714	108	120	198	106	112	230	111	120	230	96	130	344
4449	32715	106	114	146	106	102	220	108	113	238	105	118	322
4450	32716	103	97	206	101	94	229	104	98	231	94	126	272
4451	32717	100	130	152	102	104	205	105	115	222	101	128	301
4452	32718	106	118	165	106	111	225	107	124	225	122	120	276
4453	32719	109	113	188	103	97	217	105	113	225	98	127	296
4454	32720	102	118	188	99	98	252	101	112	249	96	137	294
4455	BPT 5204(NLC)	111	115	176	110	97	237	114	103	237	110	117	350
4456	32721	98	106	201	100	102	205	102	110	224	98	130	324
4457	32722	117	126	184	114	112	199	116	120	213	110	126	296
4458	32723	100	98	160	99	96	169	102	104	212	88	116	236
4459	32724	95	130	195	106	118	215	119	129	229	123	118	307
4460	32725	108	120	178	108	105	201	108	111	210	94	122	288
4461	32726	97	115	180	98	111	206	99	116	233	86	118	283
4462	ZC	116	108	196	117	92	226	109	102	227	96	116	300
4463	32727	93	92	191	94	94	238	94	97	229	90	105	312
4464	LC	107	115	178	101	108	186	99	111	215	110	124	363
Experimental Mean		105	113	185	105	104	220	106	112	226	99	124	303
Standard Error		1.91									1.26		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 18.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-MS, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN											
		Karnataka									Karnataka (3)		
		Mugad			Mandya			Sirsi			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4401	32669	114	90	350	114	113	302	124	104	307	117	102	320
4402	32670	88	60	259	104	101	300	119	92	358	104	85	306
4403	32671	99	72	299	94	103	302	98	94	294	97	90	298
4404	32672	103	79	346	98	102	366	106	96	416	102	92	376
4405	32673	104	76	330	100	93	298	119	84	368	108	85	332
4406	32674	89	68	286	94	83	320	94	85	332	92	79	312
4407	32675	88	68	386	99	104	333	102	100	371	96	91	363
4408	32676	120	80	300	110	112	312	127	116	344	119	103	319
4409	32677	100	72	409	102	84	340	106	82	422	103	79	390
4410	32678	112	68	442	104	81	323	111	85	356	109	78	374
4411	32679	88	68	336	102	99	306	106	94	410	98	87	350
4412	32680	102	96	307	106	102	282	115	104	300	108	101	297
4413	32681	109	86	432	96	121	282	111	104	340	106	104	352
4414	32682	100	74	365	90	96	336	102	83	346	98	84	349
4415	32683	115	82	435	112	107	358	124	93	388	117	94	394
4416	32684	94	80	361	90	82	333	94	79	338	92	81	344
4417	32685	104	74	280	104	111	326	106	92	330	105	92	312
4418	32686	100	63	438	110	94	370	115	82	363	108	80	390
4419	32687	92	66	381	92	106	350	101	83	401	95	85	378
4420	32688	96	67	327	100	97	350	101	92	391	99	85	356
4421	Telangana Sona(NC)	94	79	276	91	102	282	102	72	252	96	85	270
4422	32689	104	74	396	106	114	398	115	93	360	109	94	384
4423	32690	88	59	424	96	84	350	99	77	352	94	73	375
4424	32691	90	70	364	102	109	337	108	93	430	100	91	377
4425	32692	98	68	278	96	99	286	104	91	372	100	86	312
4426	32693	120	104	301	116	130	354	124	142	355	120	125	336
4427	32694	102	64	401	105	111	404	108	78	289	105	84	365
4428	32695	106	74	333	108	107	333	119	79	391	111	86	352
4429	32696	103	70	333	100	110	274	115	91	354	106	90	320
4430	32697	84	94	379	97	134	296	104	102	767	95	110	481
4431	32698	84	60	316	94	94	316	94	78	373	90	77	335
4432	WGL 14(NMC)	99	72	412	102	112	306	111	90	406	104	91	375
4433	32699	98	66	276	100	94	312	108	83	297	102	81	295
4434	32700	110	81	441	102	95	320	108	82	324	106	86	361
4435	32701	92	78	338	90	90	340	98	86	388	94	84	355
4436	32702	90	66	424	98	83	302	104	64	352	97	71	359
4437	32703	99	84	432	100	114	276	106	99	368	102	99	358
4438	32704	114	81	379	99	109	268	111	95	393	108	95	347
4439	32705	96	64	381	94	95	333	97	84	325	96	81	346
4440	32706	101	68	390	102	98	313	108	88	396	104	85	366
4441	32707	110	80	308	101	109	354	115	98	352	108	96	338
4442	32708	89	66	262	96	101	326	104	84	322	96	84	303
4443	32709	100	72	361	97	99	279	104	86	326	100	86	322
4444	32710	110	84	357	94	102	302	115	84	300	106	90	320
4445	32711	80	64	284	90	90	350	91	86	326	87	80	320
4446	32712	111	80	339	100	100	306	124	85	406	112	88	350
4447	32713	109	80	407	99	86	374	115	91	300	108	85	360
4448	32714	112	93	323	105	106	316	108	91	355	108	97	331
4449	32715	117	78	288	100	97	336	115	76	306	110	84	310
4450	32716	102	73	333	96	96	310	100	83	338	100	84	327
4451	32717	98	84	380	99	109	282	98	86	327	98	93	330
4452	32718	107	91	428	98	95	286	106	104	363	104	97	359
4453	32719	98	72	327	94	82	289	97	77	396	96	77	337
4454	32720	96	85	404	92	85	336	94	83	335	94	84	358
4455	BPT 5204(NLC)	107	72	409	100	79	336	111	76	398	106	76	381
4456	32721	101	78	361	100	80	316	104	91	383	102	83	353
4457	32722	116	83	349	100	94	326	111	92	346	109	90	340
4458	32723	94	68	376	94	95	310	92	76	294	94	80	326
4459	32724	114	107	351	98	84	367	124	89	360	112	93	359
4460	32725	103	82	334	98	84	354	106	85	368	102	83	352
4461	32726	90	76	297	96	98	336	94	88	310	93	87	314
4462	ZC	102	86	439	99	98	321	102	80	330	101	88	363
4463	32727	93	69	302	96	94	344	98	81	372	96	81	339
4464	LC	104	66	285	102	114	368	111	75	360	106	85	337
Experimental Mean		100	75	353	99	99	323	107	88	359	102	88	345
Standard Error		2.4			1.18			0					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 18.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-MS, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN											
		Kerala			Telangana						Telangana (2)		
		Pattambi			Rajendranagar			Warangal			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4401	32669	99	97	248	116	102	523	116	137	300	116	120	412
4402	32670	100	94	242	110	94	430	98	117	278	104	106	354
4403	32671	91	79	292	103	96	414	92	123	304	98	109	358
4404	32672	98	92	266	104	103	504	98	127	312	101	115	408
4405	32673	110	72	166	105	84	410	94	108	338	99	96	374
4406	32674	89	85	295	103	90	427	96	117	287	100	104	357
4407	32675	98	94	371	113	103	410	98	127	302	106	115	356
4408	32676	98	103	486	118	101	396	118	131	302	118	116	349
4409	32677	98	93	324	110	89	526	100	112	324	105	101	425
4410	32678	102	80	208	116	97	470	107	112	310	112	104	390
4411	32679	100	77	248	108	100	530	96	118	292	102	109	411
4412	32680	106	96	338	122	103	460	114	132	307	118	117	384
4413	32681	101	105	194	122	105	523	110	148	307	116	126	415
4414	32682	96	85	270	101	99	454	94	116	302	98	107	378
4415	32683	110	98	234	123	103	450	116	147	327	119	125	388
4416	32684	98	85	256	103	87	443	96	112	314	100	99	378
4417	32685	98	88	320	115	104	440	106	142	292	111	123	366
4418	32686	98	80	230	113	99	520	97	124	290	105	111	405
4419	32687	88	85	298	101	96	433	93	117	312	97	107	372
4420	32688	95	93	356	103	99	397	94	127	297	99	113	347
4421	Telangana Sona(NC)	87	74	364	105	102	514	103	137	302	104	120	408
4422	32689	101	105	472	113	102	640	106	116	305	110	109	472
4423	32690	86	85	334	101	92	393	93	115	316	97	103	355
4424	32691	99	98	295	108	104	400	98	128	314	103	116	357
4425	32692	98	90	226	103	99	390	94	117	314	99	108	352
4426	32693	104	104	295	110	124	450	122	173	294	116	149	372
4427	32694	100	90	403	101	103	494	98	122	324	100	113	408
4428	32695	100	89	313	111	103	554	100	123	312	106	113	432
4429	32696	112	92	360	112	101	556	105	132	320	109	116	438
4430	32697	94	91	281	103	118	470	94	151	304	99	135	387
4431	32698	89	89	490	99	98	440	92	113	320	96	105	380
4432	WGL 14(NMC)	94	106	403	110	102	517	101	128	298	106	115	408
4433	32699	105	90	284	108	90	524	98	114	302	103	102	413
4434	32700	96	95	432	113	101	520	106	118	312	109	109	416
4435	32701	90	92	306	103	100	594	100	116	318	102	108	456
4436	32702	98	86	392	105	89	514	98	106	320	102	97	417
4437	32703	101	86	198	110	103	504	106	138	296	108	120	400
4438	32704	91	101	342	112	104	334	108	132	294	110	118	314
4439	32705	101	78	328	103	98	376	96	123	324	100	111	350
4440	32706	99	85	320	105	98	434	96	118	298	101	108	366
4441	32707	106	100	364	118	99	514	107	128	328	112	114	421
4442	32708	99	94	288	103	102	500	96	126	322	99	114	411
4443	32709	100	96	252	106	100	456	98	118	317	102	109	387
4444	32710	104	95	396	113	97	527	109	131	306	111	114	416
4445	32711	88	83	432	101	90	446	90	106	340	95	98	393
4446	32712	104	95	292	115	96	544	100	117	326	108	106	435
4447	32713	100	90	428	112	90	524	104	123	320	108	106	422
4448	32714	100	98	346	113	90	413	106	132	298	110	111	356
4449	32715	96	76	335	113	100	490	100	126	316	106	113	403
4450	32716	100	84	295	108	100	453	96	114	310	102	107	382
4451	32717	100	93	234	110	104	404	98	124	309	104	114	356
4452	32718	101	90	244	115	102	460	105	128	307	110	115	384
4453	32719	100	101	400	111	95	447	98	113	347	104	104	397
4454	32720	100	90	288	101	94	447	94	128	315	98	111	381
4455	BPT 5204(NLC)	102	88	641	118	88	514	106	111	318	112	100	416
4456	32721	100	78	368	105	101	450	97	115	332	101	108	391
4457	32722	104	93	306	118	97	410	112	123	307	115	110	358
4458	32723	92	83	392	101	90	430	96	116	307	98	103	368
4459	32724	98	95	317	118	104	424	117	147	330	118	126	377
4460	32725	102	86	334	111	89	460	96	116	296	104	103	378
4461	32726	90	94	562	101	103	480	92	122	318	96	112	399
4462	ZC	100	79	418	103	100	450	94	126	306	98	113	378
4463	32727	87	83	432	99	89	537	88	100	307	94	94	422
4464	LC	100	95	292	111	98	487	99	117	330	105	108	408
Experimental Mean		98	90	330	108	98	469	100	123	310	105	111	390
Standard Error		1.59			1.77			0.61					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 18.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-MS, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN			ZONE VII- SOUTHERN (8)			Maharashtra (3)			Overall Mean (24)		
		Tamil Nadu			SOUTHERN (8)			Maharashtra (3)			Overall Mean (24)		
		Coimbatore			Mean			Mean			Overall Mean (24)		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
4401	32669	120	125	455	115	112	354	122	114	223	119	111	272
4402	32670	113	110	390	107	99	316	107	102	215	108	98	261
4403	32671	100	100	430	97	98	334	100	101	258	102	101	273
4404	32672	106	121	455	103	108	369	105	110	240	108	107	287
4405	32673	108	85	395	105	89	320	106	90	258	105	94	268
4406	32674	99	103	398	95	93	319	97	104	226	101	98	269
4407	32675				99	104	361	105	108	220	107	105	274
4408	32676	133	120	455	115	115	369	113	116	248	119	111	287
4409	32677	112	98	470	104	94	393	106	92	282	107	94	307
4410	32678	120	101	430	110	94	358	113	94	269	114	94	293
4411	32679	112	112	408	101	99	354	102	103	259	105	100	273
4412	32680	116	123	445	111	112	349	116	113	286	116	109	291
4413	32681	116	127	408	109	118	354	110	122	203	115	117	270
4414	32682	104	95	408	98	96	350	100	107	245	102	104	279
4415	32683	130	127	350	117	110	360	120	116	266	120	111	288
4416	32684	100	82	395	96	92	343	100	96	246	103	97	285
4417	32685	102	111	422	104	106	338	112	124	230	110	113	263
4418	32686	110	105	430	105	96	369	109	97	280	107	99	299
4419	32687	98	90	490	94	95	363	100	102	247	100	99	301
4420	32688	101	98	332	99	99	338	98	103	219	102	99	261
4421	Telangana Sona(NC)	96	117	452	96	101	346	98	118	235	104	109	275
4422	32689	113	112	432	108	106	416	112	114	260	112	107	308
4423	32690	100	83	480	95	88	364	97	95	278	99	93	294
4424	32691	114	111	392	102	106	355	107	113	247	107	109	282
4425	32692	102	101	442	99	98	321	101	103	263	103	101	270
4426	32693	131	164	402	116	135	343	108	130	256	120	136	263
4427	32694	112	113	465	104	100	391	106	105	274	109	100	298
4428	32695	118	110	458	107	101	379	112	103	238	112	102	285
4429	32696	120	117	435	108	106	369	110	110	244	111	108	284
4430	32697	108	142	375	98	121	397	102	122	252	101	121	295
4431	32698	98	86	448	93	91	367	95	102	253	99	93	294
4432	WGL 14(NMC)	116	113	428	104	108	382	109	111	256	109	109	289
4433	32699	110	90	422	103	93	336	107	98	220	108	96	270
4434	32700	110	112	475	106	101	388	111	110	270	112	103	311
4435	32701	102	116	480	97	101	389	103	106	294	103	108	299
4436	32702	102	86	475	99	87	389	105	92	286	106	90	308
4437	32703	112	110	378	104	108	341	105	115	248	110	109	287
4438	32704	102	116	438	105	107	339	115	114	237	110	108	267
4439	32705	107	98	372	100	95	340	102	99	216	105	98	259
4440	32706	108	104	415	102	98	359	102	106	260	105	101	289
4441	32707	116	107	362	110	107	363	114	118	210	116	108	288
4442	32708	108	100	378	99	100	338	100	108	238	104	104	283
4443	32709	112	88	325	102	99	331	106	104	191	107	102	257
4444	32710	102	121	455	105	105	369	118	115	242	110	106	276
4445	32711	92	84	420	90	91	361	95	99	240	97	93	286
4446	32712	114	110	428	108	102	369	114	107	251	111	104	281
4447	32713	112	101	402	107	97	383	113	104	270	112	99	302
4448	32714	122	118	400	108	107	349	108	110	247	114	106	274
4449	32715	106	87	478	106	95	359	107	108	230	110	101	286
4450	32716	106	94	432	100	96	343	102	99	250	104	97	277
4451	32717	103	101	410	101	104	331	102	107	223	106	106	273
4452	32718	102	104	380	107	104	343	108	117	242	110	110	274
4453	32719	102	91	488	100	95	374	105	99	253	107	102	290
4454	32720	96	110	360	96	102	347	100	104	241	104	103	280
4455	BPT 5204(NLC)	121	101	382	109	92	419	111	93	269	114	92	312
4456	32721	108	105	472	102	97	376	101	107	248	106	102	295
4457	32722	113	105	380	111	102	340	115	111	232	116	105	263
4458	32723	102	88	460	95	92	351	100	100	207	102	95	283
4459	32724	120	123	448	114	108	363	111	121	233	116	113	284
4460	32725	110	98	430	103	95	358	109	109	199	107	99	277
4461	32726	102	104	458	94	100	380	98	110	252	100	105	293
4462	ZC	114	109	432	101	99	374	115	93	247	109	98	295
4463	32727	94	82	368	93	88	372	94	95	254	97	90	290
4464	LC	110	118	468	106	101	369	105	109	228	107	103	292
Experimental Mean		109	106	422	103	101	359	106	107	245	108	103	283
Standard Error		0.81						0.8					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 18.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT-MS, Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN						ZONE IV-NORTH EASTERN			ZONE VII- SOUTHERN					
		Bihar			Uttar Pradesh			Assam			Andhra Pradesh			Tamil Nadu		
		@Pusa			@Masodha			@Gerua			@Maruteru			@Adutrai		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4401	32669	105	76	254	124	98		129	129	282	112	142	404	104	124	270
4402	32670	100	74	235	118	93	350	119	103	254	94	116	367	104	96	282
4403	32671	102	90	260	108	90	344	119	108	249	94	114	300	102	80	272
4404	32672	106	80	236	120	98	230	115	119	277	95	139	254	104	92	273
4405	32673	104	102	190	118	94	320	110	100	256	106	100	364	102	84	274
4406	32674	100	80	219	104	91	318	115	108	260	114	113	389	105	113	278
4407	32675	100	85	230	116	89	260	126	116	302	96	141	388	104	100	304
4408	32676	96	86	256	118	101	244	129	126	274	120	139	362	102	116	304
4409	32677	100	106	230	92	78	331	119	101	298	94	114	362	106	94	274
4410	32678	106	81	226	124	78		123	100	276	103	134	384	105	95	281
4411	32679	104	86	202	108	84	268	115	111	253	90	107	286	102	104	322
4412	32680	94	73	230	126	69		129	119	259	114	152	418	101	111	326
4413	32681	95	78	234	101	92	312	129	129	253	111	137	412	103	124	309
4414	32682	94	92	234	108	107	284	110	110	274	110	110	328	102	96	306
4415	32683	102	104	228	106	98	275	129	134	254	92	136	440	104	120	325
4416	32684	106	82	240	112	80	290	123	110	298	98	112	346	104	102	346
4417	32685	100	72	211	114	80	252	123	124	244	96	138	428	102	110	338
4418	32686	97	88	230	119	79	320	119	110	260	94	109	389	106	95	325
4419	32687	94	76	222	102	80	292	110	108	297	95	98	374	105	94	341
4420	32688	96	88	259	120	99	308	115	96	230	106	102	402	104	102	327
4421	Telangana Sona(NC)	100	78	224	110	96	333	123	121	274	94	133	353	106	86	337
4422	32689	98	89	226	114	98	262	123	122	302	102	125	234	102	113	343
4423	32690	100	86	251	95	88	322	110	103	286	90	112	245	106	91	405
4424	32691	102	84	227	120	98		123	116	269	94	130	384	104	92	464
4425	32692	103	74	250	104	98	318	112	111	278	92	116	388	107	103	409
4426	32693	104	82	213	124	120		129	153	250	110	181	412	104	92	281
4427	32694	98	98	231	118	89	294	115	109	328	104	105	226	104	104	310
4428	32695	98	80	212	118	104	260	119	115	283	104	119	404	102	101	258
4429	32696	96	70	242	96	97	300	123	116	246	100	139	432	102	112	312
4430	32697	100	102	216	96	128	312	110	127	270	91	114	272	104	121	326
4431	32698	104	98	214	102	105	254	110	104	312	86	116	360	102	92	400
4432	WGL 14(NMC)	104	78	218	101	99	288	123	122	272	98	135	404	104	98	405
4433	32699	103	82	210	112	80	316	123	101	274	95	118	396	102	102	400
4434	32700	98	74	222	114	94	250	123	110	284	109	131	428	105	102	382
4435	32701	94	87	259	94	112	325	119	113	370	98	127	245	106	118	330
4436	32702	104	76	250	92	69	290	123	98	264	95	104	298	104	96	300
4437	32703	104	78	212	110	88	299	123	123	284	100	149	370	104	114	355
4438	32704	105	88	246	94	102	292	115	117	251	94	138	411	102	86	338
4439	32705	99	84	234	106	98	322	115	106	238	90	77	235	104	96	322
4440	32706	99	78	192	106	92	292	115	111	248	94	118	424	102	106	340
4441	32707	104	78	242	122	82		129	118	254	115	145	406	102	112	375
4442	32708	102	93	252	118	94	290	115	117	261	94	124	324	104	112	440
4443	32709	106	91	240	122	80	188	123	117	286	96	127	429	106	101	270
4444	32710	100	76	228	118	88	273	115	120	269	98	138	410	104	92	440
4445	32711	105	73	216	102	97	320	110	96	306	104	109	398	104	96	438
4446	32712	98	74	222	106	103	284	123	112	248	96	127	396	104	82	302
4447	32713	101	76	232	124	88		123	99	253	100	130	389	104	111	440
4448	32714	102	88	236	118	88	252	129	110	240	116	122	340	104	95	374
4449	32715	100	74	251	116	90	308				94	113	404	104	97	380
4450	32716	100	80	244	114	101	318	112	115	242	92	120	398	106	95	300
4451	32717	96	74	190	100	100	274				94	128	384	101	106	296
4452	32718	102	84	199	104	100	298	123	122	276	95	128	267	104	105	346
4453	32719	102	88	236	104	86	329	123	120	270	94	125	380	109	95	339
4454	32720	101	85	210	118	79	272	115	118	270	96	129	430	104	94	350
4455	BPT 5204(NLC)	104	87	221	96	87	298	123	96	278	109	116	383	101	82	328
4456	32721	104	83	260	112	94	308	115	113	277	96	134	391	103	108	419
4457	32722	103	81	236	124	87		129	112	236	120	122	430	100	99	325
4458	32723	100	84	229	110	81	348	110	99	234	94	95	410	101	99	338
4459	32724	105	88	236	114	88	240	129	131	269	111	135	367	105	105	332
4460	32725	102	90	228	120	90	320	115	112	259	93	120	383	106	94	435
4461	32726	102	82	250	92	86	294	110	116	276	94	108	339	105	113	347
4462	ZC	98	80	245	104	100	252				104	126	411	107	117	287
4463	32727	96	75	248	114	80	270	110	94	256	112	85	324	102	92	338
4464	LC	98	96	237	116	88	278	129	163	290	108	106	395	106	107	358
Experimental Mean		100	83	230	110	92	291	119	114	270	99	122	367	103	101	338

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 18.4: Grain quality characteristics of entries in IVT-MS, Kharif 2024

Code	Entry No.	Designation / IET No.	KL	KB	L/B	Grain Type
1708	4401	32669	4.87	1.97	2.47	SB
1709	4402	32670	4.48	1.78	2.51	MS
1710	4403	32671	5.29	1.83	2.89	MS
1711	4404	32672	5.11	1.94	2.63	MS
1712	4405	32673	5.33	1.78	2.99	MS
1713	4406	32674	4.73	1.61	2.93	MS
1714	4407	32675	4.96	1.69	2.93	MS
1715	4408	32676	4.69	1.64	2.85	MS
1716	4409	32677	4.72	1.83	2.57	MS
1717	4410	32678	4.86	2.09	2.32	SB
1718	4411	32679	5.48	1.79	3.06	SS
1719	4412	32680	5.13	1.97	2.60	MS
1720	4413	32681	5.15	1.69	3.04	SS
1721	4414	32682	5.05	1.86	2.71	MS
1722	4415	32683	5.51	2.12	2.59	MS
1723	4416	32684	4.20	1.56	2.69	MS
1724	4417	32685	5.17	1.93	2.67	MS
1725	4418	32686	5.09	1.67	3.04	SS
1726	4419	32687	5.26	1.63	3.22	SS
1727	4420	32688	5.24	1.96	2.67	MS
1728	4421	Telangana Sona (NC)	4.64	1.49	3.11	SS
1729	4422	32689	5.18	1.78	2.91	MS
1730	4423	32690	5.06	1.77	2.85	MS
1731	4424	32691	4.92	1.77	2.77	MS
1732	4425	32692	4.83	1.89	2.55	MS
1733	4426	32693	4.82	1.80	2.67	MS
1734	4427	32694	5.21	1.86	2.80	MS
1735	4428	32695	4.81	1.84	2.61	MS
1736	4429	32696	5.01	1.88	2.66	MS
1737	4430	32697	4.85	1.75	2.77	MS
1738	4431	32698	4.99	1.87	2.66	MS
1739	4432	WGL-14 (NMC)	4.72	1.75	2.69	MS
1740	4433	32699	5.15	1.64	3.14	SS
1741	4434	32700	5.02	1.66	3.02	SS
1742	4435	32701	4.71	1.54	3.05	SS
1743	4436	32702	5.16	1.78	2.89	MS
1744	4437	32703	4.72	1.68	2.80	MS
1745	4438	32704	4.86	1.70	2.85	MS
1746	4439	32705	4.79	1.46	3.28	SS
1747	4440	32706	4.97	1.82	2.73	MS
1748	4441	32707	4.80	1.76	2.72	MS
1749	4442	32708	4.86	1.75	2.77	MS
1750	4443	32709	4.74	1.77	2.67	MS
1751	4444	32710	4.68	1.82	2.57	MS
1752	4445	32711	4.73	1.55	3.05	SS
1753	4446	32712	5.14	1.84	2.78	MS
1754	4447	32713	4.61	2.01	2.29	SB
1755	4448	32714	5.13	2.16	2.37	SB
1756	4449	32715	4.77	1.78	2.67	MS
1757	4450	32716	4.82	1.82	2.64	MS
1758	4451	32717	5.41	2.00	2.70	MS
1759	4452	32718	5.23	1.89	2.76	MS
1760	4453	32719	5.28	2.26	2.33	SB
1761	4454	32720	4.90	1.84	2.66	MS
1762	4455	BPT-5204 (NLC)	4.88	1.74	2.80	MS
1763	4456	32721	5.19	1.93	2.68	MS
1764	4457	32722	4.98	1.85	2.69	MS
1765	4458	32723	4.52	1.88	2.40	SB
1766	4459	32724				
1767	4460	32725				
1768	4461	32726	5.15	1.93	2.66	MS
1769	4462	ADT-49 (ZC)	4.75	1.81	2.62	MS
1770	4463	32727	4.96	1.61	3.08	SS
1771	4464	Local Check	5.35	2.18	2.45	SB

KL:Kernal length (mm) KB:Kernal Breadth(mm) L/B : Length and Breadth(mm)

ADVANCE VARIETY TRIAL 1 BIOFORTIFICATION (AVT 1 - Biofort)

Locations: 39

Test Entries: 13

Table: 19

Checks: BPT 5204 (Yield), IR 64 (Yield), DRR Dhan 45 (Yield & Micronutrient) Chittimuthyalu (Micronutrient), DRR Dhan 48 (Yield & Micronutrient).

ATV 1-Biofort trial with 13 entries was conducted along with two yield checks (BPT 5204 and IR 64), Chittimuthyalu as micronutrient check and DRR Dhan 45, and DRR Dhan 48 as yield and micronutrient checks. The biofortification trial was sent to 39 locations and data was received from 34 locations. Data from six locations (Chinsurah, Ragolu, Bapatla, Malagi and Puducherry) was not received. Data from Hatwara, Sabour, Chiplima, and Nawagam was not considered due to low experimental yield (<4000 kg/ha) while data from Masodha, and Cuttack not considered owing to low CV (<5.0%). The data from Kota was not considered owing to non-significant F value. The data of grain yield, DFF, PH, and quality are in Table 19.1, 19.2, 19.3, 19.4 and 19.5.

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 48th ARGM, the entries possessing ≥ 24 ppm Zinc; ≥ 10 ppm protein and ≥ 10 ppm iron in polished rice; and yield on par or more than the best yielding check are eligible for promotion to the next tier of testing. The entries selected (≥ 24.0 ppm Zn, ≥ 10 ppm Fe or 10.0% protein) would then be checked for their yield performance among all the test centers across all the different zones and if found with yield advantage (CD @ 5.0% level of significance) over the best varietal check, they would be considered for promotion i.e., based on ≥ 24.0 ppm Zn, ≥ 10 ppm Fe or 10.0% protein and yield advantage over the BVC.

Performance of entries during Kharif 2023 (IVT – Biofort)

In **Zone II**, IET 31927, and IET 31938 exhibited significantly higher yield than the duration yield checks (BPT 5204 or IR 64).

In **Zone III**, none of the entries exhibited significantly higher yield than the duration yield checks (BPT 5204 or IR 64).

In **Zone IV**, five entries (IET 31925, IET 31927, IET 31929, IET 31946 and IET 31961) showed on par or higher yield in comparison to the duration yield checks (BPT 5204 and IR 64).

In **Zone V**, IET 31004 (R), a repeat entry exhibited significantly higher yield (5344 kg/ha) than the duration yield check (BPT 5204; 5074 kg/ha).

In **Zone VI**, IET 31927, IET 31929, IET 31937, IET 31938, IET 31947, IET 31948, and IET 31004 (R) exhibited yield advantage with the yield check, BPT 5204.

Annual Progress Report 2024 Vol. I – Varietal Improvement

In *Zone VII*, nine entries (IET 31927, IET 31929, IET 31937, IET 31938, IET 31939, IET 31950, IET 31951, IET 31961, and IET 31004 [R]) showed higher yield in comparison to the duration yield checks (BPT 5204 and IR 64).

Performance of entries in AVT 1 in different zones during Kharif 2023

S. No	IET Number	Yield / DFF	IR64 (≤ 100)	BPT5204 (> 100)
Zone II				
1	IET 31927	4392 / 110	-	3840 (CD: 819 kg/ha)
2	IET 31938	4755 / 104		
Zone III – None Promoted				
Zone IV				
1	IET 31925	5696 / 112	-	4854 (CD: 776 kg/ha)
2	IET 31927	6567 / 114		
3	IET 31929	5472 / 111		
4	IET 31946	4995 / 105		
5	IET 31961	5370 / 105		
Zone V				
1	IET 31004 (R)	5344 / 99	4887 (CD: 776 kg/ha)	-
Zone VI				
2	IET 31927	5203 / 90	3570 (CD: 504 kg/ha)	-
3	IET 31929	5142 / 88		
4	IET 31937	4686 / 91		
5	IET 31938	5784 / 92		
6	IET 31947	4720 / 90		
7	IET 31948	4219 / 96		
8	IET 31004 (R)	4634 / 99		
Zone VII				
1	IET 31927	4718 / 98	4279 (CD: 271 kg/ha)	4639 (CD: 271 kg/ha)
2	IET 31929	4897 / 94		
3	IET 31937	4409 / 97		
4	IET 31938	5273 / 101		
5	IET 31939	4555 / 98		
6	IET 31950	4315 / 96		
7	IET 31951	5353 / 97		
8	IET 31961	4465 / 94		
9	IET 31004(R)	4882 / 99		

Annual Progress Report 2024 Vol. I – Varietal Improvement

But based on grain yield advantage, grain quality and Zinc content only the following entries are promoted to AVT 2-Biofort:

S. No	IET	Zones	Zinc Content (ppm)
1	31925	IV	24.64
2	31927	II, IV, VI, VII	23.52
3	31938	II, VI, VII	23.46
4	31939	VII	23.61
5	31947	VI	23.64
6	31961	IV, VII	23.53

Summary: Entries promoted from AVT 1-Biofort to AVT 2-Biofort

Zone II: IETs 31927, 31938

Zone IV: IETs 31925, 31927, 31961

Zone VI: IETs 31927, 31938, 31947

Zone VII: IETs 31927, 31938, 31939, 31961

Table 19.1: Composition of entries in Advance Variety Trial 1 – Rice Biofortification (AVT 1 - Biofort) Kharif 2024

Entry No.	IET No.	Designation	Cross combination	Grain type
4501	31961	CSR H3R 17-42		LS
4502	Yield & Micro nutrient (DRR Dhan 48)			MS
4503	31947	RP 6195-MC/RIL-SM4A-A57	MTU1010 / Chittimuthyalu	LB
4504	31927	GNV 2076	Selection from IR93337:37-B-15-15-22-1RGA-2RGA-1-B	LS
4505	31939	RP 6458-C1-151	Swarna // 166S-Swarna / O.nivara	LS
4506	Yield check (BPT 5204)			MS
4507	31951	CR 4107-1-B-4-1-B	BPT 5204 Sub-1 / CR Dhan 310 // Kalinga III	LS
4508	31937	IR 124041-B-3-1-1-B		SB
4509	Yield check (IR 64)			LS
4510	31929	RP 6771-IRRI-147	IR 51511-B-B-34-B / TCCP 266-2-49-B-B-3	SB
4511	31938	GNV 2075	Selection from IR 99637-123-1-3-B	LS
4512	Yield & Micro nutrient (DRR Dhan 45)			LS
4513	31946	ORR 1814	Pateni selection-1 / MTU 1010	LS
4514	31925	RP 6731-BCRK/RIL-BCRK-4	RNR 15048 // RNR 15048 / Karuppunel	MS
4515	Micro nutrient (Chittimutyalu)			SB
4516	31948	CB 21102	Paiyur 1 / kavuni	MS
4517	31950	RP 6731-BCRK/RIL-BCRK-4-1-P	RNR 15048 // RNR 15048 / Karuppunel	MS
4518	31004(R)	RNR 31668	TME 80518 / BPT 5204	LB

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 19.2: Grain Yield (kg/ha) in AVT 1 - Biofort, Kharif 2024

Entry No	IET No	ZONE II-NORTHERN				ZONE II-NORTHERN (2)	
		Haryana		Punjab		Mean	
		Karnal		Ludhiana			
4502	DRR Dhan 48 (Yield & Micro nutrient)	4300	5	4634	1	4467	4
4504	31927	5230	3	3554	6	4392	5
4506	BPT 5204 (Yield check)	3680	6	3999	4	3840	6
4509	IR 64 (Yield check)	5313	1	3814	5	4564	3
4511	31938	5233	2	4277	2	4755	1
4512	DRR Dhan 45 (Yield & Micro nutrient)	5137	4	4149	3	4643	2
4515	Chittimutyalu (Micro nutrient)	2920	7		7	2920	7
Experimental Mean		4545		4071		4226	
CD(0.05)		1313		627		819	
CV(%)		16.24		8.47		10.89	
F Value		4.89**		3.55*		5.92*	
DOS		26-06-24		24-06-24			
DOP		29-07-24		25-07-24			
Local Check Name		NIL					

Table No. 19.2 (Contd.): Grain Yield (kg/ha) in AVT 1 - Biofort, Kharif 2024 (Not considered)

Entry No	IET No	ZONE II-NORTHERN	
		Rajasthan	
		@ Kota	
4502	DRR Dhan 48 (Yield & Micro nutrient)	5541	2
4504	31927	5496	3
4506	BPT 5204 (Yield check)	5474	4
4509	IR 64 (Yield check)	4898	6
4511	31938	6073	1
4512	DRR Dhan 45 (Yield & Micro nutrient)	5186	5
4515	Chittimutyalu (Micro nutrient)	4300	7
Experimental Mean		5281	
CD(0.05)		1145	
CV(%)		12.18	
F Value		2.29ns	
DOS			
DOP			
Local Check Name			

Table No. 19.2 (Contd.): Grain Yield (kg/ha) in AVT 1 - Biofort, Kharif 2024

Entry No	IET No	ZONE III- EASTERN						ZONE III- EASTERN (4)			
		Bihar		Odisha		Uttar Pradesh		West Bengal			
		Bikramganj		Jeypore		Varanasi		chinsurah			
4502	DRR Dhan 48 (Yield & Micro nutrient)	5996	3	3694	7	5899	1	3483	10	4768	5
4506	BPT 5204 (Yield check)	5755	4	5542	1	5578	2	3917	6	5198	1
4509	IR 64 (Yield check)	4594	9	4970	3	4494	7	5167	2	4806	4
4510	31929	4888	6	4141	5	5235	3	4533	4	4699	6
4512	DRR Dhan 45 (Yield & Micro nutrient)	4826	7	3417	8	4490	8	3833	8	4142	9
4514	31925	6080	1	3347	9	3349	9	4200	5	4244	8
4515	Chittimutyalu (Micro nutrient)	2354	10	2549	10	3074	10	3900	7	2969	10
4516	31948	4823	8	4688	4	4903	4	5667	1*	5020	2
4517	31950	5216	5	4011	6	4513	6	4733	3	4618	7
4518	31004(R)	6064	2	5093	2	4788	5	3533	9	4870	3
Experimental Mean		5060		4145		4632		4297		4533	
CD(0.05)		497		708		435		329		218	
CV(%)		5.72		9.95		5.47		4.46		2.80	
F Value		44.17**		15.2**		36.83**		42.14**		75.03**	
DOS		02-07-24		09-07-24		02-07-24		02-07-24			
DOP		31-07-24		06-08-24		21-07-24		20-08-24			
Local Check Name		R. Kasturi									

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 19.2 (Contd.): Grain Yield (kg/ha) in AVT 1 - Biofort, Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN									
		Bihar		Odisha				Uttar Pradesh		West Bengal	
		@Sabour		@Chiplima	@Cuttack (NRRI)		@MSD		@Hatwara		
4502	DRR Dhan 48 (Yield & Micro nutrient)	3794	3	2421	6	3143	10	5415	3	4616	2
4506	BPT 5204 (Yield check)	3258	8	2689	4	3726	8	4362	7	3318	7
4509	IR 64 (Yield check)	3771	5	2953	3	4487	3	4757	6	3190	8
4510	31929	4219	2	3952	2	4177	5	5510	2	4477	4
4512	DRR Dhan 45 (Yield & Micro nutrient)	3222	9	1760	8	3724	9	4828	5	3654	6
4514	31925	3359	7	2273	7	4015	7	3873	8	3153	9
4515	Chittimutyalu (Micro nutrient)	2222	10	970	10	4113	6	3628	10	1906	10
4516	31948	3794	3	2579	5	4774	1	3682	9	3999	5
4517	31950	4556	1	1522	9	4518	2	4875	4	4607	3
4518	31004(R)	3755	6	4210	1	4482	4	5543	1	5846	1
Experimental Mean		3595		2533		4116		4647		3876	
CD(0.05)		625		757		263		239		1576	
CV(%)		10.14		17.42		3.73		3.00		23.70	
F Value		9.13**		15.71**		30.24**		83.63**		4.18**	
DOS											
DOP											
Local Check Name											

Table No. 19.2 (Contd.): Grain Yield (kg/ha) in AVT 1 - Biofort, Kharif 2024

Entry No	IET No	ZONE IV-NORTH EASTERN	
		Assam	
		Titabar	
4501	31961	5370	3
4502	DRR Dhan 48 (Yield & Micro nutrient)	5022	4
4504	31927	6567	1*
4505	31939	4581	
4506	BPT 5204 (Yield check)	4854	8
4509	IR 64 (Yield check)	4863	7
4510	31929	5472	2
4512	DRR Dhan 45 (Yield & Micro nutrient)	4776	10
4513	31946	4995	5
4514	31925	4920	6
4515	Chittimutyalu (Micro nutrient)	4839	9
Experimental Mean		5114	
CD(0.05)		776	
CV(%)		8.91	
F Value		4.3**	
DOS		10-07-24	
DOP		05-08-24	
Local Check Name			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 19.2 (Contd.): Grain Yield (kg/ha) in AVT 1 - Biofort, Kharif 2024

Entry No	IET No	ZONE V- CENTRAL									
		Chhattisgarh				Chhattisgarh (2)		Maharashtra			
		Jagadapur		Raipur		Mean		Sakoli		Sindewahi	
4502	DRR Dhan 48 (Yield & Micro nutrient)	3795	4	5541	3	4668	4	4733	2	4861	3
4506	BPT 5204 (Yield check)	3608	5	5541	3	4575	5	6067	1	5468	2
4509	IR 64 (Yield check)	4286	2	5541	3	4913	2	4711	3	4248	5
4512	DRR Dhan 45 (Yield & Micro nutrient)	3856	3	5968	2	4912	3	3944	4	4383	4
4515	Chittimutyalu (Micro nutrient)	3443	7	1279	7	2361	7	3236	7	1603	7
4516	31948	3479	6	4689	6	4084	6	3389	6	3523	6
4518	31004(R)	5406	1*	6820	1	6113	1*	3800	5	5799	1
Experimental Mean		3982		5054		4518		4269		4269	
CD(0.05)		718		1092		630		641		1007	
CV(%)		10.14		12.14		7.83		8.44		13.26	
F Value		8.75**		25.3**		30.83**		22.36**		18.43**	
DOS		02-06-24		22-06-24				02-07-24		26-06-24	
DOP		13-07-24		19-07-24				19-07-24		07-08-24	
Local Check Name											

Table No. 19.2 (Contd.): Grain Yield (kg/ha) in AVT 1 - Biofort, Kharif 2024

Entry No	IET No	ZONE V- CENTRAL								ZONE V- CENTRAL (6)	
		Maharashtra (2)		Madhya Pradesh			Madhya Pradesh (2)			Mean	
		Mean		Waraseoni		Jabalpur	Mean			Mean	
4502	DRR Dhan 48 (Yield & Micro nutrient)	4797	3	3699	6	4237	3	3968	4	4478	4
4506	BPT 5204 (Yield check)	5768	1	3733	5	3934	4	3833	5	4725	2
4509	IR 64 (Yield check)	4480	4	4181	4	4263	2	4222	2	4538	3
4512	DRR Dhan 45 (Yield & Micro nutrient)	4164	5	4614	3	3800	5	4207	3	4428	5
4515	Chittimutyalu (Micro nutrient)	2419	7	3665	7	2050	7	2857	7	2546	7
4516	31948	3456	6	4998	1	2367	6	3682	6	3741	6
4518	31004(R)	4800	2	4987	2	5253	1*	5120	1*	5344	1*
Experimental Mean		4269		4268		3700		3984		4257	
CD(0.05)		423		961		617		652		349	
CV(%)		5.57		12.66		9.37		9.20		4.61	
F Value		61.45**		3.68*		31.51**		10.35**		61.59**	
DOS				28-06-24		27-06-24					
DOP				01-08-24		22-07-24					
Local Check Name											

Table No. 19.2 (Contd.): Grain Yield (kg/ha) in AVT 1 - Biofort, Kharif 2024

Entry No	IET No	ZONE VI- WESTERN						ZONE VI- WESTERN (2)	
		Gujarat			Maharashtra			Mean	
		Navasari			Karjat			Mean	
4502	DRR Dhan 48 (Yield & Micro nutrient)	4659	5	6656	1	5658	2		
4503	31947	4188	8	5251	6	4720	6		
4504	31927	5131	4	5276	5	5203	3		
4506	BPT 5204 (Yield check)	4606	6	5551	4	5078	5		
4508	31937	5205	3	4167	9	4686	7		
4509	IR 64 (Yield check)	3331		3810		3570			
4510	31929	5475	1*	4810	7	5142	4		
4511	31938	5433	2*	6134	2	5784	1		
4512	DRR Dhan 45 (Yield & Micro nutrient)	4515	7	4055	10	4285	9		
4515	Chittimutyalu (Micro nutrient)	2963		3918		3441			
4514	31925	2891				2891			
4516	31948	4120	9	4317	8	4219	10		
4517	31950	3431		3978		3705			
4518	31004(R)	3675	10	5593	3	4634	8		
Experimental Mean		4259		4886		4501			
CD(0.05)		682		863		504			
CV(%)		9.54		10.48		6.68			
F Value		14.43**		9.89**		24.7**			
DOS				25-06-24		24-06-24			
DOP				18-07-24		20-07-24			
Local Check Name									

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 19.2 (Contd.): Grain Yield (kg/ha) in AVT 1 - Biofort, Kharif 2024 (Not considered)

Entry No	IET No	ZONE VI- WESTERN	
		Gujarath	
		@Nawagam	
4502	DRR Dhan 48 (Yield & Micro nutrient)	2820	5
4503	31947	2429	7
4504	31927	2834	4
4506	BPT 5204 (Yield check)	3026	1
4508	31937	2315	
4509	IR 64 (Yield check)	2997	2
4510	31929	2379	9
4511	31938	2845	3
4512	DRR Dhan 45 (Yield & Micro nutrient)	2521	6
4515	Chittimutyalu (Micro nutrient)	2337	10
4514	31925	1903	
4516	31948	2393	8
4517	31950	1825	
4518	31004(R)	2202	
Experimental Mean		2488	
CD(0.05)		433	
CV(%)		10.37	
F Value		6.41**	
DOS			
DOP			
Local Check Name			

Table No. 19.2 (Contd.): Grain Yield (kg/ha) in AVT 1 - Biofort, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN													
		Andhra Pradesh				Andhra Pradesh (2)		Karnataka							
		Maruteru		Nellore		Mean		Mandya		Brahmavar		Gangavati		Mugad	
4501	31961	5446	7	2912		4179		4442	8	3324		6165	5	5614	1*
4502	DRR Dhan 48 (Yield & Micro nutrient)	6107	1	3047		4577	5	4366	10	4368	6	4810		4487	
4503	31947	4412		2911		3662		4263		3624		4517		4690	6
4504	31927	4837	10	4405	5	4621	4	5596	2*	3965		5869	7	4596	10
4505	31939	3380		3122		3251		5102	4	4466	4	5386		4640	9
4506	BPT 5204 (Yield check)	5516	5	3192		4354	8	3626		4199	9	5847	8	4147	
4507	31951	5958	2	4144	6	5051	2*	5994	1*	4663	1	6426	3	5065	3
4508	31937	4511		3425	9	3968		3956		3792		5699	9	4806	5
4509	IR 64 (Yield check)	4571		3211		3891		4415	9	4026		6324	4	4468	
4510	31929	5464	6	3855	8	4659	3	5503	3	4583	2	6670	2	4686	8
4511	31938	5840	4	4433	4	5137	1*	5015	5	3680		6097	6	5028	4
4512	DRR Dhan 45 (Yield & Micro nutrient)	3691		4699	2	4195	10	4327		3708		5494	10	4269	
4515	Chittimutyalu (Micro nutrient)	3687		4723	1	4205	9	4985	6	4373	5	5170		4686	7
4513	31946	4979	8	3999	7	4489	6	3477		4288	8	3597		4291	
4514	31925	3577		4606	3	4091		3480		4551	3	3477		4436	
4517	31950	4963	9	3365	10	4164		3538		4148	10	3142		5497	2*
4518	31004(R)	5931	3	2962		4446	7	4535	7	4312	7	7528	1*	4289	
Experimental Mean		4875		3707		4291		4507		4122		5425		4688	
CD(0.05)		669		456		414		598		375		377		402	
CV(%)		8.25		7.40		5.80		7.98		5.48		4.18		5.16	
F Value		15.07**		18.53**		10.64**		13.75**		8.82**		83.37**		8.75**	
DOS		09-07-24						20-07-24		29-06-24		26-07-24		24-06-24	
DOP		05-08-24						19-08-24		29-08-24		17-08-24		DSR	
Local Check Name								NA		KAJE 25-9		GNV 1906 (Spoorthi)			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 19.2 (Contd.): Grain Yield (kg/ha) in AVT 1 - Biofort, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN										ZONE VII- SOUTHERN (10)	
		Karnataka (4)		Kerala		Puducherry		Telangana		Tamil Nadu		SOUTHERN (10)	
		Mean		Monocompu		Karaikal		Rajendranagar		Adutrai		Mean	
4501	31961	4886	7	4063		4833		3926		3924	10	4465	9
4502	DRR Dhan 48 (Yield & Micro nutrient)	4508		3338		5133	10	3578		4684	5	4392	
4503	31947	4273		4562	8	5467	6	3944		3755		4214	
4504	31927	5007	4	5107	6	4078		4249	8	4473	6	4718	5
4505	31939	4899	6	4426	9	6033	1	5488	3	3502		4555	8
4506	BPT 5204 (Yield check)	4455		3791		5811	3	4734	6	5527	1	4639	6
4507	31951	5537	1*	5742	3*	5700	4	4948	5	4895	3	5353	1*
4508	31937	4563	10	4698	7	5878	2	4115	10	3207		4409	10
4509	IR 64 (Yield check)	4808	8	3973		4456		3721		3629		4279	
4510	31929	5361	2*	5878	2*	5000		2433		4895	3	4897	3
4511	31938	4955	5	6331	1*	5445	7	5589	1	5274	2	5273	2*
4512	DRR Dhan 45 (Yield & Micro nutrient)	4450		4109		5678	5	4173	9	3840		4399	
4515	Chittimutyalu (Micro nutrient)	4804	9	4426	9	5267	9	5186	4	3418		4592	7
4513	31946	3913		3746		4022		3141		4093	8	3963	
4514	31925	3986		3383		5422	8	2213		3671		3882	
4517	31950	4081		5333	5	4867		4289	7	4008	9	4315	
4518	31004(R)	5166	3*	5696	4*	3811		5498	2	4261	7	4882	4
Experimental Mean		4685		4624		5112		4190		4180		4543	
CD(0.05)		235		1114		874		1442		917		271	
CV(%)		3.01		14.48		10.29		20.70		13.18		17.98	
F Value		32.72**		5.59**		5.07**		4**		4.52**		3.58**	
DOS						04-09-24							
DOP						04-10-24							
Local Check Name						-							

Table No. 19.2 (Contd.): Grain Yield (kg/ha) in AVT 1 - Biofort, Kharif 2024 (Not considered)

Entry No	IET No	ZONE VII- SOUTHERN					
		Kerala		Telangana		Tamil Nadu	
		@ Pattambi		@ Rudrur		@ Coimbatore	
4501	31961	7020	1	1400	10	715	
4502	DRR Dhan 48 (Yield & Micro nutrient)	3566		2421	5	2462	7
4503	31947	4780	6	4188	3	2833	6
4504	31927	4960	5			2447	8
4505	31939	4420	10	1050		480	
4506	BPT 5204 (Yield check)	4260				3338	5
4507	31951	6520	3	4229	2	4114	1
4508	31937	2740		1429	8	3364	3
4509	IR 64 (Yield check)	4400		1283		2000	
4510	31929	5880	4	1429	8	440	
4511	31938	4540	8	1196		3342	4
4512	DRR Dhan 45 (Yield & Micro nutrient)	3420		1371		2250	10
4515	Chittimutyalu (Micro nutrient)	2240		1050		1943	
4513	31946	4560	7	4374	1	2427	9
4514	31925	3880		1925	6	408	
4517	31950	4460	9	3325	4	919	
4518	31004(R)	6840	2	1662	7	3849	2
Experimental Mean			4617		2155		2196
CD(0.05)			3069		700		528
CV(%)			39.97		19.42		14.46
F Value			1.57ns		26.24**		44.88**
DOS							
DOP							
Local Check Name							

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 19.3: Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 1 - Biofort, Kharif 2024

Entry No	IET No	ZONE II-NORTHERN						ZONE II-NORTHERN (2)		
		Haryana			Punjab			Mean		
		Karnal			Ludhiana					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4502	DRR Dhan 48 (Yield & Micro nutrient)	111	94	397	115	98	268	113	96	332
4504	31927	107	101	385	114	104	266	110	103	326
4506	BPT 5204 (Yield check)	116	75	412	118	82	310	117	79	361
4509	IR 64 (Yield check)	101	85	401	101	94	227	101	90	314
4511	31938	108	96	439	99	103	262	104	100	350
4512	DRR Dhan 45 (Yield & Micro nutrient)	98	91	424	98	104	275	98	97	349
4515	Chittimutyalu (Micro nutrient)	116	122	416				116	122	416
Experimental Mean		108	94	410	107	97	268	108	98	350
Standard Error		0.37			0.51					

Table No. 19.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 1 - Biofort, Kharif 2024 (Not considered)

Entry No	IET No	ZONE II-NORTHERN		
		Rajas than		
		@Kota		
		DFF	PH	PAN
4502	DRR Dhan 48 (Yield & Micro nutrient)	106	121	297
4504	31927	93	131	290
4506	BPT 5204 (Yield check)	120	100	286
4509	IR 64 (Yield check)	83	114	247
4511	31938	93	121	313
4512	DRR Dhan 45 (Yield & Micro nutrient)	88	127	259
4515	Chittimutyalu (Micro nutrient)	123	124	225
Experimental Mean		100	119	273

Table No. 19.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 1 - Biofort, Kharif 2024

Entry No	IET No	ZONE III- EASTERN											ZONE III- EASTERN (4)			
		Bihar			Odisha			Uttar Pradesh			West Bengal		Mean			
		Bikramganj			Jeypore			Varanasi			chinsurah					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4502	DRR Dhan 48 (Yield & Micro nutrient)	103	118	402	95	92	241	102	116	261	110	103	238	103	107	286
4506	BPT 5204 (Yield check)	110	109	355	103	87	344	105	95	260	93	88	247	103	95	302
4509	IR 64 (Yield check)	102	113	386	99	83	288	88	99	220	111	100	243	100	99	284
4510	31929	103	116	373	97	89	226	87	106	223	110	102	307	100	103	282
4512	DRR Dhan 45 (Yield & Micro nutrient)	101	112	384	101	88	284	81	117	231	117	101	314	100	105	303
4514	31925	108	119	375	94	89	231	112	111	273	112	102	266	107	105	286
4515	Chittimutyalu (Micro nutrient)	105	170	384	106	103	295	120	181	253	107	100	312	110	138	311
4516	31948	102	119	374	100	89	288	97	115	280	115	98	250	104	105	298
4517	31950	111	133	369	100	90	285	109	108	247	111	94	206	108	106	277
4518	31004(R)	107	132	451	99	89	284	95	111	228	124	150	238	106	120	300
Experimental Mean		105	124	385	99	89	276	99	115	247	111	103	262	104	108	293
Standard Error		0.16			1.65			0.91			1.09					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 19.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 1 - Biofort, Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN														
		Bihar			Odisha						Uttar Pradesh			West Bengal		
		@Sabour			@Chiplima			@Cuttack (NRRI)			@Masodha			@Hatwara		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
4502	DRR Dhan 48 (Yield & Micro nutrient)	102	93	248	142	84	168	115	96	266	115	121	356	103	104	245
4506	BPT 5204 (Yield check)	112	76	277	135	90	225	110	94	276	114	95	309	80	78	288
4509	IR 64 (Yield check)	81	82	228	105	89	200	100	96	256	97	84	345	94	98	267
4510	31929	88	98	249	97	93	187	98	106	270	100	107	370	93	100	224
4512	DRR Dhan 45 (Yield & Micro nutrient)	80	98	218	98	128	213	96	116	276	98	96	295	92	111	235
4514	31925	90	92	275	96	98	197	122	110	250	119	103	274	102	102	277
4515	Chittimutyalu (Micro nutrient)	94	153	280	97	90	173	120	106	280	117	131	276	103	149	288
4516	31948	107	91	270	87	74	187	106	110	297	119	116	295	102	102	256
4517	31950	84	95	243	116	79	185	116	112	257	118	104	344	92	99	213
4518	31004(R)	91	95	208	114	96	208	108	108	241	111	103	395	102	103	181
Experimental Mean		92	97	249	108	92	194	109	105	266	110	106	325	96	104	247

Table No. 19.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 1 - Biofort, Kharif 2024

Entry No	IET No	ZONE IV-NORTH EASTERN		
		Assam		
		Titabar		
		DFP	PH	PAN
4501	31961	105	107	266
4502	DRR Dhan 48 (Yield & Micro nutrient)	114	101	297
4504	31927	114	119	272
4505	31939	111	91	259
4506	BPT 5204 (Yield check)	121	87	279
4509	IR 64 (Yield check)	110	94	280
4510	31929	111	102	254
4512	DRR Dhan 45 (Yield & Micro nutrient)	105	105	255
4513	31946	105	143	247
4514	31925	112	104	251
4515	Chittimutyalu (Micro nutrient)	119	159	278
Experimental Mean		111	110	267
Standard Error		0.52		

Table No. 19.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 1 - Biofort, Kharif 2024

Entry No	IET No	ZONE V- CENTRAL														
		Chhattisgarh			Chhattisgarh (2)			Maharashtra								
		Jagadapur			Raipur			Mean			Sakoli			Sindewahi		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
4502	DRR Dhan 48 (Yield & Micro nutrient)	92	95	223	107	110	221	100	102	222	99	133	282	112	111	296
4506	BPT 5204 (Yield check)	80	83	248	114	100	251	97	91	250	100	114	302	116	92	292
4509	IR 64 (Yield check)	92	91	290	95	107	223	94	99	257	81	118	296	100	104	321
4512	DRR Dhan 45 (Yield & Micro nutrient)	91	99	251	92	115	220	91	107	236	77	133	244	97	128	285
4515	Chittimutyalu (Micro nutrient)	113	143	286	125	163	216	119	153	251	110	178	196	125	179	291
4516	31948	109	86	280	104	106	247	106	96	263	81	116	210	109	105	296
4518	31004(R)	101	93	250	104	101	221	102	97	236	97	134	269	110	124	295
Experimental Mean		96	98	261	105	114	228	101	106	245	92	132	257	109	120	296
Standard Error		0			0.54						0.61			0.37		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 19.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 1 - Biofort, Kharif 2024

Entry No	IET No	ZONE V- CENTRAL												ZONE V- CENTRAL (6)		
		Maharashtra (2)			Madhya Pradesh						Madhya Pradesh (2)			Mean		
		Mean			Waraseoni			Jabalpur			Mean			Mean		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
4502	DRR Dhan 48 (Yield & Micro nutrient)	105	122	289	105	107	245	79	82	173	92	95	209	99	106	240
4506	BPT 5204 (Yield check)	108	103	297	109	95	290	111	70	174	110	83	232	105	92	260
4509	IR 64 (Yield check)	90	111	308	93	106	306	94	70	177	94	88	242	93	99	269
4512	DRR Dhan 45 (Yield & Micro nutrient)	87	131	264	93	102	263	95	81	137	94	92	200	91	110	233
4515	Chittimutyalu (Micro nutrient)	117	179	244	89	159	244	117	102	161	103	131	202	113	154	232
4516	31948	95	110	253	104	95	254	107	102	156	106	99	205	103	102	240
4518	31004(R)	103	129	282	106	110	236	74	85	187	90	97	212	99	108	243
Experimental Mean		101	126	277	99	110	262	96	84	166	98	98	215	100	110	245
Standard Error					0.71			0.7								

Table No. 19.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 1 - Biofort, Kharif 2024

Entry No	IET No	ZONE VI- WESTERN									ZONE VI- WESTERN (2)		
		Gujarat			Maharashtra						Mean		
		Navasari			Karjat			Mean			Mean		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
4502	DRR Dhan 48 (Yield & Micro nutrient)	101	124	242	94	110	181	98	117	212			
4503	31947	92	142	173	89	122	176	90	132	175			
4504	31927	92	142	221	87	120	170	90	131	196			
4506	BPT 5204 (Yield check)	107	105	270	102	94	170	104	99	220			
4508	31937	95	127	221	87	113	189	91	120	205			
4509	IR 64 (Yield check)	84	105	218	84	110	156	84	107	187			
4510	31929	85	110	213	91	116	188	88	113	201			
4511	31938	97	132	226	87	109	159	92	120	192			
4512	DRR Dhan 45 (Yield & Micro nutrient)	83	128	195	86	112	191	85	120	193			
4515	Chittimutyalu (Micro nutrient)	118	183	312	84	166	163	101	174	238			
4514	31925	104	127	240	107	111	184	106	119	212			
4516	31948	100	121	192	91	99	169	96	110	180			
4517	31950	105	124	211	102	114	175	103	119	193			
4518	31004(R)	108	146	220	91	121	191	99	133	206			
Experimental Mean		97	129	225	91	115	175	95	122	201			
Standard Error		0.46			1.71								

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 19.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 1 - Biofort, Kharif 2024 (Not considered)

Entry No	IET No	ZONE VI- WESTERN		
		Gujarath		
		@Nawagam		
		DDF	PH	PAN
4502	DRR Dhan 48 (Yield & Micro nutrient)	121	108	240
4503	31947	116	114	237
4504	31927	121	103	241
4506	BPT 5204 (Yield check)	136	78	241
4508	31937	119	95	236
4509	IR 64 (Yield check)	118	87	242
4510	31929	118	89	239
4511	31938	123	97	242
4512	DRR Dhan 45 (Yield & Micro nutrient)	115	101	237
4515	Chittimutyalu (Micro nutrient)	122	84	236
4514	31925	131	142	232
4516	31948	130	93	240
4517	31950	120	93	238
4518	31004(R)	138	90	241
Experimental Mean		123	98	238

Table No. 19.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 1 - Biofort, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN																				
		Andhra Pradesh						Andhra Pradesh (2)			Karnataka											
		Maruteru			Nellore			Mean			Mandya			Brahmavar			Gangavati			Mugad		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
4501	31961	75	132	352	102	78	302	89	105	327	96	100	338	103	79	486	85	120	357	120	73	266
4502	DRR Dhan 48 (Yield & Micro nutrient)	103	133	354	104	76	307	104	104	330	92	89	344	121	91	474	96	104	341	124	73	260
4503	31947	100	165	341	107	114	276	104	140	308	91	101	295	119	66	458	98	122	319	119	91	262
4504	31927	86	148	350	102	107	302	94	128	326	99	102	347	102	95	405	96	127	363	120	82	248
4505	31939	81	102	339	104	83	380	93	92	359	94	91	295	103	67	393	91	94	359	130	60	282
4506	BPT 5204 (Yield check)	103	111	359	111	80	244	107	96	301	94	82	363	119	72	398	104	93	373	119	62	258
4507	31951	89	156	352	106	126	313	97	141	332	89	108	347	103	53	417	92	136	357	116	61	302
4508	31937	91	113	321	106	82	291	98	97	306	90	90	333	119	86	418	89	105	308	115	66	270
4509	IR 64 (Yield check)	83	114	332	99	70	300	91	92	316	93	85	326	104	65	405	87	107	412	113	69	282
4510	31929	84	120	299	102	75	292	93	98	296	91	98	288	109	91	456	87	115	337	107	60	247
4511	31938	90	130	343	107	91	289	98	111	316	102	92	338	125	67	389	95	108	352	121	66	225
4512	DRR Dhan 45 (Yield & Micro nutrient)	81	123	330	103	81	384	92	102	357	105	105	317	116	73	408	87	118	273	118	63	249
4515	Chittimutyalu (Micro nutrient)	111	176	326	103	115	327	107	146	326	103	112	335	106	99	406	87	157	338	113	89	277
4513	31946	89	163	319	103	70	316	96	117	317	98	84	336	110	91	388	88	105	338	113	67	233
4514	31925	103	124	339	104	91	349	104	107	344	95	117	270	120	75	396	96	144	270	114	96	299
4517	31950	91	123	317	101	84	356	96	103	336	90	102	376	102	73	406	84	107	254	112	77	304
4518	31004(R)	98	143	361	105	74	289	102	108	325	92	103	318	100	84	401	94	116	374	119	58	216
Experimental Mean		91	133	337	104	88	312	98	111	325	94	97	327	110	78	417	91	116	336	117	71	263
Standard Error		0.7			1.35						0.95			0.59			0.55			1.2		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 19.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 1 - Biofort, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN														ZONE VII- SOUTHERN (10)		
		Kerala						Puducherry			Telangana			Tamil Nadu		Mean		
		Karnataka (4)			Monocompu			Karaikal			Rajendranagar			Adutrai				
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	PH	PAN	DDF	PH	PAN
4501	31961	101	93	362	84	104	198	91	86	359	89	100	362	94	274	94	97	329
4502	DRR Dhan 48 (Yield & Micro nutrient)	108	89	355	94	119	209	72	86	394	108	87	425	96	323	102	95	343
4503	31947	107	95	333	97	156	198	71	150	330	102	102	393	117	333	100	119	320
4504	31927	104	102	341	93	131	193	82	65	312	104	100	380	122	365	98	108	326
4505	31939	105	78	332	93	109	253	79	118	398	105	89	418	95	273	98	91	339
4506	BPT 5204 (Yield check)	109	77	348	97	106	244	80	91	391	118	77	404	85	267	105	86	330
4507	31951	100	89	356	90	132	273	79	119	363	105	105	409	126	309	97	112	344
4508	31937	103	87	332	90	103	198	79	88	374	98	90	356	94	282	97	92	315
4509	IR 64 (Yield check)	99	82	356	87	96	218	80	129	366	99	82	440	68	266	94	89	335
4510	31929	98	91	332	90	117	220	80	131	399	94	92	351	93	331	94	99	322
4511	31938	110	83	326	87	110	202	78	112	383	105	90	393	104	325	101	97	324
4512	DRR Dhan 45 (Yield & Micro nutrient)	106	90	312	83	104	200	83	86	361	94	98	402	112	337	97	96	326
4515	Chittimutyalu (Micro nutrient)	102	114	339	87	152	262	73	133	384	102	104	389	147	380	98	128	342
4513	31946	102	87	324	88	138	249	90	120	289	100	89	464	134	371	98	106	330
4514	31925	106	108	309	98	168	246	84	88	360	104	111	425	72	283	102	109	324
4517	31950	97	90	335	95	121	198	93	144	384	94	95	382	83	272	96	101	325
4518	31004(R)	101	90	327	90	117	211	91	66	281	98	92	418	96	292	99	95	316
Experimental Mean		103	91	336	90	122	221	81	106	360	101	94	400	102	310	98	101	329
Standard Error							1.02			1.14			1.67					

Table No. 19.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in AVT 1 - Biofort, Kharif 2024 (Not considered)

Entry No	IET No	ZONE VII- SOUTHERN								
		Kerala			Telangana			Tamil Nadu		
		@Pattambi			@Rudrur			@Coimbatore		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
4501	31961	108	98	355	93	93	118	86	85	337
4502	DRR Dhan 48 (Yield & Micro nutrient)	112	94	245	97	79	156	105	100	311
4503	31947	110	115	223	93	82	206	105	114	349
4504	31927	110	108	233				103	116	379
4505	31939	112	81	290	93	73	135	95	89	338
4506	BPT 5204 (Yield check)	109	87	278				110	91	351
4507	31951	112	126	302	96	92	230	99	137	394
4508	31937	112	91	173	95	80	137	94	106	357
4509	IR 64 (Yield check)	111	82	331	92	76	90	93	94	372
4510	31929	110	100	322	95	82	95	86	95	353
4511	31938	109	100	314	96	71	86	100	106	390
4512	DRR Dhan 45 (Yield & Micro nutrient)	106	125	322	95	80	96	87	95	372
4515	Chittimutyalu (Micro nutrient)	112	83	310	92	99	86	104	165	365
4513	31946	109	95	274	93	88	251	103	106	367
4514	31925	109	80	353	96	81	168	104	192	456
4517	31950	112	97	276	93	74	212	88	100	346
4518	31004(R)	108	97	596	96	88	109	102	110	374
Experimental Mean		110	97	305	94	82	145	97	111	365

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 19.4: Zinc content of entries in AVT 1 - Biofort, Kharif 2024

Entry No	IET Number	Zinc Content (ppm)
4501	31961	23.53
4502	Yield & Micro nutrient (DRR Dhan 48)	20.09
4503	31947	23.64
4504	31927	23.52
4505	31939	23.61
4506	Yield check (BPT 5204)	18.58
4507	31951	19.79
4508	31937	19.43
4509	Yield check (IR 64)	17.93
4510	31929	19.82
4511	31938	23.46
4512	Yield & Micro nutrient (DRR Dhan 45)	18.86
4513	31946	20.33
4514	31925	24.64
4515	Micro nutrient (Chittimutyalu)	17.86
4516	31948	18.71
4517	31950	20.82
4518	31004(R)	17.78

Table No. 19.5: Grain quality characteristics of entries in AVT 1 - Biofort, Kharif 2024

Code	Entry No.	Designation / IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	VER	WU	KLAC	ER	ASV	AC	GC	Aroma
1510	4501	31961	77.4	65.7	51.0	6.61	1.87	3.53	LS	OC	4.1	210	12.2	1.84	4.0	26.10	63	NS
1511	4502	DRR Dhan-48 (YMN)	78.5	67.8	55.4	4.91	1.78	2.75	MS	VOC	5.3	250	7.7	1.56	7.0	25.96	22	NS
1512	4503	31947	77.9	69.1	56.0	6.47	1.87	3.45	LS	A	4.1	180	12.3	1.90	7.0	22.14	25	NS
1513	4504	31927	77.1	66.5	56.8	6.13	1.81	3.38	LS	A	4.1	220	10.7	1.74	7.0	26.01	22	NS
1514	4505	31939	78.7	69.5	65.5	5.30	1.89	2.80	MS	A	4.8	225	10.7	2.01	5.0	26.19	22	NS
1515	4506	BPT-5204 (YC)	77.8	63.0	56.8	4.73	1.77	2.67	MS	A	5.3	240	10.0	2.11	4.0	24.37	22	NS
1516	4507	31951	76.5	65.1	57.5	5.61	2.04	2.75	MS	VOC	4.1	185	11.6	2.06	4.0	27.66	45	NS
1517	4508	31937	77.8	69.2	63.1	5.17	2.39	2.16	SB	VOC	5.0	295	10.5	2.03	4.0	22.93	71	NS
1518	4509	IR-64 (YC)	79.1	70.3	61.2	6.76	1.98	3.41	LS	VOC	4.0	165	11.3	1.67	4.0	25.75	55	NS
1519	4510	31929	78.6	70.1	59.9	5.38	2.63	2.04	SB	VOC	5.6	200	8.6	1.59	5.0	25.81	65	NS
1520	4511	31938	75.0	64.8	53.0	5.76	1.85	3.11	SS	A	4.0	160	11.5	1.99	4.0	23.87	43	NS
1521	4512	DRR Dhan -45 (YMN)	78.5	68.0	55.4	6.79	1.92	3.53	LS	VOC	4.6	185	11.8	1.73	4.0	22.90	54	NS
1522	4513	31946	77.6	67.0	58.1	6.13	2.31	2.65	LB	VOC	4.1	180	11.5	1.87	5.0	22.90	22	NS
1523	4514	31925	76.9	67.9	55.7	4.95	1.80	2.75	MS	A	5.4	230	10.9	2.2	4.0	27.25	22	NS
1524	4515	Chittimutyalu (MN)	78.4	68.3	67.1	3.78	2.16	1.75	SB	VOC	5.2	220	8.8	2.32	5.0	23.17	22	SS
1525	4516	31948	72.3	62.6	55.8	5.22	1.87	2.79	MS	VOC	5.4	190	7.2	1.37	4.0	24.40	22	NS
1526	4517	31950	78.9	69.7	60.2	4.91	1.76	2.78	MS	A	4.7	255	7.8	1.58	4.0	26.01	22	NS
1527	4518	31004 (R)	76.8	65.5	48.1	6.10	2.27	2.68	LB	VOC	4.4	295	11.4	1.86	4.0	26.16	22	NS

HULL: Hulling(%) MILL:Milling(%) HRR:Head Rice Recovery KL:Kernal length (mm) KB:Kernal Breadth(mm) L/B : Length and Breadth(mm)
 KLAC:Kernal length after cooking WU:Water uptake ER:Elongation ratio AC:Amylose content (%)ASV:Alkali Spreading Value AC: Amylose Content GC: Gel consistency

INITIAL VARIETY TRIAL – BIOFORTIFICATION (IVT - BIOFORT)

Locations: 39

Test Entries: 49

Table: 20

Checks: IR 64 (Yield), DRR Dhan 45 (Yield & Micronutrient), DRR Dhan 48 (Yield & Nutrient Check), Chittimuthyalu (Micronutrient)

IVT-Biofort trial was conducted with 49 entries along with one yield check (IR 64), Chittimuthyalu as micronutrient check, DRR Dhan 45 and DRR Dhan 48 as both yield and micronutrient check. The biofortification trial was sent to 39 locations across six zones (II, III, IV, V, VI and VII) and data was received from 33 locations. Data from six locations (Chinsurah, Ragolu, Bapatla, Rudrur, Malagi and Puducherry) was not received. Data was not considered due non-significance from Kota, Jagdalpur, Waraseoni, Navagam and Karaikal. Further, data was not considered from Masodha and Chinsurah due to low CV. Data from Pattambi and Coimbatore had high CV. Low experimental mean yield was observed in Sabour, Chiplima, Navagam, Brahmavar and Aduthurai. The overall mean yield had a range of 2367 kg/ha (Chittimuthyalu) to 3759 g/ha (IET 32775) whereas, plant height had a wide range of 59.0 cm (IET 32729) to 95.0 cm (IET 32752). Highest number of panicles were observed in IET 32744 (339) while, IET 32728 had only 176. IET 32731 flowered in 59 days and IET 32752 flowered at 137 days. The data pertaining to yield, days to 50% flowering, plant height, panicles/m² and quality are presented in tables 20.1, 20.2, 20.3 and 20.4.

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 analysed at NRRI, Cuttack utilizing the seed samples received from test locations. The data on Iron, Zinc and proteins were furnished in tables 20.4 and 20.4. As the XRF values of Zn analysed 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 48th ARGM, the entries possessing ≥ 24 ppm Zinc; ≥ 10 ppm protein and ≥ 10 ppm iron in polished rice; and yield on par or more than the best yielding check are eligible for promotion to the next tier of testing. The yield performance of entries with ≤ 100 days flowering duration are compared with IR 64 whereas entries with ≥ 100 days are compared with DRR Dhan 48 for identification of best entries. The superior entries on overall mean and zonal basis are discussed below.

Performance of entries during Kharif 2024

The performance of test entries in different zones are described. Several entries are promoted under each zone based on their yield advantage over the best varietal check. *These entries will be considered for final promotion after their nutritional status is considered.*

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of entries in IVT 1 in different zones during Kharif 2024

S. No	IET Number	Yield / DFF	IR64 (≤ 100)	DRR Dhan 48 (> 100)
Zone II				
1	32744	5460	-	4199 (CD = 941)
2	32748	5770		
3	32752	6300		
4	31035 (R)	5665		
5	32757	5244		
6	32760	5527		
7	32766	6021	5027 (CD = 941)	-
Zone III				
1	32728	5720	-	4249 (CD = 560)
2	32735	5099		
3	32738	4919		
4	32739	4916		
5	32746	4969		
6	32757	4902		
7	32763	5201		
8	32764	4957		
9	32765	5016		
10	32767	5160		
11	32768	5191		
12	32770	5494		
13	32771	5140		
14	32773	5536		
15	32775	5698		
16	32730	4855	4212 (CD = 560)	-
17	32741	4823		
18	32761	4790		
19	32766	5438		
20	32774	5258		
Zone IV				
1	32728	5571	4742 (CD = 635)	-
2	32735	6318		
3	32738	5697		
4	32742	5970		
5	32744	5727		
6	32746	5919		
7	32747	5596		
8	32751	5460		
9	32757	5879		
10	32760	5540		
11	32768	5667		
12	32775	6212		
Zone V				
1	32728	5083	-	4148 (CD = 700)
2	32746	5241		
3	32747	4904		
4	32757	4984		

Annual Progress Report 2024 Vol. I – Varietal Improvement

5	32759	5052		
6	32760	5978		
7	32775	32775		
8	32731	5257	4496 (CD = 700)	-
9	32750	5494		
10	32751	5320		
11	32766	5269		
12	32773	5763		
	32774	5360		
Zone VI				
1	32744	4866	-	3818 (CD = 806)
2	32749	4691		
3	32750	5234		
4	31035 (R)	4987		
5	32757	5243		
6	32759	6487		
7	32762	4858		
8	32766	4664		
9	32767	4735		
10	32771	5911		
11	32773	5034		
12	32774	5532		
13	32775	5924		
14	32728	5638	4295 (CD = 806)	-
15	32747	5287		
Zone VII				
1	32728	6307		4803 (CD = 554)
2	32732	5414		
3	32746	6581		
4	32756	6283		
5	32735	6168	5008 (CD = 554)	
6	32736	5894		
7	32740	5638		
8	32742	5826		
9	31035 (R)	6245		
10	32757	5612		
11	32759	5635		
12	32775	5926		

But based on grain yield, and grain zinc content, only the following entries are promoted to AVT 1 - Biofort:

S. No	IET Number	Zones	Zinc Content (ppm)
1	32754	III	24.67
2	32729	VI	24.06
3	32748	VI	23.94
4	32752	VI	27.45
5	32754	VI	28.01
6	32758	VI	24.92

Entries promoted to AVT 1- Biofort, based on grain yield and zinc content:

Zone III: IET 32754

Zone VI: IET 32729, IET 32748, IET 32752, IET 32754 and IET 32758

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entries promoted to AVT 1- Biofort, based on grain yield and protein content:

Zone II: IET 32769

Zone III: IET 32754, IET 32770

Zone IV: IET 32770

Zone V: IET 32770

Zone VI: IET 32754, IET 32769

Table No. 20.1: Composition of entries in Initial Variety Trial – Rice Biofortification (IVT Biofort), Kharif 2024

Entry No.	IET No.	Designation	Cross combination	Grain Type
4601	32728	NWGR 19250	Selection from Khadasi	MS
4602	32729	RP 6615-138-4-2	MTU1010/karuppunel	SB
4603	32730	ORJ 1361	MTU1001/Chittimutyalu	LB
4604	32731	TR 21313	CO51/(CO 51*Kodal)	MS
4605	32732	BPT 3372	MTU 7029/IRGC 18195/MTU 1081	SB
4606	32733	RP 6803-9-28-21-2	MTU1010/Paustic 9	SB
4607	32734	GNV 2237	Selection from 1513IR15M1178	LB
4608	32735	RP-6825-960-22-10-3-1	MTU 1121/Samba Mahusri	LB
4609	32736	CR-4234-1-2-2-B	CR DHAN-311 / CGR-1062	SB
4610	32737	Chapti Gurmatiya Mutant-1	Mutant of Chapti Gurmatiya	MS
4611	32738	BRR 0291	Sambha Mahsuri/Sathi	LS
4612	32739	R-RHZ-CC-164	CGZR-1/CGR 77-140	LS
4613	32740	RP 6458-DB-C1-99	Swarna//166S-Swarna/O.nivara	LS
4614	32741	CR-4106-1-B-4-B	CR DHAN-311 / KALINGA-III	MS
4615	32742	RP 6833-1217-2-2-3-1-1	Swarna/IET 27263	LB
4616	32743	RNR 31479	KMP 199/ RNR 15048	SS
4617	32744	NVSR-1260	GNR-3/IET-23832	SS
4618	32745	CRAC -6323-52	Doubled Haploid of F1s (Geetanjali x Bindli)	SB
4619	32746	RP 6824-3000-170-30-12-3-1	MTU 1121/Vijetha	LS
4620	32747	CR-4171-2-3-B	CR DHAN-311 / BPT-5204	MS
4621	32748	RP 6800-1164	IR64/Kala Jeera Joha	MS
4622	32749	CR-4229-1-1-2-B-1	CR DHAN-310 / PADNARI GURMITYA	MS
4623	32750	RP 6797-45-11-9-1	MTU1010/ARC10063	LB
4624	32751	CR-4099-1-1-2-1-2	PB-140 / KALINGA-III	MS
4625	32752	RP6338-192-53-2-1	KMR3/N22*2	SB
4626		Yield & Micro nutrient (DRR Dhan 48)		
4627	32753	CR-4225-1-2-B-1	CR DHAN-310 / BINDLI	LB
4628	32754	RP 6795-12-18-1-A-P	MTU1010/Edavanudi Pokkali	LB
4629	32755	ORS-MBB 8	IR 85850-AC 157-1 mutant	SB
4630	31035 (R)	CR4334-2-1-1	CR3969-24-1-2-1-1IR73930-31-3-2/PRATIJSY	LS
4631	32756	RP-6826-1180-3-2-1-2-1	NDR 359/IET 28357	MS
4632		Yield check (IR 64)		
4633	32757	ORR 1815-1	ORR 110/OR2634-1-1	LS

Annual Progress Report 2024 Vol. I – Varietal Improvement

4634	32758	RP 6732-4	Improved Samba Mahsuri/Karuppunel	
4635	32759	ORR 1820	Pateni selection-4/CR 1009	LS
4636	32760	RP 6338-192-14-2-1(PSR 169)	KMR3/M22*2	SB
4637	32761	ORJ 1359	Manaswini/Kalanamak//Chittimuthyalu	MS
4638	32762	RP 6834-6316-140-3-10-3	IR 69428-6-1-1-3-3/Rajendra mahsuri1	MS
4639	32763	ORJ 1360	Mandakini/Lektimachi	SB
4640		Yield & Micro nutrient (DRR Dhan 45)		
4641	32764	RP 6449-DB-235-1	Vandana/NH787	MS
4642	32765	IR 126402-B-15-1-3-B	IR 126402-B-15-1-3-B	MS
4643	32766	RP 6791-3-2	DRR Dhan53/Karuppunel	LS
4644		Micro nutrient (Chittimutyalu)		SS
4645	32767	RNR 41762	RNR 15435/ORJ-1161	LS
4646	32768	RP 6615-45-6-7-A	MTU1010/Karuppunel	MS
4647	32769	R-RHZ-IC-226	IGKV R1/CGR 52-45	SB
4648	32770	R-RGY-IS-110	IR681444/Swarna	MS
4649	32771	BRR-2177	MTU7029/Taraori Basmati Dwarf Mutant 2-sel	LS
4650	32772	TR 21304	CO51/(CO 51/IG39)	MS
4651	32773	GNV 2225	Selection From IR15M1322	MS
4652	32774	TR 21318	CO51/(CO 51/RPHP48)	MS
4653	32775	IR 120281-B-122	IR 120281-B-122	LB

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 20.2: Grain Yield (kg/ha) in IVT - Biofort, Kharif 2024

Entry No	IET No	ZONE II-NORTHERN			Zone II-		ZONE III- EASTERN						
		Haryana		Punjab		NORTHERN (2)		Bihar		Odisha			
		Karnal		Ludhiana		Mean		Bikramganj		Jeypore		NRRI	
4601	32728	5290		3545		4417		7352	2*	3149		4711	
4602	32729	3465		3539		3502		4133		2967		4938	
4603	32730	4885		3810		4348		4619		3453		4872	
4604	32731	5445		3158		4302		3943		2771		4360	
4605	32732	4505				4505		3862		4497		4975	
4606	32733	3990		2645		3317		4590		2983		4805	
4607	32734	4280		3043		3662		4586		2832		4415	
4608	32735	5065		3672		4368		6876	5*	4257		4412	
4609	32736	4420		3364		3892		4690		4703		4296	
4610	32737	3400		3756		3578		4924		2889		4173	
4611	32738	4885		4632	3	4758		5976	*	4387		4195	
4612	32739	6055	5	3690		4872		6024	*	4528		4251	
4613	32740	3345		3001		3173		4148		2792		4992	10
4614	32741	4890		2983		3937		3824		4224		5140	5
4615	32742	5285		2506		3896		4581		2170		5068	8
4616	32743	4325		3593		3959		5110		4212		5172	4
4617	32744	5460				5460	7	5433		5113	10	4138	
4618	32745	3175		2095		2635		3424		2351		3983	
4619	32746	4900				4900		6329	7*	5436	9	4515	
4620	32747	4985		3816		4401		6124	*	3667		4516	
4621	32748	5770	10			5770	3	4786		2215		4713	
4622	32749	4895		4130		4513		5114		3606		4848	
4623	32750	3595		4734	2	4165		5338		2929		4559	
4624	32751	4790		3418		4104		5038		4668		4291	
4625	32752	6300	4			6300	1*	2490		3835		4768	
4626	DRR Dhan 48 (Yield & Micro nutrient)	4105		4293	7	4199		5100		3906		4591	
4627	32753	4225		4209	9	4217		5362		4175		3201	
4628	32754	4700		3158		3929		4995		4292		4781	
4629	32755	5920	7	4058		4989	10	5152		4339		5131	6
4630	31035 (R)	5665				5665	4	6305	9*	4705		3924	
4631	32756	4955		3237		4096		4505		5724	4	3993	
4632	IR 64 (Yield check)	5900	8	4155	10	5027	9	4614		4349		4582	
4633	32757	6025	6	4463	5	5244	8	6314	8*	3127		4564	
4634	32758	4645		3883		4264		5905		3601		4090	
4635	32759	5420		3448		4434		4333		2783		5071	7
4636	32760	6695	3	4360	6	5527	6	3843		3983		4828	
4637	32761	4720		2886		3803		5076		5554	6	4557	
4638	32762	3185				3185		3890		5453	8	4506	
4639	32763	3530		3225		3377		4910		5872	3*	4813	
4640	DRR Dhan 45 (Yield & Micro nutrient)	5425		3267		4346		5086		4318		4410	
4641	32764	3530		3309		3420		7181	3*	2259		4549	
4642	32765	5875	9	3364		4619		5233		5595	5	4126	
4643	32766	7055	1	4988	1	6021	2*	6167	*	6019	2*	5227	2
4644	Chittimutyalu (Micro nutrient)	3680				3680		4024		2929		4897	
4645	32767	5010		3478		4244		5986	*	4240			
4646	32768	5545		3370		4457		5214		5493	7	4975	
4647	32769	3890		3605		3748		4476		2757		4548	
4648	32770	5550		3575		4562		7129	4*	4845		4570	
4649	32771	2920		3448		3184		8133	1*	3606		4721	
4650	32772	4230		3708		3969		3581		4306		4966	
4651	32773	6955	2	4275	8	5615	5	4157		6229	1*	5260	1
4652	32774	3665		3635		3650		6224	10*	4036		5204	3
4653	32775	5370		4559	4	4965		6390	6*	4757		5011	9
Experimental Mean		4826		3624		4324		5143		4036		4619	
CD(0.05)		1295		854		941		812		1507		500	
CV%		13.37		11.69		13.45		7.87		18.61		5.4	
F Value		4.89 **		4.02 **		2.43 **		15.25 **		4.09 **		5.39 **	
DOS		26-06-2024		19-06-2024				27-06-2024		11-07-2024		19-06-2024	
DOP		28-07-2024		20-07-2024				30-07-2024		13-08-2024		10-07-2024	
Local Check Name								R. Kasturi					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 20.2 (Contd.): Grain Yield (kg/ha) in IVT - Biofort, Kharif 2024

Entry No	IET No	ZONE III- EASTERN						ZONE III- EASTERN (5)		ZONE IV-NORTH EASTERN	
		Odisha (2)		Uttar Pradesh		West Bengal		Mean	Assam	Titabar	
		Mean		Varanasi		Hatwara					
4601	32728	3930		7275	2*	6114	1*	5720	1*	5571	10*
4602	32729	3953		4808		3498		4069		2944	
4603	32730	4163		6300	7*	5029	6	4855		4470	
4604	32731	3565		6358	6*	4278		4342		2667	
4605	32732	4736		4183		4224		4348		4955	
4606	32733	3894		4308		3570		4051		3409	
4607	32734	3623		4725		4626		4236		3217	
4608	32735	4335		6467	5*	3481		5099		6318	1*
4609	32736	4499		5408		4297		4679		5116	
4610	32737	3531		6000		3739		4345		2934	
4611	32738	4291		5675		4363		4919		5697	7*
4612	32739	4390		4900		4876	8	4916		5318	
4613	32740	3892		5100		2797		3966		2793	
4614	32741	4682		6067	10	4860	9	4823		4298	
4615	32742	3619		5900		4258		4395		5970	3*
4616	32743	4692		4533		3338		4473		4965	
4617	32744	4625		4217		3347		4449		5727	6*
4618	32745	3167		3317		2822		3179		3682	
4619	32746	4975	7	4267		4298		4969		5919	4*
4620	32747	4091		4733		4586		4725		5596	9*
4621	32748	3464		4533		3616		3973		4763	
4622	32749	4227		3992		4268		4366		4636	
4623	32750	3744		3650		3159		3927		3268	
4624	32751	4480		4492		3954		4489		5460	*
4625	32752	4302		4292		3774		3832		4924	
4626	DRR Dhan 48 (Yield & Micro nutrient)	4249		4092		3557		4249		4742	
4627	32753	3688		4158		4528		4285		4237	
4628	32754	4536		4033		3851		4390		4540	
4629	32755	4735		4392		3708		4544		4672	
4630	31035 (R)	4315		4200		4329		4693		5298	
4631	32756	4858	10	4292		4137		4530		5273	
4632	IR 64 (Yield check)	4466		3733		3780		4212		4641	
4633	32757	3845		4775		5731	2	4902		5879	5*
4634	32758	3846		4067		3586		4250		5005	
4635	32759	3927		4550		4886	7	4324		5167	
4636	32760	4406		4992		4316		4392		5540	*
4637	32761	5055	5	4125		4638		4790		3944	
4638	32762	4979	6	4150		3248		4249		4409	
4639	32763	5342	3*	5558		4854	10	5201	7	3798	
4640	DRR Dhan 45 (Yield & Micro nutrient)	4364		5592		5090	4	4899		3965	
4641	32764	3404		6492	4*	4303		4957		4101	
4642	32765	4861	9	5758		4364		5016		4803	
4643	32766	5623	2*	5850		3926		5438	5	2980	
4644	Chittimutyalu (Micro nutrient)	3913				3842		3923		3909	
4645	32767	4240		5717		4700		5160	9	4182	
4646	32768	5234	4*	6108	9*	4163		5191	8	5667	8*
4647	32769	3653		5375		2902		4012		2298	
4648	32770	4708		5858		5070	5	5494	4*	5162	
4649	32771	4163		5908		3332		5140	10	3606	
4650	32772	4636		5175		4621		4530		1747	
4651	32773	5745	1*	6767	3*	5268	3	5536	3*	4333	
4652	32774	4620		6142	8*	4687		5258	6	2465	
4653	32775	4884	8	7500	1*	4831		5698	2*	6212	2*
Experimental Mean		4324		5093		4178		4611		4475	
CD(0.05)		723		495		1003		560		635	
CV%		10.33		4.84		11.97		7.5		7.07	
F Value		2.17 **		32.21 **		4.07 **		3.07 **		24.17 **	
DOS				20-06-2024		12-07-2024				09-07-2024	
DOP				01-08-2024		20-08-2024				05-08-2024	
Local Check Name											

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 20.2 (Contd.): Grain Yield (kg/ha) in IVT - Biofort, Kharif 2024

Entry No	JET No	ZONE V- CENTRAL									
		Chhattisgarh		Maharashtra			Maharashtra (2)		Madhya Pradesh		
		Raipur		Sakoli	Sindewahi		Mean		Jabalpur		
4601	32728	5052		5300		4148		4724		5831	4*
4602	32729	3413		5075		3700		4388		3584	
4603	32730	5036		6600	7	3885		5242		4096	
4604	32731	5161		6825	4	4240		5533	7	4801	
4605	32732	3572		3700		3622		3661		1523	
4606	32733	5375	9	3925		3686		3806		4395	
4607	32734	5407	7	5275		4453		4864		4136	
4608	32735	4298		5500		5376	7	5438	10	4940	
4609	32736	2900		6600	7	4986		5793	3*	4355	
4610	32737	3792		2500		3665		3082		4774	
4611	32738	4985		4900		3849		4375		4973	
4612	32739	4230		4400		4503		4451		3770	
4613	32740	4115		6825	4	2734		4780		4262	
4614	32741	3668		6925	2	3395		5160		4102	
4615	32742	3350		3475		4062		3769		4794	
4616	32743	4648		3150		4794		3972		4754	
4617	32744	3519		4875		5142	10	5009		4282	
4618	32745	3340		3150		3423		3287		3464	
4619	32746	5913	2	4350		5575	5	4963		5126	*
4620	32747	5288		5600		4055		4828		4674	
4621	32748	4444		3000		4929		3964		4840	
4622	32749	3813		4950		4254		4602		5771	6*
4623	32750	4779		6800	6	4467		5634	6	5931	2*
4624	32751	3526		7025	1	5092		6059	2*	5638	8*
4625	32752	1738		3875		5902	2*	4888		4648	
4626	DRR Dhan 48 (Yield & Micro nutrient)	4670		4700		3459		4079		3763	
4627	32753	3832		6500	9	4773		5636	5*	5060	
4628	32754	4856		3250		3438		3344		4820	
4629	32755	4845		3475		2848		3162		4834	
4630	31035 (R)	4848		3300		5746	3*	4523		4654	
4631	32756	5293		4525		5234	8	4880		3976	
4632	IR 64 (Yield check)	4773		5950		3324		4637		3936	
4633	32757	5353	10	4625		4354		4489		5605	10*
4634	32758	4061		2500		4240		3370		3783	
4635	32759	5449	5	3625		5391	6	4508		5745	7*
4636	32760	5858	3	6500	9	5710	4	6105	1*	5844	3*
4637	32761	4289		6275		3430		4853		4202	
4638	32762	3073		4200		4240		4220		2188	
4639	32763	4696		5725		5192	9	5458	9	4681	
4640	DRR Dhan 45 (Yield & Micro nutrient)	4730		4975		4439		4707		4375	
4641	32764	5468	4	4275		4595		4435		4934	
4642	32765	5174		6025		4382		5204		5033	
4643	32766	4600		6225		4787		5506	8	5465	*
4644	Chittimutyalu (Micro nutrient)	1982		4175		2528		3352		3624	
4645	32767	4573		4125		3700		3913		5047	
4646	32768	3939		4900		3750		4325		4608	
4647	32769	3808		3550		3473		3512		4176	
4648	32770	4290		4675		3601		4138		5824	5*
4649	32771	4610		5875		3260		4567		4634	
4650	32772	4797		6925	2	3125		5025		5146	*
4651	32773	6093	1*	5225		6136	1*	5681	4*	5598	*
4652	32774	5393	8	6100		4311		5206		5638	8*
4653	32775	5409	6	5100		3821		4461		6117	1*
Experimental Mean		4455		4942		4250		4596		4656	
CD(0.05)		1245		1496		1273		928		733	
CV%		13.93		15.09		14.92		12.48		7.84	
F Value		4.44 **		5.91 **		3.61 **		2.41 **		11.77 **	
DOS		22-06-2024		01-07-2024		27-06-2024				27-06-2024	
DOP		19-07-2024		19-07-2024		06-07-2024				22-07-2024	
Local Check Name				NILL							

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 20.2 (Contd.): Grain Yield (kg/ha) in IVT - Biofort, Kharif 2024

Entry No	IET No	ZONE V- CENTRAL (4)		ZONE VI- WESTERN				ZONE VI- WESTERN (2)		ZONE VII- SOUTHERN	
		Mean		Gujarat		Maharashtra		Mean		Andhra Pradesh	
				Navasari		Karjat				Maruteru	
4601	32728	5083		5833	3*	5442	7	5638	5*	6349	4
4602	32729	3943		4670		3836		4253		5916	
4603	32730	4904		4989		4229		4609		4906	
4604	32731	5257	7	5027		3486		4256		3968	
4605	32732	3104		2922		3620		3271		5483	
4606	32733	4345		4291		3450		3871		4545	
4607	32734	4818		4524		3522		4023		3752	
4608	32735	5029		5709	5*	3710		4709		6638	2
4609	32736	4710		5557	7*	4013		4785		4906	
4610	32737	3683		5271	*	4901		5086		6133	9
4611	32738	4677		5103		5081		5092	10	5267	
4612	32739	4226		5005		5153		5079		5988	
4613	32740	4484		5817	4*	3348		4582		5988	
4614	32741	4522		5579	6*	6876	4*	6227	2*	3752	
4615	32742	3920		4724		4797		4760		5051	
4616	32743	4337		5287	10*	4451		4869		6494	3
4617	32744	4455		6098	1*	3634		4866		3968	
4618	32745	3344		4053		4401		4227		5051	
4619	32746	5241	8	4562		4216		4389		5844	
4620	32747	4904		5173		5400	9	5287	7*	5123	
4621	32748	4303		4318		4187		4252		5844	
4622	32749	4697		5433	9*	3950		4691		5628	
4623	32750	5494	3*	5070		5398	10	5234	9*	4257	
4624	32751	5320	5	3398		3603		3501		2670	
4625	32752	4041		2846		4633		3740		2670	
4626	DRR Dhan 48 (Yield & Micro nutrient)	4148		4053		3583		3818		5700	
4627	32753	5041		4123		3301		3712		4834	
4628	32754	4091		3669		4888		4278		5123	
4629	32755	4001		3864		4849		4356		6277	6
4630	31035 (R)	4637		5022		4953		4987		5916	
4631	32756	4757		2982		5128		4055		5844	
4632	IR 64 (Yield check)	4496		4064		4527		4295		3752	
4633	32757	4984		4984		5502	6*	5243	8*	5988	
4634	32758	3646		4037		4627		4332		4834	
4635	32759	5052		5195		7780	1*	6487	1*	5844	
4636	32760	5978	1*	4940		3322		4131		4834	
4637	32761	4549		4351		4067		4209		5628	
4638	32762	3425		2863		6853	5*	4858		6133	9
4639	32763	5073		3939		3610		3775		4113	
4640	DRR Dhan 45 (Yield & Micro nutrient)	4630		2900		4179		3540		5267	
4641	32764	4818				4424		4424		6349	4
4642	32765	5154	9	3772		3310		3541		5123	
4643	32766	5269	6	4800		4529		4664		4834	
4644	Chittimutyalu (Micro nutrient)	3077		2624		4468		3546		3175	
4645	32767	4361		4053		5417	8	4735		6205	7
4646	32768	4299		3030		3277		3153		5483	
4647	32769	3752		4172		4586		4379		4473	
4648	32770	4598		2965		4314		3640		6205	7
4649	32771	4595		4892		6931	3*	5911	4*	5267	
4650	32772	4998		5476	8*	3749		4613		3896	
4651	32773	5763	2*	4800		5269		5034		5051	
4652	32774	5360	4*	5866	2*	5199		5532	6*	2886	
4653	32775	5112	10	4913		6936	2*	5924	3*	7504	1*
Experimental Mean		4576		4492		4583		4537		5146	
CD(0.05)		700		1140		925		806		1145	
CV%		9.45		12.64		10.05		10.97		11.09	
F Value		2.91 **		5.31 **		10.44 **		2.97 **		6.96 **	
DOS				25-06-2024		20-06-2024				09-07-2024	
DOP				19-07-2024		14-07-2024				05-08-2024	
Local Check Name											

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 20.2 (Contd.): Grain Yield (kg/ha) in IVT - Biofort, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN									
		Andhra Pradesh			Andhra Pradesh (2)			Karnataka			
		Nellore		Mean	Gangavati		Mugad	Mandya			
4601	32728	3682		5016	10	6776		5517		7319	1*
4602	32729	3108		4512		5231		4983		6447	5*
4603	32730	2940		3923		7449	6	5483		6433	6*
4604	32731	3577		3773		6712		5222		6809	2*
4605	32732	5747	2*	5615	4*	5872		6074		6511	4*
4606	32733	4774	7*	4660		6712		4665		6574	3*
4607	32734	3122		3437		6372		4682		6270	7*
4608	32735	4788	6*	5713	3*	6212		5159		6227	8*
4609	32736			4906		7654	2	4903		5773	
4610	32737			6133	1*	6224		4807		6121	10
4611	32738	3213		4240		6013		5983		6191	9*
4612	32739	3010		4499		7558	4	4716		6028	
4613	32740	3143		4566		5013		5920		5908	
4614	32741	3150		3451		6353		6284	8	5901	
4615	32742	5915	1*	5483	6*	5237		6443	7	5915	
4616	32743	3206		4850		5353		5199		5872	
4617	32744	3731		3850		3449		8477	3*	5433	
4618	32745	4221	10	4636		5231		4966		5369	
4619	32746	5166	3*	5505	5*	7705	1	5932		5681	
4620	32747	3199		4161		5160		5932		5270	
4621	32748	2821		4333		4962		5239		5660	
4622	32749	3535		4581		6558		5875		5135	
4623	32750	4340	8	4298		6250		6102		5532	
4624	32751	4305	9	3487		6160		6619	6*	5319	
4625	32752	3850		3260		4128		5716		5007	
4626	DRR Dhan 48 (Yield & Micro nutrient)	3388		4544		5679		5460		5348	
4627	32753	3220		4027		6641		6165	9	5326	
4628	32754	3374		4248		6994		5455		4929	
4629	32755	3584		4931		6314		5898		5106	
4630	31035 (R)	4802	5*	5359	8	7635	3	6989	4*	5099	
4631	32756	5082	4*	5463	7*	7154	8	8580	1*	4979	
4632	IR 64 (Yield check)	4200		3976		7282	7	5443		4957	
4633	32757	3206		4597		6538		6148	10	4638	
4634	32758	3675		4255		6103		4574		4787	
4635	32759	4193		5019	9	6256		5312		5035	
4636	32760	2548		3691		5564		6125		5035	
4637	32761	3731		4679		5628		5352		4865	
4638	32762	3038		4585		4558		8517	2*	4319	
4639	32763	3514		3813		6724		5108		4369	
4640	DRR Dhan 45 (Yield & Micro nutrient)	4053		4660		5776		4943		4546	
4641	32764	3255		4802		2917		5142		4270	
4642	32765	2964		4043		6545		5767		4262	
4643	32766	3836		4335		6929		5312		4312	
4644	Chittimutyalu (Micro nutrient)	2940		3057		3090		5062		4071	
4645	32767	3122		4663		3795		5256		4000	
4646	32768	3003		4243		4417		6767	5*	4057	
4647	32769	3465		3969		6737		4943		3709	
4648	32770	3409		4807		6532		4875		3950	
4649	32771	3423		4345		5154		5312		3766	
4650	32772	2940		3418		6378		4682		3652	
4651	32773	3073		4062		7026	10	5131		3411	
4652	32774	3724		3305		7128	9	5716		3440	
4653	32775	3969		5736	2*	7519	5	4585		2496	
Experimental Mean		3672		4444		6026		5651		5122	
CD(0.05)		494		753		1366		1069		824	
CV%		6.69		10.47		11.29		9.43		8.02	
F Value		18.65 **		3 **		5.89 **		5.95 **		11.94 **	
DOS						26-07-2024		24-06-2024		20-07-2024	
DOP						18-08-2024		Drill Sowing		17-08-2024	
Local Check Name						GNV 1906 (Spoorthi)		Kagisali			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 20.2 (Contd.): Grain Yield (kg/ha) in IVT - Biofort, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN						ZONE VII- SOUTHERN (7)		Maharashtra (3)		Overall Mean (21)	
		Karnataka (3)		Kerala		Telangana		Mean	Mean				
		Mean		Monocompu		Rajendranagar							
4601	32728	6537	3	7228	5*	7279	5*	6307	2*	4963		3770	1*
4602	32729	5554		2891		4928		4786		4204		2796	
4603	32730	6455	4	5867		4042		5303		4905		3282	
4604	32731	6247	6	5952		4300		5220		4850		3145	
4605	32732	6152	8	3486		4726		5414		3647		2935	
4606	32733	5984		3827		5845		5277		3687		2932	
4607	32734	5774		4167		4332		4671		4417		2912	
4608	32735	5866		8078	2*	6071		6168	5*	4862		3595	5*
4609	32736	6110	9	6207		5918		5894	7*	5200	9	3336	
4610	32737	5717		5017		4726		5505		3689		2992	
4611	32738	6062		4677		6039		5340		4610		3368	
4612	32739	6101	10	4932		6151		5483		4685		3336	
4613	32740	5614		6803	7	6691	9	5638	9*	4302		3033	
4614	32741	6179	7	6293		5451		5312		5732	1*	3302	
4615	32742	5865		6463		5757		5826	8*	4111		3229	
4616	32743	5475		5017		6667	10	5401		4132		3179	
4617	32744	5786		5017		7383	4*	5351		4550		3281	
4618	32745	5188		3401		3986		4603		3658		2505	
4619	32746	6439	5	6207		9533	1*	6581	1*	4714		3716	3*
4620	32747	5454		4167		5612		4923		5018		3260	
4621	32748	5287		5442		4775		4963		4039		3029	
4622	32749	5856		5017		5733		5354		4385		3211	
4623	32750	5961		3997		5282		5108		5555	3*	3157	
4624	32751	6033		6633		4968		5239		5240	7	3208	
4625	32752	4950		4252		4235		4265		4803		2796	
4626	DRR Dhan 48 (Yield & Micro nutrient)	5496		3486		4557		4803		3914		2928	
4627	32753	6044		6037		4324		5221		4858		3118	
4628	32754	5792		4252		4887		5002		3858		2993	
4629	32755	5773		4762		4211		5165		3724		3119	
4630	31035 (R)	6574	2*	7993	3*	5282		6245	4*	4666		3555	6*
4631	32756	6904	1*	5357		6989	6*	6283	3*	4962		3404	
4632	IR 64 (Yield check)	5894		4252		5169		5008		4600		3092	
4633	32757	5775		6973	6*	5789		5612	*	4827		3511	7
4634	32758	5155		4592		5886		4921		3789		2936	
4635	32759	5535		6718	8	6087		5635	10*	5599	2*	3438	10
4636	32760	5575		8503	1*	5177		5398		5177		3445	9
4637	32761	5282		5867		4887		5137		4591		3113	
4638	32762	5798		4167		6699	8	5347		5098		2990	
4639	32763	5400		4252		6812	7*	4984		4842		3152	
4640	DRR Dhan 45 (Yield & Micro nutrient)	5088		5272		5395		5036		4531		3111	
4641	32764	4109		6378		5918		4890		4432		3122	
4642	32765	5525		5357		5459		5068		4572		3247	
4643	32766	5518		6378		6361		5423		5180	10	3510	8
4644	Chittimutyalu (Micro nutrient)	4074		3401		3035		3539		3724		2367	
4645	32767	4350		5867		5926		4882		4414		3147	
4646	32768	5080		7823	4*	6079		5376		3976		3228	
4647	32769	5130		5187		4251		4681		3870		2742	
4648	32770	5119		4847		5000		4974		4197		3246	
4649	32771	4744		5867		5829		4946		5355	5*	3190	
4650	32772	4904		5272		5290		4587		4600		2973	
4651	32773	5189		6633	10	7754	3*	5440		5543	4*	3633	4*
4652	32774	5428		4932		5853		4811		5203	8	3246	
4653	32775	4867		6718	8	8688	2*	5926	6*	5286	6	3759	2*
Experimental Mean		5599		5437		5623		5250		4591		3182	
CD(0.05)		659		1613		1353		554		714		421	
CV%		7.27		14.79		11.99		6.51		9.6		8.18	
F Value		2.79 **		5.31 **		6.21 **		3.25 **		2.24 **		3.57 **	
DOS				19-06-2024		29-06-2024							
DOP				12-07-2024		20-07-2024							
Local Check Name													

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 20.2 (Contd.): Grain Yield (kg/ha) in IVT - Biofort, Kharif 2024 (Not considered)

Entry No	IET No	ZONE II-NORTHERN		ZONE III- EASTERN						ZONE V- CENTRAL			
		Rajasthan		Bihar		Odisha		Uttar Pradesh		West Bengal		Chattisgarh	
		@Kota		@Sabour		@Chiplima		@Masodha		@Chinsurah		@Jagadapur	
4601	32728	5519		3670		4464	1	4521		3467		6641	
4602	32729	4588		2244		2964		4887		3533		5827	
4603	32730	5452		2676		2643		5652		3700		5293	
4604	32731	4023		2915		1821		5060		3383		6992	
4605	32732	4122		2659		2893		5785		3417		7279	6
4606	32733	4987		2682		3750	2	5638		3193		5820	
4607	32734	4920		2585		1893		4475		3500		6595	
4608	32735	5718		4142	6	2107		5878		5167	6	7246	7
4609	32736	6449	7	2665		3036	9	4993		3750		6478	
4610	32737	5053		3983		1571		4734		4317		6094	
4611	32738	5452		4625	3	1714		5459		5950	4	7057	10
4612	32739	6483	6	3074		2164		4894		4450		4808	
4613	32740	5652		3477		3286	6	6290	7	4017		8050	1
4614	32741			2864		2429		4774		4067		5579	
4615	32742	5186		2875		3000	10	6656	3	4433		4749	
4616	32743	4189		3938		2107		6689	2	4883		7552	3
4617	32744	4521		3807		2571		5027		6117	3	7168	9
4618	32745	4854		2153		2107		5539		3517		6188	
4619	32746	4189		4108	7	2321		4269		4733		5381	
4620	32747	5918		3824		2250		6336	6	4767		6654	
4621	32748	5452		3023		2429		4342		4667		6807	
4622	32749	5718		2688		2179		4694		3983		6569	
4623	32750	5386		2562		3107	8	6376	5	3233		5592	
4624	32751	5306		4028	10	2286		6755	1	4950	9	4935	
4625	32752	5785		4040	9	1679		6243	8	6500	1	5719	
4626	DRR Dhan 48 (Yield & Micro nutrient)	5386		2614		1893		4382		4383		5964	
4627	32753	6117	9	2983		1643		4701		3233		6678	
4628	32754	5452		3125		2179		4043		3850		7523	4
4629	32755	5718		3500		2107		5957	10	3750		5872	
4630	31035 (R)	6051		4568	4	1571		4887		4383		5658	
4631	32756	6516	4	4091	8	2214		4993		4383		7051	
4632	IR 64 (Yield check)	5519		2580		2393		5565		3650		7222	8
4633	32757	6715	1	4545	5	2571		5718		6383	2	6162	
4634	32758	6516	4	2898		2250		5918		3883		4688	
4635	32759	4854		3682		1536		4721		5250	5	7025	
4636	32760	6649	2	4932	1	1500		6410	4	5067	7	6738	
4637	32761	6250	8	2506		2000		5459		4000		6787	
4638	32762	4322		3602		2714		3684		4000		5425	
4639	32763	5785		3193		2000		5126		4950	9	5508	
4640	DRR Dhan 45 (Yield & Micro nutrient)	5386		2307		1857		4714		3850		5571	
4641	32764	4056		2290		2071		4295		3800		6253	
4642	32765	4787		2460		1857		5047		4667		6697	
4643	32766	6117	9	2864		2393		4455		3383		7933	2
4644	Chittimutyalu (Micro nutrient)	4056		1148		1929		4488		3417		6108	
4645	32767	5386		2778		3429	3	5565		3983		7005	
4646	32768	4787		3398		3143	7	5113		4383		5583	
4647	32769	5718		2665		2143		4043		4000		5332	
4648	32770	4654		2875		3321	5	5080		3950		4894	
4649	32771	5585		2932		3357	4	5542		4583		6895	
4650	32772	4388		2739		2214		4295		3367		6281	
4651	32773	5452		2864		2714		5605		3683		6808	
4652	32774	5918		2597		1893		6210	9	3483		7410	5
4653	32775	6582	3	4778	2	2679		4940		5000	8	6574	
Experimental Mean		5378		3185		2384		5225		4234		6315	
CD(0.05)		1719		809		865		328		243		3154	
CV(%)		15.92		12.66		18.09		3.13		3.54		24.89	
F val		1.56 ns		7.46 **		4.13 **		43.57 **		86.69 **		0.58 ns	
DOS		23-06-2024		22-06-2024		18-07-2024		01-07-2024				22-06-2024	
DOP		28-08-2024		23-07-2024		28-08-2024		02-08-2024				12-07-2024	
Local Check Name						BRR1-84							

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 20.2 (Contd.): Grain Yield (kg/ha) in IVT - Biofort, Kharif 2024 (Not considered)

Entry No	IET No	ZONE V- CENTRAL		ZONE VI- WESTERN		ZONE VII- SOUTHERN									
		Madhya Pradesh		Gujarat		Karnataka		Kerala		Puducherry		Tamil Nadu			
		@Wareseoni		@Nawagam		@Brahmawar		@Pttambi		@Karaikal		@Coimbatore		@Aduturai	
4601	32728	5039	6	3256	8	3027		3492		6100	1	4760	3	4114	8
4602	32729	3159		1115		3371		4536		4784		3090		2880	
4603	32730	3904		2487		4607	5	6696		3966		3346		2943	
4604	32731	4755	9	1702		3652		7500	9	3934		3093		2532	
4605	32732	3242		2095		4242	10	2340		5600	6	688		3481	
4606	32733	4283		1529		4410	7	7878	7	4400		2927		1867	
4607	32734	2692		1560		3427		5469		5150	10	2961		1930	
4608	32735	3999		1600		1742		5894		4684		4423		3544	
4609	32736	4144		1984		1355		3895		6100	1	2884		2627	
4610	32737	2697		1695		1215		5459		4600		2581		2627	
4611	32738	4010		1172		2402		6091		4066		4329		5063	3
4612	32739	5250	2	1935		2978		5674		5033		4063		4684	5
4613	32740	3131		1805		3490		5824		4683		3495		2532	
4614	32741	4355		3490	3	3799		6033		3767		4955	2	3956	
4615	32742	3576		2416		4396	8	5248		5216	9	3883		4051	10
4616	32743	4588		1983		4586	6	4904		4016		4430	10	2563	
4617	32744	3576		2558		4712	4	4680		4517		3019		4747	4
4618	32745	3065		1266		3406		5688		5834	3	2977		5823	1
4619	32746	5133	3	3231	9	3280		7968	6	4984		4411		4051	
4620	32747	5078	5	2589		3708		6204		3183		3675		2848	
4621	32748	4316		3959	1	3167		8632	3	4534		3949		2532	
4622	32749	4016		2984	10	3146		3488		4634		3933		2310	
4623	32750	2742		2632		3413		3492		5800	4	3065		2184	
4624	32751	3726		3345	4	3287		8952	1	4250		4523	8	4082	9
4625	32752	3115		2672		3308		8108	5	4034		3961		2943	
4626	DRR Dhan 48 (Yield & Micro nutrient)	4232		2348		3188		6100		5084		3916		4304	7
4627	32753	3560		2894		3237		5796		4033		4638	5	3038	
4628	32754	4789	7	2914		3132		2736		4600		3361		3171	
4629	32755	3637		401		4796	3	8676	2	3500		4286		2943	
4630	31035 (R)	5300	1	2237		4326	9	4380		4916		4190		3924	
4631	32756	4138		1786		3272		4608		4334		4223		4051	
4632	IR 64 (Yield check)	3582		3336	5	3729		4965		4850		3422		3418	
4633	32757	3954		3261	7	3251		5100		4666		1795		2342	
4634	32758	4127		2270		3104		4808		4633		3434			
4635	32759	2964		2945		3013		5220		5334	8	3596		2658	
4636	32760	2948		3495	2	3294		3816		4666		5314	1	2310	
4637	32761	3843		2776		2985		4500		4100		3206		3260	
4638	32762	4105		2469		3378		4752		5634	5	904		5253	2
4639	32763	4038		3271	6	3680		6156		4134		3490		3196	
4640	DRR Dhan 45 (Yield & Micro nutrient)	4238		2694		3869		6156		4866		3007		4494	6
4641	32764	4288		2751		3532		4388		5150		469		3639	
4642	32765	4372		2685		3539		8282	4	4433		4342		2975	
4643	32766	4227		2813		3308		6156		4550		3439		3418	
4644	Chittimayalu (Micro nutrient)	2859		1365		5084	2	4868		4234		3302		2975	
4645	32767	5095	4	1983		5211	1	4767		5050		3470		3443	
4646	32768	3893		2347		3448		7540	8	5100		3265		3766	
4647	32769	2642		2516		3188		5856		5050		659		3019	
4648	32770	3248		2246		3954		5652		5416	7	4674	4	3285	
4649	32771	4488		1726		3701		6912	10	4984		4518	9	4019	
4650	32772	3860		2732		3258		5532		4066		4275		2690	
4651	32773	4627	10	2375		3799		6336		5017		4628	6	4051	
4652	32774	4277		2140		3118		3204		4550		4598	7	3335	
4653	32775	4778	8	2268		3476		4960		5150		3366		3924	
Experimental Mean		3957		2379		3490		5592		4716		3532		3381	
CD(0.05)		1635		3625		626		3088		1590		2162		1219	
CV(%)		20.59		75.92		8.93		34.1		16.8		30.5		17.96	
F val		1.57 ns		0.31 ns		12.29 **		0.87 **		1.25 ns		1.98 **		4.08 **	
DOS		28-06-2024		22-06-2024		19-06-2024		20-07-2024		02-09-2024		28-06-2024		09-08-2024	
DOP		25-07-2024		14-08-2024		30-07-2024		12-08-2024		04-10-2024		24-07-2024		23-09-2024	
Local Check Name						KAJE 25-9									

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 20.3: Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT - Biofort, Kharif 2024

Entry No	IET No	ZONE II-NORTHERN						ZONE II-NORTHERN (2)			ZONE III- EASTERN		
		Haryana			Punjab			Mean			Bihar		
		Karnal			Ludhiana						Bikramganj		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
4601	32728	106	82	402	114	94	224	110	88	314	110	115	410
4602	32729	92	80	350	98	88	254	94	84	302	100	104	370
4603	32730	95	85	368	99	97	258	97	91	312	101	113	387
4604	32731	86	80	379	88	90	264	87	85	322	99	103	388
4605	32732	113	105	402				113	105	402	116	134	363
4606	32733	95	88	408	116	92	277	106	90	342	103	107	347
4607	32734	94	100	432	102	115	241	98	108	336	104	118	411
4608	32735	106	95	350	108	106	224	107	100	287	103	118	368
4609	32736	94	102	432	96	130	260	95	116	346	101	115	410
4610	32737	106	85	438	118	100	221	112	92	329	102	112	407
4611	32738	108	86	368	116	100	248	112	93	308	105	113	372
4612	32739	105	94	460	112	109	261	108	101	361	101	121	386
4613	32740	107	89	449	110	99	234	109	94	342	104	115	419
4614	32741	98	98	385	98	122	192	98	110	288	100	149	387
4615	32742	108	95	385	106	114	231	107	104	308	104	138	426
4616	32743	107	85	396	111	105	257	109	95	327	104	130	380
4617	32744	114	102	460				114	102	460	109	138	370
4618	32745	100	95	368	110	104	238	105	100	302	105	129	426
4619	32746	113	91	444				113	91	444	116	130	362
4620	32747	112	102	490	116	110	234	114	106	362	105	131	369
4621	32748	110	102	344				110	102	344	109	145	344
4622	32749	94	105	432	96	120	222	95	113	327	105	138	346
4623	32750	92	84	373	96	94	264	94	89	318	104	108	368
4624	32751	97	115	396	97	121	188	97	118	292	104	148	316
4625	32752	111	138	420				111	138	420	107	148	325
4626	DRR Dhan 48 (Yield & Micro nutrient)	101	94	368	110	104	268	106	99	318	107	130	330
4627	32753	95	96	368	95	123	297	95	110	332	104	129	342
4628	32754	112	94	332	118	106	248	115	100	290	106	132	356
4629	32755	97	98	326	98	102	224	98	100	276	108	117	378
4630	31035 (R)	114	100	391				114	100	391	116	132	348
4631	32756	114	93	385	122	106	211	118	99	298	116	130	348
4632	IR 64 (Yield check)	100	80	380	102	99	258	101	90	318	108	120	354
4633	32757	106	94	385	120	116	172	114	106	278	107	128	358
4634	32758	110	90	327	108	112	260	109	101	294	105	132	353
4635	32759	109	94	368	124	104	241	116	99	304	112	128	384
4636	32760	108	122	344	118	144	228	113	133	286	112	168	348
4637	32761	94	82	374	96	100	241	94	91	307	103	130	389
4638	32762	114	91	356				114	91	356	120	127	197
4639	32763	98	93	362	96	110	228	97	102	295	104	142	384
4640	DRR Dhan 45 (Yield & Micro nutrient)	95	89	414	98	102	264	97	96	339	105	129	375
4641	32764	112	66	450	120	89	231	116	78	340	113	102	341
4642	32765	98	78	362	101	98	234	100	88	298	109	123	392
4643	32766	92	90	391	94	96	260	93	92	326	104	115	352
4644	Chittimutyalu (Micro nutrient)	116	127	420				116	127	420	117	146	368
4645	32767	94	91	356	105	100	198	100	95	277	108	118	345
4646	32768	112	104	432	116	109	238	114	106	334	107	128	351
4647	32769	89	76	338	85	95	208	87	86	273	103	114	342
4648	32770	112	118	402	118	128	248	115	123	325	106	141	384
4649	32771	108	94	444	112	114	198	110	104	321	104	114	437
4650	32772	83	81	408	83	90	248	83	86	328	102	113	334
4651	32773	101	108	397	98	116	214	100	112	306	104	127	358
4652	32774	86	87	408	84	92	270	85	90	340	103	113	340
4653	32775	106	78	373	107	102	204	106	90	289	103	130	324
Experimental Mean		102	94	392	105	105	237	105	100	327	106	126	365
Standard Error		0.51			1.07			3.12			0		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 20.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT - Biofort, Kharif 2024

Entry No	IET No	ZONE III- EASTERN											
		Odisha						Odisha (2)			Uttar Pradesh		
		Jeypore			NRRI			Mean			Varanasi		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
4601	32728	98	93	266	112	88	263	105	90	264	104	104	187
4602	32729	96	91	388	96	86	276	96	88	332	98	97	190
4603	32730	98	129	398	96	96	262	97	113	330	98	121	225
4604	32731	86	99	327	94	96	258	90	97	292	98	107	222
4605	32732	110	132	342	117	151	273	114	142	308	118	120	166
4606	32733	94	94	474	113	96	254	104	95	364	110	98	216
4607	32734	94	104	304	98	106	274	96	105	289	102	115	156
4608	32735	100	93	276	107	102	282	104	97	280	106	110	180
4609	32736	90	125	390	96	116	254	94	121	322	100	124	206
4610	32737	97	95	286	116	114	256	106	104	271	112	107	172
4611	32738	94	87	384	115	106	257	105	96	321	112	102	192
4612	32739	100	104	407	106	110	270	103	107	339	102	108	188
4613	32740	102	95	480	112	106	276	107	101	378	106	108	296
4614	32741	90	116	578	102	118	280	96	117	429	99	140	206
4615	32742	102	110	422	94	120	266	98	115	344	106	116	159
4616	32743	100	92	294	114	117	268	107	105	281	110	104	196
4617	32744	118	115	452	116	138	268	117	127	360	117	119	189
4618	32745	96	104	297	102	128	275	99	116	286	106	115	180
4619	32746	114	118	376	109	127	259	111	123	318	123	101	136
4620	32747	90	103	430	113	110	274	102	106	352	108	108	167
4621	32748	89	94	367	114	125	274	102	110	321	124	120	146
4622	32749	94	117	439	102	110	285	98	113	362	102	115	166
4623	32750	88	91	394	99	96	265	94	94	330	100	95	162
4624	32751	110	131	429	104	120	273	108	125	351	104	112	167
4625	32752	108	148	452	112	138	284	110	143	368	116	127	209
4626	DRR Dhan 48 (Yield & Micro nutrient)	118	96	444	110	114	282	114	105	363	110	106	161
4627	32753	130	122	426	96	142	280	113	132	353	104	121	114
4628	32754	98	98	540	104	106	271	101	102	406	104	100	132
4629	32755	100	103	292	104	104	282	102	103	287	103	104	115
4630	31035 (R)	104	111	454	118	125	290	111	118	372	120	102	136
4631	32756	108	107	514	114	116	260	110	111	387	117	99	157
4632	IR 64 (Yield check)	90	92	510	82	102	275	86	97	393	102	89	142
4633	32757	97	101	392	115	120	288	106	110	340	117	104	170
4634	32758	97	116	474	112	134	270	104	125	372	106	101	117
4635	32759	99	103	414	112	121	286	106	112	350	117	106	162
4636	32760	98	138	554	116	152	291	107	145	423	112	123	121
4637	32761	94	101	420	92	99	283	94	100	352	98	100	158
4638	32762	100	95	447	106	122	268	102	109	357	120	104	172
4639	32763	94	118	392	106	114	286	100	116	339	102	108	195
4640	DRR Dhan 45 (Yield & Micro nutrient)	91	111	396	86	118	290	88	115	343	98	108	186
4641	32764	97	80	523	114	98	288	106	89	406	112	91	222
4642	32765	100	86	441	100	104	295	100	95	368	101	103	230
4643	32766	117	92	522	78	100	285	98	96	404	95	103	205
4644	Chittimutyalu (Micro nutrient)	111	154	450	120	166	296	116	160	374	128	163	196
4645	32767	103	97	464				103	97	464	109	100	183
4646	32768	114	113	462	110	111		112	112	462	112	126	158
4647	32769	84	86	340	86	114		86	100	340	93	91	182
4648	32770	96	117	375	112	120		104	118	375	110	124	190
4649	32771	100	98	360	112	120		106	109	360	112	112	228
4650	32772	88	90	332	93	116		90	103	332	93	102	252
4651	32773	94	107	342	100	118		96	112	342	100	127	204
4652	32774	89	97	302	100	108		94	102	302	93	111	220
4653	32775	111	97	284	112	127		111	112	284	110	113	206
Experimental Mean		99	105	406	105	115	274	102	110	348	107	110	181
Standard Error		1.05			1.05			2.57			0.37		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 20.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT - Biofort, Kharif 2024

Entry No	IET No	ZONE III- EASTERN		ZONE III- EASTERN			ZONE IV-NORTH EASTERN			ZONE V- CENTRAL		
		West Bengal		(5)			Assam			Chhattisgarh		
		Hatwara		Mean			Titabar			Raipur		
		DFP	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
4601	32728	104	144	106	100	254	113	93	282	107	111	218
4602	32729	100	288	98	94	303	106	81	269	87	96	176
4603	32730	101	272	99	115	309	112	111	248	97	146	219
4604	32731	96	304	95	101	300	92	87	314	87	117	183
4605	32732	116	192	116	134	267	124	112	248	114	152	205
4606	32733	109	288	106	99	316	112	87	322	97	118	224
4607	32734	98	272	99	111	284	110	104	270	95	138	187
4608	32735	109	208	105	106	263	113	96	277	101	112	236
4609	32736	100	192	97	120	290	105	120	290	95	142	244
4610	32737	98	208	105	107	266	104	91	244	104	125	222
4611	32738	106	272	107	102	295	114	98	256	107	107	238
4612	32739	110	272	104	111	305	113	101	274	98	122	232
4613	32740	111	272	107	106	349	113	100	254	101	107	219
4614	32741	101	288	98	131	348	104	118	271	94	156	216
4615	32742	104	304	102	121	315	114	116	248	98	132	216
4616	32743	106	288	107	111	285	112	105	248	101	110	215
4617	32744	124	240	117	128	304	116	128	264	114	154	221
4618	32745	101	240	102	119	284	110	100	246	97	123	184
4619	32746	116	256	115	119	278	124	106	269	114	132	234
4620	32747	105	240	104	113	296	114	105	266	102	126	211
4621	32748	104	240	108	121	274	110	107	276	104	153	219
4622	32749	101	240	101	120	295	100	112	274	95	152	216
4623	32750	98	240	98	98	286	101	93	289	90	117	208
4624	32751	106	224	106	128	282	110	126	248	97	141	241
4625	32752	110	240	110	140	302	112	144	264	114	168	232
4626	DRR Dhan 48 (Yield & Micro nutrient)	108	208	111	112	285	114	100	270	104	122	242
4627	32753	101	288	107	129	290	110	120	282	96	164	238
4628	32754	106	272	104	109	314	109	107	274	101	131	238
4629	32755	109	272	105	107	268	112	91	254	97	123	213
4630	31035 (R)	109	1760	113	117	598	123	108	250	114	141	230
4631	32756	82	208	107	113	297	124	105	259	107	125	232
4632	IR 64 (Yield check)	100	320	96	101	320	112	96	251	96	100	221
4633	32757	99	288	107	113	299	112	103	277	107	129	228
4634	32758	106	304	105	121	304	112	103	235	107	132	232
4635	32759	99	320	108	114	313	112	104	257	107	133	232
4636	32760	101	288	108	145	320	112	140	264	112	168	228
4637	32761	97	320	97	108	314	104	104	254	89	110	185
4638	32762	120	208	113	112	258	116	98	241	114	124	240
4639	32763	98	304	101	121	312	101	108	260	93	121	196
4640	DRR Dhan 45 (Yield & Micro nutrient)	97	304	95	117	310	95	108	258	125	123	212
4641	32764	107	336	109	93	342	117	80	270	112	92	238
4642	32765	100	336	102	104	339	108	90	277	99	106	202
4643	32766	97	256	98	103	324	96	93	254	91	108	196
4644	Chittimutyalu (Micro nutrient)	106	288	116	157	320	117	151	286	126	181	188
4645	32767	102	256	106	105	312	106	99	272	101	102	210
4646	32768	108	160	110	119	283	114	118	250	108	135	222
4647	32769	97	272	93	101	284	92	92	258	82	104	192
4648	32770	107	256	106	126	301	112	136	235	107	146	214
4649	32771	115	256	109	111	320	113	121	243	104	126	212
4650	32772	98	288	95	105	302	92	87	249	92	114	230
4651	32773	100	304	100	120	302	107	118	251	97	133	220
4652	32774	96	304	96	107	292	92	91	272	90	119	196
4653	32775	110	272	109	117	271	108	102	254	102	119	225
Experimental Mean		103	291	104	114	305	109	105	263	101	128	217
Standard Error		0.8		2.01			0.74			0.49		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 20.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT - Biofort, Kharif 2024

Entry No	IET No	ZONE V- CENTRAL									ZONE V- CENTRAL		
		Maharashtra						Maharashtra (2)			Madhya Pradesh		
		Sakoli			Sindewahi			Mean			Jabalpur		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
4601	32728	96	115	238	110	108	311	103	111	274	94	77	191
4602	32729	76	107	256	94	90	273	86	99	264	95	81	145
4603	32730	78	135	308	96	137	345	87	136	326	91	86	134
4604	32731	74	116	306	90	107	281	82	112	294	94	88	149
4605	32732	99	150	215	116	130	294	108	140	254	104	80	195
4606	32733	85	122	242	100	107	330	92	114	286	106	84	182
4607	32734	78	126	282	97	115	350	88	120	316	96	89	164
4608	32735	86	98	260	102	96	344	94	97	302	106	81	194
4609	32736	76	151	282	96	123	343	86	137	312	94	95	155
4610	32737	91	108	116	102	99	363	96	103	240	97	81	155
4611	32738	92	106	241	110	99	330	101	102	286	104	71	189
4612	32739	74	130	224	100	119	335	87	124	280	100	78	112
4613	32740	86	123	317	110	93	262	98	108	289	106	78	158
4614	32741	75	158	304	98	131	237	87	144	270	92	98	174
4615	32742	82	126	223	103	130	320	92	128	272	104	93	126
4616	32743	92	122	242	109	117	302	100	119	272	98	93	198
4617	32744	79	149	320	116	132	356	97	140	338	115	96	222
4618	32745	80	116	212	100	109	280	90	112	246	98	88	158
4619	32746	106	114	220	112	115	372	109	114	296	101	85	154
4620	32747	84	126	234	104	114	309	94	120	271	114	86	152
4621	32748	100	148	209	108	128	314	104	138	261	105	106	195
4622	32749	76	155	220	100	132	290	88	143	255	95	102	178
4623	32750	74	113	296	96	109	312	85	111	304	94	84	173
4624	32751	80	146	321	102	141	337	91	144	329	98	110	228
4625	32752	77	158	232	115	160	360	96	159	296	96	123	179
4626	DRR Dhan 48 (Yield & Micro nutrient)	90	119	295	110	120	336	100	120	316	112	83	181
4627	32753	76	137	349	102	134	352	89	136	350	96	104	187
4628	32754	81	132	264	104	114	314	92	123	289	104	86	146
4629	32755	78	106	244	102	116	274	90	111	259	104	89	152
4630	31035 (R)	90	130	236	112	128	357	101	129	296	112	89	148
4631	32756	103	111	292	114	120	352	109	116	322	114	81	162
4632	IR 64 (Yield check)	106	144	306	98	104	292	102	124	300	94	69	204
4633	32757	94	128	290	103	116	384	98	122	337	103	86	165
4634	32758	90	120	230	112	116	378	101	118	304	105	83	116
4635	32759	94	168	246	104	108	354	99	138	300	101	84	174
4636	32760	100	114	320	111	150	374	106	132	347	102	119	174
4637	32761	76	124	326	98	113	384	87	119	355	96	79	164
4638	32762	110	142	278	116	118	362	113	130	320	115	70	207
4639	32763	78	138	358	100	124	352	89	131	355	95	95	177
4640	DRR Dhan 45 (Yield & Micro nutrient)	75	99	295	97	119	335	86	109	315	94	87	192
4641	32764	91	127	248	110	98	346	100	112	296	104	62	149
4642	32765	78	122	288	100	100	354	89	111	321	95	65	197
4643	32766	76	162	313	94	116	338	85	139	326	92	80	218
4644	Chittimutyalu (Micro nutrient)	114	122	273	110	166	246	112	144	260	110	136	211
4645	32767	86	146	248	101	105	346	93	125	297	94	78	164
4646	32768	88	117	224	116	120	364	102	118	294	104	84	188
4647	32769	70	162	231	92	110	374	82	136	302	106	73	114
4648	32770	90	131	280	110	121	366	100	126	323	104	105	210
4649	32771	86	120	293	111	106	316	99	113	304	108	83	170
4650	32772	72	143	354	91	113	326	81	128	340	95	83	198
4651	32773	80	130	302	102	126	375	91	128	339	102	93	176
4652	32774	72	128	322	98	96	322	85	112	322	96	86	196
4653	32775	90	120	230	113	107	306	101	114	268	106	81	188
Experimental Mean		85	129	268	104	117	330	95	123	300	101	87	173
Standard Error		0.81			0.4			2.74			1.1		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 20.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT - Biofort, Kharif 2024

Entry No	IET No	ZONE V- CENTRAL			ZONE VI- WESTERN						ZONE VI- WESTERN(2)		
		(4)			Gujarat			Maharashtra			Mean		
		Mean			Navasari			Karjat					
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
4601	32728	102	103	239	102	117	212	98	102	212	100	110	212
4602	32729	88	94	212	81	103	182	88	86	186	84	95	184
4603	32730	91	126	251	84	101	192	88	128	228	86	114	210
4604	32731	86	107	230	78	103	182	80	103	197	78	103	190
4605	32732	108	128	227	74	140	172	105	138	214	89	139	193
4606	32733	97	108	245	86	111	262	92	118	214	89	114	238
4607	32734	92	117	246	86	129	190	87	135	255	86	132	222
4608	32735	99	96	259	90	113	213	98	138	248	94	125	230
4609	32736	90	128	256	80	134	199	88	111	240	84	123	220
4610	32737	98	103	214	100	127	209	96	132	206	98	129	208
4611	32738	103	95	250	98	121	203	100	116	234	99	118	219
4612	32739	93	112	226	88	139	180	91	122	222	89	131	201
4613	32740	101	100	239	88	117	190	98	120	226	93	119	208
4614	32741	90	136	233	82	142	203	88	140	242	85	141	222
4615	32742	97	120	221	86	134	226	94	123	224	90	129	225
4616	32743	100	110	239	90	116	310	96	108	226	93	112	268
4617	32744	106	133	280	100	157	284	112	142	252	106	150	268
4618	32745	94	109	208	86	127	318	89	122	258	88	124	288
4619	32746	108	111	246	104	131	340	108	124	266	106	128	303
4620	32747	101	113	226	88	134	398	96	116	224	92	125	311
4621	32748	104	134	234	92	82	357	100	147	226	96	114	292
4622	32749	92	135	226	80	138	354	90	126	268	110	132	312
4623	32750	88	106	248	80	113	152	82	112	267	107	113	210
4624	32751	94	135	282	88	144	280	94	142	219	119	143	249
4625	32752	101	152	251	102	159	444	107	156	248	138	157	346
4626	DRR Dhan 48 (Yield & Micro nutrient)	104	111	264	88	106	276	94	118	208	120	112	242
4627	32753	93	135	282	78	116	290	86	138	248	106	127	269
4628	32754	98	116	240	84	120	226	96	126	228	117	123	226
4629	32755	95	108	221	82	103	257	88	132	194	111	118	226
4630	31035 (R)	107	122	242	94	115	218	107	131	226	129	123	222
4631	32756	110	109	260	92	110	184	96	133	234	124	121	209
4632	IR 64 (Yield check)	98	104	256	82	103	214	90	116	194	112	109	204
4633	32757	102	115	267	94	123	348	99	132	244	126	128	296
4634	32758	104	113	239	94	107	257	98	134	217	127	120	237
4635	32759	102	123	251	72	131	318	103	122	189	107	127	253
4636	32760	106	138	274	104	156	400	100	158	228	138	157	314
4637	32761	90	107	265	80	131	318	83	130	244	107	130	281
4638	32762	114	113	272	108	122	238	112	138	216	146	130	227
4639	32763	91	120	271	80	134	315	84	136	224	107	135	269
4640	DRR Dhan 45 (Yield & Micro nutrient)	98	107	258	78	117	214	82	125	226	105	121	220
4641	32764	104	95	245				103	92	216	103	92	216
4642	32765	93	98	260	86	91	210	92	108	204	117	99	207
4643	32766	88	117	266	80	108	253	90	117	219	110	112	236
4644	Chittimutyalu (Micro nutrient)	115	151	230	120	151	262	124	157	221	161	154	242
4645	32767	95	108	242	82	103	290	95	116	155	114	109	222
4646	32768	104	114	249	94	122	194	101	135	188	127	128	191
4647	32769	88	112	228	74	114	233	84	108	169	102	111	201
4648	32770	102	126	268	94	148	268	100	142	226	128	145	247
4649	32771	102	109	248	92	132	246	94	118	206	123	125	226
4650	32772	88	113	277	74	99	280	89	113	228	104	106	254
4651	32773	95	121	268	82	135	260	93	133	184	114	134	222
4652	32774	89	107	259	74	106	247	80	112	226	101	109	236
4653	32775	103	107	237	86	111	282	98	120	220	119	116	251
Experimental Mean		98	116	248	87	122	256	94	125	222	108	123	239
Standard Error		2.39			43.94			1.45			0		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 20.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT - Biofort, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN											
		Andhra Pradesh						Andhra Pradesh (2)			Karnataka		
		Maruteru			Nellore			Mean			Gangavati		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4601	32728	92	128	317	102	119	302	96	124	309	94	108	340
4602	32729	74	104	324	94	78	235	84	91	279	87	108	312
4603	32730	81	134	326	102	98	330	92	116	328	86	100	337
4604	32731	72	104	330	98	86	340	85	95	335	82	110	347
4605	32732	109	150	386	106	74	310	107	112	348	106	120	398
4606	32733	82	133	307	102	84	334	92	109	320	88	116	360
4607	32734	74	124	304	100	72	293	87	98	300	83	123	294
4608	32735	94	114	416	102	114	280	98	114	370	95	101	317
4609	32736	82	145	422				82	145	422	87	142	375
4610	32737	89	112	314				89	112	314	88	104	350
4611	32738	94	124	350	100	86	270	97	105	323	94	104	376
4612	32739	88	129	317	102	74	325	95	102	320	94	132	382
4613	32740	84	120	390	110	92	250	97	106	343	94	108	409
4614	32741	81	134	366	99	76	323	90	105	352	86	134	302
4615	32742	85	127	442	114	122	278	99	125	388	91	120	340
4616	32743	86	125	402	117	84	272	102	105	359	93	108	363
4617	32744	105	155	403	110	96	358	107	126	388	108	126	341
4618	32745	81	119	353	106	75	300	94	97	335	87	115	438
4619	32746	102	136	324	102	90	296	102	113	314	97	116	402
4620	32747	90	137	356	100	87	407	95	112	373	94	118	338
4621	32748	90	147	396	96	74	375	93	110	389	88	116	352
4622	32749	81	134	340	96	87	357	88	110	346	90	144	318
4623	32750	75	114	380	92	78	275	84	96	345	83	117	436
4624	32751	82	146	323	94	86	294	88	116	313	92	151	334
4625	32752	99	156	324	97	92	303	98	124	317	91	153	335
4626	DRR Dhan 48 (Yield & Micro nutrient)	95	134	324	98	86	322	96	110	323	94	98	322
4627	32753	82	144	320	102	94	350	92	119	330	88	146	340
4628	32754	86	124	363	99	84	483	92	104	403	92	116	318
4629	32755	90	114	373	102	82	394	94	98	380	89	108	338
4630	31035 (R)	94	140	373	103	86	400	97	113	382	96	120	366
4631	32756	104	127	346	104	92	477	104	110	390	98	112	376
4632	IR 64 (Yield check)	81	109	297	98	86	510	87	98	368	88	113	340
4633	32757	86	132	353	101	83	455	91	108	387	89	112	308
4634	32758	93	135	336	100	87	370	95	111	348	94	110	268
4635	32759	90	125	396	102	76	430	94	101	407	90	108	376
4636	32760	90	154	356	103	91	332	95	122	348	89	146	310
4637	32761	74	133	346	98	86	330	82	109	341	87	110	350
4638	32762	112	131	336	104	92	477	109	111	383	102	116	328
4639	32763	82	127	320	102	85	500	88	106	380	88	131	301
4640	DRR Dhan 45 (Yield & Micro nutrient)	80	125	330	116	90	260	92	107	307	84	117	256
4641	32764	100	102	446	99	74	334	99	88	408	103	74	296
4642	32765	84	120	432	100	76	518	89	98	461	90	95	368
4643	32766	74	117	356	108	93	326	85	105	346	83	118	406
4644	Chittimutyalu (Micro nutrient)	110	164	419	100	104	292	107	134	376	94	148	319
4645	32767	82	119	343	94	84	323	86	102	336	90	99	371
4646	32768	94	145	290	104	109	298	97	127	293	101	109	360
4647	32769	82	111	333	98	71	396	88	91	354	82	101	342
4648	32770	90	147	300	105	79	325	95	113	308	94	122	308
4649	32771	92	142	356	106	82	456	96	112	390	96	113	328
4650	32772	75	91	307	102	80	376	84	85	330	81	107	320
4651	32773	82	124	327	104	84	293	90	104	316	94	118	310
4652	32774	72	104	278	108	81	384	84	93	313	85	112	316
4653	32775	86	114	300	104	87	327	92	100	309	100	109	402
Experimental Mean		87	128	350	102	86	349	93	108	350	91	116	344
Standard Error		31.79			2.29			14.67			1.16		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 20.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT - Biofort, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN										
		Karnataka					Karnataka (3)			Kerala		
		Mugad		Mandya			Mean			Monocompu		
		DFE	PH	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4601	32728	104	60	102	82	323	100	84	332	111	126	220
4602	32729	89	54	96	80	346	90	81	329	88	61	276
4603	32730	92	62	90	110	357	90	91	347	88	125	280
4604	32731	86	54	89	97	268	86	87	308	86	103	273
4605	32732	112	72	108	107	268	109	100	333	110	152	233
4606	32733	83	67	92	98	367	87	94	364	98	105	203
4607	32734	86	53	88	102	391	86	93	343	88	120	330
4608	32735	98	60	92	99	330	95	86	323	99	118	353
4609	32736	87	70	90	119	384	88	110	380	90	132	216
4610	32737	94	46	90	85	330	91	78	340	98	113	240
4611	32738	111	60	92	86	360	99	83	368	74	116	323
4612	32739	92	68	92	108	333	92	103	358	90	112	220
4613	32740	107	65	95	102	367	98	92	388	97	121	283
4614	32741	85	71	90	126	299	87	110	301	88	134	293
4615	32742	90	71	90	109	367	90	100	354	91	152	276
4616	32743	96	60	92	99	380	94	89	372	99	114	273
4617	32744	123	78	105	134	360	112	113	350	110	148	266
4618	32745	88	64	88	92	364	88	90	401	96	124	233
4619	32746	114	70	96	96	343	102	94	372	110	129	230
4620	32747	94	72	102	103	378	96	98	358	97	121	303
4621	32748	94	60	91	113	334	91	96	342	102	141	230
4622	32749	88	64	91	119	289	90	109	303	90	135	280
4623	32750	83	60	86	108	388	84	95	412	84	108	266
4624	32751	98	74	90	131	347	93	119	340	90	155	276
4625	32752	90	84	104	150	367	95	129	351	110	171	310
4626	DRR Dhan 48 (Yield & Micro nutrient)	110	88	92	113	354	99	100	338	102	126	210
4627	32753	94	68	93	124	354	92	112	347	86	128	210
4628	32754	92	61	100	114	368	94	97	342	88	116	203
4629	32755	105	66	100	91	330	98	88	334	88	103	246
4630	31035 (R)	108	72	90	122	344	98	105	355	102	130	236
4631	32756	110	68	104	104	371	104	94	373	110	126	233
4632	IR 64 (Yield check)	95	62	90	90	330	91	88	335	88	92	323
4633	32757	96	66	92	114	333	92	97	320	98	127	250
4634	32758	97	55	104	99	367	99	88	318	101	125	186
4635	32759	96	70	94	100	320	93	93	348	92	125	226
4636	32760	100	64	96	120	299	95	110	304	89	164	246
4637	32761	90	66	90	107	388	89	94	369	86	117	216
4638	32762	120	79	107	91	299	110	95	313	110	130	246
4639	32763	92	72	87	117	360	89	106	331	86	128	263
4640	DRR Dhan 45 (Yield & Micro nutrient)	98	60	87	110	370	90	96	314	110	116	246
4641	32764	110	63	87	77	370	100	71	334	110	117	260
4642	32765	94	58	106	93	323	97	82	346	92	102	280
4643	32766	86	75	86	101	346	85	98	376	86	112	263
4644	Chittimutyalu (Micro nutrient)	112	91	106	132	360	104	124	340	110	183	443
4645	32767	104	71	92	94	336	95	88	354	98	117	236
4646	32768	109	58	106	105	330	105	91	344	102	136	303
4647	32769	90	78	86	82	364	86	87	353	83	110	240
4648	32770	106	56	107	119	374	102	99	341	100	152	300
4649	32771	104	61	93	102	333	97	92	331	98	128	253
4650	32772	84	51	87	96	330	84	85	325	85	104	296
4651	32773	90	68	92	118	316	92	101	313	88	122	260
4652	32774	88	64	84	94	326	86	90	322	86	107	276
4653	32775	104	54	106	95	330	104	86	366	102	125	236
Experimental Mean		97	65	94	105	344	94	96	344	95	124	261
Standard Error		1.85		1.44			2.35			0.4		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 20.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT - Biofort, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN			ZONE VII- SOUTHERN (7)			Maharashtra (3)			Overall Mean (21)		
		Telangana			Rajendranagar			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN			
4601	32728	108	89	444	102	102	324	101	108	254	69	67	184
4602	32729	88	87	444	88	82	323	86	95	238	61	59	185
4603	32730	94	89	390	90	103	337	87	133	294	62	73	195
4604	32731	87	100	383	86	93	324	81	109	261	59	65	190
4605	32732	114	104	420	109	111	336	107	140	241	73	82	186
4606	32733	94	99	470	91	100	340	92	115	262	65	67	203
4607	32734	94	104	410	88	100	326	87	125	296	62	73	295
4608	32735	96	94	396	97	100	371	96	110	284	67	68	330
4609	32736	94	105	396	88	119	380	87	128	288	61	81	341
4610	32737	96	89	457	92	91	330	96	113	228	67	67	287
4611	32738	91	94	477	94	96	356	100	107	268	68	66	315
4612	32739	102	104	440	94	104	330	88	124	260	65	73	300
4613	32740	100	99	514	98	101	376	98	112	268	68	69	339
4614	32741	92	108	484	89	112	352	87	143	261	62	82	323
4615	32742	91	102	387	93	115	380	93	126	256	65	78	343
4616	32743	98	97	557	97	98	384	99	116	257	68	70	336
4617	32744	110	120	420	110	123	373	102	141	309	74	85	347
4618	32745	94	98	474	92	98	358	90	116	250	64	72	312
4619	32746	108	104	427	104	106	332	109	118	286	73	74	308
4620	32747	100	104	456	97	106	368	94	118	255	68	74	327
4621	32748	90	105	554	93	108	381	103	141	250	67	78	334
4622	32749	94	109	466	90	113	341	88	138	259	116	80	313
4623	32750	92	100	420	85	98	367	84	111	292	113	66	324
4624	32751	96	120	404	92	123	327	92	143	292	123	85	303
4625	32752	92	124	450	98	133	340	100	158	280	137	95	318
4626	DRR Dhan 48 (Yield & Micro nutrient)	110	105	484	100	107	332	98	119	280	128	72	304
4627	32753	87	110	393	90	116	325	88	136	316	115	82	308
4628	32754	98	102	530	93	102	373	94	124	268	122	72	324
4629	32755	90	95	354	94	94	350	89	118	238	121	68	308
4630	31035 (R)	108	103	406	98	111	361	103	130	273	133	77	376
4631	32756	108	104	426	105	105	363	104	121	293	135	72	316
4632	IR 64 (Yield check)	96	89	444	88	92	348	98	121	264	118	65	304
4633	32757	100	103	474	92	105	359	99	125	306	129	74	323
4634	32758	102	102	380	97	102	324	100	123	275	131	73	301
4635	32759	100	104	360	93	101	366	100	133	263	119	74	334
4636	32760	100	114	460	94	122	341	104	141	307	136	90	324
4637	32761	94	98	380	84	102	339	86	122	318	113	71	318
4638	32762	107	104	444	110	106	349	113	132	285	147	73	307
4639	32763	94	103	476	87	109	353	87	133	311	115	77	315
4640	DRR Dhan 45 (Yield & Micro nutrient)	90	104	376	90	103	314	84	114	285	115	72	303
4641	32764	105	87	397	101	85	382	101	106	270	104	59	358
4642	32765	100	90	440	91	91	407	90	110	282	122	64	357
4643	32766	94	97	464	83	102	359	86	132	290	113	70	326
4644	Chittimutyalu (Micro nutrient)	108	129	493	107	136	398	116	148	247	153	97	351
4645	32767	94	100	466	90	98	345	94	122	250	120	68	309
4646	32768	108	106	434	100	110	321	101	124	258	133	76	288
4647	32769	87	93	407	86	92	342	82	127	258	109	66	298
4648	32770	103	118	416	97	113	325	100	131	291	132	82	299
4649	32771	103	105	420	96	105	357	97	115	272	130	73	321
4650	32772	88	100	454	82	90	334	84	123	303	108	66	306
4651	32773	96	105	430	89	105	324	92	130	287	119	77	303
4652	32774	94	95	473	83	94	321	83	112	290	109	67	292
4653	32775	108	97	537	96	97	337	100	116	252	127	70	293
Experimental Mean		97	102	440	94	104	349	95	124	274	101	74	304
Standard Error		2.26			14.64			2.71			0		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 20.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT - Biofort, Kharif 2024 (Not considered)

Entry No	IET No	ZONE II-NORTHERN			ZONE III- EASTERN								
		Rajasthan			Bihar			Odisha			Uttar Pradesh		
		@Kota			@Sabour			@Chiplima			@Masodha		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4601	32728	104	106	256	118	103	304	130	81	306	102	108	249
4602	32729	100	81	182	89	90	312	100	69	218	88	110	269
4603	32730	98	124	244	94	102	335	84	78	271	94	124	318
4604	32731	92	97	136	86	100	312	83	68	302	78	80	268
4605	32732	82	122	144	125	144	219	107	96	151	92	93	269
4606	32733	92	103	200	104	90	371	77	87	200	100	80	310
4607	32734	89	114	197	92	102	308	81	71	157	90	70	234
4608	32735	104	107	252	106	94	276	107	85	136	96	82	302
4609	32736	98	133	288	90	106	328	99	75	267	78	80	276
4610	32737	104	122	201	111	108	312	83	72	98	110	124	277
4611	32738	106	104	241	120	100	344	130	74	298	98	102	292
4612	32739	102	126	290	101	95	415	92	97	204	90	108	245
4613	32740	104	111	248	104	98	405	83	83	182	98	102	317
4614	32741				89	116	356	82	87	276	98	112	260
4615	32742	103	117	216	100	118	300	118	96	282	90	92	276
4616	32743	104	108	155	108	96	422	131	86	264	106	93	346
4617	32744	114	125	175	122	128	328	124	106	266	98	108	274
4618	32745	102	117	207	100	103	392	89	84	260	96	112	299
4619	32746	93	126	146	112	124	249	120	93	261	105	119	265
4620	32747	104	117	280	114	104	280	114	85	332	106	112	352
4621	32748	114	133	249	111	112	270	80	89	238	108	128	229
4622	32749	98	137	272	114	110	332	104	179	250	113	116	248
4623	32750	95	108	237	91	84	322	82	129	180	98	102	292
4624	32751	96	150	243	124	114	278	120	114	172	110	104	332
4625	32752	110	158	263	122	126	308	122	109	224	92	118	283
4626	DRR Dhan 48 (Yield & Micro nutrient)	106	117	241	117	108	230	82	85	248	84	76	226
4627	32753	92	137	272	98	110	334	104	100	244	96	130	277
4628	32754	104	127	250	91	106	381	131	87	264	111	129	270
4629	32755	102	120	266	122	106	242	116	98	216	110	100	281
4630	31035 (R)	116	125	260	124	120	258	117	97	342	92	117	260
4631	32756	110	112	305	101	112	285	117	92	274	94	102	240
4632	IR 64 (Yield check)	95	126	258	116	86	315	76	69	294	96	104	260
4633	32757	104	107	300	92	109	318	79	73	216	110	117	284
4634	32758	104	123	294	118	106	310	73	84	208	108	106	269
4635	32759	101	131	212	105	96	310	80	75	240	90	92	252
4636	32760	109	148	295	126	124	258	78	107	174	109	106	318
4637	32761	96	153	274	90	96	302	78	77	236	108	100	284
4638	32762	114	107	160	135	115	284	123	82	256	99	85	232
4639	32763	98	114	244	92	111	296	80	88	290	111	126	282
4640	DRR Dhan 45 (Yield & Micro nutrient)	95	131	240	90	98	305	81	88	242	108	102	278
4641	32764	112	117	138	123	83	305	131	75	226	114	105	250
4642	32765	96	92	202	121	98	298	88	76	244	98	100	260
4643	32766	92	95	266	90	84	248	82	78	208	92	102	268
4644	Chittimutyalu (Micro nutrient)	112	105	152	126	160	162	120	115	232	112	79	229
4645	32767	101	135	251	97	95	218	90	84	210	97	90	255
4646	32768	104	108	207	110	116	216	123	100	198	88	82	270
4647	32769	92	137	249	90	89	303	82	92	214	90	124	250
4648	32770	107	133	183	119	118	338	130	106	236	92	88	249
4649	32771	104	117	254	122	105	174	120	90	214	108	100	278
4650	32772	91	101	161	86	84	423	82	82	246	104	86	238
4651	32773	100	119	240	101	110	292	72	83	231	110	124	260
4652	32774	92	109	284	90	86	322	82	76	321	110	84	308
4653	32775	96	118	292	107	98	274	123	84	252	86	77	240
Experimental Mean		101	119	232	106	105	303	99	89	237	99	102	272

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 20.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT - Biofort, Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN			ZONE V- CENTRAL						ZONE VI- WESTERN		
		West Bengal			Chhattisgarh			Madhya Pradesh			Gujarat		
		@Chinsurah			@Jagadapur			@Wareseoni			@Nawagam		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
4601	32728	108	104	231	107	75	202	88	110	238	118	100	146
4602	32729	92	92	231	106	58	180	103	123	239	114	80	118
4603	32730	104	99	245	105	111	198	88	130	242	126	106	140
4604	32731	88	101	233	99	74	212	86	110	287	112	94	133
4605	32732	89	111	239	119	78	208	110	135	224	121	120	136
4606	32733	109	105	240	102	69	173	98	116	320	120	88	132
4607	32734	99	107	234	104	74	224	88	120	268	116	104	132
4608	32735	110	108	292	112	68	198	101	116	197	119	98	132
4609	32736	98	126	232	104	90	245	88	136	261	124	128	136
4610	32737	99	96	245	102	75	170	99	109	214	111	78	133
4611	32738	110	101	244	111	72	183	103	100	276	118	124	120
4612	32739	104	102	226	113	78	243	98	122	346	120	98	132
4613	32740	105	96	230	111	73	190	98	108	263	114	98	134
4614	32741	99	119	311	107	96	230	88	139	277	110	135	148
4615	32742	109	112	256	117	85	190	95	120	262	120	106	138
4616	32743	109	102	252	110	85	188	99	109	312	114	98	136
4617	32744	110	121	230	117	80	176	111	133	309	118	118	140
4618	32745	105	104	248	106	90	214	90	123	284	116	103	124
4619	32746	115	101	227	113	93	236	109	124	250	120	112	146
4620	32747	111	118	293	118	95	217	96	129	304	115	112	146
4621	32748	108	133	249	105	90	198	102	129	308	110	116	147
4622	32749	98	120	234	110	99	209	88	126	257	112	128	144
4623	32750	92	98	265	105	86	186	85	102	260	120	98	141
4624	32751	108	131	239	113	104	200	92	141	300	114	132	146
4625	32752	111	134	226	119	94	232	110	139	266	115	144	140
4626	DRR Dhan 48 (Yield & Micro nutrient)	109	99	230	116	73	218	98	108	286	118	94	136
4627	32753	98	124	221	110	93	253	89	127	243	111	123	142
4628	32754	99	98	300	120	82	226	99	110	311	111	108	142
4629	32755	110	98	263	110	92	200	93	115	274	113	96	94
4630	31035 (R)	112	104	231	119	95	207	108	126	283	116	97	135
4631	32756	119	103	310	119	90	214	104	121	217	117	96	132
4632	IR 64 (Yield check)	105	95	247	105	80	210	92	101	268	114	97	147
4633	32757	108	98	310	105	69	178	102	116	292	110	104	146
4634	32758	110	100	313	113	66	165	99	116	222	106	98	138
4635	32759	108	104	234	107	78	220	101	111	306	111	107	143
4636	32760	109	141	310	113	85	235	102	141	264	114	132	146
4637	32761	104	102	261	105	65	214	88	114	318	112	106	142
4638	32762	99	106	302	118	67	215	109	116	300	119	100	138
4639	32763	99	105	231	102	76	193	88	135	274	112	106	146
4640	DRR Dhan 45 (Yield & Micro nutrient)	98	101	236	102	75	217	88	118	290	112	123	140
4641	32764	111	100	268	106	68	178	104	96	256	119	86	142
4642	32765	109	103	250	112	72	225	92	105	272	111	96	140
4643	32766	93	90	254	99	81	200	87	106	338	108	85	142
4644	Chittimutyalu (Micro nutrient)	122	162	298	111	98	251	88	175	335	121	162	127
4645	32767	105	93	237	112	83	282	96	112	289	114	94	136
4646	32768	110	112	234	114	87	268	104	113	259	116	112	138
4647	32769	93	85	253	102	79	198	84	103	232	112	87	140
4648	32770	110	117	228	114	83	275	102	131	306	122	122	138
4649	32771	111	123	241	118	84	247	98	125	251	111	104	133
4650	32772	92	44	261	102	76	231	84	98	252	118	110	142
4651	32773	100	102	302	113	99	208	91	128	270	116	120	138
4652	32774	88	93	247	99	77	229	84	106	310	112	102	137
4653	32775	105	95	239	118	86	198	98	120	282	116	93	138
Experimental Mean		104	106	254	109	82	212	95	119	274	115	107	137

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 20.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT - Biofort, Kharif 2024 (Not considered)

Entry No	IET No	ZONE VII- SOUTHERN														
		Karnataka			Kerala			Puducherry			Tamil Nadu					
		@Brahmawar			@Pattambi			@Keraikal			@Coimbatore			@Adutrai		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
4601	32728	115	71	352	100	88	364	91	88	327	108	100	429	98	96	303
4602	32729	102	60	360	95	81	306	82	81	322	96	90	376	97	98	290
4603	32730	124	79	310	96	89	428	80	78	324	94	97	396	94	82	319
4604	32731	102	70	390	88	76	350	72	72	364	90	91	416	93	86	320
4605	32732	129	81	354	102	77	382	93	90	299	118	125	401	111	130	358
4606	32733	109	69	356	94	105	187	82	80	364	94	92	456	96	100	300
4607	32734	95	75	366	94	81	312	72	72	400	93	90	416	93	86	320
4608	32735	102	80	377	99	81	319	89	90	412	106	90	398	96	88	312
4609	32736	99	88	386	92	93	350	72	74	314	94	113	398	93	113	318
4610	32737	121	62	350	95	82	300	70	73	338	97	83	402	90	68	221
4611	32738	115	66	356	99	81	303	94	93	344	108	89	396	104	88	323
4612	32739	112	79	352	95	84	317	78	78	402	105	108	414	112	104	310
4613	32740	110	62	368	100	84	318	86	86	328	105	94	458	116	96	314
4614	32741	102	86	318	94	85	317	91	94	332	94	107	414	93	112	328
4615	32742	112	69	354	93	83	310	76	77	334	105	109	386	98	118	348
4616	32743	106	61	398	92	82	406	78	78	312	98	86	411	97	104	296
4617	32744	136	83	360	101	93	378	86	88	352	117	138	397	99	136	385
4618	32745	106	82	378	94	86	468	93	95	360	95	101	390	98	108	363
4619	32746	116	71	350	102	107	540	82	86	347	108	114	390	104	112	402
4620	32747	110	66	374	96	99	530	87	88	362	105	99	379	104	114	300
4621	32748	114	73	408	95	95	388	86	85	322	95	104	381	118	120	386
4622	32749	99	77	370	94	96	378	72	76	319	100	110	396	97	110	346
4623	32750	100	72	319	90	82	460	82	86	354	93	86	416	93	70	330
4624	32751	112	85	350	98	111	386	71	73	386	106	118	395	116	114	340
4625	32752	128	88	349	97	104	324	88	92	341	100	134	425	104	135	374
4626	DRR Dhan 48 (Yield & Micro nutrient)	121	67	418	101	91	292	88	89	319	115	98	378	96	94	333
4627	32753	101	68	382	94	87	396	93	94	308	99	100	378	94	116	248
4628	32754	112	69	382	94	90	292	76	76	328	98	90	416	96	96	222
4629	32755	111	70	389	99	103	374	82	84	317	100	96	390	103	109	283
4630	31035 (R)	106	74	358	96	100	360	84	85	362	107	100	386	103	120	347
4631	32756	116	75	380	98	83	504	88	89	301	115	110	378	104	114	318
4632	IR 64 (Yield check)	100	58	372	93	45	150	74	76	341	97	91	406	94	82	285
4633	32757	112	71	308	95	83	284	74	74	362	99	95	381	93	100	271
4634	32758	112	74	388	99	89	260	92	94	350	93	74	395			
4635	32759	114	61	390	93	80	346	78	80	370	100	94	392	96	101	252
4636	32760	111	94	377	96	92	320	84	86	358	98	126	404	98	100	343
4637	32761	104	68	350	92	81	436	76	78	394	93	92	374	98	74	317
4638	32762	101	59	370	96	88	428	96	96	414	117	108	370	116	109	326
4639	32763	122	72	354	96	91	331	78	76	336	94	114	376	94	110	304
4640	DRR Dhan 45 (Yield & Micro nutrient)	102	68	388	94	91	331	76	78	334	93	107	392	113	92	309
4641	32764	112	42	380	102	77	404	91	92	346	105	98	430	110	83	260
4642	32765	124	47	380	94	84	496	86	84	346	105	89	387	104	80	272
4643	32766	100	76	368	91	82	442	73	76	364	93	91	368	95	72	231
4644	Chittimutyalu (Micro nutrient)	141	85	409	96	112	432	87	86	301	104	160	365	99	120	247
4645	32767	111	62	374	96	89	482	84	88	328	93	99	356	96	88	208
4646	32768	114	81	352	96	90	335	94	96	341	114	120	360	104	101	294
4647	32769	102	64	360	90	70	288	73	76	344	89	92	370	96	108	224
4648	32770	110	82	367	97	104	296	84	87	322	109	121	341	95	90	230
4649	32771	112	72	390	102	98	392	92	94	321	110	106	360	104	96	296
4650	32772	100	73	378	89	79	407	76	78	380	110	90	345	98	82	326
4651	32773	112	82	397	94	100	371	80	82	376	99	115	366	98	116	294
4652	32774	98	74	380	90	88	306	74	76	358	88	87	393	96	82	220
4653	32775	111	66	338	97	96	324	91	92	302	105	100	354	104	99	354
Experimental Mean		110	71	367	95	88	362	82	83	344	101	102	391	100	100	304

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 20.4: Grain quality characteristics of entries in IVT - Biofort, Kharif 2024

Code	Entry No.	Designation / IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	VER	WU	KLAC	ER	ASV	AC	GC	Aroma
1404	4601	32728	77.4	66.9	49.8	4.61	1.83	2.51	MS	A	4.7	250	8.6	1.86	4.0	23.81	22	NS
1405	4602	32729	74.1	59.1	19.3	4.92	2.51	1.96	SB	VOC	5.6	215	8.5	1.72	4.0	20.94	81	NS
1406	4603	32730	77.2	67.4	50.8	6.43	2.02	3.18	LS	VOC	4.0	215	9.5	1.47	4.0	22.11	43	NS
1407	4604	32731	79.2	72.2	68.0	5.48	2.04	2.68	MS	VOC	4.6	280	10.4	1.89	7.0	23.43	22	NS
1408	4605	32732	78.7	63.9	37.3	5.29	1.78	2.97	MS	VOC	5.6	255	10.3	1.94	5.5	23.52	46	NS
1409	4606	32733	77.5	66.7	48.4	6.12	2.45	2.49	LB	OC	5.5	245	8.6	1.40	5.0	26.48	51	NS
1410	4607	32734	77.1	68.5	44.2	6.37	2.63	2.42	LB	OC	5.5	275	12.9	2.02	7.0	24.75	33	NS
1411	4608	32735	78.2	66.4	52.1	4.96	1.96	2.53	MS	VOC	4.2	200	9.5	1.91	4.0	24.84	40	NS
1412	4609	32736	79.8	71.1	56.5	5.64	2.10	2.68	MS	VOC	4.1	190	10.4	1.84	4.0	24.93	41	NS
1413	4610	32737	79.1	66.8	37.5	4.67	2.10	2.22	SB	VOC	4.2	165	10.4	2.22	4.0	24.11	22	NS
1414	4611	32738	77.9	68.2	57.8	4.87	1.88	2.59	MS	A	5.3	185	9.5	1.95	4.0	21.29	22	NS
1415	4612	32739	80.0	71.2	59.4	6.36	2.19	2.90	LB	OC	4.6	330	13.3	2.09	7.0	23.61	43	NS
1416	4613	32740	77.4	66.6	53.8	6.31	1.99	3.17	LS	VOC	4.6	220	11.7	1.85	5.0	26.40	42	NS
1417	4614	32741	77.4	67.9	58.0	5.76	2.07	2.78	MS	VOC	4.6	220	11.1	1.92	5.0	26.54	67	NS
1418	4615	32742	77.5	69.2	48.1	5.95	2.05	2.90	MS	VOC	4.3	225	12.1	2.03	4.5	25.34	22	NS
1419	4616	32743	76.1	62.8	59.0	4.43	1.50	2.95	MS	A	5.6	220	8.9	2.00	4.0	24.05	22	NS
1420	4617	32744	77.0	65.1	30.4	5.56	2.02	2.75	MS	VOC	5.3	230	10.2	1.83	5.0	25.60	22	NS
1421	4618	32745	75.3	64.6	45.2	6.95	1.84	3.77	LS	A	4.8	240	12.8	1.84	5.0	26.72	49	SS
1422	4619	32746	78.7	71.4	65.2	5.52	2.12	2.60	MS	VOC	5.5	245	8.8	1.59	7.0	25.13	43	NS
1423	4620	32747	78.8	69.4	60.5	5.23	1.97	2.65	MS	VOC	5.5	190	10.4	1.98	4.0	23.84	22	NS
1424	4621	32748	77.5	65.5	47.9	5.54	1.68	3.29	SS	A	4.1	275	10.2	1.84	4.0	26.94	46	NS
1425	4622	32749	78.5	69.2	59.5	5.59	2.13	2.62	MS	VOC	4.0	175	9.3	1.66	4.0	28.60	22	NS
1426	4623	32750	75.6	66.7	38.0	5.67	2.09	2.71	MS	A	4.8	195	11.3	1.99	4.0	24.20	63	NS
1427	4624	32751	84.0	72.0	47.2	5.70	2.34	2.43	SB	OC	4.1	215	9.9	1.73	4.0	21.91	63	NS
1428	4625	32752	77.2	66.0	34.0	4.79	2.30	2.08	SB	VOC	5.1	250	8.0	1.67	4.0	25.19	65	NS
1429	4626	DRR Dhan-48 (YMN)	77.1	67.4	55.2	4.94	1.83	2.69	MS	A	5.5	240	9.9	2.00	7.0	25.54	22	NS
1430	4627	32753	79.9	71.1	62.6	5.27	2.42	2.17	SB	VOC	5.1	195	10.7	2.03	5.0	24.22	35	NS
1431	4628	32754	78.3	66.1	46.7	5.07	2.48	2.04	SB	OC	4.2	325	11.5	2.26	7.0	24.64	22	NS
1432	4629	32755	77.6	68.9	60.2	5.25	2.04	2.57	MS	VOC	5.3	195	8.7	1.65	4.0	24.87	22	MS
1433	4630	31035 (R)	77.7	68.3	61.0	6.39	2.26	2.82	LB	VOC	4.1	235	10.8	1.69	4.0	22.02	53	NS
1434	4631	32756	78.6	69.7	51.6	5.41	1.97	2.74	MS	A	4.4	290	10.1	1.86	4.0	24.72	22	NS
1435	4632	IR-64 (Y.C)	78.0	68.9	55.1	6.47	2.05	3.15	LS	VOC	4.1	230	10.8	1.66	4.0	25.75	48	NS
1436	4633	32757	79.7	69.1	34.8	5.44	2.34	2.32	SB	OC	5.3	235	11	2.02	5.0	26.19	42	NS
1437	4634	32758	78.0	68.5	33.7	6.09	2.26	2.69	LB	VOC	4.8	220	12.7	2.08	4.0	24.58	44	NS
1438	4635	32759	80.1	70.0	56.3	5.73	2.43	2.35	SB	OC	5.3	235	10.6	1.84	4.0	26.66	29	NS
1439	4636	32760	78.7	69.0	47.2	4.95	2.38	2.07	SB	VOC	4.4	220	9.6	1.93	4.0	24.81	61	NS
1440	4637	32761	76.9	68.2	54.5	6.64	1.93	3.44	LS	VOC	5.4	205	12.3	1.85	4.0	23.96	57	NS
1441	4638	32762	79.2	69.4	67.7	4.99	1.81	2.75	MS	A	4.8	235	8.1	1.62	5.0	27.11	22	NS
1442	4639	32763	78.5	70.6	62.2	5.58	2.48	2.25	SB	VOC	4.0	205	10.3	1.84	5.0	21.79	30	NS
1443	4640	DRR Dhan-45 (YMN)	78.3	69.2	55.2	6.52	2.11	3.09	LS	VOC	4.1	240	12.4	1.90	5.0	23.02	56	NS
1444	4641	32764	74.7	64.8	41.7	5.47	2.15	2.54	MS	VOC	5.3	220	8.7	1.59	5.0	24.25	41	NS
1445	4642	32765	77.0	68.2	59.4	5.27	1.92	2.74	MS	A	5.6	225	10.3	1.95	5.0	24.02	53	NS
1446	4643	32766	78.4	69.2	55.1	6.39	2.04	3.13	LS	VOC	5.6	275	12.8	2.00	4.0	23.96	80	NS
1447	4644	Chittimutyalu (MN)	77.2	67.8	56.1	5.33	2.26	2.35	SB	VOC	5.0	230	11.2	2.10	4.0	20.24	28	SS
1448	4645	32767	76.2	67.5	45.8	6.46	2.03	3.18	LS	VOC	5.6	315	12.1	1.87	7.0	25.22	78	NS
1449	4646	32768	80.7	71.2	58.1	6.43	2.12	3.03	LS	A	4.5	275	10.2	1.58	5.0	27.33	25	NS
1450	4647	32769	77.7	67.3	32.2	5.46	2.43	2.24	SB	VOC	4.6	160	10.3	1.88	4.0	28.07	80	NS
1451	4648	32770	78.7	69.8	66.3	6.13	1.94	3.15	LS	A	5.4	225	9.6	1.56	5.0	25.93	46	NS
1452	4649	32771	77.6	67.8	46.6	5.71	1.71	3.33	SS	A	4.2	270	11.7	2.04	4.0	23.87	22	NS
1453	4650	32772	76.3	67.3	64.7	5.29	1.91	2.76	MS	A	5.1	235	9.8	1.85	4.0	24.46	61	NS
1454	4651	32773	75.8	68.4	57.3	5.89	1.90	3.1	SS	VOC	5.1	250	10.7	1.81	5.0	25.34	22	NS
1455	4652	32774	78.0	69.7	66.8	5.43	1.91	2.84	MS	A	4.1	250	10.0	1.84	4.0	26.51	55	NS
1456	4653	32775	78.8	68.4	45.1	5.65	2.28	2.47	SB	VOC	4.0	200	10.8	1.91	4.0	22.70	60	NS

HULL: Hulling(%) MILL:Milling(%) HRR:Head Rice Recovery KL:Kernal length (mm) KB:Kernal Breadth(mm) L/B : Length and Breadth(mm)
 KLAC:Kernal length after cooking WU:Water uptake ER:Elongation ratio AC:Amylose content (%) ASV:Alkali Spreading Value AC: Amylose Content GC: Gel consistency

**ADVANCE VARIETY TRIAL-1 & INITIAL VARIETY TRIAL –
EARLY (HILLS) [AVT 1 & IVT E (H)]**

Locations : 17

Test Entries: 25

**Checks : Vivekdhan 86 (NC), Shalimar Rice-3 (ZC)
and Local check (LC)**

Table: 6.1

Advance Variety Trial-1 & Initial Variety Trial - Early (Hills) [AVT 1 & IVT E (H)] was constituted with 25 test entries and three checks i.e., Vivekdhan 86 (NC), Shalimar Rice-3 (ZC) and local check. Among 25 test entries, four entries were in second year of testing and remaining 21 were in first year of testing. The trial was sent to 17 locations and data was received from thirteen locations. Four locations have not conducted the trials i.e., Bandipore, Sundernagar Badarwa and Bajura. Data from two locations were not considered for analysis due to low yield (986 kg/ha) at Upper Shillong (Meghalaya) and low CV (1.85) at Mediziphema- ICAR (Nagaland); and data from remaining eleven locations were considered for analysis and interpretation.

The overall mean grain yield across altitudes ranged from 2644 kg/ha (IET 32327) to 4975 kg/ha (IET 32326); days to 50% flowering from 83 days (IET 32324) to 104 days (IET 32323); plant height from 84 cm (IET 32324) to 147 cm (IET 32320); and number of panicles/m² from 249 (IET 32327) to 327 (IET 32326). **On over all mean basis, none of the entries showed required grain yield superiority against best check and not promoted.** The data pertaining to grain yield, days to 50% flowering, plant height and panicles/m² are presented in **Tables 21.1 to 21.3.**

The performance of test entries at different elevations is described below:

Low Northern Elevation

Data from two locations i.e., Dhaulakaun and Malan were considered for analysis under low northern hills. The mean grain yield of entries ranged from 1364 kg/ha (IET 32324) to 4628 kg/ha (IET 32323), while, days to 50% flowering ranged from 70 days (IET 32324) to 91 days (IET 31389). **Among the test entries, none recorded significant grain yield superiority against best check National check in Low Northern Elevation.**

Low Southern Elevation

In this elevation, one location Ponnampet (Karnataka) has conducted and considered for analysis. Mean grain yield ranged from 1835 kg/ha (IET 32334) to 6074 kg/ha (IET 32317), while, days to 50% flowering from 70 days (IET 32324) to 104 days (Local check-KPR1). Plant height ranged from 59 cm (IET 32337) to 149 cm (IET 32320) and number of panicles/m² from 194 (IET 32320) to 381 (IET 32324). Among the checks, local check recorded maximum grain yield (4556 kg/ha with 104 days to 50% flowering) followed by Zonal check, Shalimar Rice-3 (2678 kg/ha with 82 days to 50% flowering). **Among the test entries, three entries viz., IETs 31389, 32317 and 32333 recorded significant yield advantage against the best check (LC), hence IET 31389 promoted to third year of testing and IETs 32317 and 32333 are promoted to second year of testing.**

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of superior test entries at Low Southern Elevation in AVT 1 & IVT E (H) during *Kharif* 2024.

IET No. / Designation / Cross Combination	Grain Yield (Kg/ha) Days to 50% Flowering Grain type
IET 32317 RCPL 1-463 RCPL 1-63/Bhalum 1	6074 96 LS
IET 31389 VL 32933 VL Dhan 87 / VL 31743	5715 88 LS
IET 32333 VL 33031 VL Dhan 87/UPR 3751-1-2	5588 85 LB
Vivekdhan 86 (NC)	2347 82
Shalimar Rice- 3 (ZC)	2678 82
Local check (LC)	4556 104
CD	982

Medium Northern Elevation

In this elevation, the trial AVT 1 & IVT E (H) was conducted at three locations viz., Palampur, Rajouri and Almora. Mean grain yield ranged from 2345 kg/ha (IET 32329) to 4799 kg/ha (IET 32317), while, days to 50% flowering from 83 days (IET 32330) to 100 days (IET 31389). Plant height ranged from 93 cm (IET 32324) to 149 cm (IET 32320) and number of panicles/m² from 196 (IET 32328) to 331 (IET 32317). Among the checks, local check recorded maximum grain yield (3696 kg/ha with 90 days to 50% flowering) followed by national check, Vivekdhan 86 (3300 kg/ha with 86 days to 50% flowering). **Among the test entries, five entries viz., IETs 31381, 31386, 31389, 32317 and IET 32326 recorded significant yield advantage against the best check (LC), hence IETs 31381, 31386 and 31389 have been promoted to third year of testing and IET 32317 and IET 32326 are promoted to second year of testing in Medium Northern elevation.**

Performance of superior test entries at Medium Northern Elevation in AVT 1 & IVT E (H) during *Kharif* 2024.

IET No. / Designation / Cross Combination	Grain Yield (Kg/ha) Days to 50% Flowering Grain type
IET 32317 RCPL 1-463 RCPL 1-63/Bhalum 1	4799 96 LS
IET 31381 VL32945 VL Dhan 87 / VL 32063	4655 92 LS

Annual Progress Report 2024 Vol. I – Varietal Improvement

IET No. / Designation / Cross Combination	Grain Yield (Kg/ha) Days to 50% Flowering Grain type
IET 32326 VL 32991 VL Dhan 81/HPR 2143	4470 93 LS
IET 31389 VL 32933 VL Dhan 87 / VL 31743	4372 100 LS
IET 31386 VL 32934 VL Dhan 87 / VL 31743	4195 94 LS
Vivekdhan 86 (NC)	3300 86
Shalimar Rice- 3 (ZC)	2598 90
Local check (LC)	3696 90
CD	468

Medium Southern Elevation

In this elevation, one location Gudalur (TN) has conducted and was considered for analysis. Mean grain yield ranged from 1885 kg/ha (IET 32328) to 5962 kg/ha (IET 32325), while, days to 50% flowering from 78 days (IETs 32318, 32330 and 32332) to 110 days (IET 32319). Plant height ranged from 58 cm (IET 32324) to 162 cm (IET 32330) and number of panicles/m² from 205 (IET 32327) to 520 (IET 32326). Among the checks, local check recorded maximum grain yield (4985 kg/ha with 95 days to 50% flowering) followed by national check, Vivekdhan 86 (3846 kg/ha with 86 days to 50% flowering). **Among the test entries, two entries viz., IETs 32325 and 32323 recorded significant yield superiority against the best check (LC), hence IETs 32325 and 32323 have been promoted to third year of testing in Medium Southern Elevation.**

Performance of superior test entries at Medium Southern Elevation in AVT 1& IVT E (H) during *Kharif* 2024.

IET No. / Designation / Cross Combination	Grain Yield (Kg/ha) Days to 50% Flowering Grain type
IET 32325 SKUA-599 Jhelum/IR 64//Jhelum	5962 90 LB / MS
IET 32323 NLCJ-7 Hokuchuk 2/Tripura Nirog	5500 95 LS
Vivekdhan 86 (NC)	3846 86
Shalimar Rice - 3 (ZC)	3808 86
Local check (LC)	4985 95
CD	273

Annual Progress Report 2024 Vol. I – Varietal Improvement

High Elevation

At high elevation, the trial AVT 1& IVT E (H) was conducted at four locations viz., Khudwani, Pombay, Wadura and Larnoo. Mean grain yield ranged from 2824 kg/ha (IET 32327) to 6996 kg/ha (IET 32325), while, days to 50% flowering from 87 days (IET 32324) to 122 days (IET 32323). Plant height ranged from 75 cm (IET 31386) to 136 cm (IET 32322) and number of panicles/m² from 223 (IET 32331) to 393 (IET 32318). Among the checks, local check recorded maximum grain yield (6250 kg/ha with 110 days to 50% flowering) followed by zonal check, Shalimar Rice-3 (6149 kg/ha with 109 days to 50% flowering). **Among the test entries, two entries viz., IET 32325 and IET 32326 recorded significant yield superiority against the best check (LC), hence, both have been promoted to second year of testing in High Elevation.**

Performance of superior test entries at High Elevation in AVT 1& IVT E (H) during Kharif 2024.

IET No. / Designation / Cross Combination	Grain Yield (Kg/ha) Days to 50% Flowering Grain type
IET 32325 SKUA-599 Jhelum/IR 64//Jhelum	6996 99 LB / MS
IET 32326 VL 32991 VL Dhan 81/HPR 2143	6874 105 LS
Vivekdhan 86 (NC)	6093 112
Shalimar Rice- 3 (ZC)	6149 99
Local check (LC)	6250 106
CD	618

List of test entries promoted to AVT-2 E (H) and AVT 1 E (H) is mentioned below:

Elevation	Entries promoted to AVT-2 E(H)	Entries promoted to AVT 1 E(H)
Low Southern	IET 31389	IETs 32317 and 32333
Medium Northern	IETs 31381, 31386, 31389,	IETs 32317 and IET 32326
Medium Southern		IETs 32325 and 32323
High elevation		IETs 32325 and IET 32326
Total	IETs 31381, 31386, 31389,	IETs 32317, 32323, 32325, 32326, and 32333

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 21.1 : Composition of entries in Advance Variety Trial 1 and Initial Variety Trial- Early (Hills) (AVT 1 - IVT- E (H)), Kharif 2024.

Entry No.	IET No.	Designation	Cross Combination	GT
2nd Year of Testing				
2301	31381	VL32945	VL Dhan 87 / VL 32063	LS
2302	31382	SKUA 575	Jhelum / VL Dhan 86	LS
2303	31386	VL 32934	VL Dhan 87 / VL 31743	LS
2304	31389	VL 32933	VL Dhan 87 / VL 31743	LS
1st Year of Testing				
2305	32317	RCPL 1-463	RCPL 1-63/Bhalum 1	LS
2306	32318	SKUA-591	Jhelum/SR-1//Jhelum	MB
2307	Vivekdhan 86 (NC)			
2308	32319	NLCJ-1	Hokuchuk2/Naveen	LS
2309	32320	RCPL 1-464	Nungsi/Ngoba	MS
2310	32321	VL 33028	VL Dhan 87/UPR 3751-1-2	ELS
2311	32322	SKUA-598	Jhelum/IR 64//Jhelum	MB
2312	32323	NLCJ-7	Hokuchuk 2/Tripura Nirog	LS
2313	32324	SKUA-493-1	Koshikari/K-508	SB
2314	Shalimar Rice-3 (ZC)			
2315	32325	SKUA-599	Jhelum/IR 64//Jhelum	LB/MS
2316	32326	VL 32991	VL Dhan 81/HPR 2143	LS
2317	32327	RCPL 1-465	IR 64/J 59	MB
2318	32328	SKUA-602	Zag/Dhmas//Zag	MB
2319	32329	HPR 3209	HPR 2590/HPR 1156	LS
2320	32330	SKUA-593	Jhelum/SR-3	MB/SB
2321	32331	VL 32998	Vicek Dhan 82/VL 31487	ELS
2322	32332	SKUA-522-1	Chade China/Jhelum	SB
2323	32333	VL 33031	VL Dhan 87/UPR 3751-1-2	LB
2324	32334	SKUA-600	Zag/Dhmas//Zag	SB
2325	32335	SKUA-540-2	China-1007/SKUA-389	LS
2326	32336	SKUA-601	Zag/Dhmas//Zag	MB
2327	32337	SKUA-528	Mushkbudji/IRBL9W//MushkBudji//Mush-Budji)*(Mushkbudji/Dhmas70q/164-1b//Mush Budji//Mush Budji)	SB
2328	Local Check (LC)			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 21.2: Grain Yield (Kg/Ha) of AVT 1 & IVT- E (H), Kharif 2024

ENTRY NO	IET NO	High											
		Jammu & Kashmir								Jammu & Kashmir (4)		High (4)	
		Khudwani_H		Larloo_H		Pombay_H		Wadura_H		Mean		Mean	
2301	31381	6532		3567		5035	9	5419		5138		5138	
2302	31382	8746	2	3976	9	5022		7140	7	6221	5	6221	5
2303	31386	6074		3715		4425		5124		4834		4834	
2304	31389	5872		3125		4069		5104		4542		4542	
2305	32317	4527		2025		3175		4081		3452		3452	
2306	32318	7568	10	3987	6	5165	7	6199		5730		5730	
2307	Vivekdhan 86 (NC)	8591	3	3185		4907		7690	4	6093	8	6093	8
2308	32319	5796						4325		5060		5060	
2309	32320	4290				2512		3716		3506		3506	
2310	32321	6431		2041		3725		5126		4331		4331	
2311	32322	8385	6	3985	7	5028	10	7156	6	6138	7	6138	7
2312	32323	5197		2622		3497		5073		4097		4097	
2313	32324	4794		2193		3043		4154		3546		3546	
2314	Shalimar Rice-3 (ZC)	8070	7	3985	7	5161	8	7379	5	6149	6	6149	6
2315	32325	8419	5	4949	1	6506	1	8108	2	6996	1 *	6996	1 *
2316	32326	8970	1	3817		6257	2	8452	1	6874	2 *	6874	2 *
2317	32327	3317				2071		3084		2824		2824	
2318	32328	6782		3482		4254		5689		5052		5052	
2319	32329	7470		3470		4285		6127		5338		5338	
2320	32330	7562		4062	5	5185	5	6906	9	5929	10	5929	10
2321	32331	7070		3152		4345		5820		5097		5097	
2322	32332	7372		4121	3	5179	6	7075	8	5937	9	5937	9
2323	32333	6275		3975	10	4383		5925		5140		5140	
2324	32334	6521		3921		4886		6075		5351		5351	
2325	32335	8426	4	3835		6029	3	7983	3	6568	3	6568	3
2326	32336	7940	8	4109	4	4859		6656		5891		5891	
2327	32337	4624		2074		2668		3877		3311		3311	
2328	Local Check (LC)	7801	9	4721	2	5713	4	6765	10	6250	4	6250	4
Experimental Mean		6765		3524		4496		5937		5193		5193	
F val		16.92**		3.1**		10.98**		9.62**		28.54**		28.54**	
CD(0.05)		1080		1329		989		1353		618		618	
CV(%)		7.78		18.27		10.70		11.11		5.80		5.80	
D/S		08/05/2024		22/05/2024		03/05/2024		08/05/2024					
D/P		28/06/2024		28/06/2024		02/06/2024		07/06/2024					
Local Check Name		Meg 1`		VLD 85		SR-4		SR-4					
1. * Denote superior to BCH													
2. # Denote superior to HCH													

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 21.2 (Cont.): Grain Yield (Kg/Ha) of AVT 1 & IVT- E (H), Kharif 2024

ENTRY NO	IET NO	Low Northern								Low Southern (1)	
		Himachal Pradesh				Himachal Pradesh (2)		Low Northern (2)		Karnataka (1)	
		Dhaulakaun_H		Malan_H		Mean		Mean		Ponnampet_H	
2301	31381	4799	2 *	3600		4200	7	4200	7	4524	7
2302	31382	3806		4700	3	4253	5	4253	5	2943	
2303	31386	3929	10	3300		3614		3614		4731	5
2304	31389	3728		5000	2 *	4364	2	4364	2	5715	2 *
2305	32317	3962	8	4000		3981		3981		6074	1 *
2306	32318	1629		2400		2015		2015		4304	9
2307	Vivekdhan 86 (NC)	4442	5	4000	8	4221	6	4221	6	2347	
2308	32319	4509	3	3700		4104	8	4104	8	2668	
2309	32320	2210		3000		2605		2605		2909	
2310	32321	3594		4100	5	3847		3847		5462	4
2311	32322	3605		4000	8	3802		3802		3779	
2312	32323	5156	1 *	4100	5	4628	1	4628	1	4231	
2313	32324	1228		1500		1364		1364		2924	
2314	Shalimar Rice-3 (ZC)	3225		3500		3363		3363		2678	
2315	32325	3951	9	4200	4	4075	9	4075	9	3574	
2316	32326	2545		2800		2672		2672		4440	8
2317	32327	1920		1800		1860		1860		3275	
2318	32328	2199		2000		2099		2099		2202	
2319	32329	4330	6	2700		3515		3515		3449	
2320	32330	3560		3200		3380		3380		3101	
2321	32331	3460		5100	1 *	4280	4	4280	4	4304	9
2322	32332	2768		2100		2434		2434		3262	
2323	32333	4475	4	4100	5	4288	3	4288	3	5588	3 *
2324	32334	1562		2000		1781		1781		1835	
2325	32335	2701		2000		2350		2350		3134	
2326	32336	3426		3250		3338		3338		2769	
2327	32337	1786		1900		1843		1843		1844	
2328	Local Check (LC)	3973	7	4000	8	3987	10	3987	10	4556	6
Experimental Mean		3303		3288		3295		3295		3665	
F val		132.41**		9.64**		36.5**		36.5**		12.05**	
CD(0.05)		271		961		473		473		982	
CV(%)		4.00		14.24		6.99		6.99		13.06	
D/S		06/06/2024		10.6.2024						07/12/2024	
D/P		03/07/2024		11.7.2024						08/12/2024	
Local Check Name		HPR 2143		HPR 1068						KPR 1	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 21.2 (Cont.): Grain Yield (Kg/Ha) of AVT 1 & IVT- E (H), Kharif 2024

ENTRY NO	IET NO	Medium Northern							
		Himachal Pradesh		Jammu & Kashmir		Uttarakhand		Medium Northern (3)	
		Palamur_H		Rajouri_H		Almora_H		Mean	
2301	31381	3000	10	5716	3 *	5250	3 *	4655	2 *
2302	31382	4000	1	4523		3842	9	4121	6
2303	31386	3200	8	4386		5000	7 *	4195	5 *
2304	31389	3400	6	4216		5500	2 *	4372	4 *
2305	32317	2700		5864	2 *	5833	1 *	4799	1 *
2306	32318	1800		6034	1 *	750		2861	
2307	Vivekdhan 86 (NC)	3900	2	4500		1500		3300	
2308	32319	2700		4125		5083	6 *	3969	9
2309	32320	1500		5659	4 *	2250		3136	
2310	32321	3100	9	4091		5083	5 *	4091	7
2311	32322	3400	6	3909		667		2659	
2312	32323	3000		4534		3250		3595	
2313	32324	1700		4784	9	583		2356	
2314	Shalimar Rice-3 (ZC)	2500		4295		1000		2598	
2315	32325	2500		4199		1250		2650	
2316	32326	3800	3	4443		5167	4 *	4470	3 *
2317	32327	1400		4273		1917		2530	
2318	32328	1600		4250		1500		2450	
2319	32329	1900		4136		1000		2345	
2320	32330	2500		4614	10	917		2677	
2321	32331	3700	4	3716		4500	8 *	3972	8
2322	32332	1800		5489	5 *	583		2624	
2323	32333	2200		5284	6	3833	10	3772	
2324	32334	2700		3693		750		2381	
2325	32335	2400		4261		750		2470	
2326	32336	3600	5	5136	7	2750		3829	10
2327	32337	1900		4920	8	2083		2968	
2328	Local Check (LC)	3000		4330		3758		3696	
Experimental Mean		2675		4621		2727		3341	
F val		8.37**		3.76**		135.76**		24.9**	
CD(0.05)		784		972		464		468	
CV(%)		14.28		10.25		8.30		6.82	
D/S		17/06/2024		27.05.2024		22/05/2024			
D/P		12/07/2024		26.05.2024		28/06/2024			
Local Check Name		HPR 1068		K-39		VLD 85			
1. * Denote superior to BCH									
2. # Denote superior to HCH									

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 21.2 (Cont.): Grain Yield (Kg/Ha) of AVT 1 & IVT- E (H), Kharif 2024

ENTRY NO	IET NO	Medium Southern (1)		Jammu & Kashmir (5)		Himachal Pradesh (3)		Overall Mean (11)	
		Tamil Nadu (1)		Mean		Mean			
		Gudalur_H							
2301	31381	5154	4	5254		3800	6	4781	5
2302	31382	4308		5881	4	4169	1	4819	4
2303	31386	4385		4745		3476		4388	
2304	31389	5077	5	4477		4043	5	4619	7
2305	32317	4769	8	3934		3554		4274	
2306	32318	4192		5791	7	1943		4003	
2307	Vivekdhan 86 (NC)	3846		5775	9	4114	2	4446	10
2308	32319	4808	7	4749		3636	9	4190	
2309	32320	3885		4044		2237		3193	
2310	32321	4692	10	4283		3598	10	4313	
2311	32322	3423		5693		3668	7	4303	
2312	32323	5500	2 *	4185		4085	4	4196	
2313	32324	3846		3794		1476		2795	
2314	Shalimar Rice-3 (ZC)	3808		5778	8	3075		4146	
2315	32325	5962	1 *	6436	1 *	3550		4874	2
2316	32326	4038		6388	2 *	3048		4975	1
2317	32327	3385		3186		1707		2644	
2318	32328	1885		4892		1933		3258	
2319	32329	4162		5098		2977		3912	
2320	32330	3423		5666		3087		4094	
2321	32331	4615		4821		4087	3	4526	8
2322	32332	3308		5847	6	2223		3914	
2323	32333	4769	8	5168		3592		4619	6
2324	32334	1962		5019		2088		3264	
2325	32335	3654		6107	3	2367		4107	
2326	32336	5231	3	5740	10	3425		4521	9
2327	32337	2077		3633		1862		2705	
2328	Local Check (LC)	4985	6	5866	5	3658	8	4873	3
Experimental Mean		4112		5080		3088		4098	
F val		116.19**		26.98**		29.79**		43.18**	
CD(0.05)		273		492		451		298	
CV(%)		3.24		4.72		7.12		3.54	
D/S		12.07.24							
D/P		13.08.24							
Local Check Name		CO 55							
1. * Denote superior to BCH									
2. # Denote superior to HCH									

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 21.2 (Cont.): Grain Yield (Kg/Ha) of AVT 1 & IVT- E (H), (Not considered) Kharif 2024

ENTRY NO	IET NO	High		Low Northern	
		MEGHALAYA		NAGALAND	
		@UPPER SHILLONG		@Medizphema- ICAR	
2301	31381	1350	6	3825	8
2302	31382	1300	7	5492	1
2303	31386	1800	2	2852	
2304	31389	1250	9	3136	
2305	32317	1500	3	2254	
2306	32318	350		4852	5
2307	Vivekdhan 86 (NC)	1500	3	2334	
2308	32319	1100		5158	3
2309	32320	1300	7	2514	
2310	32321	1450	5	5098	4
2311	32322	450		2900	
2312	32323	1100		2307	
2313	32324	450		2419	
2314	Shalimar Rice-3 (ZC)	1200	10	3392	10
2315	32325	950		2326	
2316	32326	850		2314	
2317	32327	550		2258	
2318	32328	800		4156	7
2319	32329	750		3542	9
2320	32330	450		2365	
2321	32331	450		5414	2
2322	32332	500		2430	
2323	32333	600		2094	
2324	32334	400		4218	6
2325	32335	450		2652	
2326	32336	800		2776	
2327	32337	1200		2203	
2328	Local Check (LC)	2750	1	2121	
Experimental Mean		986		3193	
F val		12.51**		723.03**	
CD(0.05)		445		121	
CV(%)		22		1.85	
D/S		08/05/2024		20/06/2024	
D/P		28/06/2024		11/07/2024	
Local Check Name		Meg 1`		RC Maniphou-7	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 21.3: DFF (days), Plant Height (cm) and No. of Panicles/m² AVT 1 & IVT- E (H), Kharif 2024

ENTRYNO	IETNO	High																	
		Jammu & Kashmir												Jammu & Kashmir (4)			High (4)		
		Khudwani_H			Lamoo_H			Pombay_H			Wadura_H			Mean			Mean		
		DFF	Pan.No/m	PH(cm)	DFF	Pan.No/m	PH(cm)	DFF	Pan.No/m	PH(cm)	DFF	Pan.No/m	PH(cm)	DFF	Pan.No/m	PH(cm)	DFF	Pan.No/m	PH(cm)
2301	31381	109	382	73	122	258	75	116	288	92	113	346	101	115	319	85	115	319	85
2302	31382	101	429	75	113	270	93	110	362	116	104	402	126	107	366	103	107	366	103
2303	31386	112	370	70	122	242	65	117	275	81	113	318	86	116	301	75	116	301	75
2304	31389	110	370	87	120	247	73	116	265	95	113	328	98	115	302	88	115	302	88
2305	32317	114	360	72	123	224	74	120	256	82	111	319	87	117	290	79	117	290	79
2306	32318	93	386	74	106	255	95	100	316	128	94	358	123	98	328	105	98	328	105
2307	Vivekdhan 86 (NC)	106	452	100	121	310	90	116	380	116	104	430	122	112	393	107	112	393	107
2308	32319	116	366	72							118	350	96	116	358	84	116	358	84
2309	32320	112	345	110				122	288	144	116	318	153	117	317	136	117	317	136
2310	32321	108	374	81	118	281	78	115	318	107	112	354	111	113	332	94	113	332	94
2311	32322	91	395	86	106	288	100	100	316	122	92	390	138	97	347	111	97	347	111
2312	32323	115	368	65	130	232	70	124	292	92	118	349	95	122	310	80	122	310	80
2313	32324	78	342	62	98	244	69	90	286	95	81	320	96	87	298	81	87	298	81
2314	Shalimar Rice-3 (ZC)	94	399	97	104	288	96	102	322	120	96	357	125	99	342	109	99	342	109
2315	32325	94	409	74	103	314	88	103	358	117	94	412	123	99	373	100	99	373	100
2316	32326	100	432	96	112	311	85	107	372	103	102	405	110	105	380	98	105	380	98
2317	32327	110	240	95				124	191	115	107	236	124	114	223	112	114	223	112
2318	32328	90	335	91	102	224	84	99	278	115	92	307	121	96	286	103	96	286	103
2319	32329	98	374	87	103	232	87	106	284	120	98	351	121	101	310	104	101	310	104
2320	32330	93	380	72	102	238	85	99	305	113	95	347	122	97	318	98	97	318	98
2321	32331	106	375	87	116	250	91	116	303	124	106	346	127	111	319	107	111	319	107
2322	32332	90	372	79	105	244	108	98	278	134	92	339	133	96	308	113	96	308	113
2323	32333	108	342	65	120	218	66	115	266	95	111	318	94	113	286	80	113	286	80
2324	32334	93	325	68	104	204	88	104	259	122	96	304	129	99	273	102	99	273	102
2325	32335	92	382	92	106	258	94	98	303	123	93	398	130	97	335	110	97	335	110
2326	32336	94	388	90	105	218	84	100	279	120	92	326	121	98	303	104	98	303	104
2327	32337	94	275	94	108	190	84	101	228	124	94	256	123	99	237	106	99	237	106
2328	Local Check (LC)	100	428	110	114	328	98	108	364	122	102	408	126	106	382	114	106	382	114
Experimental Mean		100	371	83	111	254	84	108	297	112	102	346	116	106	319	100	106	319	100
Standard Error		1.05			1.1			1.07			1.09			0.58			0.58		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 21.3 (Cont): DFF (days), Plant Height (cm) and No. of Panicles/m² AVT 1 & IVT- E (H), Kharif 2024

ENTRY NO	IET NO	Low Northern												Low Southern		
		Himachal Pradesh						Himachal Pradesh (2)			Low Northern (2)			Karnataka		
		Dhaulakaum_H			Malan_H			Mean			Mean			Ponnampet_H		
		DDFF	Pan.No/n	PH (cm)	DDFF	Pan.No/n	PH (cm)	DDFF	Pan.No/n	PH (cm)	DDFF	Pan.No/n	PH (cm)	DDFF	Pan.No/n	PH (cm)
2301	31381	84	316	100	86	188	108	86	252	104	86	252	104	86	248	94
2302	31382	82	236	115	88	160	120	85	198	118	85	198	118	86	221	105
2303	31386	84	298	96	80	168	89	82	233	93	82	233	93	86	225	82
2304	31389	86	315	104	96	210	103	91	262	103	91	262	103	88	240	86
2305	32317	94	322	94	81	190	95	87	256	94	87	256	94	96	236	90
2306	32318	72	340	114	84	150	111	78	245	113	78	245	113	76	285	104
2307	Vivekdhhan 86 (NC)	80	288	128	76	138	122	78	213	125	78	213	125	82	262	112
2308	32319	92	250	114	89	141	109	90	196	112	90	196	112	95	229	90
2309	32320	93	332	154	74	127	170	84	229	162	84	229	162	103	194	149
2310	32321	86	283	112	88	202	113	88	243	112	88	243	112	86	199	98
2311	32322	76	289	126	81	166	115	78	228	120	78	228	120	79	251	114
2312	32323	94	318	120	82	178	110	88	248	115	88	248	115	90	200	94
2313	32324	68	270	92	72	158	106	70	214	99	70	214	99	70	381	70
2314	Shalimar Rice-3 (ZC)	74	352	122	76	176	119	74	264	121	74	264	121	82	222	114
2315	32325	78	296	116	78	205	118	78	250	117	78	250	117	82	255	107
2316	32326	82	376	106	81	148	105	82	262	106	82	262	106	86	222	86
2317	32327	94	380	136	86	300	126	90	340	131	90	340	131	86	260	109
2318	32328	78	304	111	77	198	106	78	251	109	78	251	109	82	218	96
2319	32329	82	234	101	76	140	110	79	187	106	79	187	106	80	269	110
2320	32330	78	244	130	76	130	113	76	187	122	76	187	122	83	257	106
2321	32331	88	258	130	74	145	134	80	201	132	80	201	132	79	255	100
2322	32332	74	244	122	71	125	109	72	185	115	72	185	115	78	285	107
2323	32333	90	275	115	86	168	98	88	221	106	88	221	106	85	218	83
2324	32334	76	284	112	71	238	100	74	261	106	74	261	106	75	232	75
2325	32335	74	270	127	76	205	104	75	238	115	75	238	115	85	255	105
2326	32336	80	281	115	76	195	114	78	238	114	78	238	114	84	244	94
2327	32337	78	291	84	73	138	105	75	214	94	75	214	94	80	310	59
2328	Local Check (LC)	80	242	119	82	145	113	82	194	116	82	194	116	104	222	94
Experimental Mean		82	292	114	79	172	112	81	232	114	81	232	114	84	246	97
Standard Error		0.3			0.95			0.53			0.53			1.8		

Table No 21.3 (Cont): DFF (days), Plant Height (cm) and No. of Panicles/m² AVT 1 & IVT- E (H), Kharif 2024

ENTRY NO	IET NO	Medium Northern											
		Himachal Pradesh			Jammu & Kashmir			Uttarakhand			Medium Northern (3)		
		Palampur_H			Rajouri_H			Almora_H			Mean		
		DDFF	Pan.No/n	PH (cm)	DDFF	Pan.No/n	PH (cm)	DDFF	Pan.No/n	PH (cm)	DDFF	Pan.No/n	PH (cm)
2301	31381	89	208	101	92	481	102	94	259	110	92	316	104
2302	31382	100	210	102	96	422	147	87	132	116	95	255	122
2303	31386	100	212	86	88	374	100	94	191	104	94	259	97
2304	31389	100	352	96	106	281	106	94	316	111	100	316	104
2305	32317	84	230	86	94	487	98	109	276	104	96	331	96
2306	32318	84	188	88	98	539	144	85	141	110	89	289	114
2307	Vivekdhhan 86 (NC)	79	210	106	90	418	135	90	244	118	86	291	120
2308	32319	91	220	96	91	268	125	112	268	111	98	252	111
2309	32320	77	128	142	89	476	158	110	157	146	92	254	149
2310	32321	92	189	105	100	265	128	95	202	116	96	219	116
2311	32322	82	165	104	106	263	130	86	214	128	91	214	121
2312	32323	86	145	103	92	426	113	114	202	109	97	258	108
2313	32324	79	138	79	104	437	111	86	110	90	90	228	93
2314	Shalimar Rice-3 (ZC)	86	182	100	98	346	137	86	194	120	90	241	119
2315	32325	78	204	106	101	286	144	90	230	112	90	240	121
2316	32326	79	225	107	104	390	115	96	192	112	93	269	111
2317	32327	89	205	110	96	341	138	108	134	130	98	227	126
2318	32328	77	112	106	93	291	107	86	186	119	85	196	111
2319	32329	88	170	108	102	272	147	96	203	122	95	215	126
2320	32330	82	215	92	85	434	144	82	170	122	83	273	119
2321	32331	78	205	111	115	258	137	95	258	122	96	240	123
2322	32332	80	200	96	98	465	124	86	132	110	88	266	110
2323	32333	100	155	92	86	463	112	100	193	104	95	270	103
2324	32334	84	155	91	110	255	109	87	186	116	94	199	105
2325	32335	78	185	101	100	317	136	83	207	120	87	236	119
2326	32336	85	172	103	100	451	145	89	226	118	91	283	122
2327	32337	81	168	106	102	443	110	90	190	104	91	267	107
2328	Local Check (LC)	82	192	100	100	334	121	88	211	122	90	246	115
Experimental Mean		85	190	100	97	374	125	93	200	115	92	255	114
Standard Error		1.08			4.56			0.58			1.63		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 21.3 (Cont): DFF (days), Plant Height (cm) and No. of Panicles/m² AVT 1 & IVT- E (H), Kharif 2024

ENTRY NO	IET NO	Medium Southern			Jammu & Kashmir (5)			Himachal Pradesh (3)			Overall Mean (11)		
		Tamil Nadu (1)			DFF	Pan.No/m ²	PH (cm)	DFF	Pan.No/m ²	PH (cm)	DFF	Pan.No/m ²	PH (cm)
		Gudalur H											
		DFF	Pan.No/m ²	PH (cm)	DFF	Pan.No/m ²	PH (cm)	DFF	Pan.No/m ²	PH (cm)	DFF	Pan.No/m ²	PH (cm)
2301	31381	88	416	84	111	351	89	87	237	103	98	308	95
2302	31382	94	498	100	105	377	111	90	202	113	96	304	111
2303	31386	92	445	76	110	316	80	88	226	90	99	284	85
2304	31389	90	462	82	113	298	92	94	292	101	102	308	95
2305	32317	98	460	84	112	329	83	86	247	92	102	306	88
2306	32318	78	345	70	98	371	113	80	226	104	88	300	106
2307	Vivekdhan 86 (NC)	86	430	96	108	398	113	78	212	119	94	324	113
2308	32319	110	396	93	108	328	98	90	204	106	101	276	101
2309	32320	102	430	142	110	357	141	81	195	155	100	279	147
2310	32321	92	456	98	110	318	101	89	225	110	99	284	104
2311	32322	82	402	99	99	330	115	80	207	115	89	285	115
2312	32323	95	458	90	116	333	87	87	214	111	104	288	96
2313	32324	82	389	58	90	326	87	73	188	92	83	279	84
2314	Shalimar Rice-3 (ZC)	86	489	103	99	342	115	78	237	114	89	302	114
2315	32325	90	371	96	99	356	109	78	235	114	90	304	109
2316	32326	94	520	82	105	382	102	81	250	106	95	327	101
2317	32327	98	205	105	109	252	118	90	295	124	100	249	119
2318	32328	92	366	87	95	287	103	78	205	108	88	256	104
2319	32329	109	419	97	102	303	112	82	182	106	94	268	110
2320	32330	78	396	162	95	341	107	78	196	112	86	283	115
2321	32331	86	427	101	112	306	113	80	202	125	96	280	115
2322	32332	78	383	100	97	339	116	75	190	109	86	279	111
2323	32333	94	370	74	108	322	86	92	199	101	99	271	91
2324	32334	83	400	76	101	269	103	77	226	101	89	258	99
2325	32335	86	290	71	98	332	115	76	220	110	88	279	109
2326	32336	86	383	91	98	333	112	80	216	111	90	288	109
2327	32337	88	358	81	100	278	107	77	199	98	90	259	98
2328	Local Check (LC)	95	350	75	105	372	116	82	193	111	96	293	109
Experimental Mean		90	404	91	104	330	105	82	219	109	94	286	105
Standard Error		1.54			1.17			0.44			0.57		

Table No 21.3 (Cont): DFF (days), Plant Height (cm) and No. of Panicles/m² AVT 1 & IVT- E (H), Kharif 2024

ENTRY NO	IET NO	High			Low Northern		
		MEGHALAYA			NAGALAND		
		@ UPPER SHILLONG			@ Mediziphema- ICAR		
		DFF	Pan.No/m ²	PH (cm)	DFF	Pan.No/m ²	PH (cm)
2301	31381	79	415	73	76	294	116
2302	31382	81	415	75	72	434	130
2303	31386	77	415	70	78	248	98
2304	31389	77	346	87	74	272	91
2305	32317	90	395	72	84	256	107
2306	32318	72	152	74	64	318	119
2307	Vivekdhan 86 (NC)	71	258	100	68	233	143
2308	32319	77	245	72	84	346	132
2309	32320	88	279	110	84	262	126
2310	32321	77	385	81	75	316	119
2311	32322	70	345	86	65	284	135
2312	32323	90	140	65	88	229	124
2313	32324	78	335	62	66	247	92
2314	Shalimar Rice-3 (ZC)	69	252	97	68	297	132
2315	32325	78	288	74	72	244	115
2316	32326	86	200	96	76	246	117
2317	32327	84	288	95	88	266	154
2318	32328	72	115	91	68	340	132
2319	32329	72	283	87	72	328	126
2320	32330	68	431	72	68	252	136
2321	32331	77	180	87	78	413	137
2322	32332	68	180	79	62	250	124
2323	32333	88	252	65	79	215	118
2324	32334	69	230	68	70	358	107
2325	32335	68	290	92	63	244	124
2326	32336	70	432	90	72	265	129
2327	32337	67	240	94	74	225	126
2328	Local Check (LC)	74	231	110	94	221	131
Experimental Mean		76	286	83	74	282	122

**ADVANCE VARIETY TRIAL 2 & 1 and INITIAL VARIETY TRIAL
MEDIUM (HILLS) [AVT 2 & 1 and IVT M (H)]**

Locations : 17

Test Entries: 23

**Checks : Vivekdhan 62 (NC), VL Dhan 68 (ZC for North & South), RC
Maniphou-11 (ZC for North East and Local check (LC)**

Table 6.2

AVT 2 & 1 and IVT – M (H) trial was constituted with 26 entries including 23 test entries and 3 checks – Vivekdhan 62 (NC), VL Dhan 68 (ZC for North and South) and RC Maniphou-11 (North East), a Local Check. Out of 23 test entries, 2 entries (IET 29654 (R) and 30513) were in third year of testing; 2 entries (IETs 31415 and 31413) were in second year of testing and 19 entries are in first year of testing. The trial was sent to 19 locations of various altitudes and data was received from 17 locations. Two centres viz., Badarwa and Bajaura did not conduct the trial. Data from 5 locations were not considered for analysis due to low grain yield, low and high CV (Barapani-ICAR, Upper Shillong, Dhaulakaun, CAU, Barapani and Gangtok). The data from remaining 12 locations viz., Khudwani, Pombay, Wadura, Sundernagar, Malan, CAU-Imphal, Lamphelpat, Wangbal, Sirsi, Rajouri,, Almora-ICAR and Gudaluru was considered for analysis. On overall basis, grain mean yield ranged from 3158 kg/ha (ZC) to 5474 kg/ha (IET 32343) and average yield was 4437 kg/ha; days to 50% flowering from 89 days (IET 32347) to 107 days (IET 31415); plant height from 94 cm (IET 31413 & 32339) to 121 (IET 32344 & 32345) and number of panicles/m² from 251 (IET 32355) to 338 (IET 32346 & 32348). **On overall mean grain yield basis, three entries viz., IET 32343, IET 32344 and IET 32350 showed yield superiority over the best check local check (LC).** The data pertaining to yield, flowering, plant height and panicles/m² and quality were presented in **Tables 22.1 to 22.3.**

Performance of the test entries at different elevations was discussed below.

High Altitude (> 1500 MSL)

AVT 2 & 1 and IVT – M (H) trial was conducted at 5 locations viz., Khudwani, Pombay, Wadura, Barapani (Umiam) ICAR and Upper Shillong, whereas, the data from ICAR-Barapani (Umiam) (high CV% 51.7) and Upper Shillong (low yield 1037 kg/ha) was not considered. Hence, data from 3 locations was considered for analysis. The mean grain yield was 5670 kg/ha and ranged from 1077 kg/ha (IET 32355) to 8076 kg/ha (IETs 32347); days to 50% flowering ranged from 102 days (IET 32347) to 127 days (ZC); plant height ranged from 83 cm (IET 32341) to 137 cm (Vivekdhan 62 (NC)); number of panicles/m² ranged from 323 (IET 32355) to 445 (IET 32347). Among the test entries, four entries of IVT viz., IET 32347, IET 32343, IET 32351 and IET 32356 recorded significant yield advantage over best check (local check). None of the entries in AVT2 and AVT1 was showed significant yield advantage over the best check. **Hence, the entries IET 32347, IET 32343, IET 32351 and IET 32356 are promoted to AVT 1 M (H) under high altitude.**

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of superior test entries at High Altitude in AVT 2 & 1 and IVT M (H) - Kharif 2024.

IET No. / Designation / Cross Combination	Grain Yield (Kg/ha) Days to 50% Flowering Grain type
IET 32347 SKUA-592 Jhelum/SR-1//Jhelum	8076 102 SB
IET 32343 NLCJ-2 Hokuchuk2/Tripura Nirog	7908 121 LS
IET 32351 SKUA-594 Jhelum/VL Dhan 85	7812 106 SB
IET 32356 SKUA-590 VL Dhan 206/China 1039	7636 108 SB
Vivekdhan 62 (NC)	6005 122
ZC	1540 127
LC	6838 105
CD	578

Low Elevation Northern (≤ 950 MSL)

AVT 2 & 1 and IVT-M (H) trial was conducted at 7 locations, whereas, the data from Dhaulakaun (low CV% 2.3) and CAU Barapani (low Mean yield 1227 kg/ha) was not considered for analysis. Five locations viz., Sundernagar, Malan, CAU-Imphal, Lamphelpat, and Wangbal were considered for analysis. Mean grain yield ranged from 2741 kg/ha (IET 32347) to 5081 kg/ha (IET 32344); days to 50% flowering from 80 days (IET 30513) to 108 days (IET 32349); plant height from 95 cm (ZC) to 134 cm (Vivekdhan 62 (NC)); number of panicles from 234 (IET 32338) to 338 (IET 32346). Among the checks, Vivekdhan 62 (NC) recorded highest grain yield of 4240 kg/ha. Among the test entries, five entries viz., IET 32344, IET 31413, IET 32350, IET 32354 and IET 32349 recorded significant yield advantage over best check. None of the entries in AVT2 showed yield superiority over the best check and one entry IET 31413 from AVT1 showed significant yield advantage over the best check and **promoted to AVT 2 M (H)**. Four entries in IVT showed significant yield superiority over the best check. **Hence the entries IET 32344, IET 32350, IET 32354 and 32349 were promoted to AVT 1 M (H)**.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of superior test entries at Low Northern in AVT 2& 1 and IVT M (H) - Kharif 2024.

IET No. / Designation / Cross Combination	Grain Yield (Kg/ha) Days to 50% Flowering Grain type
IET 32344 RCPL 1-466 KbaLieh/Bhalum 3	5081 92 MB
IET 31413 VL 32935 VL Dhan 87 / VL 31743	4967 90 LS
IET 32350 VL 33016 VL Dhan 86/HPR 2143	4931 92 LB
IET 32354 RCPL 1-462 RCPL 1-71/Shahsarang	4839 95 LS
IET 32349 CAU-R6 CAU-R1/Akhanphou	4719 108 MB
Vivekdhan 62 (NC)	4240 90
ZC	3926 100
LC	4203 92
CD	453

Low Elevation Southern (≤ 950 MSL)

The trial was sent to one location viz., Sirsi under low southern region. In AVT 2 and 1, none of the entries showed significant yield advantage over the best check (LC), whereas, in IVT, one entry viz., IET 32349 showed significant yield superiority over the best check (local check). Hence, **IET 32349** is promoted to AVT 1 M (H).

Performance of superior test entries at Low Southern in AVT 2 & 1 and IVT M (H) - Kharif 2024.

IET No. / Designation / Cross Combination	Grain Yield (Kg/ha) Days to 50% Flowering Grain type
IET 32349 CAU-R6 CAU-R1/Akhanphou	3917 108 MB
Vivekdhan 62 (NC)	2367 91
ZC	2333 89
LC	2450 91
CD	899

Annual Progress Report 2024 Vol. I – Varietal Improvement

Medium Elevation Northern (951-1500 MSL)

AVT-2 & 1 and IVT -M (H) trial was conducted at 3 locations viz., Rajouri, Almora and Gangtok and data from Gangtok was not considered due to low mean yield (1032 kg/ha). The mean grain yield was 4333 kg/ha and ranged from 2607 kg/ha (IET 30513) to 5508 kg/ha (IET 32344); and days to 50% flowering from 90 days (IET 32342) and 112 days (IET 32354 and 32355). Among the checks, zonal check (ZC) recorded highest grain yield of 4737 kg/ha with 104 days to 50% flowering. Three test entries viz., IET 32344, IET 31413 and IET 29654 showed significant yield superiority over the best check (local check). **IET 29654** in AVT 2, **IET 34143** in AVT 1 and **IET 32344** in IVT showed significant yield advantage over the best check. **Hence, IET 31413 is promoted to AVT 2 M (H) and IET 32344 is promoted to AVT 1 M (H).**

Performance of superior test entries at Medium Northern in AVT2&1 and IVT M (H) - Kharif 2024.

IET No. / Designation / Cross Combination	Grain Yield (Kg/ha) Days to 50% Flowering Grain type
IET 32344 RCPL 1-466 KbaLieh/Bhalum 3	5508 108 MB
IET 31413 VL 32935 VL Dhan 87 / VL 31743	5482 96 LS
Vivekdhan 62 (NC)	4304 95
ZC	4737 104
LC	4476 100
CD	593

Medium Elevation Southern (951-1500 MSL)

AVT-2 & 1 and IVT -M (H) trial was conducted at Gudaluru in Tamil Nadu. The mean grain yield was 4265 kg/ha and ranged from 1731 kg/ha (IET 32341) to 6231 kg/ha (IET 32344); and days to 50% flowering from 85 days (IETs 29654, 32345 and 32346) to 111 days (IET 32341). Among the checks, local check recorded highest grain yield of 5577 kg/ha with 108 days to 50% flowering. Among the test entries, two entries viz., IET 32344 and IET 32340 recorded significant yield advantage over best check (local check). None of the entries in AVT 2 and AVT 1 showed yield superiority over the best check. **Hence, IVT entries viz., IET 32344 and IET 32340 are promoted to AVT 1 M (H).**

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of superior test entries at Medium Southern in AVT 2 & 1 and IVT M (H) - Kharif 2024.

IET No. / Designation / Cross Combination	Grain Yield (Kg/ha) Days to 50% Flowering Grain type
IET 32344 RCPL 1-466 KbaLieh/Bhalum 3	6231 98 MB
IET 32340 NLCJ-4 Tripura Nirog/ Naveen	6077 100 LS
LC	5577 108
Vivekdhan 62 (NC)	1769 96
ZC	1831 89
CD	282

Performance of the entries in AVT 2- M (H), Kharif 2024 at Medium Northern hills

Rank	IET No / Designation/ Cross combination	Grain Yield (Kg/ha)/ DFE Grain type	% yield superiority over (NC, ZC, LC)	Quality data HRR (%) /AC (%)/ GC (mm)/ASV
1	IET 29654 SKUA 570 (K 08-28- 11) SR 1 / Cjoma 1039	5422 100	25.97 14.46 21.13	
	Vivekdhan 62 (NC)	4304 95		
	Zonal Check (ZC) VL Dhan 68	4737 104		
	Local Check (LC)	4476 100		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of the entries in AVT 2- M (H), Kharif 2024 at high hills

Rank	IET No / Designation/ Cross combination	Grain Yield (Kg/ha)/ DFF Grain type	% yield superiority over (NC, ZC, LC)	Quality data HRR (%) /AC (%)/ GC (mm)/ASV
1	IET 30513 SKUA 570 (SR1/China 1039)	7184 106	19.63 366.49 5.05	
	Vivekdhan 62 (NC)	6005 122		
	Zonal Check (ZC) VL Dhan 68	1540 127		
	Local Check (LC)	6838 105		

Three year’s performance of entries IET 29654 and IET 30513

Sl. No.	IET No. / Designation / Cross Combination	Year	% Yield Advantage over BVC							
			Low Hills Northern		Medium Hills Northern		Medium Southern		High Hills	
			Zone	State	Zone	State	Zone	State	Zone	State
1	IET 29654 VL 32605 (Vivek Dhan 62 / HPR 2644)	2021	-	-	-	-	-	-	-	-
		2022	Low North	ME	Med. Northern	UK	-	-	-	-
		2023	-	HP	-	-	-	-	-	-
		2024	-	-	Med. Northern	UK	-	-	-	-
2	IET 30513 SKUA 570 (SR1/China 1039)	2022	-	-	-	-	-	-	High Hills	JK
		2023	-	-	-	-	-	-	High Hills	JK
		2024	-	-	-	-	-	-	-	-

IET 29654 (VL 32605) derived from the cross Vivek Dhan 62 / HPR 2644 showed yield superiority in the year 2022 over best check in Low Northern hills (Meghalaya) and Medium Northern hills (Uttarkhand). During 2023, it also showed yield superiority over best check in Himachal Pradesh. The entry showed better performance than the best check in Medium Northern hills (Uttarkhand) during 2024 i.e, the entry perform well in Uttarkhand state for at least two years of testing. **Therefore, the entry IET 29654 is promising in Uttarkhand State under Medium Northern Hills.**

Annual Progress Report 2024 Vol. I – Varietal Improvement

IET 30513 (SKUA 570) derived from the cross SR1/China 1039 showed yield superiority over best check in high hills (Jammu & Kashmir) in 2022 and 2023. Therefore, the entry **IET 30513 is promising in high hills (Jammu and Kashmir)**.

List of test entries promoted to AVT-2 M(H) and AVT 1 M(H) is mentioned below:

Elevation	Entries promoted to AVT-2 E(H)	Entries promoted to AVT 1 E(H)
Overall basis		IETs 32343, 32344 and 32350
Low northern	IET 31413	IETs 32344, 32350, 32354 and 32349
Low southern		IET 32349
Medium northern	IET 31413	IET 32344
Medium southern		IETs 32344 and 32340
High altitude		IETs 32347, 32343, 32351 and 32356
Total	IET 31413	IETs 32340, 32343, 32344, 32347, 32349, 32350, 32351, 32354, 32356

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 22.1 : Composition of entries in Advance Variety Trial 2 & 1 & Initial Variety Trial- - Medium (Hills) (AVT 2 & 1 & IVT- M (H)), Kharif 2024.

Entry No.	IET No.	Designation	Cross Combination	GT
3rd year of testing:				
2401	30513	SKUA 570	SR1/China 1039	MS
2402	29654 (R)	VL 32605	Vivek Dhan 62 / HPR 2644	LS
2nd year of testing:				
2403	31415	RCMR-47	Akhanphou / Bhalum-3	MB
2404	31413	VL 32935	VL Dhan 87 / VL 31743	LS
1st year of testing:				
2405	Vivekdhan 62 (NC)			
2406	32338	NLCJ-5	Tripura Nirog/ Naveen	MB
2407	32339	VL 33030	VL Dhan 87/ UPR 3751-1-2	LS
2408	32340	NLCJ-4	Tripura Nirog/ Naveen	LS
2409	32341	RCPL 1-461	Shahsarang/Myndri	LS
2410	32342	SKUA-595	Jhelum/IR-1985//Jhelum//Jhelum	MB
2411		VL Dhan 68 (ZC for North & South) RC Maniphou-11 (ZC for North East)		
2412	32343	NLCJ-2	Hokuchuk2/Tripura Nirog	LS
2413	32344	RCPL 1-466	KbaLieh/Bhalum 3	MB
2414	32345	SKUA-596	Pusa 3/SK 420//SK 420	LS
2415	32346	VL 32959	VL Dhan 65/HPR 2754	LS
2416	32347	SKUA-592	Jhelum/SR-1//Jhelum	MB
2417	32348	HPR 3272	HPR 2143*/DHMAS164//HPR 2143*/PB1(Pi-9)IRBB54(Xa21)//HPR2143*/PR114(Xa38)	LS
2418	32349	CAU-R6	CAU-R1/Akhanphou	MB
2419	32350	VL 33016	VL Dhan 86/HPR 2143	LB
2420	32351	SKUA-594	Jhelum/VL Dhan 85	SB
2421	32352	VL 40900	VL 31487/VL 30925	ELS
2422	32353	SKUA -597	Pusa 3/SK 420//SK 420	LS
2423	32354	RCPL 1-462	RCPL 1-71/Shahsarang	LS
2424	32355	CAU-R5	CAU-R1/Akhanphou	MB
2425	32356	SKUA-590	VL Dhan 206/China 1039	SB
2426	Local Check (LC)			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 22.2 (Cont.) : Grain Yield (Kg/Ha) in AVT 2 & 1 & IVT- M (H), Kharif 2024.

ENTRY NO	IET NO	Low Southern		Medium Northern				Medium Southern		Jammu & Kashmir (4)	Himachal Pradesh (2)	Overall Mean (12)	
		Karnataka (1)	Jammu & Kashmir	Uttarakhand	Medium Northern (2)	Tamil Nadu							
		Sirsi_H	Rajouri_H	Almora_H	Mean	Gudalur_H							
2401	30513	2033	3370	1843	2607	3923		6231	9	4067		4155	
2402	29654 (R)	2775	5315	5529	5422	3885		2771		4477	8	3904	
2403	31415	2417	4778	5208	4993	3631		3240		2257		3673	
2404	31413	2708	5259	5705	5482	4254		6016		4913	3	5130	4
2405 (NC)	Vivekdhani 62 (NC)	2367	4185	4423	4304	1769		5550		5330	1	4330	
2406	32338	2475	4870	4407	4639	5385	7	5297		3510		4331	
2407	32339	2425	3981	5329	4655	4577		5839		4372	10	4840	7
2408	32340	3000	4630	4247	4438	6077	2 *	3656		3927		4241	
2409	32341	3117	3463	4888	4175	1731		3736		4133		3960	
2410	32342	2300	5426	2484	3955	3731		6734	5 *	3298		4544	
2411 (ZC)	ZC	2333	4907	4567	4737	1831		2382		3269		3158	
2412	32343	3233	3611	5841	4726	5823	3	6834	2 *	4087		5474	1 *
2413	32344	3267	5167	5849	5508	6231	1 *	6091		5295	2	5426	2 *
2414	32345	2208	4426	1442	2934	4308		6605	6	4283		4604	
2415	32346	2400	3500	4968	4234	1923		3472		4629	7	3667	
2416	32347	2108	4056	3045	3550	4546		7071	1 *	2897		4307	
2417	32348	2083	3704	5128	4416	3792		6434	7	3310		4397	
2418	32349	3917	3741	5769	4755	3315		3741		4811	5	4452	
2419	32350	2242	3713	6891	5302	4808	10	6259	8	4797	6	5303	3 *
2420	32351	2533	3593	4407	4000	4577		6757	3 *	3590		4608	10
2421	32352	2667	3259	4808	4033	4962	8	5795		3483		4614	9
2422	32353	1933	4148	3285	3717	4962	8	6060		4833	4	4776	8
2423	32354	3250	3741	4407	4074	5538	5	5416		4380	9	4921	5
2424	32355	2717	4907	4487	4697	5462	6	2354		2073		3535	
2425	32356	2450	4111	1562	2837	4285		6755	4 *	3348		4128	
2426 (LC)	Local Check (LC)	2450	4306	4647	4476	5577	4	6205	10	3592		4876	6
Experimental Mean		2593	4237	4430	4333	4265		5281		3960		4437	
F val		2.28*	5.41**	36.1**	14.23**	184.68**		101.26**		13.77**		42.35**	
CD(0.05)		899	835	673	593	282		443		666		261	
CV(%)		16.83	9.56	7.38	6.64	3.21		4.07		8.16		2.85	
D/S		18/06/2024	27.05.2024	24/05/2024		12.07.24							
D/P		10/07/2024	27.06.2024	02/07/2024		14.08.24							
Local Check Name			K-39	VLD 61		Bharathi							

Table No. 22.2 (Cont.) : Grain Yield (Kg/Ha) in AVT 2 & 1 & IVT- M (H), (Not considered) Kharif 2024.

ENTRY NO	IET NO	High				Low Northern			MEDIUM NORTHERN	
		MEGHALAYA				HIMACHAL PRADESH	MEGHALAYA	SIKKIM		
		@Barapani (Umiam) ICAR	@UPPER SHILLONG			@Dhaulakaun	@CAU, Barapani		@Gangtok	
2401	30513	1056	1500	4	4127	8	642	170		
2402	29654 (R)	5268	3		3988	10	1234	2030	4	
2403	31415	3897	10	300	1052		1728	5248	1	
2404	31413	3967	6	1400	4544	5	1310	1030	7	
2405 (NC)	Vivekdhani 62 (NC)	2679	1567	3	3810		1292	388		
2406	32338	3926	9	1133	5476	2	1469	50		
2407	32339	4902	5	1233	4147	7	866	75		
2408	32340	2603	233		5337	3	2162	1935	5	
2409	32341	3516	800		3492		1818	3002	2	
2410	32342	1868	367		4127	8	405	150		
2411 (ZC)	ZC	4938	4	467	3333		1834	810	8	
2412	32343	1547	1033		4881	4	1965	745		
2413	32344	3962	7	567	4444	6	1455	2495	3	
2414	32345	2897	1133		3591		510	598		
2415	32346	3424	733		3651		850	450		
2416	32347	2806	1300	9	3095		255	400		
2417	32348	2018	1433	5	2857		535	1670	6	
2418	32349	2786	867				2185	105		
2419	32350	3368	1367	8	5536	1	1052	755	10	
2420	32351	2348	1133		3978		426	692		
2421	32352	2728	733		3294		1270	390		
2422	32353	2250	1000		3185		600	550		
2423	32354	6384	1	1733	3800		1973	792	9	
2424	32355	5598	2	800			1708	240		
2425	32356	3621	1400	6	3492		493			
2426 (LC)	Local Check (LC)	3940	8	1700	3661		1854			
Experimental Mean		3396	1037		3871		1227	1032		
F val		1.08ns	9.51**		226.49**		9.51**	6.81**		
CD(0.05)		3616	414		184		580	1348		
CV(%)		51.70	19.35		2.30		22.97	63.15		
D/S			08/05/2024		06/06/2024		31/05/2024	30/05/2024		
D/P			27/06/2024		02/07/2024		28/06/2024	16/07/2024		
Local Check Name					HPR 2143		Shahsarang	Bold Attay		

**ADVANCE VARIETY TRIAL-1 & INITIAL VARIETY TRIAL
UPLAND (HILLS) [AVT 1 & IVT U (H)] -Kharif 2024**

Locations: 12

Test entries: 15

Checks: Sukaradhan1 (NC); VL Dhan158 (ZC for North & South); Bhalum -1 (ZC for North East) and Local check (LC)

Table : 6.3

Advance Variety Trial-1 & Initial Variety Trial Upland (Hills) [AVT 1 & IVT – U(H)] trial was constituted with 15 test entries and 3 checks, Sukaradhan 1 (NC); VL Dhan 158 (ZC for North & South); Bhalum -1 (ZC for North East) and Local check. Among 15 test entries, two entries were in second year of testing (AVT 1) and remaining 13 were in first year of testing (IVT). The trial was sent to 12 locations and data was received from all the locations. The data from Barapani (Umiam) was not considered due to high CV % (42.77) and CAU-Barapani (135 kg/ha and CV% 63.72) and Bhageswar (170 kg/ha and CV% 56.58) were not considered for analysis due to low experimental yield and high CV %. Remaining 9 locations were considered for the analysis under three elevations namely Low elevation (Low Northern), Medium elevation (Medium Northern) and High elevation.

Overall, mean grain yield ranged from 3242 kg/ha (Sukaradhan 1 (NC)) to 1927 kg/ha (IET 32365); days to 50% flowering from 82 days (IET 32363) to 98 days (IET 31420); plant height from 89 cm (IET 32324) to 126 cm (IET 32365); and number of panicles/m² from 246 (IET 32367) to 334 (IET 31420). **On over all mean basis, none of the entries were promoted.** The data pertaining to grain yield, days to 50% flowering, plant height and panicles/m² are presented in **Tables 23.1 to 23.2.**

The performance of test entries at different elevations is described below:

Low Altitude Northern Hills

In AVT 1 & IVT U (H) at low altitude trial, data from 6 locations viz., Malan, Sundernagar, Dhaulakaun, CAU Imphal, Wangbal and Lamphelpat was considered for analysis. Mean grain yield of the entries ranged from 2036 kg/ha (IET 32365) to 3629 kg/ha (IET 32367). Days to 50% flowering ranged from 78 days (IET 32368) to 97 days (IET 31420). Similarly, plant height ranged from 93 cm (IET 32364 & 31420) to 133 cm (IET 32365), and panicles/m² ranged from 262 (IET 32367 & 32362) to 363 (IET 31420). **Among test entries, none of the entries recorded significant yield advantage over the best check, hence, none were promoted.**

Medium Altitude Northern Hills

In AVT 1 & IVT U (H) at medium altitude trial, data from 2 locations viz., Gangtok and ICAR-Almora was considered for analysis. Mean grain yield of the entries ranged from 223 kg/ha (IET 31420) to 3856 kg/ha (Sukaradhan 1 (NC)). Days to 50% flowering ranged from 82 days (Local check) to 117 days (IET 32368). Similarly, plant height ranged from 78 cm (IET 31420) to 123 cm (IET 32359), and panicles/m² ranged from 197 (Zonal check (ZC)) to 268 (IET 31420). **Among test entries, none of the entries recorded significant yield advantage over the best check, hence, none were promoted.**

Annual Progress Report 2024 Vol. I – Varietal Improvement

High altitude Hills

In AVT 1 & IVT U (H) at high altitude trial, one centre viz., Upper Shillong data was considered for analysis. Mean yield of the entries ranged from 700 kg/ha (IET 32363) to 3000 kg/ha (Local check (LC)). Days to 50% flowering ranged from 77 days (Local check) to 110 days (IET 32361). Similarly, plant height ranged from 69 cm (IET 32364) to 125 cm (Local check), and panicles/m² ranged from 147 (IET 32363) to 380 (Local check). **Among test entries, none of the entries recorded significant yield advantage over the best check, hence, none were promoted.**

Trial No. 23.1: Composition of entries in Advance Variety Trial 1 & Initial Variety Trial - Uplands (Hills) (AVT 1 & IVT- U (H)), Kharif 2024.

Entry No.	IET No.	Designation	Cross Combination	GT
2nd year of testing:				
2501	31424	RCPL 1-44-2	RCPL1-114 // Nania	MB
2502	31420	RCPL 1-450	Selection from IRBN-43 / 19	LS
1st year of testing				
2503	32357	VL 21112	Vivek Dhan 154/VL 8799	SB/MS
2504	32358	RCPL 1-453	Bhalum 1/Bhalum 3	MB
2505	32359	VL 21139	VL 7620/CAUR-2	LB/LS
2506	Sukaradhan 1 (NC)			
2507	32360	NLCJ-3	Gomati/Tripura Nirog	LS
2508	32361	RCPL 1-469	KbaLieh/Bhalum 3/1	MB
2509	32362	HPR 2902	HPR 2880/HPR 2612	SB
2510	32363	HPR 2903	HPR 288/HPR 2720	LS
2511	32364	VL 33019	VL Dhan 86/HPR 2686	LB
2512	VL Dhan 158 (ZC for North & South), Bhalum-1 (ZC for North East)			
2513	32365	HPR 2905	HPR 2754/HPR 2612	SL
2514	32366	RCPL 1-454	IVT - MH 2805/Sakur A	LS
2515	32367	NLCJ-6	Gomati/Tripura Nirog	LS
2516	32368	HPR 2904	HPR 2779/HPR 2720	LS
2517	32369	HPR 2888	HPR2143/AC19180	LS
2518	Local Check (LC)			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 23.2 : Grain Yield (Kg/Ha) of AVT 1 &- IVT- U (H), Kharif 2024

Entry No	IET No	High		Low Northern																	
		Meghalaya		Himachal Pradesh					Manipur			Manipur (3)	Low Northern (6)								
		Upper Shillong_H		Malan_H	Sundemagar_H	Dhaulakaum_H	Himachal Pradesh (3)	CAU-Imphal_H	Lamphepat_H	Wangbal_H	Mean	Mean									
2501	31424	2550	5	5093	1	2270		3300	1	3554	3	4833	7	1273	6	3533		3213	9	3384	7
2502	31420	1050		3961	10	1568		2567	10	2699		5000	5	1260	7	4567	6	3609	5	3154	10
2503	32357	1550		4270	6	3251	10	2767	6	3429	5	3067		970		2733		2257		2843	
2504	32358	2800	2	3999	8	2052		2592	8	2881		4833	7	1013	10	4767	2	3538	6	3210	9
2505	32359	1950	10	3498		3626	7	2267		3130	10	2867		963		3333		2388		2759	
2506 (NC)	Sukaradhan 1 (NC)	2800	2	4514	3	4889	1	2925	3	4109	1	2067		1027	9			1547		3084	
2507	32360	1400		3984	9	2287		2582	9	2951		6967	1*	1630	3	3867	9	4154	2	3553	2
2508	32361	2200	8	4038	7	3555	8	2617	7	3403	6	5233	4	1440	4	3500		3391	8	3397	6
2509	32362	1850		3524		3855	5	2283		3221	7	2767		1337	5	3633		2579		2900	
2510	32363	700		3228		4336	3	2092		3219	8	3633		953		3700	10	2762		2990	
2511	32364	2650	4	3009		2276		1950		2412		4733	9	1937	1	6500	1*	4390	1	3401	5
2512 (ZC)	Zonal Check	1100		2919		3686	6	1892		2832		5900	3	1107	8	4667	4	3891	4	3362	8
2513	32365	2450	6	2431		2439		1575		2148		2067		940		2767		1924		2036	
2514	32366	1200		4308	5	3283	9	2792	5	3461	4	4867	6	967		4667	4	3500	7	3481	4
2515	32367	2150	9	4347	4	2254		2817	4	3139	9	6733	2*	890		4733	3	4119	3	3629	1
2516	32368	1600		2752		4075	4	1783		2870		2700		953		3500		2384		2627	
2517	32369	2450	6	3138		2096		2033		2423		3667	10	780		4500	7	2982		2702	
2518 (LC)	Local Check	3000	1	4552	2	4361	2	2950	2	3955	2	3133		1820	2	4300	8	3084	10	3519	3
Experimental Mean		1969		3754		3120		2432		3102		4170		1181		4075		3095		3113	
F val		7.1**		10.1**		159.36**		10.1**		57.76**		27.46**		28.14**		81.51**		64.82**		41.48**	
CD(0.05)		751		656		223		425		195		824		181		292		288		184	
CV(%)		22.99		10.54		4.31		10.54		3.78		11.91		9.22		4.3		5.61		3.56	
DOS		08-05-2024		10.06-2024		24-06-2024		11-06-2024				25-06-2024		24-06-2024		11-07-2024					
DOP		27-06-2024		10.06-2024												14-08-2024					
Local Check Name				HPR 2656		HPR 2656		HPR 2795				CAU R2 (Tomthiphou)		KD-2-6-3							

Table No. 23.2 (Cont.): Grain Yield (Kg/Ha) of AVT 1 & IVT- U(H), Kharif 2024

Entry No	IET No	Medium Northern						Meghalaya (1)	Himachal Pradesh (3)	Overall Mean (9)			
		Sikkim		Uttarakhand		Medium Northern (2)							
		Gangtok_H		Almora_H		Mean							
2501	31424	570		2764	1*	1667	5	2550	5	3554	3	2910	5
2502	31420	223				223		1050		2699		2524	
2503	32357	625		2556	3	1591	6	1550		3429	5	2421	
2504	32358	570		1891		1231		2800	2	2881		2724	10
2505	32359	450		2625	2	1538	8	1950	10	3130	10	2398	
2506 (NC)	Sukaradhan 1 (NC)	5950	1	1763		3856	1	2800	2	4109	1	3242	1
2507	32360	1100	5	1747		1423		1400		2951		2840	6
2508	32361	300		2059	6	1180		2200	8	3403	6	2771	8
2509	32362	2800	3	2051	8	2426	3	1850		3221	7	2678	
2510	32363	740		1979	10	1360		700		3219	8	2374	
2511	32364	1770	4	2196	4	1983	4	2650	4	2412		3002	3
2512 (ZC)	Zonal Check	825	10	2107	5	1466	9	1100		2832		2689	
2513	32365	848	8	1827		1338		2450	6	2148		1927	
2514	32366	835	9	1907		1371		1200		3461	4	2758	9
2515	32367	1097	6	2059	6	1578	7	2150	9	3139	9	3009	2
2516	32368	5645	2	2035	9	3840	2	1600		2870		2783	7
2517	32369	550		1923		1237		2450	6	2423		2349	
2518 (LC)	Local Check	960	7	1907		1434	10	3000	1	3955	2	2998	4
Experimental Mean		1437		2082		1708		1969		3102		2689	
F val		203.08**		2.7**		69.61**		7.1**		57.76**		33.14**	
CD(0.05)		342		522		305		751		195		157	
CV(%)		14.33		15.07		10.77		22.99		3.78		3.51	
DOS		30-05-2024		05-06-2024									
DOP		16-07-2024											
Local Check Name		Samu Attay		VLD 221									

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 23.2 (Cont.): Grain Yield (Kg/Ha) of AVT 1 & IVT- U (H), Kharif 2024 (Trial not considered)

Entry No	IET No	High		Low Northern		Medium Northern	
		Meghalaya (0)		Meghalaya (0)		Uttarakhand (0)	
		@ICAR-UMM_H		@CAU-BRP_H		@BGS_H	
2501	31424	1869	8	104		178	7
2502	31420	2315	5	101			
2503	32357	2124	7	160	6	179	6
2504	32358	2567	1	182	3	162	9
2505	32359	1082		88		212	3
2506 (NC)	Sukaradhan 1 (NC)	1415		124	9	199	4
2507	32360	1260		137	8	90	
2508	32361	2454	3	168	4	385	1
2509	32362	2552	2	106		131	
2510	32363	1580	9	97		89	
2511	32364	749		114	10	122	
2512 (ZC)	Zonal Check	2153	6	283	2	150	10
2513	32365	1374		26		129	
2514	32366	1503	10	168	4	181	5
2515	32367	1176		57		246	2
2516	32368	938		146	7	126	
2517	32369	1226		84		139	
2518 (LC)	Local Check	2409	4	293	1	167	8
Experimental Mean		1708		135		170	
F val		2.03*		1.89ns		1.56ns	
CD(0.05)		1212		143		160	
CV(%)		42.77		63.72		56.58	
Local Check Name				21-05-2024		29-05-2024	
DOS							
DOP				Bhalum 3		VLD 221	

Table No 23.3: DFF (days), Plant Height (cm) and No. of Panicles/m2 AVT 1 & IVT- U (H), Kharif 2024

Entry No	IET No	High			Low Northern																											
		Meghalaya			Himachal Pradesh						Himachal Pradesh (3)			Manipur						Manipur (3)		Low Northern (6)										
		Upper Shillong_H			Malan_H		Sundarnagar_H		Dhaulakam_H		Mean			CAU-Imphal_H		Lambhapat_H		Wangbal_H		Mean		Mean										
		DF	Pan.No/m ²	PH (cm)	DF	Pan.No/m ²	PH (cm)	DF	Pan.No/m ²	PH (cm)	DF	Pan.No/m ²	PH (cm)	DF	Pan.No/m ²	PH (cm)	DF	Pan.No/m ²	PH (cm)	DF	Pan.No/m ²	PH (cm)	DF	Pan.No/m ²	PH (cm)	DF	Pan.No/m ²	PH (cm)				
2501	31424	94	301	101	87	224	116	105	243	93	88	224	135	93	231	115	84	378	128	92	138	102	98	427	118	91	315	116	92	273	115	
2502	31420	106	223	79	88	360	87	113	185	89	94	360	112	98	302	96	91	632	100	97	137	82	100	503	90	96	424	91	97	363	93	
2503	32357	96	218	104	79	322	140	97	288	95	78	322	154	85	311	129	75	272	134	81	115	111	92	273	127	83	220	124	84	265	127	
2504	32358	90	225	92	85	387	96	108	198	92	88	387	124	94	324	104	84	338	128	92	153	116	96	427	131	91	306	125	92	315	115	
2505	32359	101	257	100	76	289	109	100	348	93	72	289	146	82	309	116	74	321	156	80	147	124	84	503	132	80	324	137	81	316	126	
2506 (NC)	Sukaradhan 1 (NC)	95	310	90	77	276	98	96	376	90	75	276	114	83	310	101	77	367	119	83	211	93				80	289	106	82	301	103	
2507	32360	106	190	71	87	280	89	111	258	92	90	280	112	96	272	98	87	421	126	91	120	85	100	330	98	93	290	103	95	281	100	
2508	32361	110	250	84	87	274	106	102	321	93	89	274	138	93	290	112	80	305	124	91	81	101	97	315	124	90	233	116	91	262	114	
2509	32362	95	235	86	73	307	102	109	343	96	69	307	114	84	319	104	74	344	120	78	164	106	88	329	124	80	279	117	82	299	110	
2510	32363	85	147	85	75	334	97	95	366	83	75	334	100	82	345	94	75	362	112	76	144	91	83	378	109	78	295	104	80	320	99	
2511	32364	95	269	69	82	330	76	104	241	90	83	330	102	90	300	89	85	353	92	91	99	92	88	399	105	88	283	96	89	292	93	
2512 (ZC)	Zonal Check	98	170	91	78	310	127	95	337	108	79	310	139	84	319	125	86	314	115	91	132	107	97	357	127	91	268	116	88	293	120	
2513	32365	95	295	102	80	326	131	104	269	110	78	326	150	88	307	130	75	404	150	76	123	121	92	455	135	81	327	135	84	317	133	
2514	32366	100	175	75	84	238	112	104	302	91	85	238	123	91	260	109	79	430	103	91	122	92	95	441	97	88	331	97	90	295	103	
2515	32367	95	249	72	84	229	81	117	276	90	87	229	113	96	245	95	80	376	105	85	89	91	93	370	90	86	278	95	91	262	95	
2516	32368	95	205	76	78	270	95	96	347	99	76	270	122	83	296	105	78	421	97	78	150	91	65	293	110	74	288	99	78	292	102	
2517	32369	88	324	80	80	264	95	107	212	91	81	264	118	89	247	101	79	695	104	91	133	98	92	511	109	87	446	104	88	347	102	
2518 (LC)	Local Check (LC)	77	380	125	86	246	114	92	361	77	92	246	151	90	284	114	70	330	88	91	113	75	89	501	89	84	314	84	87	299	99	
Experimental Mean		95	245	87	81	292	103	103	292	92	82	292	125	89	293	108	79	392	116	86	131	98	91	400	112	86	306	109	87	300	108	
Standard Error		0.42				2.91			1.63			0.34			0.96			0.48			0.33			0.98			0.37			0.51		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 23.3 (Cont): DFF (days), Plant Height (cm) and No. of Panicles/m² AVT 1& IVT- U (H), Kharif 2024

Entry No	IET No	Medium Northern									Meghalaya (1)			Himachal Pradesh (3)			Overall Mean (9)		
		Sikkim			Uttarakhand			Medium Northern (2)											
		Gangtok H			Almora H			Mean											
		DFF	Pan.No/m ²	PH (cm)	DFF	Pan.No/m ²	PH (cm)	DFF	Pan.No/m ²	PH (cm)	DFF	Pan.No/m ²	PH (cm)	DFF	Pan.No/m ²	PH (cm)	DFF	Pan.No/m ²	PH (cm)
2501	31424	86	277	129	101	183	110	94	230	120	94	301	101	93	231	115	93	266	115
2502	31420	97	268	78				97	268	78	106	223	79	98	302	96	98	334	90
2503	32357	90	252	91	96	155	108	93	204	100	96	218	104	85	311	129	87	246	118
2504	32358	117	272	95	104	173	108	110	222	101	90	225	92	94	324	104	96	285	109
2505	32359	111	269	136	89	166	110	100	217	123	101	257	100	82	309	116	87	288	123
2506 (NC)	Sukaradhan 1 (NC)	113	313	72	94	176	112	104	244	92	95	310	90	83	310	101	89	288	99
2507	32360	96	361	113	97	111	77	96	236	95	106	190	71	96	272	98	96	261	96
2508	32361	92	355	92	95	131	100	93	243	96	110	250	84	93	290	112	94	256	107
2509	32362	135	336	110	91	151	100	113	244	105	95	235	86	84	319	104	90	279	107
2510	32363	89	300	130	89	153	98	89	226	114	85	147	85	82	345	94	82	280	101
2511	32364	138	299	99	92	140	73	115	220	86	95	269	69	90	300	89	95	273	89
2512 (ZC)	Zonal Check	112	282	103	93	112	111	102	197	107	98	170	91	84	319	125	92	258	114
2513	32365	86	292	127	89	158	105	88	225	116	95	295	102	88	307	130	86	294	126
2514	32366	102	260	104	94	176	79	98	218	92	100	175	75	91	260	109	93	265	97
2515	32367	89	328	110	97	98	73	93	213	91	95	249	72	96	245	95	92	249	92
2516	32368	144	262	140	90	171	96	117	216	118	95	205	76	83	296	105	89	265	103
2517	32369	103	308	94	92	143	106	97	226	100	88	324	80	89	247	101	90	317	99
2518 (LC)	Local Check (LC)	74	294	92	89	139	98	82	216	95	77	380	125	90	284	114	84	290	101
Experimental Mean		104	296	106	93	149	97	99	226	102	96	246	88	89	293	108	91	277	105
Standard Error		6.24			1.05			3.62			0.42			0.96			0.85		

Table No. 23.3 (Cont): DFF (days), Plant Height (cm) and No. of Panicles/m² AVT 1& IVT- U (H), Kharif 2024 (Trials not considered)

Entry No	IET No	High			Low Northern			Medium Northern		
		Meghalaya (0)			Meghalaya (0)			Uttarakhand (0)		
		@ICAR-UMM_H			@CAU-BRP_H			@BGS_H		
		DFF	Pan.No/m ²	PH (cm)	DFF	Pan.No/m ²	PH (cm)	DFF	Pan.No/m ²	PH (cm)
2501	31424	86	217	126	104	36	130	104	33	56
2502	31420	93	121	72	115	62	87			
2503	32357	73	168	109	90	40	132	96	41	60
2504	32358	80	192	111	104	39	132	107	59	60
2505	32359	70	171	108	82	36	140	97	41	62
2506 (NC)	Sukaradhan 1 (NC)	73	194	114	88	50	133	97	33	60
2507	32360	87	238	87	105	40	96	99	32	52
2508	32361	87	153	112	108	29	124	98	44	59
2509	32362	68	187	103	85	50	117	96	33	55
2510	32363	68	210	87	90	49	103	95	25	53
2511	32364	82	179	70	93	43	86	96	38	47
2512 (ZC)	Zonal Check	84	173	96	109	34	122	95	25	62
2513	32365	70	216	109	90	43	130	95	41	55
2514	32366	89	201	75	100	40	89	97	43	60
2515	32367	74	194	78	97	32	97	99	44	52
2516	32368	69	192	91	89	47	110	95	25	53
2517	32369	75	186	82	96	40	86	96	38	52
2518 (LC)	Local Check	85	183	94	106	32	126	93	30	55
Experimental Mean		78	187	95	97	41	113	97	36	56

**ADVANCE VARIETY TRIAL-1 & INITIAL VARIETY TRIAL -
JAPONICA [AVT 1 & IVT J]**

Locations : 9

Test Entries: 4

Checks : Bhrigudhan, Varundhan, Shalimar Rice-5 and local check Table: 6.4

Advance Variety Trial-1 & Initial Variety Trial - Japonica [AVT 1 & IVT J] was constituted with four test entries and four checks viz., Bhrigudhan, Varundhan, Shalimar Rice-5 and a local check (LC). Among 4 test entries, one entry was in second year of testing (AVT-1) and remaining three were in first year of testing (IVT). The trial was sent to 9 locations in three zones (Zone I, III and IV) and data was received from seven locations viz., Malan, Khudwani, Larnoo, Malda, Pundibari, Titabar and Gerua. The trial was not conducted at two centres i.e., ICAR-Almora and Lembuchera; and data from seven locations was analysed. The data pertaining to yield, days to 50% flowering, plant height, panicles/m² and quality are presented in the **Tables 24.1 to 24.3**.

Experimental mean at the locations varied from 1467 kg/ha at Titabar to 6361 kg/ha at Khudwani and CV ranged from 6.31 % at Malda to 17.97 % at Titabar. Overall mean grain yield ranged from 2624 kg/ha (IET 32372) to 4482 kg/ha (Local check); days to 50% flowering from 84 days (Shalimar Rice-5) to 97 days (IET 31431); plant height from 75 cm (Shalimar Rice-5) to 96 cm (IET 32370 and Varundhan); and number of panicles/m² from 256 (Bhrigudhan) to 300 (IET 31431). Among the checks, local check recorded maximum grain yield (4482 kg/ha with 91 days to 50% flowering) followed by Varundhan (3732 kg/ha with 92 days to 50% flowering), Shalimar Rice-5 (3098 kg/ha with 84 days to 50% flowering) and Bhrigudhan (2881 kg/ha with 88 days to 50% flowering). **On over all mean basis, none of the entries were promoted to AVT1 or AVT-2.** The data pertaining to grain yield, days to 50% flowering, plant height and panicles/m² are presented in tables and

Performance of entries in AVT 1 & IVT J - Kharif, 2024:

Zone I-Hilly Region

In Zone I-Hilly region, data from Khudwani and Larnoo of Jammu & Kashmir and Malan of Himachal Pradesh was considered for analysis. The mean grain yield of entries ranged from 4091 kg/ha (Bhrigudhan) to 6453 kg/ha (IET 32371), while days to 50% flowering ranged from 82 days (Shalimar Rice-5) to 110 days (IET 31431). Two entries recorded significant yield superiority against best check Varundhan (4810 kg/ha) viz., **IET 32371** (Hinokari) introduced from Japan was in first year of testing with 6453 kg/ha grain yield, 108 days to 50% flowering and plant height of 93 cm with short bold (SB) grain type and **IET 31431**(Koshikari) was in second year of testing with 5851 kg/ha grain yield, 110 days to 50% flowering and plant height of 95 cm with short bold (SB) grain type, which were promoted to **AVT1** and **AVT 2**, respectively.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of entries in AVT 1 & IVT J -Zone I (Hilly Region) Kharif, 2024

IET No. / Designation / Cross Combination	Grain Yield (Kg/ha) Days to 50% Flowering Grain type
IET 32371 (Hinokari) Introduced from Japan	6453 108 SB
IET 31431 (Koshikari)	5851 110 SB
Varundhan	4810 99
Bhrigudhan	4091 98
Shalimar Rice- 5	4229 82
Local check (LC)	4523 86
CD	388

Zone III-Eastern

In Zone III, the trial AVT 1 & IVT J was conducted at two locations i.e., Malda and Pundibari from West Bengal. Mean grain yield ranged from 1786 kg/ha (IET 32372) to 3710 kg/ha (Local check), while, days to 50% flowering from 77 days (Bhrigudhan) to 80 days (except Bhrigudhan all other entries including checks). Plant height ranged from 80 cm (IET 31431 and IET 32371) to 86 cm (IET 32370 and local check) and number of panicles/m² from 192 (IET 32372) to 232 (Varundhan). Among the checks, local check recorded maximum grain yield (3710 kg/ha with 80 days to 50% flowering) followed by Varundhan (3236 kg/ha with 80 days to 50% flowering), Bhrigudhan (2901 kg/ha with 77 days to 50% flowering) and Shalimar Rice-5 (2673 kg/ha with 80 days to 50% flowering). On the basis of yield superiority over the best check including CD value, **none of the test entries recorded significant yield advantage against the best check (LC), hence, none of the entries were promoted in Eastern zone (Zone III).**

Zone IV-North-Eastern

In Zone IV, the trial AVT 1 & IVT J was conducted at two locations viz., Titabar and Gerua-ICAR. Mean grain yield ranged from 553 kg/ha (Shalimar Rice-5) to 5193 kg/ha (Local check), while, days to 50% flowering from 83 days (Bhrigudhan) to 110 days (Local check). Plant height ranged from 62 cm (Shalimar Rice-5) to 117 cm (Local check) and number of panicles/m² from 264 (Shalimar Rice-5) to 349 (IET 32372). **None of the test entries recorded significant yield advantage against the best check (LC), hence none of the entries were promoted to next year of testing in North-Eastern zone (Zone IV).**

List of test entries promoted to AVT-2 J and AVT 1 J of testing is mentioned below.

Zone	Entries promoted to AVT-2 J and AVT 1 J
Zone I-Hilly Region	IET 31431 (promoted to AVT-2 J)
Zone I-Hilly Region	IET 32371 (promoted to AVT 1 J)

Annual Progress Report 2024 Vol. I – Varietal Improvement

Trial No. 24.1: Composition of entries in Advance Variety Trial 1 & Initial Variety Trial - Japonica (AVT 1 & IVT- J), Kharif 2024.

Entry No.	IET No.	Designation	Cross Combination	GT
2nd year of testing:				
2601	31431	Koshikari		SB
1st year of testing:				
2602	32370	Chohartu	Land race from Roharu of Shimla District of HP	SB
2603	Varundhan (Check)			SB
2604	32371	Hinokari	Introduced from Japan	SB
2605	Bhrigudhan (Check)			
2606	32372	Gochha	Landrace of Kangra District of HP	SB
2607	Shalimar Rice-5 (Check)			
2608	Local Check			

Table No. 24.2: Grain Yield (Kg/Ha) of AVT 1 & IVT- Japonica, Kharif 2024

ENTRY NO	IET NO	Zone I- Hills									
		Himachal Pradesh		Jammu & Kashmir			Jammu & Kashmir (2)		Zone I- Hills (3)		
		Malan		Khudawani	Larnoo		Mean		Mean		
2601	31431	5258	2 *	7188	2 *	5107	2	6147	2 *	5851	2 *
2602	32370	4085	5	6295	3	4715	3	5505	3	5032	3
2603 (Check)	Varundhan (Check)	4242	4	6248	4	3940	6	5094	6	4810	4
2604	32371	5606	1 *	8161	1 *	5592	1 *	6876	1 *	6453	1 *
2605 (Check)	Bhrigudhan (Check)	2818	7	5571	7	3884	7	4727	7	4091	8
2606	32372	4318	3	5220	8	3810	8	4515	8	4450	6
2607 (Check)	Shalimar Rice-5 (Check)	2091	8	6091	6	4506	5	5299	5	4229	7
2608 (LC)	Local Check	2879	6	6114	5	4577	4	5345	4	4523	5
Experimental Mean		3912		6361		4516		5439		4930	
F val		84.14**		8.82**		6.65**		14.91**		39.35**	
CD(0.05)		394		917		718		581		388	
CV(%)		6.85		9.80		10.82		7.27		5.35	
D/S		04-06-2024		03-05-2024		10-05-2024					
D/P		03-07-2024		02-06-2024		10-06-2024					
Local Check Name		Naggar Dhan		SR-5		SR-5					

Table No. 24.2 (Cont.): Grain Yield (Kg/Ha) of AVT 1 & IVT- Japonica, Kharif 2024

ENTRY NO	IET NO	Zone III- Eastern							
		West Bengal				West Bengal (2)		Zone III- Eastern (2)	
		Malda		Pundibari		Mean		Mean	
2601	31431	4488	2	2029	2	3258	2	3258	2
2602	32370	2080	8	1740	3	1910	7	1910	7
2603 (Check)	Varundhan (Check)	4768	1	1704	4	3236	3	3236	3
2604	32371	4128	4	1331	8	2729	5	2729	5
2605 (Check)	Bhrigudhan (Check)	4278	3	1525	6	2901	4	2901	4
2606	32372	2198	7	1375	7	1786	8	1786	8
2607 (Check)	Shalimar Rice-5 (Check)	3721	5	1625	5	2673	6	2673	6
2608 (LC)	Local Check	3292	6	4127	1	3710	1	3710	1
Experimental Mean		3619		1932		2775		2775	
F val		79.72**		115.03**		71.92**		71.92**	
CD(0.05)		336		251		230		230	
CV(%)		6.31		8.82		5.63		5.63	
D/S		19-06-2024							
D/P		23-07-2024							
Local Check Name		Satabdi							

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 24.2 (Cont.): Grain Yield (Kg/Ha) of AVT 1 & IVT- Japonica, Kharif 2024

ENTRY NO	IET NO	Zone IV-North Eastern								Overall Mean (7)	
		Assam				Assam (2)		Zone IV-North Eastern (2)			
		Titabar		Gerua		Mean		Mean			
2601	31431	1547	2	1473	3	1510	2	1510	2	3870	3
2602	32370	1018	4	1027	6	1022	6	1022	6	2994	6
2603 (Check)	Varundhan (Check)		7	1490	2	1490	3	1490	3	3732	4
2604	32371	1365	3	1236	5	1301	4	1301	4	3917	2
2605 (Check)	Bhrigudhan (Check)	795	6	1297	4	1046	5	1046	5	2881	7
2606	32372	795	5	653	7	724	7	724	7	2624	8
2607 (Check)	Shalimar Rice-5 (Check)		7	553	8	553	8	553	8	3098	5
2608 (LC)	Local Check	3280	1	7107	1	5193	1	5193	1	4482	1
Experimental Mean		1467		1855		1605		1605		3450	
F val		50.77**		224.12**		276.73**		276.73**		77.02**	
CD(0.05)		397		422		263		263		215	
CV(%)		17.97		15.49		11.16		11.16		4.23	
D/S		27-06-2024		11-06-2024							
D/P		26-07-2024		22-07-2024							
Local Check Name		Disang		CR Dhan 312							

Table No 24.3 : DFF (days), Plant Height (cm) and No. of Panicles/m2 AVT 1 & IVT- Japonica, Kharif 2024

ENTRY NO	IET NO	Zone I- Hills														
		Himachal Pradesh			Jammu & Kashmir						Jammu & Kashmir (2)			Zone I- Hills (3)		
		Malan			Khudawani			Laroo			Mean			Mean		
		DFE	Pan.No/m2	PH (cm)	DFE	Pan.No/m2	PH (cm)	DFE	Pan.No/m2	PH (cm)	DFE	Pan.No/m2	PH (cm)	DFE	Pan.No/m2	PH (cm)
2601	31431	97	280	96	116	404	107	119	294	84	117	349	95	110	326	95
2602	32370	96	356	113	109	398	116	109	278	108	109	338	112	105	344	112
2603 (Check)	Varundhan (Check)	87	159	96	101	403	117	109	241	105	105	322	111	99	268	106
2604	32371	96	251	92	113	422	108	114	308	80	114	365	94	108	327	93
2605 (Check)	Bhrigudhan (Check)	82	149	97	97	361	122	114	253	94	105	307	108	98	254	104
2606	32372	94	301	125	108	360	122	113	253	94	110	306	108	105	305	114
2607 (Check)	Shalimar Rice-5 (Check)	72	436	55	83	381	83	93	280	78	88	330	81	82	366	72
2608 (LC)	Local Check	82	218	89	81	390	79	94	280	74	88	335	76	86	296	81
Experimental Mean		88	268	95	101	389	106	108	273	89	104	332	98	99	311	97
Standard Error		0.73			0.48			0.45			0.36			0.38		

Table No 24.3 (Cont): DFF (days), Plant Height (cm) and No. of Panicles/m2 AVT 1 & IVT- Japonica, Kharif 2024

ENTRY NO	IET NO	Zone III- Eastern											
		West Bengal						West Bengal (2)			Zone III- Eastern (2)		
		Malda			Pundibari			Mean			Mean		
		DFE	Pan.No/m2	PH (cm)	DFE	Pan.No/m2	PH (cm)	DFE	Pan.No/m2	PH (cm)	DFE	Pan.No/m2	PH (cm)
2601	31431	74	273	98	86	163	61	80	218	80	80	218	80
2602	32370	71	229	111	90	182	62	80	206	86	80	206	86
2603 (Check)	Varundhan (Check)	74	271	103	86	194	67	80	232	85	80	232	85
2604	32371	74	258	96	85	179	65	80	218	80	80	218	80
2605 (Check)	Bhrigudhan (Check)	78	260	100	76	183	62	77	221	81	77	221	81
2606	32372	77	222	107	82	162	60	80	192	84	80	192	84
2607 (Check)	Shalimar Rice-5 (Check)	76	227	103	84	166	67	80	197	85	80	197	85
2608 (LC)	Local Check	76	244	100	85	213	73	80	228	86	80	228	86
Experimental Mean		75	248	102	84	180	64	80	214	83	80	214	83
Standard Error		0.71			0.29			0.34			0.34		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 24.3 (Cont): DFF (days), Plant Height (cm) and No. of Panicles/m² AVT 1 & IVT- Japonica, Kharif 2024

ENTRY NO	IET NO	Zone IV-North Eastern												Overall Mean (7)		
		Assam						Assam (2)			Zone IV-North Eastern (2)					
		Titabar			Gerna			Mean			Mean					
		DFF	Pan.No/m ²	PH (cm)	DFF	Pan.No/m ²	PH (cm)	DFF	Pan.No/m ²	PH (cm)	DFF	Pan.No/m ²	PH (cm)	DFF	Pan.No/m ²	PH (cm)
2601	31431	89	353	63	97	333	72	93	343	67	93	343	67	97	300	83
2602	32370	90	348	78	91	302	87	91	325	82	91	325	82	94	299	96
2603 (Check)	Varundhan (Check)				97	286	89	97	286	89	97	286	89	92	259	96
2604	32371	85	330	60	97	308	73	91	319	66	91	319	66	95	294	82
2605 (Check)	Bhrigudhan (Check)	70	325	80	97	264	86	83	294	83	83	294	83	88	256	91
2606	32372	85	371	68	91	327	81	88	349	75	88	349	75	93	285	94
2607 (Check)	Shalimar Rice-5 (Check)				97	264	62	97	264	62	97	264	62	84	292	75
2608 (LC)	Local Check	88	356	96	132	243	137	110	300	117	110	300	117	91	278	92
Experimental Mean		84	347	74	99	290	85	94	310	80	94	310	80	92	283	89
Standard Error		0.48			0			0.22			0.22			0.2		

Table No 24.4: Grain quality characteristics of entries in AVT 1 & IVT- Japonica, Kharif 2024

Code	Entry No.	Designation / IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1980	2601	31431	81.6	69.9	38.5	5.16	2.95	1.74	SB	VOC	5.0	19.68	100
1981	2602	32370	80.2	63.2	40.3	5.48	2.74	2.00	SB	OC	4.0	24.78	75
1982	2603	VARUN DHAN	80.8	65.1	27.8	5.42	2.97	1.82	SB	VOC	5.0	16.22	73
1983	2604	32371	81.4	66.5	41.0	5.16	2.90	1.77	SB	A	5.0	18.56	85
1984	2605	Bhrigudhan	79.7	61.5	24.0	5.66	3.20	1.76	SB	VOC	5.0	18.45	100
1985	2606	32372	80.6	57.6	14.9	5.32	2.87	1.85	SB	OC	5.0	25.90	68
1986	2607	Shalimar Rice	80.9	67.2	37.3	5.05	2.87	1.75	SB	VOC	7.0	19.15	85
1987	2608	L.C	80.6	63.1	28.8	5.33	3.07	1.73	SB	VOC	5.0	19.82	100

HULL: Hulling(%) MILL:Milling(%) HRR:Head Rice Recovery KL:Kernal length (mm) KB:Kernal Breadth(mm) L/B : Length and Breadth(mm) KLAC:Kernal length after cooking WU:Water uptake ER:Elongation ratio AC:Amylose content (%) ASV:Alkali Spreading Value AC: Amylose Content GC: Gel consistency

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Annual Progress Report 2024 Vol. I – Varietal Improvement

ADVANCE VARIETY TRIAL 2 &1 - ALKALINE AND INLAND SALINE TOLERANT VARIETY TRIAL (AVT 2 &1 - AL & ISTVT)

Locations: 18

Test Entries: 36

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 & RP) and local check **Table: 25**

AVT 2 &1- AL & ISTVT was constituted with 36 entries including 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 18 locations and data was received from 16 locations except Jind (Karnal) and ICAR-Lucknow. Among the 30 test entries evaluated, 8 entries are promoted from AVT1 AL & ISTVT are in the 3rd year of testing, 9 entries are promoted from IVT AL & ISTVT and are in the second year of testing, two entries are repeat entries and are in the 4th year of testing, 7 NILs of which 3 NILs in the genetic background of AD T 45, 2 NILs each in the genetic background of Pusa 44 and ISM; one genome edited line of MTU 1010 were evaluated in this trial.

The data pertaining to yield, days to 50% flowering, plant height, panicles/m² and quality are presented in **Tables 25.1 to 25.4**. The details of EC and pH of different locations is given in the following table. NIL entries were separately described in comparison to its recurrent parent (RP)

General information about soil stress parameters and yield performance of entries under alkalinity and inland salinity in AVT 2 &1 AL & ISTVT, Kharif, 2024

Location/State	Soil pH	Soil EC (dSm ⁻¹)	Exptl mean (kg/ha)	Grain Yield Range (Kg/ha)	CV %	Remarks
Alkalinity						
Karnal (Haryana) (Sodic microplots)	9.4	1.1	3127	2056 - 4352	20.9	Data considered for identification of tolerant genotypes
Kurukshetra (Haryana)	9.6	0.8	3455	2167 - 4707	16.5	Data considered for analysis
Anjanteli	9.4	0.9	3507	2150 - 4770	19.3	Data considered for analysis
Kanpur (Uttar Pradesh)	9.2	1.8	2232	1738 - 3242	13.9	Data considered for analysis
Gautam Budha Nagar (UP)	9.0	1.0	3691	2315 - 120	12.5	Data considered for analysis
Kampasagar (Telangana)	8.5	3.8	4241	1848 - 5667	7.6	Data considered for analysis
Trichy	8.7	2.4	3536	933 - 5112	7.2	Data considered for analysis
Annamalainagar (Tamil Nadu)	8.67	1.9	3118	2207 - 3685	10.6	Data considered for analysis
Puducherry (Puducherry)	8.4	4.2	3099	2200 - 4133	10.4	Data considered for analysis
Karaikal	9.01	3.2	3024	2408 - 3878	12.5	Data considered for analysis
Inland Saline						
Karnal (Haryana) (Inland Saline microplot)	7.6	9.0	3165	1685 - 4296	17.9	Data considered for identification of tolerant genotypes
Rhotak (Karnal)	7.6	8.1	3372	1760 - 4755	17.3	Data considered for analysis
Panipat (Haryana)	7.8	9.1	3595	1647 - 2095	13.2	Data considered for analysis
Gangavati	8.1	7.3	2297	1302 - 4274	6.4	Data considered for analysis

Annual Progress Report 2024 Vol. I – Varietal Improvement

Location/State	Soil pH	Soil EC (dSm ⁻¹)	Exptl mean (kg/ha)	Grain Yield Range (Kg/ha)	CV %	Remarks
(Karnataka)						
Normal						
Danti (Navasri)	8.5	6.2	3278	1443 - 5871	18.7	Sensitive check among checks recorded higher yield while tolerant check recorded lowest yield. Data not in considered in final analysis.
Masodha (UP)	9.2	2.1	5165	4550 - 5786	2.37	Low CV%. Sensitive and tolerant checks recorded on par yield. Data not considered.
Vytilla (Kerala)	4.5	2.4	2757	1027 - 5150	14.8	Required stress levels not present hence trial not considered for analysis

Performance of entries in micro-plots (Sodic/ Inland Saline stress conditions) at CSSRI, Karnal Kharif, 2024

The AVT 2 & 1 AL&ISTVT trial was conducted at Karnal inland saline as well as alkaline microplot during Kharif, 2024. The standard evaluation scores (SES) recorded by the test entries, tolerant and sensitive checks are presented in table below.

Entry No	IET NO	NORTHERN (Z II)					
		ICAR-CSSRI, Karnal: Micro Plot phenotyping					
		Vigor/SES (Sodic)	Yield (kg/ha)	Rank	Vigor/SES (Saline)	Yield (kg/ha)	Rank
4701	30165	6	2759		6	2463	
4702	30178	5	3315	9	4	3574	9
4705	31048	3	4333	2 *	4	3463	10
4707	31051	7	2741		4	3389	
4708	31050	5	3481	8	3	4185	3 *
4709	31053	6	2741		6	3389	
4711	31055 (R)	4	3593	6	3	3981	5 *
4712	30180	-			-		
4722	31858	3	4167	5 *	3	3741	7
4725	31861	3	4241	4 *	3	4296	1 *
4728	31862	3	4352	1 *	3	4278	2 *
4715	32043 (GEL-Drt+ Salt)	7	2056		8	1870	
4716	MTU 1010 (RP)	6	2463		4	3611	8
4719	32037 NIL	6	2704		7	2722	
4729	32038(Saltol)	7	2778		6	2796	
4736	32036 NIL	4	3574	7	4	3833	6\$\$
4727	ADT 45 (RP)	6	2796		6	2796	
4730	32055 NIL	8	2333		8	1870	
4733	32056 NIL	7	2926		6	2796	
4735	ISM (RP)	7	2796		6	3074	
4731	32053 NIL	6	3056	\$	5	3204	\$\$
4734	32052 NIL	3	4315	3 *\$	3	4185	3 *
4706	CSR 36	6	3111		6	2944	
4710	FL 478	6	2926		5	3074	
4717	CSR 10	6	2444		7	2370	
4721	CSR 23	6	3130		6	2815	
4732	Local check (LC)	6	3222	10	6	3074	
4726	Pusa 44	8	2093		8	1685	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entry No	IET NO	NORTHERN (Z II)					
		ICAR-CSSRI, Karnal: Micro Plot phenotyping					
		Vigor/SES (Sodic)	Yield (kg/ha)	Rank	Vigor/SES (Saline)	Yield (kg/ha)	Rank
Exp. Mean			3127.57			3165.98	
F Value			4.21<(0.0001)			6.06(<0.0001)	
CD			923.31			800.83	
CV%			20.97			17.97	
Local Check Name			CSR 36			CSR 27	
\$ Entries significantly superior to Pusa 44 at the 5% level of significance							
\$\$ Entries significantly superior to ADT 45 at the 5% level of significance							

In microplot evaluation under controlled stress conditions, the IETs. 31858, 31861, 31862, 32052, 31048, 31055, 32036 and 32036 possessed dual tolerance for sodicity and inland salinity with a tolerance score of 3.0 - 4.0 as compared to tolerant and sensitive checks which scored an SES scores of 6 and 8 respectively. IETs 31050 & 31051 found promising for inland salinity with SES score of 3 & 4 respectively as compared to tolerant and sensitive checks.

1. Performance of entries under Alkaline Stress

Under alkalinity, the trial was sent to Zone II, III, VI and VII and the data received from Karnal (sodic microplot), Anjanteli, Kurukshetra, GB Nagar, Kanpur, Masodha, Kampasagar, Trichy, Annamalainagar, Karaikal, and Puducherry. The data from Masodha, was not included in the analysis due Low CV%, sensitive and tolerant checks recorded on par yield. 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. Zone wise promising entries identified are described below.

Zone II (Alkalinity)

For Alkalinity stress, test locations in Zone-II consisted of Anjanteli, Kurukshetra and Kanpur. The mean grain yield ranged from 2165 kg/ha (Pusa 44) to 3882 kg/ha (IET 31862), days to 50% flowering varied from 61 days (IET 30180) – 92 days (Pusa 44). Plant height of the entries ranged from 61.64 cm (IET 32038) to 89.72 cm (IET 31055) and the panicles/m² varied from 170 (Pusa 44) to 407 (IET 30180). Among the checks, CSR 23 (3141 kg/ha) recorded highest yield followed by local check (2886 kg/ha), FL 478 (2867 kg/ha), CSR 36 (2718 kg/ha), CSR 10 (2610 kg/ha), and Pusa 44 (2165 kg/ha). Hence, CSR 23 is the best check in Z-II.

Among the test entries, **IET 31862** (CSR 2021-AL-294-72) derived from PR 126 / CSR27 with mean grain yield of 3882 kg/ha and 81 days to flowering with significant yield superiority ranked first in Z-II, followed by **IET 31861** (CSR 2021-AL-2-94-112) developed from IRRI 156 / CSR26 exhibited significant yield superiority with a mean grain yield of 3779 kg/ha and 76 days to flowering. **IET 32052** (CSR-389-16-19-15) NIL from the parentage of Pusa44 / FL478*3 / Pusa44 / IRBB60* recorded a mean grain yield of 3746 and 89 days; **IET 31050** (CSR 104-10-2) from the cross IR 60997-L / FL 478 with grain yield of 3733 kg/ha and 73 days, **IET 31858** (CSR 2021-ST-294-168) of parentage PR 114 / CSR56 recorded grain yield of 3710 kg/ha and 81 days, **IET 31048** (CSR 116-10-2) derived from Pusa 44 / CSR 27 with grain yield of 3708 kg/ha and 70 days and **IET 31055** (CSR 141-11-

Annual Progress Report 2024 Vol. I – Varietal Improvement

112) from Pusa 44 / CSR27 with a mean grain yield of 3705 kg/ha and 73 days to flowering exhibited significant yield superiority over best check and are found promising in Z-II

The early duration cultures were compared with the early duration check among all the checks \pm SEM. FL 478 with 71 days to flowering is the earliest check in Z-II. Upon comparison, **IET 31048** with grain yield of 3708 kg/ha and 70 days exhibited the required significant yield advantage over early check.

In Zone –II, IET nos. 31862, 31861, 31050, 31858, 31048, 31055 and IET 32052 (NIL) found to be promising under alkalinity.

Zone III (Alkalinity)

For Alkalinity stress in Zone-III, consisted of three locations i.e., Gautam Buddha Nagar, Masodha and Lucknow. The data received from Gautam Buddha Nagar and Masodha. Data not considered from Masodha due low CV%, sensitive and tolerant checks recorded on par yield. The single location data from Gautam Buddha Nagar with desired stress level and experimental yield and CV was considered for final analysis.

The mean grain yield ranged from 2315 kg/ha (Pusa 44) to 5120 kg/ha (IET 31050), days to 50% flowering varied from 71 days (IET 31048) – 106 days (IET 32036, NIL entry). Plant height of the entries ranged from 48.5 cm (CSR 10) to 103 cm (IET 31861) and the panicles/m² varied from 146 (Pusa 44) to 302 (IET 31050). Among the checks, CSR 23 (3605 kg/ha) recorded highest yield followed by Local check (3555 kg/ha), CSR 36 (3440 kg/ha), FL 478 (2880 kg/ha), CSR 10 (2360 kg/ha) and Pusa 44 (2315 kg/ha). Hence, CSR 23 is the best check in Zone III.

Among the test entries, **IET 31050** (CSR 104-10-2) from the cross IR 60997-L / FL 478 with mean grain yield of 5120 kg/ha and 84 days to 50% flowering ranked 1st in Z-III with significant yield superiority over BC, followed by **IET 31861**(CSR 2021-AL-2-94-112) developed from IRRI 156 / CSR26 with a mean grain yield of 5105 kg/ha and 97 days to flowering. Other test entries with significant yield advantage over BC are **IET 31862** (CSR 2021-AL-294-72) derived from PR 126 / CSR27 with mean grain yield of 5100 kg/ha and 86 days; **IET 31048** (CSR 116-10-2) derived from Pusa 44 / CSR 27 with grain yield of 5025 kg/ha and 71 days; **IET 31055** (CSR 141-11-112) from Pusa 44 / CSR27 with a mean grain yield of 4945 kg/ha and 81 days; **IET 31858** (CSR 2021-ST-294-168) of parentage PR 114 / CSR56 recorded grain yield of 4845 kg/ha and 89 days; and **IET 32052** (CSR-389-16-19-15), NIL of Pusa 44 (Pusa44 / FL478*3 /Pusa44/IRBB60*) recorded a mean grain yield of 4380 kg/ha and 102 days found promising in zone-III under alkalinity.

Among the checks, CSR 36 with 79 days to flowering is the earliest check in Z-III. Upon comparison, **IET 31048** with grain yield of 5025 kg/ha and 71 days; IET 31055 with 4945 kg/ha and 81 DFF exhibited the required significant yield advantage over early check.

In Zone –III, IET Nos. 31050, 31861, 31862, 31048, 31055, 31858 and 32052 (NIL) found promising under alkalinity.

Zone VII (Alkalinity)

In zone VII, the trial data from all the five locations Kampasagar, Trichy, Annamalainagar, Puducherry and Karaikal included in the final analysis. The mean grain yield ranged from 2356 kg/ha (31045) to 4058 kg/ha (Local check), days to 50% flowering varied from 82 days (ADT 45) – 102 days (IET 32036, NIL & Pusa 44). Plant height of the entries ranged from 68 cm (IET 31855) to 105 cm (IET 31862) and the panicles/m² varied from 301 (IET 32055, NIL) to 594 (IET 31862). Among the checks, local check (4058 kg/ha) recorded highest yield

Annual Progress Report 2024 Vol. I – Varietal Improvement

followed by CSR 23 (3411 kg/ha), Pusa 44 (3105 kg/ha), CSR 36 (3005 kg/ha), FL 478 (2975 kg/ha) and CSR 10 (2453 kg/ha). *Local check is the top ranking entry, hence none of the test cultures were found to be significant over best check in Z- VII.*

Among the checks, CSR 10 with 82 days to flowering (SEM 0.5) is the earliest check in Zone-VII. Upon comparison, none of the entries were identified with comparable flowering duration with CSR 10. Hence none found promising in Z-VII under alkalinity.

In Zone – VII, none found promising either over best check or over early check under alkalinity.

Performance of entries in AVT 2 & 1 AL & ISTVT under alkalinity and inland salinity, Kharif 2024

IET No/ Check	Alkalinity		Inland Salinity		Remarks
	Z-II (3)/ DFF	Z-III (1)/ DFF	Z-II (2)/ DFF	Z-VII (1)/ DFF	
IET 31862 (CSR 2021-AL-294-72)	3882 81	5100 86	4660 94		Significant in Z-II, & Z-III: Alkalinity; in Z-II for Inland salinity over Best check (BC)
IET 31861 (CSR 2021-AL-2-94-112)	3779 76	5105 97	4675 89		Significant in Z-II & Z-III : Alkalinity; in Z-II for Inland salinity over BC
IET 32052 (CSR-389-16-19-15)	3746 89	4380 102	4020 106		Significant in Z-II & Z-III : Alkalinity; in Z-II for Inland salinity over BC
IET 31050 (CSR 104-10-2)	3733 73	5120 84	4780 86		Significant in Z-II & Z-III :Alkalinity; in Z-II for Inland salinity over BC
IET 31858 (CSR 2021-ST-294-168)	3710 81	4845 89	4573 88		Significant in Z-II, & III under Alkalinity; in Z-II for Inland salinity over BC
IET 31048 (CSR 116-10-2)	3708 70	5025 71	4718 89		Significant over BC & early check in Z-II & Z-III under alkalinity, in Z-II over BC for Inland salinity
IET 31055 (CSR 141-11-112)	3705 73	4945 81	4598 90		Significant over BC in Z-II, & BC and early check in Z-III: Alkalinity; in Z-II over BC for Inland salinity
IET 32036 (KR 21002)	--	--	3985 103		Significant in Z-II over BC for Inland salinity over
IET 31045 (RP 6684-CGR 13)				4274 100	Significant in Z-VII for Inland salinity over BC
IET 32038 (KR21003)				3794 86	Significant in Z-VII for Inland salinity over BC
CSR 36	2718 82	3440 79	3325 84	809 109	
CSR 23	3141 78	3605 101	3345 86	1713 85	
CSR 10	2610 76	2360 85	3048 96	1410 81	
FL 478	2867 71	2880 89	3215 81	2255 94	
Pusa 44	2165 92	2315 94	1928 100	1578 109	
Local check	2886 76	3555 90	3365 93	3360 103	
G. Mean	3057	3691	3484	2297	
CD	396.1	650.0	566	207.3	
CV%	9.21	12.50	11.5	6.42	

2. Inland Saline Stress

The inland saline stress trial data was received from Karnal, Rohtak, Panipat, Danti (Navsari), Gangavati and Vytilla. At Danti the sensitive check is the highest yielding than all tolerant checks, while at Vytilla, the trial experienced low stress level due to heavy rains and so data not considered. The data from saline microplot evaluation, Karnal was used for the identification of tolerant genotypes. Hence the data from Rohtak, Panipat and Gangavati were considered for inclusion in the final analysis.

Performance in Zone II (Inland salinity)

In zone II, the trial data from Rohtak, Panipat included in the final analysis. The mean grain yield in Zone II ranged from 1928 kg/ha (Pusa 44) to 4780 kg/ha (IET 31050), days to 50% flowering varied from 81 days (FL 478) to 106 days (IET 32052, NIL). Plant height of the entries ranged from 64 cm (CSR 10) to 92 cm (IET 30178) and the panicles/m² varied from 108 (Pusa 44) to 321 (IET 31050). Among the checks, local check (best check- 3365 kg/ha) recorded highest yield followed by CSR 23 (3345 kg/ha), CSR 36 (3325 kg/ha), FL 478 (3215 kg/ha), CSR 10 (3048 kg/ha) and Pusa 44 (1928 kg/ha).

Among the test entries, **IET 31050** (CSR 104-10-2) derivative of IR 60997-L / FL 478 with grain yield of 4780 kg/ha and 86 days to flowering ranked 1st with significant yield advantage over BC in Z-II under inland saline conditions, followed by **IET 31048** (CSR 116-10-2) derived from Pusa 44 / CSR 27 with mean grain yield of 4718 kg/ha and 89 DFF. Other test cultures with significant yield superiority are **IET 31861** (CSR 2021-AL-2-94-112) from IRRI 156 / CSR26 with 4675 kg/ha and 89 DFF; **IET 31862** (CSR 2021-AL-294-72) derived from PR 126 / CSR27 with mean grain yield of 4660 and 94 DFF; **IET 31055** (CSR 141-11-112) from Pusa 44 / CSR27 with 4598 kg/ha and 90 DFF, **IET 31858** (CSR 2021-ST-294-168) of parentage PR 114 / CSR56 with 4573 kg/ha and 88 DFF, **IET 32052** (CSR-389-16-19-15) NIL of Pusa 44 recorded 4020 kg/ha and 106 DFF, **IET 32036** (KR 21002 (ADT 45*4/ FL 478// CSR 27)) exhibited mean grain yield of 3985 kg/ha and 103 days to flowering were found promising in Z-II under inland saline conditions.

Among the checks FL 478 with 81 days to flowering (SEM 1.4) is the earliest check and none of the entries found comparable to flowering duration of early check. Hence none found early cultures in Z-II for inland salinity.

In Zone –II, IET Nos. 31050, 31048, 31861, 31862, 31055, 31858 32052 (NIL), and 32036 (NIL) found promising under inland salinity

Performance in Zone VII (Inland salinity)

In zone VII, the trial data from one location Gangavati included in the final analysis. The mean grain yield in Zone VII ranged from 809 kg/ha (CSR 36) to 4274 kg/ha (IET 31045), days to 50% flowering varied from 81 days (CSR 10) to 112 days (IET 32056). Plant height of the entries ranged from 58.5 cm (CSR 10) to 100 cm (IET 31862) and the panicles/m² varied from 142 (CSR 36) to 309 (IET 32037, NIL entry). Among the checks, local check (3360 kg/ha) recorded highest yield followed by FL 478 (2255 kg/ha), CSR 23 (1713 kg/ha), Pusa 44 (1578 kg/ha), CSR 10 (1410 kg/ha) and CSR 36 (809kg/ha). Among the test entries, two cultures were significantly superiority to best check with respect to yield. Among them, IET 31045 exhibited superiority performance with a mean grain yield of 4274 kg/ha and 100 days to 50% flowering; while the other entry IET 32038 recorded 3794 kg/ha and 86 days to

Annual Progress Report 2024 Vol. I – Varietal Improvement

flowering found promising. CSR 10 is the earliest flowering among all the entries. Hence none of the entries found with comparable flowering duration of early check.

In Zone –VII under inland saline conditions, IET Nos. 31045 and 32038 found promising over best check

Performance of repeat entries under Alkalinity & Inland Salinity over four years of testing (2021-2024)

IET 30165 (IIRRH 155), a hybrid and IET 30178 (NVSR 6361) developed from the cross combination of NVSR 178/IR 71907-3R-2-1-2 tested in AL & ISTVT trial from 2021- 2023 and was included as repeat entry in AL & ISTVT in K2024. ***Both the cultures failed to perform in any zone either under alkalinity and/or in inland saline conditions.***

Performance of entries under Alkalinity & Inland Salinity during 4 years of testing in AL & ISTVT (2021-2024)

IET No / Designation/ Cross combination	Alkalinity/ Salinity	Year	Overall		Zone			State		
			Yield (kg/ha)	DF F	Zone/ Rank	Yield (kg/ha)	DF	State/ Rank	Yield (kg/ha)	DF F
IET 30178	Alkalinity	2021	--	--	Z-II	3107	82	UP1	3327	56
		2022	--	--	Z-III	3225	89	UP2	3225	89
		2023	3940	89	Z-II	3588	77	HA	4077	87
					Z-VII	4511	99	TN	5554	97
	2024	--	--	--	--	--	--	--	--	
	Inland Salinity	2021	--	--	--	--	--	--	--	--
		2022	--	--	--	--	--	--	--	--
		2023	3466	94	Z-VI	4191	87	GU	4191	87
		2024	--	--	--	--	--	--	--	--
	IET 30165	Alkalinity	2021	--	--	Z-II	3534	81	HA	3830
2022			--	--	Z-II	4060	98	HA	4060	98
					Z-III	3996	87	UP2	3996	87
2023			3341	92	Z-VII	3780	97	TN	4311	96
2024		-	--	--	--	--	--	--	--	
Inland Salinity		2021	--	--	Z-II	3793	92	HA	3793	92
		2022	--	--	--	--	--	--	--	--
		2023	--	--	--	--	--	--	--	--
		2024	--	--	--	--	--	--	--	--

Performance of entries under Alkalinity & Inland Salinity over 3 years of testing (2022-2024)

IET 31044 (CSR 103-10-2) derived from cross between CSR PR 115 / FL 478 evaluated in the multi-location testing under inland saline and alkaline stress conditions in AL & ISTVT, 2022-2024. During 2022, under alkaline stress conditions, IET 31044 (CSR 103-10-2) with mean grain yield of 3914 kg/ha and 94 days, recorded significant yield superiority over early check-CSR-10 in zone-II under alkalinity and is promoted to AVT1 AL & ISTVT. In 2023, IET 31044 recorded a mean grain yield of 5508 kg/ha with 89 days recorded significant yield superiority over early check-CSR-10 in zone-VI under inland saline conditions and was promoted to AVT2 AL & ISTVT. In 2024, IET 31044 failed to perform either alkalinity and/

Annual Progress Report 2024 Vol. I – Varietal Improvement

or inland salinity. **Based on three years of testing, IET 31044 failed to perform consistently and hence discontinued.**

IET 31045 (RP 6684-CGR13) developed from the parentage of Samba Mahsuri*2 / *Oryza rufipogon*-3-TRP-3 entered multi-location testing trial of AV& ISTVT in 2022 and has completed 3 years of testing in K 2024. During 2023, IET 31045 with a mean grain yield of 4965 kg/ha and 87 days, in Zone- VII; with mean grain yield of 4510 kg/ha and 105 days to flowering in Z-VII recorded significant yield superiority over early check-CSR-10 under inland saline conditions. During 2024, IET 31045 recorded mean grain yield of 4274 kg/ha and 100 days to flowering exhibited the required significant yield superiority over best check. Quality wise, IET 31045 based on two year analysis is of short slender (SS) grain type, recorded HRR of 43.7% (2023) and 63.2% (2024), intermediate amylose content (21.5%-22.02), ASV of 3.0 and soft gel consistency (51 mm & 55). **Based on three years of testing, IET 31045 found promising in Zone- II for one year and in Zone-VII for two years.**

IET 31048 (CSR 116-10-2) derivative of the parentage between Pusa 44 / CSR 27 tested in AICRPR under AL & ISTVT during 2022-2024. During three years of testing under alkaline conditions, IET 31048 (CSR 116-10-2) exhibited significant yield superiority over early check for two years in Zone-II during 2022 (4070 kg/ha, 89 DFF) and 2024 (3708 kg/ha, 70 DFF); two years in Zone VII during 2023 (5209 kg/ha, 87 DFF) and 2024 (3381 kg/ha, 84 DFF); and for one year during 2024 in zone-III, (5025 kg/ha, 71 DFF). Under inland saline conditions, IET 31048 exhibited the required significant yield superiority for one year during 2024 in Zone-II (4718 kg/ha, 89 DFF). Quality wise, IET 31048 in 2023 recorded **HRR of 49%, long bold grains**, ASV of 7.0, high amylose content (26.01%) and hard GC (22 mm). **Based on 3 years of testing, IET 31048 found promising for two years in Zone- II (2022 & 2024) and Zone-VII (2023 & 2024), for 1 year in Z-III (2024) under alkaline conditions and for one year in Z-II (2024) under inland saline conditions.**

IET 31051 (NVSR 6494) developed the cross combination of IET 22016 / IET 21237 evaluated in AICRPR under AL & ISTVT during 2022-2024. In the first year of testing (2022), IET 31051 (NVSR 6494) -grain yield of 3997 kg/ha and 93 days recorded significant yield superiority over early check in Zone –II under alkalinity and promoted to AVT1 Al& ISTVT. In 2023, IET 31051 (4176 kg/ha) and 85 days to flowering recorded significant yield superiority over early check-CSR-10 under inland salinity in zone-II and are promoted to final year of testing. In 2024, IET 31051 did not register yield advantage either under alkalinity or inland salinity as well as in any of the zones. Quality wise, IET 31051 with medium slender grain recorded the HRR of 58.7%-67.6, desirable ASV of 4.0, intermediate amylose content (20.15%-22.41%) and soft GC (63-65 mm) in 2023 & 2024. **Based on three years of testing, IET 31051 found promising for one year in alkalinity (Z-II, 2022) and for one year in inland saline conditions (Z-II, 2023).**

IET 31050 (CSR 104-10-2) derived from parentage of IR 60997-L / FL 478 tested in the multi-location testing under inland saline and alkaline stress conditions (AL&ISTVT), 2022-2024. On overall basis, IET 31050 under inland saline conditions during 2022 (3361 kg/ha and 91 days); under alkaline conditions during 2023 (3891 kg/ha, 78 days) exhibited significant yield superiority over early check-CSR-10. Zone wise, under alkaline conditions, IET 31050 (CSR 104-10-2) recorded significant yield superiority in Z-II for three years 2022 (3890 kg/ha, 98 DFF), 2023 (3615 kg/ha, 74 DFF) and 2024 (3733 kg/ha, 73 DFF); one year each in Z-VII in 2023 (4355 kg/ha, 84 DFF) and in Zone-III (5120 kg/ha, 84 DFF). Under inland saline conditions, IET 31050 exhibited significant yield superiority in zone –II for

Annual Progress Report 2024 Vol. I – Varietal Improvement

three consecutive years of 2022 (3760 kg/ha, 75 DFF), 2023 (4286 kg/ha, 83 DFF) and 2024 (4780 kg/ha, 86 DFF). Quality wise, IET 31050 possessed long slender grains with HRR of 47.8 to 52.2 %, desirable ASV of 4.0, high amylose content (26.45-27.92%) and hard GC (22 mm). **Based on three years of testing, IET 31050 found promising in Z-II under alkaline and inland saline conditions for three consecutive years and for one year each in Z-III and Z-VII under alkaline conditions only.**

IET 31053 (RNR 29325) developed from the cross combination TME 80518 / BPT 5204 evaluated in AICRPR under AL & ISTVT during 2022-2024. On overall basis, IET 31053 recorded significant yield advantage over best check in 2023 with a mean grain yield of 4526 kg/ha and 80 days to flowering. Zone wise, under alkaline conditions, IET 31053 recorded significant yield superiority in Z-II for two years 2022 (3720 kg/ha, 94 DFF) and in 2023 (3765 kg/ha, 81 DFF); one year each in Z-VII in 2023 (6352 kg/ha, 79 DFF) and in Zone-III (4985 kg/ha, 78 DFF). Under inland saline conditions during 2023, IET 31053 exhibited significant yield superiority for one year each in Zone-II (4540 kg/ha, 85 DFF), and in Zone-VI (5952 kg/ha, 90 DFF). In 2024, IET 31053 did not register yield advantage either under alkalinity or inland salinity as well as in any of the zones. Quality wise, IET 31053 possesses long slender grains, recorded the HRR of 59.2 %, ASV of 5.0, **low amylose content (18.15% & 19.27%) and soft GC (86 mm & 78 mm)** in 2023 & 2024. **Based on three years of testing, IET 31053 found promising in zone-II for two years (2022 & 2023), one year each in Zone-II and Zone-VII under alkaline conditions, while it promising for one year each in Zone-II and Zone-VI under inland saline conditions.**

IET 31055 (CSR 141-11 112) a sister culture of IET 31048 developed from the cross Pusa 44 / CSR27 evaluated in AICRPR under AL & ISTVT during 2022-2024. On overall basis, IET 31055 exhibited significant yield superiority in 2023 under both alkaline (4368 kg/ha, 74 DFF) and inland saline conditions (4477 kg/ha, 85 DFF). During three years of testing under alkaline conditions, IET 31055 (CSR 141-11 112) exhibited significant yield superiority over early check for three years in Zone-II during 2022 (4120 kg/ha, 94 DFF), 2023 (3732 kg/ha, 72 DFF) and 2024 (3705 kg/ha, 73 DFF); two years in Zone III during 2023 (4712 kg/ha, 77 DFF) and 2024 (4945 kg/ha, 81 DFF); and for one year during 2023 in zone-VII, (5930 kg/ha, 79 DFF). Under inland saline conditions, IET 31055 exhibited the required significant yield superiority in Zone-II for three years during 2022 (4047 kg/ha, 87 DFF), 2023 (4559 kg/ha, 79 DFF) and 2024 (4598 kg/ha, 90 DFF). Quality wise, IET 31055 in 2023 recorded long slender grains, ASV of 7.0, intermediate amylose content (24.4%) and medium GC (54 mm). During 2024, IET 31055 recorded HRR of 56%, AC of 24.29% and GC of 55 mm. **Based on 3 years of testing, IET 31055 found promising for two years in Zone- II (2022 & 2024) and Zone-VII (2023 & 2024), for 1 year in Z-III (2024) under alkaline conditions and for one year in Z-II (2024) under inland saline conditions.**

IET 30180 (RP Bio 4918-B2-24K) developed from the parentage of Swarna / *O. nivara* entered multi-location testing trial of AV& ISTVT in 2021 and has completed 4 years of testing in K 2024. During 2023, IET 30180 with a mean grain yield of 5842 kg/ha and 76 days, in Zone- VII recorded significant yield superiority over best check under alkaline conditions. Under inland saline conditions, IET 30180 registered significant yield advantage on overall basis in 2021 (4583 kg/ha, 115 DFF) and in 2023 (3611 kg/ha, 85 DFF) but failed to perform in any of zones during all the years of testing. Quality wise, IET 30180 possesses medium slender grains, HRR of 45.2% to 54.6%), desirable ASV (4.0), high amylose (28.10% to 28.83%) and hard GC (22-24 mm) during 2023 and 2024. **Based on four years of testing,**

Annual Progress Report 2024 Vol. I – Varietal Improvement

IET 30180 found exhibited inconsistency in yield performance and is promising only in Zone- VII for one year during 2023.

Performance of entries under Alkalinity & Inland Salinity during three years of testing (2022-2025)

IET No / Designation/ Cross combination	Alkalinity/ Salinity	Year	Overall		Zone		
			Yield (kg/ha)	DFF	Zone/Rank	Yield (kg/ha)	DFF
IET 31044 (CSR 103-10-2)	Alkalinity	2022	--		Z-II	3914	94
		2023	--		--	--	
		2024			--	--	
	Inland Salinity	2022			--		
		2023			Z-VI	5508	89
		2024			--		
IET 31045 (RP 6684-CGR13) Samba Mahsuri*2 / Oryza rufipogon-3- TRP-3	Alkalinity	2022	--		--		
		2023	--		--		
		2024			--		
	Inland Salinity	2022	--		--		
		2023	--		Z-VI (1)	4965	87
		2024	--		Z-VII (1)	4274	100
IET 31048 (CSR 116-10-2) Pusa 44 / CSR 27	Alkalinity	2022	--		Z-II	4070	89
		2023	3639	82	Z-VII (1)	5209	87
		2024			Z-II	3708	70
					Z-III	5025	71
	Inland Salinity	2022	--		--		
		2023	--		--		
		2024	--		Z-II	4718	89
		IET 31051 (NVSr 6494) IET 22016 / IET 21237	Alkalinity	2022			Z-II
2023					--		
2024					--		
Inland Salinity	2022		--		--		
	2023		--		Z-II	4176	85
	2024				--		
IET 31050 (CSR 104-10-2) IR 60997-L / FL 478	Alkalinity	2022			Z-II	3890	98
		2023	3891	78	Z-II	3615	74
					Z-VII	4355	84
	Inland Salinity	2024			Z-II	3733	73
					Z-III	5120	84
		2022	3361,	91	Z-II	3760	75
		2023			Z-II	4286	83
2024			Z-II	4780	86		
IET 31053 (RNR 29325) TME 80518 / BPT 5204	Alkalinity	2022			Z-II	3720	94
		2023	4526	80	Z-II	3765	81
					Z-III	4985	78
	Inland Salinity	2024	--		--		
		2022	--		--		
IET 31055 (CSR 141-11 112)	Alkalinity	2022			Z-II	4120	94
		2023	4368	74	Z-II	3732	72

Annual Progress Report 2024 Vol. I – Varietal Improvement

IET No / Designation/ Cross combination Pusa 44 / CSR27	Alkalinity/ Salinity	Year	Overall		Zone		
			Yield (kg/ha)	DFF	Zone/Rank	Yield (kg/ha)	DFF
					Z-III	4712	77
					Z-VII	5930	79
		2024			Z-II	3705	73
	Inland Salinity	2022			Z-II	4047	87
		2023	4477	85	Z-II	4559	79
		2024			Z-II	4598	90
IET 30180 (RP Bio 4918-B2-24K) Swarna / <i>O. nivara</i>	Alkalinity	2021	--		--		
		2022	--				
		2023			Z-VII	5842	76
		2024	--		--		
	Inland Salinity	2021	4583	115	--		
		2022	--		--		
		2023	3611	85	--		
		2024	--		--		

Trait verification of NILs and Genome edited lines under Alkaline and inland saline stress conditions in AVT2 and 1 AL & ISTVT K 2024

In AVT 2 & 1- AL & ISTVT, 7 NILs entries in the genetic background of AD T 45 (3 NILs: IET Nos. 32036, 32037, & 32038) Pusa 44 (2 NILs: IET Nos. 32052 & 32053) and ISM (2 NILs: IET Nos. 32055 & 32056) and one genome edited line (IET 32043) of MTU 1010 were evaluated for trait verification of salt tolerance in alkaline and inland saline hot spot locations. The trial was sent to 18 locations and data was received from 16 locations except Jind (Karnal) and ICAR-Lucknow.

The NILs of Pusa 44 and ISM completed two years of testing while, NILs of ADT 45 and genome edited line of MTU 1010 completed one year of testing in AL & ISVT.

Performance of NILS of Pusa 44 in AL & ISTVT during Kharif 2023-2024

IET 32052 (CSR-389-16-19-15) developed through backcross breeding with pedigree of Pusa 44/FL 478*3//Pusa 44/IRBB 60*3, NIL entry in the genetic back ground of Pusa 44 entered AL & ISTVT trial in 2023 for trait verification under alkaline and Inland saline conditions and has completed two years of testing 2023 and 2024. Under sodic and inland saline micro-plots at Karnal, IET 32052 exhibited SES score of 4.0 (2023) and 3.0 (2024); 3.0 (2023) and 3.0 (2024) as compared to donor and tolerant parent- FL 478 which recorded SES score of 6.0 (2024); 5.0 (2024) and RP-Pusa 44 (SES 6-7) under sodic and inland saline conditions respectively. Multi-location testing during 2024 across stress locations found promising in zone-II (NIL: 3560 kg/ha; RP: 1884 kg/ha) and Z-III (NIL:4085 kg/ha; RP:2183 kg/ha) with significant yield over recurrent parent (Pusa 44); during 2024 in zone-II (NIL:3746 kg/ha; RP:2165 kg/ha), Z-III (NIL: 4380 kg/ha; RP:2315 kg/ha) and Z-VII (NIL: 3575 kg/ha; RP: 3105 kg/ha) with Significant superiority over recurrent parent (Pusa 44) under alkaline conditions. During 2023, IET 32052 found promising in zone-II (NIL 4272 kg/ha; RP: 1987 kg/ha), in Z-VI (NIL: 3304 kg/ha; RP: 2802 kg/ha) and Z-VII (NIL: 4876 kg/ha; RP:3047 kg/ha); during 2024 in Zone-II (NIL: 4020 kg/ha; RP: 1928 kg/ha) and in Z-VII (NIL: 2212 kg/ha; RP: 1578 kg/ha) under inland saline conditions. Quality wise, IET 32052 exhibited good HRR (2023-NIL:66.8 %; RP: 51.5% & 2024, RP: 66.4%), MS grain type (2023-NIL:MS & 2024; RP: MS) and intermediate amylose content (2023-NIL: 24.2%; RP: 23.58% & 2024- RP: 23.78%). **Based on two years of testing, IET 32052 (CSR-389-16-19-15) found**

promising for zone-II and zone-III under alkalinity conditions, and also found promising zone-II and zone-VII for inland saline conditions.

IET 32053 (CSR-389-16-23-42) developed through backcross breeding with pedigree of Pusa 44/FL 478*3//Pusa 44/IRBB 60*3, NIL entry in the genetic back ground of Pusa 44 entered AL & ISTVT trial in 2023 for trait verification under alkaline and Inland saline conditions and has completed two years of testing in 2024. Under sodic and inland saline micro-plots at Karnal, IET 32053 exhibited SES score of 4.0 (2023) and 6.0 (2024); 4.0 (2023) and 5.0 (2024) as compared to donor and tolerant parent- FL 478 which recorded SES score of 6.0 (2024); 5.0 (2024) under sodic and inland saline conditions respectively. Multi-location testing during 2023 & 2024 across stress locations found promising during 2023 in zone-II (NIL: 3959 kg/ha; RP: 1884 kg/ha) and Z-III (NIL:4266 kg/ha; RP:2183 kg/ha) with significant yield over recurrent parent (Pusa 44); during 2024 in zone-II (NIL: 2878 kg/ha; RP:2165 kg/ha), Z-III (NIL: 3625 kg/ha; RP:2315 kg/ha) and Z-VII (NIL: 3495 kg/ha; RP: 3105 kg/ha) with significant superiority over recurrent parent (Pusa 44) under alkaline conditions. Under inland saline conditions, during 2023, IET 32053 found promising in zone-II (NIL 4432 kg/ha; RP: 1987 kg/ha), in Z-VI (NIL: 3773 kg/ha; RP: 2802 kg/ha) and Z-VII (NIL: 3882 kg/ha; RP:3047 kg/ha); during 2024 in Zone-II (NIL: 3240 kg/ha; RP: 1928 kg/ha) and in Z-VII (NIL: 2794 kg/ha; RP: 1578 kg/ha). Quality wise, IET 32053 exhibited HRR of 51.7% to 68.1% (2023-NIL: 68.1 %; RP: 51.5%; 2024: NIL: 51.7%; RP: 66.4 %), similar grain type (2023 & 2024-NIL: MS; RP: MS) and intermediate amylose content (2023-NIL: 23.0%; RP: 23.58%; 2024-NIL: 23.46%; RP: 23.78%). ***Based on two years of testing, IET 32053 (CSR-389-16-23-42) found promising for zone-II, zone-III under alkalinity conditions, and also found promising zone-II, zone-VII for inland saline conditions.***

Performance of NILS of ISM in AL & ISTVT during Kharif 2023-2024

IET 32055 (RP 6750-RMS-2-23-67-91) developed through backcross breeding with pedigree of Improved Samba Mahsuri*2 //FL478 /Swarna, NIL entry in the genetic back ground of Improved Samba Mahsuri (ISM) entered AL & ISTVT trial in 2023 for trait verification under alkaline and Inland saline conditions and has completed two years of testing in 2024. Under sodic and inland saline micro-plots at Karnal, IET32055 exhibited SES score of 5.0 (2023) and 8.0 (2024); 4.0 (2023) and 8.0 (2024) as compared to recurrent parent (RP)- ISM which recorded SES score of 6.0 (2023) and 7.0 (2024); 5.0 (2023) and 6.0 (2024) under sodic and inland saline conditions respectively. Multi-location testing during 2023 & 2024 across stress locations found promising during 2023 in zone-II (NIL: 3132 kg/ha; RP: 2907 kg/ha); Z-III (NIL:3745 kg/ha; RP:3574 kg/ha) and Z-VII (NIL: 1552kg/ha; RP: 749 kg/ha) with significant yield over recurrent parent (ISM) under alkaline conditions; during 2024, IET 32055 failed to record *at par* yield or any numeric superiority over RP in any zone tested for alkalinity. For inland saline conditions, during 2024 IET 32055 found promising in zone-II (NIL 3873kg/ha; RP: 3395 kg/ha) and in Z-VI (NIL: 2258 kg/ha; RP: 2180 kg/ha); during 2024, IET 32055 found promising only in zone-II (NIL: 3160 kg/ha; RP: 2535 kg/ha). IET 32555 failed to register *at par* yield or any numeric superiority over RP for both the years of testing in zone-VII under inland saline conditions. Quality wise, IET 32055 exhibited HRR of 56.4% to 62.3% (2023-NIL: 62.3 %; RP: 64.1%; 2024: NIL: 56.4%;), similar grain type (2023 & 2024-NIL: MS; RP: MS) and intermediate amylose content (2023-NIL: 21.56%; RP: 24.34%; 2024-NIL: 22.11;). ***Based on two years of testing, IET 32055 (RP 6750-RMS-2-23-67-91) exhibited significant superiority over RP for one year in zone-II, zone-III and Zone-VII under alkalinity conditions, and found promising zone-II for two years and for one-year zone-VI under inland saline conditions.***

Annual Progress Report 2024 Vol. I – Varietal Improvement

IET 32056 (RP 6751-RMS-1-13-34-42), NIL of Improved Samba Mahsuri developed backcross breeding with pedigree of Improved Samba Mahsuri*2//RP bio patho-1/FL478 entered AL & ISTVT trial in 2023 for trait verification under alkaline and Inland saline conditions and has completed two years of testing in 2024. Under sodic and inland saline micro-plots at Karnal, IET 32056 exhibited SES score of 4.0 (2023) and 7.0 (2024); 6.0 (2023) and 6.0 (2024) as compared to recurrent parent (RP) - ISM which recorded SES score of 6.0 (2023) and 7.0 (2024); 5.0 (2023) and 6.0 (2024) under sodic and inland saline conditions respectively. Multi-location testing during 2023 & 2024 across stress locations under alkaline conditions, IET 32056 found promising only in zone-VII for two consecutive years [(Z-VII 2023-NIL: 2327 kg/ha; RP: 749 kg/ha); & (VII-2024 NIL: 3205 kg/ha; RP:2900 kg/ha). Under inland saline conditions, IET 32056 found promising over RP in Z-II for one year (Z-II 2024-NIL: 3063 kg/ha; RP: 2535 kg/ha). Quality wise, IET 32056 exhibited good HRR of 68.5% to 52.5% (2023-NIL:68.5 %; RP: 64.1%; 2024: NIL: 52.5%;), amylose content (2023-NIL: 25.43%; RP: 24.34; 2024- NIL: 25.6%;) and GC (2023-NIL: 42; RP: 24; 2024- NIL: 22%;. **Based on two years of testing, IET 32056 (RP 6751-RMS-1-13-34-42) exhibited significant superiority over RP for two consecutive years in zone- Zone-VII under alkalinity conditions.**

Performance of NILs & GEL in micro-plots (Sodic/ Inland Saline stress conditions) at CSSRI, Karnal Kharif, 2023-2024

IET /Checks	Year	Sodic Micro Plot		Saline Micro Plot	
		Vigor/SES	Yield (kg/ha)	Vigor/SES	Yield (kg/ha)
IET 32052 (CSR-389-16-19-15)	2023	4	3328	3	4181
	2024	3	4315	3	4185
IET 32053 CSR-389-16-23-42	2023	4	3429	4	4130
	2024	6	3056	5	3204
Pusa 44 (SC and RP)	2023	7	2026	7	2504
	2024	8	2093	8	1685
IET 32055 (RP 6750-RMS-2-23-67-91)	2023	5	2939	4	3263
	2024	8	2333	8	1870
IET 32056 (RP 6751-RMS-1-13-34-42)	2023	4	2840	6	2725
	2024	7	2926	6	2796
ISM (RP)	2023	6	2609	5	3050
	2024	7	2796	6	3074
IET 32043 (GEL-Drt+ Salt)	2024	7	2056	8	1870
MTU 1010 (RP)		6	2463	4	3611
IET 32036 (KR 21002)		4	3574	4	3833
IET 30237 (KR 21001)		6	2704	7	2722
IET 30238 (KR21003)		7	2778	6	2796
ADT 45		6	2796	6	2796
FL 478		6	2926	5	3074
CSR 36 (Alkaline Check)	2023	5	2849	5	3155
	2024	6	3111	6	2944
CSR 10 (Early Saline Check)	2023	6	2982	6	3028
	2024	6	2444	7	2370

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table: Performance of near isogenic lines of Pusa 44 and ISM under alkaline conditions during 2023-2024

IET No/RP	Year	Z- II (3)/(3)			Z-III (1)/(1)			Z-VII(1)/(5)		
		Yld	DFP/ SEM	% over RP /CD range	Yld	DFP	% over RP / CD range	Yld	DFP	% over RP/ CD range
Alkaline conditions										
32052 NIL	2023	3560	93	(+)89.0	4085	97	(+)87.1	1877	95	(-)18.2
	2024	3746	89	(+)73.0	4380	102	(+)89.2	3575	96	(+)15.1
32053 NIL	2023	3959	81	(+)110	4266	95	(+)95.4	1001	94	(-)56.4
	2024	2878	85	(+)32.9	3625	105	(+)56.6	3495	95	(+)12.6
Pusa 44 (RP)	2023	1884	96		2183	116		2295	105	
	2024	2165	92		2315	106		3105	102	
CD/ SEM	2023	688	1.2	1196-2572	1405	1.9	778-3588	625	1.6	1670-2920
	2024	396	0.9	1769-2561	650	2.2	1665-2965	262	0.5	2843-3367
32055 NIL	2023	3132	92	(+)7.7	3745	96	(+)4.8	1552	108	(+)107.2
	2024	2550	90	(-)9.5	2785	98	(-)21.2	2528	96	(-)12.8
32056 NIL	2023	2807	97	(-)3.4	3453	113	(-)3.4	2327	106	(+)210.7
	2024	2758	74	(-) 2.1	3440	97	(-)2.7	3205	101	(+)10.5
ISM (RP)	2023	2907	89		3574	102		749	99	
	2024	2816	83		3535	105		2900	101	
CD/ SEM	2023	688	1.2	2219-3595	1405	1.94	2169-4979	625	1.6	124-1374
	2024	396	0.9	2420-3212	650	2.19	2885-4185	262	0.5	2638-3162

Table: Performance of near isogenic lines of Pusa 44 and ISM under inland saline conditions during 2023-2024

IET No/RP	Year	Z- II (2)/(2)			Z-VI (1)/(NA)*			Z-VII(1)/(1)		
		Yld	DFP/ SEM	% over RP/ CD range	Yld	DFP	% over RP/ CD range	Yld	DFP	% over RP/ CD range
32052 NIL	2023	4272	101	(+)115.0	3304	93	(+)17.9	4876	107	(+)60.0
	2024	4020	106	(+)108.5				2212	109	(+)40.2
32053 NIL	2023	4432	92	(+)123.0	3773	93	(+)34.7	3882	106	(+)27.4
	2024	3240	100	(+)68.0				2794	105	(+)77.1
Pusa 44 (RP)	2023	1987	114		2802	101		3047	109	
	2024	1928	100					1578	109	
CD/SEM	2023			1163-2811			1805-3799	453	0.93	2594-3500
	2024	824	1.52	1361-2495	997	1.58		207	0.5	1370-1785
32055 NIL	2023	3873	107	(+)14.1	2258	102	(+)3.6	3047	107	(-)5.6
	2024	3160	97	(+)24.7				2045	108	(-)25.6
32056 NIL	2023	3237	109	(-)4.7	2023	107	(-)7.2	2404	110	(-)25.5
	2024	3063	87	(+)20.8				1088	112	(-)60.4
ISM (RP)	2023	3395	110		2180	105		3229	105	
	2024	2535	102					2748	91	
CD/SEM	2023			2571-4219			1183-3177	453	0.9	2776-3682
	2024	824	1.52	1968-3102	997	1.58		207	0.5	2541-2955
(NA)*: Data from Z-VI in 2024 under stress not available										

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table: Quality characteristics of near isogenic lines of Pusa 44 and ISM for 2023-2024

IET No/RP	Year	HRR	GT	ASV	AC	GC
32052 NIL	2023	66.8	LS	7.0	24.2	22
	2024	NA*				
32053 NIL	2023	68.1	MS	4.0	23.00	22
	2024	51.7	MS	4.0	23.46	22
Pusa 44 (RP)	2023	51.5	MS	7.0	23.58	34
	2024	66.4	MS	7.0	23.78	22
32055 NIL	2023	62.3	MS	4.0	21.56	22
	2024	56.4	MS	4.0	22.11	22
32056 NIL	2023	68.5	LB	7.0	25.43	42
	2024	52.5	MS	7.0	25.60	22
ISM (RP)	2023	64.1	MS	4.0	24.34	24
	2024					

NA*: Data not available

Performance of NILs of ADT 45 in AL & ISTVT during Kharif 2024

During 2024, three NILs namely IET's 32036, 32037 and 32038 in the genetic background of ADT 45 were evaluated for yield under saline and alkaline stress conditions. All these NILs were evaluated in stress locations in different zones.

IET 32036, NIL culture in the genetic background of ADT 45 developed through backcrossing of ADT 45 with FL 478 from the pedigree of ADT 45*4/FL 478//CSR 27 introgressed *saltol* QTL for seedling stage from FL 478 and reproductive stage salinity tolerance from CSR 27 parent. Under sodic and inland saline micro-plots at Karnal, IET 32036 exhibited SES score of 4.0 (sodic and inland saline) as compared to recurrent parent (RP)- ADT 45 which recorded SES score of 6.0 (sodic and inland saline). IET 32036 showed a mean grain yield of 3258 kg/ha and 89 days to 50% flowering in Z-II, with 4065 kg/ha grain yield and 106 days to flowering in Zone-III with significant yield superiority over recurrent parent – ADT 45. IET 32036, under inland saline conditions, with mean grain yield of 3985 kg/ha and 103 days to 50% flowering recorded significant yield superiority over RP-ADT45. ***Based on multi-location testing, IET 32036 found promising in zone-II and zone-III under alkalinity; and in zone-II for inland saline conditions.***

IET 32037 (KR 21001), another NIL culture of ADT 45 introgressed for seedling and reproductive stage salt tolerance developed through backcrossing of ADT 45 with FL 478. Under sodic and inland saline micro-plots at Karnal, IET 32037 exhibited SES 6.0 (sodic) and 7.0 (inland saline) as compared to recurrent parent (RP)-ADT 45 which recorded SES score of 6.0 (sodic and inland saline). IET 32037 recorded a mean grain yield of 2759 kg/ha and 76 days to 50% flowering in Zone-II; with 4108 kg/ha grain yield and 78 days to 50% flowering in Zone-VII exhibited significant yield superiority over recurrent parent – ADT 45 under alkaline conditions. Under inland saline conditions, IET 32037 with a mean grain yield of 3033 kg/ha and 93 days to flowering registered numeric yield superiority over RP- ADT 35. ***Based on multi-location testing, IET 32037 found promising in zone-II under alkalinity and inland saline conditions.***

IET 32038, another sister NIL of IET 32036 & 32037 in the genetic background of ADT 45 developed from the backcross method with the pedigree of ADT 45*4/FL 478//CSR 27 with *saltol* QTL from FL 478 and reproductive stage salinity tolerance from CSR 27 parent. Under

Annual Progress Report 2024 Vol. I – Varietal Improvement

sodic and inland saline micro-plots at Karnal, IET 32038 exhibited SES 7.0 (sodic) and 6.0 (inland saline) as compared to recurrent parent (RP)- ADT 45 which recorded SES score of 6.0 (sodic and inland saline). IET 32038 showed a mean grain yield of 2893 kg/ha and 79 days to 50% flowering in Z-II, with 3535 kg/ha grain yield and 103 days to flowering in Zone-III; with 3769 kg/ha grain yield and 83 days to 50% flowering in Zone-VII exhibited numeric yield superiority in zone-II and in zone-III and with significant yield superiority in Z-VII over recurrent parent – ADT 45. ***Based on multi-location testing, IET 32038 found promising in zone-II, zone-III and zone-VII under alkalinity conditions.***

Table: Performance of near isogenic lines of ADT 45 and GEL of MTU 1010 under alkaline conditions during 2024

IET No/RP	Z- II (3)			Z-III (1)			Z-VII(1)		
	Yld	DFF/ SEM	% over RP /CD range	Yld	DFF	% over RP / CD range	Yld	DFF	% over RP/ CD range
32036 NIL	3258	89	(+) 23.6	4065	106	(+)27.63	3206	90	(-) 7.10
32037 NIL	2759	76	(+) 4.71	2640	78	(-) 17.11	3352	84	(-) 2.87
32038 NIL	2893	79	(+) 9.79	3525	103	(+) 10.68	3769	83	(+) 9.21
ADT 45 (RP)	2635	82		3185	97		3451	82	
CD/SEM	396	0.9	2238-3031	650	2.2	2534-3835	262	0.5	3188-3713
32043 (GEL)	2473	71	(-) 11.11	2905	98	(-) 14.18	3731	91	(+) 14.66
MTU1010(RP)	2782	87		3385	85		3254	86	
CD/SEM	396	0.9	2386-3178	650.06	2.2	2735-4035	262	0.5	2992-3516

Table: Performance of near isogenic lines of ADT 45 and GEL of MTU 1010 under inland saline conditions during 2024

IET No/RP	Year	Z- II (3)			Z-VII(1)		
		Yld	DFF/ SEM	% over RP /CD range	Yld	DFF	% over RP/ CD range
32036 NIL	2024	3985	103	34.63	3064	105	
32037 NIL		3033	93	2.47	3794	89	
32038 NIL		2450	101	-17.23	1670	86	
ADT 45 (RP)		2960	94		NA*		
CD/SEM		566	1.4	2393-3527	207	0.50	
32043 (GEL)		3075	94	14.40	3508	96	9.7
MTU1010 (RP)		2688	102		3199	98	
CD/SEM		566	1.4	2121-3255	207	0.50	2992-3406

NA*: Data not available in Z-VII

Performance of genome edited lines in AL & ISTVT during kharif, 2024

The genome edited line (IET 32043) of MTU 1010 was nominated for trait verification in AL & ISTVT during kharif, 2024. Under sodic and inland saline micro-plots at Karnal, IET 32043 exhibited SES 7.0 (sodic) and 8.0 (inland saline) as compared to MTU 1010 which recorded SES score of 6.0 (sodic) and 4.0 (inland saline). IET 32043 showed a mean grain yield of 3731 kg/ha and 91 days to 50% flowering exhibited significant yield superiority over MTU 1010 (3254 kg/ha; 86 DFF) in zone-VII under alkaline conditions, while in inland

Annual Progress Report 2024 Vol. I – Varietal Improvement

saline conditions, IET 32043 recorded significant yield superiority with mean grain yield of 3075 kg/ha and 94 days to 50% flowering as compared to MTU 1010 (2688 kg/ha; 102 DFF) in Zone-II; mean grain yield of 3508 kg/ha and 96 days to flowering to that of MTU 1010 (3199 kg/ha; 98 DFF) found promising with significant yield superiority over MTU1010 in zone-VII under inland saline conditions. ***Based on multilocation testing, IET 32043 found promising in Zone-VII under alkalinity and in zone-II and Zone-VII under inland saline conditions.***

Summary AVT2 & 1 AI & ISTVT:

Performance of entries in 2nd year of testing

Among the 9 test entries in the second year of testing, 3 entries merit promotion to next level of testing.

Alkaline Stress

In Zone –II: IET nos. 31862, 31861, 31858 &

In Zone –III: IET Nos. 31861, 31862, 31858

Inland Saline Stress

In Zone –II, IET Nos. 31861, 31862, 31858

Performance of entries in 3rd year of testing

Among the 8 test entries in the final year of testing, 5 entries were promising for different zones under alkaline and inland saline conditions as below:

- ✓ IET 31045 (RP 6684-CGR13) promising in Zone-VII for two years.
- ✓ IET 31048 found promising for two years in Zone- II and Zone-VII
- ✓ IET 31050 found promising under both alkaline and inland saline conditions for three years in Z-II
- ✓ IET 31053 found promising in zone-II for two years under alkaline conditions.
- ✓ IET 31055 found promising for two years in Zone- II and Zone-VII under alkaline conditions

Performance of NILs and GELs

NILs of Pusa 44 (2 years testing)

- ✓ *IET 32052 (CSR-389-16-19-15) & IET 32053 (CSR-389-16-23-42) promising for zone-II and zone-III under alkalinity, and in zone-II and zone-VII for inland saline conditions.*

NILs of ISM (2 years testing)

- ✓ *IET 32055 (RP 6750-RMS-2-23-67-91) promising in zone-II under inland saline conditions.*
- ✓ *IET 32056 (RP 6751-RMS-1-13-34-42) promising in zone- Zone-VII under alkalinity conditions.*

Annual Progress Report 2024 Vol. I – Varietal Improvement

NILs of ADT 45 (1st year)

- ✓ *IET 32036 promising in zone-II and zone-III under alkalinity; and in zone-II for inland saline conditions.*
- ✓ *IET 32037 promising in zone-II under alkalinity and inland saline conditions.*
- ✓ *IET 32038 promising in zone-II, zone-III and zone-VII under alkalinity conditions.*

GEL of MTU1010 (1st year)

- ✓ *IET 32043 promising in Zone-VII under alkalinity and in zone-II and Zone-VII under inland saline conditions.*

The entries promoted to 3rd year of testing in AVT 2 AL & ISTVT in Z-II and Z-III are IET Nos. 31861, 31862, 31858, 32036 (NIL), 32037(NIL), 32038 (NIL) & 32043 (GEL)

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 25.1: Composition of entries in Advance Variety Trial 2 & 1 - Alkaline and Inland Saline Tolerant Variety Trial (AVT 2 & 1 – AL & ISTVT) Kharif 2024

Entry No	IET No	Designation	Cross Combination	Grain Type
	4th year of testing (Repeat)			
4701	30165	<i>IIRRH 155 (Hybrid)</i>	Hybrid	LS
4702	30178	NVSR 6361	NVSR 178 / IR 71907-3R-2-1-1	LB
	3rd year of testing			
4703	31044	CSR 103-10-2	PR 115 / FL 478	LS
4704	31045	RP 6684-CGR 13	Samba Mahsuri*2 / Oryza rufipogon-3-TRP-3	MS/LS
4705	31048	CSR 116-10-2	Pusa 44 / CSR 27	LS
4706	Alkaline Tolerant check (CSR 36)			LS
4707	31051	NVSR 6494	IET 22016 / IET 21237	LS
4708	31050	CSR 104-10-2	IR 60997-L / FL 478	LS
4709	31053	RNR 29325	TME 80518 / BPT 5204	LS
4710	Saline tolerant & donor (FL 478)			LS
4711	31055 (R)	CSR 141-11-112	Pusa 44 / CSR27	LS
4712	30180	RP Bio 4918-B2-24K	Swarna / O. nivara	MS
	2nd year of testing			
4713	31852	NVSR 6532	GNR 3 / IR71895-3R-9-3-1	LS
4714	31853	RNR 31670	TME 80518 / BPT 5204	LS
4715	32043 (GEL-Drt+ Salt)			LS
4716	MTU 1010 (RP)			LS
4717	Early duration Saline check (CSR 10)			SB
4718	31855	RP Bio 4919-NSR23	KMR3 / O. rufipogon WR 120	SB
4719	32037 NIL	KR 21001	ADT 45*4/ FL 478	MS
4720	31857	RNR 39000	R 741-55-2-1-R-1 / IR 64	LS
4721	Inland Saline Tolerant (CSR 23)		CSR 23	MB
4722	31858	CSR 2021-ST-294-168	PR 114 / CSR56	LS
4723	31859	NVSR 6630	NAUR-1 / IR 71895-3R-9-3-1	LB
4724	32294	RP 6616-CGR 24-CGIL-45-CGK 1-2124-49	Samba Mahsuri*2/Oryzarufipogon-VN90-1032-58(3)	MS
4725	31861	CSR 2021-AL-2-94-112	IRRI 156 / CSR26	LS
4726	Sensitive check & RP (Pusa 44)			LS/MS
4727	ADT 45 (RP)	ADT 45 (RP)	ADT 45 (RP)	LS/MS
4728	31862	CSR 2021-AL-294-72	PR 126 / CSR27	LS
4729	32038(Saltol)	KR21003	ADT 45*4/ FL 478//CSR 27	MS
4730	32055 NIL	RP 6750-RMS-2-23-67-91	Improved Samba Mahsuri*2 // FL478 /Swarna	MS
4731	32053 NIL	CSR-389-16-23-42	Pusa44 / FL478*3 / Pusa44 / IRBB60*	MS
4732	Local check (LC)			
4733	32056 NIL	RP 6751-RMS-1-13-34-42	Improved Samba Mahsuri*2//RP bio patho-1/FL478	MS
4734	32052 NIL	CSR-389-16-19-15	Pusa44 / FL478*3 / Pusa44 / IRBB60*	LS
4735	ISM (RP)	ISM (RP)	ISM (RP)	MS
4736	32036 NIL	KR 21002	ADT 45*4/ FL 478// CSR 27	LS

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 25.2: Grain Yield (kg/ha) in AVT 2 & 1 – AL & ISTVT Alkalinity, Kharif 2024

Entry No	IET No	ZONE II NORTHERN								ZONE II NORTHERN (3)	
		HARYANA				HARYANA (2)		UTTAR PRADESH			
		Kurukshetra (Karnal)		Anjanite (Karnal)		Mean		KANPUR		Mean	
4701	30165	3127		3130		3129		2679	5	2979	
4702	30178	2893		3780	9	3337		2471	7	3048	
4705	31048	4707	1 *	4535	5 *	4621	2 *	1881		3708	6 *
4706	CSR 36 (Alkaline Tolerant check)	3160		3255		3208		1738		2718	
4707	31051	3287		3290		3289		2173		2917	
4708	31050	4340	6 *	4770	1 *	4555	3 *	2089		3733	4 *
4709	31053	3820	8	3120		3470	9	2156		3032	
4710	FL 478 (Saline tolerant & donor)	3080		3200		3140		2322	8	2867	
4711	31055 (R)	4627	2 *	4365	6 *	4496	6 *	2124		3705	7 *
4712	30180							3167	2	3167	9
4715	32043 (GEL-Drt+ Salt)	2953		2645		2799		1822		2473	
4716	MTU 1010 (RP)	3000		3415	10	3208		1931		2782	
4717	CSR 10 (Early duration Saline check)	3293		2515		2904		2022		2610	
4719	32037 NIL	3113		3015		3064		2149		2759	
4721	CSR 23 (Inland Saline Tolerant)	3207		3395		3301		2822	3	3141	10
4722	31858	4367	5 *	4630	4 *	4499	5 *	2133		3710	5 *
4725	31861	4553	3 *	4745	2 *	4649	1 *	2040		3779	2 *
4726	Pusa 44 (Sensitive check & RP)	2167		2150		2159		2178	10	2165	
4727	ADT 45 (RP)	3013		2955		2984		1936		2635	
4728	31862	4380	4 *	4710	3 *	4545	4 *	2556	6	3882	1 *
4729	32038(Saltol)	2747		3135		2941		2796	4\$	2893	
4730	32055 NIL	3027		2555		2791		2067		2550	
4731	32053 NIL	3293	\$	3330	\$	3312	\$	2011		2878	\$
4732	Local check (LC)	3533	10	3235		3384	10	1889		2886	
4733	32056 NIL	3067		3185		3126		2022		2758	
4734	32052 NIL	3700	9\$\$	4295	7 \$\$	3998	8 * \$\$	3242	1 \$\$	3746	3 *
4735	ISM (RP)	2867		3280		3074		2300	9	2816	
4736	32036 NIL	3953	7\$	4045	8\$	3999	7 *\$	1776		3258	8\$\$
Exp. Mean		3455		3507		3481		2232		3057	
CD		804.07		912.07		574.1		439.18		396.19	
CV%		16.53		18.48		11.72		13.99		9.21	
F Value		4.92 (p<0.0001)		4.94 (p<0.0001)		10.28 (p<0.0001)		5.90 (p<0.0001)		9.90 (p<0.0001)	
DOS		29-06-24		28-06-24				29-06-24			
DOP		29-07-24		02-08-24				04-08-24			
Local Check Name		CSR 36		CSR 36				CSR-36			

Table No. 25.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – AL & ISTVT Alkalinity, Kharif 2024

Entry No	IET No	ZONE III - EASTERN			
		Uttar Pradesh			
		Gautam Budha Nagar(Karnal)			
4701	30165	3360			
4702	30178	3520			
4705	31048	5025		4 *	
4706	CSR 36 (Alkaline Tolerant check)	3440			
4708	31050	5120		1 *	
4709	31053	3340			
4710	FL 478 (Saline tolerant & donor)	2880			
4711	31055 (R)	4945		5 *	
4712	30180				
4715	32043 (GEL-Drt+ Salt)	2905			
4716	MTU 1010 (RP)	3385			
4717	CSR 10 (Early duration Saline check)	2360			
4719	32037 NIL	2640			
4721	CSR 23 (Inland Saline Tolerant)	3605		10	
4722	31858	4845		6 *	
4725	31861	5105		2 *	
4726	Pusa 44 (Sensitive check & RP)	2315			
4727	ADT 45 (RP)	3185			
4728	31862	5100		3 *	
4729	32038(Saltol)	3525			
4730	32055 NIL	2785			
4731	32053 NIL	3625		9 \$	
4732	Local check (LC)	3555			
4733	32056 NIL	3440			
4734	32052 NIL	4380		7 *\$	
4735	ISM (RP)	3535			
4736	32036 NIL	4065		8\$	
Exp. Mean				3691.73	
CD				650.06	
CV%				12.50	
F Value				12.78 (p<0.0001)	
DOS				27-06-24	
DOP				29-07-24	
Local Check Name				CSR 36	

\$ Entries significantly superior to ADT 45 (RP) at the 5% level of significance

\$\$ Entries significantly superior to Pusa 44 at the 5% level of significance

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 25.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – AL & ISTVT Alkalinity, Kharif 2024

Entry No	IET No	ZONE VII - SOUTHERN							
		Telangana		Tamil Nadu			Tamil Nadu (2)		
		Kampasagar		Trichy		Annamalainagar		Mean	
4701	30165	4915	10	4092	9	2435		3264	
4702	30178	5618	2	4534	4	2557		3546	
4704	31045	2191		2776		2207		2492	
4705	31048	4948	9	3569		2825		3197	
4706	CSR 36 (Alkaline Tolerant check)	3855		3646		2508		3077	
4708	31050			3053		3541	2	3297	
4709	31053			3191		3204		3198	
4710	FL 478 (Saline tolerant & donor)			2274		3252		2763	
4711	31055 (R)	5579	4	3688		2531		3110	
4712	30180					2947		2947	
4715	32043 (GEL-Drt+ Salt)	5431	6	3200		3495	4	3348	
4716	MTU 1010 (RP)			4157	8	3202		3680	9
4717	CSR 10 (Early duration Saline check)	2087		933		3123		2028	
4718	31855	5437	5	4298	6	3172		3735	6
4719	32037 NIL	1848		4086	10	3330	10	3708	8\$
4720	31857	5667	1	4628	2	3196		3912	4
4721	CSR 23 (Inland Saline Tolerant)	5420	7	2271		3404	7	2838	
4722	31858	5618	2	3682		3117		3400	
4725	31861			4195	7	3423	6	3809	5
4726	Pusa 44 (Sensitive check & RP)			3179		3251		3215	
4727	ADT 45 (RP)					3224		3224	
4728	31862			4548	3	3445	5	3997	2
4729	32038(Saltol)			3768		3685	1	3727	7\$
4730	32055 NIL			2555		2668		2612	
4731	32053 NIL	2317		3847	\$\$\$	3390	9	3619	10 \$\$\$
4732	Local check (LC)	5206	8	5112	1	3225		4169	1
4733	32056 NIL			2708		3525	3	3117	
4734	32052 NIL	3817		4522	5 \$\$\$	3401	8	3962	3 \$\$\$
4735	ISM (RP)	2147				3087		3087	
4736	32036 NIL			2985		3193		3089	
Exp. Mean		4241.21		3536.86		3118.73		3305.24	
CD		458.48		360.29		465.61		304.70	
CV%		7.60		7.24		10.62		6.56	
F Value		74.42 (p<0.0001)		46.37 (p<0.0001)		4.64 (p<0.0001)		18.11 (p<0.0001)	
DOS		26-06-24		24-06-24					
DOP		30-07-24		24-07-24					
Local Check Name									

Table No. 25.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – AL & ISTVT Alkalinity, Kharif 2024

Entry No	IET No	ZONE VII - SOUTHERN						ZONE VII - SOUTHERN (5)	
		Puducherry			Puducherry (2)				
		Puducherry		Karaikal		Mean			
4701	30165	2278		2806		2542		3305	
4702	30178	2389		2419		2404		3503	8
4704	31045	2200		2408		2304		2356	
4705	31048	2856		2706		2781		3381	
4706	CSR 36 (Alkaline Tolerant check)	2411		2604		2508		3005	
4708	31050	3444	6	2854		3149		3223	
4709	31053	3411	7	3155		3283	9	3240	
4710	FL 478 (Saline tolerant & donor)	3178		3195		3187		2975	
4711	31055 (R)	2233		2489		2361		3304	
4712	30180	2722		2695		2709		2788	
4715	32043 (GEL-Drt+ Salt)	3256		3272	8	3264	10 \$\$\$\$	3731	6 \$\$\$\$
4716	MTU 1010 (RP)	2911		2744		2828		3254	
4717	CSR 10 (Early duration Saline check)	2811		3311	7	3061		2453	
4718	31855	3311		3205	10	3258		3885	3
4719	32037 NIL	3778	2	3716	3	3747	3	3352	
4720	31857	3322	10	3072		3197		3977	2
4721	CSR 23 (Inland Saline Tolerant)	3122		2838		2980		3411	
4722	31858	3533	5	3113		3323	6	3813	4
4725	31861	3156		3059		3108		3458	10
4726	Pusa 44 (Sensitive check & RP)	3089		2900		2995		3105	
4727	ADT 45 (RP)	3756	3	3372	5	3564	4	3451	
4728	31862	3122		2590		2856		3426	
4729	32038(Saltol)	3744	4	3878	1	3811	2 *	3769	5\$
4730	32055 NIL	2344		2545		2445		2528	
4731	32053 NIL	4133	1 *\$\$\$	3789	2 \$\$\$	3961	1 * \$\$\$	3495	9 \$\$\$
4732	Local check (LC)	3373	9	3373	4	3373	5	4058	1
4733	32056 NIL	3378	8	3207	9	3293	8	3205	\$
4734	32052 NIL	3156		2978		3067		3575	7 \$\$\$
4735	ISM (RP)	3234		3131		3183		2900	
4736	32036 NIL	3322	10	3322	6	3322	7	3206	
Exp. Mean		3099.11		3024.88		3061.99		3304.28	
CD		452.82		531.66		402.63		262.12	
CV%		10.40		12.51		9.36		5.64	
F Value		8.79 (p<0.0001)		3.91 (p<0.0001)		8.14 (p<0.0001)		18.62 (p<0.0001)	
DOS		13-09-24		24-06-24					
DOP		17-10-24		24-07-24					
Local Check Name									

\$ Entries significantly superior to ADT 45 (RP) at the 5% level of significance, \$\$ Entries significantly superior to ISM (RP) at the 5% level of significance, \$\$\$ Entries significantly superior to Pusa 44 at the 5% level of significance, \$\$\$\$ Entries significantly superior to MTU 1010 (RP) at the 5% level of significance

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 25.3: Days to 50% flowering, Plant Height (cm) & Panicles/m² in AVT 2 & 1 – AL & ISTVT Alkalinity, Kharif 2024

Entry No	IET No	ZONE II NORTHERN												ZONE II NORTHERN (3)		
		HARYANA						HARYANA (2)			UTTAR PRADESH (1)					
		Kurukshetra (Karnal)			Anjanite (Karnal)			Mean			KANPUR			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4701	30165	85	80.70	194	81	81.40	164	83	81.05	179	59	86.47	430	75	82.86	263
4702	30178	80	85.30	165	62	87.40	239	71	86.35	202	60	87.27	358	67	86.66	254
4705	31048	78	88.00	326	73	90.30	278	76	89.15	302	57	77.43	433	70	85.24	345
4706	CSR 36 (Alkaline Tolerant check)	80	83.50	197	106	84.30	202	93	83.90	200	59	88.47	428	82	85.42	276
4707	31051	94	86.60	202	66	80.50	213	80	83.55	208	58	80.70	398	73	82.60	271
4708	31050	94	57.90	249	71	63.60	366	83	60.75	307	55	83.47	308	73	68.32	307
4709	31053	108	70.00	243	85	69.60	161	96	69.80	202	58	81.50	409	83	73.70	271
4710	FL 478 (Saline tolerant & donor)	80	71.40	184	76	87.80	184	78	79.60	184	57	90.03	255	71	83.08	208
4711	31055 (R)	78	95.00	316	82	70.50	260	80	82.75	288	60	103.67	313	73	89.72	296
4712	30180										61	84.30	407	61	84.30	407
4715	32043 (GEL-Drt+ Sah)	80	74.10	168	73	75.70	145	77	74.90	157	60	74.30	354	71	74.70	222
4716	MTU 1010 (RP)	102	84.30	169	100	76.60	228	101	80.45	198	58	89.80	382	87	83.57	260
4717	CSR 10 (Early duration Saline check)	88	67.50	209	81	72.30	118	85	69.90	164	58	64.80	270	76	68.20	199
4719	32037 NIL	82	73.40	192	89	74.00	155	85	73.70	174	57	60.33	210	76	69.24	186
4721	CSR 23 (Inland Saline Tolerant)	98	84.70	198	77	73.70	226	87	79.20	212	58	83.17	383	78	80.52	269
4722	31858	91	90.60	254	93	74.50	292	92	82.55	273	59	99.00	438	81	88.03	328
4725	31861	98	92.10	285	72	81.00	304	85	86.55	294	59	86.63	365	76	86.58	318
4726	Pusa 44 (Sensitive check & RP)	109	79.60	141	104	80.30	111	106	79.95	126	62	62.33	257	92	74.08	170
4727	ADT 45 (RP)	83	66.50	172	103	68.00	153	93	67.25	163	60	75.07	327	82	69.86	217
4728	31862	88	73.20	266	95	77.40	296	92	75.30	281	59	87.97	413	81	79.52	325
4729	32038(Sahol)	94	58.70	154	85	50.70	167	90	54.70	161	58	75.53	351	79	61.64	224
4730	32055 NIL	108	70.10	177	102	76.40	135	105	73.25	156	60	79.00	413	90	75.17	242
4731	32053 NIL	105	76.90	204	92	78.20	217	99	77.55	211	58	85.43	225	85	80.18	215
4732	Local check (LC)	82	81.50	199	86	96.70	201	84	89.10	200	60	69.47	322	76	82.56	241
4733	32056 NIL	76	65.50	182	87	75.60	173	82	70.55	178	60	70.20	420	74	70.43	258
4734	32052 NIL	108	65.30	232	97	83.70	252	103	74.50	242	61	60.77	259	89	69.92	247
4735	ISM (RP)	101	79.60	162	91	82.80	209	96	81.20	186	58	73.93	382	83	78.78	251
4736	32036 NIL	107	63.60	244	103	69.90	244	105	66.75	244	59	72.43	440	89	68.64	309
Experimental Mean		92	76.50	211	86	77.14	211	89	76.82	211	59	79.77	355	78	77.98	264
Standard Error		1.8			2.0			1.4			0.5			0.9		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 25.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in AVT 2 & 1 – AL & ISTVT Alkalinity, Kharif 2024

Entry No	IET No	ZONE III - EASTERN		
		Uttar Pradesh		
		Gautam Budha Nagar(Karnal)		
		DDF	PH	PAN
4701	30165	84	90.50	198
4702	30178	84	92.50	208
4705	31048	71	80.40	280
4706	CSR 36 (Alkaline Tolerant check)	79	76.60	206
4708	31050	84	52.70	302
4709	31053	103	76.60	195
4710	FL 478 (Saline tolerant & donor)	89	79.80	174
4711	31055 (R)	81	69.00	274
4712	30180			
4715	32043 (GEL-Drt+ Salt)	98	67.10	176
4716	MTU 1010 (RP)	85	78.80	200
4717	CSR 10 (Early duration Saline check)	85	48.50	148
4719	32037 NIL	78	70.20	159
4721	CSR 23 (Inland Saline Tolerant)	101	76.20	233
4722	31858	89	64.50	257
4725	31861	97	103.30	292
4726	Pusa 44 (Sensitive check & RP)	94	69.40	146
4727	ADT 45 (RP)	97	69.40	189
4728	31862	86	78.10	286
4729	32038(Saltol)	103	65.40	211
4730	32055 NIL	98	70.70	165
4731	32053 NIL	105	74.60	234
4732	Local check (LC)	90	99.00	226
4733	32056 NIL	97	55.00	201
4734	32052 NIL	102	61.50	254
4735	ISM (RP)	105	65.20	216
4736	32036 NIL	106	78.40	250
Experimental Mean		92	73.59	218
Standard Error		2.19		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 25.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in AVT 2 & 1 – AL & ISTVT Alkalinity, Kharif 2024

Entry No	IET No	ZONE VII - SOUTHERN																					ZONE VII - SOUTHERN (5)		
		Telangana			Tamil Nadu						Tamil Nadu (2)			Puducherry						Puducherry (2)					
		Kampasagar			Trichy			Annamalainagar			Mean			Puducherry			Karaikal			Mean					
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
4701	30165	98			102	100	81	90	81	558	96	91	320	92	80	638	94	92	637	93	86	637	95	88	479
4702	30178	100	97	355	94	115	84	82	89	467	88	102	275	82	81	433	84	101	433	83	91	433	88	96	355
4704	31045	102	96	394	93	118	85	88	99	504	90	109	295	88	101	495	86	98	498	87	100	497	91	103	395
4705	31048	99	97	272	93	104	82	79	90	448	86	97	265	81	83	480	82	86	481	81	85	481	87	92	353
4706	CSR 36 (Alkaline Tolerant check)	91	90	395	103	101	94	103	91	514	103	96	304	106	88	432	104	92	431	105	90	432	101	92	373
4708	31050		98	370	94	103	89	84	98	505	89	101	297	84	95	505	85	96	504	84	96	505	86	98	395
4709	31053				93	99	94	91	71	655	92	85	375	91	70	489	91	75	488	91	73	489	92	79	432
4710	FL 478 (Saline tolerant & donor)			366	94	100	86	85	82	635	90	91	360	85	86	653	87	89	652	86	87	652	88	89	478
4711	31055 (R)	100			93	107	84	90	84	530	92	95	307	87	84	618	86	84	619	86	84	619	91	90	463
4712	30180		93	330		99	93	86	78	456	86	89	275	85	88	448	85	85	445	85	87	447	85	89	355
4715	32043 (GEL-Drt+ Salt)	99			87			90	100	504	88	100	504	90	103	471	90	102	471	90	102	471	91	102	482
4716	MTU 1010 (RP)		81	355	89	91	90	85	81	528	87	86	309	85	86	519	84	92	520	84	89	519	86	86	402
4717	CSR 10 (Early duration Saline check)	87		300	82	98	87	79	82	514	81	90	300	80	82	474	80	82	474	80	82	474	82	86	370
4718	31855	90	64	347	96	77	66	101	66	524	98	71	295	99	63	495	99	72	504	99	67	499	97	68	387
4719	32037 NIL	88	102	325	83	131	62	84	95	540	83	113	301	83	88	545	82	94	544	82	91	545	84	102	403
4720	31857	91	77	344	94	86	58	87	83	550	90	85	304	85	80	556	84	94	632	85	87	594	88	84	428
4721	CSR 23 (Inland Saline Tolerant)	90	77	380	80	103	103	84	71	537	82	87	320	84	73	529	83	83	529	84	78	529	84	81	416
4722	31858	97	84	308	93	101	52	85	103	521	89	102	287	85	92	553	85	103	553	85	98	553	89	97	398
4725	31861		57	345	87	101	77	83	84	564	85	93	321	84	82	519	84	82	519	84	82	519	84	81	405
4726	Pusa 44 (Sensitive check & RP)				99	101	50	103	81	536	101	91	293	104	79	624	104	84	624	104	82	624	102	86	459
4727	ADT 45 (RP)				102	82	82	103	545	82	102	314	82	101	474	82	101	474	82	101	474	82	102	394	
4728	31862				98			100	107	671	99	107	671	103	104	554	103	105	558	103	104	556	101	105	594
4729	32038(Saltol)				83	114	92	84	99	545	84	106	319	82	97	512	84	99	519	83	98	515	83	102	417
4730	32055 NIL			14	102	92	58	86	106	483	94	99	271	84	105	482	86	107	467	85	106	474	89	103	301
4731	32053 NIL	95		12	95	103	88	93	90	633	94	97	360	95	88	488	95	95	547	95	91	517	95	94	353
4732	Local check (LC)	102	74	10	104	113	103	91	93	506	98	103	305	95	90	493	96	92	500	96	91	497	98	92	323
4733	32056 NIL		78	11	102	129	94	103	101	673	103	115	384	102	99	534	101	100	534	102	99	534	102	101	369
4734	32052 NIL	99		14	104	83	73	92	85	632	98	84	353	93	84	538	94	86	537	94	85	537	96	85	359
4735	ISM (RP)	100	65	10		96	80	100	75	559	100	86	320	101	74	556	102	79	555	102	76	556	101	78	352
4736	32036 NIL		65	37	93			89	86	542	91	86	542	90	85	659	89	90	660	89	88	660	90	82	475
Experimental Mean		96	82	241	94	103	81	89	88	546	91	95	338	89	87	525	90	91	530	90	89	528	91	91	405
Standard Error		0.5			0.3			1.0			0.6			0.9			0.6			0.7			0.5		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 25.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – AL & ISTVT Inland Saline, Kharif 2024

Entry No	IET No	ZONE II NORTHERN					
		HARYANA				HARYANA (2)	
		Rohtak (Karnal)		Panipat (Karnal)		Mean	
4701	30165	2615		3055		2835	
4702	30178	3480	10	3560		3520	10
4705	31048	4575	3 *	4860	2 *	4718	2 *
4706	CSR 36 (Alkaline Tolerant check)	3305		3345		3325	
4707	31051	3720	9	3815	10	3768	9
4708	31050	4580	2 *	4980	1 *	4780	1 *
4709	31053	3205		3835	9	3520	10
4710	FL 478 (Saline tolerant & donor)	3175		3255		3215	
4711	31055 (R)	4335	6 *	4860	2 *	4598	5 *
4712	30180						
4715	32043 (GEL-Drt+ Salt)	3135		3015		3075	
4716	MTU 1010 (RP)	2360		3015		2688	
4717	CSR 10 (Early duration Saline check)	3040		3055		3048	
4719	32037 NIL	2940		3125		3033	
4721	CSR 23 (Inland Saline Tolerant)	3335		3355		3345	
4722	31858	4500	5 *	4645	5 *	4573	6 *
4725	31861	4570	4 *	4780	4 *	4675	3 *
4726	Pusa 44 (Sensitive check & RP)	1760		2095		1928	
4727	ADT 45 (RP)	2875		3045		2960	
4728	31862	4755	1 *	4565	6 *	4660	4 *
4729	32038(Saltol)	2140		2760		2450	
4730	32055 NIL	3265	\$	3055		3160	\$
4731	32053 NIL	3125		3355		3240	
4732	Local check (LC)	3345		3385		3365	
4733	32056 NIL	2960		3165		3063	
4734	32052 NIL	3885	7	4155	7 *	4020	7 *
4735	ISM (RP)	2205		2865		2535	
4736	32036 NIL	3880	8	4090	8 *	3985	8 *
Experimental Mean		3372.78		3595.93		3484.35	
CD		823.19		671.07		566.92	
CV%		17.34		13.26		11.56	
F Value		6.93 (p<0.0001)		9.35 (p<0.0001)		13.50 (p<0.0001)	
DOS		29-06-24		30-06-24			
DOP		30-07-24		29-07-24			
Local Check Name		CSR 27		CSR 27			

\$ Entries significantly superior to ISM (RP) at the 5% level of significance

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 25.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – AL & ISTVT Inland Saline, Kharif 2024

Entry No	IET No	ZONE VII - SOUTHERN	
		KARNATAKA	
		GANGAVATI	
4701	30165	1719	
4702	30178	2097	
4704	31045	4274	1 *
4705	31048	1453	
4706	CSR 36 (Alkaline Tolerant check)	809	
4708	31050	1778	
4709	31053	1302	
4710	FL 478 (Saline tolerant & donor)	2255	
4711	31055 (R)	1611	
4712	30180		
4715	32043 (GEL-Drt+ Salt)	3508	3 \$\$
4716	MTU 1010 (RP)	3199	7
4717	CSR 10 (Early duration Saline check)	1410	
4718	31855	1331	
4719	32037 NIL	3064	8
4720	31857	2751	10
4721	CSR 23 (Inland Saline Tolerant)	1713	
4722	31858	2127	
4725	31861	3396	4
4726	Pusa 44 (Sensitive check & RP)	1578	
4727	ADT 45 (RP)		
4728	31862	3241	6
4729	32038(Saltol)	3794	2 *
4730	32055 NIL	2045	
4731	32053 NIL	2794	9 \$
4732	Local check (LC)	3360	5
4733	32056 NIL	1088	
4734	32052 NIL	2212	\$
4735	ISM (RP)	2748	
4736	32036 NIL	1670	
Experimental Mean		2297.36	
CD		207.37	
CV%		6.42	
F Value		139.65 (p<0.0001)	
DOS		30-07-24	
DOP		07-09-24	
Local Check Name		GNV 1109	

\$ Entries significantly superior to Pusa 44 at the 5% level of significance

\$\$ Entries significantly superior to MTU 1010 (RP) at the 5% level of significance

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 25.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 – AL & ISTVT Inland Saline, Kharif 2024

Entry No	IET No	ZONE II NORTHERN								
		HARYANA						HARYANA (2)		
		Rohtak (Karnal)			Panipat (Karnal)			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4701	30165	94	78.20	133	83	83.20	155	89	81	144
4702	30178	99	95.30	222	76	88.30	219	88	92	221
4705	31048	99	79.80	278	79	87.10	292	89	83	285
4706	CSR 36 (Alkaline Tolerant check)	91	71.50	217	77	86.40	193	84	79	205
4707	31051	83	83.10	233	98	78.10	225	91	81	229
4708	31050	84	52.90	305	87	77.80	337	86	65	321
4709	31053	84	89.40	199	103	68.70	233	94	79	216
4710	FL 478 (Saline tolerant & donor)	85	79.90	196	76	64.80	184	81	72	190
4711	31055 (R)	102	68.90	262	78	77.50	285	90	73	274
4712	30180									
4715	32043 (GEL-Drt+ Salt)	103	60.80	196	85	76.40	149	94	69	173
4716	MTU 1010 (RP)	109	73.10	127	83	82.10	147	96	78	137
4717	CSR 10 (Early duration Saline check)	105	53.20	179	87	74.20	165	96	64	172
4719	32037 NIL	103	60.40	154	83	73.20	169	93	67	162
4721	CSR 23 (Inland Saline Tolerant)	83	79.40	219	89	76.80	198	86	78	208
4722	31858	86	78.60	264	90	79.10	277	88	79	271
4725	31861	79	82.90	272	99	88.90	280	89	86	276
4726	Pusa 44 (Sensitive check & RP)	99	63.40	107	101	79.80	109	100	72	108
4727	ADT 45 (RP)	98	73.20	149	90	71.60	154	94	72	152
4728	31862	89	92.60	314	99	79.10	264	94	86	289
4729	32038(Saltol)	106	80.00	124	95	53.00	113	101	67	118
4730	32055 NIL	92	78.90	216	103	71.90	160	97	75	188
4731	32053 NIL	93	90.00	190	107	77.80	202	100	84	196
4732	Local check (LC)	94	83.40	219	92	85.80	211	93	85	215
4733	32056 NIL	87	59.40	167	87	68.40	176	87	64	171
4734	32052 NIL	103	68.60	260	109	70.50	249	106	70	255
4735	ISM (RP)	106	61.90	124	98	78.40	120	102	70	122
4736	32036 NIL	103	66.70	252	103	68.10	243	103	67	248
Experimental Mean		95	74.28	207	91.00	77	204.05	93	75.42	205
Standard Error		2.0			2.1			1.4		

Table No. 25.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 – AL & ISTVT Inland Saline, Kharif 2024

Entry No	IET No	ZONE VII - SOUTHERN		
		KARNATAKA		
		GANGAVATI		
		DFE	PH	PAN
4701	30165	104	96.50	183
4702	30178	99	94.00	195
4704	31045	100	92.50	282
4705	31048	101	82.00	195
4706	CSR 36 (Alkaline Tolerant check)	109	73.00	142
4708	31050	99	73.00	189
4709	31053	99	70.00	161
4710	FL 478 (Saline tolerant & donor)	94	83.00	179
4711	31055 (R)	99	92.50	195
4712	30180			221
4715	32043 (GEL-Drt+ Salt)	96	91.50	290
4716	MTU 1010 (RP)	98	89.50	215
4717	CSR 10 (Early duration Saline check)	81	58.50	198
4718	31855	106	92.50	157
4719	32037 NIL	89	88.00	309
4720	31857	99	86.00	194
4721	CSR 23 (Inland Saline Tolerant)	85	90.50	230
4722	31858	98	81.00	184
4725	31861	96	95.50	266
4726	Pusa 44 (Sensitive check & RP)	109	73.50	175
4727	ADT 45 (RP)			278
4728	31862	102	100.00	250
4729	32038(Saltol)	86	93.00	275
4730	32055 NIL	108	77.00	199
4731	32053 NIL	105	93.50	233
4732	Local check (LC)	103	95.00	243
4733	32056 NIL	112	68.50	186
4734	32052 NIL	109	78.50	203
4735	ISM (RP)	91	78.00	292
4736	32036 NIL	105	80.00	195
Experimental Mean		99	84.52	217
Standard Error		0.5		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 25.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – AL & ISTVT Normal, Kharif 2024

Entry No	IET No	ZONE III - EASTERN	
		Uttar Pradesh	
		Masodha	
4701	30165	5265	
4702	30178	5385	9
4705	31048	5570	4
4706	CSR 36 (Alkaline Tolerant check)	4689	
4708	31050	4550	
4709	31053	5415	7
4710	FL 478 (Saline tolerant & donor)		
4711	31055 (R)	5404	8
4712	30180	4965	
4715	32043 (GEL-Drt+ Salt)	4610	
4716	MTU 1010 (RP)	4869	
4717	CSR 10 (Early duration Saline check)	5210	
4719	32037 NIL	5540	5
4721	CSR 23 (Inland Saline Tolerant)	5019	
4722	31858	5346	10
4725	31861	4894	
4726	Pusa 44 (Sensitive check & RP)	5093	
4727	ADT 45 (RP)		
4728	31862	4700	
4729	32038(Saltol)	5183	
4730	32055 NIL	4804	
4731	32053 NIL	5483	6
4732	Local check (LC)	5679	2
4733	32056 NIL	5619	3
4734	32052 NIL	5786	1
4735	ISM (RP)		
4736	32036 NIL	4885	
Experimental Mean		5165.03	
CD		172.99	
CV%		2.37	
F Value		31.11 (p<0.0001)	
DOS		02-07-24	
DOP		05-08-24	
Local Check Name		NDRK 2008	

Table No. 25.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – AL & ISTVT Normal, Kharif 2024

Entry No	IET No	ZONE VI-WESTERN	
		Gujarat (1)	
		Navsari	
4702	30178	3643	
4703	31044	5241	3 *
4704	31045	2693	
4705	31048	2737	
4706	CSR 36 (Alkaline Tolerant check)	2460	
4708	31050	1827	
4709	31053	2017	
4710	FL 478 (Saline tolerant & donor)	1977	
4711	31055 (R)	2736	
4712	30180	1887	
4713	31852	5001	4 *
4714	31853	4694	5 *
4715	32043 (GEL-Drt+ Salt)	3761	
4716	MTU 1010 (RP)	3388	
4717	CSR 10 (Early duration Saline check)	3169	
4719	32037 NIL	1495	
4721	CSR 23 (Inland Saline Tolerant)	1443	
4722	31858	2727	
4723	31859	3823	
4724	32294	1445	
4725	31861	4442	8 *
4726	Pusa 44 (Sensitive check & RP)	4659	6 *
4727	ADT 45 (RP)	2251	
4728	31862	4585	7 *
4729	32038(Saltol)	1813	
4730	32055 NIL	5871	1 *
4731	32053 NIL	2643	
4732	Local check (LC)	3564	
4733	32056 NIL	4066	10
4734	32052 NIL	2983	
4735	ISM (RP)	5564	2 *
4736	32036 NIL	4290	9
Experimental Mean		3278.04	
CD		751.24	
CV%		16.32	
F Value		22.72 (p<0.0001)	
DOS		20-06-24	
DOP		20-07-24	
Local Check Name		GNR-5	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 25.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – AL & ISTVT Normal, Kharif 2024

Entry No	IET No	ZONE VII - SOUTHERN	
		Kerala	
		Vytilla	
4701	30165	1979	
4702	30178	2786	
4704	31045	4673	3
4705	31048	2054	
4706	CSR 36 (Alkaline Tolerant check)	3691	8
4708	31050	2891	
4709	31053	3970	5
4710	FL 478 (Saline tolerant & donor)	2436	
4711	31055 (R)	1027	
4712	30180		
4715	32043 (GEL-Drt+ Salt)	2245	
4716	MTU 1010 (RP)	3364	
4717	CSR 10 (Early duration Saline check)	1605	
4718	31855	1066	
4719	32037 NIL	1180	
4720	31857	3625	9
4721	CSR 23 (Inland Saline Tolerant)	1393	
4722	31858	4007	4
4725	31861	1834	
4726	Pusa 44 (Sensitive check & RP)	2289	
4727	ADT 45 (RP)		
4728	31862	3405	
4729	32038(Saltol)	3471	10
4730	32055 NIL	1196	
4731	32053 NIL	2446	
4732	Local check (LC)	4743	2
4733	32056 NIL	5150	1
4734	32052 NIL	3696	7
4735	ISM (RP)	1087	
4736	32036 NIL	3909	6
Experimental Mean		2757.81	
CD		574.00	
CV%		14.79	
F Value		32.82 (p<0.0001)	
DOS		10-06-24	
DOP		28-06-24	
Local Check Name		Kau Lavanya	

Table No. 25.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in AVT 2 & 1 – AL & ISTVT Normal, Kharif 2024

Entry No	IET No	ZONE III - EASTERN		
		UTTAR PRADESH		
		MASODHA		
		DDF	PH	PAN
4701	30165	91	105	338
4702	30178	88	120	306
4705	31048	84	114	293
4706	CSR 36 (Alkaline Tolerant check)	91	125	339
4708	31050	93	117	283
4709	31053	101	125	313
4710	FL 478 (Saline tolerant & donor)			
4711	31055 (R)	102	94	286
4712	30180	96	96	315
4715	32043 (GEL-Drt+ Salt)	90	105	279
4716	MTU 1010 (RP)	97	101	272
4717	CSR 10 (Early duration Saline check)	91	97	279
4719	32037 NIL	95	103	305
4721	CSR 23 (Inland Saline Tolerant)	101	112	300
4722	31858	93	99	311
4725	31861	94	104	299
4726	Pusa 44 (Sensitive check & RP)	92	105	309
4727	ADT 45 (RP)			
4728	31862	90	108	288
4729	32038(Saltol)	93	101	295
4730	32055 NIL	92	104	304
4731	32053 NIL	97	98	217
4732	Local check (LC)	98	95	314
4733	32056 NIL	86	95	302
4734	32052 NIL	97	99	326
4735	ISM (RP)			
4736	32036 NIL	97	108	295
Experimental Mean		94	105.39	299
Standard Error		0.3		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 25.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 – AL & ISTVT Normal, Kharif 2024

Entry No	IET No	ZONE VI-WESTERN		
		Gujrat		
		Navsari		
		DFP	PH	PAN
4702	30178	96	120.27	379
4703	31044	94	111.73	353
4704	31045	98	120.13	350
4705	31048	95	118.53	424
4706	CSR 36 (Alkaline Tolerant check)	104	125.93	406
4708	31050	96	101.87	370
4709	31053	99	97.13	329
4710	FL 478 (Saline tolerant & donor)	88	100.13	338
4711	31055 (R)	90	109.87	293
4712	30180	93	136.60	341
4713	31852	100	139.73	323
4714	31853	92	106.40	320
4715	32043 (GEL-Drt+ Salt)	97	115.47	311
4716	MTU 1010 (RP)	92	118.60	317
4717	CSR 10 (Early duration Saline check)	92	87.33	311
4719	32037 NIL	77	104.33	308
4721	CSR 23 (Inland Saline Tolerant)	93	134.53	350
4722	31858	107	144.33	400
4723	31859	101	143.67	356
4724	32294	100	134.00	358
4725	31861	93	137.07	350
4726	Pusa 44 (Sensitive check & RP)	101	123.80	332
4727	ADT 45 (RP)	77	97.47	341
4728	31862	100	133.47	367
4729	32038(Saltol)	79	86.67	302
4730	32055 NIL	118	117.07	365
4731	32053 NIL	91	139.33	356
4732	Local check (LC)	102	145.00	335
4733	32056 NIL	118	105.13	314
4734	32052 NIL	101	118.80	311
4735	ISM (RP)	117	108.00	341
4736	32036 NIL	101	107.47	362
Experimental Mean		97	118.43	344
Standard Error		1.3		

Table No. 25.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 – AL & ISTVT Normal, Kharif 2024

Entry No	IET No	Zone VII - SOUTHERN		
		KERALA (1)		
		Vytilla		
		DFP	PH	PAN
4701	30165	95	131.00	19
4702	30178	93	120.50	14
4704	31045	84	122.50	13
4705	31048	72	126.67	25
4706	CSR 36 (Alkaline Tolerant check)	91	141.50	20
4708	31050	71	114.17	16
4709	31053	85	116.67	12
4710	FL 478 (Saline tolerant & donor)	74	115.83	10
4711	31055 (R)	93	112.33	15
4712	30180			10
4715	32043 (GEL-Drt+ Salt)	67	110.67	22
4716	MTU 1010 (RP)	95	116.33	10
4717	CSR 10 (Early duration Saline check)	89	83.17	10
4718	31855	100	151.67	15
4719	32037 NIL	69	116.50	18
4720	31857	81	113.83	15
4721	CSR 23 (Inland Saline Tolerant)	66	117.17	12
4722	31858	89	133.67	22
4725	31861	89	128.17	6
4726	Pusa 44 (Sensitive check & RP)	89	107.67	12
4727	ADT 45 (RP)			11
4728	31862	98	132.67	10
4729	32038(Saltol)	78	89.33	11
4730	32055 NIL	111	96.33	19
4731	32053 NIL	81	126.33	10
4732	Local check (LC)	85	130.67	8
4733	32056 NIL	110	113.83	5
4734	32052 NIL	93	115.50	11
4735	ISM (RP)	110	112.67	6
4736	32036 NIL	93	96.83	10
Experimental Mean		87	117.65	13
Standard Error		0.1		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 25.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – AL & ISTVT Saline Microplot, Kharif 2024

Entry No	IET No	ZONE II NORTHERN		
		Haryana		
		Karnal (ICAR-CSSRI) Saline		
4701	30165	2463		
4702	30178	3574	9	
4705	31048	3463	10	
4706	CSR 36 (Alkaline Tolerant check)	2944		
4707	31051	3389		
4708	31050	4185	3 *	
4709	31053	3389		
4710	FL 478 (Saline tolerant & donor)	3074		
4711	31055 (R)	3981	5 *	
4712	30180			
4715	32043 (GEL-Drt+ Salt)	1870		
4716	MTU 1010 (RP)	3611	8	
4717	CSR 10 (Early duration Saline check)	2370		
4719	32037 NIL	2722		
4721	CSR 23 (Inland Saline Tolerant)	2815		
4722	31858	3741	7	
4725	31861	4296	1 *	
4726	Pusa 44 (Sensitive check & RP)	1685		
4727	ADT 45 (RP)	2796		
4728	31862	4278	2 *	
4729	32038(Saltol)	2796		
4730	32055 NIL	1870		
4731	32053 NIL	3204	\$\$	
4732	Local check (LC)	3074		
4733	32056 NIL	2796		
4734	32052 NIL	4185	3 *	
4735	ISM (RP)	3074		
4736	32036 NIL	3833	6\$\$	
Experimental Mean			3165.98	
CD			800.83	
CV%			17.97	
F Value			6.06 (p<0.0001)	
DOS			28-06-24	
DOP			01-08-24	
Local Check Name			CSR 27	

Table No. 25.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in AVT 2 & 1 – AL & ISTVT Saline Microplot, Kharif 2024

Entry No	IET No	ZONE II NORTHERN		
		Haryana		
		Karnal (ICAR-CSSRI) Saline		
		DFP	PH	PAN
4701	30165	90	73.00	162
4702	30178	103	77.70	228
4705	31048	94	79.00	224
4706	CSR 36 (Alkaline Tolerant check)	85	75.70	183
4707	31051	82	73.00	223
4708	31050	79	59.30	257
4709	31053	88	62.00	224
4710	FL 478 (Saline tolerant & donor)	83	66.70	197
4711	31055 (R)	94	72.30	249
4712	30180			
4715	32043 (GEL-Drt+ Salt)	103	67.30	133
4716	MTU 1010 (RP)	102	72.30	233
4717	CSR 10 (Early duration Saline check)	104	63.70	151
4719	32037 NIL	102	65.70	170
4721	CSR 23 (Inland Saline Tolerant)	85	70.00	180
4722	31858	93	72.70	235
4725	31861	78	78.00	266
4726	Pusa 44 (Sensitive check & RP)	107	71.30	121
4727	ADT 45 (RP)	94	61.30	173
4728	31862	90	68.30	261
4729	32038(Saltol)	104	48.30	178
4730	32055 NIL	104	65.00	123
4731	32053 NIL	84	69.30	211
4732	Local check (LC)	95	78.60	190
4733	32056 NIL	91	62.30	178
4734	32052 NIL	100	65.30	256
4735	ISM (RP)	101	69.95	194
4736	32036 NIL	105	61.09	237
Experimental Mean		94	68.49	201
Standard Error			1.9	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 25.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1– AL&ISTVT Sodic Microplot, Kharif 2024

Entry No	IET No	ZONE II NORTHERN	
		Haryana	
		Karnal (ICAR-CSSRI) Sodic	
4701	30165	2759	
4702	30178	3315	9
4705	31048	4333	2 *
4706	CSR 36 (Alkaline Tolerant check)	3111	
4707	31051	2741	
4708	31050	3481	8
4709	31053	2741	
4710	FL 478 (Saline tolerant & donor)	2926	
4711	31055 (R)	3593	6
4712	30180		
4715	32043 (GEL-Drt+ Salt)	2056	
4716	MTU 1010 (RP)	2463	
4717	CSR 10 (Early duration Saline check)	2444	
4719	32037 NIL	2704	
4721	CSR 23 (Inland Saline Tolerant)	3130	
4722	31858	4167	5 *
4725	31861	4241	4 *
4726	Pusa 44 (Sensitive check & RP)	2093	
4727	ADT 45 (RP)	2796	
4728	31862	4352	1 *
4729	32038(Saltol)	2778	
4730	32055 NIL	2333	
4731	32053 NIL	3056	\$
4732	Local check (LC)	3222	10
4733	32056 NIL	2926	
4734	32052 NIL	4315	3 *\$
4735	ISM (RP)	2796	
4736	32036 NIL	3574	7
Experimental Mean			3127.57
CD			923.31
CV%			20.97
F Value			4.21 (p<0.0001)
DOS			28-06-24
DOP			01-08-24
Local Check Name			CSR 36

Table No. 25.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 – AL & ISTVT Sodic Microplot, Kharif 2024

Entry No	IET No	ZONE II NORTHERN		
		HARYANA		
		Karnal (ICAR-CSSRI) Sodic		
		DFP	PAN	PH
4701	30165	93	172	72.00
4702	30178	90	222	81.30
4705	31048	98	289	71.70
4706	CSR 36 (Alkaline Tolerant check)	87	202	70.70
4707	31051	88	173	71.70
4708	31050	87	227	47.30
4709	31053	81	171	70.70
4710	FL 478 (Saline tolerant & donor)	88	180	71.30
4711	31055 (R)	104	230	61.70
4712	30180			
4715	32043 (GEL-Drt+ Salt)	100	140	62.70
4716	MTU 1010 (RP)	100	166	69.30
4717	CSR 10 (Early duration Saline check)	93	158	49.70
4719	32037 NIL	106	169	57.70
4721	CSR 23 (Inland Saline Tolerant)	88	202	66.70
4722	31858	89	254	63.00
4725	31861	80	260	77.70
4726	Pusa 44 (Sensitive check & RP)	104	142	59.70
4727	ADT 45 (RP)	94	177	62.70
4728	31862	90	278	72.30
4729	32038(Saltol)	103	173	61.00
4730	32055 NIL	101	146	67.30
4731	32053 NIL	90	189	69.30
4732	Local check (LC)	102	212	77.20
4733	32056 NIL	87	183	55.00
4734	32052 NIL	99	267	57.70
4735	ISM (RP)	108	178	59.70
4736	32036 NIL	103	228	64.00
Experimental Mean		95	199	65.60
Standard Error			1.5	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 25.4: Grain quality characteristics of entries in AVT 2 & 1 – AL & ISTVT, Kharif 2024

Code	Entry No.	Designation / IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1474	4701	30165	80.0	72.2	66.4	6.12	2.00	3.06	LS	VOC	4.5	24.55	48
1475	4702	30178											
1476	4703	31044	79.0	70.2	62.9	6.23	2.05	3.03	LS	A	7.0	17.80	66
1477	4704	31045	80.9	70.7	63.2	5.53	1.72	3.21	SS	VOC	3.0	22.02	55
1478	4705	31048											
1479	4706	CSR-36 (ATC)	79.4	71.2	63.0	6.53	2.00	3.26	LS	A	4.0	26.84	48
1480	4707	31051	78.1	69.7	67.6	5.52	2.05	2.69	MS	VOC	4.0	22.41	65
1481	4708	31050	77.7	67.7	47.8	6.39	2.04	3.13	LS	VOC	4.0	27.92	22
1482	4709	31053	78.4	70.3	63.9	6.33	1.91	3.31	LS	A	5.0	19.27	78
1483	4710	FL-478 (ST & D)	78.8	68.7	55.7	6.54	2.32	2.81	LB	VOC	4.0	24.28	22
1484	4711	31055 (R)	78.5	70.6	56.0	6.43	2.10	3.06	LS	VOC	7.0	24.49	55
1485	4712	30180	78.7	69.6	54.6	6.26	2.07	3.02	LS	VOC	4.0	28.83	22
1486	4713	31852	79.0	69.6	61.3	6.28	2.30	2.73	LB	VOC	4.0	24.34	55
1487	4714	31853	78.5	70.0	68.7	6.30	1.92	3.28	LS	A	7.0	19.65	65
1488	4715	32043											
1489	4716	MTU-1010 (RP)	78.8	68.7	59.3	6.37	2.06	3.09	LS	A	7.0	23.76	66
1490	4717	CSR-10 (EDSC)	78.1	70.1	62.4	5.02	2.41	2.08	SB	A	4.0	24.25	43
1491	4718	31855											
1492	4719	32037 (NC)	78.3	69.2	58.0	5.32	1.98	2.68	MS	VOC	4.0	26.69	22
1493	4720	31857	78.6	70.4	58.7	6.57	2.07	3.17	LS	VOC	4.0	23.61	45
1494	4721	CSR-23 (ISTC)											
1495	4722	31858	78.7	69.5	55.0	6.23	2.09	2.98	LB	VOC	4.0	24.66	54
1496	4723	31859	79.5	70.0	57.2	5.47	2.26	2.42	SB	VOC	4.0	21.03	59
1497	4724	32294	79.4	70.3	63.9	5.41	1.76	3.07	SS	A	4.0	23.23	22
1498	4725	31861	78.1	69.2	39.3	6.56	2.06	3.18	LS	VOC	5.0	26.54	38
1499	4726	PUSA-44 (SC & RP)	78.2	71.1	66.4	5.55	2.00	2.77	MS	VOC	7.0	23.78	22
1500	4727	ADT-45 (RP)	77.5	68.1	57.6	5.32	1.93	2.75	MS	A	4.0	26.48	22
1501	4728	31862	75.6	66.0	53.4	6.24	2.05	3.04	LS	VOC	5.0	25.57	22
1502	4729	32038 (Saltol)	80.0	70.0	50.6	5.16	1.93	2.67	MS	VOC	4.0	27.16	45
1503	4730	32055 (NC)	79.4	67.4	56.4	4.95	1.84	2.69	MS	VOC	4.0	22.11	22
1504	4731	32053(NC)	77.7	69.3	51.7	5.28	1.98	2.66	MS	A	4.0	23.46	22
1505	4732	(LC)											
1506	4733	32056 (NC)	77.3	67.8	52.5	4.72	1.81	2.60	MS	A	7.0	25.60	22
1507	4734	32052											
1508	4735	ISM (RP)											
1509	4736	32036 (NC)	78.7	70.1	63.7	5.56	2.02	2.75	MS	VOC	4.0	26.86	22

HULL: Hulling(%) MILL: Milling(%) HRR: Head Rice Recovery KL: Kernal length (mm) KB: Kernal Breadth(mm) L/B : Length and Breadth(mm) KLAC: Kernal length after cooking WU: Water uptake ER: Elongation ratio AC: Amylose content (%) ASV: Alkali Spreading Value AC: Amylose Content GC: Gel consistency

INITIAL VARIETY TRIAL - ALKALINE AND INLAND SALINE TOLERANT VARIETY TRIAL (IVT - AL & ISTVT)

Locations: 18

Test Entries: 23

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: 26

IVT-AL&ISTVT was constituted with 23 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 18 locations and data was received from 15 locations Jind (Karnal), ICAR-Lucknow and Puducherry. The data pertaining to yield, days to 50% flowering, plant height and panicles/m² are presented in tables 26.1, 26.2 and 26.3. 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, 2024

Location/State	Soil pH	Soil EC (dSm ⁻¹)	Exptl mean (kg/ha)	Grain Yield Range (Kg/ha)	CV %	Remarks
Alkalinity						
Karnal (Haryana) (Sodic microplots)	9.4	1.1	3355	2000-4944	21.6	Data considered for identification of tolerant genotypes
Kurukshetra	9.6	0.8	3637	2007-4567	18.0	Data considered for analysis
Anjanteli	9.4	0.9	3464	2080-4513	12.4	Data considered for analysis
Kanpur (UP)	8.92-9.21	1.8	2211	1531-3349	14.6	Data considered for analysis
G.B Nagar (UP)	9.0	1.0	3104	2080-5247	8.36	Data considered for analysis
Kampasagar (Telangana)	8.5	3.8	4379	1857-6013	10.7	Data considered for analysis
Trichy	8.7	2.4	2738	420-6458	14.3	Data considered for analysis
Annamalainagar (Tamil Nadu)	8.67	1.9	2916	2383-3567	13.5	Data considered for analysis
Karaikal	9.01	3.2	2934	2250-3422	11.8	Data considered for analysis
Inland Saline						
Karnal (Haryana) (Inland Saline microplot)	7.6	9.0	3188	1426- 4870		Data considered for identification of tolerant genotypes
Rhotak (Karnal)	7.6	8.1	3390	2007-4513	13.6	Data considered for analysis
Panipat (Haryana)	7.7	9.1	3530	1927-4487	13.7	Data considered for analysis
Gangavati (Karnataka)	8.1	7.3	2279	1097-3962	7.28	Data considered for analysis
Danti (Navasri)	8.5	6.2	3323	1744-5630	15.8	Data considered for analysis
Normal						
Masodha (UP)	9.2	2.1	4923	3158- 5918	2.94	Low CV%. Sensitive and tolerant checks recorded on par yield. Data not considered.
Vytila (Kerala)	4.5	2.4	2804	1003-4950	15.4	Required stress levels not present hence trial not considered for analysis

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of IVT-AL&ISTVT entries in micro-plots (Sodic/ Inland Saline stress conditions) at CSSRI, Karnal, K2024

The IVT1-AL&ISTVT trial was conducted at Karnal inland saline as well as alkaline microplot during Kharif, 2024. The standard evaluation scores (SES) recorded by the test entries, tolerant and sensitive checks are presented in Table below.

Entry No	IET NO	NORTHERN (Z II)					
		ICAR-CSSRI, Karnal: Micro Plot phenotyping					
		Vigor/SES (Sodic)	Yield (kg/ha)	Rank	Vigor/SES (Saline)	Yield (kg/ha)	Rank
4801	32776	3	4056	2	3	3926	4
4802	32777	5	3375		6	2815	
4804	32778	3	4944	1 *	3	4870	1 *
4805	32779	4	3472		6	3019	
4806	32780	6	2944		6	3019	
4807	32781	7	2319		7	2463	
4808	32782	8	2292		8	1963	
4810	32783	3	3931	4	3	4148	2
4812	32784	4	3500	10	4	3444	7
4814	32785	4	3736	8	6	3056	
4815	32786	6	2389		6	3056	
4816	32787	3	3958	3	7	2722	
4818	32788	4	3819	6	3	3833	5
4819	32789	4	3708	9	4	3722	6
4820	32790	6	3097		7	2685	
4821	32791	4	3806	7	5	3204	
4822	32792	4	3875	5	3	3963	3
4803	CSR 10	6	3097			3296	8
4809	CSR 36	6	3333		5	3222	10
4811	CSR 23	6	3028		6	3167	
4813	Pusa 44	8	2000		8	1426	
4817	FL 478	5	3208		6	3056	
4823	Local Check	6	3278		5	3259	9
Exp. Mean			3355			3188	
CD			1023.75			916.12	
CV			21.61			20.35	
LC			CSR 36			CSR 27	

In microplot evaluation under controlled stress conditions, the IET nos. 32276, 32778 and 32783 with an SES score of 3.0 possessed dual tolerance for sodicity and inland salinity as compared to tolerant and sensitive checks of SES scores of 5-6 and 8 respectively. IET nos. 32784 and 32789 with an SES score of 4.0 exhibited moderately tolerance under alkaline and saline conditions. IET 32787 with SES score of 3.0 found to be tolerant while IET nos.32788, 32779, 32785, 32791 and 32792 with an SES score of 4 were found moderately tolerant to alkaline conditions only. IET nos. 32788 and 32792 with an SES score of 3.0 found tolerant to inland salinity conditions.

1. Alkaline Stress

Under alkalinity, the trial was sent to Zone II, III and VII and the data received from Karnal (sodic microplot), Anjanteli, Kurukshetra, GB Nagar, Kanpur, Masodha, Kampasagar,

Annual Progress Report 2024 Vol. I – Varietal Improvement

Trichy, Annamalainagar and Karaikal. The data from Masodha, was not included in the analysis due low CV%, sensitive and tolerant checks recorded on par yield. The data from sodic microplot evaluation was used for the identification of tolerant genotypes. Promising genotypes were identified based on significant critical difference of the test entries over the checks-either best check or over early check. Zone wise promising entries identified are described below.

Performance Overall basis across locations under alkalinity

On overall basis, the mean grain yield ranged from 2479 kg/ha (IET 32780) to 3940 kg/ha (IET 32783), days to 50% flowering varied from 82 days (CSR 10)–95 days (IET 32786). Plant height ranged from 64 cm (CSR 10) to 92 cm (IET 32780) and the panicles/m² varied from 259 (Pusa 44) to 363 (IET 32792). Among the checks, CSR 36 (3851 kg/ha, 94 DFF), recorded highest yield followed by local check (3805 kg/ha, 88 DFF), FL 478 (3039 kg/ha, 85 DFF), CSR 10 (2833 kg/ha, 82 DFF), CSR 23 (2709 kg/ha, 85 DFF), and Pusa 44 (2564 kg/ha, 93 DFF). The flowering duration of the test entries varied from 87 days (IET 32776) to 95 days (IET's 32786). CSR 10 is the earliest check with 82 days to flowering among all the checks, where most of the entries differed with early duration check CSR 10 with a range of 5 - 13 days (SEM 0.5). Hence, CSR 36 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 under alkalinity

For Alkalinity stress, test locations in Zone-II consisted of Anjanteli, Kurukshetra and Kanpur. In Zone II, the mean grain yield ranged from 2016 kg/ha (Pusa 44) to 3926 kg/ha (IET 32783), days to 50% flowering varied from 75 days (Local Check)–88 days (IET 32786). Plant height ranged from 52 cm (CSR 10) to 87 cm (IET 32776) and the panicles/m² varied from 147 (Pusa 44) to 308 (IET 32783). Among the checks, CSR 36 (3376 kg/ha, 78 DFF), recorded highest yield followed by CSR 23 (3239 kg/ha, 79 DFF), Local check (2940 kg/ha, 75 DFF) and CSR 10 (2740 kg/ha, 79 DFF), FL 478 (2630 kg/ha, 77 DFF) and Pusa 44 (2016 kg/ha, 83 DFF). Alkaline check CSR 36 is the best check in Zone –II.

Among the test entries, IET **32783 (CSR 2022 ABC-165)** derived from the cross combination of PR114 X CSR 27 with mean grain yield of 3926 kg/ha and 79 days to flowering ranked first in zone-II with significant yield superiority over best check followed by IET **32792 (RP CG-SLK-114-58-7)** developed from the parentage of BPT5204/CGIL24 recorded a mean grain yield of 3845 kg/ha and 78 days to 50% flowering exhibited significant yield superiority over best check.

Local check is the earliest check with 75 days to flowering. The flowering duration of the test entries varied from 76 days (IET 32778) to 88 days (IET 32786) with SEM 0.7. Upon comparison with early check, three entries namely IET **32785 (RNR 42677)** from the pedigree of JGL 24423/JGL 17004 recorded 3623 kg/ha grain yield and 76 days to flowering, IET **32778 (CSR 2021-AL-29-485)** developed from the parentage of IRR1 154 XCSR28 showed grain yield of 3663 kg/ha and 76 days to flowering; IET **32788 (RP CG-SLK-917-46-67-1)** derived from IR64/GL190 with mean grain yield of 3441 kg/ha and 76 days to flowering exhibited significant yield superiority over early check and hence merit promotion to next level of testing.

IET nos. 32783 and 32792 over the best check and IET 32785, 32778, 32788 over early check recorded significant yield improvement in Zone II, and hence merit promotion to AVT1-AL ISTVT.

Performance in Zone III under alkalinity

For Alkalinity stress, test locations in Zone-III consisted of three locations viz., Gautam Budha Nagar, Masodha and Lucknow. The data received from two location of from Gautam Budha Nagar and Masodha. The data from Masodha did not considered in the final analysis due to low CV%, sensitive and tolerant checks recorded on par yield. Hence single location data is available in the final analysis.

In Zone III, the mean grain yield ranged from 2080 kg/ha (Pusa 44) to 5247 kg/ha (IET 32778), days to 50% flowering varied from 84 days (FL 478)–102 days (IET 32789). Plant height ranged from 54.7 cm (IET 32785) to 97.9 cm (IET 32780) and the panicles/m² varied from 143 (Pusa 44) to 311 (IET 32778). Among the checks, CSR 10 (3637 kg/ha, 94 DFF), recorded highest yield followed by CSR 36 (3553 kg/ha, 89 DFF), Local check (3480 kg/ha, 88 DFF), CSR 23 (3353 kg/ha, 94 DFF) and FL 478 (3233 kg/ha, 84 DFF) and Pusa 44 (2080 kg/ha, 95 DFF). The flowering duration of the test entries varied from 84 days (IET 32784) to 102 days (IET 32789). CSR 10 is the best check in Zone-III.

Four cultures namely **IET 32778** (CSR 2021-AL-29-485) derived from IRRI 154 XCSR28 with mean grain yield of 5247 kg/ha and 89 days to flowering, **IET 32788 (RP CG-SLK-917-46-67-1)** developed from IR64/GL190 parentage with mean grain yield of 5007 kg/ha and 86 days to flowering, **IET 32783 (CSR 2022 ABC-165)** from the pedigree of PR114 X CSR 27 with 4927 kg/ha and 91 days to flowering, **IET 32776 (CSR 2022 BR-41-4-64)** of the cross combination of Pusa 44 x Burarata with 4620 kg/ha and 92 days to flowering found promising over best check with the required significant yield superiority in Z-III. FL 478 is the earliest check with 84 days to flowering (SEM 1.6). Upon comparison with early check, **IET 32788** with 5007 kg/ha and 86 days to flowering exhibited significant yield advantage over early check and hence found promising.

IET nos. 32778, 32783 and 32776; IET 32788 over best check and over early check recorded significant yield improvement in zone-III under alkalinity. These cultures merit promotion to next level of testing AVT1 AL & ISTVT.

Performance in Zone VII under alkalinity

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 2151 kg/ha (CSR2 23) to 4536 kg/ha (Local check), days to 50% flowering varied from 81 days (CSR 10)–107 days (CSR 36). Plant height ranged from 71 cm (IET 32787) to 102 cm (IET 32780) and the panicles/m² varied from 342 (IET 32784) to 471 (IET 32792). Among the checks, local check (4536 kg/ha; 98 DFF), recorded highest yield followed by CSR 36 (4282 kg/ha, 107 DFF), FL 478 (3297 kg/ha, 92 DFF), Pusa 44 (3095 kg/ha, 101 DFF), CSR 10 (2704 kg/ha; 81 DFF), CSR 23 (2511 kg/ha, 87DFF). The flowering duration of the test entries varied from 91 days (IET 32790) to 103 days (IET 32792). CSR 10 with 81 days to flowering (SEM 0.3) is the earliest check in Z-VII, while most of the entries differed with early duration check CSR 10 with a range of 10 - 22 days. Upon comparison, none of the entries were identified with comparable flowering duration with CSR 10. Hence none found

Annual Progress Report 2024 Vol. I – Varietal Improvement

promising for early duration in Z-VII under alkalinity. Hence, local check is the best check in Zone VII. *None of the test entries recorded significant yield improvement over the best check or over early 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 2024

IET No/ Check	Alkalinity			Remarks
	Z-II (3)/ DFF	Z-III (1)/ DFF	Z-VII (5)/ DFF	
IET 32783 (CSR 2022 ABC-165) PR114 X CSR 27	3926 79	4927 91	--	Significant in Z-II & III over best check (BC), under Alkalinity
IET 32792 (RP CG-SLK-114-58-7) BPT5204/CGIL24	3845 78		--	Significant in Z-II over BC & Z-III under Alkalinity; in Z-II for Inland salinity over BC
IET 32785 (RNR 42677) JGL 24423/JGL 17004	3623 76		--	Significant in Z-II over early check, & Z-III under Alkalinity; in Z-II for Inland salinity over BC
IET 32778 (CSR 2021-AL-29-485) IRRI 154 XCSR28	3663 76	5247 89	--	Significant in Z-II over early check, & over BC in Z-III under Alkalinity
IET 32788 (RP CG-SLK-917-46-67-1) IR64/GL190	3441 76	5007 86	--	Significant in Z-II over early check, & over BC & early check in III under Alkalinity
IET 32776 (CSR 2022 BR-41-4-64) Pusa 44 x Burarata		4620 92	--	Significant over BC in Z-III under alkalinity
CSR 36	3376, 78	3553, 89	4282, 107	
CSR 23	3239, 79	3353, 94	2151, 87	
CSR 10	2740, 79	3627, 94	2704, 81	
FL 478	2630, 77	3233, 84	3297, 92	
Pusa 44	2016, 83	2080, 95	3095, 101	
Local check	2940, 75	3480, 88	4536, 98	
G. Mean	3167	3104	3215	
CD	336.65	366.29	344.8	
CV%	7.53	8.36	7.60	

2. Inland Saline Stress

Overall Performance

For inland saline stress, the data from four locations namely Karnal (Saline microplot), Panipat (Karnal), Rohtak (Karnal), Danti (Navsari), Vytilla and Gangavati were received. The data from four locations except Vytilla were suitable for analysis. At Vytilla, the trial experienced low stress level due to heavy rains and so data not considered. The mean grain yield on overall basis ranged from 1904 kg/ha (Pusa 44) to 4184 kg/ha (IET 32787), days to 50% flowering varied from 86 days (FL 478) to 102 days (Pusa 44). Plant height of the entries ranged from 62 cm (CSR 10) to 104 cm (IET 32780) and the panicles/m² varied from 190 (FL 478) to 280 (IET 32787).

Annual Progress Report 2024 Vol. I – Varietal Improvement

Among the checks, Local check (3159 kg/ha, 93 DFF) recorded highest yield followed by CSR 36 (2966 kg/ha, 96 DFF), FL 478 (2622 kg/ha, 86 DFF), CSR 10 (2602 kg/ha, 90 DFF) and CSR 23 (2571 kg/ha, 90 DFF) and Pusa 44 (1904 kg/ha, 102 DFF). Hence, local check is the best check on overall basis. Five test cultures **IET 32787 (RNR 42651)** derived from cross JGL 24423/RNR 26016 with 4184 kg/ha and 95 day to flowering ranked 1st followed by **IET 32791 (JGL 38917)** from the cross combination of JGL 2947/IR 58025B with 3915 kg/h and 92 days to flowering, **IET 32788 (RP CG-SLK-917-46-67-1)** from the parentage of IR64/GL190 with 3749 kg/ha and 96 days to flowering, **IET 32785 (RNR 42677)** developed from the cross combination JGL 24423/JGL 17004 with 3708 kg/ha and 91 days to flowering and **IET 32778 (CSR 2021-AL-29-485)** from the parentage of IRRI 154 XCSR28 with 3567 kg/ha and 90 days to flowering found promising with significant yield superiority over best check on overall basis and hence merit promotion.

FL 478 is the earliest check with 86 days to flowering (SEM 0.8). The flowering duration of test entries varied from 90 days (IET 32778) to 101 (IET 32786) which differed with 4 to 15 days to early check. Upon comparison with early check, none of the entries are in comparable flowering duration and hence none merit promotion based on early duration on overall basis under inland saline conditions.

On overall basis, five cultures IET nos. 32787, 32791, 32788, 32785 and 32778 merit promotion to next level of testing in AVT 1 Al & ISTVT.

Performance in Zone II: Inland Salinity

The inland saline stress trial in Zone II, the data from Panipat and Rohtak was found suitable in the final analysis. The mean grain yield on zone II ranged from 1967 kg/ha (Pusa 44) to 4457 kg/ha (IET 32783), days to 50% flowering varied from 80 days (FL 478) to 98days (IET 32786). Plant height of the entries ranged from 47 cm (FL 478) to 95 cm (IET 32780) and the panicles/m² varied from 113 (Pusa 44) to 263 (IET 32783). Among the checks, Local check (3384 kg/ha, 90 DFF) recorded highest yield followed by CSR 36 (3227 kg/ha, 89 DFF), CSR 23 (3190 kg/ha, 91 DFF) and CSR 10 (3020 kg/ha, 91 DFF), FL 478 (2883 kg/ha, 80 DFF) and Pusa 44 (1967 kg/ha, 96 DFF). Hence, Local check is the best check in Zone II.

Five test cultures viz., **IET 32783 (CSR 2022 ABC-165)** developed from cross PR114 X CSR 27 with 4457 kg/ha and 89 days to flowering, **IET 32788 (RP CG-SLK-917-46-67-1)** from the cross combination of IR64/GL190 with 4444 kg/ha and 85 days to flowering, **IET 32792 (RP CG-SLK-114-58-7)** derived from BPT5204/CGIL24 with 4167 kg/ha and 9 days to flowering, **IET 32778 (CSR 2021-AL-29-485)** from the pedigree of IRRI 154 XCSR28 with 4144 kg/ha and 85 days to flowering and **IET 32776 (CSR 2022 BR-41-4-64)** developed from Pusa 44 x Burarata with 4094 kg/ha and 88 days to flowering found promising with significant yield superiority over best check in zone-II and are promoted to AVT 1 Al & ISTVT.

FL 478 is the early duration check among all the check with 80 days to 50% flowering. The flowering duration among the test entries varied from 84 days (IET 32778) to 98 days (IET 32786) with an SEM of 1.3. Upon comparison, none of the entries are in comparable flowering duration and hence none merit promotion based on early duration in zone-II under inland saline conditions.

IET nos. 32783, 32788, 32792, 32778 and 32776, merit promotion in Zone II under inland salinity for second year of testing in AVT1-AL&ISTVT.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of entries/checks in IVT - AL & ISTVT under inland salinity, Kharif 2024

IET No/ Check	Inland Salinity				Remarks
	Overall (4) /DFF	Z-II (3)/ DFF	Z-VI (1)/ DFF	VIII (1)/ DFF	
IET 32787 (RNR 42651) JGL 24423/RNR 26016	4184 95		5630 93	3571 98	Significant in over best check (BC) on overall, Z-VI & Z-VII for Inland salinity
IET32791 (JGL 38917) JGL 2947/IR 58025B	3915 92				Significant over BC on overall basis for Inland salinity
IET32788 (RP CG-SLK-917-46-67-1) IR64/GL190	3749 96	4444 85			Significant in over BC on overall, Z-II for Inland salinity
IET 32785 (RNR 42677) JGL 24423/JGL 17004	3708 91		5454 92		Significant in over BC on overall, Z-VI for Inland salinity
IET32778 (CSR 2021-AL-29-485) IRRI 154 XCSR28	3567 90	4144 85			Significant in over BC on overall, Z-II for Inland salinity
IET32783 (CSR 2022 ABC-165) PR114 X CSR 27		4457 89			Significant in Z-II over BC for Inland salinity
IET 32792 (RP CG-SLK-114-58-7) BPT5204/CGIL24		4167 90			Significant in Z-II over BC for Inland salinity
IET 32776 (CSR 2022 BR-41-4-64) Pusa 44 x Burarata		4094 88			Significant in Z-II over BC for Inland salinity
IET 32780 (RP 6817-IR16T1655) IRRI 154/A 69-1/IR12T254				3962 98	Significant in Z-VII for Inland salinity over BC
CSR 36	2966, 96	3227, 89	4312, 100	1097, 108	
CSR 23	2571, 90	3190, 91	1744, 91	2158, 86	
CSR 10	2602, 90	3020, 91	2608, 98	1761, 79	
FL 478	2622, 86	2883, 80	2976, 89	1744, 95	
Pusa 44	1904, 102	1967, 96	1829, 105	1853, 111	
Local check	3159, 93	3384, 90	2561, 93	3306, 101	
G. Mean	3148	3460	3323	2279	
CD	338.64	487.7	744.67	234.58	
CV%	7.62	9.98	15.87	7.28	

Performance in Zone VI: Inland Salinity

The inland saline stress trial in Zone VI, the data from Danti (Navsari) was found suitable in the final analysis. The mean grain yield on Zone VI ranged from 1744 kg/ha (CSR 23) to 5630 kg/ha (IET 32787), days to 50% flowering varied from 89 days (FL 478) to 112 days (32788). Plant height of the entries ranged from 86.13 cm (CSR 10) to 134.6 cm (Local check) and the panicles/m² varied from 302 (Local check) to 427 (IET 32778). Among the checks, CSR 36 (4312 kg/ha; 100 DFF) recorded highest yield followed by FL 478 (2976 kg/ha; 89 DFF), CSR 10 (2608 kg/ha, 98 DFF), local check (2561 kg/ha, 93 DFF), Pusa 44

Annual Progress Report 2024 Vol. I – Varietal Improvement

(1829 kg/ha, 105 DFF) and CSR 23 (1744 kg/ha, 91 DFF). Hence, CSR 36 is the best check in Zone VI.

Two cultures viz., **IET 32787 (RNR 42651)** developed from the parentage of JGL 24423/RNR 26016 recorded mean grain yield of 5630 kg/ha and 93 days to flowering and **IET 32785 (RNR 42677)** derived from JGL 24423/JGL 17004 with mean grain yield of 5454 kg/ha and 92 days to flowering exhibited significant yield advantage over best check and are promoted to second year of testing in AVT 1 AL & ISTVT.

FL 478 with 89 days to flowering is the early check. The flowering duration among the test entries varied from 91 days (IET 32790) to 112 days (IET 32786) with an SEM of 1.6. Upon comparison, none of the entries are in comparable flowering duration and hence none merit promotion based on early duration in zone-VI under inland saline conditions.

IET 32787 and IET 32785 with significant yield improvement over the best check in Zone VI merit promotion to AVT1-AL ISTVT.

Performance in Zone VII: Inland Salinity

The inland saline stress trial of Zone VII, the single location data from Gangavati (Karnataka) was found suitable in the final analysis. The mean grain yield on Zone VII ranged from 1097kg/ha (CSR 36) to 3962 kg/ha (IET 32780), days to 50% flowering varied from 79 days (CSR 10) to 112 days (IET 32792). Plant height of the entries ranged from 61.0 cm (CSR 10) to 102 cm (IET 32780) and the panicles/m² varied from 151 (FL 478) to 303 (IET 32790).

Among the checks, local check (3306 kg/ha; 101 DFF) recorded highest yield followed by CSR 23 (2158 kg/ha; 86 DFF), Pusa 44 (1853 kg/ha, 111 DFF) CSR 10 (1761 kg/ha, 79 DFF), FL 478 (1744 kg/ha, 95 DFF), and CSR 36 (1097 kg/ha, 108 DFF). Hence, local check is the best check in Zone VII.

Two cultures viz., **IET 32780** (RP 6817-IR16T1655) developed from the parentage of IRR1 154/A 69-1//IR12T254 recorded mean grain yield of 3962 kg/ha and 98 days to flowering and **IET 32787** (RNR 42651) derived from JGL 24423/RNR 26016 with mean grain yield of 3571 kg/ha and 98 days to flowering exhibited significant yield advantage over best check and are promoted to second year of testing in AVT 1 AL & ISTVT.

CSR 10 with 79 days to flowering is the early check. The flowering duration among the test entries varied from 94 days (IET 32790) to 112 days (IET 32792) with an SEM of 0.7. Upon comparison, none of the entries are in comparable flowering duration and hence none merit promotion based on early duration in zone-VII under inland saline conditions.

IET 32780 and IET 32787 with significant yield improvement over the best check in Zone VII merit promotion to AVT1-AL ISTVT.

Annual Progress Report 2024 Vol. I – Varietal Improvement

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

Alkalinity:

- **Zone II: IETs. 32783, 32792, 32785, 32778, 32788**
- **Zone III: IETs. 32778, 32783, 32776, 32788**

Inland Salinity:

- **Overall Inland Salinity: IETs. 32787, 32791, 32788, 32785, 32778**
- **Zone II under Inland Salinity: IETs. 32783, 32788, 32792, 32778, 32776**
- **Zone VI under Inland Salinity: IETs. 32787, 32785**
- **Zone VII under Inland Salinity: IETs. 32780, 32787**

Therefore, the constitution for AVT AL & ISTVT:

IET Nos. 32783, 32792, 32785, 32778, 32788, 32776, 32787, 32791, 32780

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 26.1: Composition of entries in Initial Variety Trial - Alkaline and Inland Saline Tolerant Variety Trial (IVT-AL& ISTVT) Kharif 2024

Entry No.	IET No.	Designation	Cross Combination	Grain Type
4801	32776	CSR 2022 BR-41-4-64	Pusa 44 x Burarata	LS/MS
4802	32777	KPS 12657	BM-71/NLR 34449	MS
4803		Early duration Saline check (CSR 10)		SB
4804	32778	CSR 2021-AL-29-485	IRRI 154 XCSR28	LS
4805	32779	NVSR-6640	GAR-13/IR 76346-B-B-10-1-1-1	SB
4806	32780	RP 6817-IR16T1655	IRRI 154/A 69-1//IR12T254	LS
4807	32781	NVSR-6655	IET-15429/Dandi	LS/MB
4808	32782	RP 6816-IR18T1192	IR14D154/IR11T189	LS
4809		Alkaline Tolerant check (CSR 36)		
4810	32783	CSR 2022 ABC-165	PR114 X CSR 27	LS
4811		Inland Saline Tolerant (CSR 23)		
4812	32784	NVSR-6666	IET-15429/IET-22015	LS
4813		Sensitive check (Pusa 44)		LS
4814	32785	RNR 42677	JGL 24423/JGL 17004	LS
4815	32786	RP 6813-IR16T1658	IR11T205/JUMBO JET	LB
4816	32787	RNR 42651	JGL 24423/RNR 26016	LS
4817		Saline tolerant & donor (FL 478)		
4818	32788	RP CG-SLK-917-46-67-1	IR64/GL190	LS
4819	32789	JGL 39949	RNR 11718/Jai sriram	SS
4820	32790	RP 6815-IR 87959-6-23-1-2--BAY-B-CMU-1	IR 69502-6-SRN 3-UBN 1-B/A 69-1	LS
4821	32791	JGL 38917	JGL 2947/IR 58025B	LS
4822	32792	RP CG-SLK-114-58-7	BPT5204/CGIL24	LS
4823		Local Check		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 26.2: Grain Yield (kg/ha) in IVT – AL & ISTVT (Alkalinity), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN								ZONE II-NORTHERN (3)	
		Haryana				Haryana (2)		Uttar Pradesh		Mean	
		Kurukshetra (Karnal)		Anjanitel(Karnal)		Mean		Kanpur			
4801	32776	4413	5	4347	3 *	4380	3 *	2138	8	3633	4
4802	32777	3640		2913		3277		2636	7	3063	
4803	(CSR 10) Early duration Saline check	3473		3060		3267		1687		2740	
4804	32778	4460	3	4513	1 *	4487	1 *	2016		3663	3
4805	32779	3593		3453	10	3523	9	3011	2	3352	8
4806	32780	3060		2200		2630		1998		2419	
4807	32781	2900		3953	6	3427		2070		2974	
4808	32782	2487		3533	9	3010		2111	9	2710	
4809	(CSR 36) Alkaline Tolerant check	3553		3227		3390		3349	1	3376	7
4810	32783	4460	3	4420	2 *	4440	2 *	2898	5	3926	1 *
4811	(CSR 23) Inland Saline Tolerant	3307		3447		3377		2964	4	3239	9
4812	32784	3713	10	3293		3503		1649		2885	
4813	(Pusa 44) Sensitive check	2007		2080		2044		1962		2016	
4814	32785	4060	7	3813	8	3937	7 *	2996	3	3623	5
4815	32786	3573		3080		3327		1951		2868	
4816	32787	4140	6	3333		3737	8	1716		3063	
4817	(FL 478) Saline tolerant & donor	3280		3007		3144		1604		2630	
4818	32788	4567	1 *	3853	7	4210	5 *	1902		3441	6
4819	32789	3887	9	3153		3520	10	1638		2893	
4820	32790	3133		3427		3280		2093	10	2884	
4821	32791	4033	8	4040	5	4037	6 *	1531		3201	10
4822	32792	4540	2 *	4160	4 *	4350	4 *	2836	6	3845	2 *
4823	Local Check	3361		3367		3364		2091		2940	
Experimental Mean		3637		3464		3550		2211		3167	
CD		924.48		609.37		523.97		457.87		336.65	
CV%		18.01		12.46		10.45		14.67		7.53	
F Value		3.73(p<0.0001)		7.88(p<0.0001)		9.30(p<0.0001)		10.02(p<0.0001)		14.85(p<0.0001)	
DOS		29-06-24		02-06-24				30-06-24			
DOP		29-07-24		02-08-24				04-08-24			
Local Check Name		CSR 36		CSR 36				CSR-36			

Table No. 26.2 (Contd.): Grain Yield (kg/ha) in IVT – AL & ISTVT (Alkalinity), Kharif 2024

Entry No	IET No	ZONE III-EASTERN				ZONE VII – SOUTHERN					
		Uttar Pradesh		Telangana		Tamil Nadu			Tamil Nadu (2)		
		Gautam Budha Nagar (Karnal)		Kampasagar		Trichy		Annamalainagar	Mean		
4801	32776	4620	4 *	4299		1909		2753		2331	
4802	32777	3833	8	1857		1758		3222	2	2490	
4803	(CSR 10) Early duration Saline check	3627	9	4502		420		2947		1684	
4804	32778	5247	1 *	5187	9	2822	10	2839		2831	
4805	32779	2627		5816	3	3799	5	2828		3314	5
4806	32780	2300		1963		2243		3033	8	2638	
4807	32781	3147		5168	10	3083	9	2739		2911	9
4808	32782	2587		5022		2731		3011	9	2871	10
4809	(CSR 36) Alkaline Tolerant check	3553	10	6013	1	5474	2	2820		4147	2
4810	32783	4927	3 *	5251	8	3341	7	2967	10	3154	6
4811	(CSR 23) Inland Saline Tolerant	3353		1879		467		3211	4	1839	
4812	32784	3153				4222	4	3086	7	3654	4
4813	(Pusa 44) Sensitive check	2080		3416		2650		3090	6	2870	
4814	32785	3247		1989		3281	8	2772		3027	7
4815	32786	3013		5460	6	4957	3	2634		3796	3
4816	32787	4100	6	5543	4	1809		2383		2096	
4817	(FL 478) Saline tolerant & donor	3233		5994	2	1817		2689		2253	
4818	32788	5007	2 *	5371	7	2317		2841		2579	
4819	32789	3093		2000		1344		2878		2111	
4820	32790	2787		5486	5	453		3103	5	1778	
4821	32791	4080	7			2248		3217	3	2733	
4822	32792	4547	5	5048		3383	6	2444		2914	8
4823	Local Check	3480		4695		6458	1	3567	1	5013	1
Experimental Mean		3104		4379		2738		2916		2827	
CD		366.29		667.66		556.07		559.38		382.8	
CV%		8.36		10.78		14.38		13.59		9.59	
F Value		11.52(p<0.0001)		36.12(p<0.0001)		54.26(p<0.0001)		1.81(p=0.0341)		30.04(p<0.0001)	
DOS		27-06-24		31-07-24				24-06-24			
DOP		29-07-24		30-08-24				24-07-24			
Local Check Name		CSR 36		KPS-2874		TRY 3		TRY 2			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 26.2 (Contd.): Grain Yield (kg/ha) in IVT – AL & ISTVT (Alkalinity), Kharif 2024

Entry No	IET No	ZONE VII – SOUTHERN		ZONE VII –		UTTAR		Overall Mean (8)	
		Puducherry		SOUTHERN (4)		PRADESH(2)			
		Karaikal		Mean		Mean			
4801	32776	2942		2976		3379	6	3428	9
4802	32777	3300	2	2534		3235	7	2895	
4803	(CSR 10) Early duration Saline check	2947		2704		2657		2833	
4804	32778	2917		3441	8	3632	3	3750	4
4805	32779	2950		3848	4	2819		3510	7
4806	32780	3033	8	2568		2149		2479	
4807	32781	2995	10	3496	6	2609		3257	10
4808	32782	2908		3418	9	2349		3049	
4809	(CSR 36) Alkaline Tolerant check	2820		4282	2	3451	5	3851	2
4810	32783	3253	3	3703	5	3913	1	3940	1
4811	(CSR 23) Inland Saline Tolerant	3045	7	2151		3159	8	2709	
4812	32784	3086	6	3465	7	2401		3172	
4813	(Pusa 44) Sensitive check	3223	4	3095		2021		2564	
4814	32785	3113	5	2789		3122	9	3159	
4815	32786	2790		3960	3	2482		3432	8
4816	32787	2561		3074		2908	10	3198	
4817	(FL 478) Saline tolerant & donor	2689		3297		2419		3039	
4818	32788	2719		3312	10	3455	4	3572	6
4819	32789	2639		2215		2366		2579	
4820	32790	2879		2980		2440		2920	
4821	32791	3006	9	2824		2806		3165	
4822	32792	2250		3281		3692	2	3651	5
4823	Local Check	3422	1	4536	1	2786		3805	3
Experimental Mean		2934		3215		2880		3215	
CD		490.87		344.8		541.09		246.53	
CV%		11.85		7.60		13.30		5.43	
F Value		2.10(p<0.0086)		21.89(p<0.0001)		6.84(p<0.0001)		21.48(<0.0001)	
DOS		24-06-24							
DOP		24-07-24							
Local Check Name		KKL(R) 3							

Table No. 26.2 (Contd.): Grain Yield (kg/ha) in IVT – AL & ISTVT (Inland Saline), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN						ZONE V – WESTERN		ZONE VII – SOUTHERN		Overall Mean (4)	
		Haryana			Haryana (2)			Gujarat		Karnataka			
		Panipat (Karnal)	Rohtak (Karnal)	Mean	Navsari		Gangavati						
4801	32776	4340	4 *	3847	4	4094	5 *	2693		1925		3201	9
4802	32777	3520		3587	9	3554	0.05	3590	8	3269	4	3492	6
4803	(CSR 10) Early duration Saline check	3093		2947		3020		2608		1761		2602	
4804	32778	4487	1 *	3800	6	4144	4 *	3291	10	2691	8	3567	5 *
4805	32779	3420		3740	7	3580	10	2705		1291		2789	
4806	32780	2920		3107		3014		2241		3962	1 *	3058	
4807	32781	3607	10	3507		3557	0.05	3581	9	1367		3016	
4808	32782	3187		3113		3150		4354	5	2503	9	3289	8
4809	(CSR 36) Alkaline Tolerant check	3267		3187		3227		4312	6	1097		2966	
4810	32783	4400	3 *	4513	1 *	4457	1 *	2579		1265		3189	
4811	(CSR 23) Inland Saline Tolerant	3140		3240		3190		1744		2158		2571	
4812	32784	3667	9	3533	10	3600	8	2344		1304		2712	
4813	(Pusa 44) Sensitive check	1927		2007		1967		1829		1853		1904	
4814	32785	3227		2880		3054		5454	2 *	3269	4	3708	4 *
4815	32786	3073		2220		2647		4454	4	3032	7	3195	10
4816	32787	3867	7	3667	8	3767	7	5630	1 *	3571	2 *	4184	1 *
4817	(FL 478) Saline tolerant & donor	2933		2833		2883		2976		1744		2622	
4818	32788	4460	2 *	4427	2 *	4444	2 *	3798	7	2309	10	3749	3 *
4819	32789	3767	8	3807	5	3787	6	3122		3226	6	3481	7
4820	32790	3393		3207		3300		2736		2096		2858	
4821	32791	3927	6	3260		3594	9	4558	3			3915	2 *
4822	32792	4287	5 *	4047	3	4167	3 *	3274		1143		3188	
4823	Local Check	3280		3487		3384		2561		3306	3	3159	
Experimental Mean		3530		3390		3460		3323		2279		3148	
CD		685.16		655.01		487.7		744.67		234.58		338.64	
CV%		13.75		13.69		9.98		15.87		7.28		7.62	
F Value		5.92(p<0.0001)		6.05(p<0.0001)		10.29(p<0.0001)		14.77(p<0.0001)		101.12(p<0.0001)		15.89(p<0.0001)	
DOS		30-06-24		29-06-24				20-06-24		30-07-24			
DOP		29-07-24		30-07-24				22-07-24		07-09-24			
Local Check Name		CSR 27		CSR 27				GNR-5		GNV 1109			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 26.2 (Contd.): Grain Yield (kg/ha) in IVT – AL & ISTVT (Normal), Kharif 2024

Entry No	IET No	ZONE VII – SOUTHERN	
		Kerala	
		Vytila	
4801	32776	4080	5
4802	32777	1286	
4803	(CSR 10) Early duration Saline check	2379	
4804	32778	3298	7
4805	32779	3536	6
4806	32780	4359	3
4807	32781	2284	
4808	32782	2407	
4809	(CSR 36) Alkaline Tolerant check	1034	
4810	32783	4584	2
4811	(CSR 23) Inland Saline Tolerant	3079	10
4812	32784	2859	
4813	(Pusa 44) Sensitive check	2188	
4814	32785	1003	
4815	32786	4950	1 *
4816	32787	3026	
4817	(FL 478) Saline tolerant & donor	1377	
4818	32788	1443	
4819	32789	2164	
4820	32790	3090	8
4821	32791		
4822	32792	3080	9
4823	Local Check	4173	4
Experimental Mean		2804	
CD		611.71	
CV%		15.44	
F Value		25.59(p<0.0001)	
DOS		10-06-24	
DOP		28-06-24	
Local Check Name		KAU LAVANYA	

Table No. 26.2 (Contd.): Grain Yield (kg/ha) in IVT – AL & ISTVT (Normal), Kharif 2024 (Not Considered)

Entry No	IET No	ZONE III-EASTERN	
		Uttar Pradesh	
		@Masodha	
4801	32776	5618	6
4802	32777	4422	
4803	(CSR 10) Early duration Saline check	4235	
4804	32778	5918	1
4805	32779	4887	
4806	32780	4754	
4807	32781	4461	
4808	32782	3158	
4809	(CSR 36) Alkaline Tolerant check	5120	9
4810	32783	5372	7
4811	(CSR 23) Inland Saline Tolerant	5725	4.5
4812	32784	4089	
4813	(Pusa 44) Sensitive check	5785	3
4814	32785	4382	
4815	32786	5233	8
4816	32787	4654	
4817	(FL 478) Saline tolerant & donor	5864	2
4818	32788	5053	
4819	32789	5060	10
4820	32790	4721	
4821	32791	4189	
4822	32792	5725	4.5
4823	Local Check	4801	
Experimental Mean		4923	
CD		204.23	
CV%		2.94	
F Value		80.27(p<0.0001)	
DOS		02-07-24	
DOP		06-08-24	
Local Check Name		NDRK 2008	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 26.2 (Contd.): Grain Yield (kg/ha) in IVT – AL & ISTVT (Saline Microplot), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN	
		Haryana	
		Karnal (ICAR-CSSRI) (Saline)	
4801	32776	3926	4
4802	32777	2815	
4803	(CSR 10) Early duration Saline check	3296	8
4804	32778	4870	1 *
4805	32779	3019	
4806	32780	3019	
4807	32781	2463	
4808	32782	1963	
4809	(CSR 36) Alkaline Tolerant check	3222	10
4810	32783	4148	2
4811	(CSR 23) Inland Saline Tolerant	3167	
4812	32784	3444	7
4813	(Pusa 44) Sensitive check	1426	
4814	32785	3056	
4815	32786	3056	
4816	32787	2722	
4817	(FL 478) Saline tolerant & donor	3056	
4818	32788	3833	5
4819	32789	3722	6
4820	32790	2685	
4821	32791	3204	
4822	32792	3963	3
4823	Local Check	3259	9
Experimental Mean		3188	
CD		916.12	
CV%		20.35	
F Value		4.44(p<0.0001)	
DOS		28-06-24	
DOP		01-08-24	
Local Check Name		CSR 27	

Table No. 26.2 (Contd.): Grain Yield (kg/ha) in IVT – AL & ISTVT (Sodic Microplot), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN	
		Haryana	
		Karnal (ICAR-CSSRI) (Sodic)	
4801	32776	4056	2
4802	32777	3375	
4803	(CSR 10) Early duration Saline check	3097	
4804	32778	4944	1 *
4805	32779	3472	
4806	32780	2944	
4807	32781	2319	
4808	32782	2292	
4809	(CSR 36) Alkaline Tolerant check	3333	
4810	32783	3931	4
4811	(CSR 23) Inland Saline Tolerant	3028	
4812	32784	3500	10
4813	(Pusa 44) Sensitive check	2000	
4814	32785	3736	8
4815	32786	2389	
4816	32787	3958	3
4817	(FL 478) Saline tolerant & donor	3208	
4818	32788	3819	6
4819	32789	3708	9
4820	32790	3097	
4821	32791	3806	7
4822	32792	3875	5
4823	Local Check	3278	
Experimental Mean		3355	
CD		1023.75	
CV%		21.61	
F Value		3.09(p<0.0001)	
DOS		28-06-24	
DOP		01-08-24	
Local Check Name		CSR 36	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 26.3: Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT – AL & ISTVT (Alkalinity), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN											
		Haryana						Haryana (2)			Uttar Pradesh		
		Kurukshetra (Karnal)			Anjanitel(Karnal)			Mean			Kampur		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4801	32776	92	69.10	268	87	101.00	254	90	85	261	59	92.37	260
4802	32777	91	69.90	230	91	76.70	145	91	73	188	59	76.07	276
4803	(CSR 10) Early duration Saline check	95	58.60	211	83	42.30	158	89	50	185	58	55.17	189
4804	32778	87	69.60	281	83	48.10	273	85	59	277	57	63.43	225
4805	32779	100	82.80	228	92	53.70	231	96	68	230	56	62.07	275
4806	32780	89	88.60	180	90	65.50	113	89	77	146	58	74.77	286
4807	32781	95	77.90	164	91	83.70	242	93	81	203	59	70.47	202
4808	32782	93	49.50	152	96	70.90	237	94	60	194	58	79.07	336
4809	(CSR 36) Alkaline Tolerant check	92	56.20	211	82	75.10	193	87	66	202	60	86.33	322
4810	32783	89	56.90	273	89	70.40	260	89	64	267	61	76.57	392
4811	(CSR 23) Inland Saline Tolerant	85	50.20	211	92	74.40	233	88	62	222	59	76.10	362
4812	32784	88	81.50	236	86	67.10	214	87	74	225	59	79.30	416
4813	(Pusa 44) Sensitive check	100	58.70	129	88	40.20	108	94	49	118	60	62.73	205
4814	32785	85	73.30	248	89	68.00	239	87	71	243	55	58.03	170
4815	32786	104	69.60	224	101	72.10	159	103	71	192	59	66.33	190
4816	32787	94	61.70	249	83	67.90	218	89	65	233	57	64.77	219
4817	(FL 478) Saline tolerant & donor	86	65.30	201	89	67.30	155	87	66	178	57	54.13	154
4818	32788	86	81.10	304	86	59.10	242	86	70	273	57	48.57	252
4819	32789	88	71.30	243	96	64.70	172	92	68	208	59	74.33	206
4820	32790	96	77.20	196	99	91.10	229	98	84	213	57	70.30	215
4821	32791	101	77.80	245	90	60.40	242	96	69	244	61	86.30	218
4822	32792	91	65.70	284	83	75.70	250	87	71	267	61	66.67	229
4823	Local Check	80	80.90	211	89	85.60	222	85	83	216	57	78.17	231
Experimental Mean		92	69	225	89	69	208	90	69	217	58	71	253
Standard Error		1.2			1.5			1.0			0.6		

Table No. 26.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT – AL & ISTVT (Alkalinity), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN (3)			ZONE III-EASTERN			ZONE VII – SOUTHERN					
		Mean			Uttar Pradesh			Telangana (1)			Tamil Nadu		
					Gautam Budha Nagar (Karnal)			Kampasagar			Trichy		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4801	32776	79	87	261	92	91.90	255	101	95.63	526	102	68.00	59
4802	32777	80	74	217	90	79.40	238	96	87.13	558	94	71.25	45
4803	(CSR 10) Early duration Saline check	79	52	186	94	65.10	237	84	47.17	398	90	69.00	26
4804	32778	76	60	260	89	78.30	311	102	100.07	460	105	88.25	69
4805	32779	83	66	245	93	74.50	158	103	95.40	410	105	72.00	45
4806	32780	79	76	193	95	97.90	144	97	94.70	393	106	95.50	32
4807	32781	82	77	203	95	63.40	183	101	98.73	503	105	73.75	29
4808	32782	82	66	242	98	79.50	150	102	91.57	626	105	78.00	20
4809	(CSR 36) Alkaline Tolerant check	78	73	242	89	82.70	229	104	97.73	481	116	82.00	41
4810	32783	79	68	308	91	75.70	257	97	83.20	443	107	85.50	53
4811	(CSR 23) Inland Saline Tolerant	79	67	269	94	67.50	198	87	91.10	493	90	94.50	53
4812	32784	78	76	289	84	87.30	188				113	106.00	53
4813	(Pusa 44) Sensitive check	83	54	147	95	66.10	143	106	64.10	416	106	68.75	34
4814	32785	76	66	219	96	54.70	194	104	68.40	498	104	83.00	46
4815	32786	88	69	191	95	63.40	177	105	76.20	470	104	75.25	53
4816	32787	78	65	229	90	70.40	253	94	62.07	474	104	68.75	44
4817	(FL 478) Saline tolerant & donor	77	62	170	84	60.40	193	94	71.03	405	90	68.75	31
4818	32788	76	63	266	86	74.80	275	108	79.80	504	106	82.00	44
4819	32789	81	70	207	102	74.00	183	107	66.63	604	107	69.25	36
4820	32790	84	80	213	90	96.70	165	103	107.63	371	90	66.25	26
4821	32791	84	75	235	96	72.80	252				106	86.00	17
4822	32792	78	69	254	89	79.60	255	103	80.73	659	105	73.00	43
4823	Local Check	75	82	221	88	69.00	208	106	89.57	391	104	111.30	77
Experimental Mean		80	70	229	92	75	211	100	83	480	103	80	42
Standard Error		0.7			1.6			0.7			0.4		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 26.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT – AL & ISTVT (Alkalinity), Kharif 2024

Entry No	IET No	ZONE VII – SOUTHERN								
		Tamil Nadu			Tamil Nadu (2)			Puducherry		
		Annamalainagar			Mean			Karaikal		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4801	32776	82	98.61	484	92	83	271	81	96.33	576
4802	32777	92	99.58	467	93	85	256	92	98.67	559
4803	(CSR 10) Early duration Saline check	75	86.24	451	82	78	238	76	85.33	543
4804	32778	88	94.58	543	96	91	306	88	93.67	635
4805	32779	93	93.24	498	99	83	271	92	92.33	590
4806	32780	87	108.58	564	97	102	298	88	107.67	657
4807	32781	100	94.04	547	102	84	288	100	93.00	640
4808	32782	90	93.38	455	97	86	237	90	92.33	547
4809	(CSR 36) Alkaline Tolerant check	104	101.08	381	110	92	211	104	100.00	473
4810	32783	91	97.38	501	99	91	277	92	96.33	594
4811	(CSR 23) Inland Saline Tolerant	86	90.04	461	88	92	257	86	89.00	542
4812	32784	93	96.08	446	103	101	249	92	93.67	527
4813	(Pusa 44) Sensitive check	95	77.41	479	101	73	257	96	75.00	560
4814	32785	87	86.08	412	95	85	229	87	83.67	493
4815	32786	94	96.28	479	99	86	266	95	94.00	560
4816	32787	88	77.18	582	96	73	313	89	75.00	640
4817	(FL 478) Saline tolerant & donor	92	83.94	602	91	76	317	91	81.67	660
4818	32788	92	87.94	481	99	85	263	92	85.67	546
4819	32789	84	74.94	555	96	72	296	85	72.67	620
4820	32790	87	75.94	485	88	71	256	86	73.67	550
4821	32791	89	87.34	482	97	87	249	90	85.00	547
4822	32792	102	95.28	558	103	84	301	104	93.00	623
4823	Local Check	92	98.04	495	98	105	286	88	96.00	560
Experimental Mean		91	91	496	97	85	269	91	89	576
Standard Error		0.7			0.4			0.5		

Table No. 26.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT – AL & ISTVT (Alkalinity), Kharif 2024

Entry No	IET No	ZONE VII – SOUTHERN (4)			UTTAR PRADESH (2)			Overall Mean (8)		
		Mean			Mean			DFE	PH	PAN
		DFE	PH	PAN	DFE	PH	PAN			
4801	32776	92	90	411	75	92.13	258	87	89	335
4802	32777	94	89	407	75	77.73	257	88	82	315
4803	(CSR 10) Early duration Saline check	81	72	354	76	60.13	213	82	64	277
4804	32778	96	94	426	73	70.87	268	87	79	349
4805	32779	98	88	385	75	68.28	217	92	78	304
4806	32780	95	102	411	77	86.33	215	89	92	296
4807	32781	101	90	430	77	66.93	193	93	82	314
4808	32782	97	89	412	78	79.28	243	91	79	315
4809	(CSR 36) Alkaline Tolerant check	107	95	344	75	84.52	276	94	85	291
4810	32783	97	91	398	76	76.13	324	89	80	346
4811	(CSR 23) Inland Saline Tolerant	87	91	387	77	71.80	280	85	79	319
4812	32784	99	99	342	71	83.30	302	88	87	297
4813	(Pusa 44) Sensitive check	101	71	372	78	64.42	174	93	64	259
4814	32785	95	80	362	75	56.37	182	88	72	287
4815	32786	99	85	391	77	64.87	184	95	77	289
4816	32787	94	71	435	74	67.58	236	88	68	335
4817	(FL 478) Saline tolerant & donor	92	76	425	70	57.27	174	85	69	300
4818	32788	99	84	394	72	61.68	264	89	75	331
4819	32789	96	71	454	80	74.17	195	91	71	328
4820	32790	91	81	358	74	83.50	190	89	82	280
4821	32791	95	86	349	79	79.55	235	90	79	286
4822	32792	103	86	471	75	73.13	242	92	79	363
4823	Local Check	98	99	381	73	73.58	219	88	89	299
Experimental Mean		96	86	396	75	72.76	232	89	78	309
Standard Error		0.3			0.8			0.3		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 26.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT – AL & ISTVT (Inland Saline), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN								
		Haryana						Haryana (2)		
		Panipat (Karnal)			Rohtak (Karnal)			Mean		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
4801	32776	90	70.20	252	86	59.40	253	88	65	253
4802	32777	94	49.90	230	87	67.10	216	90	59	223
4803	(CSR 10) Early duration Saline check	88	61.60	158	93	40.80	167	91	51	162
4804	32778	88	56.80	239	80	66.60	260	84	62	250
4805	32779	90	67.20	238	96	70.40	214	93	69	226
4806	32780	91	90.80	186	93	99.80	138	92	95	162
4807	32781	100	76.70	223	85	66.50	220	93	72	222
4808	32782	92	63.00	183	98	66.90	176	95	65	180
4809	(CSR 36) Alkaline Tolerant check	87	65.90	198	90	73.00	186	89	69	192
4810	32783	88	47.80	268	90	72.70	258	89	60	263
4811	(CSR 23) Inland Saline Tolerant	89	58.50	208	93	65.20	174	91	62	191
4812	32784	94	69.90	229	91	74.20	223	93	72	226
4813	(Pusa 44) Sensitive check	92	43.70	119	100	59.50	106	96	52	113
4814	32785	84	59.70	149	88	66.60	180	86	63	165
4815	32786	98	63.30	125	99	73.30	167	98	68	146
4816	32787	97	68.00	231	91	54.80	237	94	61	234
4817	(FL 478) Saline tolerant & donor	85	54.70	143	75	39.50	142	80	47	142
4818	32788	85	66.80	264	85	49.50	259	85	58	262
4819	32789	93	65.80	244	94	46.90	225	93	56	235
4820	32790	99	86.20	202	90	76.70	213	95	81	208
4821	32791	92	85.00	209	92	54.70	242	92	70	226
4822	32792	88	64.40	260	91	58.30	251	90	61	255
4823	Local Check	91	78.00	223	88	75.10	191	90	77	207
Experimental Mean		91	66	208	90	64	204	91	65	206
Standard Error		1.9			1.4			1.3		

Table No. 26.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT – AL & ISTVT (Inland Saline), Kharif 2024

Entry No	IET No	ZONE V – WESTERN			ZONE VII – SOUTHERN			Overall Mean (4)		
		Gujarat			Karnataka					
		Navsari			Gangavati					
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
4801	32776	101	133.47	335	101	91.50	236	94	89	269
4802	32777	109	115.27	388	99	89.00	235	97	80	267
4803	(CSR 10) Early duration Saline check	98	86.13	376	79	61.00	189	90	62	222
4804	32778	97	113.40	427	96	89.00	171	90	81	274
4805	32779	99	102.20	376	102	72.50	184	97	78	253
4806	32780	101	125.13	391	98	102.00	280	96	104	249
4807	32781	98	123.93	335	102	83.50	204	96	88	245
4808	32782	95	115.00	347	97	81.50	205	95	82	228
4809	(CSR 36) Alkaline Tolerant check	100	117.40	394	108	65.50	166	96	80	236
4810	32783	98	124.07	305	105	76.00	168	95	80	250
4811	(CSR 23) Inland Saline Tolerant	91	134.33	353	86	76.00	260	90	84	248
4812	32784	99	134.40	317	101	75.00	205	96	88	244
4813	(Pusa 44) Sensitive check	105	105.47	335	111	69.00	228	102	69	197
4814	32785	92	120.53	323	101	86.00	255	91	83	227
4815	32786	106	133.80	335	103	101.00	232	101	93	215
4816	32787	93	112.87	376	98	91.00	277	95	82	280
4817	(FL 478) Saline tolerant & donor	89	101.40	323	95	76.50	151	86	68	190
4818	32788	112	114.13	311	102	80.50	266	96	78	275
4819	32789	94	121.93	379	101	83.50	235	95	80	271
4820	32790	91	123.60	332	94	91.00	303	93	94	263
4821	32791	94	124.40	326				92	88	259
4822	32792	99	97.07	311	112	67.00	168	98	72	247
4823	Local Check	93	134.60	302	101	83.50	203	93	93	230
Experimental Mean		98	118	348	99	81	219	95	82	245
Standard Error		1.6			0.7			0.8		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 26.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT – AL & ISTVT (Normal), Kharif 2024

Entry No	IET No	ZONE VII – SOUTHERN		
		Kerala		
		Vytila		
		DDF	PH	PAN
4801	32776	84	133.83	8
4802	32777	100	137.17	9
4803	(CSR 10) Early duration Saline check	78	85.00	9
4804	32778	89	138.00	6
4805	32779	89	116.33	6
4806	32780	84	134.67	11
4807	32781	98	142.33	14
4808	32782	89	123.17	14
4809	(CSR 36) Alkaline Tolerant check	94	126.83	9
4810	32783	79	126.00	8
4811	(CSR 23) Inland Saline Tolerant	66	117.00	7
4812	32784	85	135.50	8
4813	(Pusa 44) Sensitive check	95	104.17	6
4814	32785	95	115.33	26
4815	32786	89	129.50	14
4816	32787	87	116.17	26
4817	(FL 478) Saline tolerant & donor	87	111.00	12
4818	32788	88	128.67	9
4819	32789	87	114.00	16
4820	32790	79	114.67	20
4821	32791			
4822	32792	92	115.17	16
4823	Local Check	85	135.50	9
Experimental Mean		87	123	12
Standard Error		3.4E-15		

Table No. 26.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT – AL & ISTVT (Normal), Kharif 2024 (Not Considered)

Entry No	IET No	ZONE III-EASTERN		
		Uttar Pradesh		
		@Masodha		
		DDF	PH	PAN
4801	32776	96	124.50	291
4802	32777	90	100.50	299
4803	(CSR 10) Early duration Saline check	102	100.00	253
4804	32778	92	110.50	277
4805	32779	89	97.00	358
4806	32780	93	126.50	290
4807	32781	88	120.00	256
4808	32782	100	107.00	251
4809	(CSR 36) Alkaline Tolerant check	106	100.50	272
4810	32783	99	107.00	277
4811	(CSR 23) Inland Saline Tolerant	91	89.50	306
4812	32784	102	96.00	305
4813	(Pusa 44) Sensitive check	92	90.00	327
4814	32785	90	101.50	312
4815	32786	102	110.50	278
4816	32787	91	99.50	317
4817	(FL 478) Saline tolerant & donor	88	101.00	298
4818	32788	90	121.50	309
4819	32789	90	115.50	321
4820	32790	104	88.00	271
4821	32791	102	108.50	252
4822	32792	91	106.00	391
4823	Local Check	90	106.00	341
Experimental Mean		94	106	298
Standard Error		0.2		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 26.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT – AL & ISTVT (Saline Microplot), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN		
		Haryana		
		Karnal (ICAR-CSSRI) (Saline)		
		DFP	PH	PAN
4801	32776	87	65.20	245
4802	32777	99	59.70	178
4803	(CSR 10) Early duration Saline check	96	49.70	221
4804	32778	88	65.50	300
4805	32779	93	65.80	184
4806	32780	86	78.50	186
4807	32781	95	70.00	167
4808	32782	87	65.20	134
4809	(CSR 36) Alkaline Tolerant check	86	59.40	217
4810	32783	87	54.20	255
4811	(CSR 23) Inland Saline Tolerant	83	59.10	203
4812	32784	84	67.00	226
4813	(Pusa 44) Sensitive check	99	52.70	120
4814	32785	97	66.40	194
4815	32786	100	64.50	194
4816	32787	88	60.90	169
4817	(FL 478) Saline tolerant & donor	85	50.90	188
4818	32788	89	73.90	240
4819	32789	93	58.50	234
4820	32790	92	69.40	167
4821	32791	96	72.10	203
4822	32792	88	59.40	245
4823	Local Check	86	70.50	220
Experimental Mean		90	63	204
Standard Error		1.5		

Table No. 26.3 (Contd.): Days to 50% flowering, Plant height (cm) & Panicles/m² in IVT – AL & ISTVT (Sodic Microplot), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN		
		Haryana		
		Karnal (ICAR-CSSRI) (Sodic)		
		DFP	PH	PAN
4801	32776	92	61.80	253
4802	32777	91	57.90	223
4803	(CSR 10) Early duration Saline check	91	47.90	200
4804	32778	87	58.80	311
4805	32779	97	59.70	226
4806	32780	96	78.50	183
4807	32781	94	65.80	147
4808	32782	93	55.50	145
4809	(CSR 36) Alkaline Tolerant check	89	56.70	222
4810	32783	96	56.40	242
4811	(CSR 23) Inland Saline Tolerant	85	56.70	184
4812	32784	89	61.50	227
4813	(Pusa 44) Sensitive check	103	51.20	138
4814	32785	89	57.90	233
4815	32786	102	64.80	156
4816	32787	90	56.70	248
4817	(FL 478) Saline tolerant & donor	85	47.00	207
4818	32788	86	57.60	238
4819	32789	93	56.40	233
4820	32790	92	65.50	199
4821	32791	91	65.50	237
4822	32792	91	50.30	242
4823	Local Check	90	66.90	221
Experimental Mean		92	59	214
Standard Error		2.2		

Annual Progress Report 2024 Vol. I – Varietal Improvement

ADVANCED VARIETY TRIAL - COASTAL SALINE TOLERANT VARIETY TRIAL (AVT 1 CSTVT)

Locations: 10

Test Entries: 25

Checks: Bhuthnath (Coastal Saline Check), FL478, CSR 10 (Early duration check), Pusa 44 (Sensitive check) and Local check **Table: 27**

AVT 1 – CSTVT trial was constituted with 25 entries of which 14 are entries promoted from IVT- CSTVT of K2024, 3 near isogenic lines (IET nos. 32036,32037 & 32038) of recurrent parent- ADT 45 are in the second year of testing, and one entry (IET 32043), the genome edited line of MTU 1010 for trait verification under salt stress 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 CRRI Cuttack, Chinsurah (Gosaba), Canning Town, Panvel, Navsari, Machilipatnam, Vytilla, Brahmavar, Puducherry and Karaikal were received. Data from seven locations viz., CRRI, Cuttack, Chinsurah (Gosaba), Panvel, Navsari, Puducherry, Karaikal and Vytilla was suitable for inclusion in the final analysis under coastal saline stress. The data from other locations was not considered due low stress level, low CV% or low experimental yield of the location.

The data pertaining to yield, days to 50% flowering, plant height, panicles/m² and quality are presented in tables 27.1, 27.2, 27.3, and 27.4. The EC and pH of these locations are given below.

Location/State	Soil pH	Soil EC (dSm-1)	Exptl mean (kg/ha)	Grain Yield Range (Kg/ha)	CV %	Remarks
CRRI, Cuttack	6.97-7.23	5.1-11.2	2131	1581-2544	8.2	Data considered for analysis under stress
Chinsurah (Gosaba)	6.5-7.3	7-8	4466	3451-5674	14.3	Data considered for analysis under stress
Canning Town	7.1-7.4	7.46-7.75	2013	1199-2957	2.58	Data not considered due to low CV (2.58)
Panvel	7-8	4.8	2524	827-5129	17.2	Data considered for analysis under stress
Navsari (Danti)	8.59	6.48	4294	3511-5522	15.6	Data considered for analysis under stress
Machilipatnam	8.4	6.2	4304	3746-4747	11.02	Data not considered as F test non-significant
Brahmavar	7-8	6-7	1364	837-	7.11	Data not

Annual Progress Report 2024 Vol. I – Varietal Improvement

Location/State	Soil pH	Soil EC (dSm-1)	Exptl mean (kg/ha)	Grain Yield Range (Kg/ha)	CV %	Remarks
				2006		considered. Low Exptl. mean (<2000 kg/ha)
Puducherry	8.51	6.52	3461	2422-4262	13.8	Data considered for analysis under stress
Vytilla	5.2	4.1	2379	1026-4789	22.3	Data considered for analysis under stress
Karaikal	7.76	6.43	3460	2471-4142	14.7	Data considered for analysis under stress

The entries in AVT1 CSTVT were sent to three zones based on their performance in IVT CSTVT. Zone wise performance of test entries is presented below

Performance of entries Zone-III

In Zone-III, the data from ICAR-CRRI (Cuttack) Canning and Chinsurah (Gosaba) were received. Data from CRRI Cuttack and Gosaba found suitable for inclusion in the final analysis. The data from Canning Town was not included due to low CV% (2.58). The grain yield ranged from 3025 kg/ha (IET 31875) to 5648 kg/ha (IET 31877), days to 50% flowering ranged from 95 (IET 31878) to 125 days (Pusa 44), plant height of the entries ranged from 77 cm (CSR 10) to 139 cm (IET 31065) and the panicles/m² varied from 246 (IET 31876) to 506 (IET 32037)). Among the checks, coastal saline tolerant check, Bhuthnath (4521 kg/ha, 112 DFF) recorded highest yield followed by Pusa 44 (3869 kg/ha, 125 DFF), local check (3851 kg/ha, 109 DFF) FL 478 (3504 kg/ha, 111 DFF) and CSR 10 (3072 kg/ha; 107 DFF). Promising genotypes were identified based on significant critical difference of the test entries over the checks- either best check or over early check. Bhuthnath with mean grain yield of 4521 kg/ha and 112 days to 50% flowering is best check and CSR 10 with 3072 kg/ha and 107 days to flowering is the early check (SEM 0.58).

IET 31877 (MLD214-IR16T1001) developed from the cross IR10F559 / IR12T101 with mean grain yield of 5648 kg/ha and 114 days to 50% flowering exhibited significant yield advantage over best check in Z-III and is promising. Quality wise, IET 31877 possessed long slender grains, low HRR of 57%, ASV of 5.0, intermediate amylose content (22.2%) and hard GC (22 mm). Based yield superiority, IET 31877 is promoted but for quality of low HRR to be validated for its promotion to AVT2- CSTVT.

Upon comparison with the early check- CSR 10, **IET 31878** (CR4290-281-14-3-1-1-1-1) derived the parentage of SR 14-5-1 / Luna Sankhi registered mean grain yield of 5003 kg/ha and 95 days to 50% flowering found promising with significant yield superiority over early check and is promoted. Quality wise, IET 31878 possessed medium slender grains, HRR of

Annual Progress Report 2024 Vol. I – Varietal Improvement

59.3%, ASV of 5.0, intermediate amylose content (23.6%) and soft GC (85 mm). Based on yield and quality, IET 31878 merit promotion to AVT2- CSTVT.

In Zone-III, IET 31877 and IET 31878 are promoted to AVT2- CSTVT.

Performance of entries Zone-VI

In Zone-VI, the trial was sent to four locations- Panvel, Navsari, Goa and Baruch. The trial data was received from two locations, Panvel and Navsari and are found suitable for inclusion in the final analysis. The trial consisted of two test entries (IET 31884 & IET 3106) along 3 near isogenic lines (IET nos. 32036, 32037 & 32038) of recurrent parent- ADT 45 and IET 32043, the genome edited line of MTU 1010. The grain yield ranged from 2169 kg/ha (IET 32038) to 5219 kg/ha (IET 31067), days to 50% flowering ranged from 81 (IET 32038) to 101 days (IET 31067), plant height of the entries ranged from 82 cm (CSR 10) to 132 cm (IET 31884) and the panicles/m² varied from 316 (IET 31884) to 500 (IET 31067).

Among the checks, coastal saline tolerant check, Bhuthnath (4114 kg/ha, 96 DFF) recorded highest yield followed by Pusa 44 (4097 kg/ha, 96 DFF), local check (3911 kg/ha, 93 DFF) CSR 10 (2927 kg/ha, 92 DFF) and FL 478 (2757 kg/ha; 89 DFF). Promising genotypes were identified based on significant critical difference of the test entries over the checks- either best check or over early check. Bhuthnath with mean grain yield of 4114 kg/ha and 96 days to 50% flowering is best check and FL 478 with 2757 kg/ha and 89 days to flowering is the early check (SEM 0.58). The two test entries IET 31884 and IET 31067 recorded 96 and 101 days to 50% flowering are not in comparable flowering duration of early check. None merit promotion based on early check in Zone-VI.

Upon comparison with best check- **IET 31067** (CR 4283-274-6-2-1) developed from the cross CR Dhan 310/ Getu recorded a mean grain yield of 5129 kg/ha and 101days to 50 % flowering exhibited significant yield superiority over best check in zone-VI and is promoted on yield basis. Quality wise, IET 31067 possessed long bold grains, low HRR of 51.6%, desirable ASV of 4.0, intermediate amylose content (24.2%) and medium soft GC (45 mm). Based yield superiority, IET 31067 is promoted but for quality of low HRR to be validated for its promotion to AVT2- CSTVT.

In Zone- VI, IET 31067 promoted to AVT2- CSTVT.

Performance of check in AVT 1 – CSTVT during Kharif 2024

IET No/ Name of Check	Z-III (2)/ DFF	Z-VI (2) /DFF	Remarks
IET 31877 (MLD214- IR16T1001) IR10F559 / IR12T101	5648* 114		Promising. Significant over best check in Z-III
IET 31878 CR4290-281-14-3-1- 1-1-1 SR 14-5-1 / Luna Sankhi	5003 95		Promising. Significant over best check in Z-III
IET 31067 (CR 4283-274-6-2-1) CR Dhan 310/ Getu		5129 101	Promising. Significant over best check in Z-VI

Annual Progress Report 2024 Vol. I – Varietal Improvement

IET No/ Name of Check	Z-III (2)/ DFF	Z-VI (2) /DFF	Remarks
Bhuthnath (Coastal Saline Check)	4521 112	4114 96	
CSR 10 (Early saline check)	3072 107	2927 92	
FL 478 (Saline Tolerant Check)	3504 111	2757 89	
Pusa 44 (Sensitive Check)	3869 125	4097 96	
Local Check	3581 109	3911 93	
CD	839.79	991.01	
SEM for flowering	0.58	0.58	

***Significant over best check**

Performance in Zone VII

In zone-VII, the data from Machilipatnam, Brahmavar, Puducherry, Karaikal and Vytilla was received. The data from Machilipatnam was not included as F- test found to be non-significant and from Brahmavar also the data not considered due to low Exptl. mean (<2000 kg/ha). Data from Puducherry, Karaikal and Vytilla was found suitable for inclusion in the final analysis. Based on three locations data, promising genotypes were identified. The trial consisted of test entry IET 31075 along 3 near isogenic lines (IET nos. 32036, 32037 & 32038) of recurrent parent- ADT 45 and IET 32043, the genome edited line of MTU 1010.

The grain yield ranged from 2460 kg/ha (ADT 45) to 3944 kg/ha (Local check), days to 50% flowering ranged from 81 (CSR 10) to 93days (IET 32036), plant height of the entries ranged from 83 cm (CSR 10) to 112 cm (Bhuthnath) and the panicles/m² varied from 284 (FL 478) to 561 (ADT 45). Among the checks, local check (3944 kg/ha, 87 DFF) recorded highest yield followed by CSR 10 (3077 kg/ha, 81 DFF), FL 478 (2663 kg/ha, 87 DFF), Bhuthnath (2652 kg/ha, 88 DFF) and Pusa 44 (2791 kg/ha; 88 DFF). Local check is the top ranking entry in zone- VII and hence none of the entries are identified based on best check and hence none promoted.

CSR 10 is the early check with 81 days (SEM of 0.54) to 50% flowering where none of the genotypes comparable for yield and early duration. Hence none of the genotypes merit promotion either on best check or on early check.

In zone- VII, none promoted to AVT2- CSTVT.

Trait verification of NILs and Genome edited lines under coastal saline stress conditions in AVT 1 CSTVT Kharif, 2024

In AVT 1 – CSTVT, 3 NILs entries in the genetic background of AD T 45 (3 NILs: IET Nos. 32036, 32037, & 32038) which are in the second year of testing and one genome edited line (IET 32043) of MTU 1010 were evaluated for trait verification of salt tolerance in coastal saline hot spot locations. The trial was sent to 15 locations and data was received from 10 locations. Data from seven locations viz., CRRI, Cuttack, Chinsurah (Gosaba), Panvel,

Annual Progress Report 2024 Vol. I – Varietal Improvement

Navsari, Puducherry, Karaikal and Vytilla was suitable for inclusion in the final analysis under coastal saline stress.

Performance of NILS of AD T 45 during two years of testing in AVT1 CSTVT, 2023-2024

During 2023 three NILs namely IET's 32036, 32037 and 32038 in the genetic background of ADT 45 were nominated for trait verification and yield evaluation under coastal saline stress conditions.

IET 32036 (KR 21002), NIL culture in the genetic background of ADT 45 developed from the backcross method with the pedigree of ADT 45*4/FL 478//CSR 27 with *saltol* QTL from FL 478 and reproductive stage salinity tolerance from CSR 27 parent entered CSTVT trial during 2023 and has completed two years of testing in 2024. During 2023, IET 32036 showed a mean grain yield of 4217 kg/ha grain yield and 97 days to flowering in Zone-III (NIL: 4217 kg/ha; RP: 3446 kg/ha); recorded 4395 kg/ha grain yield and 84 days to 50% flowering in Zone-VII (NIL: 4395 kg/ha; RP: 2238 kg/ha) registered significant yield superiority over RP-ADT 45 in zone-III and zone-VII. Multi-location testing during 2024 across stress locations found promising in zone-VII (NIL: 3419 kg/ha; RP: 2460 kg/ha), with significant superiority over RP (ADT 45) under coastal saline conditions. ***Based on two years of testing, IET 32036 (KR 21002) found promising for zone-III, zone-VII under coastal saline ecosystem.***

IET 32037 (KR 21001) developed through backcrossing of ADT 45 with FL 478 from the cross ADT 45*4/FL 478 with *saltol* QTL was evaluated in CSTVT in 2023 and 2024. IET32037 recorded a mean grain yield of 3878 kg/ha grain yield and 96 days to flowering in Zone-III (NIL: 3878 kg/ha; RP: 3446 kg/ha); exhibited numerical yield superiority over RP-ADT 45 in Zone-VI (NIL: 2056 kg/ha; RP: 1827 kg/ha), recorded 4108 kg/ha grain yield and 78 days to 50% flowering in Zone-VII (NIL: 4108 kg/ha; RP: 2238 kg/ha) with significant yield superiority over RP – ADT 45 in zone-III and zone-VII. During 2024, found promising with 3406 kg/ha in zone-VII (NIL: 3046 kg/ha; RP: 2460 kg/ha) with significant superiority over RP (ADT 45) under coastal saline conditions. ***Based on two years of testing, IET 32037 (KR 21001) found promising for zone-III, zone-VII under coastal saline ecosystem.***

IET 32038 (KR 21003), another sister NIL of IET 32036 in the genetic background of ADT 45 developed from the backcross method with the pedigree of ADT 45*4/FL 478//CSR 27 with *saltol* QTL from FL 478 and reproductive stage salinity tolerance from CSR 27 parent entered multi-location testing in CSTVT 2023 and has completed two years of testing. IET 32038 showed a mean grain yield of 4209 kg/ha grain yield and 99 days to flowering in Zone-III (NIL: 4209 kg/ha; RP: 3446 kg/ha); showed numerical yield superiority over RP-ADT 45 in Zone-VI (NIL: 2401 kg/ha; RP: 1827 kg/ha), with 4230 kg/ha grain yield and 93 days to 50% flowering in Zone-VII (NIL: 4230 kg/ha; RP: 2238 kg/ha) exhibited significant yield superiority over RP-ADT 45 in zone-III and zone-VII. During 2024, found promising with 3554 kg/ha in zone-VII (NIL: 3554 kg/ha; RP: 2460 kg/ha) with significant superiority over RP (ADT 45) under coastal saline conditions. ***Based on two years of testing, IET 32038 (KR 21003) found promising for zone-III, zone-VII under coastal saline ecosystem.***

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of near isogenic lines of ADT 45 during two years of testing in AVT1-CSTVT 2023-2024

IET No/RP	Year	Z- III			Z-VI			Z-VII		
		Yld	DFP/ SEM	% over RP /CD range	Yld	DFP	% over RP / CD range	Yld	DFP	% over RP/ CD range
32036 NIL	2023	4217	104	(+)22.4	1721	94	(-)5.8	4395	82	(+)96.4
	2024	4458	113		2489	93	(-)37.2	3419	93	(+)39.0
32037 NIL	2023	3878	100	(+)12.5	2056	102	(+)12.5	4108	84	(+)83.6
	2024	3724	113		2799	85	(-)29.3	3046	81	(+)23.8
32038NIL	2023	4209	109	(+)22.1	2401	82	(+)31.4	4230	78	(+)89.0
	2024	3859	113		2169	81	(-)45.2	3554	81	(+)44.5
ADT 45(RP)	2023	3446	104		1827	81		2238	93	
	2024	NA			3961	85		2460	82	
CD/ SEM	2023	414		3032- 3860	811		1016- 2638	433		1805- 2671
	2024	840	0.6	NA	991	0.6	2970- 4952	463	0.5	1997- 2923

Performance of genome edited lines in CSTVT during Kharif, 2024

The genome edited line (IET 32043) of MTU 1010 was evaluated for salt tolerance trait verification in CSTVT during Kharif, 2024. Based on multilocation testing in coastal saline hot spots, IET 32043 failed to register any yield superiority over MTU 1010 in any zones.

Performance of Genome edited line of MTU 1010 in AVT1-CSTVT, Kharif, 2024

IET No/RP	Z- III			Z-VI			Z-VII		
	Yld	DFP/ SEM	% over RP /CD range	Yld	DFP	% over RP / CD range	Yld	DFP	% over RP/ CD range
32043 GEL	3451	112	-12.2	3017	90	-15.8	3442	91	-4.9
MTU 1010	3931	113		3585	86		3621	82	
CD/ SEM	840	0.58	3091- 4771	991		2594- 4576	463		3158-4084

Summary

The following entries testing are promoted to final year of testing in AVT 2- CSTVT

In Zone-III: IET 31877 and IET 31878

In Zone- VI: IET 31067

NILs in the final year of testing promising in:

In Zone-III & VII: NILs- IET Nos. 32036; 32037 &32038

AVT 2- CSTVT is constituted with IET Nos. 31877, 31878 and 31067

Annual Progress Report 2024 Vol. I – Varietal Improvement

Trial No.27.1: Composition of entries in Advance Variety Trial AVT 1 - Coastal Saline Tolerant Variety Trial (AVT 1 - CSTVT) Kharif 2024

Entry No.	IET No.	Designation	Cross Combination	Grain Type
4901	31060	CR 3478-M-11-B-1	MTU1010 / Korgut // IR64 / FL478 /// IR 73931-40-1-2-3-2-22-1	LS
4902	31889	CN 2172-13-10-1-1	Nona Bokra / Swarna Sub 1	LS
4903	ADT 45 (RP)			MS
4904	31063	CR 3439-E-5-2-1-1-B-1	Naveen / Chettivirippu (AC 39394)	LS
4905	31871	NVSR-6531	GNR-3 / IR71895-3R-9-3-1	LB
4906	Early duration saline check (CSR 10)			SB
4907	31065	CR 4086-5-B-7-B-1	CR 2814-1-S-1-6-3-2B-1 / Binadhan 10	LS/MS
4908	Coastal saline Tolerant check (Buthnath)			
4909	32037 NIL (Saltol)	KR 21001	ADT 45*4/ FL 478	MS
4910	31075	CSR 2018-43-16	CSR 36 / FL478 // FR13A / KHO	LB
4911	Sensitive check (Pusa 44)			LS
4912	31884	MCM-144(IR 17F1107)	IR 13F265 / IR 09A130	LS
4913	31074	CR 3460-E-2-2-B-1	CR 3299-11-1-1 // IR64 / FL478	LS
4914	MTU 1010 (RP)			
4915	32043 (GEL-Drt+ Salt)			LS
4916	32036 NIL(Saltol)	KR 21002	ADT 45*4/ FL 478// CSR 27	MS
4917	31863	NVSR6572	GNR-3 / Kala rata	SB/MB
4918	Saline tolerant check (FL 478)			
4919	31875	CCSRI/GRS11-4-283-34	Goa Dhan 1 / CSR27	SB
4920	31876	CR 4084-1-B-1-B-1	CR 2838-SR-27 / Binadhan 10	
4921	31877	MLD214-IR16T1001	IR10F559 / IR12T101	
4922	31878	CR4290-281-14-3-1-1-1-1	SR 14-5-1 / Luna Sankhi	
4923	32038 NIL (Saltol)	KR21003	ADT 45*4/ FL 478//CSR 27	
4924	31067	CR 4283-274-6-2-1	CR Dhan 310/ Getu	
4925	Local check (LC)			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 27.2: Grain Yield (kg/ha) in AVT 1 - CSTVT, Kharif 2024

Entry No	IET No	ZONE III-EASTERN				ZONE III-EASTERN (2)	
		Odisha		West Bengal			
		ICAR-NRRI (Cuttack)		Gosaba			
4901	31060	2544	1	4724	8	3634	
4902	31889	2373	4	5674	1	4024	7
4903	ADT 45 (RP)						
4904	31063	2389	3	4930	6	3660	
4905	31871	1581	9	4649	9	3115	
4906	CSR 10 (Early duration saline check)	2453	2	3690		3072	
4907	31065			5151	4	5151	3
4908	Buthnath (Coastal saline Tolerant check)			4521	10	4521	5
4909	32037 NIL (Saltol)			3724		3724	
4911	Pusa 44 (Sensitive check)			3869		3869	9
4913	31074			5277	3	5277	2
4914	MTU 1010 (RP)			3931		3931	8
4915	32043 (GEL-Drt+ Salt)			3451		3451	
4916	32036 NIL(Saltol)			4458		4458	6
4917	31863	1801	7	4396		3099	
4918	FL 478 (Saline tolerant check)			3504		3504	
4919	31875	2085	6	3964		3025	
4920	31876	1668	8	4489		3079	
4921	31877			5648	2	5648	1 *
4922	31878			5003	5	5003	4
4923	32038 NIL (Saltol)			3859		3859	10
4925	Local check (LC)	2283	5	4878	7	3581	
Experimental Mean		2131		4466		3937	
CD		303.01		1060.79		839.79	
CV%		8.22		14.39		12.93	
F Value		10.29(p<0.0001)		3.10(p<0.0001)		6.60(p<0.0001)	
DOS		13-06-24		05-07-24			
DOP		13-08-24		29-08-24			
Local Check Name		CR Dhan 412		Chinsurah Nona -1			

Table No. 27.2 (Contd.): Grain Yield (kg/ha) in AVT 1 - CSTVT, Kharif 2024 (Not considered)

Entry No	IET No	ZONE III-EASTERN	
		West Bengal	
		@Canning-ICAR	
4901	31060	2195	10
4902	31889	2300	7
4903	ADT 45 (RP)	1539	
4904	31063	2801	2
4905	31871	2651	3
4906	CSR 10 (Early duration saline check)	1199	
4907	31065	2158	
4908	Buthnath (Coastal saline Tolerant check)	2283	8
4909	32037 NIL (Saltol)	675	
4911	Pusa 44 (Sensitive check)	2226	9
4913	31074	2565	4
4914	MTU 1010 (RP)	1754	
4915	32043 (GEL-Drt+ Salt)	1389	
4916	32036 NIL(Saltol)	2007	
4917	31863	2057	
4918	FL 478 (Saline tolerant check)	1943	
4919	31875	1696	
4920	31876	1319	
4921	31877	2332	6
4922	31878	2360	5
4923	32038 NIL (Saltol)	1883	
4925	Local check (LC)	2957	1
Experimental Mean		2013	
CD		85.45	
CV%		2.58	
F Value		312.09(p<0.0001)	
DOS		22-07-24	
DOP		19-08-24	
Local Check Name		Canning 7	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 27.2 (Contd.): Grain Yield (kg/ha) in AVT 1 - CSTVT, Kharif 2024

Entry No	IET No	ZONE VI – WESTERN				ZONE VI – WESTERN (2)	
		Maharashtra		Gujarat			
		Panvel		Navsari			
4903	ADT 45 (RP)			3961	8	3961	5
4906	CSR 10 (Early duration saline check)	2050	8	3803	9	2927	9
4908	Buthnath (Coastal saline Tolerant check)	3827	3	4400	7	4114	3
4909	32037 NIL (Saltol)	2073	7	3524		2799	10
4911	Pusa 44 (Sensitive check)	3635	4	4559	4	4097	4
4912	31884	4422	2	4581	3	4502	2
4914	MTU 1010 (RP)	2120	6	5049	2	3585	7
4915	32043 (GEL-Drt+ Salt)	1626	9	4408	6	3017	8
4916	32036 NIL(Saltol)	1225	10	3752	10	2489	
4918	FL 478 (Saline tolerant check)	1055		4459	5	2757	
4923	32038 NIL (Saltol)	827		3511		2169	
4924	31067	5129	1 *			5129	1 *
4925	Local check (LC)	2299	5	5522	1	3911	6
Experimental Mean		2524		4294		3496	
CD		735.34		1139.75		991.01	
CV%		17.21		15.67		16.82	
F Value		26.34(p<0.0001)		4.21(p=0.0015)		6.36(p<0.0001)	
DOS		24-06-24		20-06-24			
DOP		30-07-24		18-07-24			
Local Check Name		Panvel 1		GR-19			

Table No. 27.2 (Contd.): Grain Yield (kg/ha) in AVT 1 - CSTVT, Kharif 2024

Entry No	IET No	ZONE VII – SOUTHERN						ZONE VII – SOUTHERN (3)		
		Puducherry			Puducherry (2)		Kerala			
		Puducherry	Karaikal	Mean	Mean	Vytilla				
4903	ADT 45 (RP)	2448		2471		2460			2460	
4906	CSR 10 (Early duration saline check)	4108	3	3433	7	3771	5	1689	8	3077
4908	Buthnath (Coastal saline Tolerant check)	2422		2689		2556		2846	4	2652
4909	32037 NIL (Saltol)	4022	4\$	4089	3\$	4056	3\$	1026	\$	3046
4910	31075	3373	8	3622	5	3498	7	1282	10	2759
4911	Pusa 44 (Sensitive check)	3200	9	3103	9	3152	9	1471	9	2591
4914	MTU 1010 (RP)	3968	5	3967	4	3968	4	2929	3	3621
4915	32043 (GEL-Drt+ Salt)	3531	6	2919	10	3225	8	3877	2\$\$	3442
4916	32036 NIL(Saltol)	4189	2\$	4100	2\$	4145	2\$	1968	7\$	3419
4918	FL 478 (Saline tolerant check)	2559	10	3391	8	2975	10	2038	6	2663
4923	32038 NIL (Saltol)	4262	1\$	4142	1\$	4202	1\$	2257	5\$	3554
4925	Local check (LC)	3453	7	3589	6	3521	6	4789	1	3944
Experimental Mean		3461		3460		3461		2379		3102
CD		813.29		865.84		753.73		906.31		462.98
CV%		13.88		14.78		12.86		22.37		8.81
F Value		5.30(p=0.0003)		3.45(p=0.0051)		4.84(p=0.006)		11.90(p<0.0001)		8.71(p<0.0001)
DOS		13-09-24		24-06-24				10-06-24		
DOP		17-10-24		24-07-24				28-06-24		
Local Check Name		KKL(R) 3		KKL(R) 3				Kau Lavanya		

\$ Entries significantly superior to ADT-45 (RP) at the 5% level of significance

Annual Progress Report 2024 Vol. I – Varietal Improvement

\$\$ Entries significantly superior to MTU 1010 (RP) at the 5% level of significance
Table No. 27.2 (Contd.): Grain Yield (kg/ha) in AVT 1 - CSTVT, Kharif 2024 (Not considered)

Entry No	IET No	ZONE VII – SOUTHERN			
		Andhra Pradesh		Karnataka	
		@Machilipatnam		@Brahmavar	
4903	ADT 45 (RP)	4150	6	1726	4
4906	CSR 10 (Early duration saline check)	4310	5	961	9
4908	Buthnath (Coastal saline Tolerant check)	4688	2	974	8
4909	32037 NIL (Saltol)	3760	8	1648	6
4910	31075	4747	1	853	
4911	Pusa 44 (Sensitive check)			1910	2
4914	MTU 1010 (RP)			895	10
4915	32043 (GEL-Drt+ Salt)			1108	7
4916	32036 NIL(Saltol)	4610	4	1736	3
4918	FL 478 (Saline tolerant check)	4658	3	837	
4923	32038 NIL (Saltol)	3746	9	1707	5
4925	Local check (LC)	4068	7	2006	1
Experimental Mean		4304		1364	
CD		820.78		164.24	
CV%		11.02		7.11	
F Value		1.69(p=0.1695)NS		22.97(p<0.0001)	
DOS		13-08-24		08-07-24	
DOP		05-10-24		16-08-24	
Local Check Name		MCM 100		Karikagga	

Table No. 27.3: Days to 50% flowering, Plant Height (cm) & Panicles/m² in AVT 1 - CSTVT, Kharif 2024

ENTRY NO	IET NO	ZONE III-EASTERN						ZONE III-EASTERN (2)		
		ODISHA			WEST BENGAL (1)			DFF	PH	PAN
		ICAR-NRRI (Cuttack)			GOSABA					
		DFF	PH	PAN	DFF	PH	PAN			
4901	31060	132	90	167	109	126	429	120	108	298
4902	31889	108	82	163	114	121	407	111	101	285
4903	ADT 45 (RP)									
4904	31063	107	92	153	114	137	352	110	114	252
4905	31871	105	86	141	115	108	429	110	97	285
4906	CSR 10 (Early duration saline check)	107	88	168	107	67	473	107	77	320
4907	31065				111	139	407	111	139	407
4908	Buthnath (Coastal saline Tolerant check)				112	110	440	112	110	440
4909	32037 NIL (Saltol)				113	93	506	113	93	506
4911	Pusa 44 (Sensitive check)				125	79	407	125	79	407
4913	31074				111	131	352	111	131	352
4914	MTU 1010 (RP)				113	102	407	113	102	407
4915	32043 (GEL-Drt+ Salt)				112	88	396	112	88	396
4916	32036 NIL(Saltol)				113	99	418	113	99	418
4917	31863	110	89	153	115	120	451	112	104	302
4918	FL 478 (Saline tolerant check)				111	106	462	111	106	462
4919	31875	104	85	165	119	96	374	112	90	270
4920	31876	100	87	150	114	140	341	107	113	246
4921	31877				114	102	352	114	102	352
4922	31878				95	130	396	95	130	396
4923	32038 NIL (Saltol)				113	85	407	113	85	407
4925	Local check (LC)	106	89	166	112	123	396	109	106	281
Experimental Mean		109	87	158	107	110	391	111	104	357
Standard Error		0.91			0.61			0.58		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 27.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 - CSTVT, Kharif 2024 (Not considered)

Entry No	IET No	ZONE III-EASTERN		
		West Bengal		
		@Canning-ICAR		
		DFP	PH	PAN
4901	31060	84	107	347
4902	31889	90	127	406
4903	ADT 45 (RP)	77	134	362
4904	31063	83	134	499
4905	31871	86	134	513
4906	CSR 10 (Early duration saline check)	71	124	494
4907	31065	81	100	416
4908	Buthnath (Coastal saline Tolerant check)	80	138	450
4909	32037 NIL (Saltol)	77	142	420
4911	Pusa 44 (Sensitive check)	83	140	386
4913	31074	85	116	567
4914	MTU 1010 (RP)	78	131	396
4915	32043 (GEL-Drt+ Salt)	75	137	425
4916	32036 NIL(Saltol)	72	133	372
4917	31863	81	124	425
4918	FL 478 (Saline tolerant check)	74	140	528
4919	31875	84	136	416
4920	31876	80	125	479
4921	31877	84	128	479
4922	31878	83	128	396
4923	32038 NIL (Saltol)	74	142	479
4925	Local check (LC)	99	154	596
Experimental Mean		81	131	448
Standard Error		3.79		

Table No. 27.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 - CSTVT, Kharif 2024

Entry No	IET No	ZONE VI – WESTERN						ZONE VI – WESTERN (2)		
		Maharashtra			Gujarat			Mean		
		Panvel			Navsari			Mean		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
4903	ADT 45 (RP)	94	81		75	104	349	85	92	349
4906	CSR 10 (Early duration saline check)	91	84	404	93	79	353	92	82	378
4908	Buthnath (Coastal saline Tolerant check)	98	113	471	93	131	311	96	122	391
4909	32037 NIL (Saltol)	93	87	429	77	100	359	85	94	394
4911	Pusa 44 (Sensitive check)	95	100	405	98	104	338	96	102	371
4912	31884	99	124	319	94	140	314	96	132	316
4914	MTU 1010 (RP)	85	83	316	87	121	329	86	102	322
4915	32043 (GEL-Drt+ Salt)	91	110	403	90	109	358	90	110	381
4916	32036 NIL(Saltol)	95	115	371	90	109	356	93	112	364
4918	FL 478 (Saline tolerant check)	92	83	366	86	110	335	89	97	351
4923	32038 NIL (Saltol)	83	79	458	78	103	364	81	91	411
4924	31067	101	124	500				101	124	500
4925	Local check (LC)	93	87	410	93	116	356	93	102	383
Experimental Mean		93	98	404	88	110	343	91	105	378
Standard Mean		0.40			0.98			0.58		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 27.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 - CSTVT, Kharif 2024

Entry No	IET No	ZONE VII - SOUTHERN												ZONE VII - SOUTHERN (3)		
		Puducherry						Puducherry (2)			Kerala					
		Puducherry			Karaikal			Mean			Vytilla					
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
4903	ADT 45 (RP)	83	102	559	81	99	562	82	101	561				82	101	561
4906	CSR 10 (Early duration saline check)	77	81	496	76	72	497	77	77	497	89	96	10	81	83	334
4908	Buthnath (Coastal saline Tolerant check)	91	103	487	90	102	486	90	103	487	85	132	11	88	112	328
4909	32037 NIL (Saltol)	83	100	489	82	97	489	83	98	489	78	86	10	81	94	329
4910	31075	83	104	586	84	101	586	84	102	586	87	115	9	85	107	394
4911	Pusa 44 (Sensitive check)	85	102	498	83	99	495	84	101	497	97	105	13	88	102	335
4914	MTU 1010 (RP)	84	102	549	82	99	549	83	101	549	81	116	8	82	106	369
4915	32043 (GEL-Drt+ Salt)	91	106	475	90	103	473	90	105	474	91	116	12	91	108	320
4916	32036 NIL(Saltol)	95	106	507	93	106	506	94	106	507	91	124	8	93	112	340
4918	FL 478 (Saline tolerant check)	85	101	422	85	103	422	85	102	422	92	105	10	87	103	284
4923	32038 NIL (Saltol)	83	99	478	81	99	474	82	99	476	78	89	8	81	96	320
4925	Local check (LC)	87	98	504	88	99	502	88	99	503	85	126	7	87	108	338
Experimental Mean		85	100	504	85	98	503	85	99	504	87	110	10	85	103	354
Standard Error		1.20			0.88			0.73			2E-14			0.54		

Table No. 27.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 - CSTVT, Kharif 2024 (Not considered)

Entry No	IET No	ZONE VII - SOUTHERN					
		Andhra Pradesh			Karnataka		
		@Machilipatnam			@Brahmavar		
		DFE	PH	PAN	DFE	PH	PAN
4903	ADT 45 (RP)	102	50	295	115	73	124
4906	CSR 10 (Early duration saline check)	104	94	288	118	77	153
4908	Buthnath (Coastal saline Tolerant check)	104	69	340	114	78	208
4909	32037 NIL (Saltol)	104	61	223	119	82	155
4910	31075	105	86	362	122	70	169
4911	Pusa 44 (Sensitive check)				126	72	180
4914	MTU 1010 (RP)				116	85	182
4915	32043 (GEL-Drt+ Salt)				120	66	123
4916	32036 NIL(Saltol)	105	71	311	121	80	226
4918	FL 478 (Saline tolerant check)	102	61	312	119	56	140
4923	32038 NIL (Saltol)	105	87	215	124	45	159
4925	Local check (LC)	104	79	267	115	92	119
Experimental Mean		104	73	290	119	73	161
Standard Error		1.50			1.11		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 27.4: Grain quality characteristics of entries in AVT 1 - CSTVT, Kharif 2024

Code	Entry No.	Designation / IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1289	4901	31060	80.1	67.5	59.3	5.42	1.95	2.77	MS	VOC	5.0	22.99	42
1290	4902	31889	78.4	67.3	45.0	6.77	2.11	3.20	LS	VOC	4.0	24.02	46
1291	4903	ADT-45 (RP)	79.8	69.9	64.0	5.77	2.10	2.74	MS	VOC	4.0	25.93	22
1292	4904	31063	77.9	68.8	55.2	6.07	2.06	2.94	LB	VOC	4.0	24.02	22
1293	4905	31871	78.6	70.7	65.6	6.26	2.26	2.76	LB	VOC	4.0	21.58	40
1294	4906	CSR-10	78.3	69.4	61.4	5.13	2.45	2.09	SB	OC	4.0	23.99	48
1295	4907	31065	79.0	69.9	63.2	5.71	2.41	2.36	SB	VOC	5.0	23.84	22
1296	4908	Buthnath (CSTC)	78.5	67.9	55.3	6.06	2.27	2.66	LB	VOC	4.0	26.04	22
1297	4909	32037 Nill	79.1	69.4	49.1	5.55	2.32	2.39	SB	VOC	5.2	27.60	63
1298	4910	31075	79.0	68.3	44.2	6.41	2.17	2.95	LB	VOC	4.0	21.91	71
1299	4911	Pusa-44 (SC)	77.8	66.8	55.8	5.62	2.05	2.74	MS	VOC	7.0	23.29	36
1300	4912	31884	79.2	71.0	63.0	6.26	1.94	3.22	LS	VOC	4.0	18.18	67
1301	4913	31074	79.2	69.4	37.9	6.09	2.26	2.69	LB	VOC	4.0	23.08	22
1302	4914	MTU 1010 (RP)	78.2	64.5	55.2	6.62	2.08	3.18	LS	VOC	7.0	24.08	60
1303	4915	32043 (GEL Drthsal)	78.4	69.6	46.2	6.33	1.96	3.22	LS	VOC	4.0	25.78	58
1304	4916	32036 Nill	77.8	67.7	46.1	5.37	1.94	2.76	MS	A	5.0	27.10	25
1305	4917	31863	79.1	70.3	50.7	5.45	2.44	2.23	SB	VOC	7.0	22.35	42
1306	4918	FL-478 (STC)	79.2	69.4	55.4	6.52	2.38	2.73	LB	VOC	4.0	24.02	22
1307	4919	31875	75.5	63.7	44.3	6.51	2.29	2.84	LB	VOC	4.0	25.63	22
1308	4920	31876	78.4	69.1	54.9	6.06	2.26	2.68	LB	VOC	5.0	23.84	43
1309	4921	31877	78.4	68.0	57.0	6.41	1.98	3.28	LS	VOC	5.0	22.20	22
1310	4922	31878	76.3	68.1	59.3	5.66	2.20	2.57	MS	VOC	5.0	23.61	85
1311	4923	32038 Nill	76.5	67.4	49.0	5.20	1.94	2.68	MS	VOC	5.0	26.66	46
1312	4924	31067	78.5	68.1	51.6	6.47	2.24	2.88	LB	VOC	4.0	24.22	45
1313	4925	LC	78.8	68.9	64.8	6.37	2.42	2.63	LB	VOC	5.0	24.52	46

HULL: Hulling(%) MILL:Milling(%) HRR:Head Rice Recovery KL:Kernal length (mm) KB:Kernal Breadth(mm) L/B : Length and Breadth(mm) KLAC:Kernal length after cooking WU:Water uptake ER:Elongation ratio AC:Amylose content (%) ASV:Alkali Spreading Value AC: Amylose Content GC: Gel consistency

Annual Progress Report 2024 Vol. I – Varietal Improvement

INITIAL VARIETY TRIAL - COASTAL SALINE TOLERANT VARIETY TRIAL (IVT- CSTVT)

Locations: 12

Test Entries: 38

**Checks: Bhuthnath (Coastal Saline Check), FL478, CSR 10 Table: 28
(Early duration check), Pusa 44 (Sensitive check) and
Local check**

IVT– CSTVT trial was constituted with 38 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 12 locations during Kharif 2024. Data from CRRI Cuttack, Chinsurah (Gosaba), Malda, Canning Town, Panvel, Navsari, Goa, Machilipatnam, Vytilla, Brahmavar and Karaikal was received. The data pertaining to yield, days to 50% flowering, plant height, panicles/m² and quality are presented in tables 28.1, 28.2 and 28.3. 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
CRRI, Cuttack	--	--	2001	1406-3173	5.87	Data considered for analysis under stress
Chinsurah (Gosaba)	6.5	8-10	4439	3793-5284	9.12	Data considered for analysis under stress
Malda	5.5	6.4	2660	2067 - 3911	11.84	Data considered for analysis under stress
Navsari (Danti)	8.5	6.4	4496	1495-6582	12.80	Data considered for analysis under stress
Machilipatnam	8.4	6.0	4069	2849-5007	17.45	Data considered for analysis under stress
Panvel	7-8	4.68	1658	288-3536	12.10	Data not considered. Low Exptl. mean (<2000 kg/ha).
Goa	6.6	4.7	1997	1460-2858	12.31	Data not considered. Low Exptl. mean (<2000 kg/ha).
Brahmavar	7-8	6-7	1189	498-2013	10.28	Data not considered for analysis Low Exptl. mean (<2000 kg/ha).
Karaikal	7.63	8.49	2772	1884-3533	14.27	Data considered for analysis under stress
Canning Town	7.1-7.4	7.46-7.75	3361	2370-4692	--	Data not considered based on single replication and missing data due to continuous rains during crop period.
Vytilla	4.5-5.2	1.43	1548	1005-8755	11.16	Data not considered for analysis due to low stress level.

Performance of entries on overall basis

Among the 11 locations, the data from 6 locations viz., CRRI, Cuttack, Chinsurah (Gosaba), Malda, Navsari (Danti), Machilipatnam and Karaikal, were found suitable for inclusion in the final analysis on overall basis. The grain yield ranged from 2880 kg/ha (IET 32800) to 4100 kg/ha (IET 32806), days to 50% flowering ranged from 73 (IET 32817) to 117 days (IET 32795), plant height of the entries ranged from 77 cm (CSR 10) to 152 cm (IET 32822) and the panicles/m² varied from 275 (IET 32815) to 433 (IET 32823). Among the checks local

Annual Progress Report 2024 Vol. I – Varietal Improvement

check (3856 kg/ha, 106 DFF), recorded highest yield followed by Bhuthnath (3316 kg/ha; 107 DFF), Pusa 44 (3381 kg/ha, 103 DFF) FL 478 (3283 kg/ha, 99 DFF), and CSR 10 (3038 kg/ha, 104 DFF). Promising genotypes were identified based on significant critical difference of the test entries over the checks- either best check or over the early check among the tolerant checks. Local check is the best check (BC) on overall basis. None of the entries recorded significant yield superiority over BC and none merit promotion based on best check.

FL 478 is the early duration check with 99 days to 50% flowering. The flowering duration of the test entries varied from 73 (IET 32817) to 117 (IET 32795) with an SEM of 0.5. Hence the test cultures with flowering duration of 100 days and significant yield advantage over early check- FL 478 (3283 kg/ha, + 323.87 CD value) are considered for promotion.

IET 32807 (CR 4246-237-12-4-1), a doubled Haploid of F₁s derived from the cross combination of Savitri x Pokkali recorded 3879 kg/ha grain yield and 100 days to 50% flowering exhibited significant yield superiority over early check on overall basis and hence promoted to next level of testing in AVT1 CSTVT. **IET 32821** (RP6458-db-C1-88), a backcross derived wild introgression line of *O.nivana* with the pedigree of Swarna/166S-Swarna/ *O.nivana* registered mean grain yield of 3628kg/ha with 95 days to 50% flowering recorded significant yield superiority over early check on overall basis and is promoted.

On overall basis IET 32807 and IET 32821 promoted to AVT1 CSTVT.

Performance in Zone Z-III

In zone-III, the data from CRRRI (Cuttack), Chinsurah (Gosaba), Malda and Canning Town were received. The data from three locations except from Canning Town were found suitable for inclusion in the final analysis. The grain yield in zone-III ranged from 2150 kg/ha (IET 32794) to 4047 kg/ha (IET 32795), days to 50% flowering ranged from 54 (IET 32817) to 123 days (IET 32795), plant height of the entries ranged from 68 cm (IET 32815) to 169 cm (IET 32822) and the panicles/m² varied from 162 (IET 32815) to 395 (IET 32812). Among the checks local check (3003 kg/ha, 115 DFF) recorded highest yield followed by Pusa 44 (3002 kg/ha, 109 DFF) , CSR 10 (2847 kg/ha, 115 DFF). Bhuthnath (2828 kg/ha; 118 DFF) and FL 478 (2751 kg/ha, 107 DFF), and Promising genotypes were identified based on significant critical difference of the test entries over the checks- either best check or over the early check among the tolerant checks. Local check is the best check (BC) in Z-III.

Among the test entries, 10 cultures exhibited significant yield advantage over best-check in Zone-III. **IET 32795** (MTU 1444 (MTU 2878-13-1-1)) derived from MST 15/CSR 27 ranked 1st in Zone-III with a mean grain yield of 4047kg/ha and 123 days to flowering, followed by **IET 32822** (CR-2814-1-S-1-6-B-5-B-39-B) of the cross Naveen/ FL 478 with mean grain yield of 3910 kg/ha and 110 days to flowering found promising with significant yield superiority over best check. **IET 32802** (MLD 262-IR20LT2261) with 3868kg/ha and 99 DFF; **IET 32806** (NVSR-6606) with 3851 kg/ha and 110 DFF; **IET 32812** (NVSR-6529) with 3799kg/ha and 107 DFF; **IET 32813** (CR-4086-5-B-3-2) with 3658 kg/ha and 107 DFF; **IET 32807** (CRAC-4423-111) with 3510 kg/ha and 108 DFF; **IET 32823** (MTU 1445 (MTU 2680-18-2-3)) with 3471 kg/ha and 116 DFF; **IET 32798** (NVSR-6638) with 3443 kg/ha and 112 DFF and **IET 32821**(RP6458-db-C1-88) with 3429 kg/ha and 100 DFF were found to significant over best check in Zone-III and are promoted to AVT1-CSTVT.

FL 478 is the early duration check with 107 days to 50% flowering. The flowering duration of the test entries varied from 54 (IET 32817) to 123 days (IET 32795) with an SEM of 0.7.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Hence the test cultures with flowering duration of 108 days and significant yield advantage over early check- FL 478 (2751 kg/ha, + 325.09 CD value) are considered for promotion. **IET 32793** (MCM 149 (IR 16L1419)) with 3317 kg/ha and 104 DFF and **IET 32809** (RP 6813-IR16T1658) with 3234kg/ha and 104 DFF exhibited significant yield superiority over early check in Z-III and are promoted to AVT1-CSTVT. IET nos. 32802, 32821, 32813, 32812 and 32807 also exhibited significant superiority over BC and early check in Zone-III and are found promising and are promoted.

In zone-III, IET Nos. 32795, 32822, 32802, 32806, 32812, 32813, 32807, 32823, 32798, 32821, 32793 and 32809 are promoted to AVT1-CSTVT.

Performance in Zone VI

In zone-III, the data from Panvel, Navsari and Goa were received. The data from Navsari only found suitable for inclusion in the final analysis. The data from Panvel and Goa did not consider due to low stress level and low experimental mean (<2000 kg/ha). The grain yield in zone-VI ranged from 1495 kg/ha (IET 32805) to 6582 kg/ha (Local check), days to 50% flowering ranged from 88 (FL 478) to 139 days (IET 32822), plant height of the entries ranged from 85 cm (CSR 10) to 194 cm (IET 32805) and the panicles/m² varied from 335 (FL 478) to 406 (IET 32806).

Among the checks local check (6582 kg/ha, 93 DFF) recorded highest yield followed by Pusa 44 (4828 kg/ha, 100 DFF) , Bhuthnath (4679 kg/ha; 94 DFF), CSR 10 (4667 kg/ha, 89 DFF). and FL 478 (4483 kg/ha, 88 DFF). Local check is the best check (BC) in VI. Hence none merit promotion in Z-VI to AVT1 CSTVT. FL 478 is the early duration check with 88 days to 50% flowering. The flowering duration of the test entries varied from 91 (IET 32814) to 139 days (IET 32822) with an SEM of 1.3. None of the genotypes are comparable with the duration of early check (88±1.3). i.e., 89 days to 50 % flowering. None found promising for early duration in Z-VI.

None of the test entries recorded significant yield improvement over the best check or over early check in Zone VI, and hence no entry merit promotion to AVT1-CSTVT.

Performance in Zone VII

In zone-VII, the data from Machilipatnam, Brahmavar and Karaikal were received. The data from Machilipatnam, and Karaikal found suitable for inclusion in the final analysis. The data from Brahmavar did not consider due to low experimental mean (<2000 kg/ha). The grain yield in zone-VII ranged from 1950 kg/ha (IET 32818) to 4254 kg/ha (Bhuthnath), days to 50% flowering ranged from 84 (IET 32811) to 106 days (IET 32824), plant height of the entries ranged from 57 cm (CSR 10) to 123 cm (IET 32823) and the panicles/m² varied from 332 (IET 32801) to 660 (IET 32814).

Among the checks Bhuthnath (4254 kg/ha, 97 DFF) recorded highest yield followed by local check (3772 kg/ha, 99 DFF), FL 478 (3480 kg/ha; 92 DFF), Pusa 44 (2691 kg/ha, 93 DFF). and CSR 10 (2510 kg/ha, 93 DFF). Bhuthnath, coastal saline tolerant check in Z-VII (BC) on Z-VII. Hence none merit promotion in Z-VII to AVT1 CSTVT. FL 478 is the early duration check with 92 days to 50% flowering. The flowering duration of the test entries varied from 84 (IET 32811) to 106 days (IET 32824) with an SEM of 0.6. 11 testing entries are in flowering duration comparable to early check (FL 478 92±0.6, 93 DFF). However, none of these 11 genotypes exhibited the significant superiority over early check (3480+616 CD value= 4096 kg/ha) Hence none found promising for early duration in Z-VII.

Annual Progress Report 2024 Vol. I – Varietal Improvement

None of the test entries recorded significant yield improvement over the best check or over early check in Zone VII, and hence no entry merit promotion to AVT1-CSTVT.

The following entries were promoted to second year of testing in AVT1 CSTVT.

Overall: IET 32807 and IET 32821

Zone III: IET Nos. 32795, 32822, 32802, 32806, 32812, 32813, 32807, 32823, 32798, 32821, 32793 and 32809

Zone VI: None

Zone VII: None

Performance of check in IVT–CSTVT during Kharif 2024

IET No/ Name of Check	Overall (6)/DFP	Z-III (3)/DFP	Remarks
IET 32807 (CRAC-4423-111) Doubled Haploid of F1s (Savitri x Pokkali)	3879 100	3510 108	Significant over early check on overall basis; over Best check and early check in Z-III
IET 32821 (RP6458-db-C1-88) Swarna/166S-Swarna/O.nivana	3628 95	3429 100	Significant over early check on overall basis; over Best check and early check in Z-III
IET 32795 (MTU 1444 (MTU 2878-13-1-1)) MST 15/CSR 27		4047 123	Significant over Best check in Z-III
IET 32822 (CR-2814-1-S-1-6-B-5-B-39-B) Naveen/ FL 478		3910 110	Significant over Best check in Z-III
IET 32802 (MLD 262-IR20LT2261) PAW SAN YIN/IR 96321-558-563-B-2-1-3//IR 127152-2-10/IR 127155-1-22///BG 380-2/IR 96465-B-BGY 372-103		3868 99	Significant over Best check and early check in Z-III
IET 32806 (NCSR-6606) GAR-13/NCSR-6108		3851 110	Significant over Best check in Z-III
IET 32812 (NCSR-6529) GMR-3/IR 71907-3R-2-1-2		3799 107	Significant over Best check and early check in Z-III
IET 32813 (CR-4086-5-B-3-2) CR2814-1-S-1-6-3-2B-1/Binadhan 10		3658 107	Significant over Best check and early check in Z-III
IET 32823 (MTU 1445 (MTU 2680-18-2-3)) MTU 1061/MCM 100		3471 116	Significant over Best check in Z-III
IET 32798 (NCSR-6638) GAR-13/IR 76346-B-B-10-1-1-1		3443 112	Significant over Best check in Z-III,
IET 32809 (RP 6813-IR16T1658) IR11T205/JUMBO JET		3234 104	Significant over early check in Z-III;
IET 32793		3317	Significant over early check in Z-

Annual Progress Report 2024 Vol. I – Varietal Improvement

(MCM 149 (IR 16L1419)) HHZ 8-SAL 6-SAL-3-Y2/IR 09L303		104	III;
Bhuthnath (Coastal Saline Check)	3612 107	2828 118	
CSR10 (Early saline check)	3038 104	2847 115	
FL478 (Saline Tolerant Check)	3283 99	2751 107	
Pusa44 (Sensitive Check)	3381 103	3002 109	
Local Check	3856 106	3003 115	
CD	323.87		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 28.1: Composition of entries in Initial Variety Trial - Coastal Saline Tolerant Variety Trial (IVT - CSTVT), Kharif 2024

Entry No.	IET No.	Designation	Cross Combination	Grain Type
5001	32793	MCM 149 (IR 16L1419)	HHZ 8-SAL 6-SAL-3-Y2/IR 09L303	SB
5002	32794	MLD 265-IR20R1433	IRRI 168*4/MUDALIWI	SB
5003	32795	MTU 1444 (MTU 2878-13-1-1)	MST 15/CSR 27	MS
5004	32796	CR4260-252-12-3-2-1	Naveen x CST-7-1	LB
5005	32797	MCM 147 (NIC 2-11-1B)	Swarna Sub 1*2/MTU 1110-9-1-1-1-1//Swarna Sub 1*2/FL 478// Swarna Sub1*3/AC39416A	MS
5006	32798	NVSR-6638	GAR-13/IR 76346-B-B-10-1-1-1	LS
5007	32799	MTU 1443 (NIC 2-11-1B-1-1)	Swarna Sub-1/MTU 1110-9-1-1-1/FL478/AC39416A	MS
5008	32800	CN 2163-207-4-2-1-1	OLS 181/Shatabdi	MS
5009	32801	CR4256-247-9-2-2-1-1-1	Naveen x FL-496	LS
5010		Early duration saline check (CSR 10)		SB
5011	32802	MLD 262-IR20LT2261	PAW SAN YIN/IR 96321-558-563-B-2-1-3//IR 127152-2-10/IR 127155-1-22///BG 380-2/IR 96465-B-BGY 372-103	
5012	32803	CR-2840-1-S-B-1-2-2-B-3	IR 64/ FL 496	SB
5013	32804	RP6820-IR16T1397	IR12F107/A 69-1	
5014	32805	CN 2163-21-3-2-1-1	Shatabdi/KMR3	
5015	32806	NVSR-6606	GAR-13/NVSR-6108	MS
5016	32807	CRAC-4423-111	Doubled Haploid of F1s (Savitri x Pokkali)	LS
5017	32808	CR-3466-L-4-8-1-2-S-2-1	IR64/FL478//IR-73931-40-1-2-3-2-22-1///Pratiksha	LS
5018	32809	RP 6813-IR16T1658	IR11T205/JUMBO JET	LS
5019	32810	CR-2859-S-B-2-1-B-B-1	Varshadhan/ FL 496	MS/LS
5020		Coastal saline Tolerant check (Buthnath)		
5021	32811	RP 6814-IR18T1135	IR14D153/IR11T189	LS
5022	32812	NVSR-6529	GNR-3/IR 71907-3R-2-1-2	SB
5023	32813	CR-4086-5-B-3-2	CR2814-1-S-1-6-3-2B-1/Binadhan 10	SB
5024	32814	RP 6813-IR16T1657	IR11T205/JUMBO JET	LS
5025	32815	CR-3477-M-1-B-sub-90-s-2	SWARNA/KAMINI//GANGAS UILI	LS
5026		Saline tolerant check (FL 478)		
5027	32816	RP 6812-IR103728-B-B-B-B-1	IR09A136/IRRI 123//PR 37275-7-14-5-1-2-2-1-2	LS
5028	32817	CR-3483-1-M-4-B-Sub-11-S-1	IR64/POKKALI (AC41485)//GANGASUILI	LS
5029	32818	CR4244-235-10-2-2-1-1-1	R-255 x CSR-4	LS
5030	32819	MCM 145 (MCM 305-32-2-1)	NLR 34449/CSR 10	LS
5031	32820	CR-4223-3-1-B	CSR-27 / POKKALI (AC-41585)	
5032	32821	RP6458-db-C1-88	Swarna/166S-Swarna/O.nivana	LS
5033	32822	CR-2814-1-S-1-6-B-5-B-39-B	Naveen/ FL 478	LS
5034	32823	MTU 1445 (MTU 2680-18-2-3)	MTU 1061/MCM 100	MS
5035	32824	CR-2860-S-B-58-1-1	Varshadhan/ SR 26B	SB
5036		Sensitive check (Pusa 44)		LS
5037	32825	MCM 148 (IR 18T1340)	IR87707-445-B-B-B/A69-1	LS
5038		Local Check		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 28.2: Grain Yield (kg/ha) in IVT – CSTVT (Coastal Saline), Kharif 2024

Entry No	IET No	ZONE III-EASTERN								ZONE III-EASTERN (3)	
		Odisha		West Bengal			West Bengal (2)		Mean		
		Cuttack		Malda	Gosaba		Mean		Mean		
5001	32793			2556		4077		3317		3317	
5002	32794			2150				2150		2150	
5003	32795	3173	1 *	3911	1 *	5057	4	4484	1 *	4047	1 *
5004	32796	2065	9	2839		4193		3516		3032	
5005	32797	1541		3022	8	4762	8	3892	6 *	3108	
5006	32798	2317	3 *	3694	2 *	4319		4007	2 *	3443	9 *
5007	32799	1860		2528		4611		3570		3000	
5008	32800	1979	10	2261		4248		3255		2829	
5009	32801	2091	8	3183	4 *	4317		3750		3197	
5010	CSR 10 (Early duration saline check)	1910		2472		4159		3316		2847	
5011	32802			3022	8	4713	10	3868	7 *	3868	3 *
5012	32803	1894		2622		4809	7	3716		3108	
5013	32804	2313	4 *	2289		4293		3291		2965	
5014	32805	1955		2789		5183	2 *	3986	4 *	3309	
5015	32806			3228	3 *	4474		3851	8 *	3851	4 *
5016	32807			3133	5 *	3886		3510		3510	7 *
5017	32808	1916		2750		4327		3539		2998	
5018	32809			2433		4034		3234		3234	
5019	32810	2372	2 *	2228		4546		3387		3049	
5020	Buthnath (Coastal saline Tolerant check)	1920		2328		4236		3282		2828	
5021	32811			2367		4029		3198		3198	
5022	32812			2644		4953	5	3799	10	3799	5 *
5023	32813			2606		4709		3658		3658	6 *
5024	32814	2171	6	3128	6 *	4455		3792		3251	
5025	32815	2184	5	2283				2283		2234	
5026	FL 478 (Saline tolerant check)	1696		2589		3967		3278		2751	
5027	32816	1406		2172		4924	6	3548		2834	
5028	32817			2683				2683		2683	
5029	32818			2067		3988		3028		3028	
5030	32819	1843		2556		3924		3240		2774	
5031	32820			2306		4207		3257		3257	
5032	32821			2928	10	3930		3429		3429	10 *
5033	32822			2639		5180	3 *	3910	5 *	3910	2 *
5034	32823			2189		4752	9	3471		3471	8 *
5035	32824	1671		3072	7	4610		3841	9 *	3118	
5036	Pusa 44 (Sensitive check)			2211		3793		3002		3002	
5037	32825	1635		2728		5284	1 *	4006	3 *	3216	
5038	LC	2118	7	2456		4434		3445		3003	
Experimental Mean		2001		2660		4439		3468		3166	
CD		193.6		512.29		659.59		392.63		325.09	
CV%		5.87		11.84		9.12		6.96		6.31	
F Value		26.29 (p<0.0001)		5.38 (p<0.0001)		3.15 (p<0.0001)		10.72 (p<0.0001)		2.99 (p<0.0001)	
DOS		6/13/2024		6/21/2024		7/5/2024					
DOP		8/13/2024		7/23/2024		8/29/2024					
Local Check Name		CR Dhan 412		Jarava		Chinsurah Nona 1					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 28.2 (Contd.): Grain Yield (kg/ha) in IVT – CSTVT (Coastal Saline), Kharif 2024

Entry No	IET No	ZONE VI – WESTERN		ZONE VII – SOUTHERN			ZONE VII – SOUTHERN (2)		Overall Mean (6)		
		Gujarat		Andhra Pradesh		Puducherry	Mean				
		Navsari		Machilipatnam		Karaikal					
5001	32793	4489		4401	8	2129		3265		3530	
5002	32794	6003	3	3538		2189		2864		3470	
5003	32795	4836		4989	3	2400		3695	6	4061	2
5004	32796	4718		4505	7	2339		3422		3443	
5005	32797	5411	8	5007	1	3140		4074	3	3814	7
5006	32798	3787		4975	4	3256	7	4116	2	3725	8
5007	32799	3404		4839	6	2367		3603	9	3268	
5008	32800	3111		3659		2022		2841		2880	
5009	32801	3695		3849		1884		2867		3170	
5010	CSR 10 (Early duration saline check)	4667		2957		2062		2510		3038	
5011	32802	4832				2178		2178		3686	9
5012	32803	3827		3290		3300	5	3295		3290	
5013	32804	6391	2	4968	5	2771		3870	4	3838	6
5014	32805	1495		4258	9	2911		3585	10	3099	
5015	32806	5664	6	4011	10	3122		3567		4100	1
5016	32807	5270	10			3226	8	3226		3879	4
5017	32808	5350	9			2400		2400		3349	
5018	32809	4951				2493		2493		3478	
5019	32810	3499		3989		3259	6	3624	8	3316	
5020	Buthnath (Coastal saline Tolerant check)	4679		4996	2	3511	2	4254	1	3612	
5021	32811	4785				2413		2413		3399	
5022	32812	2916		2849		2706		2778		3214	
5023	32813	5074				3402	4	3402		3948	3
5024	32814	4559				2256		2256		3314	
5025	32815	5436	7			3193		3193		3274	
5026	FL 478 (Saline tolerant check)	4483		3935		3025		3480		3283	
5027	32816	3608				3147		3147		3051	
5028	32817	5682	5			2447		2447		3604	
5029	32818	4577				1950		1950		3146	
5030	32819	4832		3839		3444	3	3642	7	3406	
5031	32820	3712				3224	9	3224		3362	
5032	32821	4461				3194		3194		3628	10
5033	32822	1846		3527		3189		3358		3276	
5034	32823	4063				3221	10	3221		3556	
5035	32824	3498		3677		2781		3229		3218	
5036	Pusa 44 (Sensitive check)	4828				2691		2691		3381	
5037	32825	5812	4	3516		2556		3036		3589	
5038	LC	6582	1	4011	10	3533	1	3772	5	3856	5
Experimental Mean		4496		4069		2772		3163		3462	
CD		936.17		1168.25		643.43		616.05		323.87	
CV%		12.80		17.45		14.27		11.97		5.75	
F Value		11.03 (p<0.0001)		2.45 (p<0.0001)		4.55 (p<0.0001)		11.97 (p<0.0001)		6.22 (p<0.0001)	
DOS		6/20/2024		8/13/2024		6/24/2024					
DOP		7/18/2024		10/5/2024		7/24/2024					
Local Check Name		GR-19		MCM 100		KKL(R) 3					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 28.2 (Contd.): Grain Yield (kg/ha) in IVT – CSTVT (Coastal Saline), Kharif, 2024 (Not considered)

Entry No	IET No	ZONE III-EASTERN		ZONE VI – WESTERN			ZONE VII – SOUTHERN		
		West Bengal		Maharashtra		Goa	Karnataka		
		@Canning		@Panvel		@Goa	@Brahmavar		
5001	32793	4174	4			2225	10	1240	
5002	32794			1993		2173		1471	6
5003	32795			2293	7	1848		811	
5004	32796			2177	8	2320	7	1578	3
5005	32797			3536	1 *	2447	3	1750	2
5006	32798	3306		1386		2428	4	1549	4
5007	32799	2713		2365	6 *	1793		609	
5008	32800	2716		2146	9	1557		1363	10
5009	32801	2449		2409	5 *	1817		1322	
5010	CSR 10 (Early duration saline check)			607		1928		1268	
5011	32802			2083	10	2288	8	621	
5012	32803	3519		1210		2152		1118	
5013	32804	3178		1695		1858		1256	
5014	32805	2822		1081		1663		1243	
5015	32806	3535	10	1759		2070		1229	
5016	32807	2702		907		1855		1494	5
5017	32808	2370		1053		2420	5	1358	
5018	32809			585		2033		860	
5019	32810	3721	8	1951		1813		1299	
5020	Buthnath (Coastal saline Tolerant check)	3632	9	2009		1905		808	
5021	32811			1634		1460		1369	8
5022	32812	3395		2459	4 *	1545		770	
5023	32813			2646	3 *	2070		1355	
5024	32814			1600		2213		601	
5025	32815			1878		1740		1225	
5026	FL 478 (Saline tolerant check)	4388	2	479		1697		1065	
5027	32816			3510	2 *	2277	9	498	
5028	32817			1849		1952		1365	9
5029	32818	3173		1827		1540			
5030	32819			2002		2518	2	1306	
5031	32820	2422		1974		1940		1264	
5032	32821	4079	7	1029		1847		1188	
5033	32822	4154	5	776		1848		1371	7
5034	32823	2648		288		1772		1315	
5035	32824	4097	6			2080		581	
5036	Pusa 44 (Sensitive check)	2583		631		1562		1239	
5037	32825	4186	3	528		2383	6	1240	
5038	LC	4692	1	1326		2858	1	2013	1
Experimental Mean		3361		1658		1997		1189	
CD				326.72		399.91		199.11	
CV%				12.10		12.31		10.28	
F Value				4.48 (p<0.0001)		5.39 (p<0.0001)		23.92 (p<0.0001)	
DOS		11-07-24		24-06-24		10-06-24		19-06-24	
DOP		14-08-24		02-08-24		12-07-24		30-07-24	
Local Check Name		Canning 7		Panvel 1		Goa Dhan 1		Karikagga	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 28.2 (Contd.): Grain Yield (kg/ha) in IVT – CSTVT (Coastal Saline), Kharif 2024

Entry No	IET No	ZONE VII – SOUTHERN	
		Kerala	
		Vytilla	
5001	32793	1077	
5002	32794	1518	
5003	32795	1823	
5004	32796	1877	
5005	32797	5821	3 *
5006	32798	1107	
5007	32799	1295	
5008	32800	1098	
5009	32801	2439	
5010	CSR 10 (Early duration saline check)	2304	
5011	32802	3729	8
5012	32803	4155	5
5013	32804	1005	
5014	32805	1191	
5015	32806	8755	1 *
5016	32807	3036	
5017	32808	3200	
5018	32809	3214	
5019	32810	1793	
5020	Buthnath (Coastal saline Tolerant check)	3797	7
5021	32811	3402	10
5022	32812	2319	
5023	32813	1348	
5024	32814	1596	
5025	32815	1655	
5026	FL 478 (Saline tolerant check)	1257	
5027	32816	2305	
5028	32817	2621	
5029	32818	3330	
5030	32819	3500	9
5031	32820	1118	
5032	32821	1445	
5033	32822	1845	
5034	32823	2638	
5035	32824	5900	2 *
5036	Pusa 44 (Sensitive check)	3868	6
5037	32825	1077	
5038	LC	5032	4
Experimental Mean		2645	
CD		283.26	
CV%		6.58	
F Value		260.38 (p<0.0001)	
DOS		6/10/2024	
DOP		6/28/2024	
Local Check Name		KAU Lavanya	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 28.3: Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – CSTVT (Coastal Saline), Kharif 2024

Entry No	IET No	ZONE III-EASTERN												ZONE III-EASTERN (3)		
		Odisha			West Bengal						West Bengal (2)			Mean		
		Cuttack			Malda			Gosaba			Mean			Mean		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
5001	32793				105	100	315	103	107	297	104	104	306	104	104	306
5002	32794				110	115	319				110	115	319	110	115	319
5003	32795	134	88	174	106	114	309	130	106	330	118	110	320	123	103	271
5004	32796	136	93	185	105	112	307	113	117	396	109	115	352	118	107	296
5005	32797	134	88	167	103	120	320	125	110	385	114	115	352	120	106	291
5006	32798	117	90	176	108	116	327	109	102	374	109	109	351	112	103	292
5007	32799	124	86	190	99	119	321	123	116	374	111	118	348	115	107	295
5008	32800	116	92	183	102	134	334	108	135	319	105	135	327	109	121	279
5009	32801	126	95	173	104	112	304	113	122	374	109	117	339	115	110	283
5010	CSR 10 (Early duration saline check)	134	94	161	107	95	327	105	77	484	106	86	406	115	89	324
5011	32802				102	132	316	96	120	341	99	126	329	99	126	329
5012	32803	114	97	153	100	138	304	113	149	286	106	144	295	109	128	247
5013	32804	125	86	167	106	112	315	113	134	319	109	123	317	114	110	267
5014	32805	132	93	182	103	160	321	125	182	319	114	171	320	120	145	274
5015	32806				104	114	321	115	116	352	110	115	337	110	115	337
5016	32807				104	111	323	112	120	286	108	116	305	108	116	305
5017	32808	136	85	193	106	110	329	114	117	385	110	114	357	119	104	302
5018	32809				99	107	309	109	101	319	104	104	314	104	104	314
5019	32810	134	82	174	101	161	322	120	147	297	111	154	310	118	130	264
5020	Butnath (Coastal saline Tolerant check)	138	77	191	105	113	337	111	122	374	108	117	356	118	104	301
5021	32811				111	102	324	110	102	352	110	102	338	110	102	338
5022	32812				104	115	318	111	135	473	107	125	395	107	125	395
5023	32813				103	113	324	111	134	385	107	124	354	107	124	354
5024	32814	120	89	176	106	109	319	109	107	352	107	108	336	111	101	282
5025	32815	126	92	168	102	111	317		0	0	102	56	159	114	68	162
5026	FL 478 (Saline tolerant check)	118	88	171	104	105	344	99	108	440	102	106	392	107	100	318
5027	32816	132	84	182	103	114	314	106	115	319	105	115	317	114	104	272
5028	32817				107	109	304	0			54	109	304	54	109	304
5029	32818				106	110	333	112	121	374	109	116	354	109	116	354
5030	32819	126	89	169	102	112	307	95	79	319	98	96	313	107	93	265
5031	32820				108	117	210	112	120	440	110	119	325	110	119	325
5032	32821				106	108	325	95	99	330	100	104	328	100	104	328
5033	32822				102	171	321	118	167	297	110	169	309	110	169	309
5034	32823				104	166	330	128	112	374	116	139	352	116	139	352
5035	32824	130	92	185	100	169	327	109	126	363	105	147	345	113	129	292
5036	Pusa 44 (Sensitive check)				105	134	306	114	81	385	109	107	345	109	107	345
5037	32825	129	90	170	101	115	320	121	122	286	111	119	303	117	109	259
5038	LC	131	95	183	105	98	311	109	116	352	107	107	331	115	103	282
Experimental Mean		127	89	176	104	121	317	109	115	347	106	118	332	113	109	280
Standard error		2.0			0.8			0.9			0.6			0.7		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 28.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – CSTVT (Coastal Saline), Kharif 2024

Entry No	IET No	ZONE VI – WESTERN			ZONE VII – SOUTHERN						ZONE VII – SOUTHERN (2)			Overall Mean (6)		
		Gujarat			Andhra Pradesh			Puducherry			SOUTHERN (2)					
		Navsari			Machilipatnam			Karaikal			Mean					
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
5001	32793	92	127	373	105	58	258	89	85	537	97	71	397	99	96	356
5002	32794	119	143	367	110	88	203	93	102	664	101	95	433	108	112	388
5003	32795	126	135	394	109	81	266	97	110	473	103	95	369	117	106	324
5004	32796	100	117	371	105	87	261	96	101	493	101	94	377	109	104	335
5005	32797	121	138	352	110	87	316	101	98	534	105	92	425	115	107	346
5006	32798	100	127	344	109	98	310	100	87	524	105	93	417	107	103	342
5007	32799	126	141	385	102	91	305	103	110	464	103	100	384	113	110	340
5008	32800	132	182	385	104	95	212	94	107	493	99	101	353	109	124	321
5009	32801	91	120	350	99	67	231	90	96	433	94	82	332	104	102	311
5010	CSR 10 (Early duration saline check)	89	85	382	99	50	171	87	64	543	93	57	357	104	77	345
5011	32802	123	143	376				98	112	635	98	112	635	105	127	417
5012	32803	137	140	385	105	85	225	102	101	590	103	93	407	112	118	324
5013	32804	109	143	350	102	89	261	95	104	657	99	96	459	108	111	345
5014	32805	134	194	358	99	101	247	102	130	640	101	116	443	116	143	344
5015	32806	107	127	406	99	81	219	92	94	547	96	88	383	104	106	369
5016	32807	94	134	382				90	85	473	90	85	473	100	113	366
5017	32808	115	153	358				100	107	594	100	107	594	114	114	372
5018	32809	93	127	335				89	100	542	89	100	542	97	109	376
5019	32810	137	148	373	102	83	216	101	107	527	102	95	372	116	121	318
5020	Buthnath (Coastal saline Tolerant check)	94	124	376	102	91	319	93	105	560	97	98	439	107	105	360
5021	32811	92	110	356				84	87	493	84	87	493	99	100	381
5022	32812	105	144	367	102	75	188	92	93	560	97	84	374	103	112	381
5023	32813	100	142	335				91	97	640	91	97	640	101	122	421
5024	32814	91	131	350				88	99	660	88	99	660	103	107	371
5025	32815	94	141	344				88	106	546	88	106	546	102	90	275
5026	FL 478 (Saline tolerant check)	88	105	335	105	68	220	79	97	620	92	82	420	99	95	355
5027	32816	104	133	350				92	98	550	92	98	550	107	109	343
5028	32817	93	135	349				89	93	524	89	93	524	73	113	392
5029	32818	93	148	382				91	96	547	91	96	547	100	119	409
5030	32819	103	104	364	105	92	217	95	82	674	100	87	446	104	93	342
5031	32820	92	148	373				89	99	637	89	99	637	100	121	415
5032	32821	92	110	370				88	83	576	88	83	576	95	100	400
5033	32822	139	185	391	105	77	179	98	160	630	101	118	404	112	152	364
5034	32823	126	141	370				98	123	657	98	123	657	114	135	433
5035	32824	135	151	353	109	78	208	102	106	637	106	92	422	114	120	345
5036	Pusa 44 (Sensitive check)	100	108	361				93	83	437	93	83	437	103	101	372
5037	32825	103	145	379	110	76	208	88	93	470	99	84	339	108	107	305
5038	LC	93	123	373	109	80	267	88	93	560	99	87	413	106	101	341
Experimental Mean		108	136	366	104	82	240	93	100	559	96	95	468	108	107	334
Standard error		1.3			0.8			0.8			0.6			0.5		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 28.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – CSTVT (Coastal Saline), Kharif 2024 (Not considered)

Entry No	IET No	ZONE III-EASTERN		ZONE VI - WESTERN			ZONE VI - WESTERN			ZONE VII - SOUTHERN		
		West Bengal		Maharashtra			Goa			Karnataka		
		@Canning		@Panvel			@Goa			@Brahmavar		
		DFE	PH	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
5001	32793	93	85	91	85		112	91	10	121	33	110
5002	32794			98	107	369	124	120	10	130	86	226
5003	32795			115	100	477	111	108	8	132	103	316
5004	32796			101	97	443	114	109	10	129	85	296
5005	32797			117	106	483	128	110	11	130	103	297
5006	32798	93	94	97	94	364	114	106	10	125	96	315
5007	32799	117	101	115	108	451	134	115	10	132	98	110
5008	32800	106	113	101	125	393	116	137	9	124	130	331
5009	32801	103	101	98	106	391	104	116	10	116	101	136
5010	CSR 10 (Early duration saline check)			89	63	206	97	74	12	116	82	326
5011	32802			116	111	369	132	113	9	131	121	308
5012	32803	109	120	116	111	301	132	119	11	128	107	216
5013	32804	95	118	107	112	320	116	121	12	124	117	209
5014	32805	113	100	118	131	271	130	150	8	130	82	221
5015	32806	110	115	105	104	300	115	105	8	128	92	279
5016	32807	113	88	93	97	238	114	106	7	121	99	376
5017	32808	119	92	116	107	294	131	117	9	125	82	336
5018	32809			97	108	273	107	103	9	121	102	108
5019	32810	111	105	118	123	302	117	129	9	132	116	287
5020	Buthnath (Coastal saline Tolerant check)	98	105	103	107	328	112	102	8	119	107	305
5021	32811			96	101	373	109	93	11	121	102	316
5022	32812	98	124	108	113	306	127	113	9	128	103	296
5023	32813			104	121	367	113	106	8	121	111	330
5024	32814			93	106	365	108	110	8	122	103	205
5025	32815			101	112	298	117	106	8	121	114	209
5026	FL 478 (Saline tolerant check)	140	123	89	76	287	92	77	10	121	95	282
5027	32816			101	104	375	113	105	8	130	94	208
5028	32817			103	111	387	115	113	9	127	102	160
5029	32818	101	119	97	91	356	111	106	11			
5030	32819			95	92	243	110	87	9	121	82	186
5031	32820	101	129	103	111	430	108	125	11	123	89	204
5032	32821	93	121	89	90	303	97	95	9	125	92	208
5033	32822	120	114	115	144	231	117	146	10	133	125	277
5034	32823	115	129	102	108	172	116	115	8	131	101	270
5035	32824	119	107	118	101		124	102	8	127	113	312
5036	Pusa 44 (Sensitive check)	106	104	95	80	219	112	81	8	121	77	149
5037	32825	113	116	103	118	256	116	102	9	120	119	116
5038	LC	114	122	98	87	306	115	103	11	115	122	108
Experimental Mean		108	110	104	105	328	115	109	9	125	102	246
Standard Error		0.0		0.3			1.1			0.8		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 28.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – CSTVT (Coastal Saline), Kharif 2024 (Not considered)

Entry No	IET No	ZONE VII – SOUTHERN		
		Kerala		
		Vytilla		
		DFP	PH	PAN
5001	32793	89	120	6
5002	32794	115	124	8
5003	32795	89	118	7
5004	32796	94	131	19
5005	32797	112	129	10
5006	32798	98	128	17
5007	32799	121	142	8
5008	32800	108	170	8
5009	32801	89	144	9
5010	CSR 10 (Early duration saline check)	81	85	11
5011	32802	99	103	7
5012	32803	100	143	15
5013	32804	98	148	8
5014	32805	111	186	14
5015	32806	98	136	18
5016	32807	95	136	21
5017	32808	113	151	10
5018	32809	91	123	22
5019	32810	108	178	9
5020	Buthnath (Coastal saline Tolerant check)	89	132	15
5021	32811	92	108	8
5022	32812	98	144	24
5023	32813	94	137	23
5024	32814	89	123	30
5025	32815	92	139	13
5026	FL 478 (Saline tolerant check)	85	119	10
5027	32816	102	139	14
5028	32817	92	138	9
5029	32818	95	134	24
5030	32819	95	124	21
5031	32820	92	133	18
5032	32821	89	123	11
5033	32822	117	199	12
5034	32823	117	127	22
5035	32824	117	152	13
5036	Pusa 44 (Sensitive check)	95	99	13
5037	32825	112	133	7
5038	LC	95	124	7
Experimental Mean		99	135	14
Standard Error		4E-14		

ADVANCE VARIETAL TRIAL 2&1 – LOW PHOSPHORUS TOLERANCE (AVT 2&1 LPT)

Locations: 10

Checks: Positive –Swarna, Rasi and Vandana (Early check)

Test Entries: 27

Table: 30

AVT 2&1 Low Phosphorus Tolerance trial was constituted with 27 test entries with four positive checks Viz., Swarna, Rasi, DRR dhan 60 and Vandana (Early check). The trial was conducted at two levels of Phosphorus P 50 (50% of recommended Phosphorus) and P 100 (100% of recommended Phosphorus). In both the levels, Nitrogen and Potash are applied as per recommended doses. The trial was sent to 10 locations but the data was not received from one location (Vadagaon). The data from PUSA was not considered for analysis due to low CV (3.34%). The data from remaining 8 locations viz., Ludhiana, Ranchi, ICAR NRRI, Karjat, Maruteru, Mandya, Gangavati and ICAR IRR was considered for analysis. Among 27 test entries, 15 entries viz., IETs 29558, 31098, 31102, 28070, 31096, 31097, 31106, 29560, 31115, 29546, 31103, 31108, 29549(R) 31105 and 31110 were in third year of testing; 12 entries viz., IETs 31980, 31975, 31976, 31107, 31985, 31986, 31968, 31973, 31982, 31969, 31966, and 31979 were in second year of testing.

The entry qualifies for promotion/found promising if it is significantly superior (By considering CD value) over the best check at P 50% at zone level. 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 or DRR Dhan 60. Based on superiority of genotypes against their respective duration checks, following entries are found superior in grain yield.

Performance of entries in AVT2 & 1 LPT during Kharif 2024

IET No.	Zone II	Zone III		Zone VI		Zone VII	
	GY (kg/ha) / Rank	GY (kg/ha) / Rank	DFP	GY (kg/ha) / Rank	DFP	GY (kg/ha) / Rank	DFP
31980	3539	2806	96	6937	95	5549	100
29558	5074	2422	101	5548	93	4584	99
31102	5092	2323	102	5151	89	4775	98
RASI	3051	2162	90	4587	78	3768	84
31975	6464	3264	98	8310	98	3736	102
31976	4496	2554	87	6460	82	4864	96
31107	6825	3874	100	7056	91	4523	95
31985	5994	2991	104	5810	100	5508	97
28070	7349	3439	101	8793	95	5735	102
31096	4979	2448	98	5834	89	4725	95
SWARNA		2887	100	8663	104	4885	107
VANDANA	3322	2025	91	7127	77	2221	82
31986	4406	2185	82	4492	93	5026	91
31968	4929	3781	99	5079	94	5091	97

Annual Progress Report 2024 Vol. I – Varietal Improvement

31097	6735	2465	98	7722	88	4046	94
31973	5832	2897	86	5532	94	4694	103
31106	4550	2682	102	6659	101	4560	96
29560	4947	2964	97	5381	86	5405	96
31115	4893	2742	90	4222	80	3395	85
DRR DHAN - 60	5994	4284	101	5984	101	4144	104
31982	4135	3661	98	5627	87	3897	93
29546	5990	2963	89	6516	98	4534	99
31969	5615	3143	98	8175	93	5559	96
31103	8324	3581	101	6976	93	5894	96
31966	4622	3922	98	8135	90	5577	102
31108	7204	3087	101	5183	97	4674	90
29549(R)	6518	3488	102	6310	101	5387	102
31979	7349	3885	103	6770	97	5157	96
31110		4934	106	6167	101	5360	111
CD	733	422		1858		388	

Note: Figures in bold are significantly superior to respective checks based on duration in respective zones.

Promotion of entries from AVT1 LPT to AVT 2 LPT

Zone 2: IETs 31107, 31979

Zone 3: IETs 31975, 31968, 31973, 31982, 31969, 31966

Zone 7: IETs 31980, 31976, 31107, 31985, 31986, 31968, 31969, 31966, 31979

Performance of entries in 3rd year of testing

IET no.	Year	P level	Zone	Grain yield (Kg/ha)	Performance of entry
31102	2024	P 50	Z 7	4775	Promising for Zone 7
	2023	P 0	Z 7	5080	
		P 50	Z 7	4907	
	2022	P 0	Z 7	4456	
		P 50	Z 7	5390	
28070	2024	P 50	Z 2	7349	Promising for Zone 7
			Z 7	5735	
	2023	P 0	Z 7	4855	
			Z 7	5655	
	2022	-	-	-	
31096	2024	P 50	Z 7	4725	Promising for Zone 7
	2023	P 50	Z 7	5290	
	2022	P 0	Z 7	4066	
		P 50	Z 7	5390	
31097	2024	P 50	Z 2	6735	Not promising for any zone
	2023	P 0	Z 7	5098	
		P 50	Z 7	5983	

Annual Progress Report 2024 Vol. I – Varietal Improvement

	2022	P 50	Z 7	5393	
31106	2024	P 50	Z 7	4560	Promising for Zone 7
	2023	P 0	Z 3	3773	
		P 0	Z 7	4712	
		P 50	Z 7	4991	
	2022	-	-	-	
29560	2024	P 50	Z 3	2964	Promising for Zone 7
		P 50	Z 7	5405	
	2023	P 0	Z 7	4613	
	2022	-	-	-	
	2021	P 0	Z 7	5750	
31115	2024	P 50	Z 3	2742	Not promising for any zone
	2023	P 50	Z 7	4851	
	2022	-	-	-	
31103	2024	P 50	Z 2	8324	Promising for Zone 7
		P 50	Z 7	5894	
	2023	P 0	Z 7	4849	
		P 50	Z 7	5706	
	2022	P 0	Z 7	5028	
P 50		Z 7	5480		
31108	2024	P 50	Z 2	7204	Promising for Zone 7
		P 50	Z 7	4674	
	2023	P 0	Z 7	4714	
	2022	P 0	Z 7	4388	
29549	2024	P 50	Z 7	5387	Promising for Zone 7
	2023	P 0	Z 7	4826	
		P 50	Z 7	5174	
	2022	P 0	Z 3	3590	
		P 0	Z 7	5470	
		P 50	Z 3	3954	
		P 50	Z 7	5910	
2021	P 0	Z 7	5890		
31110	2024	P 50	Z 3	4934	Promising for Zone 7
		P 50	Z 7	5360	
	2023	P 0	Z 7	5497	
	2022	P 0	Z 7	4693	
		P 50	Z 7	5272	

IET 31102 (RP 6690-MASC-12-46) obtained from the cross WB 9 / BPT 5204 was evaluated in 2022, 2023 and 2024. Based on performance of the entry in 3 years, it was found promising for Zone 7. It has long slender grains with HRR: 59.3%, AC: 24.4; GC: 22 mm and ASV: 4. Based on its consistent performance, **IET 31102 is found promising for Zone 7.**

IET 28070 (RP Bio 4919-B-B-13-7) obtained from the cross KMR3 / O. rufipogon was evaluated in 2022, 2023 and 2024. Based on performance of the entry in 3 years, it was found

Annual Progress Report 2024 Vol. I – Varietal Improvement

promising for Zone 7. It has short bold grains with HRR: 58.6%, AC: 22; GC: 22 mm and ASV: 4. Based on its consistent performance, **IET 28070 is found promising for Zone 7.**

IET 31096 (RP 6459-C2-168-1) obtained from the cross 166S-Swarna / O.nivara // 14S-Swarna / O. nivara was evaluated in 2022, 2023 and 2024. Based on performance of the entry in 3 years, it was found promising for Zone 7. It has long slender grains with HRR: 69.7%, AC: **26.13**; GC: 35 mm and ASV: 4. Based on its consistent performance, **IET 31096 is found promising for Zone 7.**

IET 31106 (RP 6712-MS-SF-39-4-2-3-9-5-1) obtained from the cross Samba Mahsuri Mutant-93*2 / BPT 5204 was evaluated in 2022, 2023 and 2024. Based on performance of the entry in 3 years, it was found promising for Zone 7. It is having HRR: 64.1%, AC: 26.86; GC: 38 mm and ASV: 4. Based on its consistent performance, **IET 31106 is found promising for Zone 7.**

IET 29560 (RP 5593-83-27-1 (PSV 2081)) obtained from the cross MTU 1010 / N22 was evaluated in 2022, 2023 and 2024. Based on performance of the entry in 3 years, it was found promising for Zone 7. It has long slender grains with HRR: 57%, AC: 21.03; GC: 68 mm and ASV: 4. Based on its consistent performance, **IET 29560 is found promising for Zone 7.**

IET 31103 (RP 6252) was evaluated in 2022, 2023 and 2024. Based on performance of the entry in 3 years, it was found promising for Zone 7. It has short bold grains with HRR: 41.5%, AC: 27.83; GC: 23 mm and ASV: 4. Based on its consistent performance, **IET 31103 is found promising for Zone 7 provided the revised grain quality analysis data found acceptable as per the standards.**

IET 31108 (RP 6691-HWR 31) obtained from the cross IR 69502-6-SRN-3-UBN-1-B / O. glaberrima (TOG 6216) was evaluated in 2022, 2023 and 2024. Based on performance of the entry in 3 years, it was found promising for Zone 7. It has medium slender grains with HRR: 65.8%, AC: 22.38; GC: 22 mm and ASV: 4. Based on its consistent performance, **IET 31108 is found promising for Zone 7.**

IET 29549 (RP 5977-MS-M-112-1-9-22-4-6-3) is a BPT 5204 Mutant which was evaluated in 2022, 2023 and 2024. Based on performance of the entry in 3 years, it was found promising for Zone 7. It has medium slender grains with HRR: 52.8%, AC: 21.61; GC: 22 mm and ASV: 4. Based on its consistent performance, **IET 29549 is found promising for Zone 7.**

IET 31110 (RP 5405-JBB-631 (B)-B-BB-1-1-1-1) is obtained from the cross Swarna / IRGC 4105 // Swarna which was evaluated in 2022, 2023 and 2024. Based on performance of the entry in 3 years, it was found promising for Zone 7. It has medium slender grains with HRR: 71.8, AC: 22.99; GC: 49 mm and ASV: 4.0. Based on its consistent performance, **IET 31110 is found promising for Zone 7.**

Promotion of entries from AVT1 LPT to AVT 2 LPT

Zone 2: IETs 31107, 31979

Zone 3: IETs 31975, 31968, 31973, 31982, 31969, 31966

Zone 7: IETs 31980, 31976, 31107, 31985, 31986, 31968, 31969, 31966, 31979

Table No. 30.1: Composition of entries in Advance Varietal Trial 2 & 1 – Low

Annual Progress Report 2024 Vol. I – Varietal Improvement

Phosphorous Tolerance Trial (AVT 2 & 1-LPT) Kharif 2024

Entry No.	IET No.	Designation	Cross Combination	Grain type
5201	31980	CR 4352- 3-1-1-2-1-1	CR3511-3-4-1-1-1-1/CR 3504-14-1-1-1-1-1	MS
5202	29558	Pusa 5417-15-11-9-50-27	Pusa 44/IR64-Pup1-F//Pusa44*2	LS
5203	31098	CR 3562-2-1-1-3-1-1	Surendra/ N22	MS
5204	31102	RP 6690-MASC-12-46	WB 9 / BPT 5204	LS
5205		RASI (Positive Check)		
5206	31975	CR 4432-3-2-2-1-1-1	CR 3562-2-1-1-1-1-1/CR 3494-15-1-1-1-1	SB
5207	31976	CR 4467-RGA-100	CR Dhan 202 x Vandana	MB/MS
5208	31107	CR 4397-4-6-27	Lalat MAS / CR Dhan 801 // 2* Lalat MAS	LS
5209	31985	RP 6773-MSAC 4-5	IR 64 / Wazuhophek	MS
5210	28070	RP Bio 4919-B-B-13-7	KMR3 / O. rufipogon	SB
5211	31096	RP 6459-C2-168-1	166S-Swarna / O.nivara // 14S-Swarna / O.nivara	LS
5212		SWARNA (Positive Check)		SB
5213		VANDANA (Positive Check)		
5214	31986	RP 6255-SP/RIL-SP38-1	Sampada / Prasanna	LB
5215	31968	CR 4466-126-WB-1	CR Dhan 202 x CR 4383-RGA-216	MS
5216	31097	CR 4395-6-3-47	CR Dhan 310 / CR Dhan 801 // 2* CR Dhan 310	LS
5217	31973	RP 6772-MSA 16-439	Rasi / IR 64	MS
5218	31106	RP 6712-MS-SF-39-4-2-3-9-5-1	Samba Mahsuri Mutant-93*2 / BPT 5204	
5219	29560	RP 5593-83-27-1 (PSV 2081)	MTU 1010 / N22	LS
5220	31115	RP 6689-PyF-111-23	NH 686 / NH 787	
5221		DRR DHAN – 60 (Positive Check)		
5222	31982	RP6238-RV/RIL-RV190	Rasi / Vibhava	SB
5223	29546	Pusa 5417-15-11-9-54-17	Pusa 44/IR64-Pup1-F//Pusa44*2	LS
5224	31969	RP 6256-RJ/RIL-RJ385	Rasi / Jaya	SB
5225	31103	RP 6252	RP 6252	SB
5226	31966	HURS 23-15	NDR 97 / HUR 105	LB
5227	31108	RP 6691-HWR 31	IR 69502-6-SRN-3-UBN-1-B / O. glaberrima (TOG 6216)	LS/MS
5228	29549	RP 5977-MS-M-112-1-9-22-4-6-3	BPT 5204 Mutant	LS/LB
5229	31979	CR 4414-1-1-1-1-2-1	CR 3561-3-2-1-1-1-1/CR 3494-1-1-1-1-1-1	SB
5230	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	SB
5231	31110	RP 5405-JBB-631 (B)-B-BB-1-1-1-1	Swarna / IRGC 4105 // Swarna	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 30.2: Grain Yield (kg/ha) in AVT 2 & 1 – LPT (P50), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN				ZONE III- EASTERN			ZONE III- EASTERN (2)	ZONE VI- WESTERN		ZONE VII- SOUTHERN	
		Punjab		Jharkhand		Odisha				Maharashtra		Andhra Pradesh	
		Ludhiana		Ranchi		NRRI		Mean		Karjat		Maruteru	
5201	31980	3539		2347		3265		2806	6937	10	5996	2*	
5202	29558	5074		2210		2634		2422	5548		4621		
5203	31098	5868		2301		4476	5	3389	6643		5813	4*	
5204	31102	5092		2392		2253		2323	5151		4485		
5205	Rasi (Positive Check)	3051		2392		1933		2162	4587		2962		
5206	31975	6464	8	2164		4364	6	3264	8310	3	2281		
5207	31976	4496		2097		3012		2554	6460		4767		
5208	31107	6825	5*	3076	10	4673	3	3874	7056	8	4843		
5209	31985	5994	9	2620		3362		2991	5810		6053	1*	
5210	28070	7349	2*	2324		4553	4	3439	8793	1	4790		
5211	31096	4979		2347		2550		2448	5834		3049		
5212	Swarna (Positive Check)			2620		3154		2887	8663	2	4563		
5213	Vandana (Positive Check)	3322		2301		1748		2025	7127	7	1381		
5214	31986	4406		2187		2183		2185	4492		4273		
5215	31968	4929		3736	6	3826	9	3781	5079		4702		
5216	31097	6735	6*	2552		2378		2465	7722	6	2826		
5217	31973	5832		2438		3357		2897	5532		3091		
5218	31106	4550		2392		2971		2682	6659		3333		
5219	29560	4947		2392		3536		2964	5381		5430	6	
5220	31115	4893		2279		3204		2742	4222		2043		
5221	DRR Dhan 60 (Positive Check)	5994	9	3668	8	4900	2	4284	5984	3	5076	10	
5222	31982	4135		3690	7	3633	10	3661	5627	8	2281		
5223	29546	5990		2392		3535		2963	6516		4170		
5224	31969	5615		2369		3918	8	3143	8175	4	5318	7	
5225	31103	8324	1*	2232		4930	1	3581	6976	9	5113	9	
5226	31966	4622		4783	4*	3061		3922	8135	5	5901	3*	
5227	31108	7204	4*	3531	9	2644		3087	5183		5468	5	
5228	29549	6518	7	4100	5	2875		3488	6310		4098		
5229	31979	7349	2*	5468	3*	2302		3885	6770		3496		
5230	31105			5741	2*	3624		4683	4381		3696		
5231	31110			5923	1*	3944	7	4934	6167		5243	8	
Experimental Mean		5503		3002		3316		3159	6330		4231		
CD		733		532		609		422	1858		732		
CV%		8.13		10.84		11.25		8.18	17.97		10.59		
F Value		25.45**		35.42**		16.48**		23.99**	3.76**		24.11**		
DOS		02-07-24		07-07-24		26-06-24			26-06-24		09-07-24		
DOP		03-08-24		27-08-24		24-07-24			25-07-24		08-08-24		
Local Check Name						Swarna, Rasi, Vandana, ISM							

Table No. 30.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – LPT (P50), Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN						Overall Mean (8)					
		Karnataka			Karnataka (2)		Telangana						
		Mandya	Gangavati	Mean	IIRR	Mean							
5201	31980	4402	*	6747		5574		5050	10	5549	5*	4785	
5202	29558	3545		5009		4277		5160	7	4584		4225	
5203	31098	4286		7188	9	5737	9	3683		5242	10	5032	8
5204	31102	4021		6779		5400		3817		4775		4249	
5205	Rasi (Positive Check)	3683		4592		4137		3833		3768		3379	
5206	31975	4508	7*	4255		4382		3900		3736		4531	
5207	31976	4243		6387		5315		4060		4864		4440	
5208	31107	3767		5730		4748		3750		4523		4965	10
5209	31985	4402	*	7605	5	6003	4*	3973		5508	6*	4977	9
5210	28070	5249	1*	7717	3	6483	1*	5183	6	5735	2*	5745	2*
5211	31096	4095		8413	1*	6254	3*	3342		4725		4326	
5212	Swarna (Positive Check)	3714		7140	10	5427		4122		4885		4854	
5213	Vandana (Positive Check)	2317		2553		2435		2633		2221		2923	
5214	31986	3810		7717	3	5763	8	4303		5026		4171	
5215	31968	4169		6803		5486		4689		5091		4742	
5216	31097	4021		5801		4911		3533		4046		4446	
5217	31973	4984	2*	5601		5293		5100	9	4694		4492	
5218	31106	3429		5762		4595		5714	2*	4560		4351	
5219	29560	4571	6*	7356	6	5964	6*	4263		5405	7*	4735	
5220	31115	3810		4183		3996		3544		3395		3522	
5221	DRR Dhan 60 (Positive Check)	3545				3545		3811		4144		4711	
5222	31982	4487	9*	4704		4595		4117		3897		4084	
5223	29546	3587		5922		4755		4456		4534		4571	
5224	31969	4466	10*	7212	8	5839	7	5240	4*	5559	4*	5289	6*
5225	31103	4508	7*	8317	2*	6413	2*	5637	3*	5894	1*	5755	1*
5226	31966	4360		6923		5641		5122	8	5577	3*	5363	3*
5227	31108	3799		5618		4708		3813		4674		4657	
5228	29549	4857	3*	6442		5650		6150	1*	5387	8*	5169	7
5229	31979	4667	5*	7276	7	5971	5*	5190	5	5157		5314	5*
5230	31105							4121		3908		4313	
5231	31110	4677	4*	6771		5724	10	4747		5360	9*	5353	4*
Experimental Mean		4133		6294		5167		4389		4723		4628	
CD		660		843		515		1079		388		392	
CV%		9.78		8.19		6.10		15.05		5.02		5.19	
F Value		6.12**		20.86**		24.96**		4.42**		34.34**		21.09**	
DOS		05-08-24		28-07-24									
DOP		04-09-24		25-08-24									
Local Check Name			NA			-							

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 30.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – LPT (P50), Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN	
		Bihar	
		@Pusa	
5201	31980	3625	
5202	29558	3385	
5203	31098	3229	
5204	31102	3677	
5205	Rasi (Positive Check)	4000	5
5206	31975	3854	8
5207	31976	4146	3
5208	31107	3542	
5209	31985	3281	
5210	28070	3323	
5211	31096	3521	
5212	Swarna (Positive Check)	3438	
5213	Vandana (Positive Check)	3792	
5214	31986	3854	8
5215	31968	3594	
5216	31097	3333	
5217	31973	3562	
5218	31106	2896	
5219	29560	4167	2
5220	31115	3885	7
5221	DRR Dhan 60 (Positive Check)	3375	
5222	31982	3760	
5223	29546	3333	
5224	31969	3844	10
5225	31103	4073	4
5226	31966	4198	1
5227	31108	3302	
5228	29549	3156	
5229	31979	3896	6
5230	31105	3573	
5231	31110	3229	
Experimental Mean		3608	
CD		197	
CV%		3.34	
F Value		22.7**	
DOS		03-07-24	
DOP		05-08-24	
Local Check Name			

Table No. 30.2 (Contd): Grain Yield (kg/ha) in AVT 2 & 1 – LPT (P100), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN		ZONE III- EASTERN			ZONE III- EASTERN (2)	ZONE VI- WESTERN	
		Punjab		Jharkhand	Odisha		Mean	Maharashtra	
		Ludhiana	Ranchi	NRRI	Karjat				
5201	31980	3517	4433	7	3532		3983	7413	
5202	29558	5867	2829		3942	10	3386	7357	
5203	31098	6217	3483		5102	3*	4293	6659	
5204	31102	5783	3483		3397		3440	6722	
5205	Rasi (Positive Check)	3917	3103		3151		3127	6151	
5206	31975	7167	2850		5839	1*	4345	7881	9
5207	31976	5800	3800		3075		3438	7056	
5208	31107	7167	3800		4603	4	4202	8095	7
5209	31985	5900	3800		3340		3570	7452	
5210	28070	8033	4117	8	4491	5	4304	9016	3
5211	31096	4850	4539	6	2666		3602	7794	
5212	Swarna (Positive Check)		4117	8	3296		3706	9294	2
5213	Vandana (Positive Check)	4183	2829		1909		2369	3849	
5214	31986	4733	3483		2499		2991	6413	
5215	31968	4683	4074		4263	6	4169	6048	
5216	31097	6783	3483		3950	9	3717	5587	
5217	31973	5883	3103		3401		3252	5754	
5218	31106	5333	3483		3230		3357	7532	
5219	29560	6017	2850		3245		3048	5714	
5220	31115	5433	2681		2883		2782	4254	
5221	DRR Dhan 60 (Positive Check)	7083	4117	8	3960	8	4038	8262	5
5222	31982	4383	2850		2640		2745	6214	
5223	29546	6683	2871		3515		3193	9802	1
5224	31969	6567	2850		3327		3089	7897	8
5225	31103	9633	3019		3937		3478	8183	6
5226	31966	5100	6122	2*	5473	2*	5798	8540	4
5227	31108	7350	4011		2575		3293	6151	
5228	29549	6967	4961	5*	3256		4109	6103	
5229	31979	7533	5806	4*	4022	7	4914	7833	10
5230	31105		6038	3*	3725		4881	4778	
5231	31110		6228	1*	3374		4801	7389	
Experimental Mean		6020	3846		3601		3723	7006	
CD(0.05)		1179	583		681		475	1302	
CV(%)		11.97	9.28		11.58		7.81	11.38	
F val		10.82 **	25.65 **		12.88 **		19.69 **	9.36 **	
DOS		02-07-24	07-07-24		26-06-24			26-06-24	
DOP		03-08-24	27-08-24		24-07-24			25-07-24	
Local Check Name		NA	NA		Swarna, Rasi, Vandana, Improved samba mashuri			NA	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 30.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – LPT (P100), Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN										Overall Mean (8)			
		Andhra Pradesh		Karnataka			Karnataka (2)		Telangana		ZONE VII- SOUTHERN (4) Mean				
		Maruteru		Mandya		Gangavati	Mean		IIRR						
5201	31980	5864	3	3418		7035	10	5227		5570		5472	6	5098	
5202	29558	3766		3407		5691		4549		5411		4569		4784	
5203	31098	6275	2*	3672		6852		5262	10	4689		5372	9	5369	10
5204	31102	4174		3799	9	6355		5077		4522		4712		4779	
5205	Rasi (Positive Check)	2486		3228		4287		3757		4533		3634		3857	
5206	31975	2999		4201	2*	4936		4568		4837		4243		5089	
5207	31976	4150		3386		6490		4938		5528		4888		4911	
5208	31107	5623	7	3259		5505		4382		5233		4905		5411	8
5209	31985	6541	1*	3841	6	8005	5*	5923	4*	5717		6026	2*	5575	6
5210	28070	4952		3841	6	7564	7	5703	7	5890	7	5562	5	5988	3*
5211	31096	3439		3989	4	8246	2*	6118	2*	4957		5158		5060	
5212	Swarna (Positive Check)	4812		3587		6747		5167		5833	10	5245		5384	9
5213	Vandana (Positive Check)	1543		2032		2509		2270		3606		2422		2807	
5214	31986	3688		3566		7781	6*	5674	8	5850	9	5221		4752	
5215	31968	4326		3810	8	6515		5162		4800		4862		4815	
5216	31097	3847		3788	10	5353		4570		4467		4364		4657	
5217	31973	3719		4720	1*	5529		5124		6274	5	5060		4798	
5218	31106	3515		3492		6026		4759		5856	8	4722		4808	
5219	29560	4813		4000	3	7468	8	5734	6*	4900		5295		4876	
5220	31115	2909		2889		4567		3728		5000		3841		3827	
5221	DRR Dhan 60 (Positive Check)	5328	10	3175				3175		5056		4520		5283	
5222	31982	2070		3757		4856		4306		5056		3934		3978	
5223	29546	4914		3270		6138		4704		4757		4770		5244	
5224	31969	5627	6	3651		8198	3*	5924	3*	6611	3	6022	3*	5591	5
5225	31103	5214		3704		9319	1*	6512	1*	6767	2	6251	1*	6222	1*
5226	31966	5846	4	3503		8045	4*	5774	5*	5772		5791	4*	6050	2*
5227	31108	5671	5	2995		5601		4298		4844		4778		4900	
5228	29549	5403	9	3905	5	5714		4809		6389	4	5353	10	5337	
5229	31979	4385		3365		7172	9	5269	9	5940	6	5216		5757	4*
5230	31105	5202								5568		5385	8	5062	
5231	31110	5447	8	3016		6531		4773		6873	1	5467	7	5551	7
Experimental Mean		4469		3542		6380		4908		5390		4937		5020	
CD(0.05)		810		547		978		553		1243		451		346	
CV(%)		11.1		9.45		9.37		6.89		14.12		5.59		4.22	
F val		19.07 **		6.1 **		17.42 **		21.22 **		2.95 **		24.01 **		32.95 **	
DOS		09-07-24		05-08-24		28-07-24									
DOP		08-08-24		04-09-24		26-08-24									
Local Check Name		NA		NA		NA									

Table No. 30.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – LPT (P100), Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN	
		Bihar @ Pusa	
5201	31980	3854	
5202	29558	3698	
5203	31098	3448	
5204	31102	3990	
5205	Rasi (Positive Check)	4188	6
5206	31975	4188	6
5207	31976	4427	3
5208	31107	3854	
5209	31985	3510	
5210	28070	3604	
5211	31096	3771	
5212	Swarna (Positive Check)	3583	
5213	Vandana (Positive Check)	4104	10
5214	31986	4167	8
5215	31968	3906	
5216	31097	3604	
5217	31973	3854	
5218	31106	3125	
5219	29560	4510	2
5220	31115	4198	5
5221	DRR Dhan 60 (Positive Check)	3688	
5222	31982	4073	
5223	29546	3646	
5224	31969	4156	9
5225	31103	4396	4
5226	31966	4552	1
5227	31108	3562	
5228	29549	3354	
5229	31979	3990	
5230	31105	3781	
5231	31110	3375	
Experimental Mean		3876	
CD(0.05)		200	
CV(%)		3.17	
F val		25.82 **	
DOS		03-07-24	
DOP		05-08-24	
Local Check Name		NA	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 30.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in AVT 2 & 1 – LPT (P50), Kharif 2024

Entry No	IET No	ZONE III- EASTERN		
		Bihar		
		@Pusa		
		DDF	PH	PAN
5201	31980	104	106	242
5202	29558	111	80	239
5203	31098	112	91	236
5204	31102	98	81	267
5205	Rasi (Positive Check)	82	101	240
5206	31975	109	81	249
5207	31976	96	98	250
5208	31107	98	70	255
5209	31985	112	83	266
5210	28070	106	90	237
5211	31096	97	82	254
5212	Swarna (Positive Check)	104	72	241
5213	Vandana (Positive Check)	78	84	256
5214	31986	92	81	247
5215	31968	99	93	252
5216	31097	97	90	222
5217	31973	100	99	209
5218	31106	106	90	226
5219	29560	94	76	224
5220	31115	86	71	225
5221	DRR Dhan 60 (Positive Check)	110	62	226
5222	31982	95	76	233
5223	29546	107	70	262
5224	31969	97	84	221
5225	31103	98	90	236
5226	31966	97	101	241
5227	31108	104	92	217
5228	29549	98	123	231
5229	31979	99	78	209
5230	31105	98	82	230
5231	31110	95	85	241
Experimental Mean		99	85	238

Table No. 30.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in AVT 2 & 1 – LPT (P100), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN			ZONE III- EASTERN			ZONE III- EASTERN (2)			ZONE VI- WESTERN		
		Punjab		Jharkhand	Odisha			(2)			Maharashtra		
		Ludhiana		Ranchi	NRRRI			Mean			Karjat		
		PH	PAN	DDF	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
5201	31980	120	264	106	90	138	194	98	138	194	89	131	169
5202	29558	84	306	110	95	112	233	102	112	233	96	121	150
5203	31098	113	277	112	98	130	219	105	130	219	100	135	162
5204	31102	85	293	116	89	127	249	103	127	249	94	121	168
5205	Rasi (Positive Check)	72	310	109	75	119	253	92	119	253	98	107	156
5206	31975	90	299	110	88	127	230	99	127	230	90	122	186
5207	31976	102	277	86	89	114	188	88	114	188	94	118	162
5208	31107	99	304	109	91	120	212	100	120	212	98	120	145
5209	31985	98	308	113	100	128	216	107	128	216	111	120	133
5210	28070	124	262	111	96	134	237	104	134	237	91	139	176
5211	31096	95	262	111	88	115	211	100	115	211	108	117	171
5212	Swarna (Positive Check)			110	95	122	240	103	122	240	97	122	181
5213	Vandana (Positive Check)	121	262	111	77	124	191	94	124	191	101	123	153
5214	31986	108	235	85	85	127	198	85	127	198	93	126	176
5215	31968	116	257	110	89	123	223	99	123	223	85	131	173
5216	31097	129	286	108	91	126	187	100	126	187	94	126	174
5217	31973	124	273	78	98	141	215	88	141	215	107	137	169
5218	31106	118	286	110	98	138	247	104	138	247	97	125	185
5219	29560	105	295	111	84	113	234	98	113	234	89	112	186
5220	31115	81	297	110	75	110	308	92	110	308	95	104	157
5221	DRR Dhan 60 (Positive Check)	87	304	107	98	124	242	102	124	242	88	125	167
5222	31982	85	270	112	86	109	202	99	109	202	108	115	174
5223	29546	93	304	85	100	115	178	92	115	178	97	121	170
5224	31969	113	271	110	88	131	279	99	131	279	90	125	163
5225	31103	123	306	113	95	134	246	104	134	246	102	126	154
5226	31966	101	264	112	90	125	224	101	125	224	98	120	172
5227	31108	114	282	108	99	136	249	103	136	249	104	130	178
5228	29549	126	323	110	101	150	278	106	150	278	98	147	168
5229	31979	118	297	112	99	133	218	106	133	218	84	126	157
5230	31105			112	101	124	255	107	124	255	112	123	177
5231	31110			117	99	139	278	108	139	278	98	127	175
Experimental Mean		105	284	107	91	126	230	100	126	230	96	123	167
Standard Error				0.87		0.43						0.53	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 30.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 – LPT (P100), Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN															ZONE VII- SOUTHERN (4)			Overall Mean (8)				
		Andhra Pradesh			Karnataka					Karnataka (2)			Telangana											
		Maruteru			Mandya			Gangavati			Mean			HRR			Mean							
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN		
5201	31980	88	146	326	100	110	263	99	114	335	99	112	299	109	128	381	99	124	326	97	127	276		
5202	29558	90	93	328	90	78	258	98	85	313	94	81	286	110	101	367	97	89	316	98	96	279		
5203	31098	93	142	363	90	109	304	99	116	336	95	112	320	111	128	293	98	124	324	100	125	279		
5204	31102	85	125	400	101	96	288	94	106	317	98	101	302	107	116	346	97	110	338	98	111	294		
5205	Rasi (Positive Check)	74	96	286	95	87	315	87	88	374	91	87	345	85	97	341	85	92	329	89	95	291		
5206	31975	99	141	363	94	83	243	97	97	335	96	90	289	112	108	315	101	107	314	99	110	282		
5207	31976	85	122	343	91	105	315	94	111	279	92	108	297	104	120	352	93	114	322	92	113	274		
5208	31107	86	106	396	93	90	292	92	103	299	93	96	296	102	113	323	93	103	327	96	107	282		
5209	31985	94	128	328	94	85	281	99	108	301	96	96	291	103	114	330	97	109	310	102	111	271		
5210	28070	91	152	352	96	129	290	103	126	362	100	127	326	115	141	319	101	137	331	100	135	285		
5211	31096	89	119	359	99	92	277	94	106	290	97	99	283	104	119	315	97	109	310	99	109	269		
5212	Swarna (Positive Check)	104	116	381	96	84	270	108	87	310	102	85	290	110	106	356	104	98	329	103	106	289		
5213	Vandana (Positive Check)	69	118	277	87	108	281	79	109	340	83	108	310	82	124	297	79	115	299	87	118	257		
5214	31986	80	121	345	86	88	270	88	106	316	87	97	293	104	122	323	90	109	313	89	114	266		
5215	31968	91	127	295	87	94	270	101	108	289	94	101	279	103	127	297	95	114	288	95	118	258		
5216	31097	83	144	363	92	109	281	95	99	275	94	104	278	108	133	326	95	121	311	96	124	270		
5217	31973	103	142	365	95	115	274	103	107	296	99	111	285	102	141	378	101	126	328	98	129	281		
5218	31106	90	133	385	95	111	290	89	107	335	92	109	312	102	116	363	94	117	343	97	121	299		
5219	29560	80	119	341	107	94	272	89	103	349	98	98	310	104	110	321	95	106	321	95	108	285		
5220	31115	73	114	398	95	85	274	86	85	314	90	85	294	84	100	322	84	96	327	88	97	296		
5221	DRR Dhan 60 (Positive Check)	104	127	367	93	82	283						93	82	283	108	111	363	102	107	338	100	109	288
5222	31982	80	69	271	91	81	274	94	85	340	92	83	307	101	112	326	92	87	303	96	94	265		
5223	29546	91	106	341	94	86	331	101	90	270	98	88	300	107	110	330	98	98	318	96	103	275		
5224	31969	88	133	341	92	106	288	91	105	334	91	105	311	105	117	349	94	115	328	95	119	289		
5225	31103	89	133	290	95	97	267	93	110	366	94	103	317	105	135	345	95	119	317	99	123	282		
5226	31966	89	108	381	104	78	308	96	98	270	100	88	289	109	120	301	99	101	315	100	107	274		
5227	31108	89	132	279	90	110	267	89	101	312	89	105	290	88	103	264	89	112	281	95	118	262		
5228	29549	96	146	284	93	121	311	96	117	283	94	119	297	110	149	367	98	133	311	101	137	288		
5229	31979	88	145	345	91	84	358	96	106	284	93	95	321	105	137	304	95	118	323	96	121	280		
5230	31105	85	133	361										111	125	341	98	129	351	104	126	283		
5231	31110	111	132	249	99	95	297	108	104	320	104	100	308	119	129	263	109	115	282	107	121	264		
Experimental Mean		88	124	338	94	96	286	95	103	315	95	99	300	104	119	329	96	111	318	97	115	278		
Standard Error		0.7				1.15			0.84					0.38										

Table No. 30.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 – LPT (P100), Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN		
		Bihar		
		@Pusa		
		DFF	PH	PAN
5201	31980	104	106	242
5202	29558	111	80	239
5203	31098	112	91	236
5204	31102	98	81	267
5205	Rasi (Positive Check)	82	101	240
5206	31975	109	81	249
5207	31976	96	98	250
5208	31107	98	70	255
5209	31985	112	83	266
5210	28070	106	90	237
5211	31096	97	82	254
5212	Swarna (Positive Check)	104	72	241
5213	Vandana (Positive Check)	78	84	256
5214	31986	92	81	247
5215	31968	99	93	252
5216	31097	97	90	222
5217	31973	100	99	209
5218	31106	106	90	226
5219	29560	94	76	224
5220	31115	86	71	225
5221	DRR Dhan 60 (Positive Check)	110	62	226
5222	31982	95	76	233
5223	29546	107	70	262
5224	31969	97	84	221
5225	31103	98	90	236
5226	31966	97	101	241
5227	31108	104	92	217
5228	29549	98	123	231
5229	31979	99	78	209
5230	31105	98	82	230
5231	31110	95	85	241
Experimental Mean		99	85	238

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 30.4: Grain quality characteristics of entries in AVT 2 & 1 – LPT, Kharif 2024

Code	Entry No.	Designation / IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1903	5201	30980	80.2	71.2	67.8	4.96	2.00	2.40	SB	A	4.0	26.82	23
1904	5202	29558	79.2	69.8	68.1	5.69	2.03	2.80	MS	A	7.0	24.31	22
1905	5203	31098	77.4	65.7	35.6	5.17	2.38	2.17	SB	OC	4.0	26.45	45
1906	5204	31102	77.3	67.9	59.3	6.82	1.82	3.74	LS	VOC	4.0	24.40	22
1907	5205	RASI (Positive Check)	80.3	68.2	56.4	4.93	2.28	2.16	SB	VOC	7.0	25.84	30
1908	5206	31975	82.3	74.0	52.8	5.40	2.45	2.20	SB	VOC	4.0	24.17	22
1909	5207	31976	79.6	68.9	57.4	6.25	2.14	2.92	LB	VOC	7.0	23.78	22
1910	5208	31107	79.2	70.0	58.3	5.42	2.06	2.63	MS	VOC	4.0	22.82	47
1911	5209	31985	78.3	68.3	41.8	4.89	1.79	2.73	MS	VOC	4.0	22.44	43
1912	5210	28070	77.6	67.5	58.6	5.03	2.03	2.47	SB	VOC	4.0	22.00	22
1913	5211	31096	78.8	72.3	69.7	6.73	2.16	3.11	LS	VOC	4.0	26.13	35
1914	5212	SWARNA (Positive Check)	80.4	70.2	56.0	4.81	2.16	2.22	SB	VOC	4.0	24.61	22
1915	5213	VANDANA (Positive Check)	75.3	63.4	56.0	5.14	1.87	2.74	MS	VOC	4.0	27.12	48
1916	5214	31986	79.5	67.1	55.8	4.74	1.51	3.13	SS	A	7.0	25.98	22
1917	5215	31968	78.6	71.8	67.8	5.29	2.00	2.64	MS	VOC	4.0	26.01	27
1918	5216	31097	78.2	72.4	67.7	5.56	2.08	2.67	MS	VOC	7.0	25.66	22
1919	5217	31973	77.4	69.7	67.6	5.50	2.05	2.68	MS	F	4.0	16.83	72
1920	5218	31106	79.6	66.7	64.1	4.90	1.66	2.95	MS	A	4.0	26.86	38
1921	5219	29560	79.1	65.7	57.0	6.02	1.93	3.11	LS	VOC	4.0	21.03	68
1922	5220	31115	79.2	67.8	36.9	4.85	2.22	2.18	SB	VOC	7.0	26.34	31
1923	5221	DRR Dhan-60 (Positive Check)	77.1	66.7	57.0	4.77	1.83	2.60	MS	A	4.0	22.38	22
1924	5222	31982	80.0	69.7	47.5	4.75	2.18	2.17	SB	A	7.0	25.90	23
1925	5223	29546	78.2	69.3	67.0	6.02	2.07	2.90	LB	VOC	7.0	23.55	22
1926	5224	31969	78.9	67.0	47.4	5.27	2.14	2.46	SB	VOC	4.0	24.58	43
1927	5225	31103	80.2	68.4	41.5	5.10	2.37	2.15	SB	OC	4.0	27.83	23
1928	5226	31966	80.0	71.6	63.0	6.34	2.35	2.69	LB	VOC	4.0	27.66	40
1929	5227	31108	76.9	68.9	65.8	5.15	2.02	2.54	MS	VOC	4.0	22.38	22
1930	5228	29549	77.7	66.8	52.8	4.72	1.61	2.93	MS	A	4.0	21.61	22
1931	5229	31979	79.2	67.0	40.4	5.01	2.46	2.03	SB	VOC	4.0	26.63	22
1932	5230	31105	81.7	70.6	67.8	5.35	1.98	2.70	MS	VOC	4.0	27.19	22
1933	5231	31110	80.1	73.7	71.8	5.59	2.13	2.62	MS	A	4.0	22.99	49
HULL: Hulling(%) MILL:Milling(%) HRR:Head Rice Recovery KL:Kernal length (mm) KB:Kernal Breadth(mm) L/B : Length and Breadth(mm) KLAC:Kernal length after cooking WU:Water uptake ER:Elongation ratio AC:Amylose content (%)ASV:Alkali Spreading Value AC: Amylose Content GC: Gel consistency													

INITIAL VARIETY TRIAL-LOW PHOSPHORUS TOLERANCE (IVT-LPT)

Locations: 10

Test Entries: 21

Checks: Positive–Swarna,Rasi and Vandana (Early check), DRR Dhan 60 Table:31

IVT-Low Phosphorus Tolerance trial was constituted with 21 test entries, four positive checks viz., Swarna, Rasi and Vandana (Early check) and DRR Dhan 60 (Observational check). The trial was conducted at two levels of Phosphorus P 50% (50% of recommended Phosphorus) and P 100% (100% of recommended Phosphorus). In both the levels, Nitrogen and Potash are applied as per recommended doses. The trial was sent to 10 locations but the data was not received from one locations viz., Vadagaon. The data from PUSA was not accepted for analysis due to non-significance of F value. Therefore, the data from remaining 8 locations at P 50% and P 100% was accepted for analysis. The entry qualifies for promotion if it is found significantly superior (by considering CD value) than the best check at P 50% either at zone level or overall mean. The data pertaining to yield, days to 50% flowering, plant height and panicles/m² are presented in tables 31.1 to 31.3.

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 90-100 days are compared with Rasi and the entries with more than 100 days to 50% flowering are compared with Swarna. Zone wise and overall promotion of entries at P 50 % is mentioned in Table. In Zone 2, DFF was not provided, hence the yield data of test entries are compared with best check Swarna.

Performance of entries in different zones and overall along with DFF

Entry no	IET no	Zone 2	Zone 3		Zone 6		Zone 7		Overall	
		Yield (kg/ha)	Yield (kg/ha)	DFF	Yield (kg/ha)	DFF	Yield (kg/ha)	DFF	Yield (kg/ha)	DFF
5402	32852	5583	2854	97	8976	85	5234	99	5138	96
5403	32853	7792	3096	100	6857	94	5624	93	5417	95
5404	32854	2458	3135	98	3778	93	4731	95	3929	95
5405	32855	2625	3046	94	6429	87	3513	97	3669	94
5406	32856	4354	3875	106	9079	93	4000	102	4648	102
5408	32858	5438	4137	104	9468	91	5414	102	5604	101
5409	32859	3917	3617	92	5651	85	4558	92	4379	91
5410	32860	5417	3594	107	8865	97	4492	104	4930	104
5411	32861	4104	3892	104	8175	90	4999	98	5008	98
5412	32862	6271	3469	107	8230	94	4097	104	4819	103
5413	32863	7354	3572	104	4810	93	4501	99	4664	100
5415	32865	6583	2651	95	7222	94	4648	98	4713	96
5417	32867	5229	2278	107	7286	98	4916	101	4592	102
5420	32870	3042	2883	109	6825	99	4379	106	4144	106
5422	DRR DHAN-60	5000	4107	106	7270	98	4467	107	4794	105
5423	SWARNA	5917	3200	109	8032	101	5215	104	5151	105
5424	RASI	3417	2641	84	4595	86	3927	84	3625	84
5425	VANDANA	3729	2749	84	2881	79	3852	84	3439	84
CD(0.05)		850	379		1523		386		308	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Note: the entries in 'bold' are only promoted

Promotion of entries from IVT to AVT 1

On overall basis: IETs 32858, 32859, 32861 and 32865

Zone 2: IETs 32853 and 32863

Zone 3: IETs 32854, 32855 and 32859

Zone 6: IETs 32852, 32853, 32855, 32856, 32858, 32860, 32861, 32862, 32865, 32867, 32870

Zone 7: IETs 32852, 32853, 32854, 32859, 32861, 32863, 32865

Annual Progress Report 2024 Vol. I – Varietal Improvement

Trial No.31.1: Composition of entries in Initial Varietal Trial– Low Phosphorous Tolerance Trial (IVT -LPT) Kharif 2024

Entry No.	IET No.	Designation	Cross Combination	Grain type
5401	32851	HURS 24-5	BPT 5204/HUBR-10-9	MS
5402	32852	HURS 24-6	RP Bio 226/IR 8484-2-131-1-2-1-1-3	LS
5403	32853	RK/733-5	KMR3/NH733	SB
5404	32854	RCPL-1-456	IR 64/Megha SA 2	MS
5405	32855	RCPL-1-458	IR 64/Shahsarang	LS
5406	32856	CR3506-1-2-3-1-1-1	IR 36/Tapaswini	MS
5407	32857	CR 4360-2-1-1-3-1-1	CR 3561-14-1-1-1-1/CR 3546-6-3-1-2-1-1	LS
5408	32858	CR 6330 -1-1-2-3-1	CR 3504-24-2-1-1-1-1/Tapaswini	MS
5409	32859	CR 4474-7-5-4-3-1	Kasalath x CR dhan 203	LS
5410	32860	CR 4396-3-16--1-2	CR Dhan-318 x CR Dhan 801	LS
5411	32861	CR 4383-RGA-70	C745-3-1-1-1-1/ IET27218 // Annada	MS
5412	32862	CR 4469-RGA-120	CR 4384-RGA-20 x CR 4389-RGA-12	LS
5413	32863	CR 6321-RGA-32	Naveen x CR Dhan 801	MS
5414	32864	RP6458-db-C1-99-12	Swarna/166S-Swarna/O.nivana	
5415	32865	RP6252-VB/RIL-VB150	Varadhan/BPT5204	MB
5416	32866	MSAC-16-141	Rasi x IR 64	MS
5417	32867	MSAC-F5-65-20	Gangavati sona x ISM	MS
5418	32868	MSAC-KA-35	BPT 5204 *3 / Oryza rufipogon	MS
5419	32869	VPSY-24	Swarne/RIL(Ism/WPK)	SB
5420	32870	VPSY-22	Swarne/RIL(Ism/WPK)	SB
5421	32871	NLR 4022	NLR 33057/NLR 28600	MB
5422		DRR DHAN-60 (Positive Check)		
5423		SWARNA (Positive Check)		SB
5424		RASI (Positive Check)		SB
5425		VANDANA (Positive Check)		SB

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 31.2: Grain Yield (kg/ha) in IVT - LPT (P50), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN		ZONE III- EASTERN			ZONE III- EASTERN (2)		ZONE VI- WESTERN		
		Punjab		Jharkhand		Odisha	Mean		Maharashtra		
		Ludhiana		Ranchi		NRI			Karjat		
5401	32851	5312	9	2911		2775		2843		5516	
5402	32852	5583	6	2744		2963		2854		8976	3
5403	32853	7792	1*	2433		3759	9	3096		6857	
5404	32854	2458		4111	4	2159		3135		3778	
5405	32855	2625		3144		2948		3046		6429	
5406	32856	4354		3233	10	4517	2	3875	6	9079	2
5407	32857	5292	10	4844	3*	3657	10	4251	1	6079	
5408	32858	5438	7	4911	2*	3362		4137	2	9468	1
5409	32859	3917		5078	1*	2156		3617	8	5651	
5410	32860	5417	8	3144		4043	6	3594	9	8865	4
5411	32861	4104		3556	9	4229	4	3892	5	8175	6
5412	32862	6271	4	3144		3793	8	3469		8230	5
5413	32863	7354	2*	3711	7	3433		3572	10	4810	
5414	32864	5271		2511		3862	7	3187		5302	
5415	32865	6583	3	2178		3124		2651		7222	10
5416	32866	5250		2589		5548	1*	4068	4	5754	
5417	32867	5229		2422		2133		2278		7286	8
5418	32868	3583		3956	6	3002		3479		5429	
5419	32869	4688		4111	4	3218		3665	7	4810	
5420	32870	3042		2422		3343		2883		6825	
5421	32871	2542				2645		2645		4984	
5422	DRR Dhan-60 (Positive Check)	5000		3711	7	4502	3	4107	3	7270	9
5423	Swarna (Positive Check)	5917	5	2178		4223	5	3200		8032	7
5424	Rasi (Positive Check)	3417		1933		3349		2641		4595	
5425	Vandana (Positive Check)	3729		2422		3075		2749		2881	
Experimental Mean		4807		3225		3433		3317		6492	
CD(0.05)		850		543		622		379		1523	
CV(%)		10.77		10.24		11.04		6.96		14.29	
F val		22.87 **		23.03 **		13.77 **		17.24 **		10.81 **	
DOS		02-07-24		01-07-24		26-06-24				26-06-24	
DOP		03-08-24		26-08-24		24-07-24				25-07-24	
Local Check Name						Swarna Rasi,Vandana					

Table No. 31.2 (Contd.): Grain Yield (kg/ha) in IVT - LPT (P50), Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN						ZONE VII- SOUTHERN (4)		Overall Mean (8)					
		Andhra Pradesh		Karnataka		Karnataka (2)		Telangana							
		Maruturu		Mandya		Mean		IIRR							
5401	32851	4199		1481		3085		2283	3839	3151	3640				
5402	32852			4487	3	6114	5*	5301	4*	5100	4	5138	4		
5403	32853	4964		4942	1*	6026	6*	5484	2*	6567	1*	5624	1*	5417	2
5404	32854	5018		4148	4	3990		4069		5767	2	4731		3929	
5405	32855			3524		2516		3020		4500	8	3513		3669	
5406	32856	4068		3153		4679		3916		4100		4000		4648	
5407	32857	6662	5	3926	7	5160		4543	9	4222		4993	7	4980	7
5408	32858	6236	8	2899		7621	2*	5260	5*	4900	5	5414	3	5604	1*
5409	32859	3085		3873	9	7019	3*	5446	3*	4256		4558		4379	
5410	32860	6403	6	3810		3718		3764		4039		4492		4930	8
5411	32861	6789	4	3228		5698	7*	4463		4283	10	4999	6	5008	6
5412	32862			3894	8	4031		3963		4367	9	4097		4819	9
5413	32863	6281	7	3608		3494		3551		4620	7	4501		4664	
5414	32864	6079	9	3228		6506	4*	4867	6*	4133		4987	8	4612	
5415	32865	4806		3873	9	5281	10*	4577	7	4633	6	4648		4713	
5416	32866			4698	2*	8037	1*	6368	1*	3900		5545	2	5111	5
5417	32867	6866	3	3418		5657	8*	4538	10	3722		4916	9	4592	
5418	32868	4077		3714		4872		4293		4044		4177		4085	
5419	32869	4187		3471		3470		3470		3067		3549		3878	
5420	32870	7056	2	1810		4551		3180		4100		4379		4144	
5421	32871	6060	10	3704		5385	9*	4544	8	4251		4850	10	4224	
5422	DRR Dhan-60 (Positive Check)	5690		3534		4544		4039		4100		4467		4794	10
5423	Swarna (Positive Check)	7163	1	4063	5	4423		4243		5211	3	5215	5	5151	3
5424	Rasi (Positive Check)	3456		4042	6	4167		4104		4044		3927		3625	
5425	Vandana (Positive Check)	5659		2063		3518		2791		4167		3852		3439	
Experimental Mean		5467		3544		4943		4243		4397		4553		4528	
CD(0.05)		673		516		713		460		979		386		308	
CV(%)		7.46		8.87		8.79		6.6		13.56		5.16		4.15	
F val		28.14 **		20.13 **		31.53 **		32.89 **		4.13 **		23.21 **		30.62 **	
DOS		09-07-24		05-08-24		28-07-24									
DOP		08-08-24		04-09-24		26-08-24									
Local Check Name															

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 31.2 (Contd.): Grain Yield (kg/ha) in IVT - LPT (P50), Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN	
		Bihar	
		@ Pusa	
5401	32851	4250	7
5402	32852	4893	1
5403	32853	4357	5
5404	32854	4696	2
5405	32855	4607	3
5406	32856	4196	10
5407	32857	4286	6
5408	32858	3821	
5409	32859	4214	8
5410	32860	3929	
5411	32861	4000	
5412	32862	3750	
5413	32863	3786	
5414	32864	4036	
5415	32865	3714	
5416	32866	3946	
5417	32867	4214	8
5418	32868	4411	4
5419	32869	3982	
5420	32870	3964	
5421	32871	3696	
5422	DRR Dhan-60 (Positive Check)	4054	
5423	Swarna (Positive Check)	4196	
5424	Rasi (Positive Check)	3893	
5425	Vandana (Positive Check)	3893	
Experimental Mean		4111	
CD(0.05)		499	
CV(%)		7.4	
F val		1.38ns	
DOS		01-07-24	
DOP		31-07-24	
Local Check Name		NA	

Table No. 31.2 (Contd.): Grain Yield (kg/ha) in IVT - LPT (P100), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN		ZONE III- EASTERN			ZONE III- EASTERN (2)		ZONE VI- WESTERN		
		Punjab		Jharkhand		Odisha	Mean	Maharashtra			
		Ludhiana		Ranchi		Cuttack		Karjat			
5401	32851	6583	10	3067		3498		3282		5968	
5402	32852	7104	6	4800	8	4096	8	4448	9	9349	5*
5403	32853	8521	2*	6400	1*	3791		5095	1	7730	
5404	32854	3146		5733	2*	2046		3889		3865	
5405	32855	3312		4533		3398		3966		5437	
5406	32856	5354		4800	8	4111	7	4456	8	8302	10
5407	32857	6667	8	5000	7	3590		4295		8516	7
5408	32858	6562		5200	5	3944		4572	7	9659	3*
5409	32859	4833		5400	3	2323		3862		5556	
5410	32860	6667	8	5200	5	4190	6	4695	4	8476	8
5411	32861	5083		4133		4630	4	4382	10	9794	2*
5412	32862	7562	4	4267		4048	9	4157		9389	4*
5413	32863	9208	1*	3867		3967		3917		9992	1*
5414	32864	6833	7	2933		4939	3	3936		7960	
5415	32865	8146	3	4000		3715		3858		6587	
5416	32866	6479		4000		5985	1*	4993	2	6143	
5417	32867	5979		3000		2505		2752		6833	
5418	32868	4521		4200		3221		3711		8317	9
5419	32869	5771		5267	4	4027	10	4647	5	3246	
5420	32870	3771		3600		3800		3700		8698	6
5421	32871	2812				2499		2499		6476	
5422	DRR Dhan-60 (Positive Check)	6333		4533		4958	2	4746	3	7675	
5423	Swarna (Positive Check)	7396	5	4667	10	4490	5	4578	6	6881	
5424	Rasi (Positive Check)	4229		3467		3909		3688		6429	
5425	Vandana (Positive Check)	4208		2600		3731		3166		6119	
Experimental Mean		5883		4361		3817		4052		7336	
CD(0.05)		1114		781		462		481		1212	
CV(%)		11.53		10.9		7.38		7.23		10.06	
F val		19.23 **		12.09 **		28.94 **		14.95 **		17.62 **	
DOS		02-07-24		01-07-24		26-06-24		26-06-24		26-06-24	
DOP		03-08-24		26-08-24		24-07-24		24-07-24		25-07-24	
Local Check Name		NA		NA		Swarna Rasi ,Vandana				NA	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 31.2 (Contd.): Grain Yield (kg/ha) in IVT - LPT (P100), Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN										Overall Mean (8)	
		Andhra Pradesh	Karnataka			Karnataka (2)	Telangana	ZONE VII-SOUTHERN (4)					
		Maruteru	Gangavati	Mandya	Mean	IIRR	Mean						
5401	32851												
5402	32852												
5403	32853												
5404	32854												
5405	32855												
5406	32856												
5407	32857												
5408	32858												
5409	32859												
5410	32860												
5411	32861												
5412	32862												
5413	32863												
5414	32864												
5415	32865												
5416	32866												
5417	32867												
5418	32868												
5419	32869												
5420	32870												
5421	32871												
5422	DRR Dhan-60 (Positive Check)												
5423	Swarna (Positive Check)												
5424	Rasi (Positive Check)												
5425	Vandana (Positive Check)												
Experimental Mean		5374	5450	2894	4172	5128	4691	5030					
CD(0.05)		921	782	457	499	1073	442	338					
CV(%)		10.38	8.75	9.62	7.29	12.74	5.74	4.09					
F val		17.69 **	28.77 **	21.57 **	28.78 **	5.41 **	19.77 **	35.65 **					
DOS		09-07-24	28-07-24	05-08-24									
DOP		08-08-24	26-08-24	04-09-24									
Local Check Name		NA	NA	NA									

Table No. 31.2 (Contd.): Grain Yield (kg/ha) in IVT - LPT (P100), Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN	
		Bihar	
		@ Pusa	
5401	32851	4357	
5402	32852	5000	1
5403	32853	4554	6
5404	32854	4929	2
5405	32855	4857	3
5406	32856	4500	
5407	32857	4571	5
5408	32858	4071	
5409	32859	4536	7
5410	32860	4196	
5411	32861	4518	10
5412	32862	4143	
5413	32863	4250	
5414	32864	4482	
5415	32865	4018	
5416	32866	4214	
5417	32867	4536	7
5418	32868	4750	4
5419	32869	4339	
5420	32870	4464	
5421	32871	4214	
5422	DRR Dhan-60 (Positive Check)	4411	
5423	Swarna (Positive Check)	4536	7
5424	Rasi (Positive Check)	4250	
5425	Vandana (Positive Check)	4339	
Experimental Mean		4441	
CD(0.05)		422	
CV(%)		5.79	
F val		1.31ns	
DOS		01-07-24	
DOP		31-07-24	
Local Check Name		NA	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 31.3: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT - LPT (P50), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN			ZONE III- EASTERN			ZONE III- EASTERN (2)			ZONE VI- WESTERN		
		Punjab		Jharkhand	Odisha		Mean			Maharashtra			
		Ludhiana		Ranchi	NRRRI		Mean			Karjat			
		PH	PAN	DFE	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
5401	32851	105	264	113	101	126	218	107	126	218	101	131	174
5402	32852	107	264	105	88	118	218	97	118	218	85	118	185
5403	32853	125	257	111	90	138	271	100	138	271	94	147	170
5404	32854	117	244	107	89	140	143	98	140	143	93	148	183
5405	32855	109	266	104	83	125	215	94	125	215	87	125	171
5406	32856	95	284	115	98	119	277	106	119	277	93	122	180
5407	32857	118	275	112	98	140	276	105	140	276	99	151	161
5408	32858	108	295	111	96	139	273	104	139	273	91	142	186
5409	32859	114	242	98	85	123	217	92	123	217	85	132	181
5410	32860	95	253	115	99	127	283	107	127	283	97	126	167
5411	32861	82	246	113	95	101	230	104	101	230	90	118	185
5412	32862	98	264	113	100	132	294	107	132	294	94	136	180
5413	32863	96	255	111	98	132	245	104	132	245	93	127	172
5414	32864	94	242	116	95	121	150	105	121	150	91	121	184
5415	32865	105	257	102	87	121	185	95	121	185	94	126	179
5416	32866	95	253	112	102	130	307	107	130	307	99	142	181
5417	32867	96	266	114	100	128	131	107	128	131	98	124	161
5418	32868	84	286	114	94	97	272	104	97	272	97	117	162
5419	32869	74	295	111	102	135	249	106	135	249	111	143	181
5420	32870	109	297	115	104	125	194	109	125	194	99	143	163
5421	32871	91	242	106	102	155	179	104	155	179	102	125	164
5422	DRR Dhan-60 (Positive Check)	84	266	112	99	121	249	106	121	249	98	119	183
5423	Swarna (Positive Check)	85	233	116	102	123	249	109	123	249	101	118	165
5424	Rasi (Positive Check)	87	271	95	74	124	249	84	124	249	86	110	183
5425	Vandana (Positive Check)	86	279	96	72	110	273	84	110	273	79	120	166
Experimental Mean		98	263	109	94	126	233	102	126	234	94	129	174
Standard Error				0.6		0.6						1.11	

Table No. 31.3 (contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT - LPT (P50), Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN															Overall Mean (8)						
		Andhra Pradesh		Karnataka					Karnataka (2)			Telangana			ZONE VII- SOUTHERN (4)								
		Maruteru		Mandya			Gangavati		Mean			IHR			Mean								
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN		DFE	PH	PAN	DFE	PH	PAN
5401	32851	102	122	292	96	91	286	107	93	284	102	92	285	116	100	323	105	101	296	105	110	263	
5402	32852				97	88	301	93	98	296	95	93	299	107	99	301	99	95	299	96	105	261	
5403	32853	81	149	437	96	121	342	92	121	342	94	121	342	101	138	334	93	132	364	95	134	308	
5404	32854	87	127	426	90	109	290	97	109	262	93	109	276	106	128	286	95	118	316	95	125	262	
5405	32855				92	101	288	93	106	289	92	104	288	106	97	279	97	101	285	94	111	251	
5406	32856	96	128	429	89	92	299	105	99	297	97	95	298	117	107	271	102	106	324	102	109	291	
5407	32857	106	136	462	102	111	284	100	117	272	101	114	278	117	136	249	106	125	317	105	130	283	
5408	32858	104	128	399	90	98	301	99	107	313	95	103	307	116	108	301	102	110	328	101	119	295	
5409	32859	81	134	407	94	109	301	91	117	316	92	113	308	104	124	367	92	121	348	91	122	290	
5410	32860	89	132	399	101	92	279	105	86	279	103	89	279	120	86	389	104	99	336	104	106	292	
5411	32861	91	112	234	94	85	315	101	92	308	98	88	311	106	96	337	98	96	298	98	98	265	
5412	32862				92	93	279	103	97	257	98	95	268	116	107	257	104	99	264	103	110	255	
5413	32863	89	125	308	101	95	313	99	101	281	100	98	297	107	110	261	99	108	291	100	112	262	
5414	32864	89	108	429	89	90	356	103	103	314	96	96	335	117	100	326	100	100	356	100	105	286	
5415	32865	91	126	407	103	96	272	96	99	295	100	97	284	101	100	279	98	105	313	96	110	268	
5416	32866				89	105	313	97	110	316	93	107	314	117	109	345	101	108	325	102	115	286	
5417	32867	94	135	302	90	88	267	104	106	270	97	97	268	117	99	304	101	107	286	102	111	243	
5418	32868	94	108	396	94	77	283	95	87	303	94	82	293	121	96	407	101	92	347	101	95	301	
5419	32869	104	118	396	98	107	288	108	110	284	103	109	286	117	104	279	106	110	312	107	113	282	
5420	32870	103	133	286	97	97	269	112	106	305	104	101	287	113	132	359	106	117	305	106	121	268	
5421	32871		142	352	96	106	334	114	103	280	105	104	307	121	133	242	110	121	302	107	122	256	
5422	DRR Dhan-60 (Positive Check)	102	115	360	101	75	277	105	88	307	103	81	292	118	109	297	107	97	310	105	101	277	
5423	Swarna (Positive Check)	110	116	308	89	77	363	112	81	294	100	79	328	103	94	330	104	92	324	105	99	277	
5424	Rasi (Positive Check)	75	87	264	90	89	385	84	86	311	87	87	348	88	94	257	84	89	304	84	97	274	
5425	Vandana (Positive Check)	79	107	242	101	92	324	79	106	281	90	99	302	79	119	323	84	106	292	84	106	270	
Experimental Mean		93	123	358	94	95	304	99	101	294	97	98	299	110	109	308	100	106	314	100	111	275	
Standard Error			0.75		0.64		0.89						0.93										

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 31.3 (contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT - LPT (P50), Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN		
		Bihar		
		@Pusa		
		DFE	PH	PAN
5401	32851	97	103	232
5402	32852	86	97	224
5403	32853	95	107	214
5404	32854	98	114	196
5405	32855	85	101	242
5406	32856	100	93	208
5407	32857	96	102	211
5408	32858	100	98	211
5409	32859	87	99	212
5410	32860	102	96	218
5411	32861	100	94	227
5412	32862	100	100	221
5413	32863	100	98	216
5414	32864	98	101	215
5415	32865	96	98	234
5416	32866	103	106	226
5417	32867	100	99	214
5418	32868	96	85	213
5419	32869	100	102	227
5420	32870	100	101	218
5421	32871	104	104	192
5422	DRR Dhan-60 (Positive Check)	94	94	230
5423	Swarna (Positive Check)	94	89	220
5424	Rasi (Positive Check)	86	90	217
5425	Vandana (Positive Check)	88	96	203
Experimental Mean		96	98	217

Table No. 31.3 (contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT - LPT (P100), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN		ZONE III- EASTERN				ZONE III- EASTERN (2)			ZONE VI- WESTERN		
		Punjab		Jharkhand		Odisha		Mean			Maharashtra		
		Ludhiana		Ranchi		Cuttack					Karjat		
		PH	PAN	DFE	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
5401	32851	105	292	114	100	125	222	107	125	222	106	133	162
5402	32852	108	277	106	88	116	242	97	116	242	94	124	154
5403	32853	127	279	112	89	136	295	100	136	295	100	150	161
5404	32854	118	288	108	89	143	136	98	143	136	92	151	157
5405	32855	110	286	105	83	143	266	94	143	266	87	133	150
5406	32856	96	299	116	99	119	272	107	119	272	81	121	139
5407	32857	128	277	113	98	152	233	106	152	233	96	150	130
5408	32858	113	304	112	97	137	282	105	137	282	111	143	165
5409	32859	121	308	99	85	125	171	92	125	171	108	134	169
5410	32860	102	266	116	98	127	257	107	127	257	99	128	149
5411	32861	92	290	114	95	111	256	104	111	256	117	123	163
5412	32862	104	269	114	100	130	285	107	130	285	109	134	145
5413	32863	105	260	112	98	133	276	105	133	276	111	127	145
5414	32864	91	284	117	94	122	185	106	122	185	109	119	158
5415	32865	110	306	103	87	122	184	95	122	184	99	126	141
5416	32866	109	286	113	102	132	319	108	132	319	86	138	146
5417	32867	98	273	115	100	127	150	107	127	150	96	128	145
5418	32868	96	306	115	94	97	257	104	97	257	115	112	134
5419	32869	109	308	112	101	135	270	106	135	270	89	143	148
5420	32870	112	306	116	103	126	209	110	126	209	101	140	127
5421	32871	129	279	107	102	155	151	104	155	151	89	134	157
5422	DRR Dhan-60 (Positive Check)	95	271	113	99	120	301	106	120	301	84	122	165
5423	Swarna (Positive Check)	89	264	117	102	122	275	110	122	275	93	118	143
5424	Rasi (Positive Check)	116	286	96	75	125	204	85	125	204	97	110	149
5425	Vandana (Positive Check)	87	293	97	72	108	275	85	108	275	97	122	151
Experimental Mean		106	286	110	94	127	238	102	128	239	98	130	150
Standard Error				0.6		0.54						0.81	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 31.3 (contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT - LPT (P100), Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN															ZONE VII- SOUTHERN (4)			Overall Mean (8)			
		Andhra Pradesh			Karnataka					Karnataka (2)			Telangana			DFP	PH	PAN	DFP	PH	PAN		
		Maruteru			Gangavati			Mandya		Mean		IIRR			Mean								
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH							PAN	
5401	32851	100	124	398	109	99	327	98	89	317	104	94	322	115	120	345	106	108	347	106	113	295	
5402	32852				93	98	305	96	80	301	94	89	303	105	129	370	98	102	326	97	109	275	
5403	32853	80	144	460	90	123	299	96	115	374	93	119	336	101	147	407	92	132	385	95	135	325	
5404	32854	85	130	268	97	108	284	90	105	358	94	106	321	103	140	381	94	121	323	95	128	268	
5405	32855				94	103	338	92	89	286	93	96	312	104	124	337	97	105	320	94	117	277	
5406	32856	91	127	392	105	96	299	89	88	333	97	92	316	114	108	334	100	105	339	99	108	295	
5407	32857	104	133	363	100	117	287	102	110	306	101	113	296	115	114	315	105	119	318	104	129	273	
5408	32858	100	127	497	98	108	357	90	95	322	94	101	339	114	119	315	101	112	373	103	120	320	
5409	32859	80	133	462	90	117	260	90	100	332	90	109	296	102	140	411	90	123	366	93	124	302	
5410	32860	87	135	462	102	92	304	100	85	310	101	89	307	117	98	275	101	102	338	103	110	289	
5411	32861	91	112	365	100	89	321	92	80	331	96	84	326	105	103	378	97	96	349	102	101	301	
5412	32862				105	101	323	94	86	281	99	93	302	116	119	345	105	102	316	106	112	275	
5413	32863	89	127	394	95	101	327	101	87	299	98	94	313	104	124	379	97	110	350	101	115	297	
5414	32864	84	117	466	102	106	332	89	83	286	96	94	309	113	114	337	97	105	355	101	107	293	
5415	32865	86	126	299	94	98	329	103	89	317	98	94	323	100	129	378	96	111	331	96	114	279	
5416	32866				98	109	322	89	95	290	94	102	306	113	126	389	100	110	333	100	118	292	
5417	32867	90	135	308	102	104	295	91	84	313	96	94	304	116	120	352	100	111	317	101	114	262	
5418	32868	89	112	458	99	88	313	96	76	297	98	82	305	118	107	337	101	96	351	104	98	300	
5419	32869	104	113	396	111	111	285	101	106	281	106	109	283	113	135	337	107	116	325	104	122	289	
5420	32870	106	133	326	113	106	296	97	98	340	105	102	318	111	140	334	107	119	324	107	122	277	
5421	32871		139	330	116	108	285	96	109	298	106	108	292	118	140	323	110	124	309	105	130	260	
5422	DRR Dhan-60 (Positive Check)	102	116	365	108	87	308	101	76	305	104	81	306	111	112	323	106	98	325	103	104	291	
5423	Swarna (Positive Check)	109	120	330	112	82	307	91	73	338	102	77	322	100	109	359	103	96	334	104	102	288	
5424	Rasi (Positive Check)	74	354	268	88	83	292	90	82	340	89	82	316	86	99	348	84	154	312	86	138	270	
5425	Vandana (Positive Check)	75	108	264	79	103	315	101	93	335	90	98	325	78	126	308	83	107	306	86	107	277	
Experimental Mean		91	136	374	100	101	308	95	90	315	98	96	312	107	121	348	99	111	335	100	116	287	
Standard Error		1.29			0.94			0.83						0.69									

Table No. 31.3 (contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT - LPT (P100), Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN		
		Bihar		
		@Pusa		
		DFP	PH	PAN
5401	32851	100	109	242
5402	32852	88	100	234
5403	32853	93	117	223
5404	32854	94	128	196
5405	32855	83	104	246
5406	32856	102	96	216
5407	32857	104	104	222
5408	32858	106	100	221
5409	32859	82	104	222
5410	32860	105	99	228
5411	32861	98	94	232
5412	32862	108	110	224
5413	32863	102	100	229
5414	32864	98	104	235
5415	32865	94	99	226
5416	32866	104	113	236
5417	32867	105	104	222
5418	32868	98	82	218
5419	32869	106	112	239
5420	32870	100	114	232
5421	32871	107	114	204
5422	DRR Dhan-60 (Positive Check)	100	94	256
5423	Swarna (Positive Check)	98	89	238
5424	Rasi (Positive Check)	82	90	227
5425	Vandana (Positive Check)	81	97	206
Experimental Mean		97	103	226

**ADVANCE VARIETAL TRIAL 2 & 1 – LOW NITROGEN
TOLERANCE (AVT 2 & 1 LNT)**

Locations: 10

Test Entries: 23

**Checks: Positive – Swarna, Varadhan, Rasi (Early)
Sensitive - Improved Samba Mahsuri**

Table: 32

AVT 2&1 Low Nitrogen Tolerance trial (AVT 2&1 LNT) was constituted with 23 test entries, three positive checks *Viz.*, Swarna, Varadhan and Rasi (early) and one Sensitive check (Improved Samba Mahsuri). Among 23 test entries, 14 entries were in 3rd year of testing (IETs 31120, 31118, 31135, 31128, 31119, 30269, 31117, 31131, 31134, 29579, 29581 (R), 30273 (R), 28084 (R), 29578 (R) and 9 entries *viz.*, IETs 31989, 31998, 31990, 31993, 31994, 32005, 32003, 32009, 32010 were in second year of testing. The trial was conducted at two levels of Nitrogen N 50 (50% of Recommended Nitrogen), N 100 (100% of recommended Nitrogen). In both the levels, Phosphorus and Potash are applied as per recommended doses. The trial was sent to 10 locations but the data was not received from 1 location (Vadagaon). Among 9 locations from which data received, under N 50%, the data from Ranchi was not considered due to low experimental mean (2385 kg/ha). Therefore under N 50%, data from 8 locations *viz.*, Ludhiana, Pusa, ICAR-NRRI, Karjat, Maruteru, Mandya, IIRR and Gangavati was considered for analysis.

Under N 100%, the data was received from 9 locations but data from two locations *viz.*, Ranchi (low experimental yield = 3563kg/ha) and Mandya (low experimental yield = 2847 kg/ha) was not considered for analysis. Therefore under N 100% data from 7 locations *viz.*, Ludhiana, Pusa, ICAR-NRRI, Karjat, Maruteru, IIRR and Gangavati was considered for analysis. The entry found to be superior to best check if it is significantly superior (By considering CD value) over the best check at N50% at zonal level or overall mean. The entries are compared with respective checks based on days to 50% flowering in that particular zone. Performance of entries in different zones and overall is mentioned below

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of promising entries in AVT 2&1 LNT trial at 50% of recommended dose of nitrogen (Kharif 2024).

Sl. No.	IET No.	Overall		Zone II		Zone III		Zone VI		Zone VII	
		GY (kg/ha) / Rank	DFP	GY (kg/ha) / Rank	DFP	GY (kg/ha) / Rank	DFP	GY (kg/ha) / Rank	DFP	GY (kg/ha) / Rank	DFP
1	29578	5874(1)	102					8829(1)	102	6147(1)	100
2	31998	5836(2)	98	5929(1)	94			7819(2)	99	5796(2)	95
3	31119	5509(3)	94			4969(1)	100	7194(7)	96	5509(3)	91
4	28084(R)			5869(2)	101					3817	99
5	32010			5714(3)	105	4581(7)	90	6801	92	5201(7)	99
6	31990			5619(4)	107	4054	91	7227(5)	93	5467(4)	99
7	31135			5516(5)	106	4322	89			5425(5)	98
8	31993					4351	91	6662	94		
9	32009					4329	90	6329	91	4931	95
10	31128					4324	96			5343(6)	96
11	30269					4798(4)	90	7565(3)	93		
12	29581 (R)					4163	88			4901	94
13	31117					4603(6)	90	6380	90		
14	31131					4288	92			4618	92
15	30273 (R)					4329	99			5135(9)	94
16	31134					4323	93				
17	31994							7148(8)	93	4651	99
18	31120							7028(9)	96		
19	31118							6162	84	4438	99
	Swarna	5121	107	4845	70	4356	110	7014(1)	105	5099	106
	Rasi	3916	91	4452	77	3586	92	3889	97	3954	89
	Varadhan	4319	94					4319	94		
	ISM	5163	106			4452	110	7440	106	4875	103

Among the test entries in second year of testing six entries viz., IETs 31998, 32010, 31990, 32009, 31993 and 31994 are found to significantly superior to best check compared to checks of respective duration and hence promoted to third year of testing.

Promotion of entries from AVT 1 LNT to AVT 2 LNT

Zone 2: IETs 31998, 32010, 31990, 32009

Zone 3: IETs 32010, 31990, 31993

Zone 6: IETs 31998, 32010, 31990, 32009, 31993, 31994

Zone 7: IETs 31998, 32010, 31990, 32009, 31994

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of entries in 3rd years of testing:

IET	Year	N level	Zone	Grain yield	Remarks
31120	2024	N 50	Z-7	7028	Not promising in any zone
	2023	N 0	Z-3	4862	
		N 50	Z-3	5378	
	2022	N 0	Z-2	3600	
		N 50	Z-2	3667	
31118	2024	N 50	Z-6	6162	Promising in Zone 6 and Zone 7
			Z-7	4438	
	2023	N 0	Z-3	3723	
			Z-6	5400	
	N 50	Z-3	4238		
		Z-7	4264		
	2022	N 0	Z-2	2933	
		N 50	Z-2	3200	
31135	2024	N 50	Z-2	5516(5)	Promising in Zone 2, Zone 3 and Zone 7
			Z-3	4322	
			Z-7	5425(5)	
	2023	N 0	Z-6	4761	
			Z-7	4278	
	N 50	Z-3	5450		
		Z-6	5342		
	2022	N 0	Z-2	3567	
			Z-7	4940	
		N 50	Z-2	3967	
	Z-7	5565			
31128	2024	N 50	Z-3	4324	Promising in Zone 3 and Zone 7
			Z-7	5343	
	2023	N 0	-	-	
		N 50	Z-3	4335	
	Z-6		5321		
	2022	N 0	Z-2	3067	
		N 50	Z-2	4200	
Z-7	5143				
31119	2024	N 50	Z-3	4969	Promising in Zone 3
			Z-6	7194	
			Z-7	5509	
	2023	N 0	Z-3	4964	
		N 50	Z-3	4259	
	2022	N 0	Z-2	2833	
		N 50	Z-2	3333	
30269	2024	N 50	Z-3	4798	Promising in Zone 3
			Z-6	7565	
	2023	N 0	-	-	
		N 50	Z-3	4500	

Annual Progress Report 2024 Vol. I – Varietal Improvement

	2022	N 0	-	-	Not promising in any zone	
		N 50	Z-2	1107		
31117	2024	N 50	Z-3	4603		
			Z-6	6380		
2023	N 0					
		N 50	Z-7	3932		
2022	N 0		Z-2	2967		
		N 50	Z-2	3200		
31131	2024	N 50	Z-3	4288		Promising in Zone 3 and Zone 7
			Z-7	4618		
	2023	N 0	Z-3	3704		
			N 50	Z-3	4060	
			Z-6	5342		
			Z-7	3872		
	2022	N 0		-	-	
			N 50	Z-7	4173	
31134	2024	N 50	Z-3	4323	Not promising in any zone	
	2023	N 0	Z-6	4650		
			N 50	Z-6		6581
	2022	N 0	Z-2	3433		
			N 50	Z-2		3600
29578 (R)	2024	N 50	Z 6	8829	Promising in Zone 7	
			Z 7	6147		
	2023	N 0		-		-
			N 50	Z 3		5410
	2022	N 0	Z 2	3467		
			Z 7	3949		
		N 50	Z 2	3967		
			Z 7	4530		
	2021	N 0	Z 7	4090		
			N 50	Z 2		7450
29581 (R)	2024	N 50	Z 3	4163	Promising in Zone 3 and Zone 7	
			Z 7	4901		
	2023	N 0	Z 7	4415		
			N 50	Z 3		4716
				Z 7		4846
	2022	N 0	Z 2	2900		
			N 50	Z 2		3369
	2021	N 0	Z 2	6220		
			Z 7	4540		
		N 50	Z 2	9060		
Z 3			4000			
30273 (R)	2024	N 50	Z 3	4329	Promising in Zone 3 and Zone 7	
			Z 7	5135		
	2023	-	-	-		

Annual Progress Report 2024 Vol. I – Varietal Improvement

	2022	N 0	Z 2	3467	Promising in Zone 2 and Zone 7
		N 50	Z 2	3600	
			Z 7	4558	
		N 0	Z 2	10180	
			Z 7	4430	
		N 50	Z 2	13630	
			Z 3	3920	
	28084 (R)	2024	N 50	Z 2	
N 50			Z 7	3817	
2021		N 0	Z 2	8130	
		N 50	Z 2	11400	
2020		N 50	Z 7	6060	
2019		N 0	Z 3	2230	
			Z 7	2930	
		N 50	Z 2	4980	

Three years performance of entries

IET 31120 (CR 3549-3-5-2-1-1-1) obtained from the cross ADT 43/ Annapurna was evaluated in 2022, 2023 and 2024. It has long bold grains with HRR: 65.1%, AC: 28.98; GC: 82 mm and ASV: 4. **Based on performance of the entry in 3 years, it was not found promising for any zones.**

IET 31118 (RP 6420-C10-21) obtained from the cross MTU1010/Tualsi was evaluated in 2022, 2023 and 2024. Based on performance of the entry in 3 years, it was found promising for Zone 6 and Zone 7. It has long bold grains with HRR: 60.8%, AC: 23.29; GC: 68 mm and ASV: 4. Based on its consistent performance, **IET 31118 is found promising for Zone 6 and Zone 7.**

IET 31135 (RP 6252-BV/RIL-BV24) obtained from the cross BPT 5204 / Varadhan was evaluated in 2022, 2023 and 2024. Based on performance of the entry in 3 years, it was found promising for Zone 2, Zone 3 and Zone 7. It has short bold grains with HRR: 57.8%, AC: 28.77; GC: 60 mm and ASV: 4. Based on its consistent performance, **IET 31135 is found promising for Zone 2, Zone 3 and Zone 7.**

IET 31128 (RP 6252-BV/RIL-BV38) obtained from the cross BPT 5204 / Varadhan was evaluated in 2022, 2023 and 2024. Based on performance of the entry in 3 years, it was found promising for Zone 3 and Zone 7. It has long bold grains with HRR: 51.2%, AC: 27.54; GC: 55 mm and ASV: 4. Based on its consistent performance, **IET 31128 is found promising for Zone 3 and Zone 7 subjected to qualification of grain quality parameters in revised estimate.**

IET 31119 (RP 6252-BV/RIL-BV181) obtained from the cross BPT 5204 / Varadhan was evaluated in 2022, 2023 and 2024. Based on performance of the entry in 3 years, it was found promising for Zone 3. It has long bold grains with HRR: 65.1%, AC: 26.31; GC: 46 mm and ASV: 4. Based on its consistent performance, **IET 31119 is found promising for Zone 3.**

Annual Progress Report 2024 Vol. I – Varietal Improvement

IET 30269 (RP 6252-BV/RIL-BV202) obtained from the cross BPT 5204 / Varadhan was evaluated in 2022, 2023 and 2024. Based on performance of the entry in 3 years, it was found promising for Zone 3. It has medium slender grains with HRR: 65.5%, AC: 24.78; GC: 22 mm and ASV: 4. Based on its consistent performance, **IET 30269 is found promising for Zone 3.**

IET 31117 (CR 4340-6-1-GSR IR2-1-R6-N3-N4-N68-N35) obtained from the cross WTR x Haoannong was evaluated in 2022, 2023 and 2024. It has long slender grains with HRR: 65.8%, AC: 20.03; GC: 84 mm and ASV: 4. **Based on performance of the entry in 3 years, it was not found promising for any zones.**

IET 31131 (RP 6529- RMS-1708-65-97-14) obtained from the cross MTU 1010*2 / Improved Samba Mahsuri (Xa21+pi54) was evaluated in 2022, 2023 and 2024. Based on performance of the entry in 3 years, it was found promising for Zone 3 and Zone 7. It has long slender grains with HRR: 53.6%, AC: 24.2; GC: 55 mm and ASV: 4. **IET 31131 is found promising for Zone 3 and Zone 7.**

IET 31134 (CR 4392-RGA-16) obtained from the cross C 767-4-2-1-1 / IET 27218 // N22 was evaluated in 2022, 2023 and 2024. It has medium slender grains with HRR: 54.2%, AC: 19.53; GC: 58 mm and ASV: 4. **Based on performance of the entry in 3 years, it was not found promising for any zones.**

IET 29578 (Repeat entry) (CR 3756-2-4-2-1-1-1) obtained from the cross Salivahana/ Krishnaveni was evaluated in 2021, 2022, 2023 and 2024. Based on performance of the entry in 4 years, it was found promising for Zone 7. It has medium slender grains with HRR: 46%, AC: 20.35; GC: 22 mm and ASV: 5. **IET 29578 is found promising for Zone 7, subjected to qualification of grain quality parameters in revised estimates.**

IET 29581 (Repeat entry) (RP 6255-BV/RIL/ BPT/Varadhan /1696) obtained from the cross BPT 5204/Varadhan was evaluated in 2021, 2022, 2023 and 2024. Based on performance of the entry in 4 years, it was found promising for Zone 3 and Zone 7. It has medium slender grains with HRR: 69.4%, AC: 22.76; GC: 23 mm and ASV: 4. **IET 29581 is found promising for Zone 3 and Zone 7.**

IET 30273 (Repeat entry) (CR 3516 -1-1-1-1-1) obtained from the cross Birupa / Pusa 44 was evaluated in 2021, 2022, 2023 and 2024. Based on performance of the entry in 4 years, it was found promising for Zone 3 and Zone 7. It has short bold grains with HRR: 70.8%, AC: 23.08; GC: 22 mm and ASV: 4. **IET 30273 is found promising for Zone 3 and Zone 7.**

IET 28084 (Repeat entry) (CR 3549-6-1-1-3-1-1) obtained from the cross ADT 43/ Annapurna was evaluated in 2019, 2020, 2021 and 2024. Based on performance of the entry in 4 years, it was found promising for Zone 2 and Zone 7. It has short bold grains with HRR: 64%, AC: 23.96; GC: 23 mm and ASV: 5. **IET 28084 is found promising for Zone 2 and Zone 7.**

Annual Progress Report 2024 Vol. I – Varietal Improvement

Trial No. 32.1: Composition of entries in Advance Varietal Trial 2 & 1 – Low Nitrogen Tolerance Trial (AVT 2 & 1-LNT) Kharif 2024

Entry No.	IET No.	Designation	Cross Combination	Grain type
5501	32005	CR 4374-3-1-2-1-1	CR 3497-7-1-3-1-1-1/CR3561-5-1-1-1-1-3	MS
5502	31998	CR 4477-2-3-2-1-1-1	CR 3511-3-2-2-5-1-1/CR3557-2-1-1-1-1-1	SB
5503	32003	CR 3522-4-1-1-1-1-1	Vijetha/ ADT 43	LS
5504	31990	RP 6252-BV/RIL-BV31	BPT 5204 / Vardhan	SB
5505	31993	RP 6254-SB/RIL-SB261	Sampada / BPT5204	SB
5506	31994	RP 6256-RJ/RIL-RJ162	Rasi / Jaya	SB
5507	32009	RP 6252-BV/RIL-BV305	BPT 5204 / Vardhan	SB
5508	32010	RP 6257-SJ/RIL-SJ228	Sampada / Jaya	SB
5509	31120	CR 3549-3-5-2-1-1-1	ADT 43/ Annapurna	LB
5510	31118	RP 6420-C10-21	MTU1010 /Tualsi	LB
5511	31135	RP 6252-BV/RIL-BV24	BPT 5204 / Vardhan	SB
5512	31128	RP 6252-BV/RIL-BV38	BPT 5204 / Vardhan	LB
5513	31119	RP 6252-BV/RIL-BV181	BPT5204 / Vardhan	LB
5514	30269	RP 6252-BV/RIL-BV202	BPT 5204 / Varadhan	MS
5515	29581	RP 6255-BV/RIL/ BPT/Varadhan /1696	BPT 5204 / Varadhan	MS
5516	31117	CR 4340-6-1-GSR IR2-1- R6-N3-N4-N68-N35	WTR x Haoannong	LS
5517	31131	RP 6529- RMS-1708-65-97- 14	MTU 1010*2 / Improved Samba Mahsuri (Xa21+pi54)	LS
5518	30273	CR 3516 -1-1-1-1-1-1	Birupa / Pusa 44	SB
5519	28084	CR 3549-6-1-1-3-1-1	ADT 43/ Annapurna	SB
5520	29578	CR 3756-2-4-2-1-1-1	Salivahana / Krishnaveni	MS
5521	31134	CR 4392-RGA-16	C 767-4-2-1-1 / IET 27218 // N22	MS
5522	31989	RP 6460-C3-206	166S Swarna / O. Nivara // 148S- Swarna / O.nivara	LS
5523	29579	RP Bio 4918-B-B-166-23	Swarna / O. nivara	MS
5524		SWARNA (Positive Check)		SB
5525		RASI (Positive Check)		SB
5526		VARADHAN (Positive Check)		SB
5527		ISM (Susceptible Check)		MS

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 32.2: Grain Yield (kg/ha) in AVT 2 & 1 – LNT N (50), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN		ZONE III- EASTERN			ZONE III- EASTERN (2)		ZONE VI- WESTERN		
		Punjab		Bihar		Odisha	EASTERN (2)		Maharashtra		
		Ludhiana		Pusa		NRRI	Mean		Karjat		
5501	32005	4960	10	4244	6	5315	5	4780	5	7218	6
5502	31998	5929	1*	3689		6066	1*	4878	2	7819	2
5503	32003	4179		4178	8	4425		4301		6574	
5504	31990	5619	4*	4333	5	3774		4054		7227	5
5505	31993	4512		4222	7	4480		4351		6662	
5506	31994	4536		3844		3765		3805		7148	8
5507	32009	3095		4667	3*	3992		4329		6329	
5508	32010	5714	3*	4756	1*	4406		4581	7	6801	
5509	31120	5321	6	3800		5911	3*	4855	3	7028	9
5510	31118	3738		3778		4079		3929		6162	
5511	31135	5516	5*	3822		4821		4322		5074	
5512	31128	5067	9	3689		4958		4324		3681	
5513	31119	4881		3889		6050	2*	4969	1*	7194	7
5514	30269	4905		4689	2*	4907		4798	4	7565	3
5515	29581	4345		3267		5060	8	4163		5301	
5516	31117	3321		3867		5339	4	4603	6	6380	
5517	31131	4024		4400	4	4176		4288		4792	
5518	30273	4952		3489		5169	6	4329		6611	
5519	28084	5869	2*	4067		5028	9	4547	8	4648	
5520	29578	5131	7	3467		4981	10	4224		8829	1*
5521	31134	3738		4111	10	4535		4323		3935	
5522	31989	3857		3733		2398		3066		5051	
5523	29579	5107	8	4156	9	4806		4481	9	6009	
5524	Swarna (Positive Check)	4845		3644		5068	7	4356		7014	10
5525	Rasi (Positive Check)	4452		3444		3728		3586		3889	
5526	Varadhan (Positive Check)									4319	
5527	ISM (Susceptible Check)					4970		4452	10	7440	4
Experimental Mean		4705		3968		4700		4334		6174	
CD(0.05)		580		500		817		452		1287	
CV(%)		7.51		7.68		10.6		6.36		12.72	
F val		14.53 **		5.01 **		7.84 **		6.86 **		8.86 **	
DOS		02-07-24		01-07-24						25-06-24	
DOP		02-08-24		18-07-24						20-07-24	
Local Check Name		NA		NA						NA	

Table No. 32.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – LNT N (50), Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN							ZONE VII- SOUTHERN (4)		Overall Mean				
		Andhra Pradesh		Karnataka		Karnataka (2)		Telangana		Mean	Mean				
		Maruteru		Mandya	Gangavati	Mean		IIRR		Mean	Mean				
5501	32005	3917		4616	5	4631	*	4624	*	5840	4751	5093			
5502	31998	5601	9	5182	3*	6154	5*	5668	1*	6247	10	5796	2*	5836	2*
5503	32003	5629	8	3828		3381		3605		5387		4556		4698	
5504	31990	4130		4071		6547	2*	5309	5*	7120	1*	5467	4	5353	4
5505	31993	3192		4202		6387	4*	5294	6*	6600	5	5095		5032	
5506	31994	3609		4222	10	5048	*	4635	*	5727		4651		4737	
5507	32009	4619		3646		5153	10*	4400	*	6307	9	4931		4726	
5508	32010	3464		4051		6852	1*	5451	2*	6440	7	5201	7	5310	6
5509	31120	3854		5192	2*	5601	7*	5397	3*	5900		5137	8	5326	5
5510	31118	5149		3535		3726		3631		5340		4438		4439	
5511	31135	4916		4111		5874	6*	4993	7*	6800	3*	5425	5	5117	10
5512	31128	5324	10	4455	7	5185	9*	4820	8*	6407	8	5343	6	4846	
5513	31119	5922	6	4818	4*	4688	*	4753	10*	6607	4	5509	3*	5506	3*
5514	30269	3058		4253	9	4768	*	4510	*	6847	2*	4731		5124	8
5515	29581	4138		5313	1*	4199		4756	9*	5953		4901		4697	
5516	31117			4152		2628		3390		5933		4238		4517	
5517	31131	3359		4606	6	4400	*	4503	*	6107		4618		4483	
5518	30273	5885	7	4061		4816	*	4438	*	5780		5135	9	5095	
5519	28084	3212		3556		3406		3481		5093		3817		4360	
5520	29578	7369	1	4263	8	6490	3*	5376	4*	6467	6	6147	1*	5874	1*
5521	31134	4944		3889		4544	*	4216		5900		4819		4450	
5522	31989	3285		2879		5425	8*	4152		5120		4177		3969	
5523	29579	7242	3	3081		3166		3123		5620		4777		4898	
5524	Swarna (Positive Check)	7325	2	4121		3422		3772		5527		5099	10	5121	9
5525	Rasi (Positive Check)	5936	5	3232		2781		3007		3867		3954		3916	
5526	Varadhan (Positive Check)													4319	
5527	ISM (Susceptible Check)	7234	4	3818		3574		3696				4875		5162	7
Experimental Mean		4892		4121		4725		4423		5957		4907		4889	
CD(0.05)		755		595		630		455		1170		378		275	
CV(%)		9.4		8.8		8.13		6.27		11.96		4.7		3.43	
F val		28.63 **		8.55 **		30.49 **		23.13 **		2.84 **		16.67 **		26.18 **	
DOS		09-07-24		05-08-24		28-07-24									
DOP		08-08-24		03-09-24		28-08-24									
Local Check Name		NA		NA		NA									

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 32.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – LNT N (50), Kharif 2024 (not considered)

Entry No	IET No	ZONE III- EASTERN	
		Jharkhand	
		@ Ranchi	
5501	32005	2067	
5502	31998	2790	2
5503	32003	2325	
5504	31990	2790	2
5505	31993	2687	7
5506	31994	1705	
5507	32009	2635	8
5508	32010	2015	
5509	31120	2635	8
5510	31118	2222	
5511	31135	2790	2
5512	31128	3410	1
5513	31119	2325	
5514	30269	2015	
5515	29581	2036	
5516	31117	2790	2
5517	31131	2170	
5518	30273	2635	8
5519	28084	2532	
5520	29578	2635	
5521	31134	1705	
5522	31989	2325	
5523	29579	2325	
5524	Swarna (Positive Check)	2377	
5525	Rasi (Positive Check)	2170	
5526	Varadhan (Positive Check)	2790	2
5527	ISM (Susceptible Check)	1499	
Experimental Mean		2385	
CD(0.05)		368	
CV(%)		9.41	
F val		10.48**	
Local Check Name		NA	
DOS		01-07-24	
DOP		23-08-24	

Table No. 32.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – LNT N (100), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN		ZONE III- EASTERN		ZONE III- EASTERN (2)		ZONE VI- WESTERN			
		Punjab		Bihar		Odisha		Maharashtra			
		Ludhiana		Pusa		Cuttack		Mean	Karjat		
5501	32005	7091	1*	4667	5	6216	7	5441	7	8838	3
5502	31998	6869	2*	3889		7454	1*	5672	2*	8398	5
5503	32003	5060		4333		5233		4783		6606	
5504	31990	6726	6*	4556	6	4931		4743		4875	
5505	31993	5274		4378		5763		5070		7708	7
5506	31994	5571		4222		4695		4459		7134	
5507	32009	3452		5222	3*	5875		5549	5	4301	
5508	32010	6429	8*	5467	2*	5599		5533	6	7880	6
5509	31120	6036	10	4489	10	6659	3	5574	4	6144	
5510	31118	4167		4356		5617		4986		6625	
5511	31135	6619	7*	4378		5455		4917		5917	
5512	31128	6869	2*	4422		6279	6	5350	8	3074	
5513	31119	5869		4511	9	6706	2	5609	3	5046	
5514	30269	5679		5489	1*	6179	8	5834	1*	6440	
5515	29581	5012		3667		6122	9	4894		7477	8
5516	31117	3500		4111		6333	5	5222	10	7204	10
5517	31131	4452		4778	4*	5465		5122		7060	
5518	30273	5762		3911		6355	4	5133		8940	2
5519	28084	6738	5*	4533	7	5978		5256	9	6000	
5520	29578	6821	4*	4000		5854		4927		8755	4
5521	31134	4595		4444		5469		4957		4440	
5522	31989	4310		4489		5337		4913		7361	9
5523	29579	6286	9	4533	7	5507		5020		5787	
5524	Swarna (Positive Check)	5583		4022		5889		4956		9069	1
5525	Rasi (Positive Check)	5381		4089		5423		4756		4648	
5526	Varadhan (Positive Check)									6042	
5527	ISM (Susceptible Check)			4267		6099	10	5183		6602	
Experimental Mean		5606		4432		5865		5148		6606	
CD(0.05)		705		447		615		438		1417	
CV(%)		7.66		6.15		6.39		5.18		13.09	
F val		18.86 **		7.84 **		7.45 **		4.83 **		9.74 **	
DOS		02-07-24		01-07-24						25-06-24	
DOP		02-08-24		18-07-24						20-07-24	
Local Check Name		NA		NA						NA	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 32.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – LNT N (100), Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN						ZONE VII- SOUTHERN (3)		Overall Mean (7)	
		Andhra Pradesh		Karnataka		Telangana		Mean	Mean		
		Maruteru		Gangavati		IIRR					
5501	32005	3888		5746	*	7020	7*	5551		6209	4
5502	31998	3934		6250	6*	6693	10	5626		6213	3
5503	32003	5980	3	3438		5860		5093		5216	
5504	31990	5781	4	6499	4*	6267		6182	3	5662	
5505	31993	3595		6178	7*	7300	6*	5691	9	5742	
5506	31994	4481		5433		5853		5256		5341	
5507	32009	3998		5849	*	6980	8*	5609		5097	
5508	32010	4127		6515	3*	7793	2*	6145	5	6258	1
5509	31120	3726		6923	2*	6313		5654	10	5756	10
5510	31118	6225	2	4696		4900		5273		5226	
5511	31135	5432	8	7364	1*	7467	4*	6754	1*	6090	5
5512	31128	4832	10	6122	8*	7887	1*	6280	2	5641	
5513	31119	4386		6458	5*	7593	3*	6146	4	5796	8
5514	30269	3461		4864		7313	5*	5213		5632	
5515	29581	3797		5353		5493		4881		5274	
5516	31117			4054		6527		5291		5288	
5517	31131	2990		5673		6687		5117		5301	
5518	30273	4735		6042	9*	6607		5794	8	6050	6
5519	28084	3155		4567		5433		4385		5201	
5520	29578	5538	7	5689		6973	9*	6067	6	6233	2
5521	31134	4665		5369		6493		5509		5068	
5522	31989	3019		6042	9*	5380		4813		5134	
5523	29579	5293	9	2885		5793		4657		5155	
5524	Swarna (Positive Check)	5721	5	2877		5587		4728		5536	
5525	Rasi (Positive Check)	5688	6	3262		4800		4583		4756	
5526	Varadhan (Positive Check)									6042	7
5527	ISM (Susceptible Check)	6859	1	5032				5945	7	5772	9
Experimental Mean		4612		5353		6441		5471		5581	
CD(0.05)		670		701		1156		481		381	
CV(%)		8.85		7.99		10.93		5.36		4.17	
F val		21.06 **		24.52 **		4.75 **		12.47 **		10.22 **	
DOS		09-07-24		28-07-24							
DOP		08-08-24		28-08-24							
Local Check Name		NA		NA							

Table No. 32.2 (Contd.): Grain Yield (kg/ha) in AVT 2 & 1 – LNT N (100), Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN		ZONE VII- SOUTHERN	
		Jharkhand		Karnataka	
		@Ranchi		@Mandya	
5501	32005	3367		2960	
5502	31998	3933	8	3364	2
5503	32003	2800		2495	
5504	31990	3547		3192	4
5505	31993	4760	2	2899	
5506	31994	3173		2970	10
5507	32009	4060	7	2576	
5508	32010	2987		2768	
5509	31120	2940		3172	6
5510	31118	3267		2768	
5511	31135	3640		3141	7
5512	31128	4480	5	3121	8
5513	31119	4527	3	3232	3
5514	30269	3360		2616	
5515	29581	4247	6	3697	1
5516	31117	4527	3	2788	
5517	31131	3127		2990	9
5518	30273	2800		3172	5
5519	28084	3080		2626	
5520	29578	3920	9	2808	
5521	31134	3360		2737	
5522	31989	3220		2242	
5523	29579	2567		1707	
5524	Swarna (Positive Check)	3920	9	2869	
5525	Rasi (Positive Check)	3500		2273	
5526	Varadhan (Positive Check)	4773	1		
5527	ISM (Susceptible Check)	2333		2848	
Experimental Mean		3563		2847	
CD(0.05)		428		422	
CV(%)		7.34		9.05	
F val		20.25**		7.24**	
DOS		01-07-24		05-08-24	
DOP		23-08-24		03-09-24	
Local Check Name		NA		NA	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 32.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 – LNT N (50), Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN	
		Jharkhand	
		@ Ranchi	
		DFF	
5501	32005	109	
5502	31998	103	
5503	32003	102	
5504	31990	102	
5505	31993	101	
5506	31994	102	
5507	32009	101	
5508	32010	84	
5509	31120	102	
5510	31118	101	
5511	31135	103	
5512	31128	101	
5513	31119	102	
5514	30269	101	
5515	29581	103	
5516	31117	103	
5517	31131	101	
5518	30273	101	
5519	28084	108	
5520	29578	108	
5521	31134	91	
5522	31989	101	
5523	29579	102	
5524	Swarna (Positive Check)	113	
5525	Rasi (Positive Check)	90	
5526	Varadhan (Positive Check)	101	
5527	ISM (Susceptible Check)	104	
Experimental Mean		101	

Table No. 32.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 – LNT N (100), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN		ZONE III- EASTERN						ZONE III- EASTERN (2)			ZONE VI- WESTERN		
		Punjab		Bihar			Odisha			EASTERN (2)			Maharashtra		
		Ludhiana		Pusa			Cuttack			Mean			Karjat		
		PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
5501	32005	92	268	105	102	243	105	113	283	105	107	263	90	118	230
5502	31998	97	244	102	98	220	103	119	290	103	109	255	94	121	205
5503	32003	95	191	100	88	234	100	115	310	100	102	272	97	124	237
5504	31990	104	244	89	110	248	91	127	279	90	118	263	98	118	245
5505	31993	102	235	90	93	228	88	119	297	89	106	263	94	119	196
5506	31994	103	224	89	110	229	89	115	290	89	112	259	91	115	251
5507	32009	101	196	88	97	257	89	117	269	88	107	263	95	113	193
5508	32010	110	220	90	103	255	92	124	283	91	113	269	96	120	249
5509	31120	114	244	102	110	247	110	130	298	106	120	273	102	146	207
5510	31118	87	196	88	110	244	86	104	220	87	107	232	94	103	219
5511	31135	112	253	86	125	235	90	120	241	88	122	238	103	123	200
5512	31128	98	251	99	106	238	92	126	275	96	116	256	101	97	203
5513	31119	90	224	102	97	242	90	126	263	96	111	252	90	116	219
5514	30269	106	249	89	97	248	88	118	272	88	107	260	99	122	200
5515	29581	99	213	88	127	217	86	117	231	87	122	224	93	114	235
5516	31117	90	191	87	118	223	86	110	188	86	114	206	106	109	204
5517	31131	93	209	94	113	216	82	114	260	88	113	238	94	107	256
5518	30273	99	233	99	125	225	99	119	299	99	122	262	95	126	195
5519	28084	99	251	104	121	256	100	120	287	102	120	271	98	120	239
5520	29578	103	264	101	141	216	99	123	299	100	132	257	91	128	213
5521	31134	95	229	91	113	216	91	110	245	91	111	230	89	112	182
5522	31989	83	198	94	77	233	90	97	206	92	87	220	113	136	239
5523	29579	75	235	104	86	245	100	107	288	102	97	266	87	103	204
5524	Swarna (Positive Check)	72	242	106	79	230	111	109	258	108	94	244	90	117	222
5525	Rasi (Positive Check)	85	244	107	83	215	76	99	260	92	91	238	103	122	224
5526	Varadhan (Positive Check)												77	114	262
5527	ISM (Susceptible Check)			109	97	252	113	109	304	111	103	278	85	107	246
Experimental Mean		96	229	96	104	235	94	115	269	95	110	252	95	117	221
Standard Error					1.71			1.27						0.57	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 32.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in AVT 2 & 1 – LNT N (100), Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN									ZONE VII- SOUTHERN (3)			Overall Mean (7)		
		Andhra Pradesh			Karnataka			Telangana			Mean			Mean		
		Maruteru			Gangavati			IRR			Mean			Mean		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
5501	32005	97	136	330	112	86	311	106	111	429	105	111	357	102	108	299
5502	31998	94	142	202	98	99	315	105	120	363	99	120	293	99	114	263
5503	32003	94	124	297	106	100	276	112	134	407	104	119	327	101	111	279
5504	31990	89	144	328	99	105	272	110	136	433	99	128	344	96	121	293
5505	31993	116	127	363	94	92	284	109	116	385	106	111	344	99	110	284
5506	31994	91	135	392	99	100	311	110	120	433	100	118	378	95	114	304
5507	32009	84	118	396	93	94	332	111	116	352	96	109	360	93	108	285
5508	32010	93	133	328	97	108	331	112	138	455	101	127	371	97	119	303
5509	31120	107	134	301	104	116	333	119	144	425	110	131	353	107	128	294
5510	31118	96	120	396	98	97	303	118	126	455	104	114	384	97	107	290
5511	31135	88	135	363	98	104	360	111	126	414	99	121	379	96	121	295
5512	31128	89	135	306	98	105	318	114	132	392	100	124	339	99	114	283
5513	31119	89	134	334	99	101	317	88	125	378	92	120	343	93	113	282
5514	30269	116	110	293	96	96	314	119	115	367	110	107	324	101	109	277
5515	29581	84	137	328	101	103	312	105	133	458	97	124	366	93	119	285
5516	31117				100	96	276	105	106	400	103	101	338	97	105	247
5517	31131	81	125	194	90	98	310	105	126	367	92	116	290	91	111	259
5518	30273	94	136	266	95	97	321	105	121	462	98	118	350	98	117	286
5519	28084	93	131	330	96	98	282	112	127	447	100	119	353	100	117	299
5520	29578	106	145	268	102	104	318	106	134	411	104	128	332	101	125	284
5521	31134	94	132	330	100	95	295	111	123	462	101	117	362	96	111	280
5522	31989	79	109	407	92	87	279	111	93	433	94	96	373	97	97	285
5523	29579	94	110	330	107	80	289	105	102	363	102	97	327	99	95	279
5524	Swarna (Positive Check)	109	107	330	111	79	266	111	97	403	110	94	333	106	94	279
5525	Rasi (Positive Check)	74	96	392	88	83	292	96	92	447	86	90	377	91	94	296
5526	Varadhan (Positive Check)													77	114	262
5527	ISM (Susceptible Check)	106	110	363	102	85	315				104	98	339	103	102	296
Experimental Mean		94	126	326	99	96	305	108	120	413	101	114	348	97	111	284
Standard Error			0.69			0.88			0.53							

Table No. 32.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in AVT 2 & 1 – LNT N (100), Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN		ZONE VII- SOUTHERN		
		Jharkhand		Karnataka		
		@ Ranchi		@Mandya		
		DFP	PH	DFP	PAN	
5501	32005	111		95	76	290
5502	31998	105		89	81	281
5503	32003	104		103	96	300
5504	31990	104		98	98	272
5505	31993	103		96	91	272
5506	31994	104		97	88	284
5507	32009	103		91	84	256
5508	32010	86		98	91	267
5509	31120	104		101	108	281
5510	31118	103		89	90	286
5511	31135	103		96	93	279
5512	31128	105		87	97	282
5513	31119	103		90	94	279
5514	30269	105		90	92	255
5515	29581	105		92	93	283
5516	31117	105		93	83	240
5517	31131	103		93	90	286
5518	30273	103		88	87	281
5519	28084	110		92	86	313
5520	29578	110		95	94	269
5521	31134	93		96	84	278
5522	31989	103		98	77	288
5523	29579	104		95	70	288
5524	Swarna (Positive Check)	115		96	69	277
5525	Rasi (Positive Check)	92		102	79	281
5526	Varadhan (Positive Check)	103				
5527	ISM (Susceptible Check)	106		99	70	197
Experimental Mean		103		94	86	275

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 32.4: Grain quality characteristics of entries in AVT 2 & 1 – LNT, Kharif 2024

Code	Entry No.	Designation / IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1814	5501	32005	78.9	68.5	63.8	5.08	1.82	2.79	MS	A	5.0	23.58	22
1815	5502	31998	80.0	71.9	67.5	4.97	2.02	2.46	SB	VOC	4.0	24.11	22
1816	5503	32003	80.4	72.9	65.9	6.48	1.98	3.27	LS	VOC	7.0	25.93	45
1817	5504	31990	79.3	68.1	44.1	5.39	2.39	2.25	SB	VOC	4.0	26.34	59
1818	5505	31993	79.4	68.8	49.9	5.22	1.99	2.62	MS	VOC	4.0	26.54	23
1819	5506	31994	79.1	68.3	60.0	4.80	1.99	2.41	SB	VOC	4.0	25.37	22
1820	5507	32009	78.7	68.5	54.7	5.00	1.96	2.55	MS	VOC	4.0	26.37	22
1821	5508	32010	80.9	71.3	63.4	5.45	2.34	2.32	SB	VOC	4.0	26.28	53
1822	5509	31120	79.2	70.1	65.1	5.60	2.45	2.28	SB	VOC	4.0	28.98	82
1823	5510	31118	78.7	66.8	60.8	5.18	2.14	2.42	SB	VOC	4.0	23.29	68
1824	5511	31135	79.6	69.5	57.8	5.58	2.58	2.16	SB	VOC	4.0	28.77	60
1825	5512	31128	81.7	71.2	51.2	5.46	2.34	2.33	SB	OC	5.0	27.54	55
1826	5513	31119	82.2	78.1	65.1	5.53	2.34	2.36	SB	OC	4.0	26.31	46
1827	5514	30269	78.9	66.6	65.5	5.36	2.27	2.36	SB	VOC	4.0	24.78	22
1828	5515	29581	78.8	71.8	69.4	5.73	1.96	2.92	MS	A	4.0	22.76	23
1829	5516	31117	79.2	70.5	65.8	6.17	2.17	2.84	LB	VOC	4.0	20.03	84
1830	5517	31131	81.8	68.9	53.6	6.60	1.89	3.49	LS	VOC	4.0	24.20	55
1831	5518	30273	82.0	74.7	70.8	4.85	2.46	1.97	SB	VOC	4.0	23.08	22
1832	5519	28084	81.8	72.3	64.0	4.65	2.44	1.90	SB	VOC	5.0	23.96	23
1833	5520	29578	79.0	69.4	46.0	5.17	1.87	2.76	MS	A	5.0	20.35	22
1834	5521	31134	80.2	68.8	54.2	4.80	2.04	2.35	SB	VOC	4.0	19.53	58
1835	5522	31989	79.7	60.4	47.6	5.39	1.89	2.85	MS	A	5.0	28.60	45
1836	5523	29579	77.6	65.7	55.2	4.60	1.83	2.51	MS	OC	4.0	20.62	22
1837	5524	Swarna (Positive Check)	78.4	68.5	61.0	4.80	2.17	2.21	SB	A	4.0	24.64	22
1838	5525	Rasi (Positive Check)	79.3	69.0	56.2	4.54	2.22	2.04	SB	VOC	7.0	26.81	22
1839	5526	Varadhan (Positive Check)	77.4	68.2	55.4	4.71	2.30	2.04	SB	VOC	4.0	26.01	65
1840	5527	ISM (Susceptible Check)	75.8	63.4	56.0	4.56	1.69	2.69	MS	A	4.0	23.23	22
HULL: Hulling(%) MILL: Milling(%) HRR: Head Rice Recovery KL: Kernel length (mm) KB: Kernel Breadth(mm) L/B : Length and Breadth(mm) KLAC: Kernel length after cooking WU: Water uptake ER: Elongation ratio AC: Amylose content (%) ASV: Alkali Spreading Value AC: Amylose Content GC: Gel consistency													

**INITIAL VARIETAL TRIAL -LOW NITROGEN TOLERANCE
(IVT- LNT)**

Locations : 10

Test Entries : 25

Checks : Varadhan, Rasi, Swarna, DRR Dhan 64

Table : 33

The IVT Low Nitrogen Tolerance (IVT-LNT) trial included 25 test entries, four checks Varadhan, Rasi, Swarna, and DRR Dhan 64. The trial was performed at two nitrogen levels: N 50 (50% of the recommended dose, i.e., 50 kg/ha) and N 100 (100% of the recommended dose, i.e., 100 kg/ha), with phosphorus and potash applied as per recommended doses. It was conducted across four zones (Zone II-Northern, III-Eastern, VI-Western, and VII-Southern) at 10 locations: Ludhiana, ICAR-NRRI (Cuttack), Pusa, Ranchi, Karjat, Vadagaon, Maruteru, ICAR-IIRR (Hyderabad), Mandya, and Gangavati. The data was not received from Vadagaon and data from two centers PUSA (F value non-significant) and Ranchi (Low Experimental mean = 2311 kg/ha) was not considered for analysis. The entry qualifies for promotion if it is significantly superior (By considering CD value) over the best check at N 50% either at zonal level or overall mean. The entries are compared with respective to checks based on days to 50% flowering in that particular zone. Test entries with late duration (>100 days to 50% flowering) were evaluated against the check variety Swarna, while early duration entries (<100 days to 50% flowering) were compared with the highest-yielding early check, Rasi, to identify promising candidates. The data of grain yield and other parameters are in Table 33.1, 33.2 and 33.3.

50% N level: The report was therefore based on data from seven locations: Ludhiana, ICAR-NRRI, Karjat, Maruteru, ICAR-IIRR, Mandya, and Gangavati. Seven entries (IETs 32885, 32890, 32884, 32889, 32891, 32878, and 32883) performed better than the checks in Zone II and were promoted to AVT1-LNT. Additionally, one entry (IET 32875) from Zone III-Eastern and one entry (IET 32874) from Zone VII-Southern were promoted based on superior performance. No entries from Zone VI-Western or on an overall mean basis were promoted.

The days to 50% flowering (DFF) ranged from 88 (IET 32877) to 106 (IETs 32882), which were lower than the late duration check Swarna (103 DFF) but higher than the early duration check Rasi (84 DFF).

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table: Performance of promising entries in IVT-LNT trial at 50 % recommended dose of nitrogen during *Kharif* 2024 of various zones.

ZONE	N 50%
	Entries promoted under different zones / overall mean
Zone II- Northern	*IET 32885 (6083 kg/ha)
	*IET 32890 (6036 kg/ha)
	*IET 32884 (5571 kg/ha)
	*IET 32889 (5000 kg/ha)
	*IET 32891 (4798 kg/ha)
	*IET 32878 (4667 kg/ha)
	*IET 32883 (4429 kg/ha)
Checks	Swarna (3667 kg/ha)
	Rasi (2464 kg/ha)
	DRR Dhan 64 (2352 kg/ha)
	Experimental mean= 3919 kg/ha
	CD = 630
Zone III-Eastern	*IET 32875 (5665 kg/ha)
Checks	Swarna (4716 kg/ha)
	Rasi (3504 kg/ha)
	DRR Dhan 64 (4940 kg/ha)
	Experimental mean= 4509 kg/ha
	CD = 315 kg/ha
Zone VI-Western	No entry promoted
Zone VII- Southern	*IET 32874 (6269 kg/ha)
Checks	Swarna (4716 kg/ha)
	Rasi (3504 kg/ha)
	DRR Dhan 64 (4940 kg/ha)
	Varadhan (5227 kg/ha)
	Experimental mean= 4509 kg/ha
	CD = 315
Overall	No entry promoted

* The entries are compared with early check (Rasi: 84 DFF), since their days to 50% flowering is less than 100 days.

Considering the performance of entries across various zones and overall evaluation under N 50 %, a total of 8 entries *viz.*, IET 32885, IET 32890, IET 32884, IET 32889, IET 32891, IET 32878, IET 32883, and IET 32874 have been advanced to the second year of testing in AVT 1. For further simplifying, the zone - wise promoted entries are provided below.

List of prominent entries promoted to AVT-I at 50 % N levels:

Zone II: IETs 32885, 32890, 32884, 32889, 32891, 32878, 32883

Zone III: IET 32875.

Zone VII: IET 32874.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 33.1: Composition of entries in Initial Variety Trial – Low Nitrogen Tolerance Trial (IVT - LNT) Kharif 2024

Entry No.	IET No.	Designation	Cross Combination	Grain type
5701	32872	HURS 24-3	RP Bio 226/IR 10M196	LS
5702	32873	HURS 24-4	Selection From local Material	LS
5703	32874	RP 6449-DB-235-2	Vandana/NH 787	LB
5704	32875	SPE-16	SM111/BPT 5204	MS
5705	32876	NVSR-1278	Gurjari/IET-23834	LB
5706	32877	NVSR-1111	IET-24767/IET-25825	LB
5707	32878	NVSR-983	NAUR-1/IET-24772	LB
5708	32879	MSA-CRG-28	BPT 5204*3/Oryza rufipogon-12	MS
5709	32880	MSA-CGiL-48	BPT 5204*3/Oryza rufipogon-16	MS
5710	32881	RYT-3889	PR 121/IR84678-25-5-B	
5711	32882	CR 6329-2-1-1-1-2	CR dhan 308/CR 3504-7-2-2-1-1-1	MS
5712	32883	CR 3549-1-1-3-1-1-2	ADT 43/ Annapurna	MB
5713	32884	CR 6329-3-1-1-2-1	CR dhan 308/CR 3504-7-2-2-1-1-1	MS
5714	32885	CR 4429-1-1-2-1-1	CR 3497-7-1-3-1-1-1/CR3505-3-1-1-1-1-1	MB
5715	32886	CR 4004-14228-2-1-4-1	BS-6444G x C460-3-2	MS
5716	32887	CR 4406-14155-1-3-7-6-2-1	1368 x NLR 34449	LS
5717	32888	CR 4387-RGA-552	CR Dhan 202 x SR-72-1	MS
5718	32889	RP6244-BR/RIL-BR192	BPT5204/Rasi	MB
5719	32890	RP6253-VM/RIL-VM37	Varadhan/MTU1010	MB
5720	32891	RP6254-SB/RIL-SB206	Sampada/BPT5204	MB
5721	32892	RP6240-BP/RIL-BP229	BPT5204/PTB1	MB
5722		SWARNA (Positive Check)		SB
5723		RASI (Positive Check)		SB
5724		DRR DHAN-64 (Positive Check)		
5725		VARADHAN (Positive Check)		SB

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 33.2: Grain Yield (kg/ha) in IVT – LNT N (50), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN		ZONE III- EASTERN		ZONE VI- WESTERN		ZONE VII- SOUTHERN		
		Punjab		Odisha		Maharashtra		Andhra Pradesh		Karnataka
		Ludhiana		NRRI		Karjat		Maruteru		Mandya
5701	32872	2774		3992		5333		3338		3626
5702	32873	4083		3456		6486		4848	10	3646
5703	32874	4143	9	4534		6347		5702	5	4303
5704	32875	3548		5665	1*	8523	2	4812		3980
5705	32876	3155		4856	7	5630		3220		4394
5706	32877	4095	10	4272		7662	4	3854		3929
5707	32878	4667	6*	4358		6394		4065		4808
5708	32879	3738		4187		6954	7	4330		3899
5709	32880	2012		4388		7111	5	5002	8	3404
5710	32881	4262	8	5141	4	6125		6295	3	3859
5711	32882	3940		5318	2	6958	6	4749		4677
5712	32883	4429	7*	5276	3	6222		4062		4202
5713	32884	5571	3*	4734	8	6157		4464		4071
5714	32885	6083	1*	4903	6	6884	8	4705		4020
5715	32886	3452		4191		7685	3	4893	9	3242
5716	32887	3690		4139		4218		3440		3808
5717	32888	3048		3875		6824	9	7198	1	3515
5718	32889	5000	4*	4663	10	6486		3824		4081
5719	32890	6036	2*	4227		4806		5498	6	4040
5720	32891	4798	5*	4405		6102		4058		3667
5721	32892	3048		4471		5681		5096	7	3778
5722	Swarna (Positive Check)	3667		4716	9	8676	1	6969	2	4152
5723	Rasi (Positive Check)	2464		3504		4412		4095		3111
5724	DRR Dhan-64 (positive Check)	2352		4940	5	6352		4588		4050
5725	Varadhan (Positive Check)					6778	10	5760	4	
Experimental Mean		3919		4509		6432		4755		3928
CD(0.05)		630		533		1073		652		607
CV(%)		9.79		7.19		10.16		8.35		9.4
F val		23.95 **		8.53 **		8.31 **		20.51 **		3.6 **
DOS		02-07-2024				25-06-2024		09-07-2024		05-08-2024
DOP		02-08-2024				20-07-2024		08-08-2024		03-09-2024
Local Check Name		NA				NA		NA		NA

Table No. 33.2 (Contd.): Grain Yield (kg/ha) in IVT – LNT N (50), Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN						Overall Mean (7)		
		Karnataka		Karnataka (2)		Telangana				
		Gangavati		Mean		IIRR	Mean			
5701	32872	5256		4441		4360		4145		4097
5702	32873	5529	10	4588		5487		4878		4791
5703	32874	7332	2*	5818	1*	7740	6	6269	1*	5729
5704	32875	5569	9	4775	10	6287		5162	9	5483
5705	32876	5208		4801	8	7913	5	5184	8	4911
5706	32877	5970	7*	4950	7*	6360	10	5028		5163
5707	32878	4183		4495		7013	7	5017		5070
5708	32879	5682	8	4790	9	8213	2*	5531	7	5286
5709	32880	4944		4174		4820		4543		4526
5710	32881	2340		3099		6140		4658		4880
5711	32882	6082	6*	5380	4*	4687		5049		5202
5712	32883	5240		4721		4260		4441		4813
5713	32884	7452	1*	5761	2*	6687	8	5668	6	5591
5714	32885	5224		4622		5573		4881		5342
5715	32886	3582		3412		5867		4396		4702
5716	32887	4856		4332		5167		4318		4188
5717	32888	4416		3965		4860		4997		4819
5718	32889	6499	5*	5290	5*	8400	1*	5701	5	5565
5719	32890	6779	3*	5410	3*	8160	3*	6119	2	5649
5720	32891	5361		4514		6260		4836		4950
5721	32892	6554	4*	5166	6*	8053	4*	5870	3	5240
5722	Swarna (Positive Check)	3397		3774		5527		5011		5300
5723	Rasi (Positive Check)	3198		3154		3813		3554		3514
5724	DRR Dhan-64 (positive Check)	5009		4530		6620	9	5067	10	4844
5725	Varadhan (Positive Check)							5760	4	6269
Experimental Mean		5236		4582		6178		5043		5037
CD(0.05)		787		409		1306		450		329
CV(%)		9.15		5.43		12.86		5.44		3.98
F val		21.27 **		25.89 **		9.08 **		16.28 **		24.95 **
DOS		28-07-2024								
DOP		29-08-2024								
Local Check Name		NA								

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 33.2 (Contd.): Grain Yield (kg/ha) in IVT – LNT N (50), Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN			
		Bihar		Jharkhand	
		@Pusa		@Ranchi	
5701	32872	4375	6	1820	
5702	32873	4411	4	2550	
5703	32874	4196		3333	6
5704	32875	4250	9	1813	
5705	32876	4179		3400	4
5706	32877	4107		2890	7
5707	32878	4804	1	1643	
5708	32879	4071		1417	
5709	32880	4393	5	1190	
5710	32881	4018		1133	
5711	32882	3911		3487	3
5712	32883	4375	6	1813	
5713	32884	3964		2493	
5714	32885	3982		3740	1
5715	32886	4518	2	2720	9
5716	32887	4464	3	2153	
5717	32888	4143		1813	
5718	32889	4304	8	3627	2
5719	32890	4018		2720	9
5720	32891	4232	10	2777	8
5721	32892	3982		1870	
5722	Swarna (Positive Check)	3804		3400	4
5723	Rasi (Positive Check)	3929		1473	
5724	DRR Dhan-64 (positive Check)	3964		1303	
5725	Varadhan (Positive Check)			1190	
Experimental Mean		4183		2311	
CD(0.05)		408		374	
CV(%)		5.93		9.86	
F val		1.22ns		42.45**	
DOS		01-07-2024		01-07-2024	
DOP		31-07-2024		27-08-2024	
Local Check Name		NA		NA	

Table No. 33.2 (Contd.): Grain Yield (kg/ha) in IVT – LNT N (100), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN		ZONE III- EASTERN		ZONE VI- WESTERN	
		Punjab		Odisha		Maharashtra	
		Ludhiana		Cuttack		Karjat	
5701	32872	3873		5723		5352	
5702	32873	6238	9*	4920		6759	
5703	32874	5960	10	5507		7940	7
5704	32875	4746		6698	3	7505	9
5705	32876	5508		6770	2	5144	
5706	32877	5738		5584		7380	10
5707	32878	6873	4*	5860		7361	
5708	32879	5571		6084		8926	3
5709	32880	3111		6354	5	5416	
5710	32881	6246	8*	6351	6	7273	
5711	32882	4889		6229	7	8782	4
5712	32883	6635	6*	6635	4	5393	
5713	32884	7532	3*	6004		5866	
5714	32885	8619	2*	6118	10	9028	2
5715	32886	5024		5619		6824	
5716	32887	5349		6079		5019	
5717	32888	4762		5243		6134	
5718	32889	6539	7*	6150	9	7815	8
5719	32890	8913	1*	5734		9412	1
5720	32891	6873	5*	5554		6889	
5721	32892	4873		5525		8653	5
5722	Swarna (Positive Check)	5476		6156	8	8412	6
5723	Rasi (Positive Check)	3675		5017		4778	
5724	DRR Dhan-64 (positive Check)	3706		7383	1	6861	
5725	Varadhan (Positive Check)					6731	
Experimental Mean		5697		5971		7026	
CD(0.05)		724		670		1390	
CV(%)		7.73		6.83		12.05	
F val		33.04 **		5.98 **		8.03 **	
DOS		02-07-2024				25-06-24	
DOP		02-08-2024				20-07-24	
Local Check Name		NA				NA	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 33.2 (Contd.): Grain Yield (kg/ha) in IVT – LNT N (100), Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN						Overall Mean (6)		
		Andhra Pradesh		Karnataka		Telangana				
		Maruteru		Gangavati		IIRR				
5701	32872	4621		4594		5473		4896		4940
5702	32873	5581	5	5801	4	7173		6185	6	6079
5703	32874	5362	6	6581	2*	8273	5	6739	2*	6604
5704	32875	4908		4840		6780		5509		5913
5705	32876	3056		4754		8273	5	5361		5584
5706	32877	4360		5481	7	6567		5469		5852
5707	32878	3266		3504		7740	7	4837		5767
5708	32879	4975		5096	10	9100	4*	6390	4	6625
5709	32880	5354	7	3771		5307		4811		4886
5710	32881	6852	2	2714		7073		5546		6085
5711	32882	4234		5427	9	7433	9	5698	10	6166
5712	32883	4436		3803		5793		4678		5449
5713	32884	5219	9	5545	6	7380	10	6048	8	6258
5714	32885	4226		4498		7100		5275		6598
5715	32886	4529		3333		6627		4830		5326
5716	32887	3232		5459	8	6460		5051		5266
5717	32888	6894	1	4615		6833		6114	7	5747
5718	32889	3535		5897	3	9440	1*	6291	5	6563
5719	32890	5901	4	6688	1*	9440	1*	7343	1*	7681
5720	32891	3813		4658		6733		5068		5753
5721	32892	5025	10	5566	5	9273	3*	6622	3*	6486
5722	Swarna (Positive Check)	6195	3	3344		6073		5204		5943
5723	Rasi (Positive Check)	3906		2810		5907		4207		4349
5724	DRR Dhan-64 (positive Check)	4857		5011		7600	8	5823	9	5903
5725	Varadhan (Positive Check)	5227	8					5227		5979
Experimental Mean		4783		4741		7244		5569		5912
CD(0.05)		723		990		1399		600		445
CV(%)		9.21		12.7		11.75		6.56		4.58
F val		16.58 **		10.05 **		6.14 **		12.63 **		19.05 **
DOS		09-07-2024		28-07-2024						
DOP		08-08-2024		29-08-2024						
Local Check Name		NA		NA						

Table No. 33.2 (Contd.): Grain Yield (kg/ha) in IVT – LNT N (100), Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN				ZONE VII- SOUTHERN	
		Bihar		Jharkhand		Karnataka	
		@Pusa		@Ranchi		@Mamdy	
5701	32872	4464		2880		2535	
5702	32873	4643	7	2580		3151	
5703	32874	4375		3720	10	3525	3
5704	32875	4464		5400	1	2545	
5705	32876	4536	9	3840	7	3566	2
5706	32877	4464		2880		3202	8
5707	32878	5089	2	4680	4	3717	1
5708	32879	5179	1	2280		2657	
5709	32880	4554	8	2160		2586	
5710	32881	4196		4560	5	2667	
5711	32882	4107		3840	7	3374	5
5712	32883	4732	5	5340	3	3040	
5713	32884	4500	10	2760		3353	6
5714	32885	4411		5400	1	3020	
5715	32886	4875	3	3720		1990	
5716	32887	4839	4	2880		3414	4
5717	32888	4500		2880		2757	
5718	32889	4661	6	3960	6	3081	
5719	32890	4375		3480		3192	9
5720	32891	4464		3000		2939	
5721	32892	4143		2640		3293	7
5722	Swarna (Positive Check)	4000		3840	7	3172	10
5723	Rasi (Positive Check)	4286		1980		2313	
5724	DRR Dhan-64 (positive Check)	4321		2340		3020	
5725	Varadhan (Positive Check)			3120			
Experimental Mean		4507		3446		3005	
CD(0.05)		199		641		465	
CV(%)		2.68		11.34		9.42	
F val		17.04**		20.23**		6.76**	
DOS		01-07-2024		07-07-2024		05-08-2024	
DOP		31-07-2024		27-08-2024		03-09-2024	
Local Check Name		NA		NA		NA	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 33.3: Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – LNT N (50), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN		ZONE III- EASTERN			ZONE VI- WESTERN			ZONE VII- SOUTHERN				
		Punjab		Odisha			Maharashtra			Andhra Pradesh			Karnataka	
		Ludhiana		NRRI			Karjat			Maruteru			Mandya	
		PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH
5701	32872	101	235	88	113	189	92	125	166	85	152	339	95	92
5702	32873	110	233	87	111	210	90	112	154	82	130	295	88	100
5703	32874	106	238	84	111	203	94	106	134	80	133	293	86	98
5704	32875	86	233	98	103	244	95	104	133	89	125	293	91	94
5705	32876	102	199	87	112	221	92	105	156	81	126	279	88	95
5706	32877	103	242	85	112	196	90	102	172	79	124	328	92	94
5707	32878	91	218	86	113	248	94	107	142	89	112	299	96	100
5708	32879	100	226	86	109	212	95	116	181	89	114	268	96	97
5709	32880	85	187	97	97	209	99	98	183	96	116	334	93	80
5710	32881	91	242	93	117	196	95	103	120	87	122	352	89	89
5711	32882	97	231	104	118	204	105	113	127	111	136	326	101	102
5712	32883	97	222	96	111	210	99	110	143	85	140	326	103	100
5713	32884	109	277	94	110	243	84	100	146	91	149	328	98	96
5714	32885	113	273	98	108	196	99	112	144	94	149	365	102	93
5715	32886	84	233	99	101	210	95	98	182	92	124	473	96	76
5716	32887	121	218	91	120	214	102	129	140	85	154	326	100	113
5717	32888	90	185	84	96	221	93	104	153	92	115	235	100	86
5718	32889	114	231	91	120	235	96	115	140	85	147	266	101	106
5719	32890	111	209	92	120	170	99	117	141	85	131	363	97	105
5720	32891	101	253	85	108	205	93	100	121	85	135	328	94	95
5721	32892	109	238	83	114	246	89	119	137	82	145	367	103	97
5722	Swarna (Positive Check)	70	242	108	98	229	111	100	132	79	115	365	97	77
5723	Rasi (Positive Check)	85	222	75	96	204	87	88	163	74	101	262	94	85
5724	DRR Dhan-64 (positive Check)	98	202	86	104	229	90	111	121	82	134	266	103	95
5725	Varadhan (Positive Check)						100	108	100	85	146	334		
Experimental Mean		98	228	90	109	214	95	108	145	86	131	320	95	94
Standard Error					1.21			1.18			6.13			0.89

Table No. 33.3 (contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – LNT N (50), Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN									ZONE VII- SOUTHERN (4)			Overall Mean (7)		
		Karnataka			Karnataka (2)			Telangana			SOUTH (4)					
		Gangavati			Mean			IIRR			Mean					
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
5701	32872	94	109	330	94	100	330	111	109	392	96	115	354	94	114	275
5702	32873	89	105	313	89	102	313	105	105	378	91	110	328	90	110	264
5703	32874	97	95	295	91	96	295	104	95	389	92	105	325	91	106	258
5704	32875	103	101	280	97	97	280	104	101	355	97	105	309	97	102	256
5705	32876	100	97	308	94	96	308	103	97	403	93	104	330	92	105	261
5706	32877	96	97	318	94	95	318	87	97	341	88	103	329	88	104	266
5707	32878	101	102	332	98	101	332	104	102	348	97	104	326	95	104	264
5708	32879	94	105	315	95	101	315	110	105	419	97	105	334	95	106	270
5709	32880	106	99	299	100	90	299	104	99	331	100	99	321	99	97	257
5710	32881	105	98	259	97	94	259	105	98	319	97	102	310	96	103	248
5711	32882	106	102	284	103	102	284	110	102	324	107	111	311	106	110	249
5712	32883	97	103	331	100	101	331	110	103	360	99	111	339	98	109	265
5713	32884	96	107	305	97	102	305	110	107	363	99	115	332	96	111	277
5714	32885	96	98	331	99	96	331	110	98	345	101	110	347	100	110	276
5715	32886	103	97	288	99	87	288	110	97	403	100	99	388	99	97	298
5716	32887	102	124	327	101	119	327	109	124	357	99	129	336	98	126	263
5717	32888	101	105	316	100	96	316	102	105	326	99	103	293	95	100	239
5718	32889	99	105	306	100	105	306	104	105	342	97	116	305	96	116	253
5719	32890	98	124	319	98	114	319	109	124	400	97	121	361	97	119	267
5720	32891	97	104	286	96	99	286	109	104	328	96	109	314	94	107	253
5721	32892	90	105	322	96	101	322	109	105	356	96	113	348	92	113	278
5722	Swarna (Positive Check)	111	94	293	104	85	293	112	94	389	100	95	349	103	92	275
5723	Rasi (Positive Check)	87	90	284	90	88	284	84	90	322	85	92	289	84	91	243
5724	DRR Dhan-64 (positive Check)	95	109	327	99	102	327	104	109	346	96	112	313	93	109	249
5725	Varadhan (Positive Check)										85	146	334	92	127	217
Experimental Mean		98	103	307	97	99	307	105	103	359	96	109	329	95	108	261
Standard Error			0.79					0.53				1.52				1.04

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 33.3 (contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – LNT N (50), Kharif 2024 (Notconsidered)

Entry No	IET No	ZONE III- EASTERN			
		Bihar			Jharkhand
		@Pusa			@Ranchi
		DFP	PH	PAN	DFP
5701	32872	100	100	216	111
5702	32873	96	104	204	112
5703	32874	96	102	204	108
5704	32875	102	98	214	113
5705	32876	104	81	212	108
5706	32877	98	93	206	114
5707	32878	100	102	212	111
5708	32879	95	100	198	110
5709	32880	106	79	222	111
5710	32881	104	94	222	101
5711	32882	104	108	220	111
5712	32883	106	90	220	110
5713	32884	105	92	220	109
5714	32885	108	88	220	110
5715	32886	108	72	226	111
5716	32887	102	106	212	103
5717	32888	98	93	222	87
5718	32889	98	106	220	110
5719	32890	100	102	234	86
5720	32891	95	89	218	111
5721	32892	98	102	215	111
5722	Swarna (Positive Check)	112	78	210	111
5723	Rasi (Positive Check)	88	72	214	105
5724	DRR Dhan-64 (positive Check)	90	96	227	109
5725	Varadhan (Positive Check)				112
Experimental Mean		100	93	216	107

Table No. 33.3 (contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – LNT N (100), Kharif 2024

Entry No	IET No	ZONE II-NORTHERN		ZONE III- EASTERN			ZONE VI- WESTERN		
		Punjab		Odisha			Maharashtra		
		Ludhiana		Cuttack			Karjat		
		PH	PAN	DFP	PH	PAN	DFP	PH	PAN
5701	32872	91	231	90	113	279	104	127	147
5702	32873	107	266	89	113	256	100	116	150
5703	32874	101	249	87	114	261	106	108	86
5704	32875	86	218	97	108	288	95	108	132
5705	32876	98	209	90	117	267	96	107	129
5706	32877	100	242	85	113	283	82	106	138
5707	32878	97	246	89	113	283	92	111	120
5708	32879	99	218	90	117	272	92	120	137
5709	32880	74	226	96	101	305	97	101	141
5710	32881	86	235	93	120	290	86	107	127
5711	32882	100	229	111	123	289	92	117	119
5712	32883	109	281	95	125	287	87	114	159
5713	32884	105	275	93	115	291	97	102	139
5714	32885	104	264	98	118	284	96	114	116
5715	32886	81	231	98	101	272	88	100	131
5716	32887	113	226	93	128	265	90	124	111
5717	32888	90	191	88	100	274	82	104	128
5718	32889	113	246	92	128	301	102	118	136
5719	32890	111	277	93	131	231	107	118	125
5720	32891	105	257	87	118	303	111	101	125
5721	32892	104	198	84	116	301	95	123	104
5722	Swarna (Positive Check)	74	196	112	102	292	104	103	121
5723	Rasi (Positive Check)	71	226	77	98	291	95	91	150
5724	DRR Dhan-64 (positive Check)	94	218	91	111	295	101	114	110
5725	Varadhan (Positive Check)						88	108	88
Experimental Mean		96	235	92	114	281	95	110	126
Standard Error					1.1			0.67	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 33.3 (contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LNT N (100), Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN									ZONE VII- SOUTHERN (3)			Overall Mean (6)		
		Andhra Pradesh			Karnataka			Telangana			Mean					
		Maruteru			Gangavati			IIRR								
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
5701	32872	89	153	334	97	102	312	112	117	407	99	124	351	98	117	285
5702	32873	91	131	293	88	104	341	106	122	411	95	119	348	95	116	286
5703	32874	85	132	262	94	96	312	104	106	367	94	111	314	95	109	256
5704	32875	91	125	200	104	86	291	105	104	378	100	105	290	98	103	251
5705	32876	81	124	180	102	86	316	104	110	407	96	107	301	95	107	251
5706	32877	81	122	299	98	94	322	88	103	407	89	106	343	87	106	282
5707	32878	91	112	231	100	94	302	105	111	370	99	106	301	95	106	259
5708	32879	92	113	198	94	96	340	111	106	436	99	105	325	96	109	267
5709	32880	99	116	356	104	86	290	105	104	406	103	102	351	100	97	287
5710	32881	89	123	253	108	84	291	105	106	370	101	104	305	96	104	261
5711	32882	113	134	385	109	104	324	111	118	422	111	119	377	107	116	295
5712	32883	88	130	367	98	100	275	111	116	429	99	115	357	96	116	300
5713	32884	93	146	363	97	102	296	111	123	405	100	124	355	98	116	295
5714	32885	98	167	319	98	92	336	111	103	392	102	121	349	100	116	285
5715	32886	95	128	341	102	82	292	111	99	400	103	103	344	99	98	278
5716	32887	91	152	299	105	108	338	111	129	407	102	129	348	98	126	274
5717	32888	93	111	196	102	94	337	105	113	363	100	106	299	94	102	248
5718	32889	86	143	196	100	110	318	105	120	378	97	124	297	97	122	262
5719	32890	89	132	279	100	104	340	110	128	405	100	121	341	100	121	276
5720	32891	87	135	367	98	96	294	110	122	447	98	118	369	98	113	299
5721	32892	83	140	187	92	101	314	110	114	463	95	118	321	93	116	261
5722	Swarna (Positive Check)	111	117	451	112	79	304	113	100	403	112	99	386	110	96	294
5723	Rasi (Positive Check)	75	98	233	89	86	283	86	94	396	83	92	304	84	90	263
5724	DRR Dhan-64 (positive Check)	87	134	326	96	107	336	105	114	356	96	118	339	96	112	273
5725	Varadhan (Positive Check)	89	148	240							89	148	240	89	128	164
Experimental Mean		90	130	286	99	95	312	106	111	401	98	114	330	97	110	270
Standard Error		0.68			0.99			0.34								

Table No. 33.3 (contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LNT N (100), Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN				ZONE VII- SOUTHERN		
		Bihar		Jharkhand		Karnataka		
		@Pusa		@Ranchi		@Mandhya		
		DFE	PH	PAN	DFE	DFE	PH	PAN
5701	32872	98	100	216	114	93	91	267
5702	32873	91	104	204	115	87	94	263
5703	32874	91	102	204	110	86	91	277
5704	32875	102	98	214	115	90	77	269
5705	32876	109	81	212	111	85	86	286
5706	32877	97	93	206	116	92	86	286
5707	32878	98	102	212	113	95	80	290
5708	32879	92	100	198	113	93	82	270
5709	32880	108	79	222	113	92	73	272
5710	32881	106	94	222	103	88	129	320
5711	32882	103	108	220	113	101	87	320
5712	32883	104	90	220	113	103	91	283
5713	32884	104	92	220	112	99	81	292
5714	32885	108	88	220	113	69	82	272
5715	32886	107	72	226	113	95	73	324
5716	32887	100	106	212	106	101	108	312
5717	32888	98	93	222	89	98	84	278
5718	32889	98	106	220	113	99	96	283
5719	32890	98	102	234	88	96	101	274
5720	32891	93	89	218	113	93	88	292
5721	32892	96	102	215	114	101	85	279
5722	Swarna (Positive Check)	102	78	210	113	94	74	295
5723	Rasi (Positive Check)	86	72	214	108	90	82	274
5724	DRR Dhan-64 (positive Check)	90	96	227	111	103	85	328
5725	Varadhan (Positive Check)				113			
Experimental Mean		99	93	216	110	93	87	287

**Advance Varietal & Initial Variety Trial-Aromatic Grain Type
(AVT 1 & IVT-AGT)**

Locations: 35

Test entries: 28

Table: 29

Checks: Shobini (National), Badshahhog Sel-1 (Northern & Central), CR Sugandh Dhan 907 (Eastern & North Eastern), GAR – 14 (Western) Sugandh Samba (Southern) – Zonal, Dubraj Sel-1 and Ketekijoha – Quality, Rajendranagar Vari-2 (RNR 15435) – Long Grain Check and Local check.

Advance Varietal & Initial Variety Trial Aromatic Grain Type (AVT 1 & IVT-AGT) was constituted with 28 test entries in all the zones along with National check - Shobhini, zonal check Badshahbhog Sel-1 (Northern and central), CR Sugandh Dhan 907 (Eastern and North Eastern), GAR-14 (Western), Sugandh Samba (Southern). The quality checks were Dubraj Sel-1, Ketakijoha and long grain check was Rajendranagar Vari 2 (RNR 15435) and local check. The trial was sent to 35 locations and the data was received from 25 locations. Among the 28 test entries two entries (IET 31901 and IET 31909) in second year of testing and remaining entries are in first year of testing. The data from 6 centres were excluded Nagina, Sabour, Jagdalpur, Nawagam, Mugad, Pattambi from analysis due to either low (<5%) or high CV (20%) or low experimental yield (< 4000 Kg/ha) or non-significant F variance ratio between treatments and hence data from 19 locations was utilized in data analysis. The data for grain yield, days to 50% flowering, plant height, panicles/m² and data of grain quality are presented in the Table 29.1, 29.2, 29.3 and 29.4.

Overall mean performance of the entries:

Data from 19 locations was considered for overall mean yield of the test entries including checks. Mean yield ranged from 3448 kg/ha (IET 32834) to 5578 kg/ha (IET 32842). Five entries viz. IET 32842 (5578 kg/ ha), IET 31901 (5370 kg/ ha), IET 32846 (5252 kg/ ha), IET 32835 (5232 kg/ ha) and IET 32847 (5224 kg/ ha) showed grain yield superiority over the best check (NC: Shobini 4802 kg/ ha). The entry, IET 32846 has been promoted to AVT-1 on the basis of its strong scent / aroma (SS).

Performance of the superior entries on overall basis:

Ran k	IET No/Designation/Cross combination	Grain Yield (kg/ha)	DFP	GT	Aroma	Remarks
1	IET 32842 NDR2023-12-34 (HUR36*Pusa Basmati1)	5578	104	LS	NS	Not Promoted
2	IET 31901 KAU-PTB-TRV-EBC-14 (Selection from Biryani Cheera)	5500	102	MB	NS	Not Promoted to AVT 2
3	IET 32846 SRB-25-32-1-1 (Sugandha Samba /Ganjekalli)	5339	105	MS	SS	Promoted
4	IET 32847 NDR 2023-11 AR 152 CP-152 (Rajendra Mahsuri/Sukha Dhan)	5308	104	LS	NS	Not Promoted
5	IET 32835 RGL 7038 (MTU RM 428-53-1-1) MTU1262/MTU1075	5216	117	MS	NS	Not Promoted

Annual Progress Report 2024 Vol. I – Varietal Improvement

BC	Shobini (NC)	4837	104			
	ZC	4166	110			
	Check RNR 15435	4185	101			
	Quality Check (QC1) Dubraj Sel.1	4193	110			
	Quality Check (QC2) Ketekijoha	4329	112			
	Local Check (LC)	4772	106			
	CD	232				

SS- Strong Scented; NS – Non-Scented

Zonal performance of the entries

Zone II Northern

Only one location data i.e., Kanpur was received and mean yield ranged from 4985 kg/ ha (Ketekijoha) to 2320 kg/ha (IET 31912 (R)). None of the test entries showed YIELD superiority over the Quality check Ketekijoha, and hence, **none were promoted**.

Zone III Eastern

Data from seven locations were considered and mean yield ranged from 5252 kg/ha (IET 32839) to 3290 kg/ha (IET 32831). Three test entries viz. IET 32842 (5252 kg/ha), IET 31901 (5147 kg/ha) and IET 32847 (4962 kg/ha) showed superiority in yield than the best check i.e. RNR 15435 (long grain check) but none of the entries had aroma (NS).

Performance of the superior entries

Ran k	IET No/ Designation/ Cross combination	Grain Yield (kg/ha)	DFE	GT	Aroma	Remark
1	IET 32842 NDR2023-12-34 (HUR36*Pusa Basmati1)	5252	108	LS	NS	Not Promoted
2	IET 31901 KAU-PTB-TRV-EBC-14 (Selection from Biryani Cheera)	5147	108	MB	NS	
3	IET 32847 NDR 2023-11 AR 152 CP- 152 (Rajendra Mahsuri*Sukha Dhan)	4962	105	LS	NS	
	Shobini (NC)	4269	107			
	ZC	3852	120			
BC	Long grain Check RNR 15435	4465	107			
	Quality Check (QC1) Dubraj Sel.1	3802	112			
	Quality Check (QC2) Ketekijoha	3633	114			
	Local Check (LC)	4057	109			
	CD	397				

Zone IV North Eastern

Data was collected from one location i.e., Titabar and mean yield ranged from 6484 kg/ha (IET 32842) to 2690 kg/ ha (IET 32843). Five entries viz., **IET32842** (6484), **IET 32848** (6349) , **IET 31912** (6265) , IET **31901** (6247) and **IET 32846** (6079) showed superiority in

Annual Progress Report 2024 Vol. I – Varietal Improvement

yield and surpassed the Quality check Dubraj Sel 1 (5085 kg /ha), and on basis of presence of aroma three entries (IET 32848, IET 31912 and IET 32846) got **promoted**

Ran k	IET No/Designation/Cross combination	Grain Yield (kg/ha)	DFP	GT	Aroma	Remarks
1	IET 32842 NDR2023-12-34 (HUR36*Pusa Basmati1)	6484	116	LS	NS	Not Promoted
2	IET 32848 RGL 7040 (MTU RM 428-1-1-1) MTU 1262/MTU 1075	6349	130	LS	MS	Promoted
3	IET 31912 BRR-2277 Taroari Basmati Dwarf Mutant 2/MTU7029	6265	127	SS	MS	Promoted
4	IET 31901 KAU-PTB-TRV- EBC-14 (Selection from Biryani Cheera)	6247	115	MB	NS	Not Promoted to AVT 2
5	IET 32846 SRB-25-32-1-1 (Sugandha Samba /Ganjekalli)	6079	116	MS	SS	Promoted
	Shobini (NC)	4604	117			
BC	ZC	4992	118			
	Check RNR 15435	3571	116			
	Quality Check (QC1) Dubraj Sel.1	5085	114			
	Quality Check (QC2) Ketekijoha					
	Local Check (LC)	4330	121			
	CD	232				

Zone V Central

Data was received from four centres viz., Raipur, Ambikapur, Jabalpur and Warseoni. Mean yield ranged from 2570 kg/ ha (IET 32834) to 6112 kg/ ha (IET 32846). One entry IET 32846 (6112 kg/ ha) was found superior to the best check i.e. Shobini (National Check). Therefore, one entry IET 32846 got promoted

Performance of the superior entries

Ran k	IET No/Designation/Cross combination	Grain Yield (kg/ha)	DFP	GT	Aroma	Remark
1	IET32846 (SRB-25-32-1-1) Sugandha Samba/Ganjekalli)	6112	114	MS	SS	Promoted
BC	Shobini (NC)	5047	111			
	ZC	3829	117			
	Long grain Check RNR 15435	3874	106			
	Quality Check (QC1) Dubraj Sel.1	3800	121			
	Quality Check (QC2) Ketekijoha	4892	124			
	Local Check (LC)	4889	114			
	CD	386				

Annual Progress Report 2024 Vol. I – Varietal Improvement

Zone VI Western

Data was received from two (Navsari and Karjat) locations. Mean yield ranged from 7071 kg/ ha (IET 32828) to 3088 kg/ ha (IET 32848). None of the test entries showed superiority and surpassed the best check i.e, Local check (6760 kg /ha), and hence, **none were promoted**.

Zone VII Southern

Data from four locations (Sirsi, Karaikal, Rajendranagar, Aduthurai) were considered and mean yield ranged from 7028 kg/ ha (IET 32835) to 4081 kg/ ha (IET 32834). Six entries viz., IET 32835 (7028 kg/ ha), IET32842(6981 kg/ ha), IET 32847(6790 kg/ ha), IET 31909 (6566 kg/ ha), IET 32843 (6351 kg/ ha) and IET 32829(6274 kg/ ha) performed superior in grain yield than the best check Shobini (NC) (5253 kg/ha) and based on presence of aroma three entries were promoted.

Performance of the superior entries

Rank	IET No/ Designation/ Cross combination	Grain Yield (kg/ha)	DFF	GT	Aroma	Remarks
1	IET32835 (RGL 7038 MTU RM 428-53-1-1) MTU1262/MTU1075	7028	109	MS	NS	Not Promoted
2	IET32842 NDR2023-12-34 (HUR36*Pusa Basmati1)	6981	100	LS	NS	Not Promoted
3	IET 32847 NDR 2023-11 AR 152 CP-152 (Rajendra Mahsuri/Sukha Dhan)	6790	106	LS	NS	Not Promoted
4	IET 31909 IET 31909 (R 2356-218-98-1) Swarna / Badshabhog sel.-1	6566	100	SS	MS	Promoted
5	IET 32843 (kumdhaphool Mutant-4) Mutant of Kumdhaphool	6351	106	SB	SS	Promoted
6	IET 32829 CRAC-3995-48-4 Doubled Haploid of BS6444G	6274	96	MS	MS	Promoted
BC	Shobini (NC)	5601	100			
	ZC	5004	97			
	Long grain Check RNR 15435	4572	95			
	Quality Check (QC1) Dubraj Sel.1	5445	105			
	Quality Check (QC2) Ketekijoha	5321	112			
	Local Check (LC)	5351	104			
	CD	663				

Promoted entries :

AVT 1 to AVT 2 : Zone VII -IET 31909

IVT to AVT 1: Overall: IET 32846, Zone IV : IETs 31912, 32846, 32848

Zone V: IET 32846, Zone VII : IETs 32829, 32843

Annual Progress Report 2024 Vol. I – Varietal Improvement

Trial No. 29.1: Composition of entries in Initial Variety Trial – Aromatic Grain Type (AVT 1 & IVT - AGT) (Non-Basmati) Kharif 2024

Entry No.	IET No.	Designation	Cross Combination	Grain type
5101	32826	BRR 0293	Katarni/Rajendra Sweta	MS
5102	32827	Loktimachi Mutant-9	Mutant of Loktimachi	SB
5103	32828	R 2397-156-1-128-1	MTU 1010/Indira Sugandhit Dhan-1	MS
5104	32829	CRAC-3995-48-4	Doubled Haploid of BS6444G	MS
5105		Shobini (NC)		
5106	31909 (R)	IET 31909 (R 2356-218-98-1)	(Swarna / Badshabhog sel.-1)	MS
5107	32830	BRR 0294	Katarni/Rajendra Sweta	MS
5108	32831	L:910	Pureline selection of Lalpari	MS
5109		Badshabhog Sel.1 (Northern & Central) CR Sugandh Dhan 907 (Eastern & North Eastern), GAR-14 (Western), Sugandh Samba (Southern)--ZC		
5110	32832	RNR 31245	R 341-55-2-1-R-1/SN 1509	LS
5111	32833	SRB-16-35-1-1	Shobini/Muhulakuchi	MS
5112	32834	CRD Bauna Kalanamak 120	Natural mutant Pusa CRD KN2	MS
5113	31901 (R)	(KAUPTB-TRV-EBC-14)	Selection of Traditional variety early Biryani Cheera	MB
5114	32835	RGL 7038 (MTU RM 428-53-1-1)	MTU 1262/MTU 1075	SS/MS
5115		Dubraj Sel.1(QC)		
5116	32836	BRR 0295	BPT 5204/Pusa Sugandh-5	MS
5117	32837	Ramjeera Mutant-10	Mutant of Ramjeera	SS
5118	32838	VB Badshabhog Mut 38	Badshabhog mutant	SS
5119	32839	CR4448-3	Pureline selection from Gobindabhog	SB
5120		Ketekijoha (QC)		
5121	32840	SRB-18-40-1-2	Sugandha Samba/WGL 14	SS
5122	32841	RP 6200-84 RIL-MCM 3	Swarna/Chittimuthyalu	MB
5123	32842	NDR 2023-12-34	HUR36/Pusa Basmati 1	LS
5124	32843	kumdhaphool Mutant-4	Mutant of Kumdhaphool	SB
5125		RNR 15435 (Check)		
5126	31912 (R)	BRR-2277	Taroari Basmati Dwarf Mutant 2/MTU7029	MS
5127	32844	R-ASG-2019-36	Sel. From IC0462698	SB
5128	32845	RNR 41782	RNR 15435/SN 370	ELS
5129	32846	SRB-25-32-1-1	Sugandha Samba/Ganjekalli	MS
5130		Local Check (LC)		
5131	32847	NDR 2023-11-AR 152-CP-152	Rajendra Mahsuri/Sukha Dhan 5	LS
5132	32848	RGL 7040 (MTU RM 428-1-1-1)	MTU 1262/MTU 1075	SS
5133	32849	CR4448-5	Pureline selection from Gobindabhog	SB
5134	32850	ORB-4-KM-2	Mutant Kalikati	SS
5135		Filler		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 29.2: Grain Yield (kg/ha) in AVT 1 & IVT - AGT, Kharif 2024

Entry No	IET No	ZONE II- NORTHERN				ZONE III- EASTERN															
		Uttar Pradesh		Bihar		Jharkhand		Odisha		Odisha (2)		Uttar Pradesh		Uttar Pradesh (2)		West Bengal					
		Kanpur		Bikramganj		Ranchi		NRRI		Jeypore		Mean		Masodha		Varanasi		Mean		Hatwara	
5101	32826	3895	8	4657		3625		3525		3944		3734		4661		3627		4144		4325	7
5102	32827	3250		3142		4422	3	3068		2729		2390		3637		4502		4070		2484	
5103	32828	4260	5	4467		3045		4340		3097		3719		5705	2*	4509		5107		3668	
5104	32829	3635		4230		4132	5	4550		3692		4121		5193	10	5427	5	5310	6	4051	
5105	Shobini (NC)	4740	3	4659	10	3698		4265		3895		4080		5053		5263	7	5158	10	3053	
5106	31909 (R)	3625		5218	4	4060	6	3360		4102	10	3731		5465	5	4381		4923		3655	
5107	32830	3165		3371		3552		4395		2709		3552		3949		3428		3689		2712	
5108	32831	3690	10	3541		3552		3725		2119		2922		4285		3762		4024		2045	
5109	ZC	3420		4204		3118		3700		3521		3611		4528		4602		4565		3291	
5110	32832	3220		3600		3045		3720		4064		3892		4096		4602		4349		4195	9
5111	32833	2410		4210		3552		4150		2518		3334		5027		3023		4025		2791	
5112	32834	3505		3130		3552		3915		2199		3057		4245		5946	1	5096		2348	
5113	31901 (R)	3565		7490	2*	3408		4585		5480	2	5032	3	5459	6	4275		4867		5331	3*
5114	32835	3300		4201		3480		4350		4929	8	4639	8			4203		4203		3021	
5115	Dubraj Sel.1(QC)	3500		4112		3480		3400		3605		3503		5146		4509		4828		2364	
5116	32836	3550		4865	8	3408		3156		5004	6	4080		5166				5166	9	6109	2*
5117	32837	3650		2993		3045		4452		2130		3291				4438		4438		2450	
5118	32838	3335		4028		3262		4766	7	3146		3956		3524		3841		3682		3457	
5119	32839	2595		3784		3552		4769	6	2032		3401		3630		2966		3298		2371	
5120	Ketekijoha (QC)	4985	1	3266		3625		2204		2204		2204		4029		4851		4440		3825	
5121	32840	3405		5065	7	3770		3669		4872	9	4270	10	5326	7	4516		4921		4158	10
5122	32841	3075		3220		3190		4674	9	2041		3358		4455		4979	9	4717		2472	
5123	32842	3785	9	4647		4060	6	5625	2*	5045	5	5335	1	5239	9			5239	7	6899	1*
5124	32843	3450		3260		2538		4150		2462		3306				5683	3	5683	2	3778	
5125	RNR 15435 (Check)	3470		3348		3915	10	4075		5456	4	4766	6	4940		5455	4	5198	8	4068	
5126	31912 (R)	2320		8186	1*	3408		4600		2840		3720		5698	3*			5698	1	4260	8
5127	32844	4080	7	3951		3480		3025		2012		2519		4342		4858	10	4600		2723	
5128	32845	3380		3633		4495	2	4825	4	4933	7	4879	5	5312	8	5370	6	5341	5	5189	5
5129	32846	4330	4	4274		4712	1	6300	1*	3495		4897	4	5858	1*	4168		5013		4066	
5130	Local Check (LC)	3450		4762	9	4278	4	4450		2111		3280		4887		5811	2	5349	4	2102	
5131	32847	3400		5136	5	4060	6	4035		5480	2	4757	7	5552	4	5164	8	5358	3	5309	4*
5132	32848	4755	2	4299		3988	9	5100	3	5509	1	5304	2	5000		3485		4243		5037	6
5133	32849	4165	6	5089	6	2610		4674	9	4032		4353	9	4043				4043		2400	
5134	32850	3350		5320	3	3190		4703	8	2358		3531		3770		4452		4111		2157	
5135	Filler	3550		4460		3118		4800	5	3635		4217		4694		4267		4481		3548	
Experimental Mean		3579		4338		3584		4262		3516		3859		4747		4528		4668		3592	
CD(0.05)		946		1052		890		1156		1105		788		421		492		364		1209	
CV(%)		13		11.93		12.22		13.33		15.46		10.04		4.35		5.32		3.83		16.56	
F val		3.11 **		9.12 **		2.6 **		3.1 **		9.8 **		7.92 **		21.54 **		20.67 **		22.61 **		8.25 **	
DOS		02-07-2024		29-06-24		27-06-24		19-06-24		04-07-24		02-07-24		25-06-24						12-07-24	
DOP		03-08-24		03-08-24		23-08-24		29-07-24		31-07-24		03-08-24		08-08-24						19-08-24	
Local Check Name		sarju 52		R. Kasturi		BVS-1		CR Dhan 910		Kalajeera		NDR 6093		HUR-917						Lal Badshabhog	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 29.2 (Contd.): Grain Yield (kg/ha) in AVT 1 & IVT - AGT, Kharif 2024

Entry No	IET No	ZONE III- EASTERN (7)		ZONE IV-NORTH EASTERN				ZONE V- CENTRAL						ZONE V- CENTRAL (4)				
				Assam		Chhattisgarh		Chhattisgarh (2)		Madhya Pradesh		Madhya Pradesh (2)		Mean				
		Mean		Titabar		Raipur	Ambikhapur	Mean		Jabalpur	Waraseoni	Mean		Mean				
5101	32826	4052		3936		5045	5398	7	5221		5221	7	4302		4762	6	4991	6
5102	32827	3378		4935		5138	4318		4728		4457		3871		4164		4446	
5103	32828	4119		5438		4559	5489	5	5024		4662		4461	6	4562	8	4793	
5104	32829	4468	10	5164		5684	4045	10	4865		4356		4489	5	4422	10	4644	
5105	Shobini (NC)	4269		4604		5475	4727		5101		5383	6	4603	4	4993	5	5047	5
5106	31909 (R)	4320		4268		7804	5682	3	6743	1*	4395		3820		4107		5425	2
5107	32830	3445		5259		3753	4528		4141		4053		4313	10	4183		4162	
5108	32831	3290		3280		3753	5398	7	4576		3148		2736		2942		3759	
5109	ZC	3852		4992		2981	5216		4099		3549		3570		3560		3829	
5110	32832	3903		5606	9	4935	5028		4982		3003		3320		3162		4072	
5111	32833	3610		5175		6033	4318	7	5176		4267		3717		3992		4584	
5112	32834	3619		2653		1364	4295		2830		2309		2310		2310		2570	
5113	31901 (R)	5147	2*	6247	4*	7837	3915	1*	5876	3	4087		4376	8	4231		5054	4
5114	32835	4031		5453	10	4941	5739	1	5340	8	6453	4	4432	7	5443	3	5391	3
5115	Dubraj Se1.1(QC)	3802		5085		2008	5250		3629		3840		4103		3972		3800	
5116	32836	4618	8	5244		5434	5034		5234	10	1412		3558		2485		3860	
5117	32837	3251		3174		2493	5403	6	3948		1568		2650		2109		3029	
5118	32838	3718		3998		3444	4773		4108		3330		2401		2865		3487	
5119	32839	3301		4556		5409	4602		5006		1757		4648	3	3202		4104	
5120	Ketekijoha (QC)	3633					4489		4489		6459	3	3729		5094	4	4892	9
5121	32840	4482	9	5295		5582	4670		5126		5088	8	4200		4644	7	4885	
5122	32841	3576		4344		2711	4886		3799		2675		4234		3454		3626	
5123	32842	5252	1*	6484	1*	6384	4665	5	5525	5	3641		3246		3444		4484	
5124	32843	3645		2690		1117	5568	4	3343		8479	1*	3235		5857	2*	4600	
5125	RNR 15435 (Check)	4465		3571		3926	5278		4602		3324		2968		3146		3874	
5126	31912 (R)	4832	4	6265	3*	5248	4773		5010		2720		3922		3321		4166	
5127	32844	3484		4651		2571	5398	7	3984		2223		3876		3050		3517	
5128	32845	4822	5	5114		4846	5312	10	5079		4842	10	3570		4206		4643	
5129	32846	4696	6	6079	5*	6899	5739	1	6319	2*	6650	2	5159	1	5905	1*	6112	1*
5130	Local Check (LC)	4057		4330		5768	4943		5356	7	6280	5	2565		4423	9	4889	10
5131	32847	4962	3*	5937	6	6832	4773	4	5802	4	4915	9	3326		4120		4961	7
5132	32848	4631	7	6349	2*	5877	5062	8	5470	6	4113		4682	2	4398		4934	8
5133	32849	3808		2956		2895	5045		3970		3654		3326		3490		3730	
5134	32850	3707		5802	7	3151	4591		3871		4089		3218		3654		3762	
5135	Filler	4074		5693	8	6088	4545	6	5317	9	4084		4325	9	4205		4761	
Experimental Mean		4066		4842		4647	4940		4791		4128		3750		3939		4368	
CD(0.05)		397		949		1331	665		728		482		753		455		386	
CV(%)		4.81		9.64		14.08	6.62		7.48		5.75		9.88		5.69		4.35	
F val		16.44 **		10.57 **		14.03 **	4.35 **		10.98 **		84.78 **		7.49 **		33.99 **		29.61 **	
DOS				06-07-24			03-07-24				27-06-24		28-06-24					
DOP				02-08-24			07-08-24				18-07-24		29-07-24					
Local Check Name				AAU-KMJ Dhan-47			Vishnubhog				JR 206		Improved Chinnor					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 29.2 (Contd.): Grain Yield (kg/ha) in AVT 1 & IVT - AGT, Kharif 2024

Entry No	IET No	ZONE VI- WESTERN		ZONE VI- WESTERN (2)		ZONE VII- SOUTHERN				ZONE VII- SOUTHERN (4)		Uttar Pradesh (3)		Overall Mean (19)							
		Gujarat	Maharashtra	Mean		Karnataka		Puducherry		Telangana		Tamil Nadu		Mean		Mean					
		Navasari	Karjat	Sirsi	Karaikal	Rajendranagar	Adutrai	Mean		Mean											
5101	32826	4913	4540	4726	5967	4765	4006	3924	4665	4061	4436										
5102	32827	4559	3214	3886	7800	4570	2524	4051	4736	3796	4017										
5103	32828	5487	7	8656	1*	7071	1	9533	9	4117	5530	9	4019	5800	4825	2	5002	8			
5104	32829	6618	1	5489	8	6054	5	8967	4988	6268	6	4873	8	6274	7*	4752	4	5045	7		
5105	Shobini (NC)	5909	5	4177		5043	10	5800	5073	10	6280	5	5253	2	5601	5019	1	4837			
5106	31909 (R)	5915	4	4112		5013		10200	7	4993	6958	3	4114		6566	4*	4491		5059	6	
5107	32830	4767		5362	9	5065	9	4967	4767	3690	3734	4290	3514	4025	3866						
5108	32831	4172		3659		3916		8733	4857	2750	4241	5145	3913	3866							
5109	ZC	5173		3268		4220		5367	5750	1	5006	3892	5004	4183	4166						
5110	32832	4490		3513		4001		6667	3926	3274	4620	4622	3972	4154							
5111	32833	5969	2	3481		4725		5333	4044	5792	8	3892	4765	3486	4195						
5112	32834	4697		3346		4021		1600	5170	6	5475	1	4081	4565	3448						
5113	31901 (R)	5427	8	8152	2	6790	2	7433	5695	2	7274	2	4462	6216	9	4433		5500	2*		
5114	32835	4418		6858	5	5638	6	12667	2*	5078	9	5179	5190	3	7028	1*	3752		5216	5*	
5115	Dubraj Sel.1(QC)	4605		2874		3739		10100	8	3713	3149	4816	10	5445	4385			4193			
5116	32836	4556		3844		4200		10667	6	5033	4643	4557	6225	8	4358	4736					
5117	32837	4697		4934		4815		7367	3608	3548	3924	4612	4044	3696							
5118	32838	4524		3447		3985		7700	5494	4	5143	3418	5439	3567	4054						
5119	32839	4600		3057		3828		8400	5094	8	4202	3544	5310	3064	3977						
5120	Ketekijoha (QC)			3185		3185		7767			3006	5190	3	5321	4622	9	4329				
5121	32840	4913		5990	7	5452	7	6033	4600	3863	3924	4605	4416	4681							
5122	32841	4399		2999		3699		8267	3934	2810	3133	4536	4169	3816							
5123	32842	5379	9	7372	4	6375	4	12533	3	4852	5351	5190	3	6981	2*	4512		5578	1*		
5124	32843	3518		2881		3200		11567	4	5450	5	5095	3291	6351	5*	4566	10	4345			
5125	RNR 15435 (Check)	3837		3595		3716		7000	4216	2702	4367	4572	4622	8	4185						
5126	31912 (R)	4491		4047		4269		6033	3770	4661	2975	4360	4009	4456							
5127	32844	3371		3223		3297		9033	5582	3	2524	3165	5076	4426	3899						
5128	32845	5352	10	3784		4568		7533	4840	4542	4051	5241	4687	7	4785						
5129	32846	5817	6	3784		4800		7867	4383	6792	4	5063	7	6026	10	4785	3	5339	3*		
5130	Local Check (LC)	5942	3	7577	3	6760	3	9467	10	4668	3030	4241	5351	4716	5	4772					
5131	32847	4508		5270	10	4889		12733	1*	4448	5929	7	4051	6790	3*	4705	6	5308	4*		
5132	32848	3144		3031		3088		7267	3942	7327	1*	5190	6	5931	4413	4903	9				
5133	32849	3290		4539		3914		6433	4767	3202	4873	8	4819	4104	4000						
5134	32850	3537		3274		3406		7833	5114	7	2750	4620	5079	3857	4067						
5135	Filler	4811		6015	6	5413	8	11267	5	4600	5387	10	4082	6334	6	4171		4893	10		
Experimental Mean		4759		4473		4593		8111		4703		4535		4269		5406		4256		4485	
CD(0.05)		1217		1043		657		2440		632		1042		1177		663		484		232	
CV(%)		12.57		11.47		7.04		14.8		6.61		11.29		13.57		6.04		5.59		2.55	
F val		4 **		19.78 **		22.12 **		8.12 **		7.07 **		16.82 **		2.71 **		12.56 **		7.06 **		47.15 **	
DOS		25-06-24		20-06-2024				27-06-24		11.09.2024		27-06-24		16-08-24							
DOP		19-07-24		16-07-2024				18-07-24		17.10.2024		23-07-24		25-09-24							
Local Check Name		GR-20		Karjat Shatabdi				Abhilash		Seeraga samba		RNR 15459									

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 29.2 (Contd.): Grain Yield (kg/ha) in AVT 1 & IVT - AGT, Kharif 2024 (Not Considered)

Entry No	IET No	ZONE II- NORTHERN		ZONE III- EASTERN		ZONE V- CENTRAL		ZONE VI- WESTERN		ZONE VII- SOUTHERN		
		Uttar Pradesh		Bihar		Chhattisgarh		Gujarat		Karnataka	Kerala	
		@Nagina		@Sabour		@Jagadalpur		@Nawagam		@Mugad	@Pattambi	
5101	32826	4874		4385	7	3023		2904		4709	4880	
5102	32827	5997		2524		3233		1956		4471	2808	
5103	32828	5924		3500		3772		4616	6	4618	1657	
5104	32829	5944		3207		3065		3674		4598	3528	
5105	Shobini (NC)	6336	4	3663	10	3379		4442	9	4891	4774	
5106	31909 (R)	5505		3514		4046	4	2704		4952	2988	
5107	32830	5193		3024		3898	7	3241		4423	5125	
5108	32831	5977		2721		3173		1481		4694	5806 3	
5109	ZC	5738		3438		3189		4130		4660	1976	
5110	32832	5864		3312		3075		3917		5351 5	5088	
5111	32833	5672		3596		3099		2287		5238 7	5227 9	
5112	32834	6277	5	1034		3129		1832		4654	1530	
5113	31901 (R)	6203	8	4457	6	4287	2	4598	7	5826 1	4684	
5114	32835	5645		5500	1	3820	9	2692		5350 6	3489	
5115	Dubraj Sel.1(QC)	5326		2861		3319		3060		5081 9	4862	
5116	32836	5765		3486		3151		5028	2	4922	4294	
5117	32837	5259		880		3063		1710		4879	5225 10	
5118	32838	5306		2639		3231		3219		4562	6003 2	
5119	32839	4787		2308		3229		3619		4793	1080	
5120	Ketekijoha (QC)	5964		1495		3650		915		4693	5300 8	
5121	32840	5991		3909	8	3429		3792		5392 4	2304	
5122	32841	5392		1322		3181		1496		4964	3089	
5123	32842	6243	6	4534	4	3814	10	4528	8	5547 2	4638	
5124	32843	4727		1385		3204		2120		5122 8	6025 1	
5125	RNR 15435 (Check)	5758		2356		3247		2825		4597	3744	
5126	31912 (R)	6390	3	3654		3001		3562		5081 9	1368	
5127	32844	6070	10	2894		3940	5	2875		4900	3461	
5128	32845	5931		2582		3065		5749	1	4981	4249	
5129	32846	6443	2	4476	5	3912	6	4820	4	5393 3	5517 5	
5130	Local Check (LC)	5918		2577		3085		3638		4141	5386 7	
5131	32847	5984		4851	3	3898	7	4333	10	5074	5406 6	
5132	32848	6649	1	4899	2	4387	1	4902	3	5002	4956	
5133	32849	6164	9	3005		3159		3476		4590	5792 4	
5134	32850	5971		2495		4213	3	2674		4588	5088	
5135	Filler	6217	7	3880	9	3135		4707	5	4376	4092	
Experimental Mean		5812		3153		3443		3358		4889		4155
CD(0.05)		1054		785		888		988		798		2473
CV(%)		8.92		12.25		12.69		14.48		8.03		29.29
F val		1.63ns		16.94**		1.81*		11.87**		1.73ns		2.8**
DOS		28-06-24		26-06-24		22-06-24		22-06-24		29-06-24		20-07-24
DOP		27-07-24		22-07-24		26-07-24		01-08-24				12-08-24
Local Check Name		NDR 97		Rajendra Kasturi		Vishnubhog		GAR 14		M.Sugand		Gandhakasala

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 29.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in AVT 1 & IVT - AGT, Kharif 2024 (Not Considered)

Entry No	IET No	ZONE II- NORTHERN			ZONE III- EASTERN			ZONE V- CENTRAL			ZONE VI- WESTERN			ZONE VII- SOUTHERN					
		Uttar Pradesh			Bihar			Chhattisgarh			Gujarat			Karnataka			Kerala		
		@Nagina			@Sabour			@Jagadapur			@Nawagam			@Mugad			@Pattambi		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
5101	32826	116	84	244	112	102	242	113	82	208	124	93	223	109	46	206	108	92	382
5102	32827	130	110	265	125	152	202	119	139	222	116	122	216	112	70	224	88	122	400
5103	32828	114	98	264	113	102	221	112	103	248	112	105	232	108	73	234	114	94	280
5104	32829	100	97	241	106	100	288	113	102	238	102	100	226	107	67	206	108	83	388
5105	Shobini (NC)	110	104	238	114	112	200	108	102	276	110	100	236	104	64	210	93	99	312
5106	31909 (R)	108	104	244	104	118	212	110	92	220	102	98	220	111	70	222	116	86	278
5107	32830	122	93	282	123	119	218	116	96	213	122	115	224	112	57	190	84	87	345
5108	32831	112	120	244	106	156	238	99	138	186	108	136	206	110	70	242	109	91	440
5109	ZC	124	134	191	126	102	236	116	155	241	110	105	234	111	59	223	96	86	290
5110	32832	112	99	230	106	108	254	109	104	223	110	108	232	114	68	224	112	86	405
5111	32833	100	97	221	110	99	258	101	80	252	100	94	223	115	62	195	111	98	480
5112	32834	78	87	221	90	72	332	96	74	161	94	100	221	72	48	197	108	83	295
5113	31901 (R)	106	97	231	103	100	286	109	98	235	100	98	236	103	70	229	90	88	298
5114	32835	134	104	254	130	122	265	116	120	274	108	119	226	115	80	276	110	95	294
5115	Dubraj Sel.1(QC)	126	110	261	116	137	224	115	126	241	124	126	227	110	105	292	108	103	324
5116	32836	120	103	238	118	120	223	114	116	310	122	119	239	110	68	239	109	95	578
5117	32837	138	86	221	132	114	198	113	117	270	110	114	218	116	69	285	112	94	244
5118	32838	126	103	231	124	126	218	113	129	248	126	133	228	116	70	220	110	92	510
5119	32839	130	118	251	126	152	198	112	135	246	136	149	230	116	96	238	106	101	386
5120	Ketekijoha (QC)	129	126	244	125	146	210	119	135	243	138	147	185	114	83	232	92	94	370
5121	32840	111	81	221	114	92	335	109	88	206	112	84	227	112	54	304	107	74	428
5122	32841	92	99	228	96	110	283	97	111	196	106	116	207	99	88	314	108	85	284
5123	32842	104	100	271	112	103	230	109	102	220	112	100	236	89	79	246	104	76	371
5124	32843	136	108	231	124	120	237	119	134	303	138	117	226	128	78	300	107	88	298
5125	RNR 15435 (Check)	107	117	291	104	134	244	107	117	228	108	136	228	106	87	210	108	85	316
5126	31912 (R)	110	95	257	115	112	256	118	101	260	110	113	230	92	72	272	108	84	270
5127	32844	130	108	211	125	176	210	119	153	264	138	169	226	100	90	236	108	99	338
5128	32845	90	97	208	97	100	291	97	105	255	102	107	243	95	70	220	106	89	172
5129	32846	114	96	240	113	110	295	114	100	190	114	100	238	112	80	288	110	92	339
5130	Local Check (LC)	82	103	211	114	126	216	109	95	204	124	95	231	108	58	217	108	105	166
5131	32847	105	97	232	111	100	250	109	103	252	110	102	234	106	70	238	108	95	330
5132	32848	104	101	254	125	122	322	118	105	302	108	113	239	110	86	298	107	87	207
5133	32849	120	116	241	117	139	195	118	119	222	126	145	230	114	93	336	108	102	226
5134	32850	102	128	208	124	166	246	117	142	262	108	157	226	112	108	262	106	83	362
5135	Filler	106	104	245	111	111	244	117	100	225	112	106	237	98	52	227	108	81	284
Experimental Mean		112	103	239	114	119	245	111	111	238	114	115	226	107	73	244	105	91	334

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 29.4: Grain quality characteristics of entries in AVT 1 & IVT - AGT, Kharif 2024

Code	Entry No.	Designation / IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	VER	WU	KLA C	ER	ASV	AC	GC	Aroma
1934	5101	32826	73.4	62.9	42.8	5.08	1.63	3.11	SS	VOC	4.1	235	8.2	1.61	4.0	23.96	23	MS
1935	5102	32827	77.7	68.6	65.5	3.61	1.87	1.93	SB	VOC	4.4	245	6.4	1.77	4.0	23.52	67	SS
1936	5103	32828	78.2	62.4	34.5	5.54	1.79	3.09	SS	VOC	4.5	330	8.7	3.16	7.0	28.57	22	SS
1937	5104	32829	76.1	57.5	21.6	5.35	1.80	2.97	MS	VOC	4.8	245	9.1	1.70	3.0	21.17	22	MS
1938	5105	Shobini (NC)	75.0	66.3	55.4	5.53	1.65	3.35	SS	VOC	4.5	225	8.5	1.53	4.0	26.69	22	SS
1939	5106	31909 (R)	77.4	61.7	33.2	5.60	1.76	3.18	SS	VOC	4.7	255	10.0	1.78	4.0	23.32	22	MS
1940	5107	32830	73.8	63.1	48.3	5.22	1.93	2.70	MS	VOC	4.5	250	8.5	1.62	4.0	26.45	22	MS
1941	5108	32831	76.6	63.2	25.9	5.51	1.91	2.88	MS	VOC	4.8	220	6.8	1.23	4.0	23.52	65	SS
1942	5109	ZC	78.4	65.9	57.2	4.04	2.06	1.96	SB	VOC	4.7	215	7.5	1.85	4.0	22.88	55	MS
1943	5110	32832	75.6	64.8	57.2	7.19	1.85	3.88	LS	OC	5.1	340	11.3	1.57	7.0	21.61	47	SS
1944	5111	32833	77.2	68.7	45.7	4.90	1.91	2.56	MS	VOC	4.6	275	8.4	1.71	3.0	15.75	85	MS
1945	5112	32834	75.0	56.1	24.2	4.94	1.85	2.67	MS	VOC	4.4	230	7.6	1.53	4.0	21.03	24	SS
1946	5113	31901 (R)	77.5	65.8	52.4	6.45	2.43	2.65	LB	OC	4.7	295	10.6	1.64	4.0	22.44	22	NS
1947	5114	32835	76.2	66.0	60.5	4.84	1.79	2.70	MS	A	4.3	270	7.5	1.54	4.0	27.89	51	NS
1948	5115	Dubraj Sel.1(QC)	77.4	65.4	55.7	5.16	1.82	2.83	MS	A	4.3	230	9.3	1.84	4.0	25.81	22	SS
1949	5116	32836	75.0	64.4	52.8	4.68	1.69	2.76	MS	VOC	5.5	210	7.4	1.58	4.0	27.57	22	NS
1950	5117	32837	77.5	68.1	67.0	4.19	1.82	2.30	SB	A	4.5	220	8.0	1.90	4.0	26.45	45	SS
1951	5118	32838	76.6	67.5	64.9	3.99	2.09	1.90	SB	VOC	4.1	195	7.5	1.87	4.0	24.55	70	SS
1952	5119	32839	77.8	69.0	66.6	3.90	1.72	2.26	SB	A	4.7	240	6.8	1.74	4.0	28.01	61	SS
1953	5120	Ketekijoha (QC)	78.1	66.7	57.1	5.30	1.68	3.15	SS	VOC	4.2	245	9.2	1.73	4.0	22.20	59	MS
1954	5121	32840	72.3	60.2	37.8	4.91	1.66	2.95	MS	VOC	4.4	300	8.3	1.69	3.0	28.80	25	SS
1955	5122	32841	75.0	53.9	15.7	6.47	2.16	2.99	LB	VOC	5.5	240	8.6	1.32	4.0	25.49	73	MS
1956	5123	32842	77.4	64.3	47.3	6.86	1.94	3.53	LS	VOC	4.8	260	10.5	1.53	3.0	26.34	71	NS
1957	5124	32843	75.0	60.9	41.9	5.41	2.69	2.01	SB	F	5.5	260	9.7	1.79	4.0	28.48	50	SS
1958	5125	RNR 15435 (Check)	71.6	62.0	56.3	7.32	1.61	4.54	LS	A	4.7	170	11.7	1.59	4.0	24.52	55	MS
1959	5126	31912 (R)	75.5	57.1	28.7	5.89	1.73	3.40	SS	VOC	4.0	185	9.5	1.61	4.0	24.49	43	MS
1960	5127	32844	77.7	68.8	67.2	3.83	1.97	1.94	SB	VOC	4.1	255	6.9	1.80	4.0	26.07	73	SS
1961	5128	32845	78.1	62.9	46.5	7.06	2.17	3.25	LS	VOC	4.6	345	10.8	1.52	7.0	27.92	22	MS
1962	5129	32846	77.5	64.6	49.9	6.39	1.94	3.29	MS	VOC	4.1	265	10.2	1.59	4.0	28.83	56	SS
1963	5130	Local Check (LC)	78.5	65.9	49.6	5.78	1.75	3.30	SS	VOC	5.6	285	9.5	1.64	4.0	28.98	66	MS
1964	5131	32847	77.7	65.4	46.8	7.07	1.92	3.68	LS	VOC	5.3	310	11.3	1.59	4.0	22.67	90	NS
1965	5132	32848	78.7	69.3	62.8	4.81	1.76	2.73	MS	A	5.3	350	7.5	1.55	7.0	27.98	61	MS
1966	5133	32849	75.0	64.7	59.7	4.03	1.94	2.07	SB	VOC	5.5	270	6.6	1.63	4.0	23.52	25	NS
1967	5134	32850	77.2	67.2	63.5	3.95	1.90	2.07	SB	VOC	4.6	265	8.0	2.02	4.0	23.08	47	MS
1968	5135	Filler	75.6	62.4	55.4	5.67	1.69	3.35	SS	VOC	5.0	250	8.5	1.49	4.0	26.40	22	SS

HULL: Hulling(%) MILL:Milling(%) HRR:Head Rice Recovery KL:Kernal length (mm) KB:Kernal Breadth(mm) L/B : Length and Breadth(mm) KLA C:Kernal length after cooking WU:Water uptake ER:Elongation ratio AC:Amylose content (%)ASV:Alkali Spreading Value AC: Amylose Content GC: Gel consistency

INITIAL VARIETY TRIAL - COLOURED RICES (IVT – Coloured Rice)

Locations: 22

Test Entries: 27

Checks: Choharto (Red rice Check), Jyothi (Matta Red Rice Check), **Table: 34**
Kauni (Black Rice check) and Local check

India is home to a diverse array of rice varieties, including several types of colored rice. These unique varieties of rice are gaining popularity due to their distinctive appearance and potential health benefits. Colored rices in India include black, red, and brown rice, which get their hues from natural pigments in the bran layer of the rice grain. For example, black rice is high in anthocyanins, which are antioxidants that may offer health benefits such as reducing inflammation and improving heart health. Similarly, red rice gets its color from anthocyanins and is also rich in iron, fiber, and other essential nutrients. Brown rice, which is less processed than white rice, is also considered a healthier option due to its higher fiber content and lower glycemic index. The coloured rices of India not only add diversity and flavour to the Indian cuisine but also offer a range of nutritional benefits.

In 2022, a pilot trial was initiated, followed by a regular trial in 2023 and 2024. The regular trial comprised of 27 test entries and four control checks: Choharto (Red rice), Jyothi (Matta Red rice), Kauni (Black rice) along with a local control. All test entries were in their first year of testing. The trial was sent to twenty-two locations, and data from eighteen locations was received. However, data from four locations Imphal-CAU, IARI-New Delhi, Chinsurah and Pundibhari were not received. Four locations (Lamphalphet, Almora, Nawagam, Karaikal) data was excluded from the analysis due to high/low CV and low experimental mean yield. The data related to yield, flowering, plant height, and panicles/m² are presented in table 34.1, 34.2 and 34.3. The performance of the entries in various locations is discussed below.

Overall the mean grain yield was ranged from 3078 kg/ha (Choharto) to 5123 kg/ha (IET 28664), while days to 50% flowering ranged from 91 (IET 32897) to 110 (IETs 32899, 32908, 32905) days. Plant height ranged from 87 cm (IET 32026 and Choharto) to 139 cm (Karupu Kauni) and panicles/m² ranged from 238 (IET 32895) to 304 (IET 32908). On overall basis, three entries viz., IET 28664, IET 32896, IET 32025 showed significant yield superiority over the best check and were promoted to second year of testing. The details of the entries were tabulated below

Annual Progress Report 2024 Vol. I – Varietal Improvement

S.No	Entry No/Designation	Yield (Kg/ha) /DFF/GT	Remarks
1	IET 28664 (MSN-104) RP 5373-MSN7-2/Sampada/ IRGC 39111	5123 100, LS	Promoted
2	IET 32896 (ORR 1819) OR2633-7-3-7-1/ Machhakanta- Selection-1	4960 100, MB	Promoted
3	IET 32025 (NVSR 651) NVSR 303-14/ IET 19347	4862 100, LB	Promoted
	Choharto (Red rice)	3078, 93	
	Jyothi (Matta Red Rice)	4493, 96	
	Kauni (Black)	4414, 100	
	Local check	4106, 100	
	CD	246	

Zonal performance of test entries

Zone I (Hill Region)

In Zone I, the trial was sent to three locations Lamphalpet, CAU-Imphal and Almora and the data was not considered for analysis due to high cv % and low experimental mean yield respectively from Lamphalpet and Almora locations and data was not received from CAU-Imphal. No promotions in Zone I

Zone II (Northern)

In Zone II, the trial was sent to 2 locations namely IARI (New Delhi) and Chatha (Jammu Kashmir) and the data was not received from IARI. The mean yield ranged from 2200 kg/ha (IET 32901) to 4500 kg/ha (IET 32025). None of the entries exhibited significant superiority over the best check Jyothi (4179 kg/ha). Hence none of the entries promoted to AVT-1-Coloured Rice in zone II.

Zone III (Eastern)

The trial was sent to 7 centres across Odisha (Cuttack, Jeypore), Bihar (Pusa and Sabour), West Bengal (Chinsurah, Pundibhari) and Uttar Pradesh (Varanasi) states in Zone III. Data was not received from Chinsurah and Pundibhari, remaining five centres data was considered for analysis. The mean yield of test entries ranged from 2673 kg/ha (Choharto) to 5085 kg/ha (IET 32896). DFF varied from 94 days (IET 32897) to 112 days (IET 32899). **Jyothi** (Matta Red Rice) was the top yielder among the checks (4083 kg/ha). **Two entries (IET 32896 and IET 28664 recorded significant yield superiority over the best Check.**

Annual Progress Report 2024 Vol. I – Varietal Improvement

S.No	Entry No/Designation	Yield (Kg/ha) /DFF/GT	Remarks
1	IET 32896 (ORR 1819) OR2633-7-3-7-1/ Machhakanta- Selection-1	5085 110 MB	Promoted
2	IET 28664 (MSN-104) RP 5373-MSN7-2/Sampada/ IRGC 39111	4783 102 SB	Promoted
	Choharto (Red rice)	2673, 88	
	Jyothi (Matta Red Rice)	4083, 101	
	Kauni (Black)	3874, 100	
	Local check	3567, 102	
	CD	287	

Zone IV (North Eastern)

In Zone IV, the trial was sent to Titabar (Assam). The mean yield ranged from 591 kg/ha (IET 32899) to 6958 (IET 32896). The DFF ranged from 92 days (IET 32907) to 134 days (IET 32908). None of the entries showed significant yield superiority over the best check Jyothi (6256 kg/ha), hence, none were promoted.

Zone V (Central)

The trial was sent to Chhattisgarh (Raipur). The mean yield ranged from 459 kg/ha (Choharto) to 4592 kg/ha (IET 32903). The DFF ranged from 72 days (Choharto) to 123 days (IET 32908). The best check is local check and no entry showed significant yield superiority over BC. Therefore, none were promoted.

Zone VI (Western)

In Zone VI, the trial was sent to 3 locations i.e., Karjat (Maharashtra), Navsari and Nawagam (Gujarat). Zonal mean grain yield ranged from 2807 kg/ha (IET 32014) to 6370 kg/ha (IET 32902). Mean flowering duration ranged from 80 days (IETs 32895, 32897 and local check) to 110 days (IET 32908). Local check (5585 kg/ha) topped among all the checks in Zone VI. No entry showed significant yield gain over the best check. None of the entries got promoted in this zone VI.

Zone VII (Southern)

In Zone VII, the trial was sent to 5 locations, i.e., Bapatla (Andhra Pradesh), Aduthurai (Tamil Nadu) Pattambi (Kerala), Brahmavar (Karnataka) and Karaikal (Puducherry). Data from Karaikal was not considered for analysis due to non-significant F value. Zonal mean yield ranged from 3078 kg/ha (Choharto) to 5123 kg/ha (28664). The flowering duration ranged from 88 days (IET 32894) to 110 days (IET 32899). Jyothi (Matta Red Rice) (4887 kg/ha) topped among the checks and one entry IET 28664 showed significant yield superiority over the best check in Zone VII. Hence the entry IET 28664 promoted to second year of testing.

Annual Progress Report 2024 Vol. I – Varietal Improvement

S.No	Entry No/Designation	Yield (Kg/ha) /DFF/GT	Remarks
1	IET 28664 (MSN-104) RP 5373-MSN7-2/Sampada/ IRGC 39111	5597 86 SB	Promoted
	Choharto (Red rice)	4397, 100	
	Jyothi (Matta Red Rice)	4887, 94	
	Kauni (Black)	4796, 101	
	Local check	4817, 99	
	CD	535	

List of entries promoted to AVT-1-Coloured Rices

Zones /Locations	Entries promoted
Over all	IET 28664, IET 32896 and IET 32025
Zone III	IET 32896 and IET 28664
Zone VII	IET 28664

Summary:

IVT - COLOURED RICES:

In IVT- COLOURED RICES of 27 test entries and four control checks: Choharto (Red rice), Jyothi (Matta Red rice), Kauni (Black rice) along with a local control were evaluated across 22 locations in the first year of testing.

List of entries promoted to AVT-1-Coloured Rice

Over all	IET 28664, IET 32896 and IET 32025
Zone III	IET 32896 and IET 28664
Zone VII	IET 28664

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 34.1: Composition of entries in Initial Variety Trial – Coloured Rice (IVT – CR), Kharif 2024

Entry No.	IET No.	Designation	Cross Combination	Grain type
5801	32893	RCM BR-3	Chakhao/RC Maniphou 7	LS
5802	32894	RP 6800-IR64/Kala Jeera Jaha-45-29-6-1	IR64/Kala Jeera Jaha	LS
5803	32895	GKTK-BC21-11-61/NIL (BC2F5-6)	PBI*2/Oryza glaberrima-S	MS
5804	32896	ORR 1819	OR2633-7-3-7-1/Machhakanta-Selection-1	MB
5805	32897	HPR 5001	Selection from local germplasm from Shimla District of HP	LS
5806	32898	RP 6166-DB-NPV 37-11-1	MTU 1010/O.rufipogon	LB
5807	32899	BPT 3612	MTU 7029/IRGC 18195/MTU 1081	SB
5808	32900	BPT 3270	RP Bio 226/IRGC 23385//Nidhi/MTU 1081	LS
5809	32901	CR4450-65-36-8-17	Chakhao Amubi× Ratna	MS
5810	32902	ORJ-1358	Mutant of Jaypore Local	LS
5811	32903	Lalpari Selection-1	Pureline selection of Lalpari	MS
5812	32904	BPT 3573	RP Bio 226/IRGC 23385//Nidhi/MTU 1081	LS
5813	32905	AD 2140L	ASD 16/ Mappillai samba	SB
5814	32906	CR4450-48-26-13-14-19	Chakhao Amubi× Ratna	LB
5815	32907	RP6615-MTU1010/Karuppunel-1294	MTU1010/Karuppunel	MB
5816	32025 (R)	NVSR 657	NVSR 303-14 / IET19347	LB
5817	32908	KR 21009	CR1009/TKM9	SB
5818	32909	CRPT-NVSR 657	NVSR-303-14/GAR-13	LB
5819	32910	NVSR 1259	GNR-3/IET-25825	MB
5820	32911	BPT 3607	MTU 7029/IRGC 18195/MTU 1081	SB
5821	28664 (R)	MSN-104	RP 5373-MSN 7-2/Sampada/IRGC 39111	SB
5822	32912	BPT 3182	RP Bio 226/IRGC 23385//Nidhi/MTU 1081	LS
5823	32913	RCM BR-5	Chakhao/RC Maniphou 7	MS
5824	32914	CR4450-21-13-28-16-1	Chakhao Amubi× Ratna	MB
5825	32014 (R)	Improved Shirkamal	Sel. From Shrikamal Local landrace	LS
5826	32915	CAU R7/Chakhao Poireiton mutant	Mutant of EMS Treatment	LS
5827	32916	NLR 3979	(BPT 5204/IR 36)/BPT 5204	SG/MS
5828		Choharto (Check)		SB
5829		Jyothi (Matta Red Rice Check)		MB
5830		Kauni (Black Rice check)		SB
5831		Local check		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 34.2: Grain Yield (kg/ha) in IVT – CR, Kharif 2024

Entry No	IET No	ZONE II-NORTHERN				ZONE III- EASTERN					
		Jammu & Kashmir		Bihar			Bihar (2)		Odisha		
		Chata		Pusa	Sabour		Mean		NRRI		
5801	32893	3200		3571		3165		3368		5756	3*
5802	32894	3750	3	4018		2050		3034		2922	
5803	32895			3571		3705	9	3638		3665	
5804	32896	3250		4036		5540	1*	4788	1*	5742	4*
5805	32897	2900		3946		3200		3573		2788	
5806	32898	3650	8	3607		3420		3514		3340	
5807	32899			4107				4107	7	3052	
5808	32900	2500		4250	7	3170		3710		5460	8
5809	32901	2200		3929		4420	2	4174	4	5718	7*
5810	32902	3700	6	4089		3035		3562		3173	
5811	32903	3550	10	3714		4245	3	3980	9	4975	10
5812	32904	2650		4393	3	3910	7	4151	5	3505	
5813	32905			4250	7	3445		3848		4935	
5814	32906	3450		3821		3265		3543		5738	5*
5815	32907	3200		4125		2534		3330		2871	
5816	32025 (R)	4500	1	4232	9	4055	6	4144	6	5448	9
5817	32908			3732				3732		5851	1*
5818	32909	3750	3	3821		3375		3598		3935	
5819	32910	3100		4196	10	3695	10	3946	10	4950	
5820	32911	3700	6	4179		3285		3732		3803	
5821	28664 (R)	3750	3	4661	1	3405		4033	8	5726	6*
5822	32912			4161		2180		3170		4175	
5823	32913	2750		3839		3170		3505			
5824	32914			3911		3780	8	3845		5785	2*
5825	32014 (R)	3150		4036		3225		3630		4895	
5826	32915	3250		3375		2625		3000		3347	
5827	32916	3150		4268	5	4115	4	4191	2	2825	
5828	Choharto (Check)	3600	9	4357	4	1735		3046		2793	
5829	Jyothi (Matta Red Rice Check)			4268	5	4090	5	4179	3	2988	
5830	Kauni (Black Rice check)			3857		2165		3011		4968	
5831	LC	3800	2	4411	2	3210		3810		3075	
Experimental Mean		3326		4024		3352		3706		4273	
CD(0.05)		837		520		675		411		734	
CV(%)		12.14		6.33		9.82		5.44		8.39	
F val		3.2 **		2.59 **		11.63 **		8.65 **		21.25 **	
DOS		25-06-24		29-06-24		19-07-24				28-06-24	
DOP		23-07-24		31-07-24		08-08-24				01-08-24	
Local Check Name		Ratta Ranjah		Kala Namak		Rajendra Suwasini				Mummy Hunger	

Table No. 34.2 (Contd.): Grain Yield (kg/ha) in IVT – CR, Kharif 2024

Entry No	IET No	ZONE III- EASTERN					ZONE III- EASTERN (5)		ZONE IV-NORTH EASTERN			
		Odisha		Odisha (2)		Uttar Pradesh		Mean		Assam		
		Jeypore		Varanasi		Varanasi		Mean		Titabar		
5801	32893	1839		3797		3475		3561		3324		
5802	32894	1539		2230		3333		2772		1743		
5803	32895	4110		3887		3900		3790		6286		5
5804	32896	5535	2	5638	1*	4575	3	5085	1*	6958		1
5805	32897	1959		2373		3383		3055		3094		
5806	32898	2643		2991		3775		3357		4871		
5807	32899	1672		2362				2943		591		
5808	32900	3883		4672	7	3217		3996	10	5211		
5809	32901	2065		3892		3575		3941		5278		
5810	32902	4075		3624		3392		3553		4633		
5811	32903	3833		4404	10	4400	6	4234	5	6554		4
5812	32904	5485	3	4495	9	3842		4227	7	6073		9
5813	32905	5180	5	5058	3	3342		4230	6	6158		8
5814	32906	2118		3928		4383	7	3865		6248		7
5815	32907	4263	10	3567		3442		3447		2206		
5816	32025 (R)	2609		4029		4425	5	4154	8	6732		2
5817	32908	3263		4557	8			4282	4	3358		
5818	32909	5413	4	4674	6	3192		3947		5687		
5819	32910	3060		4005		3717		3924		5249		
5820	32911	2609		3206		3442		3463		3536		
5821	28664 (R)	5539	1	5633	2*	4583	2	4783	2*	6605		3
5822	32912	4555	9	4365		3367		3687		5479		
5823	32913	2923		2923		3942		3468		4360		
5824	32914	2213		3999		3442		3826		4257		
5825	32014 (R)	5105	6	5000	5	4225	8	4297	3	5270		
5826	32915	1929		2638		5767	1*	3408		4926		
5827	32916	3076		2951		4025	9	3662		5408		
5828	Choharto (Check)	1806		2300				2673		1309		
5829	Jyothi (Matta Red Rice Check)	4630	8	3809		4442	4	4083	9	6256		6
5830	Kauni (Black Rice check)	5054	7	5011	4	3325		3874		2992		
5831	LC	3188		3131		3950	10	3567		5975		10
Experimental Mean		3457		3843		3853		3779		4730		
CD(0.05)		960		589		480		287		825		
CV(%)		13.6		7.51		6.07		3.72		8.54		
F val		16.3 **		22.27 **		12.51 **		28.62 **		35.45 **		
DOS		16-07-24				04-07-24				09-07-24		
DOP		17-08-24				21-08-24				06-08-24		
Local Check Name		Kalabati				HUR-1309				Labanya		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 34.2 (Contd.): Grain Yield (kg/ha) in IVT – CR, Kharif 2024

Entry No	IET No	ZONE V- CENTRAL		ZONE VI- WESTERN				ZONE VI- WESTERN (2)		ZONE VII- SOUTHERN	
		Chhattisgarh		Gujarat		Maharashtra		Mean		Andhra Pradesh	
		Raipur		Navasari		Karjat				Bapatla	
5801	32893	2684		4448		3500		3974		2975	
5802	32894	1796		5285	9	3747		4516		3492	
5803	32895	3622	10	5824	5	4536		5180	9	3750	
5804	32896	1633		6722	2	5274	8	5998	4	5767	3
5805	32897	1582		5248	10	4272		4760		3158	
5806	32898	3138		4358		4857		4607		4000	
5807	32899	1755		3263		3061		3162		4017	
5808	32900	4031	5	3739		3308		3524		4167	
5809	32901	3954	6	3303		5464	7	4384		3900	
5810	32902	3628	9	6636	3	6104	3	6370	1	3458	
5811	32903	4592	1	3503		3232		3368		4700	
5812	32904	3571		4630		6661	1	5646	6	4806	10
5813	32905	3571		3394		3484		3439		4549	
5814	32906	4260	3	4109		3262		3686		3896	
5815	32907	3393		5721	7	4077		4899	10	3466	
5816	32025 (R)	4439	2	5539	8	5006		5273	8	4446	
5817	32908	3107		3636		5024		4330		5003	8
5818	32909	3776	8	5236		6613	2	5925	5	5837	2
5819	32910	3357		4873		3562		4218		4751	
5820	32911	2347		3600		3089		3345		5565	4
5821	28664 (R)	2888		6938	1	5246	9	6092	3	5438	5
5822	32912	3214		3430		5905	6	4668		5898	1
5823	32913	3929	7	2842		4137		3490		3038	
5824	32914	3061		2855		5156	10	4005		3960	
5825	32014 (R)	3321		2527		3086		2807		4968	9
5826	32915	2597		3964		3190		3577		3428	
5827	32916	3153		6418	4	6077	4	6248	2	5074	7
5828	Choharto (Check)	459		2345		4018		3182		2279	
5829	Jyothi (Matta Red Rice Check)	2582		5818	6	3789		4803		4548	
5830	Kauni (Black Rice check)	1990		2836		3121		2978		3703	
5831	LC	4148	4	5152		6018	5	5585	7	5090	6
Experimental Mean		3083		4458		4448		4453		4294	
CD(0.05)		919		1287		960		859		1064	
CV(%)		14.6		14.14		10.57		9.45		12.13	
F val		9.18 **		8.91 **		12.19 **		12.72 **		6.32 **	
DOS		28-06-24		03-07-24		25-06-24				30-07-24	
DOP		20-07-24		30-07-24		22-07-24				Dry Direct Sowing Method	
Local Check Name		Barhasal		GNR-9		RTN-7				BPT 2841	

Table No. 34.2 (Contd.): Grain Yield (kg/ha) in IVT – CR, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN						Overall Mean (14)			
		Karnataka		Kerala		Tamil Nadu					
		Brahmavar		Pattambi		Adutrai					
5801	32893	5102	3	4624		4335	10	4259		3714	
5802	32894	3908		4152		2468		3505		3157	
5803	32895	4821	9	5106		4000		4419		4377	10
5804	32896	4259		6024	10	4127		5044	4	4960	2*
5805	32897	3845		4440		3335		3695		3368	
5806	32898	3402		5196		4316		4229		3898	
5807	32899	4975	7	6017		4854	3	4966	6	3397	
5808	32900	4277		5736		2165		4086		3937	
5809	32901	3704		5124		4949	2	4419		4113	
5810	32902	5105	2	4800		3747		4278		4255	
5811	32903	3258		5124		4253		4334		4281	
5812	32904	3269		5376		4443	7	4473		4472	6
5813	32905	3522		7140	5	3937		4787		4377	9
5814	32906	4364		6905	6	4791	4	4989	5	4329	
5815	32907	4673		5520		4380	8	4510		3848	
5816	32025 (R)	4772		7712	4	4158		5272	3	4862	3*
5817	32908	3683		8820	1*	4127		5408	2	4509	4
5818	32909	3831		4096		3905		4417		4462	7
5819	32910	3845		4728		4063		4347		4082	
5820	32911	4996	5	4668		4190		4855	9	3786	
5821	28664 (R)	3838		8732	2*	4380	8	5597	1*	5123	1*
5822	32912	4628		4924		4152		4900	7	4313	
5823	32913	3546		4980		3937		3875		3646	
5824	32914	3237		8096	3*	3842		4784		4123	
5825	32014 (R)	4912	8	4116		3747		4436		4042	
5826	32915	4982	6	4548		4000		4240		3709	
5827	32916	3701		5052		4741	5	4642		4363	
5828	Choharto (Check)	5011	4	6139	9	4158		4397		3078	
5829	Jyothi (Matta Red Rice Check)	3272		6524	7	5203	1	4887	8	4493	5
5830	Kauni (Black Rice check)	4796	10	6204	8	4481	6	4796		3807	
5831	LC	5172	1			4190		4817	10	4414	8
Experimental Mean		4216		5687		4109		4570		4106	
CD(0.05)		806		1476		883		535		246	
CV(%)		9.36		12.69		10.52		5.73		2.93	
F val		5.79 **		6.74 **		4.06 **		6.39 **		33.33 **	
DOS		27-06-24				11-09-24					
DOP		10-08-24				10-10-24					
Local Check Name		Sahyadri Brahma				Karpukavuni					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 34.2 (Contd.): Grain Yield (kg/ha) in IVT – CR, Kharif 2024 (Not considered)

Entry No	IET No	ZONE I - HILLY REGION				ZONE VI- WESTERN		ZONE VII- SOUTHERN	
		Manipur		Uttarakhand		Gujarat		Puducherry	
		@Lamphepat		@ Almora		@ Nawagam		@ Karaikal	
5801	32893	5351	9			1347		3984	
5802	32894	4461		2222	4	773		3800	
5803	32895	5567	7	694	10	1767	6	4233	
5804	32896	8845	1			1938	3	4434	
5805	32897	941		1667	7	1966	2	4550	
5806	32898	4240				1540	9	4234	
5807	32899					534		4683	
5808	32900	2039				1188		4216	
5809	32901	3305				1290		5050	10
5810	32902	3240		1806	6	1517		4984	
5811	32903	4350				1812	5	5067	9
5812	32904	3995		556		1369		4466	
5813	32905	4973				1432		4016	
5814	32906	2727				1523	10	4934	
5815	32907	3840		903	9	994		4900	
5816	32025 (R)	6495	5			1500		5200	5
5817	32908	653				1330		6116	1
5818	32909	4750				1818	4	5316	4
5819	32910	5250	10			1284		4684	
5820	32911	1839				1080		5000	
5821	28664 (R)	8098	2	1944	5	2017	1	4883	
5822	32912	3628				1295		5350	3
5823	32913	5782	6			1159		5116	8
5824	32914	3483				1193		4967	
5825	32014 (R)	1805				1290		4633	
5826	32915	6572	4			852		4767	
5827	32916	6683	3	2500	2	1591	8	5000	
5828	Choharto (Check)	739		972	8	795		5700	2
5829	Jyothi (Matta Red Rice Check)	5483	8	2222	3	943		4650	
5830	Kauni (Black Rice check)	1317		139		403		5183	7
5831	LC	3542		4042	1	1727	7	5200	5
Experimental Mean		4133		1639		1331		4817	
CD(0.05)		3982		1143		434		1624	
CV(%)		47.11		31.69		15.95		16.51	
F val		2.32*		8.51**		7.4**		0.8ns	
DOS		13-06-24		28-06-24		02-07-24		03-09-24	
DOP		16-07-24		23-07-24		31-08-24		04-10-24	
Local Check Name		Chakhao poireiton		VLD 69		NA		TKM 9	

Table No. 34.3: Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – CR, Kharif 2024

Entry No	IET No	ZONE II-NORTHERN			ZONE III- EASTERN								
		Jammu & Kashmir			Bihar								
		Chata			Pusa			Sabour			Bihar (2)		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
5801	32893	124	82	273	105	95	163	94	77	251	100	86	207
5802	32894	125	100	232	94	96	186	86	68	246	90	82	216
5803	32895				90	94	162	92	129	225	91	112	194
5804	32896	126	96	249	98	104	195	108	125	292	103	114	244
5805	32897	102	93	270	86	84	174	93	90	324	90	87	249
5806	32898	116	83	256	104	101	178	104	90	352	104	95	265
5807	32899				106	96	198				106	96	198
5808	32900	126	99	289	100	98	178	119	106	225	109	102	201
5809	32901	127	73	277	105	98	154	107	76	285	106	86	219
5810	32902	100	90	270	94	100	150	94	88	243	94	94	197
5811	32903	115	80	288	107	94	181	103	94	250	105	94	216
5812	32904	123	110	281	102	105	202	104	112	220	103	109	211
5813	32905				105	104	170	106	154	230	106	129	200
5814	32906	124	88	293	102	94	175	108	100	282	105	97	229
5815	32907	124	83	303	92	81	180	89	74	280	90	77	230
5816	32025 (R)	108	98	306	98	84	152	96	92	232	97	88	192
5817	32908				102	100	194				102	100	194
5818	32909	112	96	303	106	98	183	108	96	222	107	97	202
5819	32910	116	117	280	108	109	195	111	116	278	110	113	236
5820	32911	122	71	301	106	86	192	109	86	262	107	86	227
5821	28664 (R)	116	102	293	96	99	196	97	99	270	97	99	233
5822	32912				100	102	184	97	104	204	98	103	194
5823	32913	124	76	279	104	99	166	92	84	248	98	92	207
5824	32914				100	96	170	101	100	320	100	98	245
5825	32014 (R)	116	109	293	98	100	186	94	135	308	96	118	247
5826	32915	112	71	305	100	92	190	90	66	308	95	79	248
5827	32916	108	71	305	94	84	192	90	76	264	92	80	228
5828	Choharto (Check)	128	91	283	82	91	189	86	80	248	84	86	218
5829	Jyothi (Matta Red Rice Check)				95	93	189	94	65	255	95	79	222
5830	Kauni (Black Rice check)				96	104	142	102	124	275	99	114	209
5831	LC	108	99	300	100	106	196	99	82	344	99	94	270
Experimental Mean		117	90	283	99	96	179	99	82	267	99	96	221
Standard Error		0.6			2.1			0.58					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 34.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – CR, Kharif 2024

Entry No	IET No	ZONE III- EASTERN											
		Odisha						Odisha (2)			Uttar Pradesh		
		NRRI			Jeypore			Mean			Varanasi		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
5801	32893	106	106	272	89	89	365	98	98	318	118	74	125
5802	32894	96	98	272	92	87	352	94	92	312	112	71	139
5803	32895	96	117	276	93	117	298	95	117	287	112	92	125
5804	32896	107	135	277	98	112	302	102	123	289	138	94	120
5805	32897	98	113	276	91	80	368	94	97	322	101	75	138
5806	32898	103	108	266	97	92	376	100	100	321	100	75	140
5807	32899	124	100	282	106	73	362	115	86	322			
5808	32900	112	126	277	107	105	348	110	115	313	102	94	117
5809	32901	114	102	246	94	80	231	104	91	238	106	66	116
5810	32902	100	103	287	94	89	386	97	96	337	120	78	138
5811	32903	108	115	276	97	89	387	102	102	332	104	89	110
5812	32904	100	123	288	99	109	335	100	116	311	120	105	104
5813	32905	108	116	302	111	128	439	110	122	370	124	109	127
5814	32906	110	124	287	88	87	338	99	105	313	98	80	94
5815	32907	92	94	287	101	82	285	96	88	286	120	70	102
5816	32025 (R)	103	116	282	96	96	255	99	106	268	114	97	128
5817	32908	111	109	302	120	82	340	115	95	321			
5818	32909	108	128	272	100	103	442	104	115	357	108	88	96
5819	32910	106	165	282	100	113	362	103	139	322	107	100	123
5820	32911	112	101	282	98	97	386	105	99	334	98	73	104
5821	28664 (R)	105	116	272	96	106	308	100	111	290	116	98	110
5822	32912	104	128	272	108	94	302	106	111	287	118	75	90
5823	32913				99	75	368	99	75	368	108	75	114
5824	32914	116	109	318	94	80	315	105	95	316	108	73	126
5825	32014 (R)	105	107	318	91	118	416	98	113	367	100	110	122
5826	32915	97	102	256	95	70	352	96	86	304	132	74	138
5827	32916	102	106	298	93	86	282	98	96	290	112	75	136
5828	Choharto (Check)	88	88	231	96	65	385	92	76	308			
5829	Jyothi (Matta Red Rice Check)	102	104	288	100	83	389	101	94	338	113	74	142
5830	Kauni (Black Rice check)	111	172	277	94	137	520	102	154	398	100	109	103
5831	LC	116	164	266	92	139	282	104	152	274	104	77	103
Experimental Mean		105	116	279	97	95	350	101	105	317	111	84	118
Standard Error		2.28			1.47						0.46		

Table No. 34.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – CR, Kharif 2024

Entry No	IET No	ZONE III- EASTERN (5)			ZONE IV-NORTH EASTERN			ZONE V- CENTRAL			ZONE VI- WESTERN		
		Mean			Assam			Chhattisgarh			Gujarat		
					Titabar			Raipur			Navasari		
		DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN	DDF	PH	PAN
5801	32893	102	88	235	106	94	248	104	91	218	101	120	236
5802	32894	96	84	239	93	76	285	82	114	197	80	119	263
5803	32895	97	110	217	107	134	259	82	125	173	76	175	273
5804	32896	110	114	237	118	131	278	103	139	205	100	154	283
5805	32897	94	88	256	102	94	274	86	100	185	76	119	343
5806	32898	102	93	262	107	104	276	106	103	195	88	138	438
5807	32899	112	89	281	104	80	260	116	92	129	110	115	283
5808	32900	108	106	229	124	121	266	108	140	185	102	132	278
5809	32901	105	84	206	122	94	237	118	100	186	109	127	213
5810	32902	101	91	241	107	112	258	82	115	180	80	131	283
5811	32903	104	96	241	119	113	268	87	120	208	101	145	243
5812	32904	105	111	230	115	126	224	96	124	180	92	130	303
5813	32905	111	122	254	126	140	252	121	170	164	111	156	263
5814	32906	101	97	235	126	108	264	110	123	170	103	133	188
5815	32907	99	80	227	92	86	272	82	88	177	78	113	183
5816	32025 (R)	101	97	210	109	106	285	102	130	212	86	130	243
5817	32908	111	97	279	134	102	300	123	104	212	110	122	258
5818	32909	106	103	243	107	115	282	85	124	220	88	156	313
5819	32910	106	121	248	113	134	286	101	128	186	91	182	318
5820	32911	105	89	245	125	94	264	103	97	204	95	125	198
5821	28664 (R)	102	104	231	110	119	264	102	152	160	92	183	248
5822	32912	105	101	211	124	118	258	117	126	152	106	136	208
5823	32913	101	84	224	104	103	258	102	101	234	101	114	288
5824	32914	104	92	250	122	99	255	118	99	199	109	119	214
5825	32014 (R)	98	114	270	105	139	254	104	159	190	91	164	258
5826	32915	103	81	249	104	85	264	99	95	214	90	144	248
5827	32916	98	86	234	106	93	286	90	98	266	82	121	278
5828	Choharto (Check)	88	81	263	98	84	219	72	90	138	73	125	264
5829	Jyothi (Matta Red Rice Check)	101	84	252	107	93	258	94	100	216	80	128	208
5830	Kauni (Black Rice check)	100	129	263	111	140	284	96	176	175	92	185	258
5831	LC	102	114	238	123	117	262	102	150	176	78	124	278
Experimental Mean		103	98	242	111	108	264	99	118	190	92	137	263
Standard Error					0.68			0.7			0.7		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 34.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – CR, Kharif 2024

Entry No	IET No	ZONE VI- WESTERN			ZONE VI- WESTERN (2)			ZONE VII- SOUTHERN					
		Maharashtra			Mean			Andhra Pradesh			Karnataka		
		Karjat						Bapatla			Brahmavar		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
5801	32893	99	127	163	100	123	199	86	90	213	104	62	420
5802	32894	86	104	192	83	112	227	62	100	210	121	92	406
5803	32895	82	140	186	80	158	229	86	144	192	102	90	402
5804	32896	98	120	188	99	137	236	97	142	242	90	66	406
5805	32897	83	102	190	80	111	266	77	92	193	110	69	274
5806	32898	96	128	182	92	133	310	81	102	225	99	66	404
5807	32899	108	112	188	109	113	236	118	106	198	119	62	409
5808	32900	100	140	202	100	136	240	102	148	260	120	84	412
5809	32901	84	116	214	96	121	213	98	105	188	134	56	430
5810	32902	82	109	190	81	120	236	77	88	248	106	64	400
5811	32903	99	126	190	100	135	216	96	105	215	86	55	425
5812	32904	80	126	236	86	128	270	84	126	220	120	72	394
5813	32905	98	166	178	104	161	220	104	174	226	126	108	399
5814	32906	94	120	227	99	126	208	96	112	230	117	92	408
5815	32907	86	95	169	82	104	176	76	90	194	122	72	404
5816	32025 (R)	94	123	185	90	126	214	84	114	226	116	77	414
5817	32908	110	117	176	110	120	217	90	114	264	138	54	430
5818	32909	104	122	154	96	139	234	93	130	287	117	89	398
5819	32910	93	162	198	92	172	258	95	152	279	103	97	406
5820	32911	93	115	156	94	120	177	96	104	222	130	61	418
5821	28664 (R)	86	120	174	89	151	211	89	130	238	104	62	399
5822	32912	99	142	211	103	139	210	100	127	210	122	89	406
5823	32913	99	107	213	100	111	250	86	85	160	120	71	408
5824	32914	107	124	179	108	122	196	90	101	224	118	61	408
5825	32014 (R)	95	164	186	93	164	222	84	152	248	102	112	378
5826	32915	96	104	174	92	124	211	79	74	177	104	53	410
5827	32916	80	108	196	81	114	237	77	119	210	106	69	370
5828	Choharto (Check)	88	95	188	81	110	226	74	75	176	134	50	418
5829	Jyothi (Matta Red Rice Check)	84	84	176	82	106	192	86	106	172	102	68	406
5830	Kauni (Black Rice check)	96	174	199	94	180	229	92	176	220	104	92	422
5831	LC	82	118	184	80	121	232	88	118	301	121	85	402
Experimental Mean		92	122	188	93	130	226	88	116	221	113	74	402
Standard Error		1.72			1.4			1.46			1.4		

Table No. 34.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – CR, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN						ZONE VII- SOUTHERN (4)			Overall Mean (14)		
		Kerala			Tamil Nadu			Mean					
		Pattambi			Adutrai								
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
5801	32893	100	91	212	80	88	259	92	83	276	101	92	244
5802	32894	100	86	212	70	86	275	88	91	276	93	93	248
5803	32895	105	105	220	90	136	308	96	119	281	93	123	238
5804	32896	96	110	238	92	127	313	94	111	300	105	118	256
5805	32897	102	90	212	72	104	266	90	89	236	91	93	249
5806	32898	106	87	259	88	96	324	94	88	303	100	98	277
5807	32899	102	100	359	99	118	336	110	97	326	110	96	273
5808	32900	106	105	299	85	128	332	103	116	326	108	116	262
5809	32901	108	97	256	58	80	328	100	85	300	106	91	240
5810	32902	101	87	317	99	112	300	96	88	316	96	98	261
5811	32903	104	90	256	98	104	326	96	89	306	102	101	259
5812	32904	102	102	248	88	112	325	98	103	297	102	113	254
5813	32905	98	132	396	90	142	326	104	139	336	110	138	267
5814	32906	104	89	216	80	90	280	99	96	283	104	103	247
5815	32907	99	86	360	84	120	346	95	92	326	95	88	253
5816	32025 (R)	104	105	270	94	106	310	100	100	305	100	105	250
5817	32908	97	96	550	80	161	320	101	106	391	110	105	304
5818	32909	102	99	306	100	96	346	103	104	334	103	110	273
5819	32910	104	105	248	98	132	338	100	121	318	103	129	270
5820	32911	112	91	245	88	126	331	106	96	304	106	95	255
5821	28664 (R)	104	100	252	90	98	306	97	97	299	100	113	249
5822	32912	101	121	392	90	128	352	103	116	340	107	115	250
5823	32913	100	89	266	76	72	286	96	79	280	101	89	253
5824	32914	102	75	284	72	76	269	95	78	296	104	93	252
5825	32014 (R)	104	87	198	84	112	261	93	116	271	98	126	258
5826	32915	101	81	176	100	104	260	96	78	256	100	87	248
5827	32916	102	85	350	82	80	280	92	88	302	95	91	265
5828	Choharto (Check)	104	94	338	86	98	278	100	79	302	93	87	258
5829	Jyothi (Matta Red Rice Check)	100	100	108	86	88	338	94	91	256	96	91	242
5830	Kauni (Black Rice check)	106	129	259	100	88	322	101	121	306	100	139	266
5831	LC				88	156	310	99	120	338	100	118	262
Experimental Mean		102	97	276	86	108	308	98	99	303	101	105	258
Standard Error		1.79			1.4								

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 34.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – CR, Kharif 2024 (Not considered)

Entry No	IET No	ZONE I - HILLY REGION						ZONE VI- WESTERN			ZONE VII- SOUTHERN		
		Manipur			Uttarakhand			Gujarat			Puducherry		
		@Lamphepat			@Almora			@Nawagam			@Karaikal		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
5801	32893	102	100	174				114	92	217	86	96	308
5802	32894	84	97	136	83	79	278	112	86	152	102	103	306
5803	32895	109	119	114	100	116	172	114	126	225	102	103	374
5804	32896	102	126	138				114	110	226	102	102	345
5805	32897	82	100	112	87	71	262	114	100	226	102	101	382
5806	32898	102	98	113				124	100	224	78	95	303
5807	32899	116	82					116	76	131	110	101	338
5808	32900	112	110	84				132	106	218	104	108	306
5809	32901	79	88	84				130	86	219	110	103	362
5810	32902	80	94	168	118	88	144	114	102	222	98	107	356
5811	32903	103	102	118				130	96	226	87	98	368
5812	32904	102	115	98	102	100	116	128	125	222	98	100	344
5813	32905	108	130	116				136	142	222	107	108	353
5814	32906	113	101	82				130	76	224	106	108	332
5815	32907	88	93	105	102	68	261	114	81	168	102	104	350
5816	32025 (R)	95	104	119				114	102	222	101	99	346
5817	32908	100	92	138				118	86	122	109	102	350
5818	32909	98	114	106				116	92	224	77	101	346
5819	32910	105	120	124				128	132	220	97	106	317
5820	32911	102	93	76				134	66	186	104	108	312
5821	28664 (R)	98	110	132	103	94	210	118	110	222	86	115	345
5822	32912	114	106	99				118	86	217	96	102	352
5823	32913	98	95	182				114	90	194	102	94	345
5824	32914	117	92	108				128	86	212	88	96	340
5825	32014 (R)	110	129	120				114	135	215	107	103	370
5826	32915	97	96	167				114	77	157	100	106	373
5827	32916	94	98	161	103	74	239	114	96	224	94	108	296
5828	Choharto (Check)	68	87	107	78	70	190	114	94	145	100	99	328
5829	Jyothi (Matta Red Rice Check)	84	90	190	99	70	252	114	89	159	84	94	340
5830	Kauni (Black Rice check)	98	132	94	106	114	182	116	164	118	103	94	374
5831	LC	102	154	125	97	116	230	114	88	225	102	102	378
Experimental Mean		98	105	123	98	88	211	119	99	199	98	102	343

**INITIAL VARIETY TRIAL– Irrigated Dry DSR
(IVT –DSR)**

Locations: 33

Test Entries: 48

Table: 37

Checks: CR Dhan 320 (Early), Shabhadhan (Early), DRRH 4 (Early Hybrid), DRR Dhan 70 (Medium), DRR Dhan 55 (Medium), CR Dhan 702 (Late Hybrid), DRR Dhan 50 (Late), Local check and BPT 5204 (RP)

IVT-DSR trial constituted with 48 entries including checks was sent to 33 locations across zones II, III, IV, V, VI, and VII. The test entries included 40 varietal, 8 hybrids and 9 checks (CR Dhan 320 (Early), Shabhadhan (Early), DRRH 4 (Early Hybrid), DRR Dhan 70 (Medium), DRR Dhan 55 (Medium), CR Dhan 702 (Late Hybrid), DRR Dhan 50 (Late), Local check and BPT 5204(RP)).

Overall performance of entries

Overall mean grain yield ranged from 3182 3182 kg/ha (IET 32962) to 5285 kg/ha (IET 32582), while days to 50% flowering ranged from 78 days (Shabhadhan, IET 32957) to 105 days (IET 32945). Among the checks, hybrid checks CR Dhan 702 (4838 kg/ha) showed the highest yield followed by DRRH 4 (4701 kg/ha) and varietal check CR Dhan 320 (4573 kg/ha). Seven hybrids (IETs 32582, 32917, 32952, 32929, 32924, 32944 and 32918) and one varietal entry (IET 32922) out yielded significantly over the best hybrid and varietal check. Therefore, seven hybrids and one varietal entry promoted to AVT-1. Among hybrids, seven hybrids viz., IET 32582 (5285 kg/ha), 32917 (5014 kg/ha), 32952 (5006 kg/ha), 32929 (4951 kg/ha), 32924 (4949 kg/ha), 32944 (4862 kg/ha) and 32918 (4766 kg/ha) and one varietal entry IET 32922 (4760kg/ha) recorded significant yield gain over the early hybrid check (DRRH 4) and best early inbred check (CR Dhan 320) and therefore promoted to AVT-1 DSR

Overall Performance of entries

SL No	IET No	Yield kg/ha/DFP	Remarks
1	32582 (H)	5285 (1*#)/100	Promoted
2	32917 (H)	5014 (2*#)/90	Promoted
3	32952 (H)	5006 (3*#)/81	Promoted
4	32929 (H)	4951 (4*#)/86	Promoted
5	32924 (H)	4949 (5*#)/88	Promoted
6	32944 (H)	4862 (6*#)/80	Promoted
7	32918 (H)	4766 (8*#)/89	Promoted
8	32922	4760 (9*)/88	Promoted
	CR Dhan 702 (Late Hybrid)	4838/98	
	DRRH 4 (Early Hybrid Check)	4701/81	
	CR Dhan 320 (Early)	4573/81	

Annual Progress Report 2024 Vol. I – Varietal Improvement

	DRR Dhan 55 (Medium)	4498/79	
	DRR Dhan 70 (Medium)	4038/80	
	Shabhagidhan (Early)	3960/78	
	Local Check	3942/86	
	DRR Dhan 50 (Late)	3511/97	
	CD	246	

Zone-wise performance of entries Zone II:

The trial was sent to 8 locations, and data was not received from four centres (NDL, PNT, CHT, NGN). Therefore, four (LDN, KUL, KRL, KOT) location data was used for data analysis. Among the checks, DRR Dhan 70 (medium) check recorded highest grain yield of 4644 kg/ha followed by DRRH 4 (Early Hybrid) 4589 kg/ha and local check 4553 kg/ha. No entries showed superior performance than the best hybrid and varietal checks, therefore, none were promoted.

Zone III:

The trial was sent to 6 locations and data was received from 3 locations (PSA, MSD, VRN). The data from Masodha and Varanasi was not considered for analysis due to low CV %. Among the checks, local check recorded the highest grain yield of 4512 Kg/ha followed by DRRH 4 (Early hybrid) 4288 kg/ha. No entries showed superior performance than the best hybrid and varietal checks, therefore, none were promoted.

Zone IV

The trial was sent to 1 location (Titabar (Assam) and data was received and use in the data analysis. Among the checks, DRRH 4 (Early hybrid check) recorded the highest grain yield of 5959 Kg/ha followed by early check CR Dhan 320 5433 kg/ha. No entries showed superior performance than the best hybrid and varietal checks, therefore, none were promoted.

Zone V:

The data was sent to 2 locations (REW, RPR). The data was received from both locations. The data of both the locations was not considered due to high CV (38.79%) in Raipur and low experimental yield (2043 kg/ha) in Rewa.

Zone VI:

The trial was sent to 4 locations (Karjat, Vadagaon, Navsari, Nawagam) and received from all the centres. The data from Nawagam was not considered for analysis due to low experimental yield (1542 kg/ha). Among checks, CR Dhan 702 (Late Hybrid check) recorded the highest yield of 5214 Kg/ha followed by DRR Dhan 55 (Medium check) 5089 kg/ha. However, Early hybrid check (DRRH 4) showed the yield of 4817 kg/ha and early inbred check (CR Dhan 320) showed 4778 kg/ha. The entries in early duration categories are compared with the best early varietal and hybrid check. Among hybrids, four hybrids namely, IET 32929 (6439 kg/ha), IET 32582 (6304 kg/ha), IET 32924 (5953 kg/ha) and IET 32952 (5528 kg/ha) and one varietal entry

Annual Progress Report 2024 Vol. I – Varietal Improvement

IET 32922 (5751 kg/ha) recorded significant yield gain over the best early hybrid check (DRRH 4) and best early inbred check (CR Dhan 320) and therefore IETs 32929, IET 32582, IET 32924 and IET 32952 and one varietal entry IET 32922 were promoted to AVT-1 DSR.

Performance of entries in Zone VI

SI No	IET No	Yield kg/ha/DFP	Remarks
1	32929 (H)	6439 (1*#)/82	Promoted
2	32582 (H)	6304 (2*#)/96	Promoted
3	32924 (H)	5953 (3*#)/81	Promoted
4	32922	5751 (4*#)/80	Promoted
5	32952 (H)	5528 (5*#)/82	Promoted
	CR Dhan 702 (Late Hybrid)	5214/ 99	
	DRR Dhan 55 (Medium)	5089/ 73	
	DRRH 4 (Early Hybrid Check)	4817/73	
	CR Dhan 320 (Early)	4778/76	
	Shabhagidhan (Early)	4236/71	
	DRR Dhan 50 (Late)	2800/91	
	Local check	2646/77	
	DRR Dhan 70 (Medium)	2622/74	
	CD	576	

Zone VII:

The trial was sent to 12 locations and data was received from 4 locations i.e., Maruteru, Bappla, Coimbatore and Mandya. The data of Maruteru was not considered for analysis due to low experimental mean yield (1616 kg/ha). Mean grain yield ranged from 3911 kg/ha (IET 32928) to 6307 kg/ha (IET 32582). Four hybrid entries i.e., IET 32582 (6307 kg/ha), IET 32924 (5539 kg/ha), IET 32918 (5504 kg/ha) and IET 32917 (5361 kg/ha) and four varietal entries viz., IET 32955 (5546 kg/ha), IET 32945 (5544 kg/ha), IET 32954 (5466 kg/ha) and IET 32956 (5459 kg/ha) showed significant yield superiority over the best check DRR Dhan 55 (Medium) (5116 kg/ha) and local check in early category (4914 kg/ha) and the best hybrid check DRRH 4 (4455 kg/ha) in early duration category.

Performance of entries in Zone VII

SI No	IET No	Yield kg/ha/DFP	Remarks
1	32582 (H)	6307 (1*#)/96	Promoted
2	32955	5546 (2*#)/101	Promoted
3	32945	5544 (3*#)/101	Promoted
4	32924 (H)	5539 (4*#)/94	Promoted
5	32918 (H)	5504 (5*#)/96	Promoted
6	32954	5466 (6*#)/92	Promoted
7	32956	5459 (7*#)/84	Promoted
8	32917 (H)	5361 (8*#)/91	Promoted

Annual Progress Report 2024 Vol. I – Varietal Improvement

	DRR Dhan 55 (Medium)	5116/87	
	Local Check	4914/91	
	CR Dhan 702 (Late Hybrid)	4890/95	
	CR Dhan 320 (Early)	4684/88	
	DRR Dhan 50 (Late),	4581/95	
	DRR Dhan 70 (Medium)	4485/85	
	DRRH 4 (Early Hybrid)	4455/86	
	Shabhagidhan (Early)	4136/82	
	CD	432	

Summary:

List of promising entries in IVT-DSR 2024

Overall/Zones	Number of promoted entries	Entries promoted
Overall	08	IET 32582 (H), IET 32917 (H), IET 32952 (H), IET 32929 (H), IET 32924 (H), IET 32944 (H), IET 32918 (H) and IET 32922
Zone II	None	-
Zone III	None	-
Zone IV	None	-
Zone-V	None	-
Zone-VI	5	IET 32929 (H), IET 32582 (H), IET 32924 (H), IET 32922, IET 32952 (H)
Zone VII	8	IET 32582 (H), IET 32955, IET 32945, IET 32924 (H), IET 32918 (H), IET 32954, IET 32956 and IET 32917 (H)

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 37.1: Composition of entries in Initial Variety Trial-Irrigated dry DSR (IVT-DSR) Kharif 2024

Entry No.	IET No.	Designation	Cross Combination	Grain type
6001	32917	BAYR 4409		LS
6002	32918	BAYR 4305		LS
6003	32919	RP 6449-DB-235-1	Vandana/NH 787	LB
6004	32920	RLBP5 IR 132084-B-1191-1-2-B-13	CIHERANG-SUB1-AG1/IR64-SALTOL 181//CIHERANG-SUB1-AG1/IR 87707-445-B-B-B	MS
6005	32921	CR 4479-3-2-1-1-1-1-2	CR3516-11-2-2-1-1-2/NDR 359	MS
6006		Irrigated early dry DSR: CR Dhan 320		LS
6007	32922	RP CG-SLK 256-45	IRRI156/MTU1010	LS
6008	32923	NLR 4023	NLR 34150/NLR 33057	SG,LS
6009	32924	PAN-2140DS		LS
6010		Irrigated early dry DSR: DRRH 4 (Early Hybrid Check)		MS
6011	32925	6112-MS-RSA-166-15-22	BPT 5204 Mutant	MS
6012	32926	6112-MS-RSA-17-18-24	BPT 5204 Mutant	MS
6013	32927	RP 6459-DB-C2-Sel 19	166S-Swarna/O.nivara//14S-Swarna/O.nivara	LS
6014	32928	RP CG-SLK 587-25	IRRI163/MTU1121	LS
6015	32929	PAN-2423DS		SB
6016	32930	BPT 2699	BPT 5204/RP 4677-16-6-1-	LB
6017	32931	CR6329-3-2-2-1-1	CR dhan 308/CR 3504-7-2-2-1-1-1	MS
6018	32932	BPT 3485	BPT 5204/BPT 2605	MS
6019	32933	CR 4204-226-2-15-6	CR Dhan 307/O. rufipogon(AC 100444)//CR Dhan 307	MB
6020	32934	CR 2599-2-3-3-1	Dandi/Naveen// Dandi	LB
6021	32935	RP2024-SLK78	IRRI 156/CR DHAN 201	LS
6022	32582	BAYR 4512		MS
6023	32936	IR144560-19-47-1-1-B	IR 91648-B-89-B/IR 144557	LS
6024	32937	CR 6368-IR09N204	IR04N114/IR01N144//IR721 02-4-159-1-3-3-3 (NSIC RC 112)	LS
6025		Irrigated medium dry DSR: DRR Dhan 70		MS
6026	32938	RYT-4174 IR144574-47-7-2-1-B	IR 91648-B-89-B*2/IR144560	LS
6027	32939	CR3564-1-1-4-2-1-1	Vijetha /N 22	MS

Annual Progress Report 2024 Vol. I – Varietal Improvement

6028	32940	CR6312-IR 132084-B-1327-2-1-B-15	CIHERANG-SUB1-AG1/IR64-SALTOL 181//CIHERANG-SUB1-AG1/IR 87707-445-B-B-B	LS
6029	32941	RK/733-181	KMR3/NH733	MB
6030		Irrigated late dry DSR: CR Dhan 702(late Hybrid Check)		LS
6031	32942	ARRH-32363	CA-88X AHG-8067	LB
6032	32943	RYT-4175 IR15A4029	IR 103806:237/IRRI 154	LS
6033	32944	BS 358		MS
6034		Irrigated early dry DSR: Shabhagidhan		MS
6035	32945	CR 4357-1-1-1-2-2-1	CR 3580-7-3-1-2-1/CR3504-	MS
6036	32946	BPT 3520	BPT 2231/MTU 1001	LS
6037	32947	RP CG-SLK 256-23	IRRI163/CR DHAN 202	LS
6038		Irrigated late dry DSR: DRR Dhan 50		MS
6039	32948	BPT 3354	BPT 3291/BPT2411	MS
6040	32949	CR 6306-278-227-31	CR-3866-22-1/CR Dhan 307	SB
6041	32950	6112-MS-RSA-128-18	BPT 5204 Mutant	SS
6042	32951	WGL-1877	RNR 15048/MTU 1156	LS
6043	32952	BRI21044(K2024)	(K2024)	LB
6044	32953	RP CG-SLK 586-452	PR126/IR163	MS
6045		Irrigated medium dry DSR: DRR Dhan 55		LS
6046	32954	IR 127364-46-2-2-1-B	IR 84899-B-185-10-1-4-1/BPT-5204	LS
6047	32955	IR 143531-83-11-11-38-1-50	DRR Dhan 44/NX3533::IRGC63796	LS
6048		LOCAL CHECK		
6049	32956	RP 5624-14-2-1	BPT 5204/KMR3R//RNR15048	MS
6050	32957	RP 5594-147-23-1	MTU1010/RPHR 1005	LS
6051	32958	IIRRH 182	Hybrid	MS
6052	32959	RP 6465-93-2-1	KMR3R/ /Mahamaya	LB
6053	32960	RP 5624-146-23-1	KMR3R/ /Shabhagidhan	LB
6054	32961	MSA-CGR-19	BPT-5204*3/Oryza rufipogon-14	MS
6055	32962	MSA-CGIL-69	BPT-5204*3/Oryza rufipogon-7	M S
6056		BPT 5204(RP)		MS
6057	32072	BGIR7-26-3 (IET 32072)	Genome edited Sams Mahsuri	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 37.2: Grain Yield (kg/ha) in IVT – DSR, Kharif 2024

Entry No	IET No	ZONE II-NORTHERN								ZONE II-NORTHERN (4)	
		Haryana		Haryana (2)		Punjab		Rajasthan		Mean	
		Karnal	Kaul	Mean		Ludhiana	Kota				
6001	32917	4030	3913	3972	5043	1#	5488	1	4618	4	
6002	32918	3673	3727	3700	4812	2#	5355	5	4392		
6003	32919	2987	3417	3202	3509		4854		3692		
6004	32920	4233	3533	3883	3671		4654		4023		
6005	32921	1980	3777	2878	3064		5186		3502		
6006	CR Dhan 320 (Irrigated early dry DSR)	2927	4813	9 3870	3829		5053		4156		
6007	32922	4383	9 3600	3992	3098		5319	6	4100		
6008	32923	1740	3323	2532	2033		4455		2888		
6009	32924	3457	3633	3545	4068	6	5155		4078		
6010	DRRH 4 (Irrigated early dry DSR) (EHC)	4067	5483	1 4775	2 3686		5120		4589	6	
6011	32925	5327	3*# 3837	4582	7 2583		4654		4100		
6012	32926	3953	3857	3905			4455		4088		
6013	32927	2063	3833	2948	1658		5053		3152		
6014	32928										
6015	32929	3357	3887	3622	2627		5319	6	3797		
6016	32930		3807	3807			4588		4197		
6017	32931	1697	2837	2267			4056		2863		
6018	32932		2617	2617			4025		3321		
6019	32933	4610	5 4850	7 4730	3		4721		4727	2	
6020	32934						4038		4038		
6021	32935	5220	4*# 3357	4288	3162		4721		4115		
6022	32582	2433	3363	2898			5253	10	3683		
6023	32936	2310	4843	8 3577	2862		5186		3800		
6024	32937	2567	4267	3417	2286		5319	6	3610		
6025	DRR Dhan 70 (Irrigated medium dry DSR)	4143	4690	4417	4453	4	5288	9	4644	3	
6026	32938	2273	4663	3468	2594		4455		3496		
6027	32939	1810	4420	3115	2286		5253		3442		
6028	32940	3917	4727	4322	3423		4654		4180		
6029	32941	1843	3107	2475	2739		4588		3069		
6030	CR Dhan 702 (Irrigated late dry DSR) (LHC)		4027	4027			4987		4507	10	
6031	32942	2460	5400	2 3930	4316	5#	5253		4357		
6032	32943		2913	2913	3878	9	5120		3970		
6033	32944	4413	8 4000	4207	4064	7	5421	3	4475		
6034	Shabhagidhan (Irrigated early dry DSR)	3780	4523	4152	2376		4255		3734		
6035	32945	2843	2997	2920			4091		3310		
6036	32946	2827	3297	3062			4388		3504		
6037	32947	5553	1*# 5043	3 5298	1*# 3109		4490		4549	8	
6038	DRR Dhan 50 (Irrigated late dry DSR)	3037	3073	3055	2859		4424		3348		
6039	32948	2510	2787	2648			4291		3196		
6040	32949	3807	3857	3832			4322		3995		
6041	32950	4490	7 3047	3768			4920		4152		
6042	32951	3300	3717	3508	2632		5452	2	3775		
6043	32952	5350	2*# 3913	4632	4		5120		4794	1	
6044	32953						4091		4091		
6045	DRR Dhan 55 (Irrigated medium dry DSR)	3343		3343	3204		4122		3557		
6046	32954	4310	4890	5 4600	5 2799		4215		4054		
6047	32955	2763	4607	3685			5120		4163		
6048	LC	4267	4717	4492	10 4509	3	4721		4553	7	
6049	32956	2853	3633	3243			5386	4	3957		
6050	32957	3630	4603	4117	2885		4189		3827		
6051	32958	2853	4743	10 3798	3897	8	4987		4120		
6052	32959	3707	3920	3813	2483		4521		3658		
6053	32960	2943	4887	6 3915	3868	10	4721		4105		
6054	32961	4543	6 4547	4545	8 3432		4521		4261		
6055	32962	2143	3003	2573	1632		4920		2925		
6056	BPT 5204(RP)	4250	4943	4 4597	6				4597	5	
6057	32072	4383	9 4653	4518	9				4518	9	
Experimental Mean		3427.00	3998.00	3704.00	3228.00	4784.00			3936.00		
CD(0.05)		594.00	526.00	425.00	598.00	723.00			383.00		
CV(%)		10.70	8.12	7.09	11.38	9.34			6.01		
F Value		23.68**	15.27**	21.36**	15.84**	2.96**			13.27**		
DOS						22-06-24					
DOP											
Local Check Name						PR 126					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 37.2 (Contd.): Grain Yield (kg/ha) in IVT – DSR, Kharif 2024

Entry No	IET No	ZONE III- EASTERN		ZONE IV-NORTH EASTERN		ZONE VI- WESTERN							
		Bihar		Assam		Gujarat		Maharashtra		Maharashtra (2)			
		Pusa		Titabar		Navasari		Karjat	Vadgaonmaval	Mean			
6001	32917	4125		6019	1	4982	5*	6106		4375		5240	
6002	32918	4225		4796	8	4369	8*	6497		3224		4861	
6003	32919	4075		4541		4089		4228		4385		4306	
6004	32920	3875		2370		3547		5265		5419		5342	
6005	32921	4175		2367		3676		4963		3583		4273	
6006	CR Dhan 320 (Irrigated early dry DSR)	4438	6	5433	5	3680		4831		5823	10	5327	
6007	32922	4088		4756	10	3618		7323	10	6314	4	6818	2*
6008	32923	4162		2200		3813		5534		5378		5456	
6009	32924	3875		4719		5124	3*	7656	8	5078		6367	6
6010	DRRH 4 (Irrigated early dry DSR) (EHC)	4288		5959	2	5098	4	3249		6104	6	4676	
6011	32925	4375	8	3793		2298		2434		3919		3176	
6012	32926	4600	2	2748		3338		7370	9	4052		5711	
6013	32927	4300		2978		3191		5185		5146		5166	
6014	32928							3815				3815	
6015	32929	4275				4751	6*	8587	2	5979	7	7283	1*#
6016	32930	3875				2547		5783		3667		4725	
6017	32931	3625		1300		2480		5979		3512		4746	
6018	32932	3025				702		4952		3083		4018	
6019	32933	3125		1833		4049		5122		3677		4399	
6020	32934					324		5413		2501		3957	
6021	32935	3812		1293		2378		3778		3659		3719	
6022	32582	3962				5667	2*#	8106	5	5141		6623	3
6023	32936	4250		3770		2924		6693		4385		5539	
6024	32937	3788		5656	4	2409		1862		4208		3035	
6025	DRR Dhan 70 (Irrigated medium dry DSR)	3875		4689		2702		1519		3646		2582	
6026	32938	4200		5915	3	2329		2085		5043		3564	
6027	32939	4125		1385		2627		2550		4066		3308	
6028	32940	3800		2004		1404		3190		5339		4265	
6029	32941	3725		3467		1640		4016		2323		3169	
6030	CR Dhan 702 (Irrigated late dry DSR) (LHC)	4212				2773		9212	1	3656		6434	4
6031	32942	4400	7	4296		3680		2407		6595	2	4501	
6032	32943	3762		4144		2680		8339	4	4409		6374	5
6033	32944	4575	3	5133	7	3956		5085		6547	3	5816	10
6034	Shabhagidhan (Irrigated early dry DSR)	3962		3507		3360		3608		5740		4674	
6035	32945	3625				3453		8407	3	3054		5731	
6036	32946	3375		948		1831		6667		5189		5928	8
6037	32947	4375	8	1656		3267		3603		4391		3997	
6038	DRR Dhan 50 (Irrigated late dry DSR)	3088				1636		2661		4104		3383	
6039	32948					2240		5132		3958		4545	
6040	32949	4375	8			2622		3831		3984		3908	
6041	32950	3588		1130		2240		7884	6	4479		6181	7
6042	32951	3875		5181	6	4209	9	5206		5970	9	5588	
6043	32952	3825		4770	9	5689	1*#	4143		6753	1	5448	
6044	32953							3058				3058	
6045	DRR Dhan 55 (Irrigated medium dry DSR)	4125		4063		3556		7868	7	3845		5856	9
6046	32954	4625	1	3067		3271		3582		5972	8	4777	
6047	32955	4300				4400	7*	5397		3859		4628	
6048	LC	4512	4	1902		884		2381		4672		3526	
6049	32956	4075		2826		3667		2772		6251	5	4512	
6050	32957	3625		4400		2956		4317		3979		4148	
6051	32958	3150		3278		3342		2381		3240		2810	
6052	32959	4212		3744		3511		2312		4203		3258	
6053	32960	4038		863		4093	10	3646		3792		3719	
6054	32961	4462	5	3856		3116		2466		4189		3327	
6055	32962	3050		781		2404		2407		3990		3198	
6056	BPT 5204(RP)					1771		2603		3609		3106	
6057	32072			1044		1794		2179		4885		3532	
Experimental Mean		3986.00		3362.00		3130.00		4696.00		4515.00		4587.00	
CD(0.05)		627.00		600.00		561.00		843.00		1318.00		839.00	
CV(%)		9.71		10.98		11.07		11.09		18.03		11.31	
F Value		1.52*		55.58**		34.83**		46.74**		5.25**		15.05**	
DOS						22-06-24				05-07-24			
DOP													
Local Check Name						GNR-8				Phule Kolam			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 37.2 (Contd.): Grain Yield (kg/ha) in IVT – DSR, Kharif 2024

Entry No	IET No	ZONE VI- WESTERN (3)		ZONE VII- SOUTHERN						Overall Mean (12)			
				Andhra Pradesh		Karnataka		Tamil Nadu			ZONE VII- SOUTHERN (3)		
		Mean		Bapatla		Mandya		Coimbatore			Mean		
6001	32917	5154	8	4572		6514	4#	4997		5361	8#	5014	2*
6002	32918	4697		4782		6880	3*#	4851		5504	5#	4766	8
6003	32919	4234		4282		5185		4729		4732		4190	
6004	32920	4743		4256		5292		4129		4559		4187	
6005	32921	4074		4520		4292		4266		4359		3821	
6006	CR Dhan 320 (Irrigated early dry DSR)	4778		4299		5204		4550		4684		4573	
6007	32922	5751	4*	4397		5505		4720		4874		4760	9
6008	32923	4909		4543		4694		5161		4799		3920	
6009	32924	5953	3*#	5095	8	6120	6	5401	8	5539	4#	4949	5*
6010	DRRH 4 (Irrigated early dry DSR) (EHC)	4817		3941		5468		3955		4455		4701	
6011	32925	2883		3451		5065		4389		4302		3844	
6012	32926	4920		3392		5477		4106		4325		4304	
6013	32927	4507		4443		4157		4056		4219		3839	
6014	32928	3815		3430				4393		3911		3879	
6015	32929	6439	1*#	4561		6940	2*#	4178		5226	9	4951	4*
6016	32930	3999		5661	3#	4269		4696		4875		4321	
6017	32931	3990		5022	10	3250		4716		4329		3498	
6018	32932	2913		5021		2644		4568		4077		3404	
6019	32933	4283		5063	9	5213		4455		4910		4247	
6020	32934	2746		4109		5583		4356		4683		3761	
6021	32935	3272		4288		3829		4217		4111		3643	
6022	32582	6304	2*#	5872	1#	7384	1*#	5666	4	6307	1*#	5285	1*#
6023	32936	4668		4223		5569		4522		4771		4295	
6024	32937	2827		4408		5083		4231		4574		3840	
6025	DRR Dhan 70 (Irrigated medium dry DSR)	2622		3666		5653		4135		4485		4038	
6026	32938	3152		4225		5926		5080		5077		4066	
6027	32939	3081		4991		4282		4302		4525		3508	
6028	32940	3311		3945		5218		3940		4368		3797	
6029	32941	2660		4572		4519		4353		4481		3408	
6030	CR Dhan 702 (Irrigated late dry DSR) (LHC)	5214	6	4269		5079		5323	10	4890		4838	7
6031	32942	4227		4039		5500		5420	7	4986		4481	
6032	32943	5143	9	4221		4097		5432	6	4583		4454	
6033	32944	5196	7	4489		5986	10	4677		5051		4862	6*
6034	Shabhagidhan (Irrigated early dry DSR)	4236		3975		4042		4392		4136		3960	
6035	32945	4972		5662	2#	5722		5249		5544	3#	4510	
6036	32946	4562		4396		6056	8	4943		5132		3992	
6037	32947	3753		3747		4380		3979		4035		3966	
6038	DRR Dhan 50 (Irrigated late dry DSR)	2800		3895		3884		5964	1	4581		3511	
6039	32948	3777		4172		3241		5363	9	4258		3744	
6040	32949	3479		4886		3796		5166		4616		4065	
6041	32950	4868		4253		2898		5442	5	4198		4034	
6042	32951	5128	10	4018		4653		5009		4560		4435	
6043	32952	5528	5	4613		6023	9	4871		5169	10	5006	3*
6044	32953	3058		3885				4964		4425		4000	
6045	DRR Dhan 55 (Irrigated medium dry DSR)	5089		5291	6	5088		4968		5116		4498	
6046	32954	4275		4587		6065	7	5747	3	5466	6#	4428	
6047	32955	4552		5300	5#	5472		5865	2#	5546	2#	4708	10
6048	LC	2646		5244	7	4856		4641		4914		3942	
6049	32956	4230		5360	4#	6171	5	4844		5459	7#	4349	
6050	32957	3751		4360		5005		4798		4721		4062	
6051	32958	2988		4552		5213		4823		4863		3872	
6052	32959	3342		4193		5125		5180		4833		3926	
6053	32960	3844		4117		5093		5045		4752		3925	
6054	32961	3257		4107		4926		5272		4768		4120	
6055	32962	2934		4269		4296		5290		4618		3182	
6056	BPT 5204(RP)	2661		4556		3861		5018		4478		3826	
6057	32072	2953		4311		4981		4993		4762		3692	
Experimental Mean		4105.00		4453.00		5031.00		4804.00		4752.00		4161.00	
CD(0.05)		576.00		839.00		864.00		520.00		432.00		246.00	
CV(%)		8.68		11.65		10.61		6.69		5.62		3.65	
F Value		24.32**		3.36**		10.32**		7.62**		9.12**		29.09**	
DOS						26-07-24							
DOP													
Local Check Name						KMP-175							

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 37.2 (Contd.): Grain Yield (kg/ha) in IVT – DSR, Kharif 2024 (Not considered)

Entry No	IET No	ZONE III- EASTERN				ZONE V- CENTRAL				ZONE VI- WESTERN		ZONE VII- SOUTHERN	
		Uttar Pradesh				Chattisgarh		Madya Pradesh		Gujarat		Andra Pradesh	
		@Masodha		@Varanasi		@Raipur		@Rewa		@Nawagam		@Maruteru	
6001	32917	4688	1	5916	1	8447	1	2470	8	3020	3	2618	
6002	32918	4588	2	5358	2	5862	6	2542	5	3190	2	3375	10
6003	32919	4455	3	3674		4286		2089		2317	6	2828	
6004	32920	3125		3851		2973		2519	6	1599		2929	
6005	32921	2726		4009		4606		2250		1468		1667	
6006	CR Dhan 320 (Irrigated early dry DSR)	3923	6	4372	6	3929		2293		1536		2643	
6007	32922	3743	9	4093	9	2897		2205		1520		3603	5
6008	32923	2992		3972		2434		2133		1194		2837	
6009	32924	4235	4	5098	3	4402		2645	3	2071		3796	3
6010	DRRH 4 (Irrigated early dry DSR) (EHC)	3491		3544		3713		2228		1972		3914	2
6011	32925	2992		3488		2786		1624		1234		2736	
6012	32926	3125		3498		1895		1962		1417		1801	
6013	32927	3158		4084	10	1711		1941		1012		3056	
6014	32928									1642			
6015	32929	2400		3963		3378		1938		2155		2609	
6016	32930			2177		2870		1255		1298		1178	
6017	32931	2500		3312		2341		1498		1163		1987	
6018	32932			2177		1712		1235		754		1195	
6019	32933			3758		4875		1668		2278	8	1785	
6020	32934			2093				1303		647		1894	
6021	32935	3969	5	3219		3381		1769		1040		2045	
6022	32582			4726	5	3882		1823		1933		3476	7
6023	32936	3191		3526		4519		2126		1413		3013	
6024	32937	3431		3209		3506		2200		1190		3232	
6025	DRR Dhan 70 (Irrigated medium dry DSR)	3697	10	3265		5536	8	1964		1052		1869	
6026	32938	3650		4047		6718	2	1837		2171	10	3460	8
6027	32939			3553		6613	4	2152		1294		3207	
6028	32940	2420		3628		5525	9	2444	10	710		2483	
6029	32941	2699		3470		4332		2286		1631		1423	
6030	CR Dhan 702 (Irrigated late dry DSR) (LHC)			4037		2956		2767	2	3298	1	2146	
6031	32942	2766		4214	7	5747	7	2912	1	2198	9	2719	
6032	32943	2387		3153		3241		2227		1968		3510	6
6033	32944	3610		3488		6456	5	2326		1667		3199	
6034	Shabhadhan (Irrigated early dry DSR)	2992		3572		2972		2307		1028		3266	
6035	32945			3340		2180		1613		1123		2256	
6036	32946			3163		2249		1352		937		2264	
6037	32947	2686		3563		2137		2470	8	1071		1279	
6038	DRR Dhan 50 (Irrigated late dry DSR)	2773		3647		2488		1641		1552		1944	
6039	32948			2586		2135		1250		1133		1532	
6040	32949			2930		2333		1975		877		985	
6041	32950	2287		3916		2216		2096		806		699	
6042	32951	3025		3721		2570		2280		877		3973	1
6043	32952	3298		3795		5211		2516	7	2290	7	3426	9
6044	32953									603			
6045	DRR Dhan 55 (Irrigated medium dry DSR)	3404		3758		4010		2092		2452	5	1582	
6046	32954	3816	7	4121	8	5067		2125		1452		3746	4
6047	32955			4791	4	4223		1951		1702		2029	
6048	LC	3165		3749		3518				2929	4	1768	
6049	32956	3783	8	3600		2509		2025		2135		2559	
6050	32957	2666		3591		2297		1976		1159		2306	
6051	32958	2965		3414		4006		1964		968		2828	
6052	32959	3032		3712		5516	10	1926		937		2155	
6053	32960	2547		3767		6669	3	2321		917		2904	
6054	32961	3391		3460		5119		2546	4	1151		2517	
6055	32962			3423		3124		1688		1290		1987	
6056	BPT 5204(RP)	3391		3135				1635		1609		808	
6057	32072			4000		2109		1934		1824		1616	
Experimental Mean		3248		3686		3815		2043		1542		2448	
CD(0.05)		203		203		2396		291		181		405	
CV(%)		3.85		3.41		38.79		8.79		7.27		10.23	
F Value		71.98**		88.59**		1.48**		14.34**		99.91**		33.84**	
DOS													
DOP													
Local Check Name													

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 37.3: Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – DSR, Kharif 2024

Entry No	IET No	ZONE II-NORTHERN														
		Haryana						Haryana (2)			Punjab			Rajasthan		
		Karnal			Kaul			Mean			Ludhiana			Kota		
		DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN	DFP	PH	PAN
6001	32917	96	80	422	94	120	269	95	100	346	94	115	353	87	125	274
6002	32918	96	66	393	89	103	270	93	84	331	92	106	390	84	119	266
6003	32919	94	65	244	89	118	279	92	91	262	92	106	350	82	114	239
6004	32920	98	72	459	91	92	268	94	82	364	93	107	363	84	116	230
6005	32921	86	61	341	95	84	265	90	73	303	94	105	343	90	118	260
6006	CR Dhan 320 (Irrigated early dry DSR)	92	70	400	83	96	288	88	83	344	79	99	323	76	108	253
6007	32922	122	65	415	90	92	266	106	78	340	89	85	327	82	98	276
6008	32923	114	58	326	95	89	261	104	73	293	89	93	363	91	108	222
6009	32924	90	73	429	96	87	268	93	80	349	96	108	333	88	113	273
6010	DRRH 4 (Irrigated early dry DSR) (EHC)	83	98	433	86	118	281	84	108	357	88	114	357	82	128	268
6011	32925	105	102	444	93	114	272	99	108	358	95	126	353	80	129	226
6012	32926	94	113	489	93	117	269	94	115	379				80	145	214
6013	32927	96	71	363	93	79	288	94	75	325	80	91	317	86	110	252
6014	32928															
6015	32929	100	61	304	85	91	280	92	76	292	90	95	323	85	117	266
6016	32930				97	93	275	97	93	275				108	113	230
6017	32931	104	68	400	96	91	246	100	79	323				96	124	183
6018	32932				108	71	258	108	71	258				114	97	176
6019	32933	113	80	392	105	94	281	109	87	336				98	118	240
6020	32934													113	155	179
6021	32935	86	88	474	86	112	271	86	100	372	83	112	357	84	117	244
6022	32582	98	73	408	110	88	272	104	81	340				112	115	266
6023	32936	92	63	289	88	84	271	90	74	280	86	97	373	80	115	262
6024	32937	89	74	267	89	115	262	89	95	264	81	110	387	80	123	276
6025	DRR Dhan 70 (Irrigated medium dry DSR)	82	82	422	85	119	261	83	101	342	84	110	363	76	123	252
6026	32938	93	70	385	90	121	295	91	95	340	84	116	397	81	121	200
6027	32939	118	63	393	100	102	256	109	82	324	99	111	317	95	125	263
6028	32940	95	76	452	89	106	276	92	91	364	94	99	417	86	114	234
6029	32941	86	84	244	84	121	258	85	102	251	78	128	310	84	164	226
6030	CR Dhan 702 (Irrigated late dry DSR) (LHC)				109	97	255	109	97	255				112	113	238
6031	32942	89	82	348	86	108	266	87	95	307	78	107	370	78	113	269
6032	32943				90	89	265	90	89	265	81	83	343	81	107	264
6033	32944	88	73	389	87	110	267	88	91	328	81	99	357	78	122	274
6034	Shabhagidhan (Irrigated early dry DSR)	82	89	355	86	97	266	84	93	311	81	109	360	78	107	182
6035	32945	109	83	222	111	69	256	110	76	239				109	105	162
6036	32946	84	92	319	107	96	266	96	94	292				102	125	198
6037	32947	83	74	496	90	106	268	86	90	382	77	101	343	78	108	200
6038	DRR Dhan 50 (Irrigated late dry DSR)	110	62	304	111	78	259	110	70	281	79	88	353	98	107	192
6039	32948	115	74	430	111	75	254	113	75	342				102	86	172
6040	32949		84	415	110	104	262	110	94	338				98	124	186
6041	32950	89	76	508	109	91	252	99	83	380				102	108	226
6042	32951	92	78	378	91	102	264	91	90	321	82	103	353	81	118	277
6043	32952	94	94	474	91	115	252	93	104	363				90	118	262
6044	32953													88	117	166
6045	DRR Dhan 55 (Irrigated medium dry DSR)	99	70	355				99	70	355	81	102	407	88	118	182
6046	32954	104	79	363	88	104	269	96	91	316	99	122	363	90	124	184
6047	32955	81	58	311	110	82	285	95	70	298				109	97	261
6048	LC	88	75	363	86	106	280	87	90	321	81	93	397	102	123	230
6049	32956	90	94	356	100	129	260	95	111	308				92	127	274
6050	32957	86	90	415	85	118	262	85	104	338	84	115	410	80	132	188
6051	32958	90	76	363	85	115	267	88	96	315	82	104	410	82	122	238
6052	32959	89	83	222	87	116	247	88	99	235	92	94	370	83	114	222
6053	32960	83	97	378	89	129	272	86	113	325	93	112	337	92	121	239
6054	32961	81	97	411	86	117	267	83	107	339	82	116	330	80	124	220
6055	32962	114	68	356	107	82	250	110	75	303	106	100	337	96	117	233
6056	BPT 5204(RP)	116	77	433	99	94	287	107	86	360						
6057	32072	118	76	432	113	91	299	115	83	366						
Experimental Mean		95	77	379	94	100	267	96	89	320	87	104	358	89	117	231
Standard Error		0			0.44						0.88			0.99		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 37.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – DSR, Kharif 2024

Entry No	IET No	ZONE II- NORTHERN (4)			ZONE III- EASTERN			ZONE IV-NORTH EASTERN			ZONE VI- WESTERN		
		Mean			Bihar			Assam			Gujarat		
		Pusa			Titabar			Navasari					
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
6001	32917	93	110	330	84	101	222	77	81	209	83	128	312
6002	32918	90	99	330	88	77	200	75	76	226	78	118	321
6003	32919	90	101	278	84	95	190	71	80	203	79	112	273
6004	32920	92	97	330	92	90	208	76	69	211	79	109	376
6005	32921	91	92	302	96	102	223	78	69	202	90	107	305
6006	CR Dhan 320 (Irrigated early dry DSR)	83	93	316	78	84	226	69	76	208	77	100	376
6007	32922	96	85	321	86	78	200	76	70	226	79	99	336
6008	32923	97	87	293	96	90	197	85	72	206	85	107	346
6009	32924	93	95	326	92	82	214	73	74	237	75	111	456
6010	DRRH 4 (Irrigated early dry DSR) (EHC)	85	114	335	82	102	211	70	92	209	77	129	411
6011	32925	93	118	324	88	108	182	68	102	195	84	130	326
6012	32926	89	125	324	86	88	156	70	101	192	84	113	356
6013	32927	89	88	305	90	90	208	70	73	202	77	104	351
6014	32928												
6015	32929	90	91	293	88	80	207				78	97	318
6016	32930	102	103	253	102	63	183				94	119	296
6017	32931	99	94	276	100	60	166	87	73	194	84	109	426
6018	32932	111	84	217	106	74	200				108	125	431
6019	32933	105	97	304	100	60	152	85	85	187	93	129	344
6020	32934	113	155	179							105	169	249
6021	32935	85	107	336	96	88	216	85	89	180	75	127	391
6022	32582	107	92	315	106	72	200				97	133	376
6023	32936	86	90	299	80	66	200	75	76	196	74	120	371
6024	32937	84	106	298	79	90	211	71	83	200	73	113	351
6025	DRR Dhan 70 (Irrigated medium dry DSR)	82	109	324	83	72	162	75	88	199	75	100	311
6026	32938	87	107	319	83	86	168	74	89	199	77	112	276
6027	32939	103	100	307	100	84	171	83	81	185	90	110	371
6028	32940	91	99	345	98	84	151	82	80	203	79	88	261
6029	32941	83	124	260	81	104	171	72	96	206	72	110	281
6030	CR Dhan 702 (Irrigated late dry DSR) (LHC)	111	105	246	76	85	150				104	115	361
6031	32942	83	102	313	82	90	177	77	85	200	74	107	366
6032	32943	84	93	291	88	84	173	75	74	189	78	100	361
6033	32944	84	101	322	86	98	176	71	79	207	76	107	456
6034	Shabhagidhan (Irrigated early dry DSR)	82	101	291	78	86	154	66	81	196	74	109	326
6035	32945	110	86	214	104	82	181				104	136	351
6036	32946	98	104	261	106	60	156	85	77	185	101	146	326
6037	32947	82	97	327	82	72	162	76	68	184	72	108	376
6038	DRR Dhan 50 (Irrigated late dry DSR)	99	84	277	108	80	164				93	119	321
6039	32948	109	79	286							101	111	311
6040	32949	104	104	288	80	76	160				94	150	376
6041	32950	100	92	329	100	93	180	86	76	168	97	138	346
6042	32951	86	100	318	84	82	162	70	77	199	73	126	426
6043	32952	92	109	329	86	102	173	45	73	194	75	155	526
6044	32953	88	117	166									
6045	DRR Dhan 55 (Irrigated medium dry DSR)	89	97	315	82	88	190	46	74	206	77	124	241
6046	32954	95	107	295	92	106	206	52	71	219	85	137	396
6047	32955	100	79	286	108	76	182				102	112	466
6048	LC	89	99	317	82	93	195	90	72	201	71	139	411
6049	32956	94	116	297	96	98	168	81	82	195	89	152	486
6050	32957	84	114	319	82	83	190	69	92	179	76	152	361
6051	32958	85	104	319	80	94	155	70	80	192	76	142	426
6052	32959	88	102	265	78	93	162	73	82	211	77	122	396
6053	32960	89	115	306	88	92	170	77	89	197	79	151	376
6054	32961	82	113	307	80	92	152	76	93	207	74	137	316
6055	32962	106	92	294	104	104	160	89	67	166	97	126	396
6056	BPT 5204(RP)	107	86	360							111	89	406
6057	32072	115	83	366				83	64	204	112	128	326
Experimental Mean		94	101	299	89	85	182	74	79	199	84	121	360
Standard Error					5.12			0.59			0.77		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 37.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m² in IVT – DSR, Kharif 2024

Entry No	IET No	ZONE VI- WESTERN									ZONE VI- WESTERN (3)		
		Maharashtra						Maharashtra (2)			Mean		
		Karjat			Vadgaonmaaval			Mean			Mean		
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
6001	32917	93	126	221	93	95	265	93	110	243	90	116	266
6002	32918	86	115	220	91	86	260	88	100	240	85	106	267
6003	32919	73	134	219	83	76	259	78	105	239	78	107	250
6004	32920	72	141	207	86	79	349	79	110	278	79	110	311
6005	32921	86	119	199	84	78	228	85	98	213	87	101	244
6006	CR Dhan 320 (Irrigated early dry DSR)	68	96	182	82	71	310	75	84	246	76	89	289
6007	32922	74	97	190	86	77	326	80	87	258	80	91	284
6008	32923	87	108	209	88	83	283	88	96	246	87	99	279
6009	32924	81	105	192	85	90	264	83	98	228	81	102	304
6010	DRRH 4 (Irrigated early dry DSR) (EHC)	60	126	183	82	110	354	71	118	269	73	122	316
6011	32925	68	114	199	86	110	244	77	112	221	79	118	256
6012	32926	69	99	204	83	106	307	76	102	256	79	106	289
6013	32927	65	113	161	85	93	334	75	103	247	76	103	282
6014	32928	73	87	171				73	87	171	73	87	171
6015	32929	82	101	210	86	81	295	84	91	253	82	93	275
6016	32930	95	118	204	95	102	255	95	110	230	95	113	252
6017	32931	85	109	191	86	99	273	86	104	232	85	106	297
6018	32932	102	112	181	98	89	254	100	101	218	103	109	289
6019	32933	98	123	181	98	93	247	98	108	214	96	115	257
6020	32934	104	166	219	100	118	232	102	142	226	103	151	233
6021	32935	68	121	184	83	100	236	76	110	210	75	116	270
6022	32582	92	124	187	98	93	365	95	109	276	96	117	309
6023	32936	61	121	206	85	92	276	73	106	241	73	111	284
6024	32937	64	104	212	80	96	264	72	100	238	72	104	276
6025	DRR Dhan 70 (Irrigated medium dry DSR)	62	112	207	85	97	264	74	105	235	74	103	260
6026	32938	66	126	201	82	95	330	74	111	265	75	111	269
6027	32939	87	116	202	85	88	262	86	102	232	88	105	278
6028	32940	78	104	167	86	90	368	82	97	268	81	94	265
6029	32941	77	127	203	78	105	190	77	116	196	75	114	224
6030	CR Dhan 702 (Irrigated late dry DSR) (LHC)	101	127	206	92	98	262	97	112	234	99	113	276
6031	32942	61	123	183	77	90	329	69	106	256	70	107	293
6032	32943	63	106	222	79	81	276	71	93	249	73	96	286
6033	32944	60	107	157	79	92	331	69	100	244	72	102	314
6034	Shahagidhan (Irrigated early dry DSR)	65	107	139	74	88	309	70	98	224	71	101	258
6035	32945	109	133	165	99	100	235	104	117	200	104	123	250
6036	32946	96	127	201	99	99	304	98	113	253	99	124	277
6037	32947	62	94	157	77	77	253	70	86	205	70	93	262
6038	DRR Dhan 50 (Irrigated late dry DSR)	87	100	154	94	83	305	90	92	230	91	101	260
6039	32948	101	107	201	93	94	212	97	101	207	99	104	241
6040	32949	101	116	138	95	106	210	98	111	174	97	124	241
6041	32950	92	100	175	93	97	243	93	98	209	94	112	255
6042	32951	62	94	187	78	97	301	70	96	244	71	106	305
6043	32952	84	116	181	86	96	341	85	106	261	82	122	349
6044	32953	78	82	183				78	82	183	78	82	183
6045	DRR Dhan 55 (Irrigated medium dry DSR)	60	115	158	82	96	252	71	105	205	73	112	217
6046	32954	68	114	198	86	88	329	77	101	264	80	113	308
6047	32955	97	108	171	100	80	271	99	94	221	100	100	303
6048	LC	71	84	153	89	93	356	80	89	255	77	106	307
6049	32956	95	130	132	90	102	306	92	116	219	91	128	308
6050	32957	62	125	150	84	98	255	73	111	202	74	125	255
6051	32958	64	136	179	82	108	231	73	122	205	74	128	279
6052	32959	67	124	204	83	96	241	75	110	222	76	114	280
6053	32960	63	142	126	84	99	221	74	121	173	75	131	241
6054	32961	62	140	171	81	93	234	71	117	202	72	123	240
6055	32962	87	138	181	90	92	253	88	115	217	91	119	276
6056	BPT 5204(RP)	73	134	186	100	86	235	86	110	211	95	103	276
6057	32072	68	144	146	104	81	326	86	113	236	95	118	266
Experimental Mean		77	116	184	87	92	278	82	105	230	83	110	271
Standard Error		0.77			0.44								

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 37.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – DSR, Kharif 2024

Entry No	IET No	ZONE VII- SOUTHERN									ZONE VII- SOUTHERN (3)			Overall Mean (12)		
		Andhra Pradesh			Karnataka			Tamil Nadu			Mean					
		Bapatla			Mandya			Coimbatore								
		DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN	DFE	PH	PAN
6001	32917	85	113	264	100	102	320	89	97	368	91	104	317	90	107	292
6002	32918	85	113	278	104	80	292	100	99	357	96	98	309	89	97	289
6003	32919	81	119	286	90	88	304	92	89	342	88	99	311	84	100	266
6004	32920	83	109	302	93	77	283	102	93	325	93	93	303	88	96	298
6005	32921	87	120	285	89	72	320	102	72	379	93	88	328	90	92	279
6006	CR Dhan 320 (Irrigated early dry DSR)	74	102	282	90	70	324	100	85	342	88	86	316	81	88	293
6007	32922	83	99	231	89	71	342	102	73	328	91	81	300	88	84	289
6008	32923	85	111	301	92	89	354	102	58	334	93	86	329	92	89	283
6009	32924	81	114	331	98	89	347	102	85	322	94	96	333	88	94	305
6010	DRRH 4 (Irrigated early dry DSR) (EHC)	66	103	265	102	101	318	91	101	326	86	102	303	81	110	301
6011	32925	79	148	277	87	104	292	101	103	315	89	118	295	86	116	277
6012	32926	79	148	248	91	110	336	90	104	341	87	121	308	83	113	283
6013	32927	80	118	315	94	89	272	92	88	307	89	98	298	84	93	281
6014	32928	81	120	212				94	75	332	87	98	272	82	94	239
6015	32929	66	99	293	98	85	271	90	91	312	85	92	292	86	91	280
6016	32930	100	133	322	105	91	294	114	106	347	106	110	321	101	104	267
6017	32931	92	124	334	89	88	262	102	92	343	94	101	313	93	94	274
6018	32932	100	132	308	100	85	300	102	106	338	101	107	315	104	99	272
6019	32933	87	135	277	100	98	331	102	99	305	96	111	304	98	101	267
6020	32934	95	171	283	103	130	345	90	118	317	96	140	315	102	147	261
6021	32935	80	129	273	96	96	281	90	87	309	89	104	287	84	106	285
6022	32582	93	125	293	95	100	323	101	94	354	96	106	323	100	102	304
6023	32936	76	121	264	89	91	281	88	80	307	84	97	284	81	94	275
6024	32937	75	119	267	87	89	313	80	82	339	80	97	306	79	100	279
6025	DRR Dhan 70 (Irrigated medium dry DSR)	86	118	235	88	98	273	80	76	314	85	97	274	80	100	272
6026	32938	76	134	288	89	82	277	85	89	344	83	102	303	82	104	280
6027	32939	87	123	341	90	83	320	92	90	291	89	99	317	94	98	281
6028	32940	84	118	282	94	90	320	92	80	316	90	96	306	88	94	287
6029	32941	86	146	301	87	125	313	87	122	317	87	131	310	81	119	252
6030	CR Dhan 702 (Irrigated late dry DSR) (LHC)	89	117	262	104	89	340	93	102	345	95	103	316	98	105	269
6031	32942	80	105	227	94	99	324	80	88	336	85	97	296	79	100	283
6032	32943	81	104	262	94	72	281	87	95	311	87	90	285	81	91	268
6033	32944	75	99	238	93	83	301	80	101	348	83	94	296	80	98	292
6034	Shabhadhan (Irrigated early dry DSR)	82	99	269	88	98	258	78	80	310	82	92	279	78	96	260
6035	32945	100	131	284	103	90	265	100	122	313	101	114	287	105	105	243
6036	32946	86	135	294	101	93	267	94	106	352	94	111	304	96	105	261
6037	32947	82	91	279	103	86	333	79	83	353	88	87	322	80	89	284
6038	DRR Dhan 50 (Irrigated late dry DSR)	93	112	296	102	76	259	91	93	364	95	94	306	97	91	270
6039	32948	97	113	266	105	71	270	101	82	369	101	89	302	103	90	276
6040	32949	93	121	299	99	99	318	100	109	351	97	110	322	97	109	271
6041	32950	92	118	292	87	91	227	93	95	314	90	101	278	94	98	266
6042	32951	76	106	293	89	93	297	79	85	397	81	95	329	80	97	295
6043	32952	73	134	255	91	98	316	81	93	449	81	108	340	81	108	311
6044	32953	84	122	283				91	85	304	88	103	294	85	101	234
6045	DRR Dhan 55 (Irrigated medium dry DSR)	86	112	226	85	90	254	90	91	327	87	98	269	79	98	254
6046	32954	84	121	263	102	99	286	90	98	363	92	106	304	87	105	287
6047	32955	99	102	270	102	71	275	102	87	395	101	87	313	101	87	289
6048	LC	99	106	282	91	119	295	82	98	391	91	108	323	86	100	296
6049	32956	84	134	288	86	117	286	82	99	354	84	117	309	90	115	282
6050	32957	67	129	262	84	119	279	81	87	355	77	111	299	78	112	275
6051	32958	66	113	332	88	111	279	80	88	395	78	104	335	79	108	289
6052	32959	81	110	307	88	115	301	79	92	338	82	106	315	81	103	268
6053	32960	75	127	260	82	103	297	80	85	367	79	105	308	82	112	270
6054	32961	76	129	277	91	100	279	79	94	367	82	108	308	79	111	269
6055	32962	90	129	306	93	87	281	97	93	353	93	103	313	97	100	273
6056	BPT 5204(RP)	93	101	311	94	76	274	99	72	356	95	83	314	98	91	311
6057	32072	90	111	314	102	87	315	80	74	359	91	91	329	97	95	302
Experimental Mean		83	119	281	94	92	297	91	91	342	90	101	307	88	101	278
Standard Error		1.31			1.35			0.36								

Special trial under Biofortification for Benchmarking of rice grain zinc

Summary

To fix the benchmark levels for rice grain zinc, 39 popular high yield varieties along a few landraces and released biofortified varieties were evaluated across 14 locations during Kharif 2023 and 12 locations during Kharif 2024. The baseline of grain zinc in polished rice appears to be 16 ppm and average content is 18 ppm across 11 common locations and two years. Decadal analyses of 39 popular HYVs has shown the grain zinc content in polished rice is being sustained around 17 to 21 ppm.

Entries: 52

Kharif 2024 Locations: 12

Kharif 2023 Locations: 14

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) ($> 10 \text{ mg kg}^{-1}$), Zn ($> 24 \text{ mg kg}^{-1}$) 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 country, the existing variability of released varieties for grain Zn and Fe needs be characterized. Therefore, a special trial was constituted during Kharif 2022 under AICRP-Rice for characterizing the nutrient content of released rice varieties and executed across 7 locations with 50 test entries. The grain zinc data of only three locations and grain yield data of only one location could be considered. Since at least three common locations with data of grain yield and Zn content are required for the analyses, the trial was repeated.

For the conduct of Kharif 2023 Special trial for Bench marking of zinc, the list of rice varieties was consolidated from the Breeder seed indents from 2011 and 2021 and 39 varieties with maximum seed indent along with released biofortified rice varieties, check genotypes for yield and grain zinc were evaluated at 14 locations during Kharif 2023 and 12 locations during Kharif 2024 (11 locations are common to both the years). The varieties selected for the trials have been released over the last five decades.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Zinc content of soils and genotypic grain zinc content (ppm) of 39 HYVs across 11 locations

	2023	Soil zinc	Genotypic mean	2024	Soil zinc	Genotypic mean
Zone II	KTA	1.10	15.42	KTA	Analysis in progress	17.21
Zone III	CTK	2.84	18.27	CTK		19.73
Zone III	VRN	3.19	17.00	VRN		17.19
Zone III	MSD	2.85	18.44	MSD		16.82
Zone IV	TTB	2.70	16.36	TTB		18.41
Zone V	RPR	0.97	16.51	RPR		15.90
Zone VI	NVS	1.04	18.30	NVS		19.19
Zone VII	SRS	3.59	19.20	SRS		18.98
Zone VII	ADT	1.38	18.59	ADT		21.08
Zone VII	PTB	1.66	21.98	PTB		19.63
Zone VII	MNC	2.67	22.25	MNC		23.19

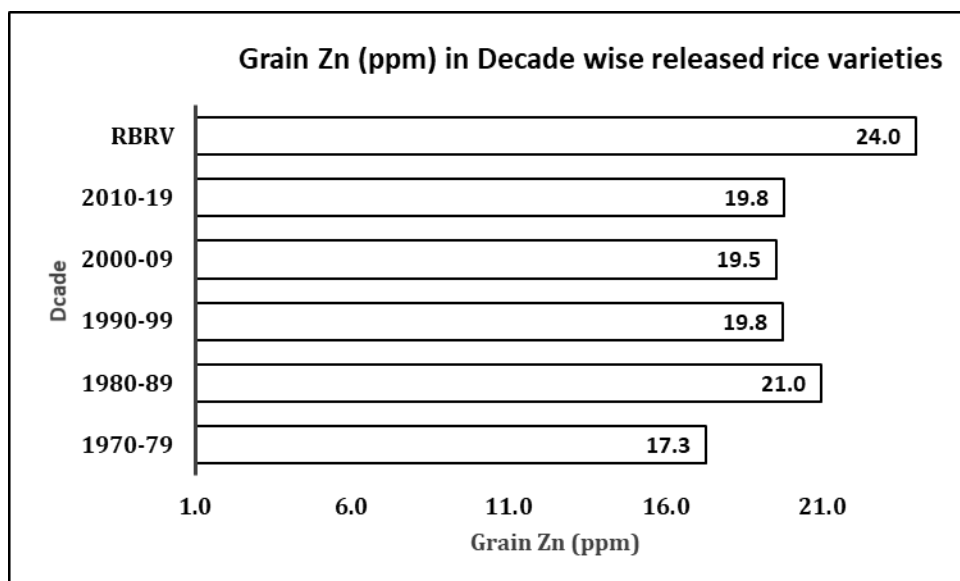
Brief Descriptive statistics of 39 HYVs for their grain zinc content (ppm) across 11 locations

	2023	2024	Mean
	Zinc content		
MIN	15.24	16.17	15.79
MAX	21.18	22.35	21.64
AVE	18.39	18.85	18.63

Observations

1. The baseline grain zinc content in polished rice of Indian HYVs (non-biofortified varieties) is ~16 ppm.
2. Some of the HYVs do contain higher amount of grain zinc in polished rice ~20-22 ppm
3. High genotypic mean observed in a few locations in zone VII suggests their suitability for the multiplication of biofortified rice varieties.
4. With the base line of ~16 ppm zinc in polished rice in popular HYVs, increase of > 50% grain zinc over the baseline (>24 ppm) can meet around 30% human zinc requirement (RDA of zinc around 12-15 mg; 220 g of daily average consumption in India; 20% of zinc absorption and 90% of zinc retention)
5. Analysis of grain zinc across 39 popular HYVs released across five decades has clearly shown that the zinc content in polished is from 17 to 21 ppm

Annual Progress Report 2024 Vol. I – Varietal Improvement



***RBRV: Released Biofortified Rice Varieties**

Top five entries for the grain zinc content (ppm) in 2023 and 2024 across 11 locations

2023	Zinc	2024	Zinc
PKV HMT	21.18	Rajendra Nilam	22.35
CO-51	21.12	Rajendra Swetha	21.90
Rajendra Nilam	20.92	IGKVR-2	21.76
IGKVR-2	20.87	CSR 30	21.09
Luit	20.67	PKV HMT	20.45

Annual Progress Report 2024 Vol. I – Varietal Improvement

Mean grain zinc content (ppm) of 39 HYVs in 2023 and 2024 across 11 locations

	Zone II	Zone II	Zone III	Zone III	Zone IV	Zone V	Zone VI	Zone VII	Zone VII	Zone VII	Zone VII	
	KTA	CTK	VRN	MSD	TTB	RPR	NVS	SRS	ADT	PTB	MNC	Mean
ENTRY NAME												
Swarna	14.60	15.47	11.87	14.73	15.96	12.54	19.28	17.91	18.74	16.87	22.26	16.38
MTU 1010	17.28	18.07	19.12	19.20	17.22	15.46	17.26	18.70	22.57	21.29	19.47	18.70
IGKVR-2	17.16	21.87	21.01	19.39	19.71	19.75	20.93	21.47	22.34	25.36	25.48	21.32
Indrayani	14.69	18.80	17.02	17.86	14.38	16.95	18.92	17.84	18.51	20.15	21.57	17.88
Satabdi	15.09	20.07	17.86	19.65	20.25	16.49	16.99	20.60	19.71	18.25	23.58	18.96
PR 116	15.29	18.88	15.82	15.70	18.01	15.56	17.38	17.83	20.32	20.15	21.33	17.84
Karma Mahsuri	14.44	20.79	13.71	16.47	16.18	13.00	15.21	22.00	18.74	18.01	23.96	17.50
Rajendra Swetha	16.61	21.86	16.97	17.54	21.43	19.18	21.67	21.31	24.87	22.75	27.47	21.06
IR 64	16.71	17.72	17.78	18.19	15.37	16.87	17.64	18.37	18.11	19.71	23.11	18.14
Bahadur Sub-1	17.44	19.18	17.26	23.44	18.27	16.12	20.03	21.11	20.01	21.01	25.34	19.93
CSR 30	19.26	19.77	17.85	20.26	19.08	18.56	20.74	22.16	22.32	22.48	23.36	20.53
BPT 5204	16.32	19.39	17.36	19.61	17.83	16.93	22.00	19.97	22.02	20.90	26.01	19.85
Chandrasasini	18.33	18.77	19.44	19.81	17.79	17.02	18.96	20.88	22.38	20.62	24.59	19.87
Rajendra Nilam	20.56	24.77	21.27	19.26	22.28	18.64	20.70	19.02	22.52	23.27	25.71	21.64
Bamaleswari	13.73	18.29	15.56	12.72	15.44	14.91	16.32	16.85	19.79	20.15	21.31	16.82
Lalat	14.46	17.22	16.29	15.29	14.36	15.36	17.36	15.11	17.50	21.73	23.40	17.10
MTU 1153	14.08	16.69	15.80	18.01	13.21	13.82	13.84	14.64	17.60	17.74	18.31	15.79
PUSA 44	15.42	16.81	14.14	15.23	15.33	13.75	14.89	16.65	16.29	19.43	21.29	16.29
CR Dhan 201	18.51	20.40	19.33	18.66	16.93	17.14	22.08	19.81	18.66	22.87	22.32	19.70
Mahamaya	15.74	20.94	16.49	15.05	17.60	16.67	20.58	20.05	19.41	20.34	25.52	18.94
MTU 1121	13.71	15.82	14.97	15.86	15.52	13.37	19.55	16.73	15.66	17.81	21.43	16.40
PKV HMT	17.10	21.85	18.61	19.79	20.80	20.84	22.28	19.16	21.37	23.34	23.82	20.81
PR 114	15.84	16.73	16.04	18.13	17.07	14.71	17.08	17.80	16.14	19.67	24.39	17.60
DRR Dhan 42	16.91	18.17	17.48	17.66	17.76	17.34	19.89	18.76	20.40	21.25	21.83	18.86
Indira Barani Dhan-1	20.30	18.21	19.93	21.21	17.38	16.96	19.26	20.21	22.75	20.42	22.55	19.93

Annual Progress Report 2024 Vol. I – Varietal Improvement

	Zone II	Zone II	Zone III	Zone III	Zone IV	Zone V	Zone VI	Zone VII	Zone VII	Zone VII	Zone VII	
	KTA	CTK	VRN	MSD	TTB	RPR	NVS	SRS	ADT	PTB	MNC	Mean
ENTRY NAME												
KNM 118	16.87	18.17	19.44	17.80	17.81	15.68	17.00	18.68	19.91	20.26	19.59	18.29
IGKVR-1	16.30	19.69	14.40	14.63	17.28	16.27	20.28	19.61	20.40	20.97	22.50	18.39
MTU 1001	15.62	18.80	13.23	13.69	14.99	16.49	19.87	19.08	18.15	17.42	21.96	17.21
CR Dhan 411	14.30	16.47	13.29	14.34	17.20	13.06	18.25	20.64	21.29	18.88	23.05	17.34
RNR 15048	14.04	16.43	16.06	14.58	16.16	14.93	16.63	16.29	16.00	20.74	18.98	16.44
Luit	18.47	19.97	20.04	18.17	20.56	17.50	19.42	21.47	19.85	23.31	23.98	20.25
CO-51	18.67	21.84	21.45	21.41	19.20	18.13	18.52	21.29	21.65	23.11	22.85	20.74
Ranjit Sub-1	16.24	18.98	15.25	22.91	18.82	15.11	21.33	21.51	19.34	21.01	19.44	19.08
NLR 34449	14.58	19.81	16.53	17.50	18.19	15.84	17.16	18.33	17.36	19.83	20.93	17.82
CR Dhan 310	14.30	19.63	16.29	18.66	14.91	15.42	17.40	18.58	19.22	23.90	20.50	18.07
Rajendra Bagavathi	18.56	18.90	18.80	17.78	16.59	17.30	19.63	17.91	21.51	20.03	23.36	19.13
DRR Dhan 44	17.99	20.78	18.78	20.21	16.41	16.57	20.32	19.45	21.04	22.32	23.33	19.75
Khitish	15.68	18.45	17.32	16.67	19.55	17.16	17.66	18.43	20.92	22.75	22.14	18.79
CR Dhan 508	15.11	17.54	16.73	17.26	15.11	14.52	16.40	18.25	18.25	21.33	22.08	17.51

Annual Progress Report 2024 Vol. I – Varietal Improvement

Mean grain zinc content (ppm) of 13 biofortified rice varieties and landraces HYVs in 2023 and 2024 across 11 locations

Biofortified rice varieties/landraces	Zinc content
DRR Dhan 45	22.4
CR Dhan 311	22.9
DRR Dhan 48	24.3
DRR Dhan 49	22.9
Zinco Rice MS	24.7
CR Dhan 315	22.1
DRR Dhan 63	24.4
DRR Dhan 67	23.5
DRR Dhan 69	22.8
Mean	23.3333
Kalachampa	19.4
Kasturi	24.8
Kalanamak Kiran	17.6
Chittimuthyalu	22.2

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entry	Parentage	Year of Release	Institute/University	No	Decades
Shatabdi	CR 10-114 / CR 10-115	1977	RRS, Chinchurah	2	1
MTU 7029 (Swarna)	Vasistha / Mahsuri	1979	RARS, Maruteru		
Khitish	Bulk 1 / CR 115	1982	NRRI, Cuttack	6	2
IR 64	IR 5657-33-2-1 / IR 2061-465-1-5-5	1985	IRRI		
BPT 5204 (Samba Mahsuri)	GEB 24 / TN1 // Mahsuri	1986	ANGRAU, Bapatla		
Indrayani	Ambemohar 157 / IR 8	1987	ARS, Vadagaon		
Lalat	OBS 677 / IR 2071 // Vikram / W 1263	1988	OUAT, Odisha		
Kasturi	Basmati 370 / CRR 88-17-1-5	1989	ICAR-IIRR		
PUSA 44	IARI-5901-2 / IR-8	1994	IARI-RS, Karnal	6	3
MTU 1001 (Vijetha)	MTU 5249 / MTU 7014	1995	RARS, Maruteru		
Mahamaya	Asha / Kranti	1996	IGKV, Raipur		
Luit	Heera / Annada	1997	RARS, TITABAR		
PKV HMT	HMT Sona (Local Selection)	1998	PDKV, Akola		
PR 114	TN1 / Patong32 // PR 106 /// IR 8	1999	PAU, Ludhiana		
MTU 1010 (Cottondora Sannalu)	Krishnaveni / IR-64	2000	RARS, Maruteru	9	4
PR 116	PR 108 / PAU 1628 // PR 108	2000	PAU, Ludhiana		
CSR 30	Bhura Rata 4-10 / Pak. Basmati	2001	CSSRI, Karnal		
Bamleswari	RP 2151-40-1 / IR 9828-23	2000	IGKV, Raipur		
Rajendra Swetha	Sita / Pusa Basmati 1 // Katarni	2004	RPCAU, Bihar		
Chandahasini	Abhaya/Phalgun a	2007	IGKV, Raipur		
Karma Mahsuri	Mahsuri / R 296-260	2008	IGKV, Raipur		
NLR 34449 (Nellore Masoori)	IR 72 / BPT 5204	2009	ARS, Nellore		
Rajendra Bagavathi	IR 36 / Type 3	2010	RPCAU, Bihar		
IGKVR-2 (Durgeshwari)	Mahamaya / NSN 5	2011	IGKV, Raipur	27	5
IGKVR-1 (Rajeshwari)	R 320-300 / Cheptigurmatia	2011	IGKV, Raipur		
Indira Barani Dhan-1	Swarna / IR 4223	2012	IGKV, Raipur		
CR Dhan 201	IR 72022-46-2-3-2 / IRRI 105	2014	NRRI, Cuttack		
DRR Dhan 42	Aday Sel/*3 IR64	2014	ICAR-IIRR		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entry	Parentage	Year of Release	Institute/University	No	Decades
DRR Dhan 44	IR 71700-247-1-1-2 / IR 03L 120	2014	ICAR-IIRR		
MTU 1153 (Chandra)	MTU 1010 / MTU 1081	2015	RARS, Maruteru		
MTU 1121 (Sridhruti)	BPT 5204 / MTU BB 8-24-1	2015	RARS, Maruteru		
CR Dhan 310	ARC 10075 / Naveen	2015	NRRI, Cuttack		Biofortified
DRR Dhan 45	RP HP 3-IR80463-B39-3 / IR81421-B-B-66	2016	ICAR-IIRR		Biofortified
KNM 118 (Kunaram Sannalu)	MTU 1010/JGL 13595	2016	ARS, Kunaram		
RNR 15048 (Telanagana Sona)	MTU 1010 / JGL 3855	2016	ARI, PJTSAU		
Rajendra Nilam	OG 6709-7/APO	2017	RPCAU, Bihar		
CR Dhan 508	CRLC 899 / Warda 2	2017	NRRI, Cuttack		
CO-51	ADT 43 / RR 272 - 1745	2017	TNAU,Coimbathore		
DRR Dhan 48	Improved Samba Mahsuri*1/ CSR 27	2018	ICAR-IIRR		Biofortified
Bahadur Sub-1	Bahadur/Swarna-Sub1//Bahadur	2018	AAU, Assam		
Ranjit Sub-1	Ranjit/Swarna-Sub1//Ranjit	2018	AAU, Assam		
Zinco Rice MS	Lalmati / IR 681444B-13-2-1-1	2018	IGKV, Raipur		Biofortified
DRR Dhan 49	Improved Samba Mahsuri*1/ CSR 27	2018	ICAR-IIRR		Biofortified
Kalanamak Kiran (PRDF-2-14-10)	KN3 / Swarna Sub1	2019	RATDS, UP		
CR Dhan 311 (Mukul)	HP-2/ Naveen	2019	NRRI, Cuttack		Biofortified
CR Dhan 315	Swarna / ARC 10075	2021	NRRI, Cuttack		Biofortified
DRR Dhan 63	IET 17280 / Pusa Basmati 1	2021	ICAR-IIRR		Biofortified
CR Dhan 411 (Swaranjali)	ARC 10075/Swarna	2021	NRRI, Cuttack		Biofortified
DRR Dhan 67 [BRRIDhan 84 (BR7831)]	BRRIDhan29/IR68144//BRRIdhan28//BR11	2022	ICAR-IIRR		Biofortified
DRR Dhan 69 (BRRIDhan 100)	BR7166-5B-5/BG305	2022	ICAR-IIRR		Biofortified
Kalachampa	Landrace	Landrace of Odisha	NRRI, Cuttack		
Chittimuthyalu	Landrace	Landrace of Telangana	ICAR-IIRR		

Annual Progress Report 2024 Vol. I – Varietal Improvement

NEAR ISOGENIC LINES (NIL'S) AND GENOME EDITED LINES (GEL'S): (AVT 2 & 1 NIL'S AND GEL'S TRIAL)

Locations: 41

Test Entries: 63

Table: 35

Near Isogenic lines (NIL's) and Genome edited lines (GEL's) were evaluated in a separate AVT 2 and 1 trials during Kharif 2024. The NIL's along with their respective recurrent parents were evaluated for yield under regular yield trials in gazette notified and varietal adaptable states and for target traits viz., drought tolerance, submergence tolerance, coastal salinity tolerance, bacterial leaf blight and blast resistance, a separate trial across the hot spot locations across the country were conducted.

The yield trial and target trials data were analysed as per the approved guidelines for testing of NILs during the breeder's group meeting held at 53rd Annual Rice Group Meetings (ARGM) on 13th April 2018 (Draft Proceedings of 53rd ARGM, 2018; Page 45) and 54th Annual Rice Group Meetings (ARGM) on 29th May, 2019 (Draft Proceedings of 54th ARGM, 2019; Page 6, 42-43).

Assessment of NIL and GEL entries tested under AVT 2 & 1 trial

In the AVT 2 & 1 NIL and GEL trial, fourteen NIL entries were included in the second year of testing and evaluated for yield performance in Gazette notified states and adapted areas of the respective recurrent parents (RP).

Near Isogenic Lines (NILs) in the genetic background of Samba Mahsuri (BPT 5204)

Two entries in the genetic background of BPT 5204 viz., IETs 32963 and 32964 possessing genes resistance to bacterial leaf blight were evaluated in Zone III, V and VII. IET 32963 recorded inferior yield performance over the recurrent parent, whereas IET 32964 recorded on par yield performance over recurrent parent BPT 5204, evaluated over 14 locations across zones III, V and VII. The NIL entry IET 32963 showed susceptible reaction to bacterial leaf blight, hence dropped, whereas IET 32964 recorded resistance reaction (SI 4.6) compared to recurrent parent with SI index of 5.3. *Hence, IET 32964 is promoted to second year of testing in AVT 2 NIL and GEL trial.*

Performance of the Samba Mahsuri NIL entries in different states during Kharif 2024

Entry	No. of Locations	Entries			CD
		IET 32963	IET 32964	BPT 5204 (RP)	
AP	1	4285	4467	4342	716
TE	1	4163	5238	5940	781
KA	2	4084	5274	5273	519

Annual Progress Report 2024 Vol. I – Varietal Improvement

CH	1	3424	4065	3852	553
JH	1	3467	5100	3267	602
UP	1	4168	4779	2665	213
Overall	7	3954	4885	4373	537

Performance of NIL's in the genetic background of Samba Mahsuri during 2024

IET No	Recurrent Parent (RP) and traits	States	No. of locations	Normal condition (CD:537)			Severity Index (%) from hot spots		Remarks
				RP Yield	NIL Yield	% Over RP	Blast		
							RP	NIL	
32963	Samba Mahsuri (BL)	AP, TE, TN, KA, UP	7	4373	3954	At Par	5.3	5.6	Dropped due to susceptible reaction to Blast
32964	Samba Mahsuri (BL)	UP	7	4373	4885	At Par	5.3	4.6	Promoted

Near Isogenic Lines (NILs) in the genetic background of IR 64

One NIL entry IET 31286 in the background of IR 64 possessing genes resistance to bacterial leaf blight were evaluated in Zone III, V and VII. IET 31286 recorded at par yield performance over the recurrent parent and showed susceptible disease reaction (SI 5.4) similar to recurrent parent IR 64 with SI index of 5.8. *Hence, IET 31286 is dropped.*

Performance of the IR 64 NIL entries in different states during Kharif 2024

Entry	No. of Locations	Entry		CD
		IET 31286	IR 64 (RP)	
BI	2	4801	5927	566
JH	1	3233	3433	602
OD	2	2842	3552	710
WB	1	9172	8515	1413
CH	1	2192	3152	553
MH	2	3920	4108	569
AP	1	4420	4358	716
KA	2	6494	6877	519
TE	1	4290	5398	781
TN	1	2996	3094	865
Overall	14	4458	4920	521

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of the IR 64 NIL entries during Kharif 2024

IET No	Recurrent Parent (RP) and traits	States	No. of locations	Normal condition (CD:521)			Severity Index (%) from hot spots		Remarks
				RP Yield	NIL Yield	Over RP	Bacterial leaf blight		
							RP	NIL	
32983	IR 64 (BB)	BI, JH, OD, WB, CH, MH, AP, KA, TE, TN	14	4920	4458	At Par	5.8	5.4	Dropped due to inferior yield and disease reaction compared to RP

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

Near Isogenic Lines (NILs) in the genetic background of Phule Radha

Two NIL entries viz., IET 32966 and IET 32967 in the genetic background of Phule Radha possessing genes resistance to blast resistance were evaluated in Zone VI.

Both the NIL entries viz., IET 32966 and IET 32967 recorded superior yield performance over the recurrent parent Phule Radha, but showed susceptible disease reaction to blast disease with severity index of 6.9 and 6.6 respectively compared to recurrent parent Phule Radha with severity index of 6.6. *Hence, IET 32966 and IET 32967 are dropped.*

Performance of the Phule Radha NIL entries during Kharif 2024

Entry	No. of Locations	Entry			CD
		IET 32966	IET 32967	Phule Radha (RP)	
GU	2	4281	4306	3929	591
MH	2	4852	5465	4515	629
Overall	4	4567	4886	4222	305
Blast resistance	SI Score	6.9	6.6	6.6	
Remarks		Dropped	Dropped		

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

A total of three NILs were evaluated in AVT 2 & 1 NIL and GEL trial. Three NIL's viz., IET 32051 is in second year of testing; IET 32972 and IET 32973 are in first year of

Annual Progress Report 2024 Vol. I – Varietal Improvement

testing. IET 32051(RP 6742-RAF-909-IJ-4), IET 32972 (RP-6741-RAF-2608-IJ-2-2) and IET 32973 (RP 6744-RAF-9001-IJ-29), are the sister lines derived from the cross of Jaya*2/Isogenic line of MTU 1010 possessing genes resistance to bacterial leaf blight, blast and yield enhancing genes. Two Near Isogenic lines viz., IET 32051 and IET 32972 recorded at par yield advantage compared to recurrent parent (Jaya) tested across six zones viz., II, III, IV, V, VI and VII in 20 different locations.

Performance of the Jaya NIL entries during Kharif 2024

IET No	Recurrent Parent (RP) and traits	States	No. of locations	Normal condition (CD:497)			Severity Index (%) from hot spots				Remarks
				RP Yield	NIL Yield	Over RP	Blast		Bacterial leaf blight		
							RP	NIL	RP	NIL	
32051	Jaya (BB+BL+Yield)	HA, BI, JH, OD, WB, AS, CH, MH, GU, AP, KA, TE, TN	20	5263	5215	At Par	5.2	4.9	5.9	4.6	Promising
32972	Jaya (BB+BL+Yield)		20	5263	5160	At Par	5.2	4.8	5.9	4.9	Promoted
32973	Jaya (BB+BL+Yield)		20	5263	4501	Inferior	5.2	5.0	5.9	5.1	Dropped due to inferior yield and on par disease reaction to BLB and Blast

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

IET 32972 (RP-6741-RAF-2608-IJ-2-2) showed at par yield performance (5160 kg/ha) to recurrent parent (5263 kg/ha) and showed resistance reaction to bacterial leaf blight with a severity index of 4.9 and 4.8 for blast compared to recurrent parent with severity index of 5.9 for bacterial leaf blight and 5.2 for blast. **Hence IET 32972 is promoted to second year of testing.**

IET 32973 (RP 6744-RAF-9001-IJ-29), recorded inferior yield performance over the recurrent parent and showed on par disease reaction to bacterial leaf blight with a severity index of 5.1 and 5.0 and for blast compared to recurrent parent 5.2 for blast and 5.9 for Bacterial leaf blight. **Hence, IET 32973 is dropped.**

Annual Progress Report 2024 Vol. I – Varietal Improvement

IET 32051 (RP 6742-RAF-909-IJ-4) is in second year of testing in AVT 2 & 1 NIL and GEL trial. This entry showed at par yield performance (5215 kg/ha) to recurrent parent (5263 kg/ha) and showed resistance reaction to bacterial leaf blight with a severity index of 4.6 and 4.9 for blast compared to recurrent parent 5.9 for Bacterial leaf blight and 5.2 for blast. ***Hence IET 32051 is found promising.***

Two-year performance of Near Isogenic line of Jaya IET 32051 (Kharif 2023 and 2024)

IET 32051 is a near isogenic line derived from the cross of Jaya*2/Isogenic line of MTU 1010 possessing genes resistance to bacterial leaf blight, leaf blast and yield enhancing genes, was evaluated over two consecutive years. In 2023, it was tested across six agro-climatic zones (II to VII) in 29 locations and recorded a yield of 5609 kg/ha, which was at par to superior to the recurrent parent Jaya (5562 kg/ha). It exhibited a resistant reaction to BLB with a severity index of 4.8 and 4.9 for blast. In 2024, the line was evaluated again in the same six zones at 20 locations and recorded a comparable yield of 5215 kg/ha against the recurrent parent's 5263 kg/ha. Notably, it maintained resistance to BLB and blast with severity indices of 4.6 and 4.9, respectively, compared to the higher indices of 5.9 for BLB and 5.2 for blast observed in the recurrent parent. ***Hence found promising for the states of Haryana, Uttar Pradesh (Zone II), Odisha, Bihar, Jharkhand, West Bengal (Zone III), Assam, Tripura (Zone IV), Gujarat, Maharashtra (Zone VI), Andhra Pradesh, Telangana, Tamil Nadu, Kerala, Karnataka and Puducherry (Zone VII).***

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

IET 32047 (RP 6747-19484-1-1) is a near isogenic line in the genetic background of WGL 14 (Warangal Samba) possesses genes for bacterial leaf blight resistance. This entry is in second year of testing and was evaluated in AVT 2 & 1 NIL and GEL trial. It recorded at par yield performance compared to recurrent parent WGL 14. It showed resistance reaction to bacterial leaf blight with a severity index of 4.9 compared to recurrent parent 5.8. ***Hence, IET 32047 is found promising.***

Performance of the WGL 14 NIL entries during Kharif 2024

IET No	Recurrent Parent (RP) and traits	States	No. of locations	Normal condition (CD:576)			Severity Index (%) from hot spots				Remark
				RP Yield	NIL Yield	Over RP	Blast		Bacterial leaf blight		
							R P	NI L	R P	NI L	
32047	WGL 14 (BB)	AP, KA, TE, TN	5	6083	5664	At Par	-	-	5.8	4.9	Promising

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

Annual Progress Report 2024 Vol. I – Varietal Improvement

Near Isogenic Lines (NIL's) in the genetic background of MTU 1010

Two NILs (IET 32975 and IET 32976) were in the genetic background of MTU 1010. IET 32975 for bacterial leaf blight resistance and 32976 for both bacterial blight (BB) and blast resistance. Both the NIL's viz., IET 32975 and IET 32976 recorded at par yield compared to recurrent parent but showed susceptible reaction to bacterial leaf blight with a severity index of 5.9 and 5.6 respectively compared to recurrent parent MTU 1010 with severity index of 5.6. *Hence, IET 32975 and IET 32976 are dropped.*

Performance of the MTU 1010 NIL entries during Kharif 2024

IET No	Recurrent Parent (RP) and traits	States	No. of locations	Normal condition (CD:720)			Severity Index (%) from hot spots				Remarks
				RP Yield	NIL Yield	Over RP	Blast		Bacterial leaf blight		
							RP	NIL	RP	NIL	
32975	MTU 1010 (BB)	AP, TE, TN, CH, MH,	10	5149	5165	At Par	-	-	5.6	5.9	Dropped due to susceptible reaction to BLB
32976	MTU 1010 (BB+BL)	BI, JH, WB	10	5149	5081	At Par	4.0	4.2	5.6	5.6	Dropped due to susceptible reaction to BLB

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

Near Isogenic Line (NIL) in the genetic background of Krishna Hamsa

IET 32045 (RP 6744-19182-1-1) derived from the cross of Krishna Hamsa/IRBB60//Krishna Hamsa/Tetep///Krishna Hamsa/IR 96321-1447-561-B-1//Krishna Hamsa/IR81896-96-B-B-195///Krishna Hamsa/IR 74371-46-1-1-13//Krishna Hamsa/DSB2 with *Pi9+Pi1+Pi20+Pi38* for blast resistance is in the second year of testing. It recorded on par yield performance in all the states/zones in which it was evaluated. However, its DSI was on par to the RP. Further, DSI of IET 32045 for blast was 4.1 while of RP was 4.6 and of resistance check (Tetep) was 2.6.

Performance of the Krishna Hamsa NIL entry during Kharif 2024

IET No	Recurrent Parent (RP) and traits	States	No. of locations	Normal condition (CD:655)			Severity Index (%) from hot spots				Remarks
				RP Yield	NIL Yield	Over RP	Blast		Bacterial leaf blight		
							RP	NIL	RP	NIL	
32045	Krishna Hamsa (BL)	AP, TN, KA	4	4315	5000	At Par	4.6	4.1	-	-	Promising

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

Near Isogenic Lines (NIL's) in the genetic background of Swarna

A total of four NIL's are in the genetic background of Swarna. Two NIL entries viz., IET 32064 and IET 32065, with trait introgression for Bacterial leaf blight and Blast resistance are in second year of testing. Another two NIL's viz., IET 32977 and 32978 are in first year of testing, IET 32977 for bacterial leaf blight and blast resistance and IET 32978 for bacterial leaf blight and sheath blight resistance.

IET 32064 and IET 32065 showed at par yield performance compared to recurrent parent and had resistance reaction of SI index 4.6 and 4.8 for bacterial leaf blight resistance and 4.4 and 4.4 for blast resistance compared to recurrent parent with severity index of 4.4 and 5.2 for bacterial leaf blight and blast resistance. **Hence, IET 32064 and IET 32065 are found promising for the states of Andhra Pradesh, Karnataka, Telangana, Tamil Nadu (Zone VII), Chhattisgarh, Maharashtra (Zone V), Bihar, Jharkhand, Odisha, West Bengal (Zone III).**

IET 32977 recorded at par yield performance compared to recurrent parent. It showed resistance reaction to both bacterial leaf blight and blast resistance with severity index of 4.9 and 4.5 for bacterial leaf blight and blast resistance respectively compared to recurrent parent with severity index of 4.4 for bacterial leaf blight and 5.2 for blast resistance. **Hence, IET 32977 is promoted to second year of testing.**

IET 32978 recorded at par yield performance compared to recurrent parent, but showed susceptible reaction to both bacterial leaf blight and sheath blight resistance with severity index of 5.7 for bacterial leaf blight and 6.5 for sheath blight resistance compared to recurrent parent. **Hence, IET 32978 is dropped.**

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of NIL's in the genetic background of Swarna during 2024

IET No	Recurrent Parent (RP) and traits	States	No. of locations	Normal condition (CD:690)			Severity Index (%) from hot spots				Remarks
				RP Yield	NIL Yield	% Over RP	Bacterial leaf blight		Blast		
							RP	NIL	RP	NIL	
32064	Swarna (BB+BL)	AP, TN,	14	5377	4969	At par	4.4	4.6	5.2	4.4	Promising
32065	Swarna (BB+BL)	KA, TE, CH, MH, BI, JH, OD, WB	14	5377	5012	At par	4.4	4.8	5.2	4.4	Promising
32977	Swarna (BB+BL)		14	5377	5005	At par	4.4	4.9	5.2	4.5	Promoted
							Bacterial leaf blight		Sheath Blight		Remarks
							RP	NIL	Remarks	NIL	
32978	Swarna (BB + Sheath Blight)		14	5377	4738	At par	4.4	5.7	6.5	6.5	Dropped due to susceptible reaction to BLB and Sheath blight

Near Isogenic Lines (NIL's) in the genetic background of DRR Dhan 53

Two NILs (IET 32979 and IET 32980) were in the genetic background of DRR Dhan 53. The target trait for both NIL's viz., IET 32979 and IET 32980 are bacterial leaf blight and sheath blight resistance. Both NILs recorded yields on par with the recurrent parent, DRR Dhan 53. However, they exhibited a similar response to the recurrent parent for bacterial leaf blight and showed susceptible reactions to sheath blight, with severity indices of 6.7 and 5.5, respectively, compared to 6.1 in DRR Dhan 53. **Hence, IET 32979 and IET 32980 are dropped.**

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of the DRR Dhan 53 NIL entries during Kharif 2024

IET No	Recurrent Parent (RP) and traits	States	No. of loc.	Normal condition (CD:690)			Severity Index (%) from hot spots				Remarks
				RP Yield	NIL Yield	Over RP	Bacterial leaf blight		Sheath blight		
							R P	NI L	R P	NI L	
32979	DRR Dhan 53 (BB + SB)	AP, TN, KA, TE, CH, MH, BI, JH, OD, WB	14	5135	5319	At Par	4.6	4.8	6.1	6.7	Dropped due to on par reaction to BLB and susceptible reaction to SB
32980	DRR Dhan 53 (BB + SB)		14	5135	5755	At Par	4.6	5.1	6.1	5.5	Dropped due to on par reaction to BLB and susceptible reaction to SB

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

Near Isogenic Lines (NIL's) in the genetic background of DRR Dhan 50

Two NILs (IET 32981 and IET 32982) were in the genetic background of DRR Dhan 50. The target trait for both NIL's viz., IET 32981 and IET 32982 are drought tolerance. Both NILs recorded yields on par with the recurrent parent, DRR Dhan 50 under normal condition. However, in stress condition, they exhibited on par (IET 32981) to inferior (IET 32982) response for drought tolerance compared to the recurrent parent DRR Dhan 50. **Hence, IET 32981 and IET 32982 are dropped.**

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of the DRR Dhan 50 NIL entries during Kharif 2024

IET No	Recurrent Parent (RP) and traits	States	No. of loc.	Normal condition (CD:690)			Stress condition (CD:483)		Over RP	Remarks
				RP Yield	NIL Yield	Over RP	Drought			
							RP	NIL		
32981	DRR Dhan 50 (Drought)	AP, TN, KA, TE, CH, MH, BI, JH, OD, WB	14	5267	5140	At Par	2623	2491	At Par	Dropped due to on par reaction to drought
32982	DRR Dhan 50 (Drought)		14	5267	5238	At Par	2623	2084	Inferior	Dropped due to inferior reaction to drought

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

Near Isogenic Lines (NIL's) in the genetic background of CARI Dhan 5

Two NILs (IET 32983 and IET 32984) were in the genetic background of CARI Dhan 5. The target trait for both NIL's viz., IET 32983 and IET 32984 are bacterial leaf blight resistance. IET 32983 recorded yields inferior to recurrent parent, but showed resistance reaction to bacterial leaf blight compared to recurrent parent. *Hence, dropped.*

Another near isogenic line IET 32984 recorded at par yield and resistance reaction to bacterial leaf blight with a severity index of 4.9 compared to recurrent parent CARI Dhan 5 with severity index of 5.4. *Hence, IET 32984 promoted to second year of testing.*

Performance of the CARI Dhan 5 NIL entries during Kharif 2024

IET No	Recurrent Parent (RP) and traits	States	No. of locations	Normal condition (CD:680)			Severity Index (%) from hot spots		Remarks
				RP Yield	NIL Yield	Over RP	Bacterial leaf blight		
							RP	NIL	
32983	CARI Dhan 5 (BB)	AP, TN, KA, TE	5	6082	4023	Inferior	5.4	4.7	Dropped due to inferior yield
32984	CARI Dhan 5 (BB)		5	6082	6115	At Par	5.4	4.9	Promoted

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

Annual Progress Report 2024 Vol. I – Varietal Improvement

Near Isogenic Line (NIL) in the genetic background of CR Dhan 316 (CR 3856-44-22-2-1-11-1-1-1)

IET 32985 (CR 4121-101-36-24-1-1) derived from the cross of IRBB60*Swarna sub1*3/CR 3856-44-22-2-1-11-1-1-1 possessing genes (*xa5*, *xa13* and *Xa21*) for bacterial leaf blight resistance is in the first year of testing. It recorded superior yield performance over the recurrent parent CR Dhan 316, but showed susceptible reaction to bacterial leaf blight with severity index of 5.2 as compared to recurrent parent with severity index of 5.7. **Hence IET 32985 is dropped.**

Performance of the CR Dhan 316 NIL entry during Kharif 2024

IET No	Recurrent Parent (RP) and traits	States	No. of locations	Normal condition (CD:710)			Severity Index (%) from hot spots		Remarks
				RP Yield	NIL Yield	Over RP	Bacterial leaf blight		
							RP	NIL	
32985	CR 4121-101-36-24-1-1 (BB)	OD	2	4060	6072	Superior	5.7	5.2	Dropped due to susceptible reaction to BLB

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

Near Isogenic Line (NIL) in the genetic background of 28P67

IET 32990 [28P67 (T)] is a near isogenic line of a hybrid entry possessing gene (*Xa21*) for bacterial leaf blight resistance is in the first year of testing. It recorded at par yield performance over the recurrent parent 28P67, and resistance reaction to bacterial leaf blight with severity index of 4.8 as compared to recurrent parent with severity index of 5.5. **Hence IET 32990 is promoted.**

Performance of the 29P87 NIL entry during Kharif 2024

IET No	Recurrent Parent (RP) and traits	States	No. of locations	Normal condition (CD:690)			Severity Index (%) from hot spots		Remarks
				RP Yield	NIL Yield	Over RP	Bacterial leaf blight		
							RP	NIL	
32990	28P67 (BB-Xa21)	AP, TN, KA, TE, CH, MH, BI, JH, OD, WB	14	6002	5643	At Par	5.5	4.8	Promoted

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

Near Isogenic Line (NIL) in the genetic background of Pusa 44

A total of four NIL's are in the genetic background of Pusa 44. The NIL entries with target trait introgression for different traits: IET 32052 and IET 32053 for Bacterial leaf blight and Salinity tolerance; IET 29546 and IET 29558 for Low Phosphorous tolerance.

Two NIL's viz., IET 32052 and IET 32053 are in second year of testing. IET 32052 recorded at par yield compared to recurrent parent Pusa 44, but showed susceptible reaction to bacterial leaf blight with severity index of 5.5 compared to recurrent parent Pusa 44 with severity index of 5.1. **Hence, IET 32052 is discontinued.**

IET 32053 recorded at par yield compared to recurrent parent Pusa 44 and showed resistance reaction to bacterial leaf blight with severity index of 4.4 compared to recurrent parent Pusa 44 with severity index of 5.1. **Hence IET 32053 is promising.**

Two NIL's viz., IET 29546 and IET 29558 are also in second year of testing, possessing Pup1 QTL for low P tolerance. IET 29558 recorded inferior yield performance over the recurrent parent under normal condition, Therefore, IET 32991 is dropped. Whereas IET 29546 recorded on par yield compared to recurrent parent Pusa 44 and data of low P tolerance is not available during the year 2024. **Hence, IET 29546 may be repeated for one more year of testing under low P condition.**

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of NIL's in the genetic background of Pusa 44 during 2024

IET No	Recurrent Parent (RP) and traits	States	No. of locations	Normal condition (CD:727)			Target traits						Remark
				RP Yield	NIL Yield	% Over RP	Bacterial leaf blight		Salinity		Low P		
							R P	NIL	R P	NIL	R P	NIL	
32052	Pusa 44 (BB+Sali nity)	HA, AP, TN, KA, TE	6	5968	5498	At Par	5.1	5.5	-	-	-	-	Discontinued due to susceptible reaction to BLB
32053	Pusa 44 (BB+Sali nity)		6	5968	5452	At Par	5.1	4.4	-	-	-	-	Promising
29546	Pusa 44 (Low P)		6	5968	5761	At Par	-	-	-	-	@	@	Repeat
29558	Pusa 44 (Low P)		6	5968	4977	Inferior	-	-	-	-	@	@	Discontinued due to inferior yield

@data not available under low P condition

Near Isogenic Line (NIL) in the genetic background of MTU 1121

Two Near-Isogenic Lines (NILs), IET 32074 and IET 32974, developed in the genetic background of MTU 1121, carry genes conferring resistance to bacterial leaf blight (BLB), blast, and tolerance to low phosphorus (P). IET 32074 is in its second year of testing, while IET 32974 is in its first year. Both were evaluated under AVT 2 & 1 NIL and GEL trials.

The yield performance of both NILs was on par with the recurrent parent, MTU 1121. IET 32074 exhibited a resistant reaction to blast with a severity index (SI) of 3.1 and an SI of 5.4 for bacterial leaf blight, in comparison to MTU 1121 which recorded an SI of 3.9 for blast and 5.7 for BLB. IET 32974 displayed a comparable resistance response to both blast and BLB. However, data on low phosphorus tolerance is currently unavailable for both lines. As a result, both IET 32074 and IET 32974 are repeated.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of NIL's in the genetic background of MTU 1121 during 2024

IET No	Recurrent Parent (RP) and traits	States	No. of locations	Normal condition (CD:680)			Target traits						Remarks
				RP Yield	NIL Yield	% Over RP	Blast		Bacterial leaf blight		Low P		
							R P	NIL	R P	NIL	R P	NIL	
32074	MTU 1121 (BB+BL+ Low P)	AP, TN, KA, TE	4	5581	5261	At Par	3.9	3.1	5.7	5.4	@	@	Repeat
32974	MTU 1121 (BB+BL+ Low P)		5	5581	5329	At Par	3.9	3.9	5.7	5.7	@	@	Repeat

@data not available under low P condition

Near Isogenic Line (NIL) in the genetic background of Improved Samba Mahsuri

In the AVT 2 & 1 NIL and GEL trial, nine NIL entries in the genetic background of Improved Samba Mahsuri were evaluated for yield performance in Gazette notified states and adapted areas along with recurrent parent. The NIL entries with target trait introgression for different traits: IET 32054 for Bacterial leaf blight and Gall Midge resistance; IET 32055 for Bacterial leaf blight, Salinity and low Phosphorous tolerance; IET 32056 for Bacterial leaf blight, Blast and Salinity tolerance; IET 32058 for Bacterial leaf blight and Submergence tolerance; IET 32059 for Bacterial leaf blight, Submergence and Drought tolerance; IET 32060 for Bacterial leaf blight, Low Phosphorous tolerance and BPH resistance; IET 32061 for Bacterial leaf blight, Blast and Submergence tolerance; IET 32062 for Bacterial leaf blight, Blast and BPH resistance; and IET 32063 for Bacterial leaf blight, Blast, BPH and Low Phosphorous tolerance.

Eight NIL's showed on par to superior yield performance compared to recurrent parent except IET 32063 which showed inferior yield compared to recurrent parent. These were evaluated in 14 locations across zones III, V and VII.

IET 32055 and IET 32060 showed on par yield performance and IET 32063 recorded inferior yield compared to recurrent parent. The three NIL's viz., IET's 32055, 32060 and 32063 showed susceptible reaction to saline condition (IET 32055), bacterial leaf blight and BPH (IET 32060 and IET 32063). **Hence, IET's 32055, 32060 and 32063 are discontinued.**

The five NIL's viz., IET's 32054, 32056, 32058, 32061 and 32062 recorded on par yield performance compared to recurrent parent, Improved Samba Mahsuri. IET 32054 showed

Annual Progress Report 2024 Vol. I – Varietal Improvement

resistance reaction to bacterial leaf blight and gall midge resistance, IET 32056 showed resistance reaction to bacterial leaf blight, blast and salinity tolerance, IET 32058 recorded resistance reaction to bacterial leaf blight and submergence tolerance, IET 32061 showed resistance reaction to bacterial leaf blight, blast and submergence tolerance, and IET 32063 recorded resistance reaction to bacterial leaf blight, blast and Brown plant hopper. ***Hence, IET's 32054, 32056, 32058, 32061 and 32062 found promising for Improved Samba Mahsuri gazette notified areas.***

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of NIL's in the genetic background of Improved Samba Mahsuri during 2024

IET No	Recurrent Parent (RP) and traits	States	No. of locations	Normal condition (CD:690)			Severity Index (%) from hot spots								Remarks
				RP Yield	NIL Yield	% Over RP	Bacterial leaf blight		Blast		BPH		GM		
							RP	NIL	RP	NIL	RP	NIL	RP	NIL	
32054	Improved Samba Mahsuri (BB+GM)	AP, TN, KA, TE, CH, MH, BI, JH, OD, WB	14	5010	5457	At Par	4.4	4.3	-	-	-	-	70	0	Promising
32055	Improved Samba Mahsuri (BB+Salinity+Low P)		14	5010	5284	At Par	4.4	4.7	-	-	Low P*		Salinity (CD:801)		Dropped due to inferior yield in saline condition
											4183	4442	3074	1870	
32056	Improved Samba Mahsuri (BB+BL+Salinity)		14	5010	4503	At Par	4.4	4.4	5.1	4.9	Salinity (CD:801)				Promising
											RP: 3074		NIL: 2796		
32058	Improved Samba Mahsuri (BB+Sub)		14	5010	4961	At Par	4.4	4.1	-	-	Submergence*				Promising
											RP: 2292		NIL: 2802		
32059	Improved Samba Mahsuri (BB+Sub+Drt)	14	5010	4470	At Par	4.4	4.4	-	-	Submergence\$		Drought\$		Repeated as data is not available	
										-	-	-	-		
32060	Improved Samba Mahsuri (BB+BPH+Low P)	14	5010	4830	At Par	4.4	5.7	-	-	7.8	7.3	Low P*		Dropped due to susceptible	
												4183	4296		

Annual Progress Report 2024 Vol. I – Varietal Improvement

															reaction to BLB and BPH
32061	Improved Samba Mahsuri (BB+BL+Sub)		14	5010	4937	At Par	4.4	4.6	5.1	5.1	Submergence*				Promising
											RP: 2292		NIL: 3859		
32062	Improved Samba Mahsuri (BB+BL+BPH)		14	5010	4985	At Par	4.4	4.5	5.1	4.7	7.8	3.2	-	-	Promising
32063	Improved Samba Mahsuri (BB+ BL+ BPH + Low P)		13	5010	4153	Inferior	4.4	5.3	5.1	4.7	7.8	7.7	Low P*		Dropped due to inferior yield and susceptible to BLB and BPH
													4183	4410	

\$ Data not available for submergence and drought; * Data of 2023 is provided and in 2024 entries were not included in submergence trial.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Disease reaction of the entries to blast disease during Kharif 2024

Entry	BNK	CBT	GDL	GNV	HZB	IIR	JDP	KHD	KJT	MTU	NDL	NVS	NLR	NWG	PNP	PTB	RCI	REW	UMM	SI
	N	A	N	A	A	A	N	N	A	A	A	N	A	A	N	N	N	A	N	
	3.1	4.9	5.0	5.8	5.7	4.6	4.2	4.8	3.4	3.3	4.2	4.8	4.6	5.2	5.2	4.0	5.0	3.4	3.3	
32963	0	5	5	7	4	4	3	3	3	2	5	3	4	5	9	5	2	4	0	3.8
32964	1	3	3	8	4	5	3	4	4	5	5	4	4	5	9	3	6	2	3	4.3
BPT 5204/Samba Mahsuri (RP)	1	6	6	6	4	3	3	6	4	3	5	5	4	7	9	2	6	3	0	4.4
32965	1	6	6	5	6	7	5	4	2	4	3	4	4	5	9	4	8	4	3	4.7
32072	3	4	4	6	5	7	3	5	4	2	5	3	4	6	8	3	5	2	6	4.5
31286	0	7	7	5	4	5	2	4	7	2	3	5	3	5	3	5	7	3	0	4.1
IR 64 (RP)	0	6	6	5	4	5	2	4	4	4	5	3	4	7	5	4	5	5	1	4.2
32966	9	3	3	4	7	7	3	5	9	5	3	5	3	5	8	3	6	4	8	5.3
Phule Radha (RP)	9	5	5	8	7	4	6	4	3	4	5	4	4	6	8	4	4	2	9	5.3
32967	3	5	5	7	3	7	5	5	2	2	3	5	4	7	9	6	5	3	9	5.0
32055	0	5	5	9	7	5	5	6	3	4	7	5	4	5	8	5	6	5	3	5.1
32059	1	5	5	4	7	5	4	4	6	4	5	6	4	7	7	4	7	4	8	5.1
32060	1	5	5	6	5	6	5	0	6	3	5	5	4	6	7	3	4	5	3	4.4
32063	1	5	5	3	8	4	6	4	4	6	5	5	4	7	6	2	5	2	8	4.7
Improved Samba Mahsuri (RP)	5	7	7	5	4	5	5	3	3	-	5	4	5	6	8	3	4	5	8	5.1
32056	3	5	5	6	7	5	6	5	3	4	5	6	5	5	7	4	4	2	7	4.9
32062	3	7	5	5	5	3	6	4	7	3	5	5	4	7	4	4	4	5	3	4.7
32054	1	6	6	9	7	3	6	6	9	6	5	5	5	8	9	3	2	2	5	5.4
32061	9	5	5	5	4	5	6	-	9	4	1	3	5	6	6	2	6	5	5	5.1
32058	3	6	7	5	5	5	6	7	-	4	1	4	3	7	9	5	3	3	6	4.9
32051	0	7	7	7	7	4	6	8	4	5	1	5	6	6	4	4	3	4	6	4.9
32972	1	7	6	6	7	3	7	6	-	5	1	6	5	7	3	2	5	2	7	4.8
Jaya (RP)	5	6	6	5	6	4	6	6	9	3	3	7	5	6	3	3	5	3	7	5.2

Annual Progress Report 2024 Vol. I – Varietal Improvement

32973	5	6	7	6	7	3	7	4	5	3	3	5	5	6	4	5	4	4	6	5.0
32074	1	5	4	6	4	3	3	4	4	2	3	3	1	5	1	3	1	3	3	3.1
MTU 1121 (RP)	1	4	5	7	4	3	4	5	5	5	1	6	2	4	2	4	6	4	3	3.9
32974	3	5	6	4	4	4	3	5	4	4	1	5	4	5	2	4	6	2	3	3.9
32975	3	3	3	5	5	6	7	6	5	2	3	6	3	5	2	3	5	3	7	4.3
MTU 1010 (RP)	5	3	3	5	4	3	5	6	6	3	7	5	3	4	1	4	4	4	1	4.0
32976	1	4	4	6	4	5	7	5	5	2	1	6	3	5	3	5	7	2	4	4.2
32043	1	5	5	6	4	5	4	4	6	2	5	3	3	5	2	2	4	4	0	3.7
32064	1	6	6	5	7	3	4	6	5	4	5	7	3	5	2	3	4	4	4	4.4
32065	9	6	6	4	5	4	3	4	5	4	5	4	3	3	4	4	6	4	1	4.4
Swarna (RP)	3	5	5	6	7	3	6	5	3	6	5	5	4	6	9	4	4	5	8	5.2
32977	0	5	5	5	7	5	6	4	5	5	7	5	4	4	4	4	4	4	3	4.5
32978	7	4	4	7	7	5	6	7	5	4	7	6	7	7	7	5	7	5	8	6.1
32979	3	5	5	5	4	4	6	4	3	5	5	3	4	7	9	4	4	4	6	4.7
DRR Dhan 53 (RP)	3	5	5	6	4	5	4	6	5	5	5	5	3	7	9	3	5	5	6	5.1
32980	3	5	5	4	5	5	4	5	4	4	5	4	2	5	9	2	6	4	3	4.4
32981	3	7	7	9	8	7	6	5	4	6	3	5	3	6	9	4	5	5	9	5.8
DRR Dhan 50 (RP)	3	5	5	7	4	5	4	6	5	3	1	4	5	4	7	5	7	4	3	4.6
32982	3	7	7	6	7	6	6	6	6	4	1	4	5	8	7	2	5	5	3	5.2
32983	3	6	6	9	6	5	4	5	5	2	1	4	5	7	4	3	7	4	5	4.8
CARI Dhan 5 (RP)	3	5	5	8	6	6	5	4	5	3	1	4	4	5	2	5	5	5	5	4.5
32984	3	6	6	7	4	5	3	5	3	3	5	5	4	7	2	5	5	4	1	4.4
32985	7	7	7	8	6	4	6	5	7	4	3	5	5	6	3	3	6	5	3	5.3
CR Dhan 316 (RP)	9	7	7	6	6	4	6	5	3	3	3	6	5	7	3	2	7	2	3	4.9
32986	7	6	6	5	4	4	5	5	3	3	3	5	2	5	4	2	4	3	4	4.2
32987	9	6	6	6	6	5	4	5	4	3	1	6	3	7	3	3	4	4	3	4.6
CO-51(RP)	3	5	5	7	4	5	3	4	5	1	1	5	4	5	2	4	4	2	0	3.6
32988	3	4	4	8	3	4	3	6	6	2	1	5	4	7	2	4	5	3	0	3.9
32989	7	6	6	5	8	4	4	3	4	3	5	3	4	6	3	5	6	3	0	4.5
32990 [28P67 (T)]	1	5	5	2	4	4	4	4	6	3	5	5	3	7	2	6	4	3	1	3.9

Annual Progress Report 2024 Vol. I – Varietal Improvement

28P67 (RP)	9	5	5	4	4	3	3	5	5	3	5	5	3	5	2	4	5	2	1	4.1
Pusa 44 (RP)	3	5	5	6	9	4	5	4	7	4	3	5	4	6	9	6	6	4	5	5.3
32053	3	6	5	6	5	7	5	5	3	4	3	-	4	5	9	3	7	2	5	4.8
32052	1	5	5	9	8	7	3	8	3	2	7	8	3	5	7	5	4	3	4	5.1
32045	0	5	5	6	6	4	5	5	3	4	3	5	5	5	4	4	5	4	0	4.1
Krishnahamsa (RP)	1	5	6	5	7	5	4	6	9	2	3	3	3	7	-	3	6	3	4	4.6
WGL14 (RP)	5	7	7	8	7	7	6	5	-	5	3	5	5	4	9	4	5	4	6	5.7
32047	3	5	5	5	7	7	6	6	-	6	5	4	5	-	9	5	4	2	7	5.4
Tetep	1	2	2	3	3	1	1	1	3	4	3	2	4	4	3	7	1	2	3	2.6
HR-12	5	6	6	9	8	9	9	8	9	5	9	6	7	9	9	6	8	3	6	7.2
ISM	5	5	5	7	6	3	7	7	3	5	5	4	6	4	4	7	3	5	1	4.8
TN1	5	6	6	9	6	7	7	6	5	4	7	7	6	9	7	7	6	2	6	6.2

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

Annual Progress Report 2024 Vol. I – Varietal Improvement

Disease reaction of the entries to Bacterial leaf blight disease during Kharif 2024

Entry	BNK	CHP	CHT	GNV	IIR	KJT	LDN	MNC	NDL	NLR	NVS	NWG	PTB	RPR	TTB	VRN	SI
	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
	4.5	7.2	5.3	5.9	6.3	6.0	6.0	4.8	3.9	3.8	6.1	5.7	6.1	6.3	5.9	4.8	
32963	5	9	7	3	7	5	7	3	3	3	7	5	7	7	7	5	5.6
32964	5	5	5	5	7	5	5	0	4	3	7	5	5	3	5	5	4.6
BPT 5204/Samba Mahsuri (RP)	5	7	3	7	7	5	7	5	2	5	7	7	5	5	5	3	5.3
32965	3	3	5	5	1	5	3	5	3	5	5	5	7	7	5	5	4.5
32072	1	7	5	7	9	7	7	5	4	5	7	5	7	7	5	3	5.7
31286	3	5	5	3	7	7	5	5	3	5	9	7	7	7	5	3	5.4
IR 64 (RP)	3	7	7	7	7	7	3	7	3	5	7	7	7	7	5	3	5.8
32966	5	9	5	7	9	7	7	9	3	7	7	7	5	9	9	5	6.9
Phule Radha (RP)	3	5	7	7	9	5	7	9	4	7	7	5	7	9	9	5	6.6
32967	5	7	5	9	9	-	7	7	3	7	5	7	7	9	7	5	6.6
32055	1	9	5	3	1	5	3	3	4	5	7	5	7	7	5	5	4.7
32059	3	7	3	3	1	5	3	3	3	5	7	7	5	5	5	5	4.4
32060	7	9	5	5	1	5	7	7	4	7	7	5	7	7	5	3	5.7
32063	5	7	3	7	1	7	3	7	4	5	5	7	7	7	5	5	5.3
Improved Samba Mahsuri (RP)	3	5	5	3	1	5	5	5	5	3	5	5	5	5	5	5	4.4
32056	3	3	5	3	1	5	7	5	4	1	7	5	5	7	5	5	4.4
32062	3	9	3	3	1	5	1	3	3	3	7	5	7	7	7	5	4.5
32054	3	7	3	3	1	3	3	5	3	3	7	7	5	7	5	3	4.3
32061	3	9	5	3	1	7	5	1	2	3	7	5	5	7	5	5	4.6
32058	3	5	5	1	1	5	3	1	2	3	7	7	7	5	5	5	4.1
32051	5	7	5	3	1	5	5	0	4	3	5	5	7	7	7	5	4.6
32972	3	9	5	7	1	5	5	3	1	5	7	7	5	3	7	5	4.9
Jaya (RP)	7	5	5	7	7	5	7	5	4	5	7	7	5	7	7	5	5.9

Annual Progress Report 2024 Vol. I – Varietal Improvement

32973	1	7	5	7	1	5	5	7	3	5	5	5	7	7	5	7	5.1
32074	9	3	5	7	1	7	3	9	3	3	7	5	7	7	5	5	5.4
MTU 1121 (RP)	3	5	7	7	7	5	7	7	2	3	7	5	7	9	5	5	5.7
32974	5	5	5	5	7	7	7	5	2	1	7	7	7	7	7	7	5.7
32975	5	9	5	7	3	7	5	7	3	5	7	5	7	7	7	5	5.9
MTU 1010 (RP)	3	9	7	3	7	5	5	5	4	5	9	5	5	7	5	5	5.6
32976	7	9	7	5	1	5	5	7	1	5	7	7	7	7	5	5	5.6
32043	3	5	5	5	7	7	7	7	3	5	7	5	5	9	7	5	5.8
32064	3	5	3	5	1	5	7	3	2	5	5	5	7	7	5	5	4.6
32065	5	9	5	5	3	5	7	0	4	1	7	5	5	7	3	5	4.8
Swarna (RP)	3	3	5	3	7	5	7	0	5	3	5	5	5	7	5	3	4.4
32977	1	9	5	5	1	7	3	5	4	3	7	7	7	7	5	3	4.9
32978	3	9	3	7	1	7	7	7	4	5	7	7	7	7	5	5	5.7
32979	3	5	5	7	1	7	7	1	4	5	7	5	5	7	5	3	4.8
DRR Dhan 53 (RP)	5	5	3	7	1	5	5	3	3	5	7	5	5	7	5	3	4.6
32980	3	3	5	7	7	5	7	3	3	5	5	7	7	5	5	5	5.1
32981	3	5	5	7	7	7	7	5	4	7	7	5	5	7	5	5	5.7
DRR Dhan 50 (RP)	3	9	5	9	7	5	7	1	2	3	7	7	5	7	5	3	5.3
32982	3	7	5	-	7	7	7	3	2	3	7	7	5	7	5	3	5.2
32983	5	5	5	7	1	5	5	0	3	3	7	5	7	7	5	5	4.7
CARI Dhan 5 (RP)	3	9	5	7	7	7	7	0	2	3	7	7	7	5	5	5	5.4
32984	3	9	3	7	1	7	3	3	5	3	5	7	5	7	5	5	4.9
32985	1	5	5	7	1	7	7	7	4	5	5	5	7	7	5	5	5.2
CR Dhan 316 (RP)	5	7	5	7	1	7	5	7	4	5	5	5	7	7	7	7	5.7
32986	3	1	5	7	7	5	5	0	4	1	7	3	5	3	5	5	4.1
32987	5	1	5	7	7	7	5	0	2	3	5	7	5	5	3	5	4.5
CO-51(RP)	7	7	5	7	7	-	7	5	2	5	3	5	7	9	7	5	5.9
32988	3	9	7	7	7	7	7	7	3	5	5	5	7	9	9	5	6.4
32989	1	9	7	7	7	5	5	7	4	5	7	5	7	7	9	5	6.1
32990 [28P67 (T)]	1	5	5	7	1	-	3	5	2	5	5	7	7	5	5	9	4.8

Annual Progress Report 2024 Vol. I – Varietal Improvement

28P67 (RP)	3	3	7	7	7	7	5	5	3	1	9	5	7	7	5	7	5.5
Pusa 44	5	3	5	7	7	5	5	3	3	1	7	7	5	7	7	5	5.1
32053	3	7	5	3	1	7	3	7	4	5	7	5	5	3	3	3	4.4
32052	3	7	3	7	7	7	5	3	5	5	7	7	7	5	5	5	5.5
32045	3	9	5	5	7	5	5	5	4	5	7	5	5	7	7	5	5.6
Krishnahamsa (RP)	3	-	7	7	7	-	7	5	4	-	7	7	7	7	-	7	6.3
WGL14 (RP)	3	9	5	7	7	5	7	7	5	5	5	5	7	5	5	5	5.8
32047	5	5	5	5	1	5	5	7	4	5	7	-	5	5	5	5	4.9
Tetep	3	5	7	5	7	7	7	5	7	5	5	3	7	9	7	5	5.9
HR-12	7	5	5	9	7	-	7	7	9	5	7	7	7	7	5	5	6.6
ISM	3	5	5	5	7	5	7	5	5	5	3	5	5	5	7	-	5.1
TN1	7	9	9	9	7	-	7	7	7	7	7	9	7	7	7	7	7.5

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

Annual Progress Report 2024 Vol. I – Varietal Improvement

Disease reaction of the entries to Sheath blight disease during Kharif 2024

Entry	ADT	BKG	BNK	CHN	CHP	GNV	IIRR	KUL	LDN	MNC	MND	MSD	MTU	NDL	NVS	PNT	RPR	TTB	VRN	SI
	A	N	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
	8.4	4.3	4.2	7.5	6.7	8.0	6.2	6.6	7.2	6.0	7.0	5.6	8.1	7.6	5.9	7.2	5.0	7.4	4.9	
Swarna	9	5	3	9	7	9	7	9	7	0	7	7	7	9	7	7	3	7	5	6.5
32978	9	7	2	5	9	9	7	7	7	7	7	5	7	7	5	7	5	7	5	6.5
32979	9	7	7	9	9	7	7	7	7	7	5	7	7	5	7	-	3	5	5	6.7
DRR Dhan 53	9	3	5	7	5	7	7	7	7	3	9	7	7	7	7	7	1	5	5	6.1
32980	7	3	3	7	5	7	5	5	7	5	5	5	7	7	7	7	5	3	5	5.5

Special trial on Genome Edited Lines- GEL TRIAL

Assessment of GEL entries tested under AVT 2-NIL and GEL trial

Two GEL entries viz., IET 32072 in the genetic background of BPT 5204 and another GEL entry IET 32043 in the genetic background of MTU 1010, both are in second year of tested in AVT 2-NIL and GEL trial.

Genome Edited Lines (GELs) in the genetic background of BPT 5204 (Samba Mahsuri)

One GEL trial entry, IET 32072, is an edited line of BPT 5204 (Samba Mahsuri) developed through genome editing techniques. It exhibits a higher grain number, a stronger culm, and earlier flowering compared to its recurrent parent, BPT 5204. Although it was initially promoted from AVT-1 MS to AVT-2 MS, it was not tested under AVT-2 MS. Instead, a separate NIL and GEL trial was constituted in Kharif 2024, and this entry was evaluated under AVT-2 NIL and the GEL trial in second year of testing.

The IET 32072, along with its wild parent BPT 5204, was evaluated at twenty-one locations across three zones (III, V, and VII). In this trial, two BPT 5204 check entries were included to compare the genome-edited line and other near-isogenic lines. It was observed that data from few locations differed between the same check entries, and as a result, they were excluded from the analysis of the genome-edited line's performance. Therefore, data from only six locations were used for assessing the performance of genome edited line.

Performance of Genome Edited Line entry (IET 32072) and its wild parent (BPT 5205) during Kharif 2024

States	Locations	IET 32072	BPT 5204	CD	% Yield Advantage over its Wild Parent
TE	1	6859	5940	781	+15.47
KA	2	5706	5273	519	+8.21
CH	1	4091	3852	553	+6.20
JH	1	3800	3267	602	+16.31
UP	1	4629	2665	213	+73.70
Mean	6	5132	4378	531	+17.21

The mean grain yield of IET 32072 was 5132 kg/ha, with a range from 3800 kg/ha to 6859 kg/ha. In comparison, its wild parent, BPT 5204, had a mean yield of 4378 kg/ha, ranging from 2665 kg/ha to 5940 kg/ha. IET 32072 demonstrated superior yield performance across all tested regions, showing yield advantages of +15.47% in Telangana, +8.21% in Karnataka, +6.20% in Chhattisgarh, +16.31% in Jharkhand and +73.70% in Uttar Pradesh compared to its wild parent. Overall, IET 32072 achieved a +17.70% higher yield than the wild parent, BPT 5204 and had acceptable quality parameters viz., HRR of 57.3%, Intermediate amylose content (25.52%), ASV of 4.0, and GC of 22 which are comparable to wild parent. **Hence, IET 32072 is found promising.**

Performance of Genome Edited Line entry (IET 32072) and its wild parent (BPT 5205) during Rabi 2023-24*

States	Locations	IET 32072	BPT 5204	CD	% Yield Advantage over its Wild Parent
AP	2	4297	3927	555	+9.42
KE	2	4054	3873	719	+4.67
TE	3	5989	4328	474	+38.38
TN	1	7273	5809	780	+25.20
Mean	8	5243	4299	316	+21.95

*Tested in zone VII only in Rabi

The mean grain yield of IET 32072 was 5243 kg/ha, with a range from 4054 kg/ha to 7273 kg/ha. In comparison, its wild parent, BPT 5204, had a mean yield of 4299 kg/ha, ranging from 3873 kg/ha to 5809 kg/ha. IET 32072 demonstrated superior yield performance across all tested regions, showing yield advantages of +9.42% in Andhra Pradesh, +4.67% in Kerala, +38.38% in Telangana and +25.20% in Tamil Nadu compared to its wild parent. Overall, IET 32072 achieved a +21.95% higher yield than the wild parent. **Hence, IET 32072 is found promising.**

Two-year performance of IET 32072

IET 32072, is an edited line of BPT 5204 (Samba Mahsuri) developed through genome editing techniques has completed two years of testing from 2023 and 2024. In 2023, IET 32072 recorded a mean grain yield ranging from 4787 kg/ha to 8303 kg/ha, compared to its wild parent, BPT 5204, which had a yield range of 4044 kg/ha to 5433 kg/ha. It exhibited significant yield superiority in all tested states, with increases of 3.3% in Andhra Pradesh, 5.8% in Telangana, 2.9% in Tamil Nadu, 13.8% in Karnataka, 31.2% in Puducherry, 8% in Odisha, 23.2% in Uttar Pradesh, and 98.6% in Madhya Pradesh, resulting in an overall 17.5% higher yield than BPT 5204.

In 2024, IET 32072 continued to outperform BPT 5204, achieving a mean yield of 5132 kg/ha, with a range of 3800 kg/ha to 6859 kg/ha, while BPT 5204 ranged from 2665 kg/ha to 5940 kg/ha. The entry demonstrated a +17.21% yield advantage over BPT 5204, with notable improvements in Telangana (+15.47%), Karnataka (+8.21%), Chhattisgarh (+6.20%), Jharkhand (+16.31%) and in Uttar Pradesh (+73.70%) and Its quality parameters, including a Harvested Rice Recovery (HRR) of 57.3%, intermediate amylose content of 25.52%, ASV of 4.0 and GC of 22 were comparable to its wild parent. Based on its consistent yield superiority and acceptable quality traits over the two years, **IET 32072 is recommended for release in Andhra Pradesh, Telangana, Karnataka, Tamil Nadu, Puducherry (Zone VII), Chhattisgarh, Maharashtra (Zone V), Odisha, Jharkhand, Bihar, Uttar Pradesh, and West Bengal (Zone III),** where it has shown significant yield improvements.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Genome Edited Lines (GELs) in the genetic background of MTU 1010

The GEL trial entry IET 32043 is an MTU 1010 edited line, created through genome editing techniques. The target trait for this line is salt tolerance. Data for the target traits in 2023 is unavailable due to a limited seed quantity. However, in 2024, this entry was evaluated under salinity (Inland saline, Alkaline and Coastal salinity) condition.

IET 32043 along with its wild parent (MTU 1010) evaluated in ten locations across three zones (III, V and VII). The mean yield of IET 32043 mean yield is 5018 kg/ha and ranged from 3254 kg/ha to 9297 kg/ha. Overall, IET 32043 recorded at par yield performance of -2.55% over wild parent (MTU 1010) across zones or states tested.

Performance of Genome Edited Line entries (IET 32043) and its wild parent (MTU 1010) during Kharif 2024

States	Locations	IET 32043	MTU 1010	CD	% Yield advantage over wild parent
AP	1	5840	5280	716	+10.61
TE	1	5587	6305	781	-11.39
TN	1	3254	3603	865	-9.69
CH	1	3777	4163	553	-9.27
MH	2	3948	4227	569	-6.60
BI	2	5396	5425	566	-0.53
JH	1	3733	4400	602	-15.16
WB	1	9297	8435	1413	+10.22
Overall	10	5018	5149	720	-2.55

Performance of IET 32043 in normal and stress condition during Kharif 2024

Normal condition				Stress Condition								
No. of locations	IET 32043	MTU 1010	% Yield Adv. over MTU 1010	Inland Salinity (Loc 1:KA-1)			Alkalinity (Loc 5:TN-2;PY-2;TE-1)			Coastal Salinity (Loc 2- KA-1; KE-1)		
				IET 32043	MTU 1010	% Yield Adv. over MTU 1010	IET 32043	MTU 1010	% Yield Adv. over MTU 1010	IET 32043	MTU 1010	% Yield Adv. over MTU 1010
10	5018	5149	-2.55	3508	3199	+9.66	3731	3254	+14.66	2493	1912	+30.36
At par yield				Tolerant			Tolerant			Tolerant		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Under normal conditions across 10 locations, IET 32043 recorded a grain yield of 5,018 kg/ha, which was slightly lower (-2.55%) than the check variety MTU 1010, which yielded 5,149 kg/ha. This suggests that IET 32043 performs comparably to MTU 1010 under normal conditions. Under stress (Salinity) condition across 8 locations, it recorded significant superior yield performance over its wild parent MTU 1010, it had +9.66 % in Inland salinity, +14.66 % in Alkalinity and +30.36 % in Coastal salinity condition. The genome edited entry IET 32043 is tolerant to salinity condition over its wild parent under stress condition. ***Hence, IET 32043 is found promising for the states of MTU 1010 gazette notified and adapted areas.***

Annual Progress Report 2024 Vol. I – Varietal Improvement

Trial No. 35.1: Composition of entries in Advance Variety Trial 2 & 1 – NIL and GEL (AVT 2 & 1 - NIL & Gel), Kharif 2024

Entry No.	IET No.	Designation	Cross Combination	Grain type
5901	32963	CRR 741-13-1-22	BPT 5204*3/IRBL 9-W	MS
5902	32964	CRR 741-22-2-16	BPT 5204*3/IRBL 9-W	MB
5903		BPT 5204/Samba Mahsuri (Recurrent Parent)		LS
5904		BPT 5204/Samba Mahsuri (Recurrent Parent)		LS
5905	32072*	BPT 5204 (Gn1a Edit)	BPT 5204 (Gn1a Edit)	MS
5906	31286*	CRR 744-74-41-B	IR64*3/IR 81896-B-B-195	LS
5907		IR 64		LB
5908	32966	RDN 22-09	Phule Radha/Tetep	SS
5909		Phule Radha (Recurrent Parent)	TN 1/Kolamba 540	MS
5910	32967	RDN 22-10	Phule Radha/Tetep	LS
5911	32055	RP 6750-RMS-2-23-67-91	Improved samba Mahsuri*2//FL478/Swarna	MS
5912	32059	RP 6753-RMS-4-52-77-81	Improved Samba Mahsuri*2//Swarna sub1/APO	MS
5913	32060	RP 6754-RMS-23-65-78-90	Improved samba Mahsuri*2//RP2068/Swarna	MS
5914	32063	RP 6757-RMS-22-17-34-17	Improved samba Mahsuri*2//RPbiopatho-1/RP2068/Swarna	MS
5915		Improved Samba Mahsuri (recurrent parent)		MS
5916	32056*	RP 6751-RMS-1-13-34-42	Improved Samba Mahsuri *2 // RP bio-Patho -1 / FL 478	MS
5917	32062*	RP 6756-RMS-29-43-64-82	Improved Samba Mahsuri *2 // RP bio-Patho -1 / RP 2068	MS
5918	32054*	RP 6749-RMS-7-17-27-41	Improved Samba Mahsuri *2 /Abhaya / Aganni	MS
5919	32061*	RP 6755-RMS-1-23-65-83	Improved Samba Mahsuri *2 // RP bio-Patho -1 / Swarna Sub-1	MS
5920	32058*	RP 6752-RMS-3-25-94-22	Improved Samba Mahsuri *2 //Swarna Sub 1	LS
5921	32051*	RP-6742-RAF-909-IJ-4	Jaya*2/Isogenic line of MTU 1010	LB
5922	32972	RP-6741-RAF-2608-IJ-2-2	Jaya*2/Isogenic line of MTU 1010	LB
5923		Jaya (Recurrent Parent)		MB
5924	32973	RP-6744-RAF-9001-IJ-29	Jaya*2/Isogenic line of MTU 1010	LS
5925	32074*	RP-6744-RAF-1012-30	MTU 1121*2/Isogenic line of Akshayadhan	MS
5926		MTU 1121 (Recurrent Parent)		SB
5927	32974	RP-6745-RAF-999-41-1	MTU 1121*2/Isogenic line of Akshayadhan	MS
5928	32975	RP 6530-RMS-34-8-47-92	MTU 1010*2 /Improved Samba Mahsuri (Xa21)	LS
5929		MTU 1010 (recurrent parent)		LS
5930	32976	RP 6531-RMS-78-54-9-66	MTU 1010*2 /Improved Samba Mahsuri (Xa21+Pi54)	LS
5931	32043*	DST 2bp 20-4-14-14	MTU1010 (Orsa/MTu1010/INDTODRT0236/20)	LS
5932	32064*	RP 6533-RMS-3-45-9-18	Swarna *2 / Improved Samba Mahsuri	LS
5933	32065*	RP 6532-RMS-14-25-3-45	Swarna *2 / Improved Samba Mahsuri	MS

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entry No.	IET No.	Designation	Cross Combination	Grain type
5934		Swarna (recurrent parent)		MS
5935	32977	RP 6532-RMS-13-15-6-24	Swarna*2 / Improved Samba Mahsuri (Xa21)	MS
5936	32978	VPSY19	Swarna × RIL (ISM×Wazuhophek)	LS
5937	32979	VPSY15	DRR Dhan 53 × RIL (ISM×Wazuhophek)	MS
5938		DRR Dhan 53 (recurrent parent)		MS
5939	32980	VPSY16	DRR Dhan 53 × RIL (ISM×Wazuhophek)	MS
5940	32981	RP 6827-GPV-1500-177-7-2-1	DRR Dhan 50*2/SAB-4-7-5	MS
5941		DRR Dhan 50 (recurrent parent)		
5942	32982	RP 6828-GPV-1871-189-8-9-6	DRR Dhan 50*2/SAB-4-7-5	MS
5943	32983	ANR-17-1-69-375	CARI Dhan 5/IRBB 60	LB
5944		CARI Dhan 5 (recurrent parent)		LB
5945	32984	ANR-131-2-190-659	CARI Dhan 5/IRBB 60	
5946	32985	CR 4121-101-36-24-1-1	IRBB60*Swarna sub 1*3/CR 3856-44-22-2-1-11-1-1-1	
5947		Parent of CR 4121-101-36-24-1-1 (recurrent parent)		
5948	32986	CBMAS 22041	Improved White Ponni/Apo//FL 478//FR 13A	MS
5949	32987	CBMAS 22042	Improved White Ponni/Apo//FL 478//FR 13A	MS
5950		CO-51(recurrent parent)		MS
5951	32988	CBHTR 22002	CO51/Robin HTM	LS
5952	32989	CBHTR 22001	CO51/Robin HTM	MS
5953	32990	28P67		LB
5954		28P67 (recurrent parent)		LB
5955	29546	Pusa 5417-15-11-9-54-17	Pusa 44/IR64-Pup1-F//Pusa44*2	LS
5956	29558	Pusa 5417-15-11-9-50-27	Pusa 44/IR64-Pup1-F//Pusa44*2	MB
5957		Pusa 44		MB
5958	32053*	CSR 389-16-23-42	Pusa 44 / FL 478*3 / Pusa 44 / IRBB 60*	LB
5959	32052*	CSR 389-16-19-15	Pusa 44 / FL 478*3 / Pusa 44 / IRBB 60*	MS
5960	32045*	RP 6744-19182-1-1	Krishna Hamsa / IRBB60 // Krishna Hamsa / Tetep /// Krishna Hamsa / IR 96321-1447-561-B-1 // Krishna Hamsa / IR 81896-96-B-B-195 //// Krishna Hamsa / IR 74371-46-1-1-13 // Krishna Hamsa / DSB 2	LS
5961		Krishnahamsa		LS
5962		WGL14		MS
5963	32047*	RP 6747-19484-1-1	WGL 14 / ISM // WGL14 / RP Patho-1 /// WGL 14 / Rathuheenati // WGL 14 / RP 5925-24 //// WGL 14 / RP 5925-23 // WGL 14 / IR 96321-1447-561-B-1 //// WGL 14 / IR 81896-96-B-B-195 // WGL 14 / IR 74371-46-1-1-13 //// WGL-14 / RP Patho-2// WGL 14 / RP Patho-3	MS

*3rd year testing

Annual Progress Report 2024 Vol. I – Varietal Improvement

CENTRE WISE BREEDER SEED PRODUCTION DURING KHARIF, 2024 (AS PER DAC INCIDENT)

Sl. No.	Centre	Variety	Notificati on Year	Indent (q)	Production (q)			Surplus/ Deficit (q)	
					Kharif 2024	Expected Rabi/ Summer	Total		
1	AAU, Anand (Nawagam)	Gujarat Anand Rice 13 (GAR 13) (IET 20930)	2010	1.70	0.00	1.70	0.00		
		Gujarat Anand Rice 14 (GAR 14) (IET 24619)	2018	5.70	0.00	5.70	0.00		
		Gurjari	1999	7.50	0.00	7.50	0.00		
		Mahisagar (IET 22100)	2018	0.50	0.00	0.50	0.00		
		GR 103	1992	0.02	0.00	0.02	0.00		
		Total			15.42	0.00	15.42	0.00	
2	AAU, Jorhat (Titabar)	Bahadur Sub 1	2018	3.65	0.00	31.90	28.25		
		Garima	1982	0.00	0.00	0.00	0.00		
		Gitesh (TTB 283-1-26)	2017	1.90	0.00	26.40	24.50		
		Ketekijoha (IET 18669)	2006	2.00	0.00	17.10	15.10		
		Numali (IET 27405)	2020	2.00	0.00	18.95	16.95		
		Ranjeet	1994	2.80	0.00	43.70	40.90		
		Ranjit SUB 1	2018	7.80	0.00	120.70	112.90		
		Total			20.15	0.00	258.75	238.60	
		3	ANGRAU, Guntur	BPT 2231 (Akshaya)	2011	0.30	0.00	0.50	0.20
				BPT 2295 (Bapatla Mahsuri) (IET 22188)	2019	0.05	0.00	0.10	0.05
BPT 2411 (Sasya) (IET 23081)	2020			0.40	0.00	0.50	0.10		
BPT 2595 (Teja) (IET 25486)	2020			0.65	0.00	0.75	0.10		
BPT 2782 (Bhavathi) (IET 27124)	2020			1.00	0.00	1.20	0.20		
BPT 3291 (Sonamasuri)	2005			0.30	0.00	0.50	0.20		
		BPT 5204 (Samba Mahsuri)	1989	84.60	0.00	85.00	0.40		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notificati on Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		Kotha Malagolukulu 72	1978	0.20	1.00	0.00	1.00	0.80
		MCM Rice 103	2023	1.10	1.10	0.00	1.10	0.00
		MTU 1001 (Vijetha)	1997	129.45	70.00	80.00	150.00	20.55
		MTU 1010 (Cottondora Sannalu)	2000	157.60	160.00	0.00	160.00	2.40
		MTU 1061 (Indra)	2007	7.10	62.00	0.00	62.00	54.90
		MTU 1064 (Amara)	2010	8.20	17.40	0.00	17.40	9.20
		MTU 1075 (IET 18482)	2008	12.25		25.00	25.00	12.75
		MTU 1121 (Sri Dhruthi)	2016	12.95	90.00	60.00	150.00	137.05
		MTU 1140 (Bheema/Dheera)	2017	3.40	5.00	0.00	5.00	1.60
		MTU 1153 (Chandra) (IET 23409)	2016	37.30	100.00	75.00	175.00	137.70
		MTU 1155 (Samvrudhhi) (IET 23272)	2019	1.10	2.00	0.00	2.00	0.90
		MTU 1156 (Tarangini)	2017	122.50	122.00	100.00	222.00	99.50
		MTU 1172 (IET 24495) (Ksheera)	2019	0.60	0.00	2.00	2.00	1.40
		MTU 1190 (Varam) (IET 25495)	2019	0.20	0.00	2.00	2.00	1.80
		MTU 1210 (Maruteru Sujatha) (IET 2s305)	2020	2.30	0.00	4.00	4.00	1.70
		MTU 1212	2021	15.00	10.00	10.00	20.00	5.00
		MTU 1223 (IET 25856)	2021	0.65	2.00	0.00	2.00	1.35
		MTU 1224 (Maruteru Samba) (IET 26225)	2020	15.25	45.00	45.00	90.00	74.75
		MTU 1239	2021	20.60	20.00	5.00	25.00	4.40
		MTU 1262 (Maruteru Mahsuri) (IET 27151)	2020	9.30	70.00	70.00	140.00	130.70
		MTU 1280	2021	0.10	0.00	5.00	5.00	4.90
		MTU 1281	2021	0.20	0.00	2.00	2.00	1.80

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notificati on Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		MTU 2077 (Krishnaveni)	1990	0.60	6.00	0.00	6.00	5.40
		MTU 5182 (Nandi)	1993	0.00	0.00	0.00	0.00	0.00
		MTU 6024	1985	0.00	0.00	0.00	0.00	0.00
		MTU 7029 (Swarna)	1985	260.85	265.00	0.00	265.00	4.15
		MTU Rice 1232 (JET 26422)	2023	0.20	0.00	2.00	2.00	1.80
		MTU Rice 1239 (JET 26263)	2021	0.20	20.00	5.00	25.00	24.80
		MTU Rice 1271 (JET 27416)	2024	0.05	0.00	15.00	15.00	14.95
		MTU Rice 1273	2022	0.40	0.00	4.00	4.00	3.60
		MTU Rice 1293	2022	0.30	10.00	15.00	25.00	24.70
		MTU Rice 1310	2022	0.10	0.00	2.00	2.00	1.90
		MTU RICE 1318 (JET 28527)	2023	42.05	100.00	0.00	100.00	57.95
		MTU Rice 1321	2022	0.15	0.00	2.00	2.00	1.85
		NDLR 7 (Nandyala Sona) (JET 23715)	2018	1.00	18.00	0.00	18.00	17.00
		NLR 33358 (Somasila)	2000	0.20	1.00	0.00	1.00	0.80
		NLR 3354	2020	0.05	0.00	2.00	2.00	1.95
		NLR 33641 (Vedagiri)	2000	0.20	1.00	0.00	1.00	0.80
		NLR 33892 (Pardhiva)	2007	0.65	4.00	0.00	4.00	3.35
		NLR 4001 (Nellore Siri) (JET 25273)	2020	0.15	0.00	2.00	2.00	1.85
		NLR 40024	2021	0.60	0.00	1.00	1.00	0.40
		NLR 40054 (Nellore Sugandha) (JET 23194)	2020	0.10	0.00	1.00	1.00	0.90
		NLR-34449 (Nellore Mahsuri)	2010	37.70	0.00	100.00	100.00	62.30
		Prabhat	1978	1.90	10.00	8.00	18.00	16.10

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notificati on Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		RGL 2537 (Srikakulam Sannalu)	2000	2.20	45.00	0.00	45.00	42.80
		Vajram	1987	0.00	0.00	0.00	0.00	0.00
		Total		994.30	1346.05	644.00	1990.05	995.75
4	MPKV, Rahuri,	Bhogavati	2007	0.60	3.00	0.00	3.00	2.40
		Indrayani (IET 12897)	1993	14.50	97.00	0.00	97.00	82.50
		Phule Samruddhi (VDN-99-29)	2010	0.80	2.00	0.00	2.00	1.20
		Total		15.90	102.00	0.00	102.00	86.10
5	PDKV, Akola (ARS, Sakoli)	Sakoli 7 (IET 10651)	1990	0.20	0.80	0.00	0.80	0.60
		Sakoli 9 (SKL-2-50-56-45-30-60)	2019	0.20	59.80	0.00	59.80	59.60
		SYE-ER-1 (IET 9296)	1990	0.20	0.20	0.00	0.20	0.00
	PDKV, Akola (ARS, Sindewahi)	PDKV Kisan (SKL-22-39-31-25-31-34)	2018	0.20	28.34	0.00	28.34	28.14
		PDKV Sadhana	2023	0.20	5.00	0.00	5.00	4.80
		PDKV Tilak (SYE-503-78-34-2)	2019	2.00	181.80	0.00	181.80	179.80
		PKV HMT	2008	43.00	51.60	0.00	51.60	8.60
		Total		46.00	327.54	0.00	327.54	281.54
6	BSKKV, Dapoli (ARS, Shirgaon)	Ratnagiri 1	1990	0.30	9.00	0.00	9.00	8.70
		Ratnagiri 2	1990	0.50	0.23	0.00	0.23	-0.27
		Ratnagiri 6 (RTN 65-1-2-2-2) (IET 25529)	2019	0.20	5.40	3.00	8.40	8.20
		Ratnagiri 68-1	1986	0.00	0.00	0.00	0.00	0.00
		Ratnagiri 8 (RTN 28-1-5-3-2) (IET 25493)	2019	2.25	13.00	8.00	21.00	18.75
	BSKKV, Dapoli (RARS, Karjat)	Karjat 1	1990	0.20	0.00	0.00	0.00	-0.20
		Karjat 2	1996	0.20	3.50	0.00	3.50	3.30

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notificati on Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		Karjat 3	1996	4.30	13.50	0.00	13.50	9.20
		Karjat 5	2007	0.40	2.50	0.00	2.50	2.10
		Karjat 7	2009	1.00	6.50	0.00	6.50	5.50
		Karjat 8	2017	0.20	3.50	0.00	3.50	3.30
		Karjat 9	2017	0.20	6.70	0.00	6.70	6.50
		Trombay Karjat Kolum (BARCKKV 13) (IET 27000)	2020	0.20	1.20	0.00	1.20	1.00
		Total		9.95	65.03	11.00	76.03	66.08
7	MPUAT, Udaipur	BK 190	1983	0.00	0.00	0.00	0.00	0.00
		Total		0.00	0.00	0.00	0.00	0.00
8	BAU, Ranchi	Birsa Vikas Dhan 111 (PY-84) (IET 19848)	2015	1.00	1.00	0.00	1.00	0.00
		Birsa Vikas Sugandha 1 (IET 18941)	2015	5.00	9.90	0.00	9.90	4.90
		Total		6.00	10.90	0.00	10.90	4.90
9	BAU, Sabour	Heera (IET 10973)	1989	0.00	0.00	0.00	0.00	0.00
		Kanak (BIET 1009)	1989	0.00	0.00	0.00	0.00	0.00
		Sabour Deep (RAU 3055)	2017	15.00	30.00	30.00	60.00	45.00
		Sabour Harshit Dhan (IET 25342)	2020	24.00	70.00	70.00	140.00	116.00
		Sabour Sampanna Dhan (IET 25960)	2021	24.00	130.00	130.00	260.00	236.00
		Sita	1978	0.10	0.00	0.00	0.00	-0.10
		Total		63.10	230.00	230.00	460.00	396.90
10	BCKV, Nadia	Bidhan Suruchi (IET 25701)	2019	2.30	6.00	0.00	6.00	3.70
		Gontra Bidhan 1 (IET 17430)	2008	12.15	15.00	0.00	15.00	2.85

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notificati on Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		Gontra Bindhan 3 (IET 22752)	2014	5.40	7.00	0.00	7.00	1.60
		Total		19.85	28.00	0.00	28.00	8.15
11	BHU, Varanasi	HUR 917	2017	4.50	7.50	0.00	7.50	3.00
		Total		4.50	7.50	0.00	7.50	3.00
12	SKUAST, Jammu	GIZA 14	1978	6.00	6.00	0.00	6.00	0.00
		Jammu Basmati 118 (SJBR 118)	2021	5.00	3.52	0.00	3.52	-1.48
		Basmati 370		0.00	46.08	0.00	46.08	46.08
		K 343		0.00	1.50	0.00	1.50	1.50
		K 39		0.00	1.75	0.00	1.75	1.75
		K 448		0.00	1.00	0.00	1.00	1.00
		JB 123		0.00	0.72	0.00	0.72	0.72
		JB 138		0.00	0.36	0.00	0.36	0.36
		Total		11.00	60.93	0.00	60.93	49.93
13	CSSRI, Karnal	CSR 76 (IET 27070)	2021	0.90	1.50	0.00	1.50	0.60
		Total		0.90	1.50	0.00	1.50	0.60
14	NDUAT, Ayodhya	IR 64 Sub 1 (IET 21247)	2020	15.10	36.36	0.00	36.36	21.26
		NDR 1	1983	0.00	0.00	0.00	0.00	0.00
		NDR 1045-2 (Shusk Samrat) (IET 17458)	2007	0.00	0.00	0.00	0.00	0.00
		NDR 2065 (IET 17476)	2011	2.00	29.75	0.00	29.75	27.75
		NDR 3112-1 (Narendra Dhan 3112-1 Prakhar) (IET 19335)	2009	0.90	0.90	0.00	0.90	0.00
		NDR 359 (Narendra Dhan-359)	1994	0.20	30.34	0.00	30.34	30.14

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notificati on Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		NDR 9930111 (IET 19117)	2021	10.00	24.75	0.00	24.75	14.75
		Sarjoo-52	1982	0.50	117.25	0.00	117.25	116.75
		Pusa Narendra Kalanamak-1	2023	0.00	29.40	0.00	29.40	29.40
		Pusa CRD Kalanamak-2	2023	0.00	14.10	0.00	14.10	14.10
		Total		28.70	282.85	0.00	282.85	254.15
15	GBPUAT, Pantnagar	Pant Basmati 1 (RP 36444-1-9-5-5)	2015	0.20	8.00	0.00	8.00	7.80
		Pant Basmati 2 (IET 21953)	2015	0.20	2.40	0.00	2.40	2.20
		Pant Dhan 18 (IET 17920) (UPRI 99-1)	2007	0.45	5.49	0.00	5.49	5.04
		Pant Dhan 24 (IET 22096)	2015	0.40	9.25	0.00	9.25	8.85
		Pant Dhan 26 (UPR 3425-14-3-1)	2017	5.30	5.85	0.00	5.85	0.55
		Total		6.55	30.99	0.00	30.99	24.44
16	ICAR-NRRI, Cuttack, Odisha	Amulya (IET 8989)	1989	0.00	0.00	0.00	0.00	0.00
		Anjali (RR-347-166) (IET 16430)	2002	0.40	5.00	0.00	5.00	4.60
		CR 1014	1989	0.30	0.70	0.00	0.70	0.40
		CR Dhan 102 (IET 25121)	2020	2.80	0.00	0.90	0.90	-1.90
		CR Dhan 202 (IET 21917)	2014	0.30	0.00	3.60	3.60	3.30
		CR Dhan 203 (Sachala IET- 2717-10-IR 84899-B-185) (IET 22731)	2015	0.50	0.00	0.90	0.90	0.40
		CR Dhan 204 (IET 21692)	2019	0.30	0.00	0.50	0.50	0.20
		CR Dhan 205 (IET 22737)	2019	0.30	0.00	0.90	0.90	0.60
		CR Dhan 206 (Gopinath) (CR 2996-1-14-29-3-1) (IET 22731)	2015	0.30	0.00	3.60	3.60	3.30

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notificati on Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		CR Dhan 300 (CR2301-5) (IET 19816)	2014	0.40	1.50	0.00	1.50	1.10
		CR Dhan 305 (IET 21287)	2014	2.50	2.10	0.00	2.10	-0.40
		CR Dhan 306 (IET 22084)	2019	0.30	0.35	0.00	0.35	0.05
		CR Dhan 307 (Maudamani) (CR 2599) (IET 20925)	2015	0.30	1.70	0.00	1.70	1.40
		CR Dhan 310	2022	10.85	0.00	18.00	18.00	7.15
		CR Dhan 311 (Mukul) (CR 2829-PLN-100) (IET 24772)	2019	0.65	0.00	4.50	4.50	3.85
		CR Dhan 314 (IET 27263)	2022	15.40	8.50	8.10	16.60	1.20
		CR Dhan 315 (IET 27179)	2021	0.60	2.50	0.00	2.50	1.90
		CR Dhan 316 (CRR1 Gaurav-1)	2021	1.40	2.10	0.00	2.10	0.70
		CR Dhan 317 (Roshan)	2021	1.30	0.85	0.00	0.85	-0.45
		CR Dhan 318 (IET 27803)	2021	0.20	0.00	3.60	3.60	3.40
		CR Dhan 319	2021	0.40	0.60	0.00	0.60	0.20
		CR Dhan 321 (IET 28354)	2022	10.00	5.90	22.00	27.90	17.90
		CR Dhan 323 (Jyotsna)	2023	0.70	0.70	0.90	1.60	0.90
		CR Dhan 324 (Abhaya Paushtrik)	2023	0.70	0.70	0.00	0.70	0.00
		CR Dhan 326 (Panchatatva)	2023	0.70	0.50	0.00	0.50	-0.20
		CR Dhan 327 (Madhumita)	2023	0.70		1.80	1.80	1.10
		CR Dhan 328	2023	0.70	0.90	0.00	0.90	0.20
		CR Dhan 407 (IET 21974)	2014	0.30	1.20	0.00	1.20	0.90
		CR Dhan 408 (Chakaakhi) (CR491-1590- 330-2-1) (IET 20265)	2018	0.30	0.90	0.00	0.90	0.60

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notificati on Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		CR Dhan 410 (IET 24471)	2020	0.10	0.50	0.00	0.50	0.40
		CR Dhan 411 (Swaranjali) (IET 27852)	2021	1.30	14.70	0.00	14.70	13.40
		CR Dhan 413 (Reeta-Panidhan)	2021	0.30	0.90	0.00	0.90	0.60
		CR Dhan 414 (IET 27051)	2022	0.50	1.00	0.00	1.00	0.50
		CR Dhan 508 (CR3835-1-7-2-1-1)	2017	0.40	1.50	0.00	1.50	1.10
		CR Dhan 510 (CR 2593-1-1-1) (IET 23895)	2019	0.30	2.80	0.00	2.80	2.50
		CR Dhan 511 (CR 2789-9-2) (IET 23906)	2019	0.20	0.60	0.00	0.60	0.40
		CR Dhan 512 (Satrughan)	2021	0.30	0.70	0.00	0.70	0.40
		CR Dhan 704 (Shyamdev)	2023	0.20	0.20	0.00	0.20	0.00
		CR Dhan 800 (Swarna MAS) (CRMAS 2232- 85)	2018	3.65	6.00	0.00	6.00	2.35
		CR Dhan 801 (IR96322-34-223-B-1-1-1-CR3955-2) (IET 25667)	2019	0.30	0.25	0.50	0.75	0.45
		CR Dhan 802 (Subhas) (CR 3925-22-7) (IET 25673)	2019	5.30	5.00	0.90	5.90	0.60
		CR Dhan 803 (Trilochan) (IET 26398)	2021	10.30	18.60		18.60	8.30
		CR Dhan 805 (Naveen Shakti)	2023	0.70	0.85	1.80	2.65	1.95
		CR Dhan 806 (Varsadhan Sub 1)	2023	2.20	0.00	0.00	0.00	-2.20
		CR Dhan 911 (Basudev)	2023	1.20	0.85	3.60	4.45	3.25
		CR Sugandh Dhan 910 (CR 2713- 180) (IET 22649)	2018	0.20	0.00	0.00	0.00	-0.20
		CR-36-148 (Supriya)	1997	0.20	0.20	0.00	0.20	0.00
		Dharitri (IET 6272)	1989	1.45	17.10	0.00	17.10	15.65
		Gayatri (IET 8022)	1989	1.40	12.30	0.00	12.30	10.90

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notification Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		Geetanjali (CRM-2007-1) (IET 17276)	2006	0.10	0.50	0.00	0.50	0.40
		Improved Lalat (CRMAS 2621-7-1)	2013	1.25	1.70	4.50	6.20	4.95
		Luna Sampad (IET 19470)	2011	0.20	0.05	0.00	0.05	-0.15
		Luna Sankhi	2013	0.50	0.30	1.80	2.10	1.60
		Luna Suvarna (IET 18697)	2011	0.05	0.10	0.00	0.10	0.05
		Lunistree	1992	0.10	0.10	0.00	0.10	0.00
		Naveen (CR-749-20-2) (IET 14461)	2006	0.40	0.00	0.90	0.90	0.50
		Padmini (IET 10561)	1989	0.60	0.45	0.00	0.45	-0.15
		Pooja (IET 12241)	1999	7.85	30.00	0.00	30.00	22.15
		Pradhan Dhan (CR 409) (CR 2690-2- 2-1-1-1) (IET 23110)	2018	0.20	8.00	0.00	8.00	7.80
		Purna (IET 18654)	2017	0.20	0.00	0.00	0.00	-0.20
		Purnendu (IET 10029)	1997	0.00	0.00	0.00	0.00	0.00
		Reeta (IET 19969)	2011	0.20	0.40	0.00	0.40	0.20
		Sarla CR-260-77 (IET 10279)	2002	1.20	15.30	0.00	15.30	14.10
		Savitri (CR 1009) (IET 5897)	1983	0.65	4.20	0.00	4.20	3.55
		Swarna-SUB 1 (CR 2539-1) (IET 20266)	2009	101.85	160.50	0.00	160.50	58.65
		Vandana (RR-167-982)	2002	0.60	4.50	0.00	4.50	3.90
		Varshadhan (CRLC-899) (IET 16481)	2006	2.10	2.00	0.00	2.00	-0.10
		Virender (RR 347-2) (IET 17901)	2007	0.20	0.00	0.00	0.00	-0.20
	NRRI, Curttack (CRUSS, Hazaribagh)	Sahbhagi Dhan (IET 19576) (IR74371-70-1-1-CRR-1)	2011	3.85	11.40	2.70	14.10	10.25

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notificati on Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		Abhishek (RR-272-829) (IET 17868)	2007	0.10	0.00	0.00	0.00	-0.10
		CR Dhan 320 (IET 27914)	2021	0.30	0.50	0.00	0.50	0.20
		CR Dhan 312	2020	1.00	1.00	0.00	1.00	0.00
		CR 1009 sub1	2017	0.00	12.30	0.00	12.30	12.30
		CR Dhan 507	2018	0.00	1.60	0.00	1.60	1.60
		CR Sugandhdhan 3	2008	0.00	0.70	0.00	0.70	0.70
		CR Sugandh Dhan 908	2017	0.00	1.40	0.00	1.40	1.40
		CR Sugandh Dhan 909	2018	0.00	1.60	0.00	1.60	1.60
		Khitish	1982	0.00	0.85	0.00	0.85	0.85
		Ketekijoha	2006	0.00	0.75	0.00	0.75	0.75
		Nua Chikamini	2010	0.00	0.90	0.00	0.90	0.90
		Nua Kalajeera	2008	0.00	0.15	0.00	0.15	0.15
		Shatabdi	2000	0.00	1.90	0.00	1.90	1.90
		Ratna	1970	0.00	0.00	0.50	0.50	0.50
		CR Dhan 416	2024	0.00	0.00	3.15	3.15	3.15
		CR Dhan 108	2024	0.00	0.00	7.20	7.20	7.20
		CR Dhan 301	2012	0.00	0.00	0.90	0.90	0.90
		CR Dhan 212	2024	0.00	0.00	3.60	3.60	3.60
		Total		207.60	383.90	101.35	485.25	277.65
17	BEDF, Meerut	Improved Pusa Basmati 1 (IET 18990) (Pusa 1460-01-32-6-7-67)	2007	0.50	1.60	0.00	1.60	1.10
		Pusa Basmati 1 (IET 10364)	1989	1.16	8.00	0.00	8.00	6.84

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notificati on Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		Pusa Basmati 1121 (Pusa Sugandh 4)	2005	50.50	24.50	0.00	24.50	-26.00
		Pusa Basmati 6 (IET 18005)	2010	1.90	17.80	0.00	17.80	15.90
		Total		54.06	51.90	0.00	51.90	-2.16
18	ICAR-IARI, RS, Karnal	PUSA 44	1994	0.00	0.00	0.00	0.00	0.00
		Pusa Basmati 1509	2013	30.24	20.00	0.00	20.00	-10.24
		Pusa Basmati 1692 (IET 26995)	2020	22.80	20.00	0.00	20.00	-2.80
		Pusa Basmati 1718	2017	39.70	20.00	0.00	20.00	-19.70
		Pusa Basmati 1728	2016	3.10	4.00	0.00	4.00	0.90
		Pusa Basmati 1847	2021	20.42	22.00	0.00	22.00	1.58
		Pusa Basmati 1885	2021	4.90	5.00	0.00	5.00	0.10
		Pusa Basmati 1886	2021	2.76	4.00	0.00	4.00	1.24
		Pusa Basmati 1979	2021	5.53	7.00	0.00	7.00	1.47
		Pusa Basmati 1985	2021	13.62	14.12	0.00	14.12	0.50
		Pusa Basmati 1882 (IET 28788)	2022	7.40	7.40	0.00	7.40	0.00
		Pusa Basmati 1121 (Pusa Sugandh 4)		0.00	20.00	0.00	20.00	20.00
		Total		150.47	143.52	0.00	143.52	-6.95
19	ICAR-IARI, New Delhi	Jaldi Dhan 13 (PNR-591-18)	2006	0.20	0.00	0.00	0.00	-0.20
		Pusa 6 (Pusa 1612-7-6-5)	2013	1.00	4.00	0.00	4.00	3.00
		Pusa CRD KN2 (Pusa1638-07-171-1-81-1-2)	2023	1.05	1.50	0.00	1.50	0.45
		Pusa Narendra KN1 (Pusa1638-07-130-2-67-1-1)	2023	1.10	1.50	0.00	1.50	0.40
		Pusa Samba 1850 (Pusa 1850-27) (IET 25480)	2018	0.10	13.00	0.00	13.00	12.90
		Pusa Samba 1853 (IET 28014)	2022	0.10	5.00	0.00	5.00	4.90

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notification Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		Pusa Sugandh 5 (IET 17021)	2005	0.50	4.20	0.00	4.20	3.70
		Total		4.05	29.20	0.00	29.20	25.15
20	ICAR-IIRR, Hyderabad	Bina Dhan 11	2015	21.00	0.00	25.00	25.00	4.00
		Bina Dhan 17 GSR (SAGC7) (IET 24460)	2018	12.25	5.00	8.00	13.00	0.75
		BRR1 Dhan 75 (Hua 565) (IET 24459)	2018	0.05	0.00	5.00	5.00	4.95
		Dhanrasi (IET 15358)	2003	0.20	0.20	0.00	0.20	0.00
		DRR Dhan 42 (IR 64 Drt I)(IR 87707-44-5-B-B-B)	2015	2.15	0.00	3.00	3.00	0.85
		DRR Dhan 43 (IET 22080)	2015	25.10	0.00	30.00	30.00	4.90
		DRR Dhan 45 (IET 23832) (RP5886-HP 3-IR80463-B39)	2016	13.40	6.00	8.00	14.00	0.60
		DRR Dhan 46 (IET 23420)	2016	0.75	0.75	0.00	0.75	0.00
		DRR Dhan 47 (IET 23356)	2018	0.10	0.15	0.00	0.15	0.05
		DRR Dhan 48 (IET 24555)	2018	0.95	22.00	0.00	22.00	21.05
		DRR Dhan 50 (IET 25671)	2018	10.60	12.00	0.00	12.00	1.40
		DRR Dhan 51 (IET 25484)	2018	0.60	1.00	0.00	1.00	0.40
		DRR Dhan 53 (RP-6113-Partho-BB9) (IET 27294)	2021	35.10	57.00	0.00	57.00	21.90
		DRR Dhan 54 (RP 5943-421-16-1-1-B) (IET 25653)	2021	24.25	0.00	30.00	30.00	5.75
		DRR Dhan 55 (RP 5591-123-16-2) (IET 26194)	2021	18.30	0.00	25.00	25.00	6.70
		DRR Dhan 56 (IET 26803)	2021	0.40	15.60	0.00	15.60	15.20
		DRR Dhan 57	2021	0.05	0.10	0.00	0.10	0.05
		DRR Dhan 58	2021	0.10	3.00	0.00	3.00	2.90
		DRR Dhan 59	2021	0.10	0.10	0.00	0.10	0.00

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notification Year	Incident (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		DRR Dhan 60	2021	0.70	1.00	25.00	26.00	25.30
		DRR Dhan 63 (IET 26596)	2021	0.90	1.00	0.00	1.00	0.10
		DRR Dhan 64 (IET 28358)	2022	18.00	0.00	25.00	25.00	7.00
		DRR Dhan 65 (IET 27641)	2022	1.32	1.50	0.00	1.50	0.18
		DRR Dhan 67 (BRRI Dhan 84)	2022	0.10	0.15	0.00	0.15	0.05
		DRR Dhan 68 (BRRI Dhan 99)	2022	0.10	0.00	0.10	0.10	0.00
		DRR Dhan 69 (BRRI Dhan 100)	2022	0.10	0.10	0.00	0.10	0.00
		DRRH 3 (DRRH 44)	2010	0.10	0.10	0.00	0.10	0.00
		Improved Samba Mahsuri	2008	2.65	3.00	0.50	3.50	0.85
		Jarava (IET 15420)	2005	0.20	0.20	0.00	0.20	0.00
		Jaya	1978	11.15	11.50	0.00	11.50	0.35
		Masuri	1978	0.60	0.60	0.00	0.60	0.00
		Sampada (IET 19424)	2008	1.20	1.50	0.00	1.50	0.30
		Vibhava (IET 6080)	1991	0.20	0.20	0.00	0.20	0.00
		Vikas	1983	0.20	0.20	0.00	0.20	0.00
		Vikramarya (IET 7302)	1986	0.20	0.20	0.00	0.20	0.00
		Total		203.17	144.15	184.60	328.75	125.58
21	ICAR-NEHR, Meghalaya (NEH Manipur)	Bha Lum 1 (RCPL 1-27)	2003	0.30	0.50	0.00	0.50	0.20
		Bha Lum 2 (RCPL 1-29)	2003	0.30	0.00	0.00	0.00	-0.30
		Lam Phah-1 (RCPL 1-87-4)	2003	0.20	0.00	0.00	0.00	-0.20
		Shah Sarang 1 (RCPL 1-87-8)	2003	0.20	1.00	0.00	1.00	0.80

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notificati on Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		Total		1.00	0.00	1.50	0.50	
	ICAR-NEHR, Tripura, Lembucherra	Gomati Dhan TRC-2005-1 (TRC-05-8-4-42-8-3-7) (IET 21512)	2018	0.40	0.00	4.50	4.10	
		Kali Khasa	2004	0.50	0.00	2.80	2.30	
		Tripura Chikan Dhan	2018	0.20	0.00	4.20	4.00	
		Tripura Nirog	2018	0.10	0.00	4.20	4.10	
		Total		1.20	0.00	15.70	14.50	
22	IGKV, Raipur	Badshahog Selection 1	2016	20.70	0.00	23.10	2.40	
		Bastar Dhan 1 (IET 26624)	2020	0.60	0.00	2.95	2.35	
		CG Barani Dhan 2 (R-RF-105) (IET 24690)	2021	0.60	0.00	7.22	6.62	
		CG Jawaphool Trombay (RTR-31)	2021	1.00	0.00	9.66	8.66	
		CG Tejaswi Dhan (IGKV DH Rice 1)	2021	1.00	0.00	13.45	12.45	
		Chhattisgarh Devbhog (R-1656-1146-5-513-1) (IET 23879)	2019	11.50	0.00	62.34	50.84	
		Chhattisgarh Dhan 1919	2021	2.20	0.00	13.45	11.25	
		Chhattisgarh Madhuraj Dhan 55	2016	5.30	0.00	18.00	12.70	
		Chhattisgarh Zinc Rice 1	2016	0.60	0.00	12.14	11.54	
		Chhattisgarh Zinc Rice 2 (CGZR-2) (IET 23829)	2019	0.60	0.00	11.40	10.80	
		Dubraj Selection 1	2016	10.30	0.00	22.50	12.20	
		IGKVR 1 (IET 19569)	2011	23.60	0.00	63.00	39.40	
		IGRKVR 1244 (R1244-1246-1-605-1) (IET 19796)	2012	0.30	0.00	9.00	8.70	
		Indira Aerobic 1 (R1570-2649-1-1546-1) (IET 21686)	2015	11.00	0.00	9.00	-2.00	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notification Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		Indira Barani Dhan 1 (RF-17-38-70) (IET 21205)	2012	0.30	12.60	0.00	12.60	12.30
		IR 36	1982	2.50	22.50	0.00	22.50	20.00
		IR 64	1991	50.65	84.00	0.00	84.00	33.35
		Mahamaya	1996	107.10	189.90	0.00	189.90	82.80
		Protezin (R-RHZ-R-56) (IET 25470)	2020	3.00	17.72	0.00	17.72	14.72
		Tarunbhog Selection 1	2016	5.30	15.60	0.00	15.60	10.30
		Trombay Chhattisgarh Vikram - TCR (Vikram)	2021	6.00	48.56	0.00	48.56	42.56
		Trombay Chhattisgarh Dubraj Mutant 1 (TCDM-1) (IET 23829)	2019	3.00	18.38	0.00	18.38	15.38
		Trombay Chhattisgarh Sonagathi mutant (TCSM)	2021	1.00	7.88	0.00	7.88	6.88
		Trombay Chhattisgarh Vishnubhog mutant (TCVM)	2021	1.00	12.47	0.00	12.47	11.47
		Vishnubhog Selection 1	2016	5.30	16.50	0.00	16.50	11.20
		Zinco Rice MS	2019	5.60	9.00	0.00	9.00	3.40
		IGKVR 2 (IET 19795)	2011	0.00	6.60	0.00	6.60	6.60
		Shyamla	1997	0.00	6.23	0.00	6.23	6.23
		Total		280.05	745.15	0.00	738.92	458.87
23	JNKVV, Jabalpur	Improved Chinnor	2018	20.00	9.27	0.00	9.27	-10.73
		Improved Jeera Shankar	2018	1.20	6.89	0.00	6.89	5.69
		JR 10	2021	80.00	129.75	0.00	129.75	49.75
		JR 206 (IET 26079)	2019	57.15	1425.82	0.00	1425.82	1368.67
		JR 21 (JR 81-01)	2023	76.29	424.76	0.00	424.76	348.47
		JR 81	2018	40.00	190.44	0.00	190.44	150.44

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notificati on Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		Kranti (R-2022)	1982	5.15	1194.71	0.00	1194.71	1189.56
		Lallu 14	1976	0.20	2.00	0.00	2.00	1.80
		JRB 1	2018	0.00	22.08	0.00	22.08	22.08
		MTU 1010	2000	0.00	37.40	0.00	37.40	37.40
		Pusa 1460	2007	0.00	2.30	0.00	2.30	2.30
		Pusa Basmati 1	1989	0.00	252.91	0.00	252.91	252.91
		Pusa 1509	2013	0.00	16.07	0.00	16.07	16.07
		Pusa Sugandha 4	2005	0.00	45.91	0.00	45.91	45.91
		Pusa Sugandha 5	2005	0.00	7.74	0.00	7.74	7.74
		IR 64	2020	0.00	62.77	0.00	62.77	62.77
		IR 36	1982	0.00	31.29	0.00	31.29	31.29
		Total		279.99	3862.1	0.00	3862.11	3582.12
24	KAU, Thrissur (Kayamkulam)	Chingam	2006	0.30	0.00	0.00	0.00	-0.30
	KAU, Thrissur (Mannuthy)	Kau Manu Rathna (HS-16)	2021	0.15	0.93	0.50	1.43	1.28
	KAU, Thrissur (Moncompu)	Bhadra (MO 4)	1980	2.50	0.00	2.50	2.50	0.00
		Kau Pournami (MO 23)	2021	0.30	0.00	0.70	0.70	0.40
		KAUM 42-6-3 (D1) (MO 16-Uma) (JET 14758)	2002	14.50	0.00	14.50	14.50	0.00
		KAUM 59-29-2-1-2 (GM-1) (MO 13-Pavithra) (JET 13983)	2002	0.20	0.00	0.00	0.00	-0.20
		KAUM 61-6-1-1-2 (GM-9) (MO 14-Pancham) (JET 14260)	2002	0.20	0.00	0.00	0.00	-0.20
		MO 21 (P)	2010	1.10	0.00	1.10	1.10	0.00

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notificati on Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		MO 5	1984	0.20	0.00	0.00	0.00	-0.20
	KAU, Thrissur (Pattambi)	Jyothi	1977	7.25	3.82	21.50	25.32	18.07
		KAU 87117 (Karuna)	2002	0.20	0.00	0.80	0.80	0.60
		Kau Akshya (PTB 62) (Kau PTB 0615-01-25-17)	2021	0.20	0.00	0.80	0.80	0.60
		Kau Supriya (PTB 61) KAU PTB 0614-7-8-24 (Cul 06-6)	2021	0.20	0.00	0.25	0.25	0.05
		KAUA 4-4-2 (Harsha)	2002	0.20	0.60	0.30	0.90	0.70
		PTB 51 (Aathira)	2006	0.35	0.00	1.00	1.00	0.65
		Swetha (IET 14735)	2006	0.60	0.10	0.80	0.90	0.30
		Trivani (PTB 38)	1973	0.20	0.15	0.20	0.35	0.15
		Varsha (PTB 56)	2006	0.10	1.62	0.00	1.62	1.52
	KAU, Thrissur (Vytilla)	Kau-VTL-10 (Lavanya) KAUVTL- 51-5	2021	0.20	0.00	0.20	0.20	0.00
		Total		28.95	7.22	45.15	52.37	23.42
25	CSKHPKV, Palampur	Him Palam Dhan 1 (HPR 2656)	2020	0.50	9.50	0.00	9.50	9.00
		HPR 1156 (IET 16007)	2004	0.20	0.40	0.00	0.40	0.20
		HPR 2143	2006	3.35	9.54	0.00	9.54	6.19
		Kasturi (IET 8580)	1989	1.25	6.20	0.00	6.20	4.95
		RP-732	1995	0.20	0.00	0.00	0.00	-0.20
		Total		5.50	25.64	0.00	25.64	20.14
26	SVPUAT, Meerut	Vallabh Basmati 24 (MAUB-171) (IET 20827)	2015	0.20	0.50	0.00	0.50	0.30
		Total		0.20	0.50	0.00	0.50	0.30
27	NAU, Navasari	GNR 5	2015	3.00	3.00	0.00	3.00	0.00

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notificati on Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		GR 103	1992	0.00	0.00	0.00	0.00	0.00
		Total		3.00	0.00	3.00	0.00	0.00
28	OUAT, Bhubaneswar	Hasanta (OR 2328-5) (IET 21477)	2018	1.20	0.00	14.00	14.00	12.80
		Jagannath	1975	0.20	0.00	0.40	0.40	0.20
		Kalachampa	2015	36.60	0.00	82.00	82.00	45.40
		Kalinga Dhan 1203 (IET 27117)	2021	1.00	0.00	6.40	6.40	5.40
		Kalinga Dhan 1204	2021	0.50	0.00	2.00	2.00	1.50
		Kalinga Dhan 1205 (IET 22579)	2021	1.00	0.00	7.20	7.20	6.20
		Kalinga Dhan 1401	2021	0.50	0.00	1.00	1.00	0.50
		Kalinga Dhan 1501	2021	0.50	0.00	1.60	1.60	1.10
		Kalinga Dhan 1502	2021	0.50	0.00	6.00	6.00	5.50
		Khandagiri	1994	2.35	0.00	6.00	6.00	3.65
		Kharavela (IET 13253)	1999	0.20	0.00	0.20	0.20	0.00
		Lalat (IET 9947)	1989	11.65	0.00	15.00	15.00	3.35
		Mandakini (OR 2077-4) (IET 17847)	2011	0.40	0.00	1.50	1.50	1.10
		Mrunalini (OR 1898-18) (IET 18649)	2011	0.20	0.00	1.80	1.80	1.60
		OUAT Kalinga Rice 1 (Kolab)	2023	0.50	0.00	7.00	7.00	6.50
		OUAT Kalinga Rice 2 (Salandi)	2023	0.50	0.00	5.00	5.00	4.50
		OUAT Kalinga Rice 5 (Nabanna)	2023	4.00	0.00	8.00	8.00	4.00
		OUAT Kalinga Rice 6 (Bhargavi)	2023	0.50	0.00	1.00	1.00	0.50
		OUAT Kalinga Rice 7 (Barunei)	2023	0.70	0.00	1.40	1.40	0.70
		OUAT Kalinga Rice 8 (Surya Shree)	2023	0.70	0.00	0.00	0.00	-0.70

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notificati on Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		Parijat (JET 2684)	1985	2.15	1.80	0.00	1.80	-0.35
		Pratibha (OR 2172-7) (JET 21582)	2018	0.20	0.20	0.00	0.20	0.00
		Pratikshya (ORS 201-5) (JET 15191)	2006	9.71	30.00	0.00	30.00	20.29
		Rani Dhan (JET 19148)	2009	0.95	0.80	0.00	0.80	-0.15
		Satya	1988	0.20	0.00	0.00	0.00	-0.20
		Sidhanta (ORS-102-4) IET 15296)	2006	0.20	0.00	0.20	0.20	0.00
		Surendra (JET 12815)	1999	0.60	0.30	0.00	0.30	-0.30
		Upahar (OR 1234-12-1) (JET 17318)	2006	0.80	6.20	0.00	6.20	5.40
		Total		78.51	198.80	8.20	207.00	128.49
29	ICAR-RCER, Patna	Swarna Purvi Dhan 1	2023	0.20	2.40	0.00	2.40	2.20
		Swarna Purvi Dhan 2	2023	0.20	4.00	0.00	4.00	3.80
		Swarna Purvi Dhan 3 (JET 28014)	2022	30.90	31.10	0.00	31.10	0.20
		Swarna Shakti Dhan (RCPF-22-IR84899-B-183-20-1-1-1) (JET 25640)	2020	25.00	25.20	0.00	25.20	0.20
		Swarna Shreya (JET 24003)	2018	2.00	17.40	0.00	17.40	15.40
		Swarna Shusk Dhan	2023	1.10	4.50	0.00	4.50	3.40
		Swarna Smriddhi Dhan (JET 24306)	2021	29.40	42.30	0.00	42.30	12.90
		Swarna Unnat Dhan (JET 27892)	2021	30.00	30.30	0.00	30.30	0.30
		Total		118.80	157.20	0.00	157.20	38.40
30	PAU, Ludhiana	PR 113	2001	0.49	60.00	0.00	60.00	59.51
		PR 114	2001	7.20	55.00	0.00	55.00	47.80
		PR 118	2007	0.48	12.00	0.00	12.00	11.52

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notificati on Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		PR 121 (RYT 3240)	2015	0.58	30.00	0.00	30.00	29.42
		PR 122 (RYT 3129)	2015	1.24	22.00	0.00	22.00	20.76
		PR 126 (RYT 3379) (JET 24721)	2018	18.84	28.00	0.00	28.00	9.16
		PR 127 (RYT 13316)	2020	1.00	10.00	0.00	10.00	9.00
		PR 128 (RYT 3437)	2021	2.35	18.00	0.00	18.00	15.65
		PR 129 (RYT 3468)	2021	0.08	18.00	0.00	18.00	17.92
		PR 130 (PRYT 3797)	2023	3.98	12.00	0.00	12.00	8.02
		PR 131	2024	0.00	30.00	0.00	30.00	30.00
		Punjab Basmati 7	2022	0.48	30.00	0.00	30.00	29.52
		Total		36.72	325.00	0.00	325.00	288.28
31	PJTAU, Hyderabad	Indur Samba (PDR 763)	1998	0.20	0.03	0.00	0.03	-0.17
		Jagtiala Vari 2	2023	0.20	0.20	0.00	0.20	0.00
		Jatjala Vari 3	2023	0.20	0.20	0.00	0.20	0.00
		JGL 11118 (Anjana)	2019	0.20	0.20	0.00	0.20	0.00
		JGL 11727 (Pranahitha)	2019	0.20	0.20	0.00	0.20	0.00
		JGL 17004 (Prathyumna)	2019	0.20	0.20	0.00	0.20	0.00
		JGL 1798	2004	12.30	12.30	0.00	12.30	0.00
		JGL 18047 (Bathukamma)	2016	2.70	3.00	0.00	3.00	0.30
		JGL 21078 (Telangana Vari 3) (JET 26125)	2021	0.25	0.30	0.00	0.30	0.05
		JGL 3844 (Jagtial Samba)	2012	0.20	0.20	0.25	0.45	0.25
		JGL24423 (Jagtiala Rice 1) (JET 25310)	2020	5.35	6.00	0.00	6.00	0.65
		KNM 118(Kunaram Sannalu)(JET 23748)	2016	0.30	0.30	0.00	0.30	0.00

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notificati on Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		KNM 1638 (Kunaram Vari 2)	2021	4.05	0.00	4.05	0.00	
		KNM 6965 (Telangana Rice 7) (IET 28343)	2022	0.10	0.00	0.10	0.00	
		KNM 7048 (Telangana Rice 6) (IET 28332)	2022	0.60	0.00	0.60	0.00	
		KNM 733 (Kunaram Rice 1) (IET 27405)	2020	0.35	0.00	0.35	0.00	
		Raja Vadlu	1995	0.20	0.00	0.00	-0.20	
		Rajendra	1978	0.20	0.00	0.20	0.00	
		RNR 15048 (Telangana Sona) (IET23746)	2016	54.95	10.00	55.75	0.80	
		RNR 2354 (Shobhini) (IET 21260)	2014	6.20	4.00	4.00	-2.20	
		RNR 2458 (Krishna) (IET 21492)	2019	0.20	0.00	0.20	0.00	
		RNR 2465 (Sugandha Samba)	2011	0.10	0.00	0.10	0.00	
		RNRM 7 (Early Sambha)	2001	0.30	0.00	0.00	-0.30	
		Tellahamsa	1975	0.70	0.70	0.70	0.00	
		WGL 1487 (Telangana Vari 8) (IET 28818)	2022	0.10	0.10	0.10	0.00	
		WGL 20471 (Erra Mallelu)	1993	1.95	1.95	1.95	0.00	
		WGL 32100 (Warangal Sannalu) (IET 18044)	2007	0.10	0.10	0.10	0.00	
		WGL 3962	1999	0.20	0.20	0.20	0.00	
		WGL 44 (Siddhi) (IET 19387)	2013	0.20	0.00	0.20	0.00	
		WGL 48684 (Kavya)	1993	0.80	0.80	0.80	0.00	
		WGL 697 (IET 26027)	2021	0.25	0.25	0.25	0.00	
		WGL 915 (Warangal Rice 1) (IET 25284)	2020	0.10	0.00	0.10	0.00	
		WL 13400	1978	0.20	0.20	0.20	0.00	
		Total		94.15	18.55	93.33	-0.82	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notificati on Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
32	PRDF, Gorakhpur	Bauna Kalanamak 101	2016	0.60	1.00	0.00	1.00	0.40
		Bauna Kalanamak 102	2017	0.30	1.00	0.00	1.00	0.70
		Kalanamak Kiran (PRDF-2-14-10) (IET 24753)	2019	3.00	3.00	0.00	3.00	0.00
		Total		3.90	5.00	0.00	5.00	1.10
33	RRS, Bankura, W. B.	BNKR 1 (Dhiren) (IET 20760)	2015	1.55	2.15	0.00	2.15	0.60
		BNKR 2 (Dhruba)	2017	0.60	0.60	0.00	0.60	0.00
		BNKR 3 (Sampriti) (IET 21987)	2016	0.10	0.26	0.00	0.26	0.16
		Total		2.25	3.01	0.00	3.01	0.76
34	RRS, Chinsurah, W.B.	Bhupesh (IET 23324) (CN 1752-18-1-9-MLD19)	2019	0.20	0.45		0.45	0.25
		CNM-539 (Biraj)	1984	0.30	0.00		0.00	-0.30
		Gosaba 5 (Chinsurah Nona-1) (IET 23403)	2016	0.05	0.60		0.60	0.55
		IET 1136	1978	0.20	0.00		0.00	-0.20
		Khitish (IET 4094)	1984	4.45	6.00		6.00	1.55
		Manisha (IET 23770) (CN-2015-5-4)	2019	0.10	0.40		0.40	0.30
		Muktashree (IET 21845)	2019	0.15	1.00		1.00	0.85
		Sabita (IET 8970)	1987	0.70	2.00		2.00	1.30
		Shatabdi (IET 4786)	2000	16.95	18.50		18.50	1.55
		Sukumar (IET 21261)	2020	0.40	1.50		1.50	1.10
		Total		23.50	30.45	0.00	30.45	6.95
35	RPCAU, Pusa	Gautam B	1996	0.20	0.20	0.00	0.20	0.00
		Rajendra Bhagvati	2010	0.05	2.80	0.00	2.80	2.75
		Rajendra Mahsuri 1	2007	9.45	10.53	0.00	10.53	1.08

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notificati on Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		Rajendra Nilam (RAU-1484-Aer- 04) (IET 24010)	2017	24.00	0.00	24.20	0.20	
		Rajendra Saraswati (IET 23423)	2020	20.00	0.00	20.80	0.80	
		Rajendra Suwasini	2007	0.60	0.00	7.23	6.63	
		Rajendra Sweta	2007	1.70	0.00	8.65	6.95	
		TCA-72 (Sudha) (IET 8977)	1989	0.60	0.00	2.05	1.45	
		TCA-80-4 (Rajshree) (IET 7970)	1989	0.20	0.00	7.15	6.95	
		Total		56.80	0.00	83.61	26.81	
36	CCSHAU, Hisar (Kaul)	Basmati 370	1973	15.00	0.00	10.00	-5.00	
		Haryana Basmati 2 (HKR 06-443)	2019	0.20	0.00	0.50	0.30	
		Total		15.20	0.00	10.50	-4.70	
37	SHUATS, Prayagraj	SHIATS Dhan 2 (AAIR 203)	2017	0.30	0.00	0.30	0.00	
		Total		0.30	0.00	0.30	0.00	
38	SKUAST K, Srinagar	Shalimar Rice 2	2015	1.00	0.00	3.00	2.00	
		Shalimar Rice 3	2015	0.32	0.00	1.00	0.68	
		Shalimar Rice 4 (SKUA-408)	2019	11.00	0.00	27.00	16.00	
		Shalimar Rice 5 (SKUA-402)	2019	1.00	0.00	1.60	0.60	
		Shalimar Rice 6 (SKUA-485)	2023	0.02	0.00	0.10	0.08	
		Shalimar Sugandh 1 (SKUA-494)	2022	0.03	0.00	3.00	2.97	
		Shalimar Rice 7	2024	0.60	0.00	1.00	0.40	
		Shalimar Rice 8	2024	0.30	0.00	0.50	0.20	
		Shalimar Rice 9	2024	0.30	0.00	1.50	1.20	
		Total		14.57	0.00	38.70	24.13	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notificati on Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
39	TNAU, Coimbatore	ADT (R) 45 (IET 15924)	2001	0.10	0.00	0.10	0.10	0.00
		ADT (R) 46	2005	0.20	0.00	0.20	0.20	0.00
		ADT 37	1989	0.65	0.00	0.65	0.65	0.00
		ADT 39	1989	0.90	0.00	0.90	0.90	0.00
		ADT 44	2000	0.00	0.00	0.00	0.00	0.00
		ADT 56 (IET 27920)	2022	10.00	6.00	4.00	10.00	0.00
		ADT 58 (AD 12132)	2023	0.30	0.00	0.30	0.30	0.00
		Rice ADT 57 (AD 09219)	2022	0.10	0.10	0.00	0.10	0.00
		ASD 16	1986	0.40	0.40	0.00	0.40	0.00
		ASD 17	1989	0.00	0.00	0.00	0.00	0.00
		ASD 18 (IET 11749)	1993	0.00	0.00	0.00	0.00	0.00
		ASD 21 (AS 15024)	2023	0.20	0.00	0.20	0.20	0.00
		CO 51	2017	7.25	0.00	7.50	7.50	0.25
		CO 55 (CB 15714) 4	2022	0.30	0.00	0.40	0.40	0.10
		CO 56 (CB12132)	2023	0.20	0.00	0.30	0.30	0.10
		CORH 1	1997	0.00	0.00	0.00	0.00	0.00
		Improved White Ponni	1989	0.20	0.00	0.30	0.30	0.10
		MDU 2 (9353)	1989	0.00	0.00	0.00	0.00	0.00
		Rice CR 1009 Sub1	2016	16.65	0.00	16.65	16.65	0.00
		TPS-1	1991	0.00	0.00	0.00	0.00	0.00
		Total		37.45	6.50	31.50	38.00	0.55
40	UAHS, Shivamoga	KHP 13 (Bharath) (IET 21479)	2018	0.25	0.25	0.00	0.25	0.25

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notification Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		Sahyadri Kempumukthi	2022	1.00	0.00	1.00	1.00	
		Sahyadri Panchmukhi	2021	0.50	0.00	0.50	0.50	
		Tunga (IET 13901)	2006	4.15	0.00	4.00	4.00	
		Total		5.90	0.00	5.75	5.75	
41	UAS, Bangalore	KMP 1 (Mandya Vani)	1984	0.00	0.00	0.00	0.00	
		KMP 220 (Mandya Jyothi)	2023	0.70	0.00	3.64	2.94	
		Thanu	2008	0.95	0.00	3.90	2.95	
	UAS, Bangalore (Mandya)	BR 2655	2006	1.35	0.00	5.08	3.73	
		Cauveri	1978	0.00	0.00	0.00	0.00	
		Karna (IET 7209)	1986	0.00	0.00	0.00	0.00	
		MSN 99 (Samruddhi) (Mandya Source Nursery)	2023	0.50	0.00	2.55	2.05	
		RM 1 (Mangala Mansuri) (IET 14083)	2002	0.20	0.00	0.00	-0.20	
		Total		3.70	0.00	15.17	11.47	
42	UAS, Dharwad (Mugad)	Intan	1992	1.00	0.00	6.00	5.00	
		KMD 2 (Abhilash)	1987	1.75	0.00	6.00	4.25	
		KPR 1 (IET 23077)	2016	0.00	0.00	0.00	0.00	
		Total		2.75	0.00	12.00	9.25	
43	UBKV, Pundibari	Parag 401 (PBNR-90-3-401)	2000	4.00	0.00	0.00	-4.00	
		Uttar Ganga (PUR-B-190) (IET 28840)	2024	1.30	0.00	5.00	3.70	
		Uttar Lakshmi (UBKVR-15) (IET 24173)	2020	0.45	0.00	6.50	6.05	
		Uttar Samir (PUR-B-36) (IET 26453)	2022	0.35	0.00	5.50	5.15	
		Uttar Sona (UBKVR -1) (IET 24171)	2019	0.65	0.00	6.00	5.35	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Centre	Variety	Notification Year	Indent (q)	Production (q)			Surplus/ Deficit (q)
					Kharif 2024	Expected Rabi/ Summer	Total	
		Uttar Sugandhi (UBKVRA-2) (IET 24616)	2022	0.20	1.00	0.00	1.00	0.80
		Total		6.95	24.00	0.00	24.00	17.05
44	VPKAS, Almora	VL Dhan 159 (VL 20083) (IET 26598)	2021	0.30	0.50	0.00	0.50	0.20
		VL DHAN 69 (IET 26596)	2021	1.60	3.00	0.00	3.00	1.40
		VL Dhan 70	2022	3.10	8.00	0.00	8.00	4.90
		VL Dhan 88 (VL 32224) (IET 25819)	2021	3.00	3.00	0.00	3.00	0.00
		Total		8.00	14.50	0.00	14.50	6.50
		Grand Total		2971.01	9186.22	1274.35	10454.34	7489.23

Annual Progress Report 2024 Vol. I – Varietal Improvement

VARIETY WISE BREEDER SEED PRODUCTION DURING KHARIF, 2024 (AS PER DAC INDENT)

Sl. No.	Variety	Notifica tion Year	Indent (q)	Production (q)			Surplus / Deficit (q)
				Kharif, 2024	Expect ed Rabi/ Summ er	Total	
1	Abhishek (RR-272-829) (IET 17868)	2007	0.10	0.00	0.00	0.00	-0.10
2	ADT (R) 45 (IET 15924)	2001	0.10	0.00	0.10	0.10	0.00
3	ADT (R) 46	2005	0.20	0.00	0.20	0.20	0.00
4	ADT 37	1989	0.65	0.00	0.65	0.65	0.00
5	ADT 39	1989	0.90	0.00	0.90	0.90	0.00
6	ADT 44	2000	0.00	0.00	0.00	0.00	0.00
7	ADT 56 (IET 27920)	2022	10.00	6.00	4.00	10.00	0.00
8	ADT 58 (AD 12132)	2023	0.30	0.00	0.30	0.30	0.00
9	Amulya (IET 8989)	1989	0.00	0.00	0.00	0.00	0.00
10	Anjali (RR-347-166) (IET 16430)	2002	0.40	5.00	0.00	5.00	4.60
11	ASD 16	1986	0.40	0.40	0.00	0.40	0.00
12	ASD 17	1989	0.00	0.00	0.00	0.00	0.00
13	ASD 18 (IET 11749)	1993	0.00	0.00	0.00	0.00	0.00
14	ASD 21 (AS 15024)	2023	0.20	0.00	0.20	0.20	0.00
15	Badshabhog Selection 1	2016	20.70	23.10	0.00	23.10	2.40
16	Bahadur Sub 1	2018	3.65	31.90	0.00	31.90	28.25
17	Basmati 370	1973	15.00	56.08	0.00	56.08	41.08
18	Bastar Dhan 1 (IET 26624)	2020	0.60	2.95	0.00	2.95	2.35
19	Bauna Kalanamak 101	2016	0.60	1.00	0.00	1.00	0.40
20	Bauna Kalanamak 102	2017	0.30	1.00	0.00	1.00	0.70
21	Bha Lum 1 (RCPL 1-27)	2003	0.30	0.50	0.00	0.50	0.20
22	Bha Lum 2 (RCPL 1-29)	2003	0.30	0.00	0.00	0.00	-0.30
23	Bhadra (MO 4)	1980	2.50	0.00	2.50	2.50	0.00
24	Bhogavati	2007	0.60	3.00	0.00	3.00	2.40
25	Bhupesh (IET 23324) (CN 1752-18-1-9-MLD19)	2019	0.20	0.45		0.45	0.25
26	Bidhan Suruchi (IET 25701)	2019	2.30	6.00	0.00	6.00	3.70
27	Bina Dhan 11	2015	21.00	0.00	25.00	25.00	4.00
28	Bina Dhan 17 GSR (SAGC7) (IET 24460)	2018	12.25	5.00	8.00	13.00	0.75
29	Birsa Vikas Dhan 111 (PY-84) (IET 19848)	2015	1.00	1.00	0.00	1.00	0.00
30	Birsa Vikas Sugandha 1 (IET 18941)	2015	5.00	9.90	0.00	9.90	4.90
31	BK 190	1983	0.00	0.00	0.00	0.00	0.00
32	BNKR 1 (Dhiren) (IET 20760)	2015	1.55	2.15	0.00	2.15	0.60
33	BNKR 2 (Dhruba)	2017	0.60	0.60	0.00	0.60	0.00
34	BNKR 3 (Sampriti) (IET 21987)	2016	0.10	0.26	0.00	0.26	0.16
35	BPT 2231 (Akshaya)	2011	0.30	0.50	0.00	0.50	0.20
36	BPT 2295 (Bapatla Mahsuri) (IET 22188)	2019	0.05	0.10	0.00	0.10	0.05

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Variety	Notifica tion Year	Indent (q)	Production (q)			Surplus / Deficit (q)
				Kharif, 2024	Expect ed Rabi/ Summ er	Total	
37	BPT 2411 (Sasya) (IET 23081)	2020	0.40	0.50	0.00	0.50	0.10
38	BPT 2595 (Teja) (IET 25486)	2020	0.65	0.75	0.00	0.75	0.10
39	BPT 2782 (Bhavathi) (IET 27124)	2020	1.00	1.20	0.00	1.20	0.20
40	BPT 3291 (Sonamasuri)	2005	0.30	0.50	0.00	0.50	0.20
41	BPT 5204 (Samba Mahsuri)	1989	84.60	85.00	0.00	85.00	0.40
42	BR 2655	2006	1.35	5.08	0.00	5.08	3.73
43	BRRI Dhan 75 (Hua 565) (IET 24459)	2018	0.05	0.00	5.00	5.00	4.95
44	Cauveri	1978	0.00	0.00	0.00	0.00	0.00
45	CG Barani Dhan 2 (R-RF-105) (IET 24690)	2021	0.60	7.22	0.00	7.22	6.62
46	CG Jawaphool Trombay (RTR-31)	2021	1.00	9.66	0.00	9.66	8.66
47	CG Tejaswi Dhan (IGKV DH Rice 1)	2021	1.00	13.45	0.00	13.45	12.45
48	Chhattisgarh Devbhog (R-1656-1146-5-513-1) (IET 23879)	2019	11.50	62.34	0.00	62.34	50.84
49	Chhattisgarh Dhan 1919	2021	2.20	13.45	0.00	13.45	11.25
50	Chhattisgarh Madhuraj Dhan 55	2016	5.30	18.00	0.00	18.00	12.70
51	Chhattisgarh Zinc Rice 1	2016	0.60	12.14	0.00	12.14	11.54
52	Chhattisgarh Zinc Rice 2 (CGZR-2) (IET 23829)	2019	0.60	11.40	0.00	11.40	10.80
53	Chingam	2006	0.30	0.00	0.00	0.00	-0.30
54	CNM-539 (Biraj)	1984	0.30	0.00		0.00	-0.30
55	CO 51	2017	7.25	0.00	7.50	7.50	0.25
56	CO 55 (CB 15714) 4	2022	0.30	0.00	0.40	0.40	0.10
57	CO 56 (CB12132)	2023	0.20	0.00	0.30	0.30	0.10
58	CORH 1	1997	0.00	0.00	0.00	0.00	0.00
59	CR 1009 sub1	2017	0.00	12.30	0.00	12.30	12.30
60	CR 1014	1989	0.30	0.70	0.00	0.70	0.40
61	CR Dhan 102 (IET 25121)	2020	2.80	0.00	0.90	0.90	-1.90
62	CR Dhan 108	2024	0.00	0.00	7.20	7.20	7.20
63	CR Dhan 202 (IET 21917)	2014	0.30	0.00	3.60	3.60	3.30
64	CR Dhan 203 (Sachala IET- 2717-10-IR 84899-B-185) (IET 22731)	2015	0.50	0.00	0.90	0.90	0.40
65	CR Dhan 204 (IET 21692)	2019	0.30	0.00	0.50	0.50	0.20
66	CR Dhan 205 (IET 22737)	2019	0.30	0.00	0.90	0.90	0.60
67	CR Dhan 206 (Gopinath) (CR 2996-1-14-29-3-1) (IET 22731)	2015	0.30	0.00	3.60	3.60	3.30
68	CR Dhan 212	2024	0.00	0.00	3.60	3.60	3.60
69	CR Dhan 300 (CR2301-5) (IET 19816)	2014	0.40	1.50	0.00	1.50	1.10
70	CR Dhan 301	2012	0.00	0.00	0.90	0.90	0.90
71	CR Dhan 305 (IET 21287)	2014	2.50	2.10	0.00	2.10	-0.40

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Variety	Notifica tion Year	Indent (q)	Production (q)			Surplus / Deficit (q)
				Kharif, 2024	Expect ed Rabi/ Summ er	Total	
72	CR Dhan 306 (IET 22084)	2019	0.30	0.35	0.00	0.35	0.05
73	CR Dhan 307 (Maudamani) (CR 2599) (IET 20925)	2015	0.30	1.70	0.00	1.70	1.40
74	CR Dhan 310	2022	10.85	0.00	18.00	18.00	7.15
75	CR Dhan 311 (Mukul) (CR 2829-PLN-100) (IET 24772)	2019	0.65	0.00	4.50	4.50	3.85
76	CR Dhan 312	2020	1.00	1.00	0.00	1.00	0.00
77	CR Dhan 314 (IET 27263)	2022	15.40	8.50	8.10	16.60	1.20
78	CR Dhan 315 (IET 27179)	2021	0.60	2.50	0.00	2.50	1.90
79	CR Dhan 316 (CRRI Gaurav-1)	2021	1.40	2.10	0.00	2.10	0.70
80	CR Dhan 317 (Roshan)	2021	1.30	0.85	0.00	0.85	-0.45
81	CR Dhan 318 (IET 27803)	2021	0.20	0.00	3.60	3.60	3.40
82	CR Dhan 319	2021	0.40	0.60	0.00	0.60	0.20
83	CR Dhan 320 (IET 27914)	2021	0.30	0.50	0.00	0.50	0.20
84	CR Dhan 321 (IET 28354)	2022	10.00	5.90	22.00	27.90	17.90
85	CR Dhan 323 (Jyotsna)	2023	0.70	0.70	0.90	1.60	0.90
86	CR Dhan 324 (Abhaya Paushtik)	2023	0.70	0.70	0.00	0.70	0.00
87	CR Dhan 326 (Panchatatva)	2023	0.70	0.50	0.00	0.50	-0.20
88	CR Dhan 327 (Madhumita)	2023	0.70		1.80	1.80	1.10
89	CR Dhan 328	2023	0.70	0.90	0.00	0.90	0.20
90	CR Dhan 407 (IET 21974)	2014	0.30	1.20	0.00	1.20	0.90
91	CR Dhan 408 (Chakaakhi) (CR491-1590-330-2-1) (IET 20265)	2018	0.30	0.90	0.00	0.90	0.60
92	CR Dhan 410 (IET 24471)	2020	0.10	0.50	0.00	0.50	0.40
93	CR Dhan 411 (Swaranjali) (IET 27852)	2021	1.30	14.70	0.00	14.70	13.40
94	CR Dhan 413 (Reeta-Panidhan)	2021	0.30	0.90	0.00	0.90	0.60
95	CR Dhan 414 (IET 27051)	2022	0.50	1.00	0.00	1.00	0.50
96	CR Dhan 416	2024	0.00	0.00	3.15	3.15	3.15
97	CR Dhan 507	2018	0.00	1.60	0.00	1.60	1.60
98	CR Dhan 508 (CR3835-1-7-2-1-1)	2017	0.40	1.50	0.00	1.50	1.10
99	CR Dhan 510 (CR 2593-1-1-1-1) (IET 23895)	2019	0.30	2.80	0.00	2.80	2.50
100	CR Dhan 511 (CR 2789-9-2) (IET 23906)	2019	0.20	0.60	0.00	0.60	0.40
101	CR Dhan 512 (Satrugan)	2021	0.30	0.70	0.00	0.70	0.40
102	CR Dhan 704 (Shyamdev)	2023	0.20	0.20	0.00	0.20	0.00
103	CR Dhan 800 (Swarna MAS) (CRMAS 2232- 85)	2018	3.65	6.00	0.00	6.00	2.35
104	CR Dhan 801 (IR96322-34-223-B-1-1-1-CR3955-2) (IET 25667)	2019	0.30	0.25	0.50	0.75	0.45
105	CR Dhan 802 (Subhas) (CR 3925-22-7) (IET 25673)	2019	5.30	5.00	0.90	5.90	0.60

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Variety	Notifica tion Year	Indent (q)	Production (q)			Surplus / Deficit (q)
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106	CR Dhan 803 (Trilochan) (IET 26398)	2021	10.30	18.60		18.60	8.30
107	CR Dhan 805 (Naveen Shakti)	2023	0.70	0.85	1.80	2.65	1.95
108	CR Dhan 806 (Varsadhan Sub 1)	2023	2.20	0.00	0.00	0.00	-2.20
109	CR Dhan 911 (Basudev)	2023	1.20	0.85	3.60	4.45	3.25
110	CR Sugandh Dhan 908	2017	0.00	1.40	0.00	1.40	1.40
111	CR Sugandh Dhan 909	2018	0.00	1.60	0.00	1.60	1.60
112	CR Sugandh Dhan 910 (CR 2713- 180) (IET 22649)	2018	0.20	0.00	0.00	0.00	-0.20
113	CR Sugandhdhan 3	2008	0.00	0.70	0.00	0.70	0.70
114	CR-36-148 (Supriya)	1997	0.20	0.20	0.00	0.20	0.00
115	CSR 76 (IET 27070)	2021	0.90	1.50	0.00	1.50	0.60
116	Dhanrasi (IET 15358)	2003	0.20	0.20	0.00	0.20	0.00
117	Dharitri (IET 6272)	1989	1.45	17.10	0.00	17.10	15.65
118	DRR Dhan 42 (IR 64 Drt I) (IR 87707-44-5-B-B-B)	2015	2.15	0.00	3.00	3.00	0.85
119	DRR Dhan 43 (IET 22080)	2015	25.10	0.00	30.00	30.00	4.90
120	DRR Dhan 45 (IET 23832) (RP5886-HP 3-IR80463-B39)	2016	13.40	6.00	8.00	14.00	0.60
121	DRR Dhan 46 (IET 23420)	2016	0.75	0.75	0.00	0.75	0.00
122	DRR Dhan 47 (IET 23356)	2018	0.10	0.15	0.00	0.15	0.05
123	DRR Dhan 48 (IET 24555)	2018	0.95	22.00	0.00	22.00	21.05
124	DRR Dhan 50 (IET 25671)	2018	10.60	12.00	0.00	12.00	1.40
125	DRR Dhan 51 (IET 25484)	2018	0.60	1.00	0.00	1.00	0.40
126	DRR Dhan 53 (RP-6113-Partho-BB9) (IET 27294)	2021	35.10	57.00	0.00	57.00	21.90
127	DRR Dhan 54 (RP 5943-421-16-1-1-B) (IET 25653)	2021	24.25	0.00	30.00	30.00	5.75
128	DRR Dhan 55 (RP 5591-123-16-2) (IET 26194)	2021	18.30	0.00	25.00	25.00	6.70
129	DRR Dhan 56 (IET 26803)	2021	0.40	15.60	0.00	15.60	15.20
130	DRR Dhan 57	2021	0.05	0.10	0.00	0.10	0.05
131	DRR Dhan 58	2021	0.10	3.00	0.00	3.00	2.90
132	DRR Dhan 59	2021	0.10	0.10	0.00	0.10	0.00
133	DRR Dhan 60	2021	0.70	1.00	25.00	26.00	25.30
134	DRR Dhan 63 (IET 26596)	2021	0.90	1.00	0.00	1.00	0.10
135	DRR Dhan 64 (IET 28358)	2022	18.00	0.00	25.00	25.00	7.00
136	DRR Dhan 65 (IET 27641)	2022	1.32	1.50	0.00	1.50	0.18
137	DRR Dhan 67 (BRRDhan 84)	2022	0.10	0.15	0.00	0.15	0.05
138	DRR Dhan 68 (BRRDhan 99)	2022	0.10	0.00	0.10	0.10	0.00
139	DRR Dhan 69 (BRRDhan 100)	2022	0.10	0.10	0.00	0.10	0.00

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Variety	Notifica tion Year	Indent (q)	Production (q)			Surplus / Deficit (q)
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140	DRRH 3 (DRRH 44)	2010	0.10	0.10	0.00	0.10	0.00
141	Dubraj Selection 1	2016	10.30	22.50	0.00	22.50	12.20
142	Garima	1982	0.00	0.00	0.00	0.00	0.00
143	Gautam B	1996	0.20	0.20	0.00	0.20	0.00
144	Gayatri (IET 8022)	1989	1.40	12.30	0.00	12.30	10.90
145	Geetanjali (CRM-2007-1) (IET 17276)	2006	0.10	0.50	0.00	0.50	0.40
146	Gitesh (TTB 283-1-26)	2017	1.90	26.40	0.00	26.40	24.50
147	GIZA 14	1978	6.00	6.00	0.00	6.00	0.00
148	GNR 5	2015	3.00	3.00	0.00	3.00	0.00
149	Gomati Dhan TRC-2005-1 (TRC-05-8-4-42-8-3-7) (IET 21512)	2018	0.40	4.50	0.00	4.50	4.10
150	Gontra Bidhan 1 (IET 17430)	2008	12.15	15.00	0.00	15.00	2.85
151	Gontra Bindhan 3 (IET 22752)	2014	5.40	7.00	0.00	7.00	1.60
152	Gosaba 5 (Chinsurah Nona-1) (IET 23403)	2016	0.05	0.60		0.60	0.55
153	GR 103	1992	0.02	0.02	0.00	0.02	0.00
154	GR 103	1992	0.00	0.00	0.00	0.00	0.00
155	Gujarat Anand Rice 13 (GAR 13) (IET 20930)	2010	1.70	1.70	0.00	1.70	0.00
156	Gujarat Anand Rice 14 (GAR 14) (IET 24619)	2018	5.70	5.70	0.00	5.70	0.00
157	Gurjari	1999	7.50	7.50	0.00	7.50	0.00
158	Haryana Basmati 2 (HKR 06-443)	2019	0.20	0.50	0.00	0.50	0.30
159	Hasanta (OR 2328-5) (IET 21477)	2018	1.20	14.00	0.00	14.00	12.80
160	Heera (IET 10973)	1989	0.00	0.00	0.00	0.00	0.00
161	Him Palam Dhan 1 (HPR 2656)	2020	0.50	9.50	0.00	9.50	9.00
162	HPR 1156 (IET 16007)	2004	0.20	0.40	0.00	0.40	0.20
163	HPR 2143	2006	3.35	9.54	0.00	9.54	6.19
164	HUR 917	2017	4.50	7.50	0.00	7.50	3.00
165	IET 1136	1978	0.20	0.00		0.00	-0.20
166	IGKVR 1 (IET 19569)	2011	23.60	63.00	0.00	63.00	39.40
167	IGKVR 2 (IET 19795)	2011	0.00	6.60	0.00	6.60	6.60
168	IGRKVR 1244 (R1244-1246-1-605-1) (IET 19796)	2012	0.30	9.00	0.00	9.00	8.70
169	Improved Chinnor	2018	20.00	9.27	0.00	9.27	-10.73
170	Improved Jeera Shankar	2018	1.20	6.89	0.00	6.89	5.69
171	Improved Lalat (CRMAS 2621-7-1)	2013	1.25	1.70	4.50	6.20	4.95
172	Improved Pusa Basmati 1 (IET 18990) (Pusa 1460-01-32-6-7-67)	2007	0.50	1.60	0.00	1.60	1.10
173	Improved Samba Mahsuri	2008	2.65	3.00	0.50	3.50	0.85
174	Improved White Ponni	1989	0.20	0.00	0.30	0.30	0.10

Annual Progress Report 2024 Vol. I – Varietal Improvement

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175	Indira Aerobic 1 (R1570-2649-1-1546-1) (IET 21686)	2015	11.00	9.00	0.00	9.00	-2.00
176	Indira Barani Dhan 1 (RF-17-38-70) (IET 21205)	2012	0.30	12.60	0.00	12.60	12.30
177	Indrayani (IET 12897)	1993	14.50	97.00	0.00	97.00	82.50
178	Indur Samba (PDR 763)	1998	0.20	0.03	0.00	0.03	-0.17
179	Intan	1992	1.00	6.00	0.00	6.00	5.00
180	IR 36	1982	2.50	22.50	0.00	22.50	20.00
181	IR 36	1982	0.00	31.29	0.00	31.29	31.29
182	IR 64	1991	50.65	84.00	0.00	84.00	33.35
183	IR 64	2020	0.00	62.77	0.00	62.77	62.77
184	IR 64 Sub 1 (IET 21247)	2020	15.10	36.36	0.00	36.36	21.26
185	Jagannath	1975	0.20	0.40	0.00	0.40	0.20
186	Jagtiala Vari 2	2023	0.20	0.20	0.00	0.20	0.00
187	Jaldi Dhan 13 (PNR-591-18)	2006	0.20	0.00	0.00	0.00	-0.20
188	Jammu Basmati 118 (SJBR 118)	2021	5.00	3.52	0.00	3.52	-1.48
189	Jarava (IET 15420)	2005	0.20	0.20	0.00	0.20	0.00
190	Jatiala Vari 3	2023	0.20	0.20	0.00	0.20	0.00
191	Jaya	1978	11.15	11.50	0.00	11.50	0.35
192	JB 123		0.00	0.72	0.00	0.72	0.72
193	JB 138		0.00	0.36	0.00	0.36	0.36
194	JGL 11118 (Anjana)	2019	0.20	0.20	0.00	0.20	0.00
195	JGL 11727 (Pranahitha)	2019	0.20	0.20	0.00	0.20	0.00
196	JGL 17004 (Prathyumna)	2019	0.20	0.20	0.00	0.20	0.00
197	JGL 1798	2004	12.30	12.30	0.00	12.30	0.00
198	JGL 18047 (Bathukamma)	2016	2.70	3.00	0.00	3.00	0.30
199	JGL 21078 (Telangana Vari 3) (IET 26125)	2021	0.25	0.30	0.00	0.30	0.05
200	JGL 3844 (Jagtial Samba)	2012	0.20	0.20	0.25	0.45	0.25
201	JGL24423 (Jagtiala Rice 1) (IET 25310)	2020	5.35	6.00	0.00	6.00	0.65
202	JR 10	2021	80.00	129.75	0.00	129.75	49.75
203	JR 206 (IET 26079)	2019	57.15	1425.82	0.00	1425.82	1368.67
204	JR 21 (JR 81-01)	2023	76.29	424.76	0.00	424.76	348.47
205	JR 81	2018	40.00	190.44	0.00	190.44	150.44
206	JRB 1	2018	0.00	22.08	0.00	22.08	22.08
207	Jyothi	1977	7.25	3.82	21.50	25.32	18.07
208	K 343		0.00	1.50	0.00	1.50	1.50
209	K 39		0.00	1.75	0.00	1.75	1.75
210	K 448		0.00	1.00	0.00	1.00	1.00

Annual Progress Report 2024 Vol. I – Varietal Improvement

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211	Kalachampa	2015	36.60	82.00	0.00	82.00	45.40
212	Kalanamak Kiran (PRDF-2-14-10) (IET 24753)	2019	3.00	3.00	0.00	3.00	0.00
213	Kali Khasa	2004	0.50	2.80	0.00	2.80	2.30
214	Kalinga Dhan 1203 (IET 27117)	2021	1.00	6.40	0.00	6.40	5.40
215	Kalinga Dhan 1204	2021	0.50	2.00	0.00	2.00	1.50
216	Kalinga Dhan 1205 (IET 22579)	2021	1.00	7.20	0.00	7.20	6.20
217	Kalinga Dhan 1401	2021	0.50	1.00	0.00	1.00	0.50
218	Kalinga Dhan 1501	2021	0.50	1.60	0.00	1.60	1.10
219	Kalinga Dhan 1502	2021	0.50	6.00	0.00	6.00	5.50
220	Kanak (BIET 1009)	1989	0.00	0.00	0.00	0.00	0.00
221	Karjat 1	1990	0.20	0.00	0.00	0.00	-0.20
222	Karjat 2	1996	0.20	3.50	0.00	3.50	3.30
223	Karjat 3	1996	4.30	13.50	0.00	13.50	9.20
224	Karjat 5	2007	0.40	2.50	0.00	2.50	2.10
225	Karjat 7	2009	1.00	6.50	0.00	6.50	5.50
226	Karjat 8	2017	0.20	3.50	0.00	3.50	3.30
227	Karjat 9	2017	0.20	6.70	0.00	6.70	6.50
228	Karna (IET 7209)	1986	0.00	0.00	0.00	0.00	0.00
229	Kasturi (IET 8580)	1989	1.25	6.20	0.00	6.20	4.95
230	KAU 87117 (Karuna)	2002	0.20	0.00	0.80	0.80	0.60
231	Kau Akshya (PTB 62) (Kau PTB 0615-01-25-17)	2021	0.20	0.00	0.80	0.80	0.60
232	Kau Manu Rathna (HS-16)	2021	0.15	0.93	0.50	1.43	1.28
233	Kau Pournami (MO 23)	2021	0.30	0.00	0.70	0.70	0.40
234	Kau Supriya (PTB 61) KAU PTB 0614-7-8-24 (Cul 06-6)	2021	0.20	0.00	0.25	0.25	0.05
235	KAUA 4-4-2 (Harsha)	2002	0.20	0.60	0.30	0.90	0.70
236	KAUM 42-6-3 (D1) (MO 16-Uma) (IET 14758)	2002	14.50	0.00	14.50	14.50	0.00
237	KAUM 59-29-2-1-2 (GM-1) (MO 13-Pavithra) (IET 13983)	2002	0.20	0.00	0.00	0.00	-0.20
238	KAUM 61-6-1-1-2 (GM-9) (MO 14-Pancham) (IET 14260)	2002	0.20	0.00	0.00	0.00	-0.20
239	Kau-VTL-10 (Lavanya) KAU VTL- 51-5	2021	0.20	0.00	0.20	0.20	0.00
240	Ketekijoha	2006	0.00	0.75	0.00	0.75	0.75
241	Ketekijoha (IET 18669)	2006	2.00	17.10	0.00	17.10	15.10
242	Khandagiri	1994	2.35	6.00	0.00	6.00	3.65
243	Kharavela (IET 13253)	1999	0.20	0.20	0.00	0.20	0.00
244	Khitish	1982	0.00	0.85	0.00	0.85	0.85

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Variety	Notifica tion Year	Indent (q)	Production (q)			Surplus / Deficit (q)
				Kharif, 2024	Expect ed Rabi/ Summ er	Total	
245	Khitish (IET 4094)	1984	4.45	6.00		6.00	1.55
246	KHP 13 (Bharath) (IET 21479)	2018	0.25	0.25	0.00	0.25	0.25
247	KMD 2 (Abhilash)	1987	1.75	6.00	0.00	6.00	4.25
248	KMP 1 (Mandya Vani)	1984	0.00	0.00	0.00	0.00	0.00
249	KMP 220 (Mandya Jyothi)	2023	0.70	3.64	0.00	3.64	2.94
250	KNM 118(Kunaram Sannalu)(IET 23748)	2016	0.30	0.30	0.00	0.30	0.00
251	KNM 1638 (Kunaram Vari 2)	2021	4.05	4.05	0.00	4.05	0.00
252	KNM 6965 (Telangana Rice 7) (IET 28343)	2022	0.10	0.10	0.00	0.10	0.00
253	KNM 7048 (Telangana Rice 6) (IET 28332)	2022	0.60	0.60	0.00	0.60	0.00
254	KNM 733 (Kunaram Rice 1) (IET 27405)	2020	0.35	0.35	0.00	0.35	0.00
255	Kotha Malagolukulu 72	1978	0.20	1.00	0.00	1.00	0.80
256	KPR 1 (IET 23077)	2016	0.00	0.00	0.00	0.00	0.00
257	Kranti (R-2022)	1982	5.15	1194.71	0.00	1194.71	1189.56
258	Lalat (IET 9947)	1989	11.65	15.00	0.00	15.00	3.35
259	Lallu 14	1976	0.20	2.00	0.00	2.00	1.80
260	Lam Pnah-1 (RCPL 1-87-4)	2003	0.20	0.00	0.00	0.00	-0.20
261	Luna Sampad (IET 19470)	2011	0.20	0.05	0.00	0.05	-0.15
262	Luna Sankhi	2013	0.50	0.30	1.80	2.10	1.60
263	Luna Suvarna (IET 18697)	2011	0.05	0.10	0.00	0.10	0.05
264	Lunisree	1992	0.10	0.10	0.00	0.10	0.00
265	Mahamaya	1996	107.10	189.90	0.00	189.90	82.80
266	Mahisagar (IET 22100)	2018	0.50	0.50	0.00	0.50	0.00
267	Mandakini (OR 2077-4) (IET 17847)	2011	0.40	1.50	0.00	1.50	1.10
268	Manisha (IET 23770) (CN-2015-5-4)	2019	0.10	0.40		0.40	0.30
269	Masuri	1978	0.60	0.60	0.00	0.60	0.00
270	MCM Rice 103	2023	1.10	1.10	0.00	1.10	0.00
271	MDU 2 (9353)	1989	0.00	0.00	0.00	0.00	0.00
272	MO 21 (P)	2010	1.10	0.00	1.10	1.10	0.00
273	MO 5	1984	0.20	0.00	0.00	0.00	-0.20
274	Mrunalini (OR 1898-18) (IET 18649)	2011	0.20	1.80	0.00	1.80	1.60
275	MSN 99 (Samruddhi) (Mandya Source Nursery)	2023	0.50	2.55	0.00	2.55	2.05
276	MTU 1001 (Vijetha)	1997	129.45	70.00	80.00	150.00	20.55
277	MTU 1010	2000	0.00	37.40	0.00	37.40	37.40
278	MTU 1010 (Cottondora Sannalu)	2000	157.60	160.00	0.00	160.00	2.40
279	MTU 1061 (Indra)	2007	7.10	62.00	0.00	62.00	54.90
280	MTU 1064 (Amara)	2010	8.20	17.40	0.00	17.40	9.20
281	MTU 1075 (IET 18482)	2008	12.25		25.00	25.00	12.75

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Variety	Notifica tion Year	Indent (q)	Production (q)			Surplus / Deficit (q)
				Kharif, 2024	Expect ed Rabi/ Summ er	Total	
282	MTU 1121 (Sri Dhruthi)	2016	12.95	90.00	60.00	150.00	137.05
283	MTU 1140 (Bheema/Dheera)	2017	3.40	5.00	0.00	5.00	1.60
284	MTU 1153 (Chandra) (IET 23409)	2016	37.30	100.00	75.00	175.00	137.70
285	MTU 1155 (Samvrudhhi) (IET 23272)	2019	1.10	2.00	0.00	2.00	0.90
286	MTU 1156 (Tarangini)	2017	122.50	122.00	100.00	222.00	99.50
287	MTU 1172 (IET 24495) (Ksheera)	2019	0.60	0.00	2.00	2.00	1.40
288	MTU 1190 (Varam) (IET 25495)	2019	0.20	0.00	2.00	2.00	1.80
289	MTU 1210 (Maruteru Sujatha) (IET 2s305)	2020	2.30	0.00	4.00	4.00	1.70
290	MTU 1212	2021	15.00	10.00	10.00	20.00	5.00
291	MTU 1223 (IET 25856)	2021	0.65	2.00	0.00	2.00	1.35
292	MTU 1224 (Maruteru Samba) (IET 26225)	2020	15.25	45.00	45.00	90.00	74.75
293	MTU 1239	2021	20.60	20.00	5.00	25.00	4.40
294	MTU 1262 (Maruteru Mahsuri) (IET 27151)	2020	9.30	70.00	70.00	140.00	130.70
295	MTU 1280	2021	0.10	0.00	5.00	5.00	4.90
296	MTU 1281	2021	0.20	0.00	2.00	2.00	1.80
297	MTU 2077 (Krishnaveni)	1990	0.60	6.00	0.00	6.00	5.40
298	MTU 5182 (Nandi)	1993	0.00	0.00	0.00	0.00	0.00
299	MTU 6024	1985	0.00	0.00	0.00	0.00	0.00
300	MTU 7029 (Swarna)	1985	260.85	265.00	0.00	265.00	4.15
301	MTU Rice 1232 (IET 26422)	2023	0.20	0.00	2.00	2.00	1.80
302	MTU Rice 1239 (IET 26263)	2021	0.20	20.00	5.00	25.00	24.80
303	MTU Rice 1271 (IET 27416)	2024	0.05	0.00	15.00	15.00	14.95
304	MTU Rice 1273	2022	0.40	0.00	4.00	4.00	3.60
305	MTU Rice 1293	2022	0.30	10.00	15.00	25.00	24.70
306	MTU Rice 1310	2022	0.10	0.00	2.00	2.00	1.90
307	MTU RICE 1318 (IET 28527)	2023	42.05	100.00	0.00	100.00	57.95
308	MTU Rice 1321	2022	0.15	0.00	2.00	2.00	1.85
309	Muktashree (IET 21845)	2019	0.15	1.00		1.00	0.85
310	Naveen (CR-749-20-2) (IET 14461)	2006	0.40	0.00	0.90	0.90	0.50
311	NDLR 7 (Nandyala Sona) (IET 23715)	2018	1.00	18.00	0.00	18.00	17.00
312	NDR 1	1983	0.00	0.00	0.00	0.00	0.00
313	NDR 1045-2 (Shusk Samrat) (IET 17458)	2007	0.00	0.00	0.00	0.00	0.00
314	NDR 2065 (IET 17476)	2011	2.00	29.75	0.00	29.75	27.75
315	NDR 3112-1 (Narendra Dhan 3112-1 Prakhar) (IET 19335)	2009	0.90	0.90	0.00	0.90	0.00
316	NDR 359 (Narendra Dhan-359)	1994	0.20	30.34	0.00	30.34	30.14
317	NDR 9930111 (IET 19117)	2021	10.00	24.75	0.00	24.75	14.75
318	NLR 33358 (Somasila)	2000	0.20	1.00	0.00	1.00	0.80

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Variety	Notifica tion Year	Indent (q)	Production (q)			Surplus / Deficit (q)
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319	NLR 3354	2020	0.05	0.00	2.00	2.00	1.95
320	NLR 33641 (Vedagiri)	2000	0.20	1.00	0.00	1.00	0.80
321	NLR 33892 (Pardhiva)	2007	0.65	4.00	0.00	4.00	3.35
322	NLR 4001 (Nellore Siri) (IET 25273)	2020	0.15	0.00	2.00	2.00	1.85
323	NLR 40024	2021	0.60	0.00	1.00	1.00	0.40
324	NLR 40054 (Nellore Sugandha) (IET 23194)	2020	0.10	0.00	1.00	1.00	0.90
325	NLR-34449 (Nellore Mahsuri)	2010	37.70	0.00	100.00	100.00	62.30
326	Nua Chinikamini	2010	0.00	0.90	0.00	0.90	0.90
327	Nua Kalajeera	2008	0.00	0.15	0.00	0.15	0.15
328	Numali (IET 27405)	2020	2.00	18.95	0.00	18.95	16.95
329	OUAT Kalinga Rice 1 (Kolab)	2023	0.50	7.00	0.00	7.00	6.50
330	OUAT Kalinga Rice 2 (Salandi)	2023	0.50	5.00	0.00	5.00	4.50
331	OUAT Kalinga Rice 5 (Nabanna)	2023	4.00	0.00	8.00	8.00	4.00
332	OUAT Kalinga Rice 6 (Bhargavi)	2023	0.50	1.00	0.00	1.00	0.50
333	OUAT Kalinga Rice 7 (Barunei)	2023	0.70	1.40	0.00	1.40	0.70
334	OUAT Kalinga Rice 8 (Surya Shree)	2023	0.70	0.00	0.00	0.00	-0.70
335	Padmini (IET 10561)	1989	0.60	0.45	0.00	0.45	-0.15
336	Pant Basmati 1 (RP 36444-1-9-5-5)	2015	0.20	8.00	0.00	8.00	7.80
337	Pant Basmati 2 (IET 21953)	2015	0.20	2.40	0.00	2.40	2.20
338	Pant Dhan 18 (IET 17920) (UPRI 99-1)	2007	0.45	5.49	0.00	5.49	5.04
339	Pant Dhan 24 (IET 22096)	2015	0.40	9.25	0.00	9.25	8.85
340	Pant Dhan 26 (UPR 3425-14-3-1)	2017	5.30	5.85	0.00	5.85	0.55
341	Parag 401 (PBNR-90-3-401)	2000	4.00	0.00	0.00	0.00	-4.00
342	Parijat (IET 2684)	1985	2.15	1.80	0.00	1.80	-0.35
343	PDKV Kisan (SKL-22-39-31-25-31-34)	2018	0.20	28.34	0.00	28.34	28.14
344	PDKV Sadhana	2023	0.20	5.00	0.00	5.00	4.80
345	PDKV Tilak (SYE-503-78-34-2)	2019	2.00	181.80	0.00	181.80	179.80
346	Phule Samruddhi (VDN-99-29)	2010	0.80	2.00	0.00	2.00	1.20
347	PKV HMT	2008	43.00	51.60	0.00	51.60	8.60
348	Pooja (IET 12241)	1999	7.85	30.00	0.00	30.00	22.15
349	PR 113	2001	0.49	60.00	0.00	60.00	59.51
350	PR 114	2001	7.20	55.00	0.00	55.00	47.80
351	PR 118	2007	0.48	12.00	0.00	12.00	11.52
352	PR 121 (RYT 3240)	2015	0.58	30.00	0.00	30.00	29.42
353	PR 122 (RYT 3129)	2015	1.24	22.00	0.00	22.00	20.76
354	PR 126 (RYT 3379) (IET 24721)	2018	18.84	28.00	0.00	28.00	9.16
355	PR 127 (RYT 13316)	2020	1.00	10.00	0.00	10.00	9.00

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Variety	Notifica tion Year	Indent (q)	Production (q)			Surplus / Deficit (q)
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356	PR 128 (RYT 3437)	2021	2.35	18.00	0.00	18.00	15.65
357	PR 129 (RYT 3468)	2021	0.08	18.00	0.00	18.00	17.92
358	PR 130 (PRYT 3797)	2023	3.98	12.00	0.00	12.00	8.02
359	PR 131	2024	0.00	30.00	0.00	30.00	30.00
360	Prabhat	1978	1.90	10.00	8.00	18.00	16.10
361	Pradhan Dhan (CR 409) (CR 2690-2- 2-1-1-1) (IET 23110)	2018	0.20	8.00	0.00	8.00	7.80
362	Pratibha (OR 2172-7) (IET 21582)	2018	0.20	0.20	0.00	0.20	0.00
363	Pratikshya (ORS 201-5) (IET 15191)	2006	9.71	30.00	0.00	30.00	20.29
364	Protezin (R-RHZ-R-56) (IET 25470)	2020	3.00	17.72	0.00	17.72	14.72
365	PTB 51 (Aathira)	2006	0.35	0.00	1.00	1.00	0.65
366	Punjab Basmati 7	2022	0.48	30.00	0.00	30.00	29.52
367	Purna (IET 18654)	2017	0.20	0.00	0.00	0.00	-0.20
368	Purnendu (IET 10029)	1997	0.00	0.00	0.00	0.00	0.00
369	Pusa 1460	2007	0.00	2.30	0.00	2.30	2.30
370	Pusa 1509	2013	0.00	16.07	0.00	16.07	16.07
371	PUSA 44	1994	0.00	0.00	0.00	0.00	0.00
372	Pusa 6 (Pusa 1612-7-6-5)	2013	1.00	4.00	0.00	4.00	3.00
373	Pusa Basmati 1	1989	0.00	252.91	0.00	252.91	252.91
374	Pusa Basmati 1 (IET 10364)	1989	1.16	8.00	0.00	8.00	6.84
375	Pusa Basmati 1121 (Pusa Sugandh 4)	2005	50.50	24.50	0.00	24.50	-26.00
376	Pusa Basmati 1121 (Pusa Sugandh 4)		0.00	20.00	0.00	20.00	20.00
377	Pusa Basmati 1509	2013	30.24	20.00	0.00	20.00	-10.24
378	Pusa Basmati 1692 (IET 26995)	2020	22.80	20.00	0.00	20.00	-2.80
379	Pusa Basmati 1718	2017	39.70	20.00	0.00	20.00	-19.70
380	Pusa Basmati 1728	2016	3.10	4.00	0.00	4.00	0.90
381	Pusa Basmati 1847	2021	20.42	22.00	0.00	22.00	1.58
382	Pusa Basmati 1882 (IET 28788)	2022	7.40	7.40	0.00	7.40	0.00
383	Pusa Basmati 1885	2021	4.90	5.00	0.00	5.00	0.10
384	Pusa Basmati 1886	2021	2.76	4.00	0.00	4.00	1.24
385	Pusa Basmati 1979	2021	5.53	7.00	0.00	7.00	1.47
386	Pusa Basmati 1985	2021	13.62	14.12	0.00	14.12	0.50
387	Pusa Basmati 6 (IET 18005)	2010	1.90	17.80	0.00	17.80	15.90
388	Pusa CRD Kalanamak-2	2023	0.00	14.10	0.00	14.10	14.10
389	Pusa CRD KN2 (Pusa1638-07-171-1-81-1-2)	2023	1.05	1.50	0.00	1.50	0.45
390	Pusa Narendra Kalanamak-1	2023	0.00	29.40	0.00	29.40	29.40
391	Pusa Narendra KN1 (Pusa1638-07-130-2-67-1-1)	2023	1.10	1.50	0.00	1.50	0.40

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Variety	Notifica tion Year	Indent (q)	Production (q)			Surplus / Deficit (q)
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392	Pusa Samba 1850 (Pusa 1850-27) (IET 25480)	2018	0.10	13.00	0.00	13.00	12.90
393	Pusa Samba 1853 (IET 28014)	2022	0.10	5.00	0.00	5.00	4.90
394	Pusa Sugandh 5 (IET 17021)	2005	0.50	4.20	0.00	4.20	3.70
395	Pusa Sugandha 4	2005	0.00	45.91	0.00	45.91	45.91
396	Pusa Sugandha 5	2005	0.00	7.74	0.00	7.74	7.74
397	Raja Vadlu	1995	0.20	0.00	0.00	0.00	-0.20
398	Rajendra	1978	0.20	0.20	0.00	0.20	0.00
399	Rajendra Bhagvati	2010	0.05	2.80	0.00	2.80	2.75
400	Rajendra Mahsuri 1	2007	9.45	10.53	0.00	10.53	1.08
401	Rajendra Nilam (RAU-1484-Aer- 04) (IET 24010)	2017	24.00	24.20	0.00	24.20	0.20
402	Rajendra Saraswati (IET 23423)	2020	20.00	20.80	0.00	20.80	0.80
403	Rajendra Suwasini	2007	0.60	7.23	0.00	7.23	6.63
404	Rajendra Sweta	2007	1.70	8.65	0.00	8.65	6.95
405	Rani Dhan (IET 19148)	2009	0.95	0.80	0.00	0.80	-0.15
406	Ranjeet	1994	2.80	43.70	0.00	43.70	40.90
407	Ranjit SUB 1	2018	7.80	120.70	0.00	120.70	112.90
408	Ratna	1970	0.00	0.00	0.50	0.50	0.50
409	Ratnagiri 1	1990	0.30	9.00	0.00	9.00	8.70
410	Ratnagiri 2	1990	0.50	0.23	0.00	0.23	-0.27
411	Ratnagiri 6 (RTN 65-1-2-2-2) (IET 25529)	2019	0.20	5.40	3.00	8.40	8.20
412	Ratnagiri 68-1	1986	0.00	0.00	0.00	0.00	0.00
413	Ratnagiri 8 (RTN 28-1-5-3-2) (IET 25493)	2019	2.25	13.00	8.00	21.00	18.75
414	Reeta (IET 19969)	2011	0.20	0.40	0.00	0.40	0.20
415	RGL 2537 (Srikakulam Sannalu)	2000	2.20	45.00	0.00	45.00	42.80
416	Rice ADT 57 (AD 09219)	2022	0.10	0.10	0.00	0.10	0.00
417	Rice CR 1009 Sub1	2016	16.65	0.00	16.65	16.65	0.00
418	RM 1 (Mangala Mansuri) (IET 14083)	2002	0.20	0.00	0.00	0.00	-0.20
419	RNR 15048 (Telangana Sona) (IET23746)	2016	54.95	45.75	10.00	55.75	0.80
420	RNR 2354 (Shobhini) (IET 21260)	2014	6.20	0.00	4.00	4.00	-2.20
421	RNR 2458 (Krishna) (IET 21492)	2019	0.20	0.20	0.00	0.20	0.00
422	RNR 2465 (Sugandha Samba)	2011	0.10	0.10	0.00	0.10	0.00
423	RNRM 7 (Early Sambha)	2001	0.30	0.00	0.00	0.00	-0.30
424	RP-732	1995	0.20	0.00	0.00	0.00	-0.20
425	Sabita (IET 8970)	1987	0.70	2.00		2.00	1.30
426	Sabour Deep (RAU 3055)	2017	15.00	30.00	30.00	60.00	45.00
427	Sabour Harshit Dhan (IET 25342)	2020	24.00	70.00	70.00	140.00	116.00

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Variety	Notifica tion Year	Indent (q)	Production (q)			Surplus / Deficit (q)
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428	Sabour Sampanna Dhan (IET 25960)	2021	24.00	130.00	130.00	260.00	236.00
429	Sahbhagi Dhan (IET 19576) (IR74371-70-1-1-CRR-1)	2011	3.85	11.40	2.70	14.10	10.25
430	Sahyadri Kempumukthi	2022	1.00	1.00	0.00	1.00	1.00
431	Sahyadri Panchmukhi	2021	0.50	0.50	0.00	0.50	0.50
432	Sakoli 7 (IET 10651)	1990	0.20	0.80	0.00	0.80	0.60
433	Sakoli 9 (SKL-2-50-56-45-30-60)	2019	0.20	59.80	0.00	59.80	59.60
434	Sampada (IET 19424)	2008	1.20	1.50	0.00	1.50	0.30
435	Sarjoo-52	1982	0.50	117.25	0.00	117.25	116.75
436	Sarla CR-260-77 (IET 10279)	2002	1.20	15.30	0.00	15.30	14.10
437	Satya	1988	0.20	0.00	0.00	0.00	-0.20
438	Savitri (CR 1009) (IET 5897)	1983	0.65	4.20	0.00	4.20	3.55
439	Shah Sarang 1 (RCPL 1-87-8)	2003	0.20	1.00	0.00	1.00	0.80
440	Shalimar Rice 2	2015	1.00	3.00	0.00	3.00	2.00
441	Shalimar Rice 3	2015	0.32	1.00	0.00	1.00	0.68
442	Shalimar Rice 4 (SKUA-408)	2019	11.00	27.00	0.00	27.00	16.00
443	Shalimar Rice 5 (SKUA-402)	2019	1.00	1.60	0.00	1.60	0.60
444	Shalimar Rice 6 (SKUA-485)	2023	0.02	0.10	0.00	0.10	0.08
445	Shalimar Rice 7	2024	0.60	1.00	0.00	1.00	0.40
446	Shalimar Rice 8	2024	0.30	0.50	0.00	0.50	0.20
447	Shalimar Rice 9	2024	0.30	1.50	0.00	1.50	1.20
448	Shalimar Sugandh 1 (SKUA-494)	2022	0.03	3.00	0.00	3.00	2.97
449	Shatabdi	2000	0.00	1.90	0.00	1.90	1.90
450	Shatabdi (IET 4786)	2000	16.95	18.50		18.50	1.55
451	SHIATS Dhan 2 (AAIR 203)	2017	0.30	0.30	0.00	0.30	0.00
452	Shyamla	1997	0.00	6.23	0.00	6.23	6.23
453	Sidhanta (ORS-102-4) IET 15296)	2006	0.20	0.00	0.20	0.20	0.00
454	Sita	1978	0.10	0.00	0.00	0.00	-0.10
455	Sukumar (IET 21261)	2020	0.40	1.50		1.50	1.10
456	Surendra (IET 12815)	1999	0.60	0.30	0.00	0.30	-0.30
457	Swarna Purvi Dhan 1	2023	0.20	2.40	0.00	2.40	2.20
458	Swarna Purvi Dhan 2	2023	0.20	4.00	0.00	4.00	3.80
459	Swarna Purvi Dhan 3 (IET 28014)	2022	30.90	31.10	0.00	31.10	0.20
460	Swarna Shakti Dhan (RCPF-22-IR84899-B-183-20-1-1-1) (IET 25640)	2020	25.00	25.20	0.00	25.20	0.20
461	Swarna Shreya (IET 24003)	2018	2.00	17.40	0.00	17.40	15.40
462	Swarna Shusk Dhan	2023	1.10	4.50	0.00	4.50	3.40
463	Swarna Smridhhi Dhan (IET 24306)	2021	29.40	42.30	0.00	42.30	12.90

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Variety	Notifica tion Year	Indent (q)	Production (q)			Surplus / Deficit (q)
				Kharif, 2024	Expect ed Rabi/ Summ er	Total	
464	Swarna Unnat Dhan (IET 27892)	2021	30.00	30.30	0.00	30.30	0.30
465	Swarna-SUB 1 (CR 2539-1) (IET 20266)	2009	101.85	160.50	0.00	160.50	58.65
466	Swetha (IET 14735)	2006	0.60	0.10	0.80	0.90	0.30
467	SYE-ER-1 (IET 9296)	1990	0.20	0.20	0.00	0.20	0.00
468	Tarunbhog Selection 1	2016	5.30	15.60	0.00	15.60	10.30
469	TCA-72 (Sudha) (IET 8977)	1989	0.60	2.05	0.00	2.05	1.45
470	TCA-80-4 (Rajshree) (IET 7970)	1989	0.20	7.15	0.00	7.15	6.95
471	Tellahamsa	1975	0.70	0.00	0.70	0.70	0.00
472	Thanu	2008	0.95	3.90	0.00	3.90	2.95
473	TPS-1	1991	0.00	0.00	0.00	0.00	0.00
474	Tripura Chikan Dhan	2018	0.20	4.20	0.00	4.20	4.00
475	Tripura Nirog	2018	0.10	4.20	0.00	4.20	4.10
476	Trivani (PTB 38)	1973	0.20	0.15	0.20	0.35	0.15
477	Trombay Chattisgarh Vikram - TCR (Vikram)	2021	6.00	48.56	0.00	48.56	42.56
478	Trombay Chhattisgarh Dubraj Mutant 1 (TCDM-1) (IET 23829)	2019	3.00	18.38	0.00	18.38	15.38
479	Trombay Chhattisgarh Sonagathi mutant (TCSM)	2021	1.00	7.88	0.00	7.88	6.88
480	Trombay Chhattisgarh Vishnubhog mutant (TCVM)	2021	1.00	12.47	0.00	12.47	11.47
481	Trombay Karjat Kolam (BARCKKV 13) (IET 27000)	2020	0.20	1.20	0.00	1.20	1.00
482	Tunga (IET 13901)	2006	4.15	4.00	0.00	4.00	4.00
483	Upahar (OR 1234-12-1) (IET 17318)	2006	0.80	6.20	0.00	6.20	5.40
484	Uttar Ganga (PUR-B-190) (IET 28840)	2024	1.30	5.00	0.00	5.00	3.70
485	Uttar Lakshmi (UBKVR-15) (IET 24173)	2020	0.45	6.50	0.00	6.50	6.05
486	Uttar Samir (PUR-B-36) (IET 26453)	2022	0.35	5.50	0.00	5.50	5.15
487	Uttar Sona (UBKVR -1) (IET 24171)	2019	0.65	6.00	0.00	6.00	5.35
488	Uttar Sugandhi (UBKVRA-2) (IET 24616)	2022	0.20	1.00	0.00	1.00	0.80
489	Vajram	1987	0.00	0.00	0.00	0.00	0.00
490	Vallabh Basmati 24 (MAUB-171) (IET 20827)	2015	0.20	0.50	0.00	0.50	0.30
491	Vandana (RR-167-982)	2002	0.60	4.50	0.00	4.50	3.90
492	Varsha (PTB 56)	2006	0.10	1.62	0.00	1.62	1.52
493	Varshadhan (CRLC-899) (IET 16481)	2006	2.10	2.00	0.00	2.00	-0.10
494	Vibhava (IET 6080)	1991	0.20	0.20	0.00	0.20	0.00
495	Vikas	1983	0.20	0.20	0.00	0.20	0.00
496	Vikramarya (IET 7302)	1986	0.20	0.20	0.00	0.20	0.00
497	Virender (RR 347-2) (IET 17901)	2007	0.20	0.00	0.00	0.00	-0.20

Annual Progress Report 2024 Vol. I – Varietal Improvement

Sl. No.	Variety	Notifica tion Year	Indent (q)	Production (q)			Surplus / Deficit (q)
				Kharif, 2024	Expect ed Rabi/ Summ er	Total	
498	Vishnubhog Selection 1	2016	5.30	16.50	0.00	16.50	11.20
499	VL Dhan 159 (VL 20083) (IET 26598)	2021	0.30	0.50	0.00	0.50	0.20
500	VL DHAN 69 (IET 26596)	2021	1.60	3.00	0.00	3.00	1.40
501	VL Dhan 70	2022	3.10	8.00	0.00	8.00	4.90
502	VL Dhan 88 (VL 32224) (IET 25819)	2021	3.00	3.00	0.00	3.00	0.00
503	WGL 1487 (Telangana Vari 8) (IET 28818)	2022	0.10	0.00	0.10	0.10	0.00
504	WGL 20471 (Erra Mallelu)	1993	1.95	0.00	1.95	1.95	0.00
505	WGL 32100 (Warangal Sannalu) (IET 18044)	2007	0.10	0.00	0.10	0.10	0.00
506	WGL 3962	1999	0.20	0.00	0.20	0.20	0.00
507	WGL 44 (Siddhi) (IET 19387)	2013	0.20	0.20	0.00	0.20	0.00
508	WGL 48684 (Kavya)	1993	0.80	0.00	0.80	0.80	0.00
509	WGL 697 (IET 26027)	2021	0.25	0.00	0.25	0.25	0.00
510	WGL 915 (Warangal Rice 1) (IET 25284)	2020	0.10	0.10	0.00	0.10	0.00
511	WL 13400	1978	0.20	0.00	0.20	0.20	0.00
512	Zinco Rice MS	2019	5.60	9.00	0.00	9.00	3.40
	Grand Total		2971.01	9186.2	1274.35	10460.6	7495.46

MONITORING OF AICRPR TRIALS 2024

The monitoring teams comprising of scientists from IIRR, CRRI and IARI visited physically to different AICRIP centres during kharif 2024. The information received from field monitoring and evaluation of AICRIP trial across different zones of India, coordinated from IIRR and zone wise proceedings of the monitoring compiled is presented below:

Multi-disciplinary teams of IIRR, CRRI and IARI for monitoring of coordinated trials and breeder seed production, kharif 2024

Zones	Crop Improvement	Crop Protection	Crop Production	Locations
Zone-I	Dr. Divya Balakrishnan (IIRR)	--	--	Malan, Palampur, Sundernagar, Bherdin
Zone II North Western-1	Dr. G. Padmavathi (IIRR) Dr. Haritha B (IARI) Dr. Prolay B (IARI)	Dr. K Basavaraj (IIRR)	Dr. R. Gobinath (IIRR)	Chatha, IARI, New Delhi, Pantnagar and Almora
Zone II North Western-2	Dr MS Anantha (IIRR) Dr Parameswaran (CRRI)	Dr. A P Padmakumari (IIRR)	Dr. Gopalakrishnan S. (IARI)	Ludhiana, Kapurthala, Gurdaspur, Rauni, Kaul and Karnal
Zone-V Central-1	Dr Divya Balakrishnan (IIRR)	Dr Chinna Babu Naik (IIRR)	Dr. Sanjeeva Rao D (IIRR)	Sakoli, Sindewahi
Zone V Central-2	Dr.Jyothi Badri, (IIRR)	Dr. MS Prasad (IIRR)	Dr. P Raghuvveer Rao (IIRR)	Raipur, Jabalpur and Rewa
Zone VI Western-1	Dr. Suvarna Rani C, (IIRR) Dr. K. Sruthi (IIRR)	Dr. Satish C. (IIRR)	Dr.Brajendr (IIRR),	Navasari, Vyara, Dabhoi, Nawagam, Derol,
Zone VI Western-2	Dr. P. Revathi (IIRR) Dr.S L. Krishnamurthy, (IIRR) Dr. Devanna (CRRI)	Dr.G.S. Laha,	B. Sreedevi Dr. Bandeppa S	Vadagaon, Karjat, Lonavala, Panvel, Shirgaon, Goa & Radhanagari
Zone VII (Southern 2)	Dr. Suneetha Kota (IIRR) Dr. Senguttuvel (IIRR)	Dr. N. Somasekhar, Dr. Ladhalakshmi	Dr. P. Muthurama, Dr. P.C. Latha	Trichy, Aduthurai, Karaikal, Puducherry
Zone VII (Southern	Dr. A.S. Hari Prasad, (IIRR)	Dr. Ch. Padmavathi	Dr. B. Sreedevi(IIRR)	Gangavathi, Mugad, Sirsi,

Annual Progress Report 2024 Vol. I – Varietal Improvement

3)	Dr. Kalyani M B (IIRR)	(IIRR)	Dr Akshay Sakhare (IIRR)	Brahmavar, Ponnampet and Mandya
Zone VII (Southern 4)	Dr. SV Sai Prasad (IIRR) Dr. Papa Rao V (IIRR)	Dr. G Jesu Das (IIRR) Dr. P. Kartikeyan (IIRR)	Dr. Arun Kumar (IIRR) Dr. Mangal Deep T (IIRR)	Rajendranagar, Warangal, Kunaram, Jagtial, Kampasagar
Zone VII (Southern 5)	Dr J Aravind Kumar (IIRR) Dr. Kempa Raju (IIRR)	Dr Y Sridhar (IIRR)	Dr. BB Panda (CRRI) Dr. V Manasa (IIRR) Dr. Arun Kumar (IIRR)	Bapatla, Maruteru Machilipatnam, , Ragolu & Naira

Annual Progress Report 2024 Vol. I – Varietal Improvement

Zone-I (Hills)

Team Members: Dr. Divya Balakrishnan, Sr. Scientist, Plant Breeding, ICAR-IIRR

Centres visited: Malan, Palampur, Sundernagar, Bhertin

Malan

Among the 4 breeding trials allotted all trials AVT 1& IVT-E-H, AVT 1& IVT-M-H, AVT 1& IVT-U-H, AVT1 J (H) were carried out. The trials were conducted as per recommendations however sufficient area (<10m²) was not followed in some of the trials due to small plots in the hilly terrain. False smut and brown spot disease was observed across the entries and blast was not observed in this season.

Palampur

one breeding trials was allotted AVT 1& IVT-E-H, and plot size was less as per the recommendation as the plots were of small size in the farm. Crop performance was very good; however, some entries were affected by wild boar damage. Many entries were lodging and severe stemborer damage and neck blast incidence were observed.

Sundernagar

Among the 3 breeding trials allotted all trials AVT 1& IVT-E-H, AVT 1& IVT-M-H AVT 1& IVT-U-H, are carried out. All trials were carried out in low plot size less than 2.5m² due to small plots available as stepwise fields. Many of the lines lodged, harvested, and having false smut damage. Station trials on private hybrids were showed excellent performance at this centre.

Bhertin

Only one trial was allotted, AVT 1& IVT-U-H and the complete trial was vitiated due to non-availability of water. No entries including local check survived even though they followed the recommended plot size and other requirements. It was also suggested to double the seed quantity per entry to cover 10 m² plot size. This location is not suitable for rice crop or rice trial and no trial may be allotted further.



Annual Progress Report 2024 Vol. I – Varietal Improvement

Zone-II (North Western 1)

Team Members: Dr. G. Padmavathi, PS Plant Breeding, ICAR- IIRR
Dr. R. Gobinath, Scientist, Plant Biotechnology, ICAR-IIRR
Dr. K Basavaraj Scientist, Plant Pathology, ICAR-IIRR
Dr. L. Behera Principal Scientist, Biotechnology, CRRI
Dr. Haritha B, Scientist, Genetics, IARI
Dr. Pralay Bhowmick, Senior scientist, Genetics, IARI

Centres visited: Chatha, IARI, Pantnagar and Almora (21-10-2024 to 26-10-2024)

Chatha, Jammu (SKUAST-J)

Eight varietal trials (AVT 2 &1- IME, IVT-IME, AVT2 &1- IM, IVT- IM, AVT 2 & 1 -Late and IVT-Late, IVT-colored rice and DSR) were conducted. Five Agronomy, 8 Plant Pathology and 8 Entomology conducted. All trials were executed well per the technical program. Brown spot infestation across the trials and the transplanting method performed better than the DSR conditions.

IARI, New Delhi

A total of 5 plant breeding trials namely IHRT E, IHRT-ME, IVT-coloured rice and Special trial on Biofortification and DSR are conducted at IARI in addition to two Basmati trials (IVT-Bt, AVT-1-Bt). Crop growth is good. Incidence of Brown spot, blast and BPH appeared very severe. Several entries exhibited segregation for grain type, plant height and flowering in AVT-1 and IVT basmati trials. A high disease pressure of sheath blight was seen different lines inoculated.

GBPUAT, Pantnagar

12 AICRPR trials conducted as per the guidelines. False smut disease is rampant in the trials. Seven agronomy trials, 3 soil science, 4 physiology, 14 plant pathology and 22 entomology trials conducted. In natural farming trial, more YSB infestation was observed. Physiological characterization of genotypes for multiple abiotic stress conducted. Incidence of sheath blight, BLB, false smut, brown spot and yellow stem borer, leaf folders insect-pests have been observed.

ICAR-VPKAS, Almora

Four trials of plant breeding (AVT 1 & IVT-E (H), AVT 2 & 1 & IVT- M (H), AVT 1 & IVT-U (H) and IVT-coloured) are conducted at Almora. Trial conduct is good and grown as per the guidelines. Crop is severely affected by BPH and brown spot. Incidence of leaf and node blast disease is also recorded.



Annual Progress Report 2024 Vol. I – Varietal Improvement

Zone-II (North Western 2)

Team Members: Dr. MS Anantha Sr. Scientist, Plant Breeding, ICAR- IIRR
Dr A P Padmakumari, Pr. Scientist, Entomology, ICAR- IIRR
Dr. Gopalakrishnan S, PS and Head, Genetics ICAR-IARI
Dr. Parameswaran Biotechnologist, ICAR-CRRI, Cuttack

Centres visited: Ludhiana, Kapurthala, Rauni, Kaul and Karnal (6 to10 October 2024)

PAU Ludhiana

A total of 17 trials were allotted of which 16 trials were conducted. All the plots were well managed, weed free and expression of genotypes was up to their genetic potential. False smut was severe in hybrid trials where as Bakanae was more predominant in Basmati trials. DSR and aerobic trials were well conducted with proper package of practices.

Kapurthala and Rauni

IVT Bt and AVT Bt trials were conducted and the crop stand and expression of the entries was excellent. BPH incidence was more in many genotypes.

RARS, Kaul

All the allotted trials in breeding were conducted except NIL and GEL trial. Overall the crop was in good condition. Lodging was observed in few entries due to heavy rain during first week of October. Plot size and lay out was done as per the recommendation. This year there is high incidence of stem borer in all the trials.

CSSRI, Karnal

All the allotted trials of breeding were conducted as per the recommendation. Expression of genotypes in DSR and aerobic was moderate to due late sowing. In IVT and AVT, AL STVT genotypic differences in microplot for salinity and sodicity was very clear. In salinity trials leaf folder incidence was high.



Annual Progress Report 2024 Vol. I – Varietal Improvement

Zone-V (Central)

Team Members: Dr Divya Balakrishnan, Sr. Scientist, Plant Breeding, ICAR-IIRR
Dr Chinna Babu Naik, Sr. Scientist, Entomology, ICAR-IIRR
Dr. Sanjeeva Rao D, Sr. Scientist, Biochemistry ICAR-IIRR

Centres visited: Sakoli and Sindewahi (13.10.2024 to 15.10.2024)

Sakoli

Among the 11 breeding trials allotted all trials are conducted and 2 hybrid rice trials were conducted as per recommendations and crop stand was very good. Heavy Incidence of false smut, leaf folder and stem borer across the breeding trials was observed. six entomology trials were conducted as per protocol. The incidence of BPH, gall midge, Stem borer, leaf folder, false smut and BLB incidence was observed in all the genotypes at Sakoli station.

Sindewahi

A total of 14 breeding trials along with 4 hybrid rice trials were conducted. Hybrid trials showed an excellent performance with several high yielding entries. All the trials were conducted as per recommendations and were weed free. In Sindewahi no entomology trial was allotted but the incidence of Stem borer and leaf folder and BPH was observed.



Zone V (Central)

Team Members: Dr.Jyothi Badri, Sr Scientist (Plant Breeding, ICAR-IIRR)
Dr. MS Prasad, Principal Scientist & Head (Pathology),
Dr. P Raghuv eer Rao, Principal Scientist & Head (Physiology)

Centres visited: Raipur, Jabalpur and Rewa (28-29/10/2024) & (4/11/2024 to 7/11/2024)

Raipur

All the allotted breeding trials are well conducted following appropriate plot size as per the guidelines. High incidence of false smut was observed in few entries. Mutation breeding is

Annual Progress Report 2024 Vol. I – Varietal Improvement

undertaken for several of the important and popular traditional aromatic landraces to improve plant type and yield and reduce plant height.

Jabalpur

All the breeding trials are well conducted and most of the entries in almost all the trials are at grain hardening stage to maturity. Major focus at this Centre is on hybrid rice. The IIRR team interacted with the farmers and also took part in the ‘Rice Day’ activities of the Centre.

Rewa

Rewa is a funded Centre with a major focus on upland trials. In advanced trials of aerobic ecology, there was no germination in entry no. 4102. In IVT-DSR, entry 6028 appeared to have mixtures and there was no germination in entry no. 6044. Entries 6011, 6041, 6040, 6039, 6038, 6036, 6035, 6034 and 6032 were with poor phenotypic acceptability. In NIL-Drought trial, 5905 and 5912 appeared non-uniform, 5901 was with poor phenotypic acceptability.



Zone VI (Western-1)

Team Members: **Dr. Suvarna Rani C**, Scientist, Plant Breeding ICAR-IIRR
Dr. Brajendra, PS, Soil Science, ICAR-IIRR
Dr. Satish Chavan, Scientist, Entomology ICAR-IIRR
Dr. K. Sruthi, Scientist, Hybrid Rice ICAR-IIRR

Centres visited: Navasari, Vyara, Dabhoi, Derol, Nawagam (24.10.2024 to 29.10.2024)

Navasari

22 varietal trials and two hybrid rice trials (IHRT-M and IHRT-MS) conducted. In IHRT-M, the entry number 3014 was observed with 50% spikelet sterility. All the 6 trials of Agronomy conducted. High infestations of stem borer and moderate infestation of leaf folder observed in the entomology Trials. All the trials were conducted properly and overall performance of the trials was good.

Vyara

Six breeding trials and two hybrid rice trials (IHRT-E, IHRT-ME). Root system architecture studies and seed production farm at Musa, Vyara conducted. Overall conduct and performance of the trials were good.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Dabhoi

Varietal trials were not conducted. Monitored four hybrid rice trials (IHRT-E, IHRT-ME, IHRT-M and IHRT-MS). Majority of the entries were observed with severe incidence of false smut. In IHRT-M, entries 3017 and 3028 were noted to have less than 50% spikelet fertility, while entry 2813 in IHRT-E also displayed similar issues. Additionally, entry 3107 was observed with a 10% mixture in IHRT-MS.

Derol

six varietal trials (IVT EDS, IVT Aerobic, AVT2&1 Aerobic) at Derol. Overall conduct of the trial was good.

Nawagam

Fifteen varietal trials along with four hybrid trials (IHRT-E, ME, M and MS) were conducted. Performance of the trials was very good. All 13 Entomology trials were conducted as per the technical program The population of planthoppers and leaf folders was low despite augmentation efforts. All allotted Plant Pathology trials were successfully conducted. Screening trials, and artificial inoculation of leaf and neck blast, as well as BLB, was carried out in their respective screening trials.

Zone VI (Western-2)

Team Members: **Dr. P. Revathi**, Sr. Scientist, Plant Breeding ICAR-IIRR
Dr. S. L. Krishnamurthy, Sr. Scientist, Pl. Breeding ICAR-IIRR
Dr. B. Sreedevi, PS, Agronomy ICAR-IIRR
Dr.G.S. Laha, PS, Plant Pathology ICAR-IIRR
Dr. Bandeppa S, Scientist, Microbiology ICAR-IIRR
Dr. Devanna, Scientist, Plant Biotechnology, ICAR-CRRI

Centres visited: Vadagaon, Lonavala, Karjat, Panvel, Shirgaon, Radhanagari and ICAR-CCARI, Goa (13.10.2024 to 20.10.2024)

Vadagaon

AICRPR Voluntary Centre conducted six trials viz. All the trials were laid out as per the instruction received from IIRR and conducted very well. Five trials of AICRPR Agronomy conducted. There were no trials on Plant Pathology and Entomology. There was severe incidence of bacterial blight in some of the seed production and experimental plots.

Lonavala

This Centre is hot spot for rice blast disease. 13 trials of Plant Pathology conducted as per technical program. Leaf blast screening was conducted under UBN (uniform blast nursery). Breeder seed production of Phule Samruddhi, and Kajrat 8 was undertaken.

Karjat

A total 27 breeding trials and 4 hybrid rice trials were conducted. All the trials were laid out as per the instruction received from IIRR. The trial conduct and field maintenance was excellent. A total 9 Agronomy trials, 3 plant physiology and 15 trials in plant pathology and 7

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entomology trials conducted. There was severe incidence of bacterial blight in different plots. Incidence of leaf folder in the entomology trials was high.

Panvel

It is a voluntary centre for conducting coastal salinity trials. At Panvel IVT-CSTVT, AVT-1 & AVT-2 and Salinity NIL trials were conducted. Due to heavy rainfall the salinity stress level was less in the AICRPR trials.

Shirgaon

It is a AICRPR voluntary centre conducted Plant Breeding trials viz., IHRT-Medium, IHRT-MS, AVT2 & 1 late, AVT 2 & 1 Medium, IVT-E TP, AVT 2 & 1 MS, IVT-1 Medium, AVT2 & 1 NIL were monitored. Due to high rainfall, high organic matter & fertile soil, the crop is healthy. There was severe incidence of sheath blight in different fields.

Radhanagari

ARS Radhanagari voluntary Centre conducted the AICRPR trials viz., IVT-E, IVT-ME, IVT-MS, AVT1 & 2 E TP, AVT 1 & 2 ME, AVT 1 & 2 MS, IHRT-E and IHRT-ME. All the trials were very well laid out and conducted as per the instruction received from IIRR. There was one special trial on false smut screening with 175 entries. However, the incidence of false smut this year was low.

ICAR-CCARI, Goa

AICRPR trials namely IVT-1 CSTVT, AVT 1 & 2 CSTVT, AVT 2 NIL CSTVT trials were conducted in the research farm as well as in the farmer's fields adjacent to sea in the saline soils. There was no major incidence of pests and diseases.

Zone VII (Southern 2)

Team Members: **Dr. Suneetha Kota**, Sr. Scientist, Plant Breeding, ICAR-IIRR
Dr. P. Muthuraman, PS & Head, TTT, ICAR-IIRR
Dr. N. Somasekhar, PS, Nematology, ICAR-IIRR
Dr. Senguttuvel, Sr. Scientist, Hybrid Rice, ICAR-IIRR
Dr. P.C. Latha, PS, Microbiology, ICAR-IIRR
Dr. Ladhakshmi, Sr. Scientist, Plant Pathology, ICAR-IIRR

Centres visited: Trichy, Aduthurai, Karaikal & Puducherry (16-12-2023 to 21-12-2024)

Trichy

Two stress trials namely AVT -2 & 1 Alkaline and Inland Saline Tolerant Variety Trial (AVT2 & 1 AL & ISTVT) and IVT- Alkaline and Inland Saline Tolerant Variety Trial (IVT-AL & ISTVT) trials were conducted. The stress level of EC2.1 dSm-1 and pH of 8.5 was recorded. The experimental layout, randomization of entries was done according to the prescribed guidelines.. The diseases like bacterial blight is prevalent in this region.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Aduthurai

Eighteen trials conducted including hybrid rice trials of IHRT-E and IHRT-ME. At the time of visit of monitoring team, early and mid-early trials were harvested, medium, late trials, MS trial, Biofortification trials and colored rice trials monitored. All the allotted breeding trials conducted as the prescribed guidelines. The layout of the experiment and plot size of each entry as well as the field experiments maintained are highly commendable. The team also visited the farmers field and monitored the IPM trial demonstrated.

Karaikal

A total of 17 AICRIP trials including hybrid trials conducted at this center. physiology submergence trial among the 29 entries, entry 504 exhibited the survival after 14 days of submergence. Four Plant Pathology trials (Leaf blast – NSN-1; Neck Blast – NSN-1; Bacterial blight – NSN-1, Biocontrol trial against fungal diseases) were conducted.

Puducherry

At KVK, during cyclone FENGAL in the first week of December, 2024 with extensive down pour of torrential rain and floods caused extensive damage to AICRIP trials. Very severe flooding in AVT 2 &1 NIL & GEL, IVT - MS, IVT - DSR, AVT 2&1 IM, IVT- IM, IVT - IME. Severely flooded trial: AVT - Late and IVT - Late. Partially flood affected trials: AVT 2&1- IME and AVT 2&1- MS. With respect to diseases, general incidence of bacterial blight was observed in the farmer's field.



Zone VII (Southern 3)

Team members: Dr. A.S. Hari Prasad, PS, Hybrid Rice ICAR-IIRR
Dr. Kalyani M B, Sr Scientist, Biotechnology ICAR-IIRR
Dr. B. Sreedevi, PS, Agronomy ICAR-IIRR
Dr Akshay Sakhare, Sr. Scientist, Plant Physiology, ICAR-IIRR
Dr CH. Padmavathi, PS, Entomology ICAR-IIRR

Centers visited: Gangavathi, Mugad, Sirsi, Brahmavar, Ponnampet and Mandya

Annual Progress Report 2024 Vol. I – Varietal Improvement

Gangavathi

All the trials were conducted as per the technical programme. The IVT trials were conducted in two replications. In AVT trials, missing entries / not germinated entries were observed. False smut heavy infestation was recorded. The salinity trials were conducted in a separate place nearby to the main fields.

Mugad

All the trials were conducted. The DSR trials were conducted as DSR irrigated, DSR M, DSR LATE.

Sirsi

All the trials were conducted perfectly as per the technical programme and layout were as prescribed. The special trial on bio fortification was also conducted properly.

Brahmavar

Of the 17 plant breeding trials (15 – plant breeding; 2 – hybrid rice), 16 trials were monitored. These trials were conducted as per the given technical programme. The trial viz., AVT 2&1 L was damaged due to the floods and hence, not conducted.

Ponnampet

Four trials viz., AVT 1& IVT E(H); IVT-R-DS-M; AVT 1(RSL); IVT(RSL) were monitored and trials were conducted as per the given technical programme.

Mandya

Of the 24 plant breeding trials (20 – plant breeding; 4 – hybrid rice), all the plant breeding trials; IHRT-E; IHRT-ME; IHRT-M and IHRM-MS were monitored. These trials were conducted as per the given technical programme.



Annual Progress Report 2024 Vol. I – Varietal Improvement

Zone VII (Southern 4)

Team Members: Dr. S V Sai Prasad, PS & Head, Plant Breeding, ICAR- IIRR
Dr. Papa Rao V, Scientist (Plant Biotechnology, ICAR-IIRR
Dr. G Jesu Das, Scientist, Plant Pathology, ICAR-IIRR
Dr. Mangal Deep Tuti, Sr. Scientist, Agronomy ICAR-IIRR
Dr. Arun Kumar, Sr. Scientist, TTT, ICAR-IIRR
Dr. Prabhu Kartikeyan, Scientist, Plant Pathology CRRRI Cuttack

Centres visited: Rajendranagar, Warangal, Kunaram, Jagtial and Kampasagar

Rajendranagar

Eleven trials out of 14 trials were conducted viz., IVT(MS), AVT-1&2 (MS), IVT-(IME), AVT-1&2 (IME), IVT-(IM), AVT-1&2 (IM), IVT-(L), AVT-1&2 (L), IVT-Bio-fortification, AVT-1&2 (Bio-fortification) and AVT1& IVT- AGT, laid as per the AICRIP guidelines and the expression of the entries and overall performance of the trials was very good. A total of six agronomy, 11 pathology 12 entomology trials were conducted as per the technical programme. In the initial phase of crop growth there was a heavy incidence of leaf folder and later on most of the entries had recovered completely.

IIRR, Hyderabad

Four Nutrient Use Efficiency trials were conducted viz., IVT (LPT), AVT (LPT), IVT (LNT) and AVT (LNT) and trials were monitored. All the trials were laid as per the AICRIP guidelines and the expression of the entries was good.

Warangal

Fourteen trials were conducted which includes 10 breeding trials - IVT-(L), AVT-1&2 (L), IVT-(IM), AVT-1&2 (IM), IVT(MS), AVT-1&2 (MS), IVT(ETP), AVT-1&2 (ETP), IVT-(IME), AVT-1&2 (IME), NIL-GEL, and four hybrid trials IHRT-E, IHRT-M, IHRT-ME, IHRT-MS. A total of five agronomic trials were conducted. In each trial, overall conduct of the trial, promising, poor performance, and segregants/identified. In entomology, ten trials were conducted Pest incidence of, stem borer, Gall midge, BPH and leaf folder was observed and found to be low to moderate.

Kunaram

Four trials were conducted i.e., IVT-(ETP), AVT-1&2 (ETP), IVT-(IME) and AVT-1&2 (IME). All the trials (4) are laid as per the AICRIP guidelines and the expression of the entries and overall performance of the trials was very good. In each trial, promising, poor performance, and segregants/offtypes were observed and noted.

Kampasagar

Four trials out of 10 were conducted i.e., IVT-(ETP), AVT-1&2 (ETP), IVT-(AL&ISTVT) and AVT-1&2 (AL&ISTVT). The other trials are not conducted as they are not indented and existing irrigation sources are not sufficient to irrigate the trials. Further there is late release of canal water. Four trials are laid as per the AICRIP guidelines and the expression of the entries and overall performance of the trials was normal.

Annual Progress Report 2024 Vol. I – Varietal Improvement

ARI, Jagtial:

Two trials out of 7 were conducted i.e., IVT-(ETP) and AVT-1&2 (ETP). The other trials are not conducted due to water shortage. The trials are laid as per the AICRIP guidelines and the expression of the entries and overall performance of the trials was normal.



Zone VII (Southern 5)

Team Members: **Dr J Aravind Kumar** PS, Plant Breeding, ICAR- IIRR
Dr Y Sridhar PS, Entomology, ICAR-IIRR
Dr. Kempa Raju Sr. Scientist, Plant Pathology, ICAR-IIRR
Dr. V Manasa Scientist, Soil Science ICAR-IIRR
Dr. Arun Kumar, Senior Scientist, TTT, ICAR-IIRR
Dr. BB Panda, PS Agronomy, NRRI, Cuttack

Centres visited: Bapatla, Machilipatnam, Maruteru, Ragolu & Naira (07/11/2024 to 12/11/2024)

Bapatla

Seven trials were allotted and all the trials are well conducted following the technical program with proper replications They have planted all the trials in Dry DSR method. Incidence of blast, false smut and leaf folder observed. In the DSR trial, low tillering was observed for majority of the entries. In the NIL/GEL trial, less number of plants per entry was observed owing to the damage caused by heavy rains. Seed production block of BPT 2841 (black rice) and BPT 2858 (red rice) taken up.

Machilipatnam

Three trials were allotted. Due to heavy rainfall of 366 mm from 30-08-24 to 09-09-24, the experimental nursery was inundated and several entries in the nursery were completely damaged. In addition, the survival % of entries was 26-80% in AVT 1 CSTVT; 30-82% in IVT – CSTVT; and 20-60% in AVT 1 – NIL CST. In all the trials, number of rows and plot size was not maintained as the number of plants were reduced to rain damage. Forced exertion of panicle was observed in IVT – CSTVT, due to stress.

Maruteru

Twenty-five trials (21 varietal & 4 hybrid trials) were allotted. All the trials were conducted successfully. Few entries across trials were lodged owing to rains and some due to drone damage. All the trials maintained the plot size and design as instructed by ICAR-IIRR. AVT 1 NIL-Sub, had very low survival % across the replications. The mean highest rate of

Annual Progress Report 2024 Vol. I – Varietal Improvement

survival was 13%.. Grain type mixtures (5902 & 5921) and germination failure in several entries (5904, 5916, 5917, 5924, 5931 & 5937) was observed in AVT - NIL & GEL trial.

Ragolu

Nine trials were allotted to and all the trials were conducted successfully. Several entries in different trials were lodged owing to heavy rains. In addition, grain discoloration along with vivipary and rat damage was observed.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Insect pest and disease reaction of entries in National Screening Nursery – 1 (NSN1), Kharif 2024

Trial name and IET No.	Disease reaction		Pest reaction	
	Resistant	Moderate resistant	Resistant	Moderate resistant
AVT 2 & 1 ETP				
30555(H)		LB,NB,GD	CW	
30561 (H)		LB,NB,GD		PH
30565(H)		LB,NB,GD		
30636	GD	LB,NB,SR	WM	PH
30641		LB,NB,BR,SR,GD		
30642		LB,NB,GD		
30651		LB,NB,GD		
30656		LB,NB,SR		
30657		LB,GD	CW	
30669		LB,NB,GD		
30690		LB,NB,SR,GD		
29694		LB,NB,SR,GD		
29700		LB,SR,GD		
31433 (H)		LB,NB		
31434 (H)		LB,NB,GD		
31435 (H)		LB,NB		
31436 (H)		LB,NB		
CO-51 (NC)		LB,GD,RTD		
31437 (H)		LB,NB,SR,GD		
31440 (H)		LB,NB,SR,GD		
MTU 1153 (ZC)		LB,NB,SR,GD	PH	
31444 (H)		LB,NB,GD	PH	
31501		LB,NB,GD		
30505		LB,NB,SR,GD		WBPH
31509		LB,NB,BR,SR,GD		WBPH, PH
31510		LB,NB,RTD		WBPH, PH
31512		LB,NB,GD		WBPH, PH
31515		LB,NB,RTD		WBPH, PH
31519		LB,NB		PH
31533		NB,GD		
31540		LB,NB,GD	PH	
31550		SR,GD		
31552		LB,NB,GD,RTD		
US 314 (HC)		LB,NB,SR,GD		
31553		LB,NB,BLB,SR		WBPH
31557		LB,GD	PH	
30568		LB,NB,GD,RTD		
30681		LB,NB,GD		WBPH
30635		LB,NB,SR,GD		PH
30653		LB,GD		
30660		LB,NB,GD	CW	
30668		GD	CW	
30671		LB,GD	CW	PH.
30674		LB,NB,GD	CW	WBPH,PH
30679		LB,NB,GD,RTD	CW	
30572		LB,NB,SR		
30688			PH	
30687		LB		
30661		LB,GD,RTD		
30637		LB,RTD		
30638		LB,GD		
30677		SR,GD		
30643		LB,SR,GD		
30686		LB,NB,SR		
30640		LB,NB,RTD		WBPH
30683		LB,SR		WBPH
30659 (R)		LB,NB		
30647 (R)		GD		WBPH

Trial name and IET No.	Disease reaction		Pest reaction	
	Resistant	Moderate resistant	Resistant	Moderate resistant
AVT 2 & 1 (IME)				
30573 (H)		LB,NB,GD,RTD		
30574(H)		LB,NB,SR,GD		
30575 (H)		LB,NB,GD		
30576(H)		LB,NB,GD		
30577		LB,NB,SR,GD		
30578 (H)		LB,NB,SR,GD		
30579 (H)		LB,NB,GD		
30587(H)		LB,NB,GD		
30589 (H)		LB,NB,GD		
30593(H)		LB,NB,GD,RTD		
30704		LB,GD		
31608		LB,NB,SR,GD,RTD		
30556 (H)		LB,NB,GD		
30558 (H)		LB,NB,SR		
30649		LB,NB,SR		
30692		LB,NB,GD		
30713		LB,NB,SR,GD		
Gontra Bidhan-3 (NC)		LB,NB,GD		
31447 (H)		LB,NB,SR,GD		
31448 (H)		LB,NB,SR		
MTU 1010 (ZC)		LB,NB,GD		
31449 (H)		LB,NB	CW	
31603		LB,NB,GD	CW	
31452 (H)		LB,NB,SR	CW	
31456 (H)		LB,NB,GD	CW	
31460 (H)		LB,BR,SR,GD	CW	
31461 (H)		LB,NB,SR,GD		
31462 (H)		LB,NB,RTD		
US 312 (HC)		LB,NB,SR,GD		
31466 (H)		LB,NB,GD		
31469 (H)		LB,NB,GD		
31611		LB,SR,GD		PH
31572		LB,NB,GD	PH	
31582		LB,NB,SR		PH
31587		LB		
31589		LB,NB,SR,GD,RTD		
31594		LB,NB,GD,RTD		
30756		SR,GD,RTD		
AVT 2 & 1 (IM)				
30603 (H)	NB	LB,BLB,SR	CW	
30613(H)		LB,NB,BR,GD	CW	PH
30608 (H)		LB,NB,RTD	CW	
HRI 174 (HC)		LB,NB,SR,GD	CW	
30617 (H)	NB	LB,SR,RTD	CW	
30605 (H)		LB,NB,BLB,SR,GD		
30772		LB,NB,BR,GD		
30604 (H)		LB,NB,BR,SR,GD,RTD		
30819		BR,SR,GD,RTD		
31623		LB,SR,GD		
31483 (H)		LB,NB		
31618		LB,NB,SR,GD		
29877 (R)		NB,SR		
31629		LB,NB,SR		
31472 (H)		NB,SR,GD,RTD		
31478 (H)		GD		PH
PR 121 (ZC)		LB,NB,RTD		
31644		LB,RTD		
31480 (H)		LB,NB,BLB,SR,GD		PH

Annual Progress Report 2024 Vol. I – Varietal Improvement

Trial name and IET No.	Disease reaction		Pest reaction	
	Resistant	Moderate resistant	Resistant	Moderate resistant
AVT 2 & 1 (IM)				
31633	GD	LB,NB,SR	PH	
31473 (H)		LB,NB		PH
29860 (R)		NB,GD		PH
31637		LB,NB,SR,GD		
31490 (H)		LB,NB,SR		
31639		LB,NB,SR,GD	PH	
31492 (H)		LB,NB,SR,GD,RTD		
31641		LB,NB,GD	PH	
31476 (H)		LB,GD		
NDR 359 (NC)		LB,GD		
31643		LB,NB,SR,GD		
31479 (H)		LB,NB,SR,GD		BPH
31619		NB,SR,GD,RTD	PH	
31654		LB,NB,GD	CW	
31471 (H)		LB,NB,BLB,SR,GD		
31630		LB,NB,BR,SR		PH
31673		NB,GD		PH
31659		LB,NB,SR,GD		PH
31638		LB,NB,SR,GD		PH
31672		SR		PH
31481 (H)		LB,BR,RTD		PH
31640		LB,NB,SR,GD,RTD		
AVT 2 & 1 (Late)				
31678		LB,NB,SR,GD,RTD		
31680		LB,NB,SR,RTD		PH
Swarna (NC)		LB,NB,BR,SR,GD		BPH
31686 (H)		LB,NB,SR		
31689		LB,NB,BLB,SR,GD		PH
Pusa 44 (ZC)		LB,NB,SR,GD	PH	
31693		LB,NB,SR,GD,RTD		PH
31709 (H)		LB,NB,BLB,SR		BPH,PH
31714 (H)		LB,NB,SR,GD,RTD	PH	BPH
PA 6444 (HC)		LB,NB,BLB,SR,GD		
31715		LB,NB,SR,GD,RTD		PH
31726		LB,SR,GD	PH	
31731		LB,NB,SR,RTD		
30882 (H)		LB,NB,SR,GD		
29891 (R)		LB,NB,SR		
31733	NB	LB,BR,SR,RTD		
AVT 2 & 1 - Aerob				
30919 (H)		LB,NB,GD		
PA-6129 (HC)		LB,NB,GD		
30893 (R)		LB,NB,GD,RTD		
31779		LB,NB,SR,GD		
30932 (R)		NB,GD,RTD		PH
30928 (R)		NB		
31784				
30934(R)		NB,SR,GD,RTD		
30907(R)		LB,NB,GD		
CR Dhan 201 (NC)		LB,NB,RTD		
30911(R)		LB,GD		
30910 (R)		LB,NB,GD		
30904 (R)		LB,NB,GD,RTD		
30045 (R)		LB,NB,GD		PH
31740		LB,NB		
31741		LB,NB,GD		PH
31757		LB,NB,SR		
31759		LB,GD	PH	
31760		LB,NB,GD		PH
CR-Dhan202 (ZC)		LB,NB		

Trial name and IET No.	Disease reaction		Pest reaction	
	Resistant	Moderate resistant	Resistant	Moderate resistant
AVT 2 & 1 - Aerob				
31787		NB,GD		PH
31761		LB,NB		PH
31783		LB,NB,GD		
31765		LB,GD		PH
31770		LB,GD,RTD		PH
31775		LB,GD		
31790		LB,NB,GD		PH
DRR Dhan 54 (NC)		LB,NB,SR,GD,RTD		PH
31777		LB,NB,GD,RTD		
31778		LB,NB,GD		
AVT 2 & 1 (MS)				
29019		LB,NB,SR,GD,	CW	
30957		GD,		
30622		SR,GD,		
WGL -14 (NC-MD)		NB,SR,GD,RTD		
30961		LB,NB,SR,		
31001		NB,SR,GD,		
31494 (H)				
27P63 (HC)		LB,NB,SR,RTD		
31496 (H)		LB,NB,GD,		
31795		NB,SR,GD,		PH
ISM (ZC)		BR,GD,		
31804		LB,RTD		
31806		LB,NB,GD,		
31808		LB,NB,BLB,SR,GD,		PH
BPT 5204 (NC-LD)		LB,NB,SR,GD,RTD		
31820		LB,NB,GD,RTD		
31822		LB,NB,BLB,SR,		PH
Telangana Sona (NC-ED)		NB,		
31835		NB,GD,		
31839		NB,GD,		
31850		SR,GD,RTD		
31827		NB,GD,		
31802		LB,NB,SR,GD,		
31002 (R)		LB,NB,GD,		
30989		LB,NB,GD,		
31816		GD,		
31826		LB,NB,RTD		
AVT 1 (BIOFORT)				
31961		LB,GD	CW	
DRR Dhan 48 (YMN)		LB,NB,GD	CW	
31947		NB,GD	CW	PH
31927		NB,SR,GD	CW	PH
31939		LB,SR,GD		
BPT 5204 (YC)		LB,NB,GD		
31951		LB,SR		PH
31937		SR,RTD		
IR 64 (YC)		LB,NB		
31929		LB,SR,GD		
31938		LB,NB,SR,GD		
DRR Dhan 45 (YMN)		LB		
31946		NB,SR		
31925		LB,NB,GD,RTD		
Chittimutyahli (MN)		NB,SR		PH
31948		LB,NB,GD		
31950		LB,NB,RTD		
31004(R)		LB,NB,SR,GD,RTD	PH	
AVT 2 & 1 - AL & ISTVT				
30165		LB,NB,GD		
30178		LB,NB,GD,RTD		PH

Annual Progress Report 2024 Vol. I – Varietal Improvement

Trial name and IET No.	Disease reaction		Pest reaction	
	Resistant	Moderate resistant	Resistant	Moderate resistant
AVT 2 & 1 - AL & ISTVT				
31044		LB,NB,BLB,GD		
31045		LB,NB,GD	CW	
31048		LB,GD		
CSR 36 (ATC)		LB,SR,GD,RTD		
31051		LB,GD,RTD		
31050		LB,NB,GD		
31053		LB,NB,GD,RTD		
FL 478 (STD)		LB		
31055 (R)		LB,NB,GD		
30180		LB,NB,GD		
31852		LB,NB,GD		PH
31853		LB,NB,GD,RTD		PH
32043 (GEL-DRTD+ Salt)		LB,NB,GD		PH
MTU 1010 (RP)		LB,NB,GD,RTD		PH
CSR 10 (EDSC)		LB,BR,GD,RTD		
31855		LB,NB,SR,GD		
32037 NIL		LB,GD		PH
31857		LB		
CSR 23 (IST)		LB,SR		
31858		LB,NB,SR,GD		
31859		SR,GD		PH
32294		LB,NB,SR,GD		PH
31861		LB,NB,SR,GD		PH
Pusa 44 (SC&RP)		LB,NB,BLB,SR,GD		
ADT 45 (RP)		LB,BR,RTD		
31862		LB,SR,GD,RTD		
32038(Saltol)		LB		
32055 NIL		LB,NB		
32053 NIL		LB,NB,SR,GD		
32056 NIL		LB,NB,BLB,GD,RTD		
32052 NIL		SR		
ISM (RP)	NB	LB,BR,GD		
32036 NIL		BLB,SR,GD,RTD		
AVT 1 - CSTVT				
31060		LB,NB,GD,RTD		PH
31889		LB,NB,SR,GD		
ADT 45 (RP)		LB,NB,GD		
31063		LB,SR		WBPH
31871	GD	LB,NB,SR,RTD		PH
CSR 10 (EDSC)		LB,GD,RTD		
31065		LB,SR,RTD		PH
Buthmath (CSTC)		LB,NB,SR,GD		PH
32037 NIL (Saltol)		LB		
31075		LB,NB,GD		
Pusa 44 (SC)		LB,NB,BR,SR,GD,RTD		
31884		LB,SR		
31074		NB,SR,GD		
MTU 1010 (RP)		LB,NB,SR,GD		
32043 (GEL-DRTD+ Salt)		LB,GD,RTD		
32036 NIL(Saltol)		LB		
31863		LB,SR,GD,RTD		
FL 478 (STC)		LB,SR,GD		BPH,WBPB
31875		LB,NB,GD		
31876		LB,NB,GD		PH
31877		LB,NB,SR,GD		WBPH,PH
31878		LB,NB,SR,GD,RTD		PH
32038 NIL (Saltol)		LB,GD		
31067		LB,GD,RTD		

Trial name and IET No.	Disease reaction		Pest reaction	
	Resistant	Moderate resistant	Resistant	Moderate resistant
AVT 1 & IVT - AGT				
32826		LB,GD		
32827		NB,BLB	CW	
32828		LB,NB,GD		
32829		LB,NB,RTD		
Shobini (NC)		LB,NB,BR,GD		
31909 (R)				
32830		GD		
32831		NB		
Badshahog Sel.1 (ZC)				
32832		NB,RTD		
32833		LB		
32834				
31901 (R)		LB,NB,GD		
32835		LB,NB,BLB,SBSR,GD		
Dubraj Sel.1(QC)		NB,GD,RTD		PH
32836		SR,GD,RTD		
32837		NB,SR,GD		
32838		NB,SR		
32839		NB,SR		
Ketekijoha (QC)	NB	LB,RTD		
32840		NB,RTD		
32841		LB,GD		
32842		NB		
32843		LB,NB,SR		
RNR 15435 (Check)		LB,GD		
31912 (R)		LB,NB,GD		
32844		LB,NB,BLB,SR,GD		
32845		NB,SR,GD,RTD		
32846		NB,BLB,SR,GD,RTD		
32847		NB,BLB,GD		PH
32848		LB,NB,SR,GD	PH	
32849		NB,SR,GD,RTD	PH	
32850		NB	PH	
Shobini		LB,GD	CW	PH
AVT 2 & 1 - LPT				
31980		LB,NB,SR,GD		
29558		NB,SR,GD		PH
31098		SR,GD		
31102		LB,NB,GD		
RASI		LB,SR,GD,RTD		
31975		NB,BR,SR,GD		
31976		LB,NB		
31107		SR,GD,RTD		
31985		NB,GD		PH
28070		LB,NB,SR,GD		PH
31096		NB,SR,GD		
Swarna		RTD		
Vandana		LB,NB,BLB		PH
31986		LB,NB,GD		
31968		LB,NB,GD		PH
31097		LB,NB,RTD		PH
31973		LB,NB		
31106		LB,NB		PH
29560		LB,GD,RTD	CW	PH
31115		LB,NB,GD	CW	
DRR DHAN - 60		NB	CW	PH
31982		LB,NB,RTD	CW	
29546		LB,NB,SR,GD	CW	
31969		LB,NB,SR,GD		PH
31103		NB,SR		PH

Annual Progress Report 2024 Vol. I – Varietal Improvement

Trial name and IET No.	Disease reaction		Pest reaction	
	Resistant	Moderate resistant	Resistant	Moderate resistant
AVT 2 & 1 - LPT				
31966		SR		PH
31108		NB,SR,GD		
29549		LB,NB,SR,GD	PH	
31979		NB,SR,GD,RTD	PH	
31105		NB,SR,GD,RTD	PH	
31110		NB,GD,RTD		
AVT 2 & 1 - LNT				
32005		LB,NB,SR,GD,RTD	PH	
31998		BR,SR,GD	PH	
32003		NB,SR,GD		
31990		GD		
31993		SR		
31994		NB,BLB,SR,GD		
32009		LB,NB,GD		PH
32010		SR,GD		PH
31120	NB	LB,SR,GD	PH	
31118		GD,RTD		PH
31135		GD		PH
31128		GD		PH
31119		NB,GD,RTD		
30269				CW
29581		LB,NB,SR		
31117		LB,NB		
31131		LB,GD		
30273		GD,RTD		
28084		GD		PH
29578		NB		PH
31134		NB,GD		
31989		LB,NB,GD,RTD		
29579		LB,NB		
Swarna		NB,SR,GD		
Rasi		LB,NB,GD,RTD	PH	
Varadhan		LB,NB,SR,GD		
ISM		LB,GD		
AVT 2 & 1 - NIL & Gel				
32963		LB,NB,BR,GD,		
32964		LB,NB,GD,		
BPT 5204/Samba Mahsuri (RP)		LB,SR,GD,		
BPT 5204/Samba Mahsuri (RP)		LB,BLB,GD,		
32072		LB,NB,		
31286		LB,NB,BR,GD,		
IR 64		LB,NB,GD,RTD		
32966		NB,GD,RTD		
Phule Radha (RP)		GD,		
32967				
32055		NB,BLB,GD,		
32059		NB,BLB,		
32060		LB,NB,GD,		
32063		NB,GD,		
Improved Samba Mahsuri (RP)		NB,GD,		
32056		NB,RTD	CW	
32062		LB,NB,BLB,GD,	BPH, CW	
32054		NB,BLB,	CW	
32061	NB	BLB,GD,	CW	
32058		NB,BLB,GD,	CW	
32051		GD,		
32972		NB,GD,RTD		
Jaya (RP)		GD,RTD		
32973		NB,SR,GD,		
32074		LB,NB,BR,SR,GD,		

Trial name and IET No.	Disease reaction		Pest reaction	
	Resistant	Moderate resistant	Resistant	Moderate resistant
AVT 2 & 1 - NIL & Gel				
MTU 1121 (RP)		LB,NB,GD,		
32974		LB,NB,BR,		PH
32975		LB,NB,GD,RTD		
MTU 1010 (RP)		LB,NB,GD,		
32976		LB,NB,		
32043		LB,NB,SR,		
32064		LB,NB,BLB,		
32065	NB	LB,BLB,SR,GD,		
Swarna (RP)		NB,BLB,SR,		
32977		LB,NB,GD,RTD		
32978		NB,GD,		PH
32979		LB,NB,BLB,		
DRR Dhan 53 (RP)		NB,SR,		
32980		LB,NB,SR,GD,		
32981		RTD		
DRR Dhan 50 (RP)		LB,NB,GD,		
32982		NB,SR,GD,		
32983		NB,BLB,SR,GD,RTD		
CARI Dhan 5 (RP)		LB,NB,SR,GD,	PH	
32984		LB,NB,BLB,GD,RTD		PH
32985		NB,SR,GD,		PH
CR 4121-101-36-24-1-1 (RP)		NB,GD,		PH
32986		LB,NB,BLB,SR,GD,		
32987		LB,NB,BLB,BR,GD,		
CO-51 (RP)		LB,NB,GD,		
32988		LB,SR,GD,		
32989		LB,		
32990		LB,NB,SR,GD,		PH
28P67 (RP)		LB,NB,GD,		
29546		LB,SR,GD,RTD		
29558		NB,GD,		
Pusa 44		NB,SR,RTD		PH
32053		BLB,SR,GD,		
32052		NB,GD,		
32045		LB,NB,GD,		
Krishnahamsa		LB,BR,GD,		PH
WGL14		NB,GD,RTD		
32047				PH

Annual Progress Report 2024 Vol. I – Varietal Improvement

Insect pest and disease reaction of entries in National Screening Nursery – 2 (NSN2), Kharif 2024

Trial name and IET No.	Disease reaction		Pest reaction	
	Resistant	Moderate resistant	Resistant	Moderate resistant
IVT - ETP				
32373				
32374				
32375				
32376		LB,NB,GD		
32377		LB,NB,GD		
32378		LB,NB,GD		BPH
32379		LB,NB,BLB		
32380		LB,NB,GD		
32381		LB,NB,SR,GD		BPH
32382				
32383		LB,NB,GD		
32384		LB,NB,SR,GD		
32385		LB,NB,BLB,GD		
32386		LB,NB,BLB,SR		
32387		LB,NB,SR,GD		
32388		LB,NB,SR		
32389		LB,NB,GD		
32390	GD	LB,NB		
32391		NB,SR,GD		
CO-51 (NC)		LB,NB		
32392		BLB,SR		
32393		LB,NB,GD	WM	
32394		LB,NB,GD		
32395		NB,GD		
32396		LB,GD		
32397		LB,NB,GD		
32398		LB,NB,SR,GD		
32399		LB,NB,BLB,SR		
32400		LB,NB,GD		
32401		LB,NB,GD		
32402		LB,NB,SR,GD		
32403		LB,NB,SR,GD		
32404		LB,NB,SR,GD		
32405		LB,NB,SR,GD		
32406		LB,NB,GD		
32407		LB,NB,GD		
32408		LB,NB,SR,GD		
32409		LB,SR,GD		
32410		LB,NB,GD		
32411		LB		
32412		LB,GD		
PR 124 (ZC)		LB,NB,GD		
32413		LB,NB,GD		
32414		LB,SR,GD		
32415		LB,BLB,GD		BPH
32416		LB,NB,SR,GD		
32417		LB,NB,GD		BPH
32418		LB,NB,SR,GD		
32419		LB,NB,SR,GD		
32420		LB,NB,GD		
32421		LB,NB		BPH
32422		LB,SR,GD		
32423		LB,NB,BLB,SR,GD		
32424		LB,NB,SR,GD		
32425		LB,NB,SR,GD		
32426		LB,NB		
32427		LB,NB,GD		
32428		LB,NB,SB,GD		BPH

Trial name and IET No.	Disease reaction		Pest reaction	
	Resistant	Moderate resistant	Resistant	Moderate resistant
IVT - ETP				
32429		LB,GD		
32430		LB,NB,GD		
32431		LB,NB,SR		
32432		NB,BS,SR,GD		
32433		LB,NB		
IVT - IME				
32434		LB		
32435		GD		
32436		LB,NB,BLB,GD		
32437		LB,NB		
32438		LB,NB,GD		
32439		LB,NB,GD		
32440		LB,SR,GD		
32441		LB,NB,GD		
32442		LB,NB,SR,GD		
32443		LB,NB,GD		
32444		LB,NB,GD		
32445		LB,NB,GD		WBPH
32446		LB,NB,BS,SR,GD		
32447		LB,GD		
32448		LB,NB,SR,GD		
32449		LB,SR		
32450		LB,NB,GD		
32451		LB,NB,SR,GD		
32452		LB,NB,GD		
32453		LB,NB,SR,GD		
32454		LB,NB,BLB,SR,GD		BPH
32455		NB,GD		
Gothra Bidan-3 (NC)		LB,NB,SR,GD		
32456		LB,GD		
31660		LB		
32457		NB,SR,GD		
32458		LB,NB,BS,SR,GD		
32459		LB,NB,GD		
32460		LB,NB,SR,GD		
32461		LB,NB,SR		
32462		LB,NB,BLB,SR,GD		
32463		LB		
32464		NB		
32465		LB,GD		
32466		LB,NB		
31662 (R)		NB		
32467		LB,NB,BS		
32468		LB,NB,GD		
32469		LB,NB,GD		
32470		NB,GD		
32471		LB,NB,BS,SR,GD		
32472		LB,NB,GD		
32473		LB		
32474		NB,GD		
32475		LB,NB,GD		
32476		LB,NB,GD		
32477		LB,NB,GD		
32478		LB,NB,SR,GD		
PR 113 (ZC)		LB,NB,GD		
32479		LB,NB,GD		
32480		LB,NB,GD		
32481		LB,BS,GD		
32482		LB,NB		
32483		LB,NB,SR,GD		
32484				

Annual Progress Report 2024 Vol. I – Varietal Improvement

Trial name and IET No.	Disease reaction		Pest reaction	
	Resistant	Moderate resistant	Resistant	Moderate resistant
IVT - IME				
32485		NB,GD		
32486		NB,GD		
32487		LB,NB,BLB,SB,SR,GD		
32488		NB,GD		
32489		LB,NB,GD		
32490		NB,GD		
32491		LB,NB,GD		
31635 (R)		LB,GD		
IVT-IM				
32492		LB,NB,BLB,GD		
32493		LB,BLB,GD		
32494		LB,GD		
32495	NB	LB,GD		
32496		LB,NB,GD		
32497		LB,NB,GD		
32498		LB,NB,SR,GD		
32499		LB,NB,GD		
31700		LB,NB,GD		
32500		LB,NB,GD		
32501		LB,NB,GD		
32502		NB,SR,GD		
32503		LB,NB,BLB,SR,GD		
32504		LB,GD		
NDR 359 (NC)		LB,NB,SR,GD		
32505		NB,GD		
32506		LB,NB,GD		
32507		LB,NB,GD		
32508		NB,GD		
32509		LB,NB,GD		
32510		LB,NB,SR,GD		
32511		NB,GD		
32512		LB,BS,GD		
32513		NB,GD		
32514		LB,SR,GD		
32515		LB,NB,GD		
32516		NB,GD		
32517		LB,NB,SR,GD		
32518	GD	NB		
32519		LB,BLB,GD		
PR 121 (ZC)		NB,SR,GD		
32520		NB,GD		
32521		LB,NB,SR,GD		
32522		LB,NB,GD		
32523		LB,NB		BPH
31810		LB,NB,SR,GD		
32524		LB,NB,GD		
32525		LB,NB,GD		
32526		LB,NB,GD		
32527		LB,NB,SR,GD		
32528		LB,NB,SR,GD		
32529		LB,NB,GD		
32530		LB,NB,SR,GD		
32531		LB,NB,BS,GD		
32532		NB,GD		
32533		NB,GD		
32534		LB,NB		
32535		NB,BS,GD		
32536		LB,NB,GD		
32537		LB,NB,BS,GD		
32538	NB	LB,GD		

Trial name and IET No.	Disease reaction	
	Resistant	Moderate resistant
IVT-IM		
32539		NB,SR,GD
32540		NB
32541		LB,NB,GD
32542	NB	LB,BLB,SB,GD
32543		NB,SR,GD
32544		NB,GD
32545		LB,NB,GD
32546		LB,NB,GD
32547		LB,NB,GD
32548		NB,GD
32549		LB,NB,GD
32550		LB,NB,GD
IVT - Late		
32551		LB,NB,GD
32552		LB,NB,BLB,GD
32553		LB,NB,BS,GD
32554		NB
32555		LB,NB,SR,GD
32556		LB,NB,GD
32557		,SR,GD
32558		LB,NB,BLB
32559		NB,BLB,SR,GD
32560		LB,NB,BLB,GD
32561		NB,GD
32562		LB,NB,BLB,SR,GD
32563		LB,NB,GD
32564		LB,NB
32565		NB
32566		LB,BLB,GD
32567		LB,NB,GD
32568		LB,NB,BS,GD
Swarna (NC)		LB,NB,GD
32569		LB,NB,GD
32570		LB,NB,GD
32571		NB,GD
32572		LB,GD
32573		LB
32574		LB,GD
32575	SR	LB,NB,BLB,SB,BS
32576		LB,NB,GD
32577		LB,NB,GD
32578		NB,GD
32579	GD	LB,NB,SR
32580		LB,NB,BLB,SR,GD
32581		LB,NB,GD
32582		LB,GD
32583		LB,NB,GD
32584		LB,NB,BLB,SR
32585		LB,NB,GD
32586		SR,GD
32587		NB,GD
Pusa 44 (ZC)		NB,GD
32588		LB,NB,GD
32589		LB,NB,GD
32590		LB,NB,GD
CRHR 702 (HC)		LB,NB,GD
32591	GD	LB,NB,BS,SR
32592		LB,NB,BLB,BS,GD
32593		LB,NB,SR,GD
32594		NB,GD

Annual Progress Report 2024 Vol. I – Varietal Improvement

Trial name and IET No.	Disease reaction		Trial name and IET No.	Disease reaction	
	Resistant	Moderate resistant		Resistant	Moderate resistant
IVT - Late			IVT - Aerobic		
32595		LB,NB,BLB,SR,GD	32650		LB,GD
32596		LB,NB,BLB,BS,GD	32651		NB,SR,GD
32597		LB,NB,SR,GD	32652		LB,NB,BS,GD
32598		LB,NB,SR,GD	32653		LB,NB,SR,GD
32599		LB,GD	32654		LB,NB,SR,GD
32600		LB,NB,BS,GD	32655		LB,GD
32601		LB,NB,SR	32656		LB,NB,GD
32602		LB,GD	32657		LB,GD
32603		NB,GD	32658		LB,NB,GD
32604		NB,SR,GD	32659		LB,NB,GD
32605		LB,NB,SR,GD	32660		LB,NB,BLB,SR,GD
32606		LB,NB,SR,GD	DRRH-4 (OHC)		LB,NB,GD
32607		LB,NB,SR,GD	32661		LB,GD
32608		LB,NB,GD	32662		LB,NB,GD
32609		LB,NB,BS,GD	32663		LB,NB,GD
32610		LB,NB,BS,SR,GD	32664		NB,SR,GD
IVT - Aerobic			32665		LB,NB,GD
32611		LB,GD	32666		LB,NB,GD
32612		NB,SR,GD	32667		LB,NB,GD
32613		LB,NB,GD	32668	GD	LB,NB
32614		LB,GD	IVT-MS		
32615		NB,SR	32669		NB,SR,GD
32616		LB,NB,GD	32670		GD
32617		LB,NB,GD	32671		NB,GD
32618		LB,NB	32672		NB,GD
32619		LB,NB,BS,GD	32673		LB,GD
32620		LB,NB,GD	32674		BS
32621		LB,NB	32675		LB,NB
32622		NB	32676		NB,BLB,SR,GD
32623		LB,NB,GD	32677		NB,GD
32624		LB,NB,SR,GD	32678		GD
32625		LB,NB	32679		
32626		LB,NB	32680		LB,NB,BLB,GD
32627		LB,NB	32681		GD
32628		LB,NB,GD	32682		GD
32629		LB,GD	32683		NB
DRR Dhan 54 (NC)		LB,NB,GD	32684		BS,GD
32630		LB	32685		LB,NB,GD
32631		LB,NB,BS,SR,GD	32686		
32632		LB,NB	32687		LB,GD
32633		LB,NB,SR,GD	32688		LB,GD
32634		LB,NB,SR,GD	Telangana Sona (NC)		LB,GD
32635		LB,NB,GD	32689		LB,NB,BS,SR
32636		LB,NB,GD	32690		LB,NB,BS
32637		NB,GD	32691		LB,NB
32638		LB,NB,GD	32692		NB
32639		LB,NB,GD	32693		LB,NB,SR
32640		LB,NB,BS,GD	32694		LB,NB
32641		LB,NB,SR,GD	32695		NB
CR Dhan 202 (ZC)		LB,NB	32696		NB
32642		LB,NB,GD	32697		NB
31748 (R)		GD	32698		LB,NB,GD
32643		LB,NB	WGL 14 (NMDC)		LB,NB
32644		LB,NB,GD	32699		LB,NB,GD
32645		LB,GD	32700		SR
32646		LB,NB,GD	32701		LB,NB
32647		LB,NB,GD	32702		LB,NB,GD
32648	NB	LB	32703		LB,NB,GD
PA 6129 (HC)		LB,NB,BLB,SR,GD	32704		LB,NB
32649		NB,GD	32705		LB,NB,GD

Annual Progress Report 2024 Vol. I – Varietal Improvement

Trial name and IET No.	Disease reaction		Trial name and IET No.	Disease reaction		Pest reaction	
	Resistant	Moderate resistant		Resistant	Moderate resistant	Resistant	Moderate resistant
IVT-MS			IVT - BIOFORT				
32706		LB,NB,GD	32760		LB,NB,SR,GD		
32707		LB,NB	32761		LB,NB,GD		
32708		NB,GD	32762		LB,NB,BLB,GD		
32709		NB,GD	32763		NB,BS,GD		
32710		LB,NB,GD	DRR Dhan 45 (YMN)		LB,NB		
32711			32764		NB		
32712		NB,GD	32765		LB,NB,BLB		
32713		NB,GD	32766		NB,GD		
32714		LB,NB,GD	Chittimutyahu (MN)		NB,GD		
32715		LB,SR,GD	32767		LB,NB,SR,GD		BPH
32716			32768		GD		
32717		LB,NB	32769		LB,NB,GD		
32718		LB,SR,GD	32770		GD		
32719		SR	32771		NB,GD		
32720		LB	32772	NB	LB,GD		
BPT - 5204 (NLDC)		LB,NB,GD	32773		LB,NB,GD		
32721			32774		LB,NB,GD		
32722		LB,NB,GD	32775		NB,GD		
32723		NB,GD	IVT - AL & ISTVT				
32724		LB	32776		LB,NB,SR,GD		
32725			32777	GD	LB,NB		
32726		NB,GD	CSR 10 (EDSC)		LB,NB,BS,GD		
ISM (ZC)		GD	32778		LB,GD		
32727		LB,GD	32779		NB,GD		
IVT - BIOFORT			32780		NB,GD		
32728		GD	32781		LB		
32729		LB	32782		LB,NB,SR,GD		
32730		LB,NB	CSR 36 (ATC)		GD		
32731		LB,NB	32783		LB,NB,GD		
32732		LB,NB,GD	CSR 23 (IST)		LB,NB,GD		
32733		LB	32784		LB,NB,GD		
32734		LB	PUSA 44 (SC)		LB,NB,BS,GD		
32735		LB,NB,GD	32785		LB,NB,GD		
32736		LB,NB,BS,GD	32786		LB,NB,BS,SR,GD		
32737		LB,BS,GD	32787		LB,NB,BS,GD		
32738		NB,GD	FL 478 (STD)		LB,NB		
32739		LB,NB,BS,GD	32788		LB,NB,GD		
32740		GD	32789		LB,NB,SR,GD		
32741		LB,NB,GD	32790		LB,NB,GD		
32742	GD	LB,NB	32791		LB,NB,BLB,BS,SR,GD		
32743		BS,SR,GD	32792		LB,NB,GD		
32744		LB,NB,SR,GD	IVT - CSTVT				
32745		LB,NB,SR,GD	32793		LB,NB,GD		
32746		NB,BLB,SR,GD	32794		LB,NB,GD		
32747		NB,GD	32795		NB,BLB,SR,GD		
32748		NB,SR,GD	32796		LB,NB,GD		
32749		LB,NB,SR,GD	32797		LB,NB,BS,GD		
32750		LB,NB,GD	32798		LB,NB,SR,GD		
32751		LB,NB,SR,GD	32799		LB,NB,SR,GD		
32752		LB,NB,SR,GD	32800	NB	LB,SR,GD		
DRR Dhan 48 (YMN)		LB,NB,SR	32801		LB,NB		
32753		LB,NB	CSR 10 (EDSC)		LB,BS,GD		
32754			32802		NB,GD		
32755		LB,GD	32803		LB,GD		
31035 (R)		LB,NB,GD	32804	NB,GD	LB		
32756		LB,NB,GD	32805	SR	NB,GD		
IR 64 (YC)		LB,NB,BS	32806		LB,GD		
32757		LB,NB,GD	32807		LB,GD		
32758			32808		LB,GD		
32759		LB,GD	32809		LB,NB,GD		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Trial name and IET No.	Disease reaction		Pest reaction	
	Resistant	Moderate resistant	Resistant	Moderate resistant
IVT - CSTVT				
32810		NB,SR,GD		
Buthnath (CSTC)		LB,NB,GD		
32811		LB,NB,GD		
32812		LB,NB		
32813		NB,BS,GD		
32814		LB,NB		
32815		LB,NB,GD		
FL 478 (STC)		LB,BS		
32816		LB,NB,GD		
32817		LB,NB,BS,SR		BPH
32818		LB,NB,BS,GD		
32819		LB,NB,GD		WBPH
32820		LB		
32821		LB		
32822		LB,NB,GD		
32823		BLB,SR,GD		
32824		LB,BLB,SR,GD		
PUSA 44 (SC)		LB,BLB,GD		
32825		LB,BLB,GD		
IVT - LPT				
32851		GD		
32852		LB,NB,SR,GD		
32853		LB,NB,SR,GD		
32854		LB,NB,SR,GD		
32855		LB,NB,SR,GD		
32856		NB,SR		
32857		LB,SR,GD		
32858		SR,GD		
32859		LB,NB,GD		
32860		NB,BLB		
32861		NB,SR,GD		
32862		NB,GD		BPH
32863		LB,NB,SR,GD		
32864		SR,GD		
32865				
32866		LB,NB,BLB,GD		
32867		LB,NB,GD		
32868		LB,NB,GD		
32869		LB		
32870		NB,BLB,GD		
32871	NB	LB,SR,GD		
DRR DHAN-60		BLB,GD		
Swarna		NB,SR		
Rasi		LB,NB,BS		
Vandana		LB,NB,GD		
IVT - LNT				
32872		LB,GD		
32873		LB,NB,GD		
32874		LB		BPH
32875				
32876		GD		BPH
32877		GD		
32878		NB,GD		
32879		LB,NB		
32880		NB,GD		
32881		LB,NB,GD		BPH
32882		NB,SR		
32883				
32884		GD		
32885				

Trial name and IET No.	Disease reaction		Pest reaction	
	Resistant	Moderate resistant	Resistant	Moderate resistant
IVT - LNT				
32886		GD		
32887		LB,NB,GD		
32888		GD		BPH
32889		BLB,SR,GD		
32890				
32891				
32892		LB,NB,SR		
Swarna		BLB,GD		
Rasi		LB		
DRR DHAN-64		LB,NB,GD		
Varadhana		LB,NB,GD		
IVT - DSR				
32917		LB,NB,SR,GD		
32918		LB,NB,GD		
32919		NB		
32920		LB,NB,GD		
32921		GD		
CR Dhan 320		LB,GD		
32922		LB,BS		
32923		LB,NB,GD		
32924		LB,NB,GD		
DRRH-4 (EHC)		LB,NB,BS		
32925		NB,GD		
32926		BS		
32927		LB,NB,SR,GD		
32928	NB	LB		
32929		LB,GD		
32930		NB,SR,GD		WBPH
32931		NB,GD		
32932		LB,NB,SR,GD		
32933		NB,SR		
32934		LB,GD		
32935		LB,GD		
32582		LB,NB,BLB,GD		BPH
32936		LB,NB		
32937		LB,NB		
DRR DHAN 70		LB,GD		
32938		LB,SR,GD		
32939		NB,SR,GD		
32940		LB		
32941		LB,GD		
CR Dhan 702 (LHC)		LB,NB,GD		
32942		LB,NB,GD		
32943		LB,NB		
32944		LB,NB,GD		
Shabhagidhan		LB,NB		
32945		LB,NB,GD		
32946		LB,NB		
32947		LB,NB		
DRR DHAN 50		LB,NB,GD		
32948		LB,NB		
32949		LB,NB		
32950		LB,GD		
32951		LB,NB		
32952		LB,NB,GD		
32953		LB,NB,BS,SR,GD		
DRR DHAN 55		LB,NB		
32954		NB,GD		WBPH
32955				
32956	NB	LB		
32957		LB,NB,BS		
32958		LB,NB		
32959		LB,NB		
32960		LB,NB,GD		
32961		LB,NB		
32962		GD		
BPT 5204(RP)				
32072				

Annual Progress Report 2024 Vol. I – Varietal Improvement

Insect pest and disease reaction of entries in National Screening Nursery – Hills (NSN-H), Kharif 2024

Trial name and IET No.	Disease reaction		Trial name and IET No.	Disease reaction	
	Resistant	Moderate resistant		Resistant	Moderate resistant
AVT 1 - IVT- E (H)			AVT 2 & 1 & IVT- M (H)		
31381		NB	32343		LB,NB
31382		NB	32344	NB	LB
31386		LB,NB,BLB	32345		
31389		LB,NB	32346		NB
32317		LB,BLB	32347		NB
32318		NB	32348		LB,BLB
Vivekdhan 86 (NC)			32349		LB,NB
32319			32350		LB,NB
32320		LB,NB,SB	32351		NB
32321		LB	32352		LB,NB
32322		BLB	32353		LB,NB
32323		NB	32354		LB,NB
32324	NB		32355		LB,NB
Shalimar Rice-3 (ZC)	NB		32356		
32325	NB		HR-12 (LC)	NB	
32326		LB	AVT 1 & IVT- U (H)		
32327		LB	31424		LB,NB
32328			31420	NB	LB
32329	NB		32357	NB	LB,SB
32330	NB	LB	32358	NB	LB,BLB
32331	NB		32359		LB,BLB
32332			Sukaradhan 1(NC)	NB	LB
32333		LB,NB	32360	NB	
32334			32361		LB,NB
32335			32362	NB	LB,BLB,SB
32336		LB	32363		BLB
32337			32364		NB,BLB
HR-12(LC)	NB		VL Dhan 158 (ZC)	NB	LB
AVT 2 & 1 & IVT- M (H)			32365		LB,NB
30513		LB,BS	32366		LB,NB
29654 (R)		LB,NB	32367		
31415	NB	LB,BS	32368	NB	
31413		LB,NB,BLB	32369		LB,NB
Vivekdhan 62 (NC)		LB,NB,BLB	TN1 (LC)		NB
32338		LB	AVT 1 & IVT - J		
32339		LB	31431		
32340			32370		NB
32341		LB,NB	Varundhan (Check)		NB
32342	NB		32371		LB,BLB,BS
VL Dhan 68 (ZC)		NB	Bhrigudhan (Check)		NB
			32372	NB	
			Shalimar Rice-5 (Check)		BLB
			TN1 (LC)		LB,NB,BS

Annual Progress Report 2024 Vol. I – Varietal Improvement

Insect pest and disease reaction of entries in National Hybrid Screening Nursery (NHSN), Kharif 2024

Trial name and IET No.	Disease reaction		Trial name and IET No.	Disease reaction	
	Resistant	Moderate resistant		Resistant	Moderate resistant
NHSN			NHSN		
32995		LB,NB,GD	Tetep	NB	LB,GD
32996		LB,NB,GD	HR-12		
32997		LB,NB,GD	RP-Bio-226		LB,NB,GD
32998		LB,NB,RTD,GD	TN1		RTD
NCH		LB,NB,GD	33051	NB	LB,RTD
32999		LB,NB,RTD,GD	33052		LB,NB
33000		LB,NB,SR,RTD,GD	33053		LB,NB,BLB,BS,GD
33001		LB,NB,GD	TN1		NB,BS,RTD
33002		LB,NB,GD	33054		LB,NB,GD
NCV		LB,NB,GD	33055		LB,NB,BLB,GD
33003		LB,NB,GD	33056		LB,NB,SR,GD
33004		LB,NB,SR,RTD,GD	33057		LB,NB,BLB,SR
33005		LB,NB,GD	33058		NB,BLB,SR,RTD,GD
TN1		LB,NB,RTD	33059		LB,NB,SR,GD
33006	NB	LB,BS,GD	RCV		LB,NB,BS,RTD,GD
RCV		LB,NB,GD	33060	NB	LB,RTD,GD
33007		LB,RTD,GD	33061		LB,NB,BLB,GD
OBCH		LB,GD	33062		LB,NB
33008		NB,SR,RTD,GD	33063		LB,NB,RTD
33009		LB,NB,GD	33064		NB,RTD,GD
33010		LB,NB,GD	NCH		LB,NB,SR,GD
33011		LB,NB,GD	33065		LB,NB,SR,GD
33012		LB,NB,RTD,GD	33066		LB,NB,BS,RTD,GD
33013		LB,NB,GD	33067		LB,NB,RTD,GD
NCV	NB	GD	33068	NB	LB,GD
33014		LB,NB,BLB,GD	NCV		NB,RTD,GD
33015		LB,NB,BLB,BS,SR,GD	33069		LB,NB,GD
33016		LB,NB,GD	33070	NB	
NCH	NB	LB,SR,GD	33071		LB,NB,GD
33017	RTD	LB,SR,GD	33072		LB,NB,GD
33018		LB,NB,RTD,GD	33073		LB,NB,GD,BS
33019		LB,NB,GD	33074	GD	LB,NB
33020	NB	LB,GD	33075		LB,NB,BLB,GD
RCV		LB,NB,GD	33076		LB,NB,GD
33021		NB,GD	33077		LB,NB,GD
33022		LB,NB,SR,GD	33078	NB	LB,GD
33023		LB,NB,GD	33079		LB,NB,GD
33024		LB,NB,GD	33080	NB	LB,GD
33025	NB	LB,SR,GD	Tetep	NB	LB,BS,SR,GD
33026	NB	LB,SR,GD	HR-12		GD
OBCH-2		LB,NB,BLB,SR,RTD,GD	RP-Bio-226		NB,GD
33027		LB,NB,RTD,GD	TN1		
33028		LB,NB,BLB,GD	33081		LB,NB,GD
33029		LB,NB,SR,GD	33082		LB,NB,GD
33030	NB	LB,RTD,GD	NCV-1		NB,RTD,GD
HR-12		NB,SR,GD	33083		NB,RTD
33031		LB,NB,GD	NCH		LB,NB,GD
33032		LB,NB,GD	33084		LB,GD
33033		LB,NB,GD	RCV		LB,NB,BLB,BS,GD
33034	NB	LB,SR	33085		LB,NB,SR,GD
OBCH-1	NB	LB,RTD,GD	NCV-2		NB,GD
33035	NB	LB,RTD,GD	33086		LB,NB,GD
33036		LB,NB,GD	HR-12		
33037		LB,NB	IR-64		LB,NB
33038	NB	LB,GD	RASI		LB,RTD
33039	NB	LB,RTD,GD	TN1		
33040		LB,NB,GD	Vikramarya		LB,NB,BS,GD
33041		LB,NB,GD	Nidhi		LB,NB,RTD,GD
33042		NB,SR,GD	CH-45		LB,NB,BS,SR,RTD,GD
33043		NB,LB,RTD,GD	Benibhog		RTD,GD
33044		LB,GD	IR-50		NB,SR,GD
33045		LB,NB,GD	Swarnadhan		NB,SR,GD
33046		LB,NB,RTD,GD	Ajaya		
33047		NB,GD	RP-Bio-226		LB,NB,RTD,GD
33048		LB,NB,BS,SR,RTD,GD	CO-39		SR
33049		NB,GD	Tetep	NB	LB,SR,RTD,GD
33050		LB,NB,SR,GD	DRR Dhan 51	NB	LB,SR,RTD,GD
			DRR Dhan 53		NB,BLB,GD
			DRR Dhan 62		LB,NB,BLB,RTD

PROGRESS REPORT
KHARIF 2024
VARIETAL IMPROVEMENT
AICRIP RAINFED TRIALS
ICAR-NRRI, Cuttack

SUMMARY

AICRIP- Rainfed breeding trials *kharif* 2024 RAINFED EARLY DIRECT SEEDED

AVT-1-EDS and IVT-EDS trials were conducted with 11 and 35 test entries, respectively in rainfed early direct seeded condition.

AVT 1- E DS:

In AVT1, seven purelines, two hybrids and two NILs were tested. Among the purelines, four entries were in third year of testing and rest three entries were in second year. One hybrid was in its third year and another in second year of testing. Besides there were two entries which are near isogenic lines of Sahbhagidhan and were in the first year of their testing.

Promotion:

Only IET 32100 was promoted to AVT-2.

Promising entries: None of the entries were found promising for any zone.

IVT- E DS: In IVT-EDS, out of 35 entries, 34 were purelines along with one hybrid. The following genotype were promoted to AVT-1.

Overall basis: IET 33089, IET 33100 and IET 33108.

Zone-III: IET 33112.

RAINFED LOWLAND ECOSYSTEM

During *Kharif* 2024, rainfed lowland trials were evaluated under rainfed shallow lowland (RSL), semi deep water (SDW) and deep water (DW) ecologies and also in direct seeded condition under late (IVT-RSL-DS-L) and medium (IVT-RSL-DS-M) duration group . A total of 165 test entries were evaluated along with suitable checks in five trials namely AVT1 -RSL (20 test entries), IVT - RSL (43 test entries), AVT 1-SDW (6 test entries), IVT-SDW (28 test entries), IVT-DW (9 test entries), IVT-RSL-DS-L (27 test entries) and IVT-RSL-DS-M (32 test entries).

Trait verification trial for submergence tolerance (AVT-1- NIL-Sub) was also conducted in 8 locations with 14 test entries.

Rainfed Shallow Lowland AVT 1-RSL

Out Of 20 test entries (12 inbred, 8 NIL entries) along with 4 recurrent parents and 4 checks were evaluated across 3 zones (III, IV, VII) in 16 locations. Two entries were in the 3rd year of testing, 18 entries, including 10 inbreds and 4 NILs were in 2nd year of testing and 4 NIL entries were in 1st year of testing.

Promotion to AVT-2-RSL:

On overall basis: IETs 31220 (R) and 31246 (R)

On the basis of performance in Zone III: IET 31220 (R)

On the basis of performance in Zone VII: IET 32175

NILs entries promoted:

Annual Progress Report 2024 Vol. I – Varietal Improvement

Submergence tolerant NIL: IET 33262

BPH Resistant NIL: IET 33264

Promising NIL entries in AVT-2 testing:

NIL entries: IET 32130, IET 32131, IET 32123, IET32124, IET 32121, IET32122

IVT-RSL:

In IVT-RSL, 43 test entries along with 4 checks were evaluated across 15 locations. The following entries are promoted to AVT-1-RSL.

Promoted to AVT-1 RSL based on zonal and overall mean basis:

Zone VII- IETs 33123, 33127, 33129, 33139 and 33159

Overall Basis: IETs 33125, 33150

IVT-RSL-DS-L:

This trial was constituted with 27 test entries and 3 checks in only 4 locations.

Entries promoted to AVT-1

Zone III: Nil

Zone V: IET 33241, IET 33242, IET 33257

Zone VII: IET 33248

Overall basis: Nil

IVT-RSL-DS-M:

This trial was constituted with 32 test entries and 4 checks in only 10 locations.

Entries promoted to AVT-1

Zone III – IET 33216

Zone V - IET 33204 and IET 33202

Zone VII – Nil

Overall – Nil

Semi Deep and Deep Water ecology AVT 1-SDW:

A total 6 test entries (including 2 NIL entries) along with 4 checks were tested over 13 locations in Zone III, IV and VII. Except one all entries are in the 2nd year of testing.

The following entry is promoted to the AVT-2-SDW:

Nil

IVT-SDW:

In IVT-SDW, out of 28 test entries evaluated in 12 locations across three zones (Zones III, IV, VII), 3 entries are promoted to AVT-1-SDW.

The following entry is promoted to the AVT-1-SDW:

Nil

IVT-DW:

In IVT-DW trial 9 test entries along with 3 checks were tested under the 1st year of testing in 2 locations

Promoted to AVT-1: Nil

AVT-1-EDS

Locations: 18

Test Entries: 11

Normal rainfall locations: 09

Moderate drought locations: 6

Severe drought locations: 1

Checks:

National Checks: Sahbhagidhan and Vandana

Sensitive check: IR 64

Zonal Checks: Anjali (all zones), Govind (Northern), Narendra Dhan 97 (Eastern), Samaleshwari (Central), Varalu (Western) and Tulasi (Southern).

Hybrid check: US-314

Local: One in each location.

Total 11 entries including seven purelines, two hybrids and two NILs along with one national check, two Zonal checks, one sensitive check, one hybrid check and one local check for each location were tested in AVT1-EDS of *Kharif 2024*. Among the purelines, four entries were in third year of testing and rest three entries were in second year. One hybrid was in its third year and another in second year of testing. Besides there were two entries which are near isogenic lines of Sahbhagidhan and were in the first year of their testing. The entries were tested in 18 locations, out of which data from three locations (Sikkim, Medziphema and Rewa) were not considered for analysis due to low CV (<5.0%). Among the remaining 15 locations, normal rainfall was recorded in 09 locations, whereas 05 locations were categorized as moderate drought affected areas (Cuttack) and 01 location was categorized as severe drought affected area (Derol).

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 1.1: Composition of entries in AVT-1-Early direct seeded (AVT 1-E DS), Kharif 2024

Entry No	IET no	Designation	Cross combination	Grain type
3rd year of testing:				
101	30330 (R)	RCPR84-IR14L155 (Repeat)	IR 81039-B-173-U 3-3/IR 81063-B-94-U 3-1	LS
102	31170	CB 17561	CO 41/CB 08504	MS
103	Sahbhagidhan (NC & RP)			
104	31193	KAVERI7117	Hybrid (KR20SA050/KR20SR054)	LS
105	31163 31163	CR 4392-RGA-40	C767-4-2-1-1 / IET27218 // N22	MS
106	IR 64 (Sensitive check)			
107	31185	CRR 514-6-1-1-1-12	Brown gora/ N22//CR143-2-2	LS
2nd year of testing				
108	32100	RCPR 104-IR16L1499	IR09L303*2/BENONG 130	LS
109	ZC Govind (Northern), Narendradhan97 (Eastern), Samaleshwari (Central), Varalu (Western) and Tulasi (Southern)			
110	32077	R-RF-213	Selection from IR 17L1454	MB
111	32085	NVSR 2837	GR 7XGR 5	LB
112	US-314 (Hybrid Check)			
113	3208732087 32087	ADVRH200057	Hybrid	LS
114	Vandana (NC)			
NIL 1st year of testing				
115	33259	CRR 840-3	Sahbhagidhan*4/ IRBL-9W	LB
116	Anjali (ZC for all zone)			
117	33260	CRR 840-4	Sahbhagidhan*4/IRBL-9W	LB
118	Local Check			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table 2: General information on drought spell in different locations AVT 1- E DS Kharif, 2023

Sl. No	Location	Experimental Grain Yield (Kg/ha)	Dry Spell	Drought Situation
1.	Jeypore	3649.81	No dry spell	Normal rainfall
2.	Cuttack	2173.52	One dry spell during reproductive stage	Moderate drought
3.	Pusa	3886.85	No dry spell	Normal rainfall
4.	Hathwara	2715.04	One dry spell during reproductive stage	Moderate drought
5.	Hazaribagh	2442.07	One dry spell during reproductive stage	Moderate drought
6.	Ranchi	3450.67	No dry spell	Normal rainfall
7.	Jabalpur	3871.83	No dry spell	Normal rainfall
8.	Jagadapur	4101.94	No dry spell	Normal rainfall
9.	Raipur	3132.35	No dry spell	Normal rainfall
10.	Rewa	Data not considered due to low CV		
11.	Parbhani	2342.56	3 dry spell including one at reproductive stage	Moderate drought
12.	Derol		5 dry spells including 2 at reproductive stage	Severe drought
13.	Vyara	4074.63	No dry spell	Normal rainfall
14.	Coimbatore	2405.02	One dry spell during reproductive stage	Moderate drought
15.	Aduthurai	5858.04	No dry spell	Normal rainfall
16.	Mugad	5027.48	No dry spell	Normal rainfall
17.	Sikkim	Data not considered due to low CV		
18.	Medziphema			

Performance of pureline entries:

None of the four entries {IET 30330(R), 31170, 31193 and 31163} in third year of testing showed at-par or superior performance under normal rainfall along with superior performance under moderate drought at any Zone against the best varietal check. Hence, none of the entries were considered promising. Among the entries in second year of testing, Among the entries in second year of testing, IET 30285 didn't show superior performance over best varietal check at any Zone under moderate drought. Hence, the entry was not considered for promotion. Rest two entries (IET 32100, 32077) showed at-par performance with best varietal check under normal rainfall along with superior performance under moderate drought in Zone-III and overall basis. In Zone-V only normal rainfall location was available where both entries showed at-par performance. Hence, these entries were considered for promotion in Zone-III and Zone-V based on yield performance. However, due to inferior grain quality, entry no. IET 32077 was considered for discontinuation.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table 3: Performance of pureline entries in different stages of testing against “Best Varietal Checks” in different zones in AVT-1-EDS trial of *Kharif 2024* under normal rainfall and moderate drought

		Entries in third year of testing				Entries in second year of testing			
		Entry No	101	102	105	107	108	110	111
		IET No	30330 (R)	31170	31163	31185	32100	32077	32085
Zone -III	Grain yield as compared to “Best Varietal Checks”	Norma I Rainfall	At-par	At-par	At-par	Superior	At-par	At-par	Inferior
		Moderate drought	At-par	Inferior	At-par	At-par	Superior	Superior	At-par
Zone -V	Grain yield as compared to “Best Varietal Checks”	Norma I Rainfall	Inferior	Inferior	At-par	Inferior	At-par	At-par	Inferior
		Moderate drought	NA	NA	NA	NA	NA	NA	NA
Zone -VI	Grain yield as compared to “Best Varietal Checks”	Norma I Rainfall	Inferior	Inferior	Inferior	Inferior	Inferior	Inferior	Inferior
		Moderate drought	At-par	At-par	At-par	Inferior	At-par	At-par	At-par
Zone -VII	Grain yield as compared to “Best Varietal Checks”	Norma I Rainfall	At-par	At-par	At-par	At-par	At-par	At-par	Superior
		Moderate drought	At-par	At-par	At-par	Inferior	Inferior	At-par	Inferior
Overall	Grain yield as compared to “Best Varietal Checks”	Norma I Rainfall	Inferior	Inferior	At-par	At-par	At-par	At-par	Inferior
		Moderate drought	At-par	Inferior	At-par	Inferior	Superior	Superior	At-par
Grain quality		HRR-46.1%	HRR-51.2%	HRR-51.2%	HRR-46.45%	HRR-57.2%	HRR-37.9%	HRR-42.5%	
Days to 50%		85	83	87	80	84	87	85	

Annual Progress Report 2024 Vol. I – Varietal Improvement

flowering under normal rainfall							
Remarks	Discontinued	Discontinued	Discontinued	Discontinued	Promoted to AVT2 for Zone-III and Zone-V	Based on yield performance suitable for promotion to AVT2 for Zone-III and Zone-V. However discontinued due to low HRR.	Discontinued

Performance of hybrid entries: The hybrid entry IET 31193 was in third year of testing. The genotype only showed superior or at-par performance over hybrid check under normal rainfall. However, at same zones, its yield was either at-par or inferior compared to best varietal check. It also showed at-par or inferior performance over best varietal check and hybrid check under moderate drought besides low HRR%. Hence, it was not considered as promising entry. Another hybrid entry in second year of testing showed at-par yield with best varietal check in Zone-III and Zone-VI along with superior performance under moderate drought. The similar trend was also recorded against hybrid check. Hence, based on yield performance, the genotype is suitable for promotion to AVT-2 for Zone-III and Zone-VI. However, due to low HRR (48.6%) it couldn't be considered.

Table 4: Performance of hybrid entry IET 31193 (in third year of testing) against “Best Varietal Checks” and “Hybrid Check” in different zones in AVT-1-EDS trial of *Kharif* 2024 under normal rainfall and moderate drought

Performance of Hybrid Entry IET 31193 (In third year of testing)					
Test Zones	Grain Yield as compared to “Best Varietal Checks” and “Hybrid Check”	Over Best varietal check		Over Hybrid check	
		Normal Rainfall	Moderate drought	Normal Rainfall	Moderate drought
Zone-III		At-par	At-par	Superior	At-par
Zone-V		Inferior	NA	At-par	NA
Zone-VI		At-par	At-par	Superior	At-par
Zone-VII		At-par	Inferior	Superior	At-par
Overall		At-par	Inferior	Superior	At-par
Remarks		Days to 50% flowering (81 days) is less than 90 days. However, discontinued as performance is not superior under moderate drought at any zone. HRR is also low (45.2%).			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table 5: Performance of hybrid entry IET 32087 (in second year of testing) against “Best Varietal Checks” and “Hybrid Check” in different zones in AVT-1-EDS trial of *Kharif* 2024 under normal rainfall and moderate drought

Performance of Hybrid Entry IET 32087 (In second year of testing)					
Test Zones	Grain Yield as compared to “Best Varietal Checks” and “Hybrid Check”	Over Best varietal check		Over Hybrid check	
		Normal Rainfall	Moderate drought	Normal Rainfall	Moderate drought
Zone-III		At-par	Superior	At-par	Superior
Zone-V		Inferior	NA	Inferior	NA
Zone-VI		At-par	Superior	Superior	Superior
Zone-VII		At-par	At-par	At-par	Superior
Overall		Inferior	Superior	At-par	Superior
Remarks	Based on yield performance suitable for promotion to AVT-2 for Zone-III and Zone-VI. Days to 50% flowering (85 days) is also less than 90 days. However, HRR is only 48.6%				

Performance of NIL entries: The two NILs of Sahbhagidhan introgressed with *Pi9* gene for blast resistance showed at-par or superior performance over the recurrent parent in all the zones from where data was considered under both normal rainfall or moderate drought. Both the genotype also showed superior blast resistance across locations. However, due to low HRR recorded for both recurrent parent and the NILs, the entries may be repeated during the next year.

Table 6: Performance of NIL entries of recurrent parent Sahbhagidhan in different zones in AVT-1-EDS trial of *Kharif* 2024 under normal rainfall and moderate drought situations against the recurrent parent.

Performance of Near isogenic Lines of Sahbhagidhan for Blast Resistance			
Entry No		115	117
IET No		33259	33260
Zone-III	Normal Rainfall	At-par	At-par
	Moderate drought	Superior	Superior
Zone-V	Normal Rainfall	Superior	At-par
	Moderate drought	NA	NA
Zone-VI	Normal Rainfall	At-par	At-par
	Moderate drought	Superior	At-par
Zone-VII	Normal Rainfall	Superior	Superior

Annual Progress Report 2024 Vol. I – Varietal Improvement

	Moderate drought	At-par	At-par
Overall	Normal Rainfall	At-par	Superior
	Moderate drought	Superior	Superior
Trait verification for Blast Resistance		SI score 3.33 against 5.14 of recurrent parent	SI score 4.00 against 5.14 of recurrent parent
Days to 50% Flowering		78 (RP: 83)	80 (RP: 83)
Remarks		Based on yield performance and trait verification, suitable for promotion to all Zones. However, HRR is 37.65% compared to 48.6% of RP; both of which is low.	Based on yield performance and trait verification, suitable for promotion to all Zones. However, HRR is 47.5% compared to 48.6% of RP; both of which is low.

Performance of entries under severe drought: Under severe drought situation in Derol (Gujarat), the local check AADUR-1 showed grain yield of 2304 Kg/ha and none of the genotypes showed superior performance over it. Hence, no genotype was found promising for registration as severe drought tolerant germplasm.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table 7: Details of performance of entries in third year of testing over the years with respect to grain yield Kg/ha

IET NO	IVT1 (2020/2021)		AVT (2022)			AVT (2023)			AVT (2024)			Remarks
	MD/Drought	Normal	MD	SD	Normal	MD	SD	Normal	MD	SD	Normal	
30330 (R)	Zone-III (2381)	Zone-III (3586), Zone-V (4846), Zone-VI (3467), Zone-VII (6900), Overall (4475, 9*)	Zone III (2360), Zone VI (3778*), Overall (2643)	Overall (610)	Zone-III (4657), Zone-V (3730), Zone-VI (3426) and Zone-VII (4888), Overall (4282)	Zone-III (1816), Zone-VI (2809), Zone-VII (3798), Overall (2808)	Zone-III (396), Zone-V (2142*), Zone-VI (1414), Overall (905)	Zone-III (4258), Zone-V (5306), Zone-VI (5101), Overall (4636)	Zone-III (2562), Zone-V (2567), Zone-VI (2600) and Zone-VII (2504), Overall (2558)	Zone-VI (1238)	Zone-III (3846), Zone-V (3806), Zone-VI (4137) and Zone-VII (4812), Overall (4080)	Discontinued as performance is not superior under moderate drought at any zone.
						Repeated (Superior in severe drought but not moderate drought)						

IET NO	IVT1 (2022)			AVT (2023)			AVT (2024)			Remarks
	MD	SD	Normal	MD	SD	Normal	MD	SD	Normal	
31170	Zone-III (2315), Zone-IV (2280), Zone-V (1413), Zone-VI (1896) and Overall (2089)	Zone-III (2393*)	Zone III (4331), Zone V (1255), Zone VI (4200), Zone VII (4905), Overall (4037)	Zone III (2547*), Zone VI (2752), Zone VII (4636), Overall (3172*)	Zone III (593), Zone V (0), Zone VI (875), Overall (734)	Zone-III (3760), Zone-V (4657), and Zone-VII (3825), Overall (3953)	Zone III (2106), Zone VI (2378), Zone VII (2650), Overall (2269*)	Zone VI (678)	Zone III (3603), Zone V (3147), Zone VI (3789), Zone VII (5179), Overall (3822)	Discontinued as performance is not superior under moderate drought at any zone. HRR is also low (45.2%).

Annual Progress Report 2024 Vol. I – Varietal Improvement

31163	Zone-III (3054), Zone-IV (1868), Zone-V (2279*), Zone-VI (1688) and Overall (2499)	Zone-III (733)	Zone III (4110), Zone V (3190), Zone VI (2500), Zone VII (5164), Overall (4050)	Zone III (2913*), Zone VI (2666), Zone VII (2559), Overall (2701)	Zone III (267), Zone V (814), Zone VI (791), Overall (529)	Zone-III (4438), Zone-V (5877), and Zone-VII (4368), Overall (4712)	Zone III (2375), Zone VI (2489), Zone VII (2909), Overall (2505)	Zone VI (1099)	Zone III (3588), Zone V (4417), Zone VI (4015), Zone VII (5361), Overall (4306)	Discontinued as performance is not superior under moderate drought at any zone.
31185	Zone-III (2875), Zone-IV (1128), Zone-V (2214) Zone-VI (2295*) and Overall (2377)	Zone-III (1022)	Zone III (4268), Zone V (3578), Zone VI (2900), Zone VII (5536), Overall (4336)	Zone III (3096*), Zone VI (2913), Zone VII (3711), Overall (3158*)	Zone III (1333), Zone V (573), Zone VI (1289), Overall (1311*)	Zone-III (), Zone-V (4989), and Zone-VII (3133), Overall (3908)	Zone III (2271), Zone VI (1844), Zone VII (2295), Overall (2191)	Zone VI (729)	Zone III (4223*), Zone V (3554), Zone VI (3587), Zone VII (5849), Overall (4291)	Discontinued as performance is not superior under moderate drought at any zone.
31193	Zone-III (2446), Zone-IV (1552), Zone-V (2311*) Zone-VI (2078.8*) and Overall (2213)	Zone-III (667)	Zone III (4572), Zone V (3751), Zone VI (5050), Zone VII (5040), Overall (4657)	Zone III (1267), Zone VI (3226), Zone VII (4302), Overall (3005)	Zone III (174), Zone V (1262), Zone VI (3067*), Overall (1621*)	Zone-III (4563*), Zone-V (4937), and Zone-VII (4676), Overall (4660)	Zone III (2388), Zone VI (2356), Zone VII (2237), Overall (2352)	Zone VI (2577)	Zone III (4160), Zone V (3643), Zone VI (4672), Zone VII (6158), Overall (4488)	Discontinued as performance is not superior under moderate drought at any zone.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 1.2.1: Grain Yield Kg/ha of entries in AVT 1-E DS Kharif 2024 under Moderate Drought Situation

Entry No	IET No	Zone V		Zone VI		Zone VII		Overall mean (5)	
		MP		MH		TN		mean	
		REW@		PBN		CBT			
101	30330 (R)	2567		2600	2.5	2504	8	2558	6
102	31170	2419		2378	9	2650	3	2269	
103	Sahbhagidhan (NC & RP)	2142		1933		2391	10	2225	
104	31193	2540		2356	10	2237		2352	
105	31163	2620	10	2489	5	2909	1	2505	7
106	IR 64 (Sensitive check)	3710	1	2133		2046		1992	
107	31185	2123		1844		2295		2191	
108	32100	3101	5	2455	7	2405	9	2715	3*
109	Zonal Check	3508	3	2467	6	2721	2	2202	
110	32077	2754	8	2533	4	2560	4	2695	4*
111	32085	2850	7	2333		2188		2440	9
112	US-314 (Hybrid Check)	2650	9	2355		2215		2362	10
113	32087	3703	2	3067	1*	2539	5	3146	1*
114	Vandana (NC)	2318		1733		2257		1877	
115	33259	2567		2600*	2.5	2213#		2622*	5
116	Anjali (ZC for all zone)	3252	4	2267		2107		2113	
117	33260	1730		2222#		2524#	7	2766*	2*
118	Local Check	2953	6	2400	8	2530	6	2451	8
Exp. Mean		2750.46		2342.56		2405.02		2415.64	
CD		172.66		380.63		283.24		179.87	
CV%		3.78		9.79		7.1		4.49	
F		82.64		5.36		5.43		24.29	
P		<.0001		<.0001		<.0001		<.0001	
S/NS		S		S		S		S	
D/S		06-07-2024		02.07.2024		14.08.24			
Local Check Name		JR 206		Avishkar		CO 53			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 1.2.1 (cont.): Grain Yield Kg/ha of entries in AVT 1-E DS Kharif 2024 under Moderate Drought Situation

Entry No	IET No	Zone III						Zone III (3)	
		OD		WB		JH		mean	
		CTK		HTW		HZB			
101	30330 (R)	2488	7	2603	10	2595	6	2562	6
102	31170	1341		2723	8	2254		2106	
103	Sahbhagidhan (NC & RP)	2099		2223		2481	8	2268	
104	31193	2018		2817	5	2330		2388	10
105	31163	2562	4	2405		2159		2375	
106	IR 64 (Sensitive check)	915		2611	9	2254		1927	
107	31185	1932		2363		2519	7	2271	
108	32100	3420	1*	2532		2765	3	2906	3*
109	Zonal Check	1309		2166		2349	10	1941	
110	32077	2142		3125	4	3115	2*	2794	4*
111	32085	2568	3	2764	6	2349	10	2560	7
112	US-314 (Hybrid Check)	2401	8	2491		2349	10	2414	9
113	32087	2605	2	4849	1*	2670	5	3375	1*
114	Vandana (NC)	2512	5	1453		1428		1798	
115	33259	2395#	9	3194*	3	2708#	4	2766*	5*
116	Anjali (ZC for all zone)	1605		2332		2254		2064	
117	33260	2495*	6	3463*	2	3125*	1*	3028*	2*
118	Local Check	2316	10	2756	7	2254		2442	8
Exp. Mean		2173.52		2715.04		2442.07		2443.54	
CD		358.22		723.43		479.37		319.84	
CV%		9.93		16.06		11.83		7.89	
F		22.42		7.55		5.21		13.97	
P		<.0001		<.0001		<.0001		<.0001	
S/NS		S		S		S		S	
D/S		14-06-2024		08.07.2024		09-07-2024			
Local Check Name		CR Dhan 212		Puspa		CR Dhan 40			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 1.2.2: Grain Yield Kg/ha of entries in AVT 1-E DS Kharif 2024 under Severe Drought Situation

Entry No	IET No	Zone VI		Zone VI(1)	
		GU		mean	
		DRL			
101	30330 (R)	1238	7	1238	7
102	31170	678		678	
103	Sahbhagidhan (NC & RP)	662		662	
104	31193	2577	1	2577	1
105	31163	1099	8	1099	8
106	IR 64 (Sensitive check)	567		567	
107	31185	727		727	
108	32100	1619	6	1619	6
109	Zonal Check	1036	10	1036	10
110	32077	1825	5	1825	5
111	32085	2321	2	2321	2
112	US-314 (Hybrid Check)	1054	9	1054	9
113	32087	1991	4	1991	4
114	Vandana (NC)	563		563	
115	33259	826		826	
116	Anjali (ZC for all zone)	259		259	
117	33260	682		682	
118	Local Check	2304	3	2304	3
Exp. Mean		1223.72		1223.72	
CD		350.42		350.42	
CV%		17.26		17.26	
F		33.62		33.62	
P		<.0001		<.0001	
S/NS		S		S	
D/S		11-07-2024			
Local Check Name		AAUDR 1			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 1.2.3: Grain Yield Kg/ha of entries in AVT 1-E DS Kharif 2024 under Normal Rainfall Situation

Entry No	IET No	Zone-III						Zone III (3)	
		OD		BI		JH		mean	
		JYP		PSA		RCI			
101	30330 (R)	3916	9	4518	3	3104		3846	6
102	31170	4291	5	4000	5			3603	10
103	Sahbhagidhan (NC & RP)	4538	1	3926	6	2371		3612	9
104	31193		10			5280	1 *	4160	3
105	31163					4205	4 *	3588	
106	IR 64 (Sensitive check)	4394	3	3852	9	3153		3800	7
107	31185	4457	2	4593	2	3618	7	4223	1*
108	32100			3852	9	4693	3 *	3931	4
109	Zonal Check	2363		3778		3227	10	3123	
110	32077	4061	8	4741	1	3813	6	4205	2
111	32085				7	3447	9		
112	US-314 (Hybrid Check)			3556					
113	32087					4204	5*	3572	
114	Vandana (NC)	4191	7	3518		3593	8	3767	8
115	33259			3852#	9	3153*		3327#	
116	Anjali (ZC for all zone)	4235	6	3556		1809		3200	
117	33260			3519#		4913*	2*	3891#	5
118	Local Check	4314	4	4370	4	2029		3571	
Exp. Mean		3649.81		3886.85		3450.67		3662.44	
CD		790.4		573.71		531.36		410.17	
CV%		13.05		8.9		9.28		6.75	
F		6.89		4.55		26.96		5.87	
P		<.0001		<.0001		<.0001		<.0001	
S/NS		S		S		S		S	
D/S		04.07.24		28-06-2024		26.06.2024			
Local Check Name		Mahendragiri		Rajendra Nilam		BVD-111			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 1.2.3 (cont.): Grain Yield Kg/ha of entries in AVT 1-E DS Kharif 2024 under Normal Rainfall Situation

Entry No	IET No	Zone I		Zone IV		Zone V						Zone V (3)			
		SK		NL		CG			CG(2)		MP		mean		
		SKM@		MDZ@		JDP		RPR	mean		JBP				
101	30330 (R)	3694	7	3465		3860		3528	8	3694	8		4		8
102	31170	4659	3.5	3849	7										
103	Sahbhagidhan (NC & RP)	3394	10	3901	4	3977	7	2422		3200		4444	3	3614	
104	31193	5058	1	3107		3518		3737	6		10				10
105	31163	3428	9	3769	9	4891	3	4888	1	4890	1			4417	3
106	IR 64 (Sensitive check)	3534	8	3892	5	3371		2740		3056		3278		3130	
107	31185	4659	3.5	3727	10	3600			10				7		
108	32100	1997		4214	2	4874	4	3725	7	4300	3			4031	6
109	Zonal Check	3328		3825	8	3881	10	1933		2907		3685		3166	
110	32077	3381		4093	3	4673	5	4277	2	4475	2		2	4562	1
111	32085	3993	6	2852					9						
112	US-314 (Hybrid Check)	4859	2	3136		3882	9	3980	4	3931	6		9		7
113	32087	2852		3254		3843									
114	Vandana (NC)	2662		3852	6	3965	8	3783	5	3874	7	5511	1	4420	2
115	33259	2695		3234		5822*	1 *	2372#		4097*	5		5	4073*	5
116	Anjali (ZC for all zone)	2529		5159	1	3438		1292		2365		3705	10	2812	
117	33260	2639		2608		5075*	2	2265#		3670#	9		6	3758#	9
118	Local Check	4459	5	3456		4392	6	4194	3	4293	4	3824	8	4137	4
Exp. Mean		3545.56		3632.61		4101.94		3132.35		3617.15		3871.83		3702.04	
CD		127.45		252.25		950.61		837.84		659.84		341.59		431.97	
CV%		2.17		3.29		13.97		16.12		10.99		5.32		7.03	
F		415.76		47.08		4.51		10.98		7.99		21.98		21.98	
P		<.0001		<.0001		<.0001		<.0001		<.0001		<.0001		<.0001	
S/NS		S		S		S		S		S		S		S	
D/S		26-06-2024		25-06-2024		12.06.24		26.06.2024				20-06-2024			
Local Check Name		Sikkim Dhan-1		Bhalum 3 (116)		Bastar Dhan 1		Bastar Dhan 1				MTU 1010			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 1.2.3 (cont.): Grain Yield Kg/ha of entries in AVT 1-E DS Kharif 2024 under Normal Rainfall Situation

Entry No	IET No	Zone VI		Zone VII				Zone VII (2)		Overall (9)	
		GJ		TN		KA					
		VYR		ADT		MGD		mean		mean	
101	30330 (R)	4137	8	5324		4300		4812		4080	10
102	31170	3789		5208		5149	7	5179		3822	
103	Sahbhagidhan (NC & RP)	5355	1	5509		4167		4838		4079	
104	31193	4672	5	6944	1	5371	5	6158	2	4488	2
105	31163	4015		4731		5991	3*	5361		4306	6
106	IR 64 (Sensitive check)	3700		6065	9	5082	8	5574	6	3959	
107	31185	3587		6435	4	5263	6	5849	4	4291	8
108	32100	4502	6	6204	7	4333		5269		4325	5
109	Zonal Check	2916		5231		4673		4952		3521	
110	32077	4032	10	6111	8	4768		5440	10	4579	1
111	32085	3937		6389	5	6333	2*	6361	1*	4024	
112	US-314 (Hybrid Check)	3666		5347		5564		5456	9	4013	
113	32087	4965	3	6361	6	4724		5543	7	4033	
114	Vandana (NC)	4251	7	6690	2	4258		5474	8	4418	3
115	33259	4741#	4	5232#		6484*	1*	5858*	3	4295#	7
116	Anjali (ZC for all zone)	1933		5440		4787	10	5114		3355	
117	33260	5090#	2	6597*	3	5047#	9	5822*	5	4409*	4
118	Local Check	4056	9	5625	10	4201		4913		4112	9
Exp. Mean		4074.63		5858.04		5027.48		5442.76		4117.07	
CD		720.56		1033.7		1096.82		688.3		288.19	
CV%		10.66		10.63		13.15		7.62		4.22	
F		10.35		3.13		3.47		3.45		10.21	
P		<.0001		0.0022		0.001		0.001		<.0001	
S/NS		S		S		S		S		S	
D/S		22-06-2024		20.06.24		18.06.24					
Local Check Name		GR 16		ADT 56		MGD-101					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 1.3.1: Days to 50% Flowering of entries in AVT 1-E DS Kharif 2024 under Moderate Drought Situation

Entry No	IET No	Zone III			Zone III (3)	Zone V	Zone VI	Zone VII	Overall (5)
		OD	WB	JH		MP	MH	TN	
		CTK	HTW	HZB	mean	REW@	PBN	CBT	mean
101	30330 (R)	72	78	82	77	87	86	83	80
102	31170	66	73	77	72	72	78	78	74
103	Sahbhagidhan (NC & RP)	77	74	80	77	79	80	78	78
104	31193	61	73	81	72	75	81	77	75
105	31163	83	85	88	85	88	88	92	87
106	IR 64 (Sensitive check)	67	74	83	75	79	87	78	78
107	31185	67	71	70	69	75	76	74	72
108	32100	71	73	81	75	84	80	82	77
109	Zonal Check	72	74	77	74	86	88	92	81
110	32077	73	77	81	77	86	85	79	79
111	32085	72	67	70	70	77	77	72	72
112	US-314 (Hybrid Check)	71	76	82	76	78	81	78	78
113	32087	71	71	82	75	77	80	74	76
114	Vandana (NC)	72	83	87	81	77	86	92	84
115	33259	77	71	76	75	76	76	74	75
116	Anjali (ZC for all zone)	57	76	66	66	62	67	74	68
117	33260	77	70	77	75	79	78	75	75
118	Local Check	82	86	68	79	83	86	81	81
Mean		72	75	78	75	79	81	80	77

Table No 1.4.1: Plant Height (cm) of entries in AVT 1-E DS Kharif 2024 under Moderate Drought Situation

Entry No	IET No	Zone III			Zone III (3)	Zone V	Zone VI	Zone VII	Overall (5)
		OD	WB	JH		MP	MH	TN	
		CTK	HTW	HZB	mean	REW@	PBN	CBT	mean
101	30330 (R)	105	105	93	101	87	71	84	92
102	31170	87	102	87	92	83	60	85	84
103	Sahbhagidhan (NC & RP)	99	104	83	95	79	62	93	88
104	31193	92	91	73	85	77	57	91	81
105	31163	99	81	79	86	84	66	92	83
106	IR 64 (Sensitive check)	70	76	69	72	73	49	70	67
107	31185	105	104	97	102	93	61	89	91
108	32100	109	100	96	102	89	76	95	95
109	Zonal Check	84	92	72	83	81	66	87	80
110	32077	100	109	79	96	86	66	85	88
111	32085	110	114	95	106	97	78	85	96
112	US-314 (Hybrid Check)	94	89	78	87	84	56	74	78
113	32087	98	99	76	91	83	61	90	85
114	Vandana (NC)	99	68	69	79	84	57	77	74
115	33259	100	96	90	95	96	68	96	90
116	Anjali (ZC for all zone)	97	88	100	95	90	64	88	87
117	33260	98	85	86	90	85	68	85	84
118	Local Check	98	105	103	102	83	79	88	95
Mean		97	95	85	92	85	65	86	85

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 1.5.1: Number of Panicles/m² of entries in AVT 1-E DS Kharif 2024 under Moderate Drought Situation

Entry No	IET No	Zone III			Zone III (3)	Zone V	Zone VI	Zone VII	Overall (5)
		OD	WB	JH		MP	MH	TN	
		CTK	HTW	HZB	mean	<u>REW@</u>	PBN	CBT	mean
101	30330 (R)	339	350	241	310	250	345	280	311
102	31170	321	406	245	324	243	338	320	326
103	Sahbhagidhan (NC & RP)	313	467	238	339	197	286	341	329
104	31193	289	500	250	346	251	319	270	326
105	31163	258	350	231	280	224	325	347	302
106	IR 64 (Sensitive check)	214	567	257	346	286	330	295	333
107	31185	288	400	247	312	202	334	277	309
108	32100	295	433	252	327	262	336	278	319
109	Zonal Check	204	400	249	284	312	330	222	281
110	32077	285	483	229	332	225	340	286	325
111	32085	327	500	250	359	192	324	278	336
112	US-314 (Hybrid Check)	350	467	208	342	263	338	316	336
113	32087	261	483	250	331	277	380	311	337
114	Vandana (NC)	306	300	251	286	192	302	268	285
115	33259	270	633	239	381	204	337	278	351
116	Anjali (ZC for all zone)	247	417	251	305	155	343	282	308
117	33260	321	307	261	296	191	308	357	311
118	Local Check	280	383	252	305	222	350	343	322
Mean		287	436	245	323	230	331	297	319

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 1.3.2: Days to 50% Flowering of entries in AVT 1-E DS Kharif 2024 under Severe Drought Situation

Entry No	IET No	Zone VI	
		GU	Zone VI(1)
		DRL	mean
101	30330 (R)	86	86
102	31170	81	81
103	Sahbhagidhan (NC & RP)	81	81
104	31193	74	74
105	31163	72	72
106	IR 64 (Sensitive check)	82	82
107	31185	78	78
108	32100	79	79
109	Zonal Check	86	86
110	32077	86	86
111	32085	76	76
112	US-314 (Hybrid Check)	81	81
113	32087	80	80
114	Vandana (NC)	84	84
115	33259	81	81
116	Anjali (ZC for all zone)	72	72
117	33260	79	79
118	Local Check	69	69
mean		79	79

Table No 1.4.2: Plant Height (cm) of entries in AVT 1-E DS Kharif 2024 under Severe Drought Situation

Entry No	IET No	Zone VI	
		GU	Zone VI(1)
		DRL	mean
101	30330 (R)	77.1	77.1
102	31170	80.1	80.1
103	Sahbhagidhan (NC & RP)	87.9	87.9
104	31193	91	91
105	31163	82	82
106	IR 64 (Sensitive check)	74.8	74.8
107	31185	91.2	91.2
108	32100	98.2	98.2
109	Zonal Check	92.5	92.5
110	32077	95.3	95.3
111	32085	107.3	107.3
112	US-314 (Hybrid Check)	84.4	84.4
113	32087	83	83
114	Vandana (NC)	87.3	87.3
115	33259	95.3	95.3
116	Anjali (ZC for all zone)	76.1	76.1
117	33260	87.6	87.6
118	Local Check	103.3	103.3
mean		88.6	88.6

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 1.5.2: Number of Panicles/m² of entries in AVT 1-E DS Kharif 2024 under Severe Drought Situation

Entry No	IET No	Zone VI	
		GU	Zone VI(1)
		DRL	mean
101	30330 (R)	221	221
102	31170	221	221
103	Sahbhagidhan (NC & RP)	137	137
104	31193	239	239
105	31163	243	243
106	IR 64 (Sensitive check)	229	229
107	31185	221	221
108	32100	237	237
109	Zonal Check	245	245
110	32077	227	227
111	32085	245	245
112	US-314 (Hybrid Check)	185	185
113	32087	212	212
114	Vandana (NC)	128	128
115	33259	240	240
116	Anjali (ZC for all zone)	136	136
117	33260	160	160
118	Local Check	255	255
	mean	210	210

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 1.3.3: Days to 50% Flowering of entries in AVT 1-E DS Kharif 2024 under Normal Situation

Entry No	IET No	Zone III			Zone III (3)	Zone I	Zone IV	Zone V				Zone V (3)	Zone VI		Zone VII		Zone VII (2)	Overall (9)
		OD	BI	JH	mean	SK	NL	CG		CG(2)	MP	mean	GJ	TN	KA	mean	mean	
		JYP	PSA	RCI		SKM@	MDZ@	JDP	RPR	mean	JBP	mean	VYR	ADT	MGD	mean	mean	
101	30330 (R)	89	84	83	85	83	76	83	79	81	87	83	69	89	98	94	85	
102	31170	89	76	80	82	81	76	75	70	73	73	73	79	95	112	104	83	
103	Sahbhagidhan (NC & RP)	87	83	84	85	79	82	80	77	79	76	78	78	88	90	89	83	
104	31193	84	75	80	80	83	80	78	70	74	77	75	75	86	101	94	81	
105	31163	94	85	90	90	79	82	93	84	89	84	87	68	89	93	91	87	
106	IR 64 (Sensitive check)	85	78	82	82	83	78	80	81	81	85	82	76	103	86	95	84	
107	31185	86	74	74	78	79	77	78	73	76	83	78	72	87	94	91	80	
108	32100	90	82	84	85	71	81	81	76	79	85	81	63	97	95	96	84	
109	Zonal Check	83	83	79	82	79	78	90	84	87	90	88	68	87	99	93	85	
110	32077	95	80	82	86	83	78	82	80	81	102	88	76	87	96	92	87	
111	32085	87	78	74	80	85	77	74	70	72	102	82	92	84	107	96	85	
112	US-314 (Hybrid Check)	86	82	84	84	79	76	81	77	79	99	86	68	91	100	96	85	
113	32087	82	78	84	81	91	80	80	73	77	86	80	79	87	117	102	85	
114	Vandana (NC)	82	84	84	83	79	82	81	82	82	77	80	73	90	98	94	83	
115	33259	86	79	82	82	86	82	78	75	77	81	78	80	88	96	92	83	
116	Anjali (ZC for all zone)	77	58	65	67	71	76	71	89	80	83	81	68	83	109	96	78	
117	33260	91	76	81	83	79	78	77	74	76	76	76	61	86	98	92	80	
118	Local Check	94	85	66	82	81	78	75	79	77	90	81	89	86	88	87	84	
	Mean	87	79	80	82	81	79	80	77	79	85	81	74	89	99	94	83	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 1.4.3: Plant Height (cm) of entries in AVT 1-E DS Kharif 2024 under Normal Situation

Entry No	IET No	Zone III			Zone III (3)	Zone I SK	Zone IV NL	Zone V			Zone V (3)	Zone VI GJ	Zone VI (1)	Zone VII		Zone VII (2)	Overall (9)	
		OD	BI	JH				CG	CG(2)	MP				TN	KA			
		JYP	PSA	RCI	mean	SKM@	MDZ@	JDP	RPR	mean	JBP	mean	VYR	mean	ADT	MGD	mean	mean
101	30330 (R)	118	85	101	101	52	98	113	127	120	79	106	124	124	104	76	90	103
102	31170	100	75	101	92	54	90	103	105	104	60	89	102	102	91	85	88	91
103	Sahbhagidhan (NC & RP)	101	73	98	91	63	99	98	113	106	85	99	122	122	95	73	84	95
104	31193	86	66	101	84	66	91	98	110	104	61	90	98	98	82	91	87	88
105	31163	100	75	94	90	58	97	106	110	108	75	97	113	113	96	80	88	94
106	IR 64 (Sensitive check)	89	78	83	83	57	97	87	106	97	54	82	97	97	81	79	80	84
107	31185	119	79	121	106	59	93	124	123	124	66	104	125	125	114	80	97	106
108	32100	108	88	113	103	74	87	111	138	125	72	107	130	130	111	76	94	105
109	Zonal Check	83	64	84	77	60	86	99	118	109	65	94	115	115	117	81	99	92
110	32077	104	84	103	97	46	91	111	113	112	61	95	118	118	104	75	90	97
111	32085	111	85	116	104	54	90	101	131	116	65	99	134	134	114	77	96	104
112	US-314 (Hybrid Check)	99	78	91	89	59	94	110	121	116	54	95	108	108	90	71	81	91
113	32087	88	86	97	90	43	90	99	112	106	58	90	101	101	87	90	89	91
114	Vandana (NC)	96	60	85	80	48	98	95	105	100	51	84	97	97	95	68	82	84
115	33259	109	71	105	95	57	95	116	117	117	76	103	121	121	103	79	91	100
116	Anjali (ZC for all zone)	103	64	104	90	69	86	107	99	103	78	95	103	103	103	77	90	93
117	33260	100	77	102	93	41	92	102	115	109	68	95	121	121	96	80	88	96
118	Local Check	99	81	112	97	55	92	105	113	109	64	94	94	94	91	53	72	90
	Mean	101	76	101	92	56	93	105	115	110	66	95	112	112	99	77	88	95

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 1.5.3: Number of Panicles/m² of entries in AVT 1-E DS Kharif 2024 under Normal Situation

Entry No	IET No	Zone III			Zone III (3)	Zone IV	Zone IV	Zone V			Zone V (3)	Zone VI	Zone VII		Zone VII (2)	Overall (9)	
		OD	BI	JH		SK	NL	CG	CG(2)	MP		GJ	TN	KA			
		JYP	PSA	RCI	mean	SKM@	MDZ@	JDP	RPR	mean	JBP	mean	VYR	ADT	MGD	mean	mean
101	30330 (R)	255	225	196	225	252	263	238	174	206	188	200	185	362	318	340	238
102	31170	326	213	167	235	254	306	298	194	246	252	248	176	362	361	362	261
103	Sahbhagidhan (NC & RP)	279	212	137	209	263	284	225	153	189	223	200	198	350	345	348	236
104	31193	313	206	245	255	266	229	256	200	228	229	228	192	268	303	286	246
105	31163	221	189	223	211	258	247	249	212	231	253	238	221	373	356	365	255
106	IR 64 (Sensitive check)	380	203	209	264	257	297	248	159	204	315	241	184	373	345	359	268
107	31185	328	228	172	243	259	244	213	191	202	243	216	137	303	309	306	236
108	32100	232	215	194	214	274	246	261	193	227	272	242	200	362	285	324	246
109	Zonal Check	360	206	247	271	260	294	266	96	181	256	206	191	385	251	318	251
110	32077	272	237	220	243	246	334	249	178	214	289	239	197	385	341	363	263
111	32085	230	215	151	199	254	249	265	195	230	246	235	215	373	329	351	247
112	US-314 (Hybrid Check)	286	205	133	208	259	272	292	174	233	240	235	210	373	391	382	256
113	32087	259	206	252	239	243	257	254	196	225	218	223	191	268	231	250	231
114	Vandana (NC)	275	199	152	209	248	319	208	161	185	265	211	165	362	249	306	226
115	33259	286	213	123	207	257	233	276	190	233	222	229	191	362	319	341	242
116	Anjali (ZC for all zone)	297	212	111	207	269	347	243	138	191	223	201	155	268	392	330	227
117	33260	228	207	214	216	241	267	272	165	219	294	244	172	280	297	289	237
118	Local Check	369	231	172	257	255	341	241	201	221	263	235	180	385	310	348	261
	Mean	289	212	184	228	256	279	253	176	215	250	226	187	344	318	332	246

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 1.6: Grain Quality characteristics of entries in AVT 1-E DS Kharif 2024 tested at CRRI, Cuttack

Entry No	IET No	Hull	Mill	HRR	KL	KB	L/B	KLAC	ER	WU	VER	ASV	GC	AC	Type
101	30330 (R)	74.00	61.30	46.10	6.33	2.03	3.12	11.18	1.77	125.00	4.00	4.00	56.00	20.10	LS
102	31170	71.00	54.71	51.20	5.29	2.00	2.65	9.54	1.80	150.00	4.00	3.00	50.00	21.50	MS
103	<u>Shabhagidhan)</u>	74.60	63.90	54.58	5.72	2.21	2.59	10.22	1.79	145.00	4.25	5.00	55.00	21.30	MS
104	31193	72.00	53.32	45.20	6.11	2.30	2.66	10.83	1.77	155.00	4.00	4.00	56.00	18.50	LB
105	31163	75.00	59.88	51.20	5.21	2.12	2.46	9.41	1.81	165.00	4.00	4.00	50.00	21.30	SB
106	IR 64	73.30	68.50	54.80	5.96	2.10	2.84	10.59	1.78	175.00	4.25	3.00	50.00	20.30	MS
107	31185	74.00	61.45	46.45	5.86	2.14	2.74	10.44	1.78	155.00	4.00	5.00	55.00	22.50	MS
108	32100	76.00	65.20	57.20	5.91	2.35	2.51	10.52	1.78	125.00	9.00	6.00	57.00	21.30	MS
109	Zonal Check	74.70	66.50	63.00	5.84	2.03	2.88	10.41	1.78	135.00	4.25	4.00	56.00	21.50	MS
110	32077	74.00	60.20	37.90	6.12	2.00	3.06	10.85	1.77	145.00	4.25	5.00	58.00	23.90	LS
111	32085	76.00	61.30	42.50	5.45	2.56	2.13	9.79	1.80	155.00	4.00	6.00	57.00	22.40	SB
112	US-314	75.00	61.00	46.20	5.40	2.13	2.54	9.71	1.80	130.00	4.00	4.00	56.00	21.10	MS
113	32087	76.00	64.20	48.60	6.17	2.14	2.88	10.93	1.77	120.00	4.25	5.00	55.00	21.10	LB
114	<u>Vandana</u>	76.00	65.35	62.10	5.93	2.03	2.92	10.55	1.78	105.00	4.00	6.00	50.00	21.50	MS
115	33259	75.00	64.85	37.65	5.81	2.28	2.55	10.36	1.78	105.00	4.00	5.00	54.00	20.50	MS
116	Anjali	76.50	63.70	58.25	5.34	2.48	2.15	9.62	1.80	135.00	4.25	4.00	57.00	21.50	SB
117	33260	75.00	63.50	47.50	5.60	2.70	2.07	10.03	1.79	125.00	4.00	5.00	54.00	20.50	SB
118	Local Check	73.00	62.00	46.90	6.25	1.94	3.22	11.05	1.77	145.00	4.00	6.00	56.00	19.80	LS

**INITIAL VARIETY TRIAL - EARLY DIRECT SEEDED
(IVT-E DS)**

Locations: 18

Test Entries: 35

Checks:

National check: Sahabgadhyan and Vandana – National Checks

Sensitive check: IR64

Zonal check: Govind (Northern-II), Narendra 97(Eastern-III&IV), Samaleshwari (Central-V), Varalu (Western-VI) and Tulasi (Southern-VII) & Anjali (All zones)

Hybrid check: US 314 and

Local checks

Under IVT-EDS trial, thirty- five test entries were evaluated with seven checks during kharif-2024. The composition of entries in the trial is as mentioned in table1. Trial was laid out across nineteen locations representing zone-I, III, V, VI and VII. Data was not received from Medziphema, Nagaland and therefore only eighteen locations were categorized under normal and moderate drought conditions, based on the period of dry spells observed (table2) during the period of crop growth.

Twelve out of eighteen locations were categorized as normal condition which include, Sikkim, Jeypore, Hathwada, Pusa (Bihar), Garhkhatanga, Ranchi, Jagdalpur, Raipur, Jabalpur, Vyara, Aduthurai and Mugad. Six locations were categorized as moderate drought that includes Cuttack, Hazaribagh, Rewa, Parbhaini, Derol and Coimbatore. Sikkim of zone-I, Pusa (Bihar) of zone-III and Jagdalpur (Chattisgarh) under zone-V was not considered for the analysis due to low CV at first two locations and a non-significant F-statistics at the third location. Therefore, fifteen locations were considered for data interpretation.

None of the test locations were categorized as severe drought condition and therefore, the genotypes were identified only for the IVT (A) category, as defined in the ‘Criteria for promotion/ promising entry identification in Early direct seeded trial’ (Proceedings of meeting for promotion and release in problem prone ecologies under rainfed and irrigated conditions dated 16.05.2024).

Performance of the single hybrid entry, IET 33108 (KAVERI7119, KR22SA083/KR20SR054) was evaluated with respect to the performance of the hybrid check, US 314 in the trial.

Overall:

On overall basis the mean yield was found to be 2399kg/ha with mean DFF of 83 days and mean plant height of 89cm. The mean performance of the local check (2630kg/ha, 78 DFF and 93 cm plant height) was considered as the BVC for comparison of entries on overall basis. The entries which were found to perform significantly superior to the BVC are IET 33089, 33094, 33100 and 33119 while the entries IET 33087, 33091, 33092, 33095, 33097, 33102, 33103, 33104, 33105, 33112, 33120 and 33121 performed at par with the BVC. The hybrid entry IET 33108 performed significantly superior to the hybrid check US314 (yield 2537kg/ha, 77DFF, 89cm plant height) with mean yield of 2954kg/ha, 74DFF and 80cm plant height.

Zone wise performance of entries under normal condition

Zone-III: Trial was laid out at five locations in the zone. The data from Jeypore (Odisha), Hathwada (West Bengal), Garhkhatanga & Ranchi (Jharkhand) was utilized for analysis while the data from Ranchi (Jharkhand) was low in CV% and was therefore not considered for analysis. The entries IET 33089, 33091, 33092, 33095, 33100, 33105, 33110, 33114, 33119, 33121, showed significantly higher yield than Vandana (yield 2760kg/ha, 87 DFF and 79cm plant height) the national check and the best varietal check (BVC) in the zone. The entries, IET 33087, 33090, 33093, 33094, 33097, 33098, 33099, 33101, 33102, 33103, 33104, 33106, 33107, 33108, 33111, 33112, 33116, 33117, 33118 and 33120 displayed at par performance with the BVC. The entries 33090 (101 DFF), 33093 (DFF 96 days), 33099 (DFF 93 days), 33101, (93), 33104 (92), 33106 (96), 33111 (92 DFF) and 33121 (92 DFF) displayed a DFF beyond the permissible duration under EDS, as well as the DFF of check varieties (Vandana, DFF 87 days) in the zone and therefore, are not considered suitable for EDS in the zone. The mean yield in the zone is 2873 kg/ ha, mean days to fifty percent flowering is 86 days and the mean plant height is 91cm.

Zone V: Trial was laid out at three locations in the zone. The data from Raipur (Chattisgarh) and Jabalpur (M.P.) was considered, while the data from Jagdalpur (M.P.) was low in CV% and was therefore not considered for analysis. The entry IET33104, showed significantly higher yield than mean performance of local checks in the zone and was considered as the BVC for comparison in the zone. The entries, IET33089, 33092, 33097, 33100, 33102, 33109, 33112, 33119 and 33120 displayed at par performance with the BVC. IET33097 displayed DFF of 103 days and not found suitable for EDS in the zone. The mean yield in the zone is 3691kg/ ha, mean DFF is 86 days and the mean plant height is 85cm. The hybrid entry IET 33108 (yield 5456kg/ha, 78 days DFF, 97cm plant height) displayed a significantly superior performance as compared to the hybrid check, US314 (yield 2749 kg/ha, 81 days DFF and 82cm plant height).

Zone VI: Trial was laid out at Vyara Gujrat and the data was considered for analysis. The best varietal check was found to be Sahabhazi Dhan, the national check in the trial (5172kg/ha, 69 days DFF and 127cm plant height). The mean yield for the location is 4007kg/ha with a mean DFF of 96 days and a mean plant height of 116cm. None of the entries performed better than the BVC while the entries, IET no. 33095, 33096, 33097, 3099, 33102, 33103, 330104, 33105, 33110, 33119 and 33120 displayed at par performance w.r.t. the BVC. The entries, IET no. 33096 and 33097 displayed DFF of 96 days and were not considered further.

The hybrid entry IET 33108 (yield 4713kg/ha, 104 days DFF and 110cm plant height) displayed at par yield with the hybrid check US 314 (4738kg/ha, 67 days DFF and 110cm plant height). However, it displayed a DFF of 104 days and was not considered for promotion in the zone.

Zone VII: Trial was laid out at two locations in the zone. The data from both Aduthurai (Tamil Nadu) and Mugad (Karnataka) were utilized for analysis. None of the entries displayed a significantly higher yield than the mean performance of the zonal check Tulasi, the BVC for the zone (6288kg/ha, DFF93 days and plant height of 112cm). The entries, IET33089, 33090, 33100, 33110, 33111, 33113 and 33121 displayed at par performance with the BVC. The mean performance of the varieties in the zone is 4805 kg/ ha, mean DFF of is

Annual Progress Report 2024 Vol. I – Varietal Improvement

91 days and the mean plant height is 86cm. All the at par performing entries displayed DFF > 90 days viz., IET no. 33089 (91), 33090 (99), 33100 (94), 3110 (94), 33111 (94), 33113 (105), 33121 (94). However, all the entries were considered for further comparison under drought as the national check Vandana displayed a DFF of 93 days in the zone (yield 4463kg/ha).

Overall basis: On overall basis, the mean yield was found to be 3614kg/ha with mean DFF of 86 days and mean plant height was 91cm. The mean performance of the zonal check (4031kg/ha, 85 DFF and 95 cm plant height) was considered as the BVC for comparison of entries here. None of the entries were found to perform significantly superior to the BVC while the entries, IET33090, 33091, 33092, 33095, 33096, 330100, 33102, 33104, 33105, 33111, 33119 and 33121 performed at par with the BVC. However, two entries IET 33090 (98DFF) and 33096 (94 DFF) displayed DFF > 90 days and more than all the check varieties in the zone, and therefore are not considered further. The hybrid entry IET 33108 performed significantly superior to the hybrid check US314 (yield 3523kg/ha, 81days DFF, 88cm plant height) with mean yield of 4200kg/ha, 83days DFF and a plant height of 88cm.

Zone wise performance of entries under moderate drought condition

Zone-III: Two locations in the zone, CRR I Cuttack (Odisha) and Hazaribagh (Jharkhand) were observed to experience moderate drought. Vandana, the national check was found to be the BVC (mean yield 3184kg/ha, 74 DFF and 87cm plant height) for the zone. A single entry, IET 33112 was found to significantly outperform the BVC while the entries that performed at par with the BVC were IET 33087, 33089, 33091, 33092, 33094, 33095, 33100, 33102, 33105, 33111, 33114, 33119, 33120 and 33121. The mean yield for the zone is 2603kg/ha, with 80 DFF and mean height of 94cm.

Zone V: Single location under the zone was categorized under moderate drought that includes, Rewa (M.P.). The mean yield was 2437kg/ha for the location with mean DFF 85 days while the mean plant height was 90cm. Local check variety, JL206 was considered as the BVC with yield of 3072kg/ha, 85 days DFF and 80cm plant height. The entries that significantly outperformed the BVC include, IET 33089, 33094, 33095 and 33118 while the entries that performed at par with the BVC are IET 33087, 33091, 33100, 33119, 33120 and 33121. However, the entries IET 33091 (97DFF) and 33119 (98 days DFF) had greater value of DFF > 90days and the check varieties and are not considered further.

Zone VI: None of the entries qualified testing under moderate drought conditions.

Zone-VII: Single location under the zone was categorized under moderate drought that includes Coimbatore (Tamil Nadu). A 35 days dry spell during maximum tillering and 4 days dry spell during flowering to maturity was observed at the location. The mean yield was 2220kg/ha, mean DFF was 86 days while the mean plant height was 92cm. Local check variety, CO53 was considered as the BVC with yield of 2488kg/ha, 82 DFF and 87cm plant height. The entries that significantly outperformed the BVC include, IET33089, 33094, 33100 and 33102. The hybrid entry IET 33108 performed significantly higher than the hybrid check US 314 (mean yield 2036kg/ha, 78DFF and 83cm plant height) with yield of 3719kg/ha, 72DFF and plant height of 80cm.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 2.1: Composition of entries in IVT-Early Direct seeded (IVT-EDS), *Kharif* 2024

Entry no	IET no	Designation	Cross combination	Grain type
201	33087	RCPR 107-IR18R1123	SUPA/3*IRRI 154	LS
202	33088	CR 4059-1312-8-9-1	IET 22729 / PR 118	SS
203	33089	HTW99-IR08L181	IR 55423-01(NSIC RC 9)/IRRI 148	MB
204	33090	RPCAU716(RAU716)	Rajendra Mahsuri / IR42	MS
205	33091	ORJ 1338 (TP-30039)	IR 10L128/1R09N520	MB
206	33092	CRR 716-4-8-1	IR78933-B-24/Anjali	LB
207	33093	CR 4468-RGA-1229	CR Dhan 202 / CR 4383-RGA-216	MS
208	33094	DDR-20-01	Selection from (GP 6-2-2)	MS
209	Vandana (National check)			
210	33095	JDP 1021	PS-55-AIRI / Danteswari	MS
211	33096	MLD 273-IR20LT2222	IRRI 154/IR 96321-558-563-B-2-1-3//IR 127152-2-10/IR 127152-2-10/IR	LS
212	33097	NVSR 3879	NVSR-2179 / NVSR-2803	LS
213	IR 64 (Sensitive check)			
214	33098	CB 22900	ADT 45*3/Apo//ADT 45*3/Wayrarem	MS
215	33099	RNR 41704	Tellahamsa / PUSA 44	LS
216	33100	CR 3844-38-2-2-3-1	Guntabhidhan / Pyari	MS
217	33101	RCPR 108-IR18R1179	SUPA/3*IRRI 154	LS
218	33102	NVSR 3987	NVSR 2528 / NVSR 2179	LB
219	33103	CR 4437-7-44	IR 64 SUB-1*3/MER-20	MS
220	Sahabghadhan (National check)			
221	33104	R-RF-202	R-RF-140 / R-RF-156	MB
222	33105	R 2406-399-1-204-1	Swarna Sub 1 / Gopal Bhog	LB
223	33106	CR-4171-21-1-1	CR DHAN-311 / BPT-5204	MS
224	33107	RPCAU1433	Prabhat / Kamini	MS
225	33108	KAVERI7119	KR22SA083/KR20SR054	LB
226	33109	RCRR-1-UPR-2992-17-3-1-1	Single plant selection from UPR-2992-17-3-1	LB
227	Govind (Northern-II), Narendra 97 (Eastern-III and IV), Samaleshwari (Central- V), Varalu (western-VI)and Tulasi (Southern-VII)(Zonal check)			
228	33110	CIARI Dhan 11(ANR 47)	HHZ 21-SAL13-Y1-Y1 Selection from(GSR-RFLL) Nursery	LS
229	33111	CRR 836-IR 116709-B-B	IR 64-AGI C/IR 26	LS
230	33112	BRK-585 IR16D1002	HC 4967	LS
231	33113	CR 4040-1-2-1-1-2	Pooja / CR 3697-4-2-4	MS
232	33114	RP6460-db-C3-328	166S-Swarna/O. nivaral//148S-Swarna/O. nivaral	LS
233	33115	CR 3561-2-2-1-1-1-1	Surendra /Annapurna	MB
234	33116	CB 22915	ADT 43*4/CT 9993	LS
235	33117	R 2340-243-1-275-1	Indira Barani dhan-1 / GUANG JIANR-1	MS
236	Anjali (all zones)			
237	33118	CRR 783-B-B-4	RR 51-1/TJP 48// RR51-1	LS
238	33119	ORJ 1304	Swarna/IRGC 27502//MTU 1081	MB
239	33120	R-RF-204	R-RF-140 / R-RF-156	MB
240	33121	CR 6458-1	BR 29/ A 69-1	MS
241	US 314(Hybrid Check)			
242	Local Check			

Annual Progress Report 2024 Vol. I – Varietal Improvement

General information on drought situation at locations considered for interpretation:

Location	Drought situation	Av.Expt. Yiel (Kg/ha)	CV (%)	F-Statistics (S/NS)	Best check		Drought Situation
					Variety	Yield (Kg/ha)/DFF	
Jeypore	Normal	2389	18.88	S	Vandana (NC)	1980.718/88	No drought observed
Hathwada	Normal	3230	10.71	S	Narendra 97(ZC)	3206/75	No drought observed
Garhkhatanga	Normal	2615	10.00	S	Narendra 97(ZC)	3120/82	1 spell during reproductive stage
Ranchi	Normal	3330.	7.87	S	Narendra 97 (ZC)	3587/82	
Raipur	Normal	3295	17.70	S	Samaleshwari (ZC)	4283/82	No drought observed
Jabalpur	Normal	4085	6.18	S	Anjali (All zones check)	5594/75	17 days dry spell during flowering stage
Vyara	Normal	4007	9.72	S	Sahabhagidhan (NC)	5172/69	No dry spells
Aduthurai	Normal	4297	12.1	S	ADT 56 (LC)	5069.44/86	No dry spells
Mugad	Normal	5365	13.74	S	Tulasi (ZC)	8096/89	No dry spell
NRRI, Cuttack	Moderate	4805	13.21	S	Vandana (NC)	2875/72	7 days dry spell during maximum tillering stage and 9 days dry spell during flowering
Hazaribagh	Moderate	2773	8.1	S	Vandana (NC)	3492/77	10 days of dry spell during flowering
Rewa	Moderate	2437	8.21	S	JR 206 (LC)	3072/85	10 days dry spell during maximum tillering stage
Parbhaini	Moderate	2527	21.76	S	Sahabhagidhan (NC)	3050/81	14 days dry spell during maximum tillering stage 10 days of dry spell during flowering
Derol	Moderate	1955	14.14	S	AAUDR 1 (LC)	2626/68	12 days of dry spell during flowering
Coimbatore	Moderate	2220	15.18	S	Sahabhagidhan (NC)	2493/88	35 days dry spell during maximum tillering and 4 dry spells during flowering to maturity
Sikkim	Normal	2708	2.55	S	Not considered further due to low CV		
Pusa	Normal	3769	4.86	S	Not considered further due to low CV		
Jagadapur	Normal	5179	22.41	NS	Not considered further due to non-significant F statistics		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Identification of superior and at par entries under normal and superior entries under moderate drought conditions in different zones:

Zone-III				
Normal condition BVC: Vandana (NC) Hybrid Check: US314			Moderate drought BVC: Vandana (NC) Hybrid Check: US314	Remarks
Superior entries	At par entries	Remarks	Superior entries	
33089, 33091, 33095, 33096, 33100, 33105, 33110, 33114, 33119, 33121	33087, 33090, 33093, 33094, 33097, 33098, 33104, 33106, 33107, 33108, 33111	33090, 33093, 33099, 33101, 33104, 33106, 33111 and 33121 not considered further due to > 90days DFF	33112	IET 33112 Promoted to AVT1 under IVT(A) category
Zone-V				
Normal condition BVC: Local check Hybrid Check: US314			Moderate drought BVC: JR 206 (LC) Hybrid Check: US314	Remarks
Superior entries	At par entries	Remarks	Superior entries	
33104, 33108 (Hybrid)	33089, 33092, 33097, 33100, 33102, 33109, 33112, 33119, 33120	33097 displayed DFF of 103 days and not considered	33089, 33094, 33095, 33118	IET33089 Promoted to AVT1 under IVT(A) category

Annual Progress Report 2024 Vol. I – Varietal Improvement

Identification of superior and at par entries under normal and superior entries under moderate drought conditions in different zones contd.:

Zone-VI				
Normal condition BVC: Sahabgaidhan (NC) Hybrid Check: US314			Moderate drought BVC: Vandana (NC) Hybrid Check: US314	Remarks
Superior entries	At par entries	Remarks	Superior entries	
None of the entries were found to be significantly superior to BVC	33095, 33096, 33097, 33099, 33102, 33103, 33104, 33105, 33108 (Hybrid), 33110, 33119, 33120	33096 and 33097 displayed DFF of 96 days while 33108 (hybrid) had DFF of 104 days and were not considered further	None of the at par entries that qualified the DFF criteria could perform superior to BVC under the condition	No promotions in the zone as none of the entries qualified the criteria
Zone-VII				
Normal condition BVC: Tulasi (ZC) Hybrid Check: US314			Moderate drought BVC: CO53 (LC) Hybrid Check: US314	Remarks
Superior entries	At par entries	Remarks	Superior entries	
None of the entries were found to be significantly superior to BVC	33089, 33090, 33100, 33110, 33111, 33113, 33121, 33108 (Hybrid)	Despite of >90 days DFF for all the entries, all were considered as Vandana (NC) displayed a DFF of 93 days in the zone (yield 4463kg/ha)	33108 (Hybrid), 33089, 33094, 33100, 33102, 33104, 33119	IET 33108 (Hybrid), IET 33100 and IET 33089 promoted to AVT1 under IVT(A) category

Annual Progress Report 2024 Vol. I – Varietal Improvement

Identification of superior and at par entries under normal and superior entries under moderate drought conditions in different zones contd.:

Overall basis					
Normal condition BVC: ZC mean Hybrid Check: US314			Moderate drought BVC: LC mean Hybrid Check: US314		Remarks
Superior entries	At par entries	Remarks	Superior entries		
33108 (Hybrid)	33090, 33091, 33092 33095, 33096, 33100 33102, 33104, 33105, 33111, 33119 33121	33090 and 33096 displayed DFF > 90 days and more than all the check varieties in the zone, and therefore are not considered further	33108 (Hybrid), 33089, 33094, 33100, 33119		IET 33100, IET 33119 and IET 33108 (Hybrid) are promoted to AVT1 under IVT(A) category

Performance of Entries promoted to AVT 1 under IVT (A) category in different zones:

Zone	Normal condition					Moderate drought				Remarks
	Entry No.	CD at 10%	GT	Performance (kg/ha)/FD		Entry No.	CD at 10%	Performance (kg/ha)/FD	Remarks	
				Normal condition	Remarks					
Zone-III	33112	329.5	LS	2737	At par with BVC	33112	350	3700	Superior to BVC	Promoted to AVT1 under IVT (A) category in Zone-III
	Vandana (NC)			2760				3184		
Zone-V	33089	550.26	MB	4475	At par with BVC	33089	337.02	4040	Superior to BVC	Promoted to AVT1 under IVT (A) category in Zone-V
	LC			4676				3072		
				84		LC (JR-206)		85		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Zone	Normal condition					Moderate drought				Remarks
	Entry No.	CD at 10%	GT	Performance (kg/ha)/FD		Entry No.	CD at 10%	Performance (kg/ha)/FD	Remarks	
				Normal condition	Remarks					
Zone-VI	None of the entries were promoted in the zone									
Zone-VII	33108 (Hybrid)	799.64	LB	5170 86	At par with hybrid check	33108 (Hybrid)	339.42	3719 72	Superior to hybrid check	Promoted to AVT1 under IVT (A) category in Zone-VII
	US314 (Hybrid Check)					US314 (Hybrid Check)		2036 78		Hybrid Check
	33089		MB	6425 91	At par with BVC	33089		2835 83	Superior to BVC	Promoted to AVT1 under IVT (A) category in Zone-VII
	33100		MS	6099 94	At par with BVC	33100		3296 87	Superior to BVC	Promoted to AVT1 under IVT (A) category in Zone-VII
	ZC (Tulasi)				6288 93			LC (CO53)	2488 82	
Overall	33108 (Hybrid)	277.061	LB	4200 83	Superior to hybrid check	33108 (Hybrid)	254.76	2954 74	Superior to hybrid check	Promoted to AVT1 under IVT (A) category on overall basis
	US314 (Hybrid Check)			3523 81		US314 (Hybrid Check)		2537 77		Hybrid check
	33100		MS	4284 88	At par with BVC	33100		3082 87	Superior to BVC	Promoted to AVT1 under IVT (A) category on overall basis
	33119		MB	4121 86	At par with BVC	33119		2899 87	Superior to BVC	Promoted to AVT1 under IVT (A) category on overall basis
	ZC (BVC)			4031 85		LC (BVC)		2630 78		BVC

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 2.2.1: Grain Yield (Kg/ha) of entries in IVT EDS Kharif 2024 under Normal situations

Entry No	IET No	Normal												
		Zone I		Zone III								Zone III (4)		
		Sikkim	OD	WB	BI	JH			Mean JH (2)	Mean				
		SKM@	JYP	HTW	PSA@	GTK	RCI							
201	33087	4175 ^{4* 2%}	2305	2764	3900	9	2115	2915	2515	2525				
202	33088	2217	2040							2040				
203	33089	2276	2134	3805 ^{7* 19%}	3750		3860 ^{1* 24%}	3867 ^{10* 8%}	3864 ^{2* 24%}	3417 ^{6* 24%}				
204	33090	2136	2660	3326	3500			2186	2186	2724				
205	33091	2970	4083 ^{1* 42%}	4214 ^{6* 31%}	3700		2445	2915	2680	3414 ^{7* 24%}				
206	33092	2753	2198	2798	3500		3470 ^{3* 11%}	4092 ^{7* 14%}	3781 ^{3* 22%}	3139				
207	33093	2109	2332	2871	3950	7	2395	2522	2459	2530				
208	33094	2162	2134	2794	3500		3385 ^{5* 8%}	3924 ^{8* 9%}	3654 ^{7* 18%}	3059				
209	Vandana (National check)	3040	1980	2846	3900	9	2625	3587	3106	2760				
210	33095	4589 ^{3* 12%}	2041	5018 ^{2* 56%}	3700		1900	3755	2828	3178 ^{9* 15%}				
211	33096	2244	3743 ^{2* 30%}	4621 ^{4* 44%}	3400		3815 ^{2* 22%}	2971	3393	3787	1			
212	33097	1643	2368	3604 ^{8* 12%}	3800		1980	2971	2475	2731				
213	IR 64 (Sensitive check)	4744 ^{2* 16%}	2071	2550	3600		2330	2690	2510	2410				
214	33098	2788	2287	3045	3630		3075	9	3587	3331	2999			
215	33099	3105	2017	2405	4000	6	2825	3195	3010	2610				
216	33100	5116 ^{1* 25%}	1896	5265 ^{1* 64%}	4800 ^{1* 17%}		1920	4988 ^{1* 39%}	3454 ^{9* 11%}	3517 ^{3* 27%}				
217	33101	2082	2297	2595	3700		2230	4596 ^{3* 28%}	3413 ^{10* 10%}	2930				
218	33102	1716	2112	3008	3300		2085	3307	2696	2628				
219	33103	2643	2262	2780	3700		2100	3475	2788	2654				
220	Shabhagidhan (National check)	1993	1814	2901	3800		3120	8	2859	2989	2673			
221	33104	1663	1570	3325	3400		2950	3867 ^{10* 8%}	3409	2928				
222	33105	3686	8	3172 ^{5* 10%}	3305		3010	10	4484 ^{5* 25%}	3747 ^{4* 21%}	3493 ^{4* 27%}			
223	33106	4151 ^{5* 1%}	2618	3001	3170		2520	3699	3110	2960				
224	33107	2197	3044 ^{6* 5%}	2553	3700		2395	3755	3075	2937				
225	33108	1721	1910	2801	3600		3200 ^{6* 3%}	3924 ^{9* 9%}	3562 ^{8* 15%}	2959				
226	33109	1952	1919	2526	3550		2630	1962	2296	2259				
227	Zonal check	2032	1946	3206	3750		2865	2410	2638	2607				
228	33110	3979	7	2277	4903 ^{3* 53%}		3600	2645	2803	2724	3157 ^{10* 14%}			
229	33111	2590	1912	3256	3500		2615	3531	3073	2829				
230	33112	2053	2168	2959	3750		2235	3587	2911	2737				

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entry No	IET No	Normal										
		Zone I		Zone III							Zone III (4)	
		Sikkim	OD	WB	BI	JH		Mean JH (2)	Mean			
		<u>SKM@</u>	JYP	HTW	<u>PSA@</u>	GTK	RCI					
231	33113	2174	3237 ^{4* 12%}	2528	3800	1650	1794	1722	2302			
232	33114	2364	2946 ^{7* 2%}	3028	3500	3420 ^{4* 10%}	4428 ^{6* 23%}	3924 ^{1* 26%}	3455 ^{5* 25%}			
233	33115	2287	2561	3316	4750 ^{2* 16%}	1730	1906	1818	2378			
234	33116	2168	2032	2811	3920 ⁸	2340	3363	2852	2636			
235	33117	3230	2769 ⁹	3138	3900 ⁹	2150	3587	2869	2911			
236	Anjali (all zones)	2046	1896	2506	4100 ⁴	1975	1962	1968	2085			
237	33118	2041	3578 ^{3* 24%}	3356 ^{10* 5%}	3800	2705	2634	2670	3068			
238	33119	2523	2384	4374 ^{5* 36%}	4710 ^{3* 15%}	2600	4820 ^{2* 34%}	3710 ^{5* 19%}	3544 ^{2* 28%}			
239	33120	2718	1896	3469 ^{9* 8%}	3750	3200 ^{6* 3%}	3307	3253	2968			
240	33121	3228	2693 ¹⁰	3054	3900 ⁹	2800	4596 ^{3* 28%}	3698 ^{6* 19%}	3286 ^{8* 19%}			
241	US 314(Hybrid Check	2320	2138	2793	3750	2420	3643	3032	2749			
242	Local Check	4100	2884 ⁶	3011	4080 ⁵	2855	2074	2464	2706			
	Exp. mean	2708	2389	3229.91	3769	2614.6	3330	2967	2873			
	CD@5%	139.43	911	698.82	370.15	535.33	529.60	374	395.42			
	CD@10%	116.19	758.9	582.22	308.39	449.92	441.23	311.4	329.5			
	CV%	2.55	18.88	10.71	4.86	10	7.87	6	6.81			
	F Statistic	342.8	3.03	8.58	7.19	8.6	20.42	18.4	8.57			
	D/S	S	S	S	S	S	S	S	S			
	D/S	28-06-2024	06.07.24	05.07.2024	28-06-2024	28-06-2024	29.06.2024					
	Local Check Name	Sikkim Dhan-1	Mahendragiri	Puspa	Rajendra Nilam	IR-64drt-1	BVD-110					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 2.2.1 cont.: Grain Yield (Kg/ha) of entries in IVT EDS Kharif 2024 under Normal situations

Entry No	IET No	Zone V														Overall (Normal) (9)			
		Zone V						Zone VI		Zone VII				Zone VII (2)	Overall (Normal) (9)				
		CG			MP			Zone V (2)		GU		TN					KA		
		JDP@	RPR		JBP		mean		VYR		ADT		MGD		Mean		mean		
201	33087	6318	7	2040		3790		2915		4328		2917		5110		4014		3143	
202	33088	3509				3405		3405		1875				4228		3192		2587	
203	33089	6813	3	4568	8* 7%	4382		4475	9	4484		7500	1* 48%	5351		6425	2* 2%	4439	1* 10%
204	33090	4242		2630		3817		3223		3255		4618		8563	2* 6%	6590	1* 5%	3882	
205	33091	5385		3776		3322		3549		4448		4271		5488		4879		3884	10
206	33092	4098		4338	10* 1%	4604		4471	10	3230		4479		4589		4534		3755	
207	33093	5775	10	1000		3295		2147		3323		3194		5140		4167		2897	
208	33094	5745		3379		3416		3397		4309		4028		4424		4226		3532	
209	Vandana (National check)	4717		2613		2732		2673		3974		4583		4343		4463		3254	
210	33095	6413	6	4088		3663		3875		4574		3576		5422		4499		3782	
211	33096	4587		2402		4653	10	3528		5431	1* 5%	6319	2* 25%	4464		5392	9	4269	3* 6%
212	33097	5140		5328	2* 24%	3218		4273		4825	7	4931	8	4149		4540		3708	
213	IR 64 (Sensitive check)	3978		2848		3476		3162		3103		5243	4* 3%	5423		5333	10	3304	
214	33098	4069		2312		3520		2916		4021		3958		4541		4250		3372	
215	33099	3688		2287		4128		3208		4733	10	3333		6288	9	4811		3468	
216	33100	6230	8	4314		4851	8	4583	8	3124		3299		8898	1* 10%	6099	4	4284	2* 6%
217	33101	5264		2077		3754		2916		4391		4861	9	5257		5059		3562	
218	33102	3965		5092	5* 19%	4386		4739	5	4895	6	5590	3* 10%	4605		5097		3898	9
219	33103	5726		2319		4307		3313		4973	5	3889		4932		4411		3449	
220	Shabhagidhan (National check)	5570		4008		3331		3669		5172	3	4028		4316		4172		3505	
221	33104	5911	9	5983	1* 40%	5899	2* 5%	5941	1* 26%	4558		3993		4386		4190		4059	6* 1%
222	33105	6631	4	2652		3872		3262		5057	4	3611		6717	5	5164		3987	8
223	33106	5202		2872		4018		3445		2735		4201		5779		4990		3494	
224	33107	5000		3811		4316		4064		3566		3681		4202		3941		3480	
225	33108	3988		4478	9* 5%	6435	1* 15%	5456	2* 15%	4713		4444		5895		5170		4200	4* 4%
226	33109	4541		5307	3* 24%	4307		4807	4* 2%	3729		3889		5740		4814		3556	
227	Zonal check	5592		4283		5178	5	4731	6	3812		4479		8096	3	6288	3	4031	7
228	33110	5371		1314		3475		2395		4765	8	5069	5	6524	6	5797	6	3753	
229	33111	6836	2	2720		5118	6	3919		4356		4771	10	6368	8	5569	8	3850	
230	33112	5557		5106	4* 19%	5009	7	5058	3* 7%	3480		3889		4286		4087		3635	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entry No	IET No	Zone V												Overall (Normal) (9)					
		CG				MP		Zone V (2) mean	Zone VI		Zone VII		Zone VII (2) Mean	Overall (Normal) (9) mean					
		JDP@		RPR		JBP	GU		TN	KA									
							VYR	ADT	MGD										
231	33113	3669		1893		3287		2590		2983		5069	5	6106	10	5588	7	3172	
232	33114	7061	1	2921		3663		3292		3612		2813		4263		3538		3455	
233	33115	4102		3028		3475		3251		2803		3542		6376	7	4959		3193	
234	33116	5501		2931		3616		3273		4478		4514		4578		4546		3407	
235	33117	4681		2660		3320		2990		4323		4236		6009		5123		3577	
236	Anjali (all zones)	3988		898		5594	3	3246		1291		4583		4185		4384		2766	
237	33118	4307		1732		4841	9	3287		3941		3681		4373		4027		3427	
238	33119	6576	5	4990	7* 17%	3696		4343		5215	2* 1%	4063		4950		4506		4121	5* 2%
239	33120	5736		5039	6* 18%	3328		4183		4525		3750		4301		4025		3646	
240	33121	5566		1379		4425		2902		3587		4201		7498	4	5850	5	3804	
241	US 314(Hybrid Check	4925		3671		3307		3489		4738	9	3993		5005		4499		3523	
242	Local Check	5531		4005		5346	4	4676	7	3556		5069	5	4171		4620		3664	
	Exp. mean	5179		3295		4085.03		3691		4007		4297		5365.18		4805.40		3614	
	CD@5%	2344.09		1178.4		509.68		660.34		786.79		1053		1488.38		959.61		333.14	
	CD@10%	1953.3		981.8		424.71		550.3		655.53		877		1240.3		799.64		277061	
	CV%	22.41		17.70		6.18		8.86		9.72		12.1		13.74		9.89		4.56	
		1.42		10.12		21.57		13.31		10.6		5.7		5.54		5.24		11.57	
	F Statistic	NS		S		S		S		S		S		S		S		S	
	D/S	12.06.24		28.06.2024		20-06-2024				22-06-2024		20.06.24		18.06.24					
	Local Check Name	Bastar Dhan 1		Bastar Dhan 1		MTU 1010				GR 16		ADT 56		MGD-101					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 2.2.2: Grain Yield (Kg/ha) of entries in IVT EDS Kharif 2024 under Moderate drought situations

Entry No	IET No	Moderate drought												Overall (moderate) (6) Mean									
		Zone III				Zone III mean (2)	Zone V		Zone VI			Zone VII											
		OD		JH			MP	MH	GU	TN													
		CTK	HZB	REW	PBN						DRL	CBT											
201	33087	2688		3587	3*	3%	3137		3299	6*	7%	2875	10	2397	10	2636	9*	6%	2877	6*	9%		
202	33088	2813		1452			2132					875				875			1838				
203	33089	3188	6*	11%	3294		3241	2*	2%	4040	1*	32%	3760	3*	23%	1909		2835	7*	14%	3124	2*	19%
204	33090	2763		1548			2155		1768			2650		1367		2009			2053				
205	33091	3271	5*	14%	3198		3235	3*	2%	2888			2025		1134		1580			2499			
206	33092	2750		3008			2879		1833			2750		2049		2400			2448				
207	33093	1938		1944			1941		1970			2450		1217		1834			1965				
208	33094	2917	8*	1%	3198		3058		3575	4*	16%	3875	2*	27%	3282	1*	25%	3579	2*	44%	3262	1*	24%
209	Vandana (National check)	2875	10	3492	6	3184	7	2422				2825		1483		2154			2580				
210	33095	2447		3595	2*	3%	3021		3876	3*	26%	1350		2350		1850			2695				
211	33096	2542		2429			2485		1751			2150		1692		1921			2124				
212	33097	2572		2905			2738		2235			2750		2275		2513	10		2527				
213	IR 64 (Sensitive check)	1646		2528			2087		1777			1900		1166		1533			1917				
214	33098	1991		2913			2452		2237			2300		1512		1906			2255				
215	33099	2521		1548			2034		1734			1950		1743		1847			1956				
216	33100	3354	2*	17%	3103		3229	4*	1%	2983	10	3625	4*	19%	2966	3*	13%	3296	3*	32%	3082	3*	17%
217	33101	2479		2619			2549		1804			2525		1133		1829			2158				
218	33102	2084		3587	3*	3%	2836		1803			2850		2910	5*	11%	2880	6*	16%	2615			
219	33103	2917	8*	1%	2325		2621		1928			2765		1869		2317			2436				
220	Shabhadhan (National check)	2042		2802			2422		2094			3050	6	1936		2493			2362				
221	33104	2831		2325			2578		2471			2850		2965	4*	13%	2908	5*	17%	2673			
222	33105	3025	7*	5%	3302	10	3163	9	2442			3000	7	1954		2477			2698	10			
223	33106	1319		1647			1483		1800			2875	10	1593		2234			1917				
224	33107	1813		3008			2410		2387			2750		1598		2174			2285				

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entry No	IET No	Moderate drought											Overall (moderate) (6) Mean				
		Zone III			Zone III mean (2)	Zone V	Zone VI			Zone VII							
		OD	JH			MP	MH	GU		TN							
		CTK	HZB			REW	PBN	DRL		CBT							
225	33108	2667		3000		2833		2098		4175	1* 37%	3263	2* 24%	3719	1* 49%	2954	4* 12%
226	33109	2583		2238		2411		1653		1950		2750	7	2350		2294	
227	Zonal check	1706		2429		2067		1942		2800		1320		2060		2119	
228	33110	2413		2139		2276		2211		2990	8	1539		2265		2290	
229	33111	3312.5	3* 15%	3103		3208	5* 1%	1896		1700		1569		1635		2283	
230	33112	3519	1* 22%	3881	1* 11%	3700	1* 16%	2625		2200		2115		2158		2802	7* 7%
231	33113	1063				1063				1300				1300		1143	
232	33114	2646		3397	8	3021		2185		1950		1864		1907		2302	
233	33115	1563		1063		1313		1936		1600		1542		1571		1639	
234	33116	2334		3302	10	2818		2300		2325		1327		1826		2290	
235	33117	1741		2429		2085		2213		2750		2529	9	2640	8* 6%	2300	
236	Anjali (all zones)	2306		1845		2076		1754		1705		963		1334		1816	
237	33118	2066		3492	6	2779		3997	2* 30%	2475		2126		2301		2761	8
238	33119	3294	4* 15%	3103		3198	6	2854		3300	5 8%	2854	6* 9%	3077	4* 23%	2899	5* 10%
239	33120	2750		3587	3* 3%	3169	8	3151	7* 3%	2725		2068		2397		2751	9
240	33121	2625		3397	8	3011		3009	9	2625		1629		2127		2620	
241	US 314(Hybrid Check	2042		3198		2620		3462	5	2450		1622		2036		2537	
242	Local Check	2500		2714		2607		3072	8	2350		2626	8	2488		2630	
	Exp. mean	2474		2773		2602.9		2437		2527		1955		2220		2399	
	CD@5%	660.21		453.5		420.02		404.6		1111		559.24		680.4		296.1	
	CD@10%	550.15		377.83		350		337		925.7		478.6		339.4		254.76	
	CV%	13.21		8.1		7.99		8.21		21.76		14.14		15.18		6.11	
		6.19		19.49		14.9		23.56		3.12		10.29		6.12		17.08	
	F Statistic	S		S		S		S		S		S		S		S	
	D/S	14-06-2024		09-07-2024				06-07-2024		03-07-2024		03-07-2024		10.08.2024			
	Local Check Name	CR Dhan 212		CR Dhan 40				JR 206		Avishkar		AAUDR 1		CO 53			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 2.3.1: Days to 50% flowering of entries in IVT-E DS Kharif 2024 under Normal situations:

Entry No	IET No	Normal								
		Zone I	Zone III						Mean JH (2)	Zone III (4) Mean
		Sikkim	OD	WB	BI	JH				
		SKM@	JYP	HTW	PSA@	GTK	RCI			
201	33087	84	85	84	81	88	86	87	86	
202	33088	83	94						94	
203	33089	81	92	78	79	86	84	85	85	
204	33090	85	101	99	78		102	102	101	
205	33091	81	85	81	84	95	90	93	88	
206	33092	85	82	76	77	75	79	77	78	
207	33093	81	96	88	88	107	93	100	96	
208	33094	73	85	75	77	81	79	80	80	
209	Vandana (National check)	82	88	81	83	95	84	90	87	
210	33095	85	88	79	78	90	81	86	85	
211	33096	89	97	85	87	81	95	88	90	
212	33097	80	83	76	79	86	78	82	81	
213	IR 64 (Sensitive check)	93	86	74	76	89	80	85	82	
214	33098	82	83	79	78	81	85	83	82	
215	33099	88	96	92	93	83	101	92	93	
216	33100	73	91	86	74	93	89	91	90	
217	33101	80	99	88	88	95	90	93	93	
218	33102	83	83	81	77	87	77	82	82	
219	33103	85	85	79	83	95	87	91	87	
220	Shabhagidhan (National check)	83	87	71	78	83	81	82	81	
221	33104	82	99	88	87	89	91	90	92	
222	33105	84	91	81	77	90	86	88	87	
223	33106	80	99	89	85	101	95	98	96	
224	33107	87	95	72	77	75	82	79	81	
225	33108	81	84	73	76	78	79	79	79	
226	33109	74	83	75	80	85	90	88	83	
227	Zonal check	82	82	75	81	82	82	82	80	
228	33110	85	90	85	84	88	90	89	88	
229	33111	86	95	86	86	96	90	93	92	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entry No	IET No	Normal							
		Zone I	Zone III						Zone III (4) Mean
		Sikkim	OD	WB	BI	JH		Mean JH (2)	
		<u>SKM@</u>	JYP	HTW	<u>PSA@</u>	GTK	RCI		
230	33112	82	86	78	80	83	80	82	82
231	33113	95	95	80	86	119	82	101	94
232	33114	80	90	79	76	82	82	82	83
233	33115	88	101	96	101	103	103	103	101
234	33116	73	83	80	79	88	90	89	85
235	33117	82	86	79	78	81	86	84	83
236	Anjali (all zones)	83	82	62	91	63	61	62	67
237	33118	86	82	71	80	80	77	79	78
238	33119	82	91	79	88	92	86	89	87
239	33120	81	92	82	87	85	92	89	88
240	33121	87	97	84	83	95	92	94	92
241	US 314(Hybrid Check	82	85	77	76	80	83	82	81
242	Local Check	87	93	87	80	93	69	81	86
	Exp. mean	83	90	81	82	88	86	87	86

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 2.3.1 cont.: Days to 50% flowering of entries in IVT-E DS Kharif 2024 under Normal situations:

Entry No	IET No	Zone V								Overall (Normal) (9) mean
		CG		MP	Zone V (2) mean	Zone VI	Zone VII		Zone VII (2) Mean	
		JDP@	RPR	JBP		GU	TN	KA		
					VYR	ADT	MGD			
201	33087	80	76	83	79	67	94	85	89	83
202	33088	73		89	89	100		95	95	94
203	33089	81	78	92	85	76	99	83	91	85
204	33090	83	99	90	94	94	98	100	99	98
205	33091	74	86	87	87	94	93	87	90	88
206	33092	83	74	93	84	78	97	78	87	81
207	33093	89	91	96	93	65	99	96	98	92
208	33094	76	75	91	83	76	98	83	90	82
209	Vandana (National check)	80	77	83	80	68	93	93	93	84
210	33095	82	79	102	90	72	96	84	90	85
211	33096	90	97	101	99	96	99	92	96	94
212	33097	78	105	102	103	96	94	80	87	89
213	IR 64 (Sensitive check)	81	75	89	82	76	95	85	90	83
214	33098	82	76	87	82	79	93	83	88	83
215	33099	101	80	91	86	67	97	99	98	89
216	33100	90	82	95	88	67	94	94	94	88
217	33101	90	89	100	94	67	98	91	94	91
218	33102	77	73	94	84	73	95	81	88	83
219	33103	86	79	92	85	56	96	87	91	84
220	Shabhagidhan (National check)	78	74	94	84	69	96	80	88	82
221	33104	87	82	89	85	72	99	90	94	89
222	33105	83	76	90	83	84	97	88	92	87
223	33106	102	89	95	92	75	95	92	93	92
224	33107	82	72	89	80	69	90	79	84	80
225	33108	77	73	82	78	104	96	77	86	83
226	33109	83	79	94	86	76	96	85	90	85
227	Zonal check	77	82	100	91	76	97	89	93	85

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entry No	IET No									Overall (Normal) (9) mean
		Zone V			Zone V (2) mean	Zone VI	Zone VII		Zone VII (2) Mean	
		CG		MP		GU	TN	KA		
		JDP@	RPR	JBP	VYR	ADT	MGD			
228	33110	81	76	90	83	81	95	93	94	87
229	33111	90	85	99	92	76	97	90	94	90
230	33112	78	74	104	89	56	96	89	92	83
231	33113	77	110	96	103	78	104	105	105	96
232	33114	81	74	98	86	96	94	83	89	86
233	33115	103	93	93	93	110	96	95	95	99
234	33116	83	75	99	87	83	94	85	89	86
235	33117	82	76	99	87	67	98	85	91	84
236	Anjali (all zones)	74	88	75	81	82	94	76	85	76
237	33118	78	73	77	75	73	92	75	84	78
238	33119	88	83	81	82	80	93	87	90	86
239	33120	81	80	79	80	82	95	86	90	86
240	33121	87	83	81	82	67	100	88	94	87
241	US 314(Hybrid Check	77	76	85	81	67	96	84	90	81
242	Local Check	74	78	90	84	73	86	87	86	84
	Exp. mean	83	82	91	86	78	96	87.00	91.00	86

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 2.3.2 cont.: Days to 50% flowering of entries in IVT-E DS Kharif 2024 under Moderate drought situations:

Entry No	IET No	Moderate drought							Overall (moderate) (6) Mean
		Zone III		Zone III mean (2)	Zone V	Zone VI		Zone VII	
		OD	JH		MP	MH	GU	TN	
		CTK	HZB		REW	PBN	DRL	CBT	
201	33087	78	81	79	84	87	81	91	83
202	33088	84	85	84		91		98	89
203	33089	84	80	82	80	81	82	83	81
204	33090	105	96	101	104	97	101	91	99
205	33091	71	83	77	97	91	91	97	88
206	33092	72	77	74	77	81	75	75	76
207	33093	81	88	84	102	90	92	87	90
208	33094	71	76	74	76	80	74	77	76
209	Vandana (National check)	72	77	74	78	85	83	98	82
210	33095	82	83	83	81.5	86	84	87	84
211	33096	88	84	86	104	91	85	82	89
212	33097	66	74	70	75	80	77	84	76
213	IR 64 (Sensitive check)	73	81	77	82	84	88	87	82
214	33098	72	82	77	74	83	83	87	80
215	33099	89	97	93	104	91	93	89	93
216	33100	84	84	84	88	92	90	87	87
217	33101	92	85	89	101	89	92	92	92
218	33102	66	78	72	76	83	77	80	77
219	33103	79	81	80	86.5	85	88	83	83
220	Shabhagidhan (National check)	75	78	76	80	81	74	88	79
221	33104	84	87	85	97	89	82	96	89
222	33105	80	80	80	84	87	83	82	82
223	33106	69	92	80	90	91	98	87	88
224	33107	66	77	71	77.5	83	77	79	76
225	33108	68	77	72	76	80	74	72	74
226	33109	68	82	75	84	87	85	82	81
227	Zonal check	62	77	69	90	89	84	96	83
228	33110	81	87	84	84	84	84	96	86
229	33111	83	83	83	101	88	88	91	89
230	33112	71	77	74	82	82	78	82	78
231	33113	99		99		91		102	97

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entry No	IET No	Moderate drought							Overall (moderate) (6)
		Zone III		Zone III mean (2)	Zone V	Zone VI		Zone VII	Mean
		OD	JH		MP	MH	GU	TN	
		CTK	HZB		REW	PBN	DRL	CBT	
232	33114	72	83	77	75	84	83	89	81
233	33115	99	97	98	84	97	99	89	94
234	33116	70	79	74	80	89	85	86	81
235	33117	83	77	80	77	80	81	82	80
236	Anjali (all zones)	61	65	63	67	65	72	77	68
237	33118	68	73	70	73	73	76	68	72
238	33119	85	84	84	98	87	81	91	87
239	33120	83	83	83	84	87	92	82	85
240	33121	82	81	82	94	89	87	95	88
241	US 314(Hybrid Check	73	77	75	77	79	82	78	77
242	Local Check	89	66	77	85	81	68	82	78
	Exp. mean	78	81	80	85	85	83	86	83

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 2.4.: Plant Height in cm of entries in IVT-E DS Kharif 2024 under Normal and Moderate drought situations:

Entry No	IET No	Normal															Overall (Normal) (9) mean	Moderate drought							Overall (moderate) (6) Mean	
		Zone I	Zone III					Zone III	Zone V		Zone V	Zone VI	Zone VII		Zone VII	Zone III		Zone V		Zone VI	Zone VII					
		Sikkim	OD	WB	BI	JH	Mean JH	(4)	CG	MP	(2)	GU	TN	KA	(2)	OD		JH	Zone III	MP	MH	GU	TN			
		SKM@	JYP	PHTW	PSA@	GTK	RCI	Mean	JDP@	RPR	JBP	mean	VYR	ADT	MGD	Mean		CTK	HZB	mean (2)	REW	PB	NDR	CBT		
201	33087	49	85	86	88	88	90	89	87	108	117	56	86	113	102	52	77	88	94	111	102	93	69	98	90	92
202	33088	45	93						93	87		60	60	122		51	51	82	107	80	93		64		118	92
203	33089	54	91	95	86	102	88	95	94	99	113	64	89	122	103	71	87	94	95	105	100	100	76	100	106	97
204	33090	49	102	118	84		102	102	107	123	130	70	100	129	110	82	96	105	108	117	112	86	82	111	101	101
205	33091	43	85	79	80	74	82	78	80	85	94	53	74	114	94	55	75	81	94	86	90	75	47	68	73	74
206	33092	61	82	73	81	110	100	105	91	111	120	64	92	114	107	92	99	96	94	103	99	114	79	103	106	100
207	33093	49	96	106	83	85	97	91	96	116	109	60	84	127	106	82	94	96	99	98	98	101	82	101	97	96
208	33094	57	85	108	84	104	96	100	98	103	129	71	100	127	104	81	93	101	104	111	107	99	79	119	110	104
209	Vandana (National check)	47	88	80	81	69	80	75	79	76	83	58	70	114	82	84	83	82	91	84	87	72	61	84	79	79
210	33095	60	88	85	83	91	101	96	91	108	140	69	104	111	112	90	101	99	104	112	108	102	68	99	103	98
211	33096	47	97	109	85	103	85	94	98	101	80	63	72	121	95	62	79	90	94	108	101	67	72	97	76	86
212	33097	62	83	108	82	89	94	92	94	119	134	72	103	126	91	60	75	95	92	106	99	110	83	121	105	103
213	IR 64 (Sensitive check)	50	86	88	80	70	82	76	81	87	95	57	76	111	84	57	71	81	69	82	75	66	52	79	75	71
214	33098	46	84	78	79	72	85	79	80	79	89	57	73	95	79	52	65	77	78	80	79	82	52	77	72	73
215	33099	49	95	97	90	80	84	82	89	102	88	57	73	106	91	76	84	86	88	82	85	66	50	83	77	74
216	33100	71	92	102	81	99	110	105	101	110	131	73	102	127	108	109	109	106	112	111	112	120	85	112	101	107
217	33101	42	99	100	90	80	93	86	93	118	95	61	78	126	105	81	93	93	96	97	96	92	70	83	98	89
218	33102	61	84	100	80	76	82	79	85	99	103	52	77	120	98	67	82	87	86	99	92	89	65	96	90	87
219	33103	53	85	109	86	93	90	92	94	116	103	59	81	121	103	82	93	94	100	100	100	87	83	96	105	95
220	Shabhadhan (National check)	51	87	105	84	94	92	93	94	107	104	58	81	127	96	72	84	93	99	100	99	85	74	94	102	92
221	33104	35	98	105	90	84	90	87	94	97	105	57	81	129	96	63	80	92	88	89	88	90	63	94	85	85
222	33105	47	92	95	81	87	89	88	91	84	104	57	80	115	91	86	89	91	88	85	86	88	64	93	86	84
223	33106	44	98	97	88	98	87	93	95	90	115	59	87	126	107	81	94	96	96	92	94	84	70	91	95	88
224	33107	49	96	90	80	95	87	91	92	98	102	75	89	117	80	72	76	90	84	96	90	92	65	85	79	83
225	33108	55	85	90	82	77	84	81	84	93	112	82	97	110	93	63	78	88	78	93	85	76	61	93	80	80
226	33109	50	84	105	85	89	85	87	91	101	114	59	86	103	83	63	73	87	94	88	91	96	68	98	90	89
227	Zonal check	35	83	86	72	94	72	83	84	98	126	61	93	113	111	112	112	95	76	80	78	96	69	96	104	87
228	33110	56	90	97	80	84	87	86	89	92	100	57	78	107	103	66	84	88	90	86	88	95	65	79	90	84
229	33111	48	96	87	84	84	88	86	89	101	95	58	77	109	87	86	86	88	87	87	87	91	88	83	84	87
230	33112	59	86	105	81	94	90	92	94	120	130	65	97	120	112	93	102	99	92	112	102	94	78	111	98	97
231	33113	54	95	90	88	92	88	90	91	99	104	55	79	108	100	82	91	90	85	83	84				85	77

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entry No	IET No	Normal															Moderate drought							Overall (moderate) (6) Mean		
		Zone I	Zone III					Zone III (4)	Zone V		Zone VI	Zone VII		Zone VII (2)	Overall (Normal) (9)	Zone III		Zone III	Zone V	Zone VI	Zone VII					
		Sikkim	OD	WB	BI	JH	Mean JH	CG	MP	GU	TN	KA	Mean	VYR	ADT	MGD	Mean	mean	OD	JH	Zone III	MP	MH		GU	TN
		SKM@	JYP	HTW	PSA@	GTK	RCI	(2)	Mean	JDP@	RPR	JBP	mean	VYR	ADT	MGD	Mean	mean	CTK	HZB	mean (2)	REW	PBN		DRL	CBT
232	33114	44	90	74	79	77	74	76	79	100	88	56	72	91	83	65	74	77	74	82	78	93	49	78	77	76
233	33115	50	101	98	97	93	96	95	97	99	129	62	95	129	110	78	94	100	97	92	94	90	64	97	104	90
234	33116	41	84	88	72	80	88	84	85	103	106	63	84	98	96	69	82	86	86	92	89	89	64	86	85	84
235	33117	45	86	85	81	82	88	85	85	102	118	54	86	118	102	86	94	91	89	98	93	81	61	98	81	84
236	Anjali (all zones)	65	82	100	89	101	91	96	93	106	111	68	89	112	103	80	92	94	94	93	93	89	58	96	122	92
237	33118	58	82	91	83	83	90	87	87	92	119	58	89	117	87	82	85	90	94	91	93	99	71	115	85	93
238	33119	56	90	100	85	86	86	86	90	101	117	57	87	118	87	79	83	91	97	83	90	75	69	100	80	84
239	33120	42	92	109	84	83	87	85	93	95	96	60	78	116	103	76	90	91	89	90	90	91	64	94	94	87
240	33121	51	97	102	82	95	104	100	99	116	105	69	87	129	108	90	99	100	103	116	109	98	82	107	107	102
241	US 314(Hybrid Check)	47	86	80	79	85	96	91	87	96	100	65	82	110	95	79	87	88	86	101	94	98	68	95	83	89
242	Local Check	53	94	111	85	79	103	91	97	109	97	63	80	100	89	71	80	90	95	108	102	80	79	106	87	93
	Exp. mean	51	90	95	83	88	90	89	91	101	108	62	85	116	98	76	86	91	92	95	94	90	68	95	92	89

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 2.5.: Number of Panicles/m² of entries in IVT-E DS Kharif 2024 under Normal and Moderate drought situations:

Entry No	IET No	Normal																	Moderate drought							Overall (moderate) (6)		
		Zone I	Zone III							Zone III (4)	Zone V			Zone V (2)	Zone VI		Zone VII		Zone VII (2)	Overall (Normal) (9)	Zone III		Zone III mean	Zone V	Zone VI		Zone VII	
		Sikkim	OD	WB	BI	JH	Mean	CG	MP	V (2)	GU	TN	KA	VII (2)	mean	CTK	HZB	mean	MP	MH	GU	TN						
		SKM@	JYP	HTW	PSA@	GTK	RCI	JH (2)	Mean	JDP@	RPR	JBP	mean	VYR	ADT	MGD	Mean	CTK	HZB	mean	REW	PBN	DRL	CBT	Mean			
201	33087	251	318	350	185	266	286	276	305	215	108	142	125	179	305	277	291	248	248	245	247	296	320	186	295	265		
202	33088	261	351						351	138		165	165	101		300	300	229	267	153	210		110		337	217		
203	33089	271	245	650	188	326	258	292	370	221	112	209	160	153	319	346	333	291	282	244	263	340	318	192	293	278		
204	33090	273	308	475	179		283	283	355	253	214	202	208	179	334	281	307	284	253	252	252	157	331	146	264	234		
205	33091	262	296	400	190	309	175	242	295	257	199	173	186	183	232	331	282	255	266	261	263	311	260	212	287	266		
206	33092	263	211	625	184	324	318	321	369	243	179	196	187	184	247	314	280	288	253	245	249	247	315	186	296	257		
207	33093	267	261	375	197	207	121	164	241	230	171	154	162	108	334	229	281	218	251	234	242	243	250	148	322	241		
208	33094	274	218	575	186	219	241	230	313	225	202	180	191	130	247	284	265	255	269	242	255	296	360	218	331	286		
209	Vandana (National check)	265	207	525	190	325	308	316	341	203	145	185	165	124	218	319	268	261	257	290	273	335	298	216	239	272		
210	33095	252	265	525	194	154	343	249	322	224	173	130	151	157	319	321	320	265	253	265	259	312	90	210	273	234		
211	33096	260	274	550	185	329	268	298	355	231	178	161	169	205	305	334	319	289	258	297	277	225	280	260	292	269		
212	33097	260	204	600	187	197	251	224	313	247	244	175	209	182	189	278	233	258	284	248	266	342	316	230	308	288		
213	IR 64 (Sensitive check)	251	238	625	183	419	257	338	385	210	176	182	179	205	247	311	279	295	249	282	265	176	280	206	295	248		
214	33098	250	345	475	187	352	383	367	389	234	271	140	206	199	218	254	236	293	249	238	244	296	278	234	282	263		
215	33099	261	428	500	198	366	126	246	355	235	266	220	243	215	319	326	322	307	254	203	228	327	255	206	247	249		
216	33100	271	214	550	205	283	405	344	363	229	204	230	217	202	319	323	321	303	282	300	291	361	378	218	273	302		
217	33101	242	315	450	184	273	133	203	292	237	175	188	181	163	276	267	271	249	255	262	258	160	332	198	306	252		
218	33102	258	285	450	186	307	305	306	337	241	172	289	230	183	305	235	270	281	257	273	265	228	340	208	320	271		
219	33103	251	221	425	189	214	303	258	291	242	191	270	230	183	319	309	314	270	316	234	275	181	330	252	330	274		
220	Shabhagidhan (National check)	257	295	475	183	317	213	265	325	247	159	164	161	176	276	316	296	265	277	233	255	176	360	238	266	258		
221	33104	268	277	425	177	442	344	393	372	247	179	298	238	205	276	247	261	299	279	267	273	235	343	248	297	278		
222	33105	267	241	475	175	352	324	338	348	250	160	134	147	221	247	334	290	276	254	253	253	388	370	244	298	301		
223	33106	262	299	375	168	279	265	272	304	241	234	168	201	163	247	371	309	266	303	204	253	348	330	220	305	285		
224	33107	257	260	525	188	427	309	368	380	262	191	338	264	98	276	357	316	309	235	248	241	303	322	268	266	273		
225	33108	262	295	525	187	374	290	332	371	223	158	364	261	200	247	347	297	311	279	267	273	178	375	244	306	275		
226	33109	277	285	525	185	323	279	301	353	232	182	243	212	228	305	369	337	304	285	196	241	164	250	238	295	238		
227	Zonal check	261	345	500	184	299	306	302	362	172	138	178	158	138	334	367	350	289	223	243	233	189	318	258	259	248		
228	33110	243	326	500	182	291	229	260	336	261	193	120	156	173	232	294	263	262	281	214	247	308	310	206	284	267		
229	33111	255	211	575	189	345	272	309	351	228	145	257	201	192	305	342	323	294	275	278	276	327	225	266	286	276		
230	33112	261	360	600	185	391	362	376	428	237	188	256	222	186	334	280	307	328	297	258	277	221	250	268	339	272		
231	33113	244	221	325	185	269	280	275	274	258	215	171	193	160	305	311	308	251	254		127		190		273	179		
232	33114	250	333	550	186	371	400	385	413	244	115	180	147	144	247	308	277	294	296	269	282	253	260	190	266	256		
233	33115	260	285	525	207	144	386	265	335	272	193	207	200	150	319	307	313	279	289	228	258	302	185	236	300	257		
234	33116	273	224	500	187	459	325	392	377	240	128	172	150	186	247	279	263	280	272	282	277	249	240	216	263	254		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entry No	IET No	Normal																Overall (Normal) (9)	Moderate drought							Overall (moderate) (6)		
		Zone I	Zone III						Zone III (4)	Zone V			Zone V (2)	Zone VI		Zone VII			Zone VII (2)									
		Sikkim	OD	WB	BI	JH		Mean	CG	MP	JBP	GU	TN	KA	Mean	GU	TN		KA	Mean	OD	JH	mean	MP	MH		GU	TN
		SKM@	JYP	HTW	PSA@	GTK	RCI	JH (2)	Mean	JDP@	RPR	JBP	mean	VYR	ADT	MGD	Mean		mean	CTK	HZB	(2)	REW	PBN	DRL		CBT	Mean
235	33117	243	278	475	184	358	275	316	346	209	106	159	132	189	305	324	314	274	263	266	264		323	268	312	238		
236	Anjali (all zones)	257	249	475	196	166	256	211	286	253	126	189	157	190	232	349	291	248	288	254	271	210	260	192	275	246		
237	33118	248	208	575	185	336	289	312	352	300	152	181	167	202	218	340	279	278	246	262	254	325	282	212	238	261		
238	33119	257	295	575	203	356	255	305	370	256	193	153	173	199	247	338	292	290	263	266	264	341	353	226	281	288		
239	33120	261	308	525	190	469	364	417	417	211	175	145	160	183	305	277	291	305	256	266	261	225	328	244	295	269		
240	33121	271	288	350	199	376	272	324	321	219	233	152	192	223	319	341	330	284	267	269	268	350	290	246	320	290		
241	US 314(Hybrid Check)	266	238	650	190	395	296	345	395	218	152	186	169	183	232	282	257	290	264	245	254	284	255	234	285	261		
242	Local Check	262	281	625	200	317	305	311	382	229	193	145	169	202	305	309	307	298	301	234	267	206	340	264	314	276		
	Exp. mean	260	276	507	188	318	284	301	346	234	177	194	185	177	278	310	294	279	268	250	256	267	290	224	291	262		

Annual Progress Report 2024 Vol. I – Varietal Improvement

ADVANCE VARIETY TRIAL 1 -RAINFED SHALLOW LOWLAND

(AVT 1-RSL)

Locations: 16

Test Entries: 20

Checks: Swarna-Sub1 (National), Zonal checks: Pooja (Eastern), Bahadur (North Eastern), Savitri (Southern); Swarna (Central), CR Dhan 801 (yield check) and Local Check

Advanced Variety Trial-Rainfed Shallow Lowland (AVT1-RSL), *kharif*, 2024 was constituted with 28 test entries (10 inbred and 10 NIL entries, 04 recipient parents of corresponding NILs and 04 checks *viz.*, National check & RP (Swarna-Sub1), Zonal check (Pooja for Eastern zone, Bahadur for North eastern zone and Savitri for Southern zone Swarna for central zone), yield check (CR Dhan 801) and a local check. Out of the 28 test entries, two were in the third year of testing *i.e.*, IET 31237 and IET 31204. Fourteen entries, including 08 inbreds and 06 NILs were in 2nd year of testing and 04 NIL entries were in first year of testing. The trial was sent to 16 locations and data were received from 15 locations. In Arundhatinagar, the trial was damaged due to flood. Data from two locations (Masodha and Karimganj) were not considered for analysis due to low CV and data received from Bankura was not considered due to non-significant F value. Experimental mean yield ranged from 3054 Kg/ha at Ghaghraghat to 7485.69 Kg/ha at Bankura. CV % ranged from 2.34 (Karimganj) to 15.88 (Lembucherra). Trial composition and data pertaining to yield, days to 50% flowering, plant height, no. of panicles/m² and grain quality are presented in Tables 3.1-3.6.

Overall performance of entries during *Kharif* 2024

On the basis of overall mean, **four entries IETs 31237, 31220 (R), 32150 and 31246 (R)** showed significantly superior performance over best varietal check (local check). But IET 31237, IET 32150 had low HRR.

Zone wise performance of entries during *Kharif*, 2024 Eastern zone (Zone III)

In Zone III, the trial was conducted at 08 locations namely Cuttack, Bhubaneswar (Odisha), Chinsurah, Bankura (WB), Sabour, Bikramganj (Bihar), Ghaghraghat and Masodha (UP). However, owing to low CV (2.55 %), data from Masodha not considered for analysis. The data received from Bankura was not considered due to non-significant F value. The data from 06 locations were considered for analysis and their CV ranged between 6.03% (Ghaghraghat) and 13.72% (Cuttack). The mean yield of the entries ranged from 3247 kg/ha (IET 32176) to 5927 kg/ha (IET 31220), days to 50% flowering ranged from 101days (IET 33262) to 127 days (IET 32176); plant height ranged from 98 cm (IET 33261) to 124 cm (IET 32150) and mean panicles/m² varied from 203 (IET 32176) to 348 (Swarna-RP). Among all the entries, **only one entry IET 31220 (R)** showed significantly superior performance for yield and grain quality over best varietal check (Local check), **hence promoted**.

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 (2.34%). The mean yield of the entries ranged from 2767 kg/ha (IET 32176) to 5508 kg/ha (IET 31246), days to

Annual Progress Report 2024 Vol. I – Varietal Improvement

50% flowering ranged from 94 days (IET 33261) to 123 days (IET 32176); plant height ranged from 73cm (IET 33261) to 119 cm (IET 32134 and local check) and mean panicles/m² varied from 222 (IET 32122) to 363 (IET 32121). None of the entries recorded significantly superior yield over the best check i.e. National check (Swarna Sub1). **Hence, no entry was promoted.**

Central Zone (Zone V)

In Zone V, the trial was conducted at only one location Jabalpur. Mean yield of the entries in Zone V ranged from 2656 kg/ha (Pooja-RP) to 5911 kg/ha (IET 33262); days to 50% flowering ranged from 100 days (IET 33264) to 125 days (IET 32147); plant height ranged from 71cm (Local Check) to 119 cm (IET 32150) and mean panicles/m² varied from 185 (CR Dhan 801) to 286 (IET 32130). Among all the entries, 02 entries, **IET 33262 and IET 33263 showed significantly superior performance for yield over best varietal check (Zonal Check).**

Southern zone (Zone VII)

In Zone VII, the trial was conducted at three locations Ponnampet, Sirsi and Mugad. Mean yield of the entries in Zone VII ranged from 3198 kg/ha (IET 33263) to 5795 kg/ha (IET 32175); days to 50% flowering ranged from 102 days (IET 31237, CR Dhan 801 and Sabour Shree- RP) to 124 days (IET 32176); plant height ranged from 68cm (IET 33261) to 108cm (Pooja-RP) and mean panicles/m² varied from 257 (IET 33263) to 320 (IET 32131). Among all the entries, 03 entries, **IET 32175, IET 32134 and IET 32150 showed significantly superior performance for yield over best varietal check (Yield Check- CR Dhan 801). IET 32175 also had superior grain quality, hence promoted. But IET 32134 and IET 32150 had low HRR and amylose content, hence discontinued.**

Performance of the entries in 3rd year of testing

Two entries, IET 31204 (CR4419-3-1-1-1-1) and IET 31237 (BRR-0222- IR93339:39-B-6-5-B- B-B-47) were tested in the third year of trial. IET 31204 did not show yield superiority over the best check neither in any zone nor on overall basis. Hence, this entry may be discontinued. IET 31237 (5182 kg / ha) recorded significant yield superiority over the best check i.e. local check (LVC) on overall basis in the third year of trial, hence found promising. Earlier this entry also showed yield superiority over the best checks in IVT and AVT-1. The detailed performance of this entry over the three years is given. But HRR of this entry is low (50%), hence discontinued.

Performance of entries in 2nd year of testing

Total eight entries were tested across the zones in 2nd year where entries, IET 31246 (R) (5102 kg / ha) recorded significant yield superiority over the best check (Local check) on overall basis. The entry, IET 32150 recorded significant yield superiority over the best checks in zone VII (4924 kg / ha) and overall basis (5138 kg / ha). The entry, IET 31220 (R) recorded significant yield superiority over the checks in zone III (5927 kg / ha) and overall basis (5280 kg / ha). The entries, IET 32175 (5795 kg / ha) and IET 32134 (4978 kg / ha) recorded significant yield superiority over the checks in Zone VII. However, IET 32134 and IET 32150 were not meeting grain quality standards. **IET 32134 is having low HRR (44.5) and IET 32150 is having low HRR (45.0) and low amylose content (18.9). Hence these two entries were dropped.**

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of promising entries in AVT1-RSL, *Kharif*, 2022, 2023 & 2024

S. No.	Designation/Cross combination	IE T	G T	2022								2023								2024								Remarks		
				Z-III (11)		Z-IV (2)		Z-VII (2)		Overall (17)		Z-III (6)		Z-IV (2)		Z-VII (3)		Overall (11)		Z-III (6)		Z-IV (2)		Z-V (1)		Z-VII (3)			Overall (12)	
				GY (kg/ha)/DP/PH (cm)	% over BVC	GY (kg/ha)/DP/PH (cm)	% over BVC	GY (kg/ha)/DP/PH (cm)	% over BVC	GY (kg/ha)/DP/PH (cm)	% over BVC	GY (kg/ha)/DP/PH (cm)	% over BVC	GY (kg/ha)/DP/PH (cm)	% over BVC	GY (kg/ha)/DP/PH (cm)	% over BVC	GY (kg/ha)/DP/PH (cm)	% over BVC	GY (kg/ha)/DP/PH (cm)	% over BVC	GY (kg/ha)/DP/PH (cm)	% over BVC	GY (kg/ha)/DP/PH (cm)	% over BVC	GY (kg/ha)/DP/PH (cm)	% over BVC		GY (kg/ha)/DP/PH (cm)	% over BVC
303	CR4419-31-1-1-1	314	M B			6542	74.9			6044	104.18	109	11					4740	102.118	5230	99.114	5058	118.87	4206	103.97	4714	103.110	Discontinued		
301	BRR-0222-IR933339	317	L S					5289	7.5	6016	104.17	111	56					5757	109.115	5110	98.111	3469	108.114	4653	108.114	5182*	105.110	Promising		
	CR Dhan 801 (Yield check)			4956		5193		3741		4919		4624		4458		4795		4640		4808		4940		2825		4253		4526		
				112		97		112		110		111		104		110		109		106		103		111		102		105		
				99		102		85		97		101		99		85		96		108		94		91		89		99		
	Swarna Sub1 (NC)			4774		4469		3756		4780		5099		4817		4829		4962		4921		5297		3535		3728		4570		
				117		111		114		115		118		113		129		117		110		107		112		108		109		
				94		96		86		93		92		92		74		87		106		99		80		80		96		
	Zonal Check			4362		4205		2847		4306		4490		4637		4765		4591		5007		4053		5356		3967		4617		
				122		105		119		120		120		123		119		120		115		114		112		108		113		
				99		125		95		100		103		106		83		98		113		103		100		80		102		
	Local check			4794		4549		3409		4602		4616		5117		5067		4830		5501		4622		3978		3788		4799		
				118		97		124		116		113		112		106		112		112		104		112		109		110		
				106		123		105		109		111		111		102		109		115		119		71		103		109		
	CD			180.04		339.5		615.63		199.43		238.8		705.26		691.06		236.93		333.43		575.63		390.50		512.74		218.89		
	BVC+ CD			5136.04		5532.50		4371.63		5118.43		5338.8		5822.3		5758.06		5,198.93		5834.43		5872.63		5746.50		4765.74		5017.89		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of NIL entries during *Kharif*, 2024

Six NILs (02- submergence tolerance and 04-herbicide tolerance) were in 2nd year of testing and 04 other NILs (02-submergence tolerance, 01-BPH resistance and **01-yield**) were in 1st year of testing. For trait verification, NILs with submergence tolerance were tested in Advance variety trial 1- NIL (Submergence) (AVT 1- NIL-*Sub1*). The NILs with herbicide tolerance were tested in AVT 1 - NIL - HT trial whereas, the NIL with BPH resistance was tested in NSN1. As RP (Sabour Shree) of NILs IET 32121, IET 32122 and IET 33262 and RP (Rajendra Sweta) of NIL (IET 33261) were released for the Bihar state, yield data was compared for Bihar only. Whereas RP (Swarna Sub1) and RP (Pooja) were released in several states, the yield data of their NILs (IET 32123, IET32124, IET32130, IET 32131 and IET 33264) were compared on zonal and overall basis. However, for trait verification purpose, data from all the centres were considered.

Performance of NILs of Sabour Shree with submergence tolerance during *Kharif*, 2024

IET 32121, IET32122 and IET 33262 are derived from the cross of Sabour Shree x Swarna Sub1. The NILs were developed for submergence tolerance in the background of recurrent parent Sabour Shree, which was released for Bihar. IET 32121 and IET32122 were in the 2nd year of trial and IET 33262 was in the 1st year of trial.

Under normal as well as submergence stress condition, both the NILs (IET 32121, IET32122) in the second year of testing recorded significant yield superiority over the recurrent parent Sabour Shree. Under trait verification trial, seedling survival was also significantly higher for both the NILs. These two entries had superior grain quality with desirable HRR and amylose content. **Hence, both the NILs were found to be promising for submergence tolerance.**

The NIL entry (IET 33262) in the 1st year of testing recorded significant yield superiority over the recurrent parent Sabour Shree under both normal as well as submergence stress condition and also had superior grain quality, thus **found promising and promoted to 2nd year of testing.**

Performance of NIL of Rajendra Sweta with submergence tolerance during *Kharif*, 2024

The NIL of Rajendra Sweta (IET 33261) derived from the cross of Rajendra Sweta x Swarna Sub1 was in the 1st year of testing. The NIL yielded at par with the recurrent parent under both normal as well as submergence stress condition. The seedling survival percentage was very less (31%) under submergence stress. **Hence, it is dropped.**

Annual Progress Report 2024 Vol. I – Varietal Improvement

2nd year NILs

Performance of NILs for submergence tolerance

Genotype	Yield				Trait verification	
	Yield (kg/ha)/ DFF/ PH under normal growing conditions in Bihar		Yield (kg/ha) under submergence stress		Seedling survival (%)	
	2023	2024	2023	2024	2023	2024
Sabour Shree NIL (IET 32121)	4601 98 121	6526* 109 124	4316*	4745*	85.96	76.50
Sabour Shree NIL (IET 32122)	5621* 121 120	6586* 106 136	3817*	5261*	82.93	78.50
Sabour Shree (RP)	4861 108 109	5617 105 113	3155	2104	54.54	29.00
Susceptible check (Swarna)			1801	1787	31.76	26.50
Susceptible check (MTU 1010)			-	2168	-	26.50
CD	450.3	578.76	626.83	1014.34		

1st year NILs

Performance of NILs for submergence tolerance

Genotype	Yield Trials		Trait verification
	Yield (kg/ha))/ DFF/ PH under normal growing conditions in Bihar	Yield (kg/ha) under submergence stress	Seedling survival (%)
Sabour Shree NIL (IET 33262)	6391* 102 109	4966*	77.00
Rajendra Sweta NIL (IET 33261)	4568 99 98	2312	31.00
Sabour Shree (RP)	5617 105 113	2104	29.00
Rajendra Sweta (RP)	4701 105 100	2056	29.00
Susceptible check (Swarna)		1787	26.50
Susceptible check (MTU 1010)		2168	26.50
CD	578.76	1014.34	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of NILs of Swarna Sub 1 for herbicide tolerance

IET 32123 (CR 4430-1-3-2-1) and IET32124 (CR 4430-13-19-1-1) were derived from the cross of Swarna Sub 1*4 / Robin. The NILs were developed for herbicide (Imazethapyr) tolerance in the background of recurrent parent Swarna Sub1, which is mega variety in the country. Under normal condition, the NILs yielded at par with the recurrent parent. Under trait verification trial, both the NILs recorded significant yield superiority over the tolerant check (Robin) with complete mortality in RP in both the years of testing, It had also desirable grain quality, **hence found promising**.

Performance of NILs of Pooja for herbicide tolerance

IET 32130 (CR 4431-117-3-2-1) and IET 32131 (CR 4431-63-2-1-1) were derived from the cross of Pooja*4 / Robin. The NILs were developed for herbicide tolerance in the background of recurrent parent Pooja, which was released in several states (Odisha, MP, Assam, Tripura and WB). Under normal condition, the NILs yielded at par with the recurrent parent. Under trait verification trial, both the NILs recorded significant yield superiority over the tolerant check (Robin) with complete mortality in RP in both the years of testing. IET 32130 and IET 32131 were also had desirable grain quality, **hence found promising**.

Performance of NILs of Swarna Sub1 and Pooja under normal and herbicide treatment

Genotype	Yield (kg / ha) under normal condition						Trait verification
	Year	Z-III	Z-IV	Z-V	Z-VII	Overall	Yield (kg/ha) under Herbicide (Imazethapyr) tolerance trial
Swarna Sub1 NIL (IET 32123)	2023	5013	5282	-	3822	4710	5100
	2024	5427*	4894	4482*	3375	4657	5295
Swarna Sub1 NIL (IET32124)	2023	3607	5161	-	4377	4099	4590
	2024	4021	4644	4493*	4473*	4277	4760
Swarna Sub1 (RP)	2023	5099	4817	-	4829	4962	0
	2024	4921	5297	3535	3728	4570	0
Pooja NIL (IET 32130)	2023	4180	5232	-	5475*	4724	4800
	2024	4375	5467	5317*	4420	4647	4445
Pooja NIL (IET 32131)	2023	4212	4867	-	5427*	4586	5100
	2024	5053*	4118	3769*	4628*	4684*	4460
Pooja (RP)	2023	4473	5825	-	4433	4708	0
	2024	4712	4943	2656	4029	4443	0
Tolerant check (Robin)	2023						2110
	2024						3710
CD	2023	238.8	705.26	-	691.06	236.93	
	2024	333.43	575.63	390.5	512.74	218.89	

* For trait verification NIL-HT Trial data of Cuttack was given for 2023 and average of Cuttack and Coimbatore data was given for 2024.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Performance of the NIL of Pooja (IET 33264) for BPH resistance

IET 32264 (CR 4696-2-15-32-82) was derived from the cross of Pooja*4 /CR 3006-8-2. The NIL was developed for BPH resistance in the background of recurrent parent Pooja, which was released in several states (Odisha, MP, Assam, Tripura and WB). Under normal condition, the NIL recorded significant yield superiority than the recurrent parent in Zone III and Zone V. Under trait verification trial, the NIL also showed resistance to BPH (Average Score 2.0), while the recurrent parent Pooja was highly susceptible to BPH (Average Score 7.87). It had also superior grain quality. Hence, the NIL (IET 32264) was **found to be promising and promoted to 2nd year of testing.**

Performance of NIL of Pooja under normal and BPH screening trial

Genotype	Yield Trial (2024)					Trait verification (2024)				
	Yield (kg/ha) under normal growing conditions					BPH score				
	III	IV	V	VII	Overall	CBT	LDN	MND	MTU	Mean
IET 33264	5755*	4097	4267*	3702	4342	NT	3.0	NT	1.0	2.0
Pooja (RP)	4712	4943	2656	4029	4443	9.0	7.6	7.0	NG	7.87
CD	333.43	575.63	390.5	512.74	218.89					

Promotion to AVT-2-RSL:

On overall basis: IETs 31220 (R) and 31246 (R)

On the basis of performance in Zone III: IET 31220 (R)

On the basis of performance in Zone VII: IET 32175

NILs entries:

Submergence tolerant NIL: IET 33262

BPH Resistant NIL: IET 33264

Promising in AVT-2 RSL:

NIL entries: IET 32130, IET 32131, IET 32123, IET32124, IET 32121, IET32122

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.1: Composition of entries in Advance Variety Trial 1–Rainfed Shallow Lowland (AVT 1-RSL), Kharif 2024

Entry No	IET No.	Designation	Cross combination	Grain Type
3rd year of testing				
301	31237	BRR 0222-IR93339:39-B-6-5-B-B-B-47	IR 77298-14-1-2-10/SANHUANGZHAN NO2//IR 45427-2B-2-2B-1-1/NSIC RC	LS
302	CR Dhan 801 (Yield check)			
303	31204	CR 4419-3-1-1-1-1	CR 3504-10-1-1-1-1/CR 3541-1-2-5-4-1	MB
2nd year of testing				
304	32175	OR 2437-16	Indravati / MTU 1065	MB
305	32176	CIARI Dhan 10 (ANR 40)	HHZ 4-DT3-Y1-Y1 Selection from (GSR-RFL) Nursery	SB
306	32146	CN2163-101-4-1-1	OLS 181 X Shatabdi	LB
307	32147	TTB 2010-27	IRGC 3764/Ranjit*4	MS
308	Swarna Sub 1 (NC & RP)			
309	31246 (R)	BRR 2141	IR 74355-CN3/ CN-6-78 (TTB-680-Sel.)	MS
310	32134	NDR 2022-6-4	NDR 8002/NDR 9730018	LB
311	32150	RP Bio 4919-NSR 67	KMR 3/O.rufipogon WR 120	LS
312	31220 (R)	BRR 2228	BRR2028 * S Shree	MB
313	Pooja (Eastern), Bahadur (North Eastern), Savitri (Southern), Swarna (Central) ZC			
NIL 2nd Year of testing:				
314	32123	CR 4430-1-3-2-1	Swarna Sub 1*4 / Robin	MS
315	32122	BRR 0266	Sabour Shree X Swarna sub-1	MS
316	32124	CR 4430-13-19-1-1	Swarna Sub 1*4 / Robin	MS
317	Sabour Shree(RP)			
318	32131	CR 4431-63-2-1-1	Pooja*4 / Robin	MS
319	Pooja (RP)			
320	32121	BRR 0263	Sabour Shree X Swarna sub-1	MS
321	32130	CR 4431-117-3-2-1	Pooja*4 / Robin	MS
NIL 1st Year of testing:				
322	33263	CRAC 6513	Swarna doubled haploid derivative	SB
323	33264	CR 4696-2-15-32-82	Pooja*4 /CR 3006-8-2	MS
324	Swarna (RP)			
325	33261	BRR0297	Rajendra Sweta X Swarna Sub 1	MS
326	Rajendra Sweta (RP)			
327	33262	BRR0298	Sabour Shree X Swarna Sub 1	MS
328	Local Check			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 3.2: Grain Yield (Kg/ha) of entries in AVT-1RSL, Kharif 2024

Entry No	IET No	Zone III																						ZoneIII (6)						
		OD				OD(2)				WB(1)				BI				BI (2)				UP								
		CTK		mean		CHN		BNK@		mean		SBR		BKG		mean		GGT		MSD@		mean								
301	31237	4908	7	5371	4	5140	4	5964	4			5964	4	7033	1 *	7718	8	7376	3 *	3546	10	6255	2	3546	10	5757	3			
302	CR Dhan 801 (YC)	2962		3733		3348		5974	3			8353	4	5974	3	5474	9	7432		6453	9	3273		5679	8	3273		4808		
303	31204	3466		3886		3676		5106				7708	8	5106		5941	5	6957		6449	10	3082		3712		3082		4740		
304	32175	3541		2055		2798		5497				6964		5497		3000		7016		5008		3110		5996	6	3110		4037		
305	32176			2248		2248		4493						4493							3000		5319		3000		3247			
306	32146	4474	9	4571		4523	8	5425				7024		5425		4337		6385		5361		3682	8	4978		3682	8	4812		
307	32147	5019	6	4830		4925	5	5144				7679	9	5144		4957		7781	6	6369		2182		5423		2182		4986		
308	Swarna Sub 1(NC & RP)	1816		5143	9	3480		5604				8383	3	5604		5467	10	7677	9	6572	7	3819	5	6170	3	3819	5	4921		
309	31246 (R)	5168	4	4648		4908	6	5720	9.5			8274		5720	10	6454	2	8552	1 *	7503	2 *	3082		5325		3082		5604	4	
310	32134	2162		4876	10	3519		5446				7143		5446		4830		7534	10	6182		2155		5802	7	2155		4501		
311	32150	4255	10	4724		4490	10	5391				6944		5391		5046		6490		5768		4746	1 *	5134		4746	1 * 9%	5109	8	
312	31220 (R)	5043	5	6171	1 *	5607	1	5995	1			8651	1	5995	1	6144	4	8446	2	7295	4 *	3764	7	5527	9	3764	7	5927	1 * 8%	
313	Zonal Check	5303	2	3254		4279		5899	6			8413	2	5899	6	4954		6838		5896		3791	6	4555		3791	6	5007		
314	32123	3340		5562	3	4451		5446				7709	7	5446		5016		7728	7	6372		4391	3	3707		4391	3	5247	6	
315	32122	2698		6019	2 *	4359		5528				7530		5528		5690	7	7482		6586	6	1309		5186		1309		4788		
316	32124	2717		3162		2940		5069				7609		5069		3444		6598		5021		3137		5000		3137		4021		
317	Sabour Shree (RP)	4497	8	5213	6.5	4855	7	5737	8			6845		5737	8	4627		6606		5617		2046		3912		2046		4788		
318	52131	5457	1	3581		4519	9	5576				7004		5576		5124		7006		6065		3573	9	6386	1	3573	9	5053	9	
319	Pooja (RP)	3100		4229		3665		5415				7649	10	5415		5019		7043		6031		3464		4896		3464		4712		
320	32121	3297		5213	6.5	4255		5377				7599		5377		5261		7790	5	6526	8	2973		4471		2973		4985		
321	32130	3280		3204		3242		5960	5			7589		5960	5	4444		7452		5948		1909		3745		1909		4375		
322	33263	3603		4838		4221		5768	7			7877	6	5768	7	5938	6	8148	3	7043	5	7%	1937		5483	10	1937		5039	10
323	33264	2609		4305		3457		5720	9.5			6806		5720	10	4516		6935		5726		4446	2	6007	4	4446	2	4755		
324	Swarna (RP)	3505				3505						6687						8056	4	8056	1 *	23%						5781	2	5%
325	33261	2107		2720		2414		4811				7321		4811		3638		5498		4568		2073		5996	6	2073		3475		
326	Rajendra Sweta (RP)	3224		3987		3606		5000				6796		5000		4422		4979		4701		1664				1664		3879		
327	33262			5257	5	5257	2	5984	2			7202		5984	2	5516	8	7266		6391		1937		4861		1937		5192	7	
328	Local Check	5190	3	5149	8	5170	3	5442				7351		5442		6167	3	6695		6431		4364	4	5338		4364	4	5501	5	
Exp. Mean		3720.81		4368.47		4030.35		5499.74				7485.691		5499.74		5094.64		7189.23		6196.78		3054		5186.96		3054		4823.01		
CD		837.3		585.01		515.92		842.24				1667.3		842.24		845.32		814.17		578.76		301.92		216.82		301.92		333.43		
CV%		13.72		8.17		7.82		9.35				13.59417		9.35		10.12		6.91		5.7		6.03		2.55		6.03		4.22		
F		13.77		27.89		23.6		1.65				0.92		1.65		9.7		7.99		17.09		79.57		107.89		79.57		30.68		
P		<.0001		<.0001		<.0001		0.0614				0.5854		0.0614		<.0001		<.0001		<.0001		<.0001		<.0001		<.0001		<.0001		
S/NS		S		S		S		S				NS		S		S		S		S		S		S		S		S		
D/S		27-06-2024		05-07-2024				09-07-24				09-07-2024				11-07-2024		09-07-2024				16-07-2024		15-07-2024						
D/P		29-07-2024		31-07-2024				15-08-24				08-08-2024				09-08-2024		12-08-2024				direct seeded		16-08-2024						
Local Check Name		CR DHAN-803		Bhargavi				Suajala (IET 20235)				Sampriti				Rajendra Mahsuri-1		Sabour Shree				Sambha Sub 1		Sambha Mahsuri-Sub 1						

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 3.2: (contd.) Grain Yield (Kg/ha) of entries in AVT-1RSL, Kharif 2024

Entry No	IET No	Zone IV						Zone IV (2)		Zone V		Zone VII						Zone VII(3)		Overall (12)			
		AS		AS(1)		TP		mean		MP		KA			KA(3)			mean					
		TTB	KMJ@	mean		LMB		mean		JBP		PNP	SRS	MGD	mean			mean					
301	31237	5256		3669		5256		4963	3	5110	7	3469		5653	4 *	3900	7	4406		4653	5 9%	5182	2 * 8%
302	CR Dhan 801 (YC)	5417		3893		5417		4463		4940	9	2825		4908		3250		4602		4253		4526	
303	31204	5860	4	4006	7	5860	4	4600	10	5230	6	5058	10	3916		3133		5568	5 *	4206		4714	8
304	32175	5075		3082		5075		4800	6	4938	10	3926		6819	1 *	4650	2	5916	1 *	5795	1 * 36%	4617	
305	32176	1774		3905	10	1774		3759		2767		4422		5347	7	2617		4835	9	4266		3611	
306	32146	5057		3115		5057		2915		3986		5311	7	5306	9	3067		4474		4282		4584	
307	32147	5864	3	3509		5864	3	3730		4797		4297		2898		3783	9	5200	8	3960		4640	
308	Swarna Sub 1(NC & RP)	5701	7	3402		5701	7	4893	4	5297	4	3535		3774		3000		4410		3728		4570	
309	31246 (R)	5494		3422		5494		5522	2 13%	5508	1	4255		4223		3483	10	4625		4110		5102	4 * 6%
310	32134	5797	5	3438		5797	5	4781	7	5289	5	5149	9	5476	5 *	4233	5	5225	7	4978	2 * 17%	4805	6
311	32150	5904	2	3829		5904	2	4708	8	5306	3	5616	4	5392	6	4767	1	4613		4924	3 * 16%	5138	3 * 7%
312	31220 (R)	5123		3896		5123		3441		4282		4956		3950		4617	3	5712	4 *	4760	4 12%	5280	1 * 10%
313	Zonal Check	4879		3538		4879		3226		4053		5356	5	3816		3883	8	4201		3967		4617	
314	32123	5514	10	3986	8	5514	10	4274		4894		4482		2083		3217		4825	10	3375		4657	
315	32122	5616	8	4451	2 *	5616	8	4141		4879		3682		5324	8	3984	6	4387		4565	8 7%	4655	
316	32124	5525	9	3211		5525	9	3763		4644		4493		4660		2984		5774	3 *	4473	9 5%	4277	
317	Sabour Shree (RP)	5041		3155		5041		4400		4721		5211	8	5108		3133		4332		4191		4663	
318	32131	4573		3973	9	4573		3663		4118		3769		5204		4334	4	4347		4628	6 9%	4684	10
319	Pooja (RP)	5060		4853	1 *	5060		4826	5	4943	8	2656				3317		4740		4029		4443	
320	32121	4366		3165		4366		4656	9	4511		5704	3 6%	4607		2617		4500		3908		4697	9
321	32130	5378		3589		5378		5556	1 14%	5467	2	5317	6	5993	2 *	2900		4368		4420	10	4647	
322	33263	5757	6	3567		5757	6	3304		4531		5825	2 * 9%	1888		3233		4474		3198		4559	
323	33264	3882		4042	5 *	3882		4311		4097		4267		3684		3200		4223		3702		4342	
324	Swarna (RP)			4127	4 *							4484		5729	3 *	2267		5834	2 *	4610	7 8%	4979	5
325	33261	4247		4013	6	4247		2337		3292		4356		5208	10	2383		4490		4027		3656	
326	Rajendra Sweta (RP)	3634		4313	3 *	3634		2845		3240		4471		4031		2208		5340	6	3860		3817	
327	33262	5052		3380		5052		3229		4141		5911	1 * 10%	3832		3067		4159		3686		4655	
328	Local Check	6011	1	3384		6011	1	3233		4622		3978		4650		2900		3813		3788		4799	7
Exp. Mean		5068.72		3711.19		5068.72		4086.62		4577.67		4527.87		4573.31		3361.55		4764.07		4377.14		4646.24	
CD		438.64		142.23		438.64		1063.2		575.63		390.5		496.98		1081.3		795.1		512.74		218.89	
CV%		5.28		2.34		5.28		15.88		7.67		5.27		6.63		15.67694		10.2		7.16		2.88	
F		34.07		75.45		34.07		4.99		11.84		39.27		42.6		3.66		4.22		9.51		27.15	
P		<.0001		<.0001		<.0001		<.0001		<.0001		<.0001		<.0001		0.0006		<.0001		<.0001		<.0001	
S/NS		S		S		S		S		S		S		S		S		S		S		S	
D/S		20-07-2024		15-07-2024				07-08-2024				02-07-2024		30-07-2024		06-07-2024		16-07-2024					
D/P		16-08-2024		10-08-2024				25-08-2024				24-07-2024		03-09-2024		26-07-2024		25-08-2024					
Local Check Name		Surma Dhan		Ranjit				Khowai				JR 206		Tunga		ASHA		PSB-68					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.3 : Days to 50 % flowering of entries in AVT-1 RSL Kharif, 2024

Entry No	IET NO	Zone III											Zone III (6)	
		OD		OD (2)	WB		WB (1)	BI		BI (2)	UP			UP(1)
		CTK	BBN	mean	CHN	BNK@	mean	SBR	BKG	mean	GGT	MSD@		mean
301	31237	127	102	115	113	110	113	108	108	108	97	119	97	109
302	CR Dhan 801 (Yield check)	109	105	107	111	113	111	105	105	105	101	115	101	106
303	31204	111	100	106	111	101	111	104	102	103	86	121	86	102
304	32175	140	127	134	132	110	132	121	120	121	101	115	101	124
305	32176		146	146	138		138				98	117	98	127
306	32146	99	112	106	114	105	114	115	111	113	99	118	99	108
307	32147	128	118	123	124	103	124	115	120	118	105	116	105	118
308	Swarna Sub 1 (NC & RP)	129	106	118	114	113	114	113	111	112	85	112	85	110
309	31246 (R)	111	104	108	114	113	114	111	105	108	106	112	106	109
310	32134	116	94	105	98	111	98	101	115	108	90	121	90	102
311	32150	110	98	104	112	105	112	107	101	104	93	114	93	104
312	31220 (R)	128	108	118	116	103	116	111	109	110	99	119	99	112
313	Zonal Check	126	116	121	111	107	111	120	115	118	103	116	103	115
314	32123	128	105	117	114	102	114	113	109	111	100	117	100	112
315	32122	124	98	111	109	103	109	106	105	106	100	113	100	107
316	32124	125	104	115	116	105	116	113	111	112	106	117	106	113
317	Sabour Shree (RP)	125	99	112	113	113	113	106	104	105	94	113	94	107
318	32131	125	114	120	112	101	112	116	102	109	104	110	104	112
319	Pooja (RP)	123	117	120	111	113	111	112	115	114	95	115	95	112
320	32121	135	101	118	112	106	112	110	108	109	101	122	101	111
321	32130	103	114	109	112	113	112	121	106	114	100	123	100	109
322	33263	97	109	103	118	105	118	114	115	115	99	111	99	109
323	33264	125	118	122	112	110	112	118	111	115	99	114	99	114
324	Swarna (RP)	125		125		101			116	116				121
325	33261	124	86	105	100	103	100	99	98	99	105	114	105	102
326	Rajendra Sweta (RP)	124	96	110	101	105	101	110	99	105	108		108	106
327	33262		98	98	110	104	110	102	102	102	95	115	95	101
328	Local Check	128	111	120	111	110	111	113	104	109	103	115	103	112
	Mean	121	108	115	113	107	113	111	108	110	99	116	99	111

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.3 : (contd.) Days to 50 % flowering of entries in AVT-1 RSL Kharif, 2024

Entry No	IET NO	Zone IV				Zone IV (2)	Zone V	Zone VII			Zone VII(3)	Overall (12)
		AS		AS(1)	TP		MP	KA			KA(3)	
		TTB	KMJ@	mean	LMB	mean	JBP	PNP	SRS	MGD	mean	mean
301	31237	109	110	109	87	98	108	110	96	100	102	105
302	CR Dhan 801 (Yield check)	104	109	104	102	103	111	107	102	96	102	105
303	31204	102	110	102	96	99	118	108	98	104	103	103
304	32175	119	120	119	87	103	114	115	120	112	116	117
305	32176	118	124	118	127	123	108	130	149	94	124	123
306	32146	110	124	110	92	101	111	106	111	97	105	106
307	32147	116	113	116	98	107	125	117	120	95	111	115
308	Swarna Sub 1 (NC & RP)	111	114	111	103	107	112	111	109	105	108	109
309	31246 (R)	112	119	112	92	102	116	106	104	102	104	107
310	32134	104	110	104	97	101	104	108	107	116	110	104
311	32150	106	118	106	100	103	122	107	104	102	104	105
312	31220 (R)	114	123	114	96	105	106	115	111	105	110	110
313	Zonal Check	114	123	114	113	114	112	114	119	91	108	113
314	32123	113	116	113	98	106	116	111	109	105	108	110
315	32122	105	110	105	94	100	120	106	104	108	106	107
316	32124	111	120	111	102	107	110	111	107	95	104	109
317	Sabour Shree (RP)	109	115	109	100	105	122	107	100	99	102	107
318	32131	111	116	111	91	101	115	108	109	93	103	108
319	Pooja (RP)	110	111	110	94	102	114		109	102	106	109
320	32121	105	110	105	95	100	111	107	109	96	104	108
321	32130	112	115	112	96	104	105	109	111	112	111	108
322	33263	115	119	115	105	110	110	115	112	104	110	109
323	33264	113	115	113	95	104	100	115	112	96	108	110
324	Swarna (RP)		112				122	116	100	107	108	114
325	33261	95	107	95	92	94	115	103	109	110	107	103
326	Rajendra Sweta (RP)	103	117	103	106	105	122	109	109	93	104	107
327	33262	104	110	104	96	100	104	110	112	100	107	103
328	Local Check	109	109	109	98	104	112	108	114	105	109	110
Mean		109	115	109	98	104	113	111	110	102	107	109

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.4 Plant Height (cm) of entries in AVT 1-RSL Kharif 2024

Entry No	IET No	Zone III											Zone III (6)	Zone IV			Zone IV (2)	Zone V				Zone VII			Zone VII (3)	Overall (12)
		OD		OD(2)	WB		WB(1)	BI		BI(2)	UP			UP(1)	AS	AS(1)		TP	MP	KA		KA(3)				
		CTK	BBN	mean	CHN	BNK@	mean	SBR	BKG	mean	GGT	MSD@		mean	mean	TTB		KMJ@	mean	LMB	mean	JBP	PNP	SRS		
301	31237	129	125	127	101	122	101	130	105	118	98	110	98	115	116	130	116	105	111	114	89	110	97	99	99	110
302	CR Dhan 801 (YC)	105	115	110	102	133	102	110	106	108	110	90	110	108	105	114	105	83	94	91	76	93	97	89	89	99
303	31204	121	117	119	113	150	113	129	124	127	105	80	105	118	118	121	118	110	114	87	82	96	113	97	97	110
304	32175	129	135	132	104	131	104	133	129	131	84	103	84	119	124	129	124	100	112	107	95	106	91	97	97	111
305	32176		130	130	110	118	110					78	83	78	106	120	121	120	100	110	97	96	107	92	98	103
306	32146	111	135	123	106	112	106	106	112	109	70	92	70	107	101	97	101	104	103	105	60	81	102	81	81	99
307	32147	130	140	135	109	149	109	131	118	125	80	105	80	118	121	129	121	100	111	89	82	100	80	87	87	107
308	Swarna Sub 1 (NC & RP)	112	110	111	95	122	95	98	102	100	118	105	118	106	97	117	97	100	99	80	67	87	87	80	80	96
309	31246 (R)	122	118	120	114	108	114	126	120	123	85	110	85	114	109	115	109	92	101	94	71	94	98	88	88	104
310	32134	106	105	106	115	132	115	124	119	122	98	85	98	111	128	135	128	110	119	104	87	102	107	99	99	109
311	32150	127	125	126	122	143	122	131	158	145	80	110	80	124	136	145	136	100	118	119	96	116	87	100	100	116
312	31220 (R)	130	106	118	104	116	104	125	130	128	102	102	102	116	114	115	114	93	104	110	82	94	88	88	88	107
313	Zonal Check	121	115	118	106	113	106	113	108	111	112	82	112	113	116	121	116	90	103	100	65	95	81	80	80	102
314	32123	103	95	99	100	107	100	106	104	105	115	78	115	104	101	90	101	73	87	108	59	84	84	76	76	94
315	32122	132	130	131	113	129	113	147	124	136	93	107	93	123	135	135	135	93	114	95	89	107	110	102	102	114
316	32124	107	112	110	94	111	94	105	95	100	97	92	97	102	106	109	106	70	88	91	66	92	90	83	83	94
317	Sabour Shree (RP)	127	110	119	106	127	106	119	107	113	112	86	112	114	107	122	107	84	96	88	84	96	83	88	88	102
318	32131	122	115	119	113	141	113	129	111	120	90	98	90	113	115	119	115	100	108	97	72	98	93	88	88	105
319	Pooja (RP)	114	110	112	112	116	112	105	97	101	100	88	100	106	113	114	113	100	107	98		105	110	108	108	106
320	32121	163	118	141	120	143	120	126	122	124	82	86	82	122	122	121	122	95	109	105	86	89	92	89	89	110
321	32130	137	120	129	118	133	118	121	118	120	73	88	73	115	109	114	109	84	97	110	70	89	100	86	86	104
322	33263	157	94	126	104	127	104	104	124	114	100	78	100	114	107	118	107	96	102	92	56	78	106	80	80	102
323	33264	126	100	113	108	142	108	107	93	100	80	81	80	102	96	103	96	84	90	93	64	84	90	79	79	94
324	Swarna (RP)	128		128		123			103	103				116		135			88	85	70	97	84	84	95	
325	33261	104	90	97	98	96	98	94	101	98	100	101	100	98	86	110	86	60	73	108	57	67	79	68	68	87
326	Rajendra Sweta (RP)	117	92	105	100	107	100	102	97	100	97		97	101	90	103	90	80	85	79	62	92	95	83	83	92
327	33262		115	115	104	124	104	115	103	109	75	115	75	102	125	111	125	93	109	85	81	97	112	97	97	100
328	Local Check	130	122	126	113	132	113	110	112	111	105	82	105	115	133	119	133	104	119	71	96	98	115	103	103	109
	Mean	123	115	119	108	125	108	117	113	115	94	94	94	112	113	118	113	93	103	97	77	94	96	89	89	103

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table 3.5: Number of Panicles/m² of entries in AVT 1-RSL Kharif 2024

Entry No	IET NO	Zone III												Zone III (6)	Zone IV			Zone IV (2)	Zone V (MP)	Zone VII				Zone VII (3) (KA (3))	Overall (12)			
		OD		OD (2)		WB		WB (1)		BI		BI (2)			UP		UP (1)			AS		AS (1)				TP		
		CTK	BBN	mean	CHN	BNK@	mean	SBR	BKG	mean	GGT	MSD@	mean		mean	TTB	KMJ@			mean	LMB	mean	JBP			PNP	SRS	MGD
301	31237	311	257	284	319	353	319	301	418	360	153	344	153	293	277	189	277	367	322	232	230	314	305	283	290			
302	CR Dhan 801 (YC)	272	144	208	341	342	341	274	429	352	149	327	149	268	283	212	283	308	296	185	234	343	307	295	272			
303	31204	253	166	210	341	310	341	317	399	358	145	263	145	270	269	211	269	325	297	267	236	304	241	260	272			
304	32175	301	244	273	253	380	253	333	386	360	149	340	149	278	291	171	291	250	271	222	216	376	215	269	270			
305	32176		210	210	253	375	253				145	303	145	203	260	216	260	283	272	259	343	360	252	318	263			
306	32146	278	228	253	231	494	231	258	412	335	172	297	172	263	276	197	276	300	288	276	221	360	329	303	278			
307	32147	272	216	244	363	452	363	295	370	333	115	279	115	272	283	200	283	325	304	224	241	386	286	304	281			
308	Swarna Sub 1 (NC & RP)	248	272	260	352	343	352	350	419	385	160	353	160	300	282	191	282	292	287	219	240	327	324	297	290			
309	31246 (R)	318	233	276	374	381	374	343	425	384	146	311	146	307	294	267	294	250	272	230	234	380	227	280	288			
310	32134	232	235	234	352	315	352	384	409	397	115	296	115	288	271	214	271	225	248	266	263	330	268	287	279			
311	32150	277	211	244	286	342	286	376	384	380	252	301	252	298	294	217	294	267	281	283	221	363	236	273	288			
312	31220 (R)	279	224	252	275	362	275	298	386	342	176	325	176	273	291	235	291	233	262	252	244	367	232	281	271			
313	Zonal Check	307	227	267	462	324	462	348	356	352	155	296	155	309	291	214	291	300	296	262	252	357	323	311	303			
314	32123	314	317	316	341	254	341	333	395	364	250	265	250	325	283	263	283	325	304	249	234	327	282	281	304			
315	32122	270	253	262	275	271	275	362	379	371	97	314	97	273	269	239	269	175	222	195	263	354	264	294	263			
316	32124	319	114	217	341	292	341	342	412	377	127	326	127	276	280	195	280	242	261	235	266	380	243	296	275			
317	Sabour Shree (RP)	279	289	284	319	383	319	342	406	374	124	267	124	293	263	195	263	300	282	267	240	370	257	289	288			
318	32131	308	254	281	385	443	385	346	374	360	171	343	171	306	283	251	283	267	275	234	309	380	270	320	298			
319	Pooja (RP)	302	307	305	330	335	330	346	398	372	173	286	173	309	301	270	301	358	330	187		340	266	303	301			
320	32121	222	233	228	319	324	319	328	442	385	165	255	165	285	276	180	276	450	363	258	253	356	306	305	301			
321	32130	271	214	243	363	464	363	356	394	375	114	238	114	285	297	216	297	292	295	286	313	304	211	276	285			
322	33263	277	268	273	374	316	374	283	399	341	115	304	115	286	268	199	268	300	284	267	221	327	223	257	277			
323	33264	319	294	307	341	351	341	316	392	354	215	329	215	313	256	248	256	317	287	224	246	340	287	291	296			
324	Swarna (RP)	332		332		348			364	364				348		217				243	235	390	282	302	308			
325	33261	326	260	293	253	347	253	289	382	336	114	343	114	271	271	202	271	392	332	255	228	347	275	283	283			
326	Rajendra Sweta (RP)	304	305	305	242	390	242	326	341	334	108		108	271	272	249	272	342	307	244	283	337	280	300	282			
327	33262		156	156	330	348	330	318	394	356	116	295	116	263	268	162	268	233	251	284	222	396	271	296	272			
328	Local Check	320	193	257	308	319	308	289	376	333	200	295	200	281	292	212	292	383	338	194	283	363	236	294	286			
	Mean	289	234	260	323	356	323	325	394	361	153	304	153	286	279	215	279	300	290	243	251	353	268	291	284			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 3.6. Grain Quality characteristics of entries in AVT 1-RSL Kharif 2024 at CRRI, Cuttack

Entry No	IET No	Hull	Mill	HRR	KL	KB	L/B	KLAC	ER	WU	VER	ASV	GC	AC	Type
301	31237	76.00	60.40	53.00	6.79	2.12	3.20	11.91	1.75	150.00	4.00	4.00	55.00	21.30	LS
302	CR Dhan 801	75.10	61.50	56.50	5.34	2.21	2.42	9.62	1.80	175.00	3.50	5.00	57.00	20.50	SB
303	31204	77.11	66.50	61.00	5.24	2.29	2.29	9.46	1.80	165.00	4.00	4.00	58.50	24.30	SB
304	32175	78.00	67.50	65.50	5.71	2.39	2.39	10.20	1.79	135.00	4.00	5.00	58.00	24.50	SB
305	32176	75.77	64.67	57.00	5.85	2.34	2.50	10.42	1.78	155.00	4.00	5.00	52.00	21.50	MS
306	32146	76.90	62.00	55.00	5.85	2.15	2.72	10.42	1.78	145.00	3.75	6.00	55.00	22.10	MS
307	32147	77.50	65.50	56.00	5.43	2.08	2.61	9.76	1.80	155.00	4.00	5.00	50.20	22.10	MS
308	Swarna Sub 1	77.64	65.50	64.50	5.17	2.17	2.38	9.35	1.81	165.00	4.00	4.00	55.00	22.30	SB
309	31246 (R)	78.50	66.00	61.00	5.57	1.97	2.83	9.98	1.79	165.00	4.00	4.00	55.00	21.20	MS
310	32134	79.50	61.50	44.50	6.36	2.32	2.74	11.23	1.77	175.00	4.25	6.00	48.60	20.30	LB
311	32150	78.60	67.00	45.00	5.26	2.26	2.33	9.49	1.80	165.00	4.00	3.00	48.00	18.90	SB
312	31220 (R)	78.00	64.50	58.50	5.21	2.41	2.16	9.41	1.81	185.00	4.00	5.00	45.00	19.30	SB
313	Zonal Check	76.00	63.50	60.00	5.06	2.07	2.44	9.17	1.81	185.00	3.75	4.00	50.00	21.50	SB
314	32123	74.30	63.00	61.00	5.05	2.08	2.43	9.16	1.81	195.00	4.25	5.00	41.20	24.10	SB
315	32122	77.60	66.00	62.00	5.34	2.18	2.45	9.62	1.80	165.00	4.00	6.00	50.00	22.10	SB
316	32124	74.30	62.25	56.25	5.17	2.11	2.45	9.35	1.81	175.00	4.00	5.00	61.20	23.75	SB
317	Sabour Shree	76.40	65.00	58.50	5.44	2.08	2.62	9.77	1.80	165.00	4.00	5.00	50.00	24.10	MS
318	32131	76.50	66.00	62.20	5.33	2.18	2.44	9.60	1.80	145.00	4.00	4.00	58.90	24.30	SB
319	Pooja	75.50	63.00	60.00	5.08	2.10	2.42	9.21	1.81	185.00	4.00	6.00	60.20	22.30	SB
320	32121	76.00	66.00	55.00	5.57	2.07	2.69	9.98	1.79	125.00	4.00	3.00	62.30	21.20	MS
321	32130	74.00	63.00	61.50	5.01	2.15	2.33	9.09	1.82	145.00	4.25	5.00	55.00	22.30	SB
322	33263	75.50	65.50	62.00	5.49	2.26	2.43	9.85	1.79	165.00	4.00	5.00	56.00	22.10	SB
323	33264	75.50	65.00	60.50	5.25	2.08	2.52	9.47	1.80	145.00	4.00	6.00	55.00	20.50	MS
324	Swarna	74.50	63.50	60.00	5.01	2.15	2.33	9.09	1.82	175.00	4.00	4.00	55.00	21.30	SB
325	33261	77.00	65.75	59.50	5.18	2.13	2.43	9.36	1.81	165.00	4.00	5.00	61.20	21.70	SB
326	Rajendra Sweta	78.00	66.00	59.50	4.96	2.14	2.32	9.02	1.82	185.00	4.00	6.00	54.00	25.40	SB
327	33262	80.57	64.50	57.50	5.36	2.20	2.44	9.65	1.80	185.00	4.00	4.00	56.00	24.10	SB
328	Local Check	76.00	65.00	60.00	5.11	2.13	2.40	9.25	1.81	175.00	4.00	5.00	62.30	25.30	SB

INITIAL VARIETY TRIAL-RAINFED SHALLOW LOWLAND (IVT-RSL)

Locations: 15

Test Entries: 43

Checks: Swarna-Sub1 (National), Yield Check (CR Dhan 801), Zonal checks: Pooja (Eastern), Bahadur (North Eastern), Savitri (Southern), Swarna(Central) and Local Check

The trial was constituted with 47 entries including four checks *viz.*, National (Swarna Sub1), Zonal (Pooja, Bahadur, Savitri.), Yield Check (CR Dhan 801) and local checks. The trial was sent to 15 locations. Data was received from most of the locations except Arundhutinagar (flood damage). Thus data from 14 locations were considered for analysis.

The trial was evaluated at 14 locations *viz.* Cuttack, Bhubaneswar, Chinsura, Bankura, Sabour, Bikramganj, Masodha, Titabar, Karimganj, Lembucherra, Jabalpur, Ponnampet, Sirsi and Mugad. Experimental mean yield at the locations ranged from 3334 kg/ha (Sirsi) to 8362 kg/ha (Bankura) and CV% from 2.31 (Karimganj) to 24.09 (Cuttack). Mean yield of the entries ranged from 3395 kg/ha (IET 33152) to 5669 kg/ha (IET 33125); days to 50% flowering ranged from 93 days (IET 33152) to 126 days (IET 33154); plant height ranged from 82 cm (IET 33164) to 135 cm (IET 33143) and panicles per square meter ranged from 259 (IET 33134) to 347 (IET 33164). The data pertaining to yield, days to 50% flowering, plant height and number of panicles/m² are presented in Tables 1 to 5.

Performance of the entries on overall mean basis:

On overall mean basis, two entries *viz.*, IET 33125 and IET 33150 recorded 5669 kg/ha and 5588 kg/ha grain yield which was significantly higher than the best check Swarna Sub 1 (5291 kg/ha), hence promoted for next level of testing.

Performance of the entries on zonal basis:

In Zone III, Zone IV and Zone V no entry was found superior over the best check.

Zone VII was represented by three locations (Ponnampet, Sirsi and Mugard)) spread across one state *viz.* Karnataka. The mean grain yield of the entries in Zone VII varied from 3292 kg/ha (IET 33122) to 5251 kg/ha (IET 33127), days to 50% flowering ranged from 91 days (IET 33152) to 117 days (IET 33149, IET 33154), plant height ranged from 73 cm (IET 33126) to 106 cm (IET 33132) and mean panicles/m² varied from 256 (IET 33152) to 346 (IET 33151). Among the checks, yield check (CR Dhan 801) recorded highest grain yield of 4089 kg/ha with 106 days to 50% flowering. Among the test entries, IET 33123 (4694 kg/ha) with 107 days to 50% flowering, IET 33127 (5251 kg/ha) with 108 days to 50% flowering, IET 33129 (4715 kg/ha) with 106 days to 50% flowering, IET 33134 (4958kg/ha) with 100 days to 50% flowering, IET 33139 (4726 kg/ha) with 109 days to 50% flowering and IET 33159 (4746 kg/ha) with 101 days to 50% flowering recorded significant yield superiority over the best check (BVC + CD at 5%). But IET 33134 and IET 33164 did not have desirable flowering duration as per the guidelines. Therefore, these five entries (IET 33123, IET 33127, IET 33129, IET 33139 and IET 33159) are promoted to AVT-1 under Zone VII.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Zonal and overall performance of promising entries in IVT-RSL, 2024

Entry No.	IET No	Designation	Grain Yield (Kg/ha)		Remarks
			(FD) ^{\$} Zone VII	Overall	
402	33123	NDR 9549/ IR 68815-51-PMI-2-UBN-7-1-6-2/NDR 8002	4668 107 (109)		Promoted for Zone VII
404	33125	CN2163-10-4-1-1-1		5669 119	Promoted on overall basis
407	33127	OR 2767-1	5251 108 (121)		Promoted for Z-VII
409	33129	CR 3984-2-1-1-2	4715 106(115)		Promoted for Z-VII
414	33134	CR 4121-17-1	4958 100		Dropped due to lower 50% flowering
419	33139	ORJ 1357	4726 109		Promoted for Z-VII
432	33150	CR 4481-1-5-2-2-1		5588 112	Promoted on Overall basis
441	33159	CR 4413-1-2-1-1-1	4746 101(111)		Promoted for Z-VII
446	33164	CR 2683-2-1-1-1-1	4854 97		Dropped due to lower 50% flowering
SwarnaSub- I(NC)			3900 113	5291 119	
Zonal check(ZC)			3812 112	4980 119	
Local check (LC)			4048 104	5018 115	
CD (at 5%)			544.28	251.92	

\$ The values in parenthesis indicate flowering duration on overall basis

Performance of promoted entries:

IET 33123 (NDR 9549) derived from cross IR 68815-51-PMI-2-UBN-7-1-6-2/NDR 8002 recorded grain yield of 4886 kg/ha with 107 days to 50% flowering in zone and 109 days on overall basis. IET 33125 (CN2163-10-4-1-1-1) derived from OLS 181 / Shatabdi yielded 5669 kg/ha grain yield with in overall basis with 119 days to 50% flowering. IET 33127(OR 2767-1) derived from Gayatri / FL-496 / R49830-7 recorded grain yield of 5251 kg/ha (Zone-VII) with 108 days to 50% flowering in zone and 121 days on overall basis. ET 33129 (CR 3984-2-1-1-2) derived from CR3624-2(NPT-305)/CRMAS2232-85 recorded grain yield of 4715 kg/ha (Zone-VII) with 106 days to 50% flowering in zone and 115 days on overall basis. IET 33139 (ORJ 1357) derived from Mrunalini/Swarna recorded grain yield of 4726 kg/ha (Zone-VII) with 109 days to 50% flowering in zone and 113 days on overall basis. IET 33150 (CR 4481-1-5-2-2-1) derived from Pooja*4 / IRBB 66 recorded grain yield of 5588 kg/ha with 112 days to 50% flowering. IET 33159 (CR 4413-1-2-1-1-1) derived from CR 3759-1-1-2-1-1/CR3504-7-2-2-1-1-1 recorded grain yield of 4746 kg/ha with 101 days to 50% flowering in zone and 11 days on overall basis.

Promoted to AVT-1 RSL based on zonal and overall mean basis:

Zone VII- IETs 33123, 33127, 33129, 33139 and 33159

Overall Basis: IETs 33125, 33150

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 4.1: Composition of entries in Initial Variety Trial–Rainfed Shallow Lowland (IVT – RSL), Kharif 2024

Entry No.	IET No.	Designation	Cross combination	Grain Type
401	33122	CR 2916-27-2-1-1	Tapaswini/IET 16952	MS
402	33123	NDR 9549	IR 68815-51-PMI-2-UBN-7-1-6-2/NDR 8002	LS
403	33124	CR 4408-1-2-1-3-1-1	CR3561-10-1-1-1-1/CR3549-3-5-1-1-1	MS
404	33125	CN2163-10-4-1-1-1	OLS 181 / Shatabdi	MB
405	33126	CR 3988-12-1-1-3	AC 38562/Niraj/Ratna x Pooja	SB
406	Swarna Sub 1 (NC)			
407	33127	OR 2767-1	Gayatri / FL-496 / R49830-7	MB
408	33128	CR-2860-S-B-73-1-1	Varshadhan/ SR 26B	MS
409	33129	CR 3984-2-1-1-2	CR3624-2(NPT-305)/CRMAS2232-85	MS
410	33130	CU137-IR20R1932	IR 29/UVAR VELLAI//2*IR 29(SAL.SEL.)/// IR 833-6-2-1-1//IR 1561-149-1//IR 1737	LS
411	33131	CR 4480-2-1-1-1-1	CR4475-1-1-1-2-1-1/CR 4476-7-1-1-1-1	LS
412	33132	CR-2839-1-S-3B-6-1-1	Swarna/ FL 496	LS
413	33133	MLD 277-IR20R1926	IRRI 154*4 / SIRAPPU PALEUSITHARI	LS
414	33134	CR 4121-17-1	CR 3856-44-22-2-1-11-1-1-1/IRBB60*Swarna sub 1	LS
415	33135	ORR 1824	Pooja X Ranidhan	LS
416	33136	CR 3984-9-1-1-3	CR3624-2(NPT-305)/CRMAS2232-86	MS
417	33137	DRV 06(BD-12-1-1)	BPT5204 X Doddiga	SB
418	33138	CR 6306-278-2-8-54	CR-3866-22-1/CR Dhan 307	SB
419	33139	ORJ 1357	Mrunalini/Swarna	MB
420	33140	BRR 0299	BRR 0071 X Swarna Sub 1	MS
421	33141	CR-2845-S-B-B-35-1-1	Swarna Sub 1/ SR 26B	MB
422	33142	CR 3856-44-22-2-1-11-4-1-10	IR73963-86-1-5-2-2/CR 2324-1	LB
423	33143	MGD-24-17	BPT-5204 X Doddiga-7	SB
424	33144	CR 3562-2-2-1-1-1-1	Surendra/N 22	MS
425	33145	TJR 14	PB1 mutant X MTU 1010	MS
426	33146	CR 4581-37-15-28-12-14-7-9	CR Dhan 304 X Chakhao	MB
427	CR Dhan 801 (check)			
428	33147	CR-3466-L-4-2-2-3-3-1	R64/FL478//IR-73931-40-1-2-3-2-22-1///Pratiksha	MS
429	33148	PUR-K-IR18L1173(IR18L1173)	IR 91648-B-1-B-3-1/ABHAYA//IR11L101///IR 91648-B-1-B-3-1/RATHU HEENATI//WHD IS-75-1-127/9//IR 96148-B-1-B-3-1/IRBB 23//IR 96322-34-223-B///IR 91648-B-1-B-3-1/IR BB 60 (IR 72920-1-44-4)//TADUKAN	LS
430	Pooja (Eastern), Bahadur (North Eastern), Savitri (Southern), Swarna (Central) - ZC			
431	33149	CR 4203-28-2-4-6	Pooja*4 / IRBB 66	MS
432	33150	CR 4481-1-5-2-2-1	CR3783-3-2-1-1-1-1/CR4476-7-1-1-1-1-1	SB
433	33151	CR 4485-8-2-2-1	Naveen / Jasmine 85	LS
434	33152	NDR 9081-1-2	IR 77770-118-NDR-B-49-43/MTU 7029	LB
435	33153	CR 4330-241-1-2-1	Swarna Sub 1/ CR 1014	MS
436	33154	TTB 1370-16-4	RANJIT*3/IRBB 56	MS
437	33155	CR 3967-40-3--1-1-1-2	IR73895-33-1-3-2/Pratikhya	LB
438	33156	TTB 1398-3	Hatidotia/RANJIT*2/Ril 29	MS
439	33157	CR 3988-46-8-1	Pooja/CR Dhan 305	SB
440	33158	BRR2074	IR 11 A 257-Sel.-2022-2074-2-Sel.	MS
441	33159	CR 4413-1-2-1-1-1	CR 3759-1-1-2-1-1/CR3504-7-2-2-1-1-1	MB
442	33160	CR 3549-1-3-1-1-1-1	ADT 43/Annapurna	MB
443	33161	IR16T1054(PUR-K-IR16T1054)	IR12T217/PR 38012-3B-3-1	LS
444	33162	RP6429-db-RN88	Jaya/Adithya	LS
445	33163	DRV 05(BA-04-1-1)	BPT5204 X A-67	LB
446	33164	CR 2683-2-1-1-1-1	CRLC899 / Ac 38700	SB
447	Local Check			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 4.3: Days to 50% flowering of entries in IVT-RSL Kharif 2024

Entry No	IET No	Zone III										Zone IV			
		OD		OD(2)	WB		BI		BI(2)	UP	Zone III(4)	AS		AS(1)	TP
		CTK	BBN	mean	CHN@	BNK@	SBR	BKG	mean	MSD@	mean	TTB	KMJ@	mean	LMB
401	33122	127	110	119	126	113	126	123	125	120	122	123	134	123	121
402	33123	112	98	105	122	107	107	112	110	113	107	120	115	120	115
403	33124	122	105	114	127	107	125	124	125	124	119	121	129	121	102
404	33125	120	111	116	126	109	144	131	138	128	127	125	130	125	122
405	33126	131	113	122	110	112	145	136	141	120	131	126	130	126	105
406	Swarna Sub 1 (NC)	119	107	113	128	108	136	127	132	125	122	122	137	122	115
407	33127	134	111	123	110	113	134	137	136	124	129	129	138	129	120
408	33128	102	87	95	120	104	98	101	100	108	97	117	131	117	104
409	33129	120	107	114	110	113	143	124	134	119	124	112	120	112	121
410	33130	99	80	90	116	101	109	101	105	110	97	112	128	112	99
411	33131	117	98	108	116	113	122	115	119	118	113	118	114	118	119
412	33132	129	119	124	128	113		139	139	106	129	122	116	122	108
413	33133	112	89	101	126	103	127	103	115	113	108	116	104	116	115
414	33134	99	89	94	111	102	135	129	132	105	113		116		109
415	33135	116	103	110	126	109	125	122	124	122	117	127	126	127	124
416	33136	125	118	122	110	106	153	133	143	120	132	129	127	129	115
417	33137	133	114	124	131	113	135	131	133	110	128	122	129	122	118
418	33138	123	102	113	126	103	120	119	120	120	116	118	127	118	114
419	33139	116	99	108	123	105	121	121	121	122	114	121	126	121	132
420	33140	120	104	112	110	106	137	126	132	112	122	124	129	124	129
421	33141	136	119	128	121	112		137	137	108	131	122	117	122	107
422	33142	120	106	113	126	105	126	125	126	120	119	129	116	129	108
423	33143	127	105	116	123	109	135	125	130	113	123	118	115	118	120
424	33144	128	104	116	110	111	122	126	124	121	120	123	118	123	123
425	33145	119	97	108	120	105	128	113	121	118	114	122	116	122	115
426	33146	115	100	108	127	109	120	118	119	122	113	124	116	124	113
427	CR Dhan 801 (Yield Check)	116	103	110	116	108	122	119	121	106	115	122	119	122	107
428	33147	113	101	107	126	105	123	125	124	120	116	123	133	123	120
429	33148	101	89	95	116	99	104	104	104	113	100	112	119	112	129
430	Zonal Check	137	117	127	121	110	107	135	121		124	124	129	124	106
431	33149	133	119	126	129	114		137	137	119	130	123	126	123	94
432	33150	113	103	108	110	106	108	123	116	119	112	124	127	124	104
433	33151	130	116	123	110	118	136	137	137	125	130	134	129	134	122
434	33152	99	81	90	118	101	100	91	96	108	93	101	102	101	108
435	33153	138	125	132	124	117		139	139	120	134	124	127	124	107
436	33154	130	111	121	110	109	150	134	142	113	131	130	126	130	113
437	33155	126	105	116	128	108	151	124	138	116	127	123	126	123	114
438	33156	128	112	120	110	110	138	137	138	107	129	131	116	131	123
439	33157	128	117	123	127	113	133	134	134	124	128	129	116	129	121
440	33158	118	102	110	131	104	137	128	133	116	121	124	118	124	119
441	33159	120	100	110	120	105	122	117	120	111	115	123	122	123	120
442	33160	114	97	106	118	106	120	105	113	112	109	117	116	117	111
443	33161	102	87	95	129	101	100	102	101	111	98	112	115	112	113
444	33162	108	86	97	117	104	120	104	112	112	105	116	113	116	117
445	33163	122	99	111	118	105	154	119	137	106	124	116	116	116	108
446	33164				124					113			116		107
447	Local Check	130	105	118	122	122	137	119	128	116	123	116	112	116	129
	Mean	120	104	112	120	108	127	122	125	116	119	121	122	121	115

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 4.3:(Contd.): Days to 50% flowering of entries in IVT-RSL Kharif 2024

Entry No	IET No	Zone V		Zone VII			Zone VII (3)	Overall (9)
		Zone IV (2)	MP	KA			KA(3)	
		mean	<u>JBP@</u>	PNP	SR S	MG D	mean	
401	33122	122	104	113	116	105	111	118
402	33123	118	116	109	105	108	107	109
403	33124	112	109	114	109	95	106	114
404	33125	124	115	115	116	86	106	119
405	33126	116	103	114	116	103	111	123
406	Swarna Sub 1 (NC)	119	105	116	116	108	113	119
407	33127	125	127	111	109	105	108	121
408	33128	111	114	103	93	90	95	99
409	33129	117	111	107	116	94	106	115
410	33130	106	114	98	95	90	94	98
411	33131	119	120	114	109	86	103	110
412	33132	115	132	109	120	110	113	121
413	33133	116	114	109	102	98	103	107
414	33134	109	120	108	103	88	100	107
415	33135	126	121	114	103	84	100	112
416	33136	122	122	117	116	86	106	122
417	33137	120	123	112	120	85	106	119
418	33138	116	114	115	109	111	112	115
419	33139	127	110	110	103	115	109	113
420	33140	127	125	111	109	96	105	116
421	33141	115	107	112	116	90	106	119
422	33142	119	102	112	116	94	107	116
423	33143	119	110	99	107	110	105	116
424	33144	123	110	111	112	97	107	115
425	33145	119	115	109	105	90	101	110
426	33146	119	106	110	106	94	103	111
427	CR Dhan 801 (Yield Check)	115	116	110	109	98	106	112
428	33147	122	112	112	109	99	107	113
429	33148	121	127	102	105	88	98	101
430	Zonal Check	115	129	114	128	93	112	119
431	33149	109	120	114	130	108	117	123
432	33150	114	126	110	116	95	107	112
433	33151	128	125	116	120	96	111	123
434	33152	105	101	100	89	83	91	93
435	33153	116	121	107	125	88	107	121
436	33154	122	107	114	130	108	117	126
437	33155	119	115	111	116	100	109	120
438	33156	127	117	116	135	76	109	122
439	33157	125	112	114	116	86	105	120
440	33158	122	116	108	109	96	104	115
441	33159	122	110	114	111	78	101	111
442	33160	114	99	116	109	84	103	108
443	33161	113	122	104	92	94	97	99
444	33162	117	112	107	105	83	98	104
445	33163	112	122	97	105	92	98	113
446	33164	107	124			97	97	97
447	Local Check	123	114	103	110	100	104	115
	Mean	118	115	110	111	95	105	113

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 4.5 (contd.) : Number of Panicles/m² of entries in IVT-RSL Kharif 2024

Entry No	IET No	Zone V		Zone VII			Z VII(3)	Overall (9) mean
		Z IV (2)	MP	KA	SRS	MGD	KA(3)	
		mean	JBP@	PNP			mean	
401	33122	373	289	283	342	335	320	343
402	33123	283	274	239	375	299	304	297
403	33124	273	225	237	363	325	308	293
404	33125	276	223	236	368	312	305	298
405	33126	234	268	266	429	249	315	300
406	Swarna Sub 1 (NC)	350	245	297	375	309	327	316
407	33127	273	250	254	330	234	273	275
408	33128	240	155	263	380	254	299	288
409	33129	278	261	222	353	353	309	312
410	33130	315	242	298	403	325	342	327
411	33131	297	267	315	403	265	328	312
412	33132	297	242	248	287	281	272	266
413	33133	259	263	231	342	233	269	290
414	33134	238	268	216	325	343	295	259
415	33135	283	254	268	375	280	308	303
416	33136	233	267	254	325	280	286	288
417	33137	255	223	308	335	270	304	294
418	33138	236	258	250	276	265	264	264
419	33139	288	294	221	320	228	256	275
420	33140	315	260	225	231	345	267	287
421	33141	284	260	245	307	299	284	303
422	33142	247	254	194	320	352	289	277
423	33143	276	229	173	363	320	285	281
424	33144	284	251	286	276	287	283	285
425	33145	229	258	232	324	281	279	278
426	33146	269	279	263	335	282	293	291
427	CR Dhan 801 (Yield Check)	215	270	304	396	320	340	291
428	33147	280	254	268	385	265	306	305
429	33148	281	242	219	352	345	305	282
430	Zonal Check	293	239	242	380	293	305	301
431	33149	352	289	252	386	326	321	310
432	33150	362	207	246	325	280	284	296
433	33151	360	226	340	401	297	346	345
434	33152	320	275	221	287	261	256	283
435	33153	319	250	311	324	334	323	312
436	33154	357	288	240	286	248	258	296
437	33155	321	236	259	330	321	303	310
438	33156	314	258	295	286	280	287	294
439	33157	298	247	253	373	306	311	302
440	33158	236	251	206	309	273	263	275
441	33159	245	294	236	287	258	260	265
442	33160	234	236	272	358	304	311	284
443	33161	243	252	330	319	344	331	298
444	33162	323	266	250	319	279	283	305
445	33163	288	229	261	401	245	302	288
446	33164	413	291			280	280	347
447	Local Check	275	259	275	479	268	341	306
Mean		287	254	257	344	292	297	296

ADVANCE VARIETY TRIAL 1 – SEMI DEEP WATER (AVT 1 - SDW)

Locations:13

Test Entries: 6

Checks: CR Dhan 506 (National), CR Dhan 510 (Eastern, North Eastern Zonal), MTU 1172 (Southern zonal), Varshadhan (RP Check) and Local Check

The trial was constituted with 10 entries including 06 test entries and four checks viz., CRDhan506 (National check), CR Dhan 510 (Eastern and North Eastern Zonal check), MTU 1172 (Southern Zonal Check), Varshadhan (Recurrent parent) and Local Checks. One entry was in 3rd year of testing, whereas, five entries including two NILs were in the 2nd year of testing. The trial was sent to 13 locations and data was received from 12 locations, trial at Arundhatinagar was damaged by flood. However, data consideration of different locations is presented in Table.

Data consideration of different testing locations

SN	Center	Data consideration
1	Masodha	Rejected due to low CV (<5%).
2	Cuttack	Data considered for analysis
3	Chinsura	Data considered for analysis
4	Canning	Rejected due to low CV (<5%).
5	Ghaghrahat	Data considered for analysis
6	Pusa	Data considered for analysis
7	Karimganj	Rejected due to low CV (<5%).
8	Gerua	Rejected due to high CV (>25%).
9	Bhubaneswar	Data considered for analysis
10	Titabar	Data considered for analysis
11	Maruteru	Data considered for analysis
12	Mugad	Data considered for analysis
13	Arundhatinagar	Flood damaged

Overall mean yield of the entries varied from 3467 kg/ha (IET 32196) to 4731 kg/ha (Zonal Check). Mean days to 50% flowering ranged from 101 days (IET 32196) to 128 days (IET 32193); plant height ranged from 101 cm (IET 32196) to 139 cm (IET 29026 and Varshadhan-RP); mean panicles/ m² ranged from 237 (IET 29031) to 297 (Zonal Check). The data pertaining to yield, days to 50% flowering, plant height, no. of panicles/m² and qualities..... are presented in Tables 5.2 to 5.6.

Based on the overall and zonal means (Zones III, IV, and VII), none of the entries showed requisite yield superiority over the best varietal checks, hence, all entries are discontinued or dropped."

Identification of superior genotypes in AVT 1-SDW trial:

IET 31258 (MTU-1387 (MTU 2244-39-20-4) derived from a cross between MTU 1064/Swarna sub-1//MTU 1064 possesses short bold grains did not record yield superiority over the BVC, hence it is discontinued in 3rd year.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Zonal Performance of promising entries in AVT1-SDW *Kharif* 2024

Entry No	IET No/Designation/Cross	Zone-VII (I)	Zone III (1)	Zone III (5)	Remarks
		Mean GY(Kg/ha)	DFP/PH (cm)		
		2022	2023	2024	Discontinued
502	IET31258 (MTU-387(MTU2244-39-20-4) MTU1064/Swarna Sub-1//MTU1064	5424*	6089*	4189	
		134	136	121	
		127	120	111	
CR Dhan 506 (NC)		3298	2900	3427	
		134	133	128	
		182	115	142	
Zonal Check		4525	4712	5054	
		125	136	128	
		131	107	118	
Local Check		4227	4703	4204	
		127	126	122	
		126	122	130	
CD		594.38	460.79	324.0	
BVC+CD		5,119.38	5,172.79	5,378	

Performance of NIL lines (IET29031 and IET29026):

The AVT-1- SDW trial also included two near isogenic lines (NILs) of Varshadhan viz., IET 29031 and IET 29026, repeated in 2nd year of testing. The yield performance of these lines was compared with that of the recurrent parent, Varshadhan. In the year 2022 both the entries perform at par yield with recurrent parent, Varshadhan, however, in the 2nd and 3rd years during 2023 and 2024 both the entries showed significantly lower yield than the recurrent parent, Varshadhan in AVT-1-SDW trial. The submergence tolerance performance of these entries was evaluated under the Advanced Varietal Trial 1-NIL (Submergence) (AVT-1-NIL-SUB) during *Kharif* 2022, 2023 and 2024. Both entries, IET 29031 and IET 29026, recorded superior grain yield in AVT-1-NIL-SUB during 2022 and 2023, and at par yield to the RP in 2024. Both entries consistently showed higher survival percentages across all three years. However, in 2024, the survival percentage of the NILs was on par with the RP. Due to lower grain yield of IET 29026 and IET 29031 than the RP in the years of 2023 and 2024, these entries are discontinued from further testing.

Yield performance of NIL lines under normal condition in AVT-1-SDW during *Kharif* 2022, 2023 and 2024

IET No	Odisha (2022)	Odisha (2023)	Odisha (2024)	Mean (kg/ha)
29031	5020	2488	3214	3574
29026	4972	2425	3311	3569
Varshadhan (RP)	4364	3601	4288	4084
CD	770.30	460.79	502.05	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Yield performance of NIL lines under submergence condition in AVT-1 NIL-SUB during Kharif 2022, 2023 and 2024

IET No./ Designation/Cross combination of NIL	Grain Yield under submergence condition															
	2022						2023						2024			
	CTC		KRK		Mean		BKG		KRK		Mean		BKG		Mean	
	NIL	RP	NI	RP	NIL	RP	NI	RP	NI	RP	NIL	RP	NI	RP	NI	RP
IET29026 (Varshadhan - NIL)	404 9*	25 08	313 9	24 03	359 4*	24 55	45 95	31 35	39 42	14 28	426 9*	22 82	50 39	45 69	50 39	45 69
IET29031(Varshadhan -NIL)	319 2	25 08	381 9	24 03	350 6*	24 55	46 55	31 35	33 92	14 28	402 4*	22 82	44 88	45 69	44 88	45 69
CD	754.83		504 .0		443.74		1038.91		679.78		626.83		1014.34		1014.34	

Seedling Survival percentage of NIL entries in AVT-1 NIL-SUB over their RP under submergence stress condition, Kharif, 2022, Kharif 2023 and Kharif 2024

Recurrent Parent	NIL- IET no.	Seedling Survival percentage of NIL and RP																
		2022								2023								
		NIL-Seedling Survival (%)			RP-Seedling Survival (%)			% Over RP	NIL-Seedling Survival (%)				RP-Seedling Survival (%)				% Over RP	% Over SC
		C	K	Me	C	K	Me		B	K	S	Me	B	K	S	Me		
Varshadhan	29031	83	89	86	55	56	55.5	54.9	84	82.3	10	83.1	44	53.9	17	48.9	69.76	16.1.8
	29026	79	93	86	55	56	55.5	54.9	74	87.9	75	80.9	44	53.9	17	48.9	65.35	15.5.0
Swarna (Sensitive check)									28	35.5	30	31.8						

Seedling Survival percentage of NIL entries in AVT-1 NIL-SUB over their RP under submergence stress condition, Kharif, 2022, Kharif 2023 and Kharif 2024 (Continue...)

Recurrent Parent	NIL- IET no.	Seedling Survival percentage of NIL and RP					
		2024					
		NIL-Seedling Survival (%)		RP-Seedling Survival (%)		% Over RP	% Over SC
BKG	Mean	BKG	Mean				
Varshadhan	29031	82.50	82.50	79.00	79.00	4.43	211.32
	29026	79.50	79.50	79.00	79.00	0.63	200.00
Swarna (Sensitive check)		26.50	26.50				

Entries Promoted: Nil

Annual Progress Report 2024 Vol. I – Varietal Improvement

Details of water regime (cm) at different centers in AVT-1-SDW, *Kharif 2024*

Location	Week	June	July	August	September	October	November
Maruteru	1st			25	30	40	30
	2nd			25	40	42	32
	3rd			25	42	30	
	4th			25	45	30	
Chinsurah	1st	0	0	60	40	50	30
	2nd	0	0	50	35	40	20
	3rd	0	10	40	40	50	15
	4th	0	65	40	50	30	0
Bhubaneswar	1st				40	30	25
	2nd			10	40	25	22
	3rd			30	40	22	15
	4th			45	30	27	10
Cuttack	1st			40	50	40	
	2nd			40	55	40	
	3rd		20	45	50	45	
	4th		35	50	45	40	
Masodha	1st				30	50	7
	2nd			20	50	30	5
	3rd			40	55	18	
	4th			35	70	10	
Ghaghraghat	1st				72	66	
	2nd				68	47	
	3rd			63	67		
	4th			61	67		
Pusa	1st		20	45	58	55	
	2nd		20	55	58	50	
	3rd		25	55	58		
	4th		35	55	60		
Canning	1st		45	52	54	45	32
	2nd		48	55	50	42	30
	3rd		52	51	52	35	22
	4th		55	54	52	32	15
Karimganj	1st	80	56	48	44	30.4	4
	2nd	78.4	58.4	46.4	42.4	28.8	3
	3rd	78.4	52	44	40.8	24	3
	4th	76	48	42.4	40	22.4	2
Titabar	1st		12	41	43	30	9
	2nd		16	59	38	15	6
	3rd		27	50	48	12	5
	4th		33	36	58	10	3
Gerua	1st		40	40	40	40	
	2nd		40	40	40	40	
	3rd		40	40	40	40	
	4th		40	40	40	40	
Mugad	1st			10	20	30	30
	2nd			10	20	30	20
	3rd		2	10	20	40	10
	4th		5	10	30	40	5

Annual Progress Report 2024 Vol. I – Varietal Improvement

Adaptability Parameters of entries in AVT1-SDW, Kharif-2024

Entry No.	IET No.	Kneeing Ability Score (1-5)												
		CTC	BBS	MTU	CHN	PSA	GGT	MSD	KMJ	TTB	CNG	GER	ARD	MGD
501	CR Dhan 506 (NC)		5	3	3	4		0	NF	-	-	-	-	-
502	31258		1	NL	3	4		0	-	-	-	-	-	-
503	32196		5	NL	3	3		0	-	-	-	-	-	-
504	32193		3	5	1	3		0	-	-	-	-	-	-
505	32198		3	5	3	3		1	-	-	-	-	-	-
506	Varshadhan (RP)		5	5	1	1		1	-	-	-	-	-	-
507	29026		5	3	1	3		0	-	-	-	-	-	-
508	Zonal Check		5	NL	1	1		1	-	-	-	-	-	-
509	29031		5	3	1	1		1	-	-	-	-	-	-
510	Local Check		1	NL	1	1		1	-					

(Contd.) Adaptability Parameters of entries in AVT-1-SDW, Kharif 2024

Entry No.	IET No.	Grain Shattering Score (1-9)												
		CTC	BBS	MTU	CHN	PSA	GGT	MSD	KMJ	TTB	CNG	GER	ARD	MGD
501	CR Dhan 506 (NC)	5	5	3	5	-	3	0	3	-	-	1	-	-
502	31258	5	3	5	5	-	3	0	5	-	-	1	-	-
503	32196	5	5	1	3	-	3	0	3	-	-	5	-	-
504	32193	5	1	3	5	-	1	0	3	-	-	1	-	-
505	32198	5	5	3	5	-	3	0	3	-	-	3	-	-
506	Varshadhan (RP)	5	1	7	5	-	1	0	5	-	-	1	-	-
507	29026	5	7	5	5	-	3	1	3	-	-	1	-	-
508	Zonal Check	5	7	5	5	-	3	0	3	-	-	1	-	-
509	29031	5	7	5	3	-	3	1	3	-	-	1	-	-
510	Local Check	5	1	3	5	-	1	0	3	-	-	3	-	-

(Contd.) Adaptability Parameters of entries in AVT-1-SDW, Kharif 2024

Entry No.	IET No.	Phenotypic Acceptability Score (1-9)												
		CTC	BBS	MTU	CHN	PSA	GGT	MSD	KMJ	TTB	CNG	GER	ARD	MGD
501	CR Dhan 506 (NC)	-	5	7	3	-	3	5	1	-	-	7	-	-
502	31258	-	3	3	3	-	3	3	3	-	-	5	-	-
503	32196	-	5	7	5	-	7	3	1	-	-	1	-	-
504	32193	-	3	7	1	-	3	5	3	-	-	7	-	-
505	32198	-	3	7	3	-	5	7	1	-	-	5	-	-
506	Varshadhan (RP)	-	1	5	3	-	3	1	5	-	-	5	-	-
507	29026	-	3	7	1	-	3	3	5	-	-	5	-	-
508	Zonal Check	-	3	3	1	-	3	5	3	-	-	7	-	-
509	29031	-	5	5	1	-	3	1	3	-	-	5	-	-
510	Local Check	-	1	1	1	-	3	3	1	-	-	5	-	-

Annual Progress Report 2024 Vol. I – Varietal Improvement

(Contd.) Adaptability Parameters of entries in AVT-1-SDW, Kharif 2024

Entry No.	IET No.	Elongation Ability (Score1-9)												
		CTC	BBS	MTU	CHN	PSA	GGT	MSD	KMJ	TTB	CNG	GER	ARD	MGD
501	CR Dhan 506 (NC)	-	5	3	3	5	3	1	-	-	1	-	-	-
502	31258	-	1	5	3	5	3	3	-	-	5	-	-	-
503	32196	-	7	5	3	3	3	1	-	-	9	-	-	-
504	32193	-	5	1	1	5	3	5	-	-	1	-	-	-
505	32198	-	5	5	3	5	3	3	-	-	5	-	-	-
506	Varshadhan (RP)	-	3	1	1	1	3	1	-	-	1	-	-	-
507	29026	-	5	1	1	5	3	1	-	-	1	-	-	-
508	Zonal Check	-	3	9	3	1	3	3	-	-	1	-	-	-
509	29031	-	7	7	1	1	3	3	-	-	1	-	-	-
510	Local Check	-	1	5	3	1	3	3	-	-	1	-	-	-

(Contd.) Adaptability Parameters of entries in AVT-1-SDW, Kharif 2024

Entry No.	IET No.	Seedling Survival (%)												
		CTC	BBS	MTU	CHN	PSA	GGT	MSD	KMJ	TTB	CNG	GER	ARD	MGD
501	CR Dhan 506 (NC)	89	-	-	-	-	-	-	-	-	93	-	-	-
502	31258	92	-	-	-	-	-	-	-	-	100	-	-	-
503	32196	90	-	-	-	-	-	-	-	-	100	-	-	-
504	32193	88	-	-	-	-	-	-	-	-	74	-	-	-
505	32198	91	-	-	-	-	-	-	-	-	100	-	-	-
506	Varshadhan (RP)	95	-	-	-	-	-	-	-	-	100	-	-	-
507	29026	87	-	-	-	-	-	-	-	-	100	-	-	-
508	Zonal Check	96	-	-	-	-	-	-	-	-	81	-	-	-
509	29031	90	-	-	-	-	-	-	-	-	100	-	-	-
510	Local Check	91	-	-	-	-	-	-	-	-	96	-	-	-

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table no 5.1: Composition of entries in Advance Variety Trial 1-Semi Deep Water (AVT 1-SDW), Kharif 2024

Entry No.	IET No.	Designation	Cross combination	Grain Type
3rd year of testing				
501	CR Dhan 506 (NC)			
502	31258	MTU-1387 (MTU 2244-39-20-4)	MTU 1064/Swarna sub-1//MTU 1064	MS
2nd year of testing				
503	32196	NDR 2022-10-4	NDR 8029/Sarjoo 52	MB
504	32193	CR 2667-4-1-2-2-1	Gayatri/AC 38599	MS
505	32198	MTU 1424	MTU 1061/MTU 1121	MS
NIL 2nd year of testing				
506	Varshadhan (RP)			
507	29026	CR 2538-42-17-32-3-3	Varshadhan*3/IR49830-7	LB
508	Zonal Check [CR Dhan 510 (Eastern and North Eastern), MTU 1172 (Southern)]			
509	29031	CR 2538-42-17-32-3-2	Varshadhan*3/IR49830-7	LB
510	Local Check			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No.5.2: Grain Yield (Kg/ha) of entries in AVT-1 SDW Kharif 2024

Entry No	IET No	Zone III																		Zone III (5)			
		OD				OD(2)		WB			WB(1)		BI		UP				UP(1)				
		CTK		BBN		mean		CHN		CNG@	mean		PSA		GGT		MSD@		mean				
501	CR Dhan 506 (NC)	2476	9	3052	9	2764	10	5653	8	4953	5	5653	8	3500	8	2455	8	4452	9	2455	8	3427	10
502	31258	4250	2	5176	1	4713	2	5128	9	6354	3	5128	9	3444	9	2946	5	5281	3	2946	5	4189	5
503	32196	3348	4	2666	10	3007	9	6022	6	1276	10	6022	6	4000	7	1391	10	5196	5	1391	10	3485	9
504	32193	2715	7	4662	4	3689	4	6865	2	3970	8	6865	2	2833	10	3219	2	4714	7	3219	2	4059	7
505	32198	2764	6	4024	7	3394	6	6473	5	4151	7	6473	5	4389	5	1991	9			1991	9	3928	8
506	Varshadhan (RP)	3848	3	4728	3	4288	3	5818	7	4544	6	5818	7	4778	4	3110	3	5734	1	3110	3	4456	2
507	29026	2521	8	4100	6	3311	7	6731	3	6527	2	6731	3	4167	6	2891	6	5273	4	2891	6	4082	6
508	Zonal Check	6021	1	4586	5	5304	1	6578	4	6741	1	6578	4	5055	1	3028	4	4476	8	3028	4	5054	1
509	29031	2817	5	3610	8	3214	8	6904	1	5508	4	6904	1	5000	2	2728	7	5611	2	2728	7	4212	3
510	Local Check	2069	10	5151	2	3610	5	5066	10	3731	9	5066	10	4944	3	3792	1	5180	6	3792	1	4204	4
Exp. Mean		3282.87		4175.63		3729.25		6123.83		4775.53		6123.83		4211.1		2755.03		5101.85		2755.03		4109.69	
CD		668.55		684.99		502.05		1226.43		208.12		1226.43		388.72		335.04		262.54		335.04		324	
CV%		11.87		9.56		7.85		11.67		2.54		11.67		5.38		7.09		2.97		7.09		4.6	
F		26.93		13.7		22.5		2.8		553.03		2.8		34.17		35.64		27.7		35.64		17.99	
P		<.0001		<.0001		<.0001		0.0302		<.0001		0.0302		<.0001		<.0001		<.0001		<.0001		<.0001	
S/NS		S		S		S		S		S		S		S		S		S		S		S	
D/S		21-06-2024		02-07-2024				26.06.24		04-07-2024				29-06-2024		10-07-2024		18.07.2024					
D/P		20-07-2024		06-08-2024				07.08.24		06-08-2024				27-07-2024		Direct seeded		18.08.2024					
Local Check Name		CR Dhan 508		Unahara				Raideep		Amalmana				Sudha		NDGR-201		NDR 9930111					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No.5.2 (contd.): Grain Yield (Kg/ha) of entries in AVT-1 SDW Kharif 2024

Entry No	IET No	Zone IV						Zone IV (1)		Zone VII				Zone VII (2)		Overall (8)	
		AS						AS(1)		AP		KA		Mean		Mean	
		TTB		GER@		KMJ@		Mean		MTU		MGD		Mean		Mean	
501	CR Dhan 506 (NC)	5997	3	5322	4	3613	4	5997	3	1518	8	4518	3 7%	3018	8	3646	9
502	31258	5551	4	4869	6	3464	6	5551	4	4427	2	4044	8	4236	2	4371	3
503	32196	3682	10	3532	10	4718	2 *	3682	10	1128	10	5499	1 * 30%	3314	5	3467	10
504	32193	4060	9	6178	1	3340	7	4060	9	2074	6	4336	6	3205	6	3846	8
505	32198	5286	5	3676	9	4756	1 *	5286	5	2122	5	4882	2 16%	3502	4	3991	5
506	Varshadhan (RP)	6482	1	5945	3	2275	10	6482	1	2159	4	3996	9	3078	7	4365	4
507	29026	4897	6	5172	5	2609	9	4897	6	1633	7	4394	5	3014	9	3917	7
508	Zonal Check	4579	8	6098	2	3505	5	4579	8	3783	3	4217	7	4000	3	4731	1
509	29031	4868	7	4795	7	2722	8	4868	7	1320	9	4395	4	2858	10	3955	6
510	Local Check	6078	2	4359	8	3796	3	6078	2	4858	1	3770	10	4314	1	4466	2
Exp. Mean		5147.8		4994.63		3479.77		5147.8		2502.07		4405.23		3453.65		4075.45	
CD		518.78		2232.87		153.4		518.78		510.19		889.67		484.18		208.16	
CV%		5.87		26.06		2.57		5.87		11.89		11.77		8.17		2.98	
F		26.77		1.57		253.5		26.77		61.61		2.7		10.94		31.87	
P		<.0001		0.1973		<.0001		<.0001		<.0001		0.0349		<.0001		<.0001	
S/NS		S		NS		S		S		S		S		S		S	
D/S		08-07-2024		06-07-2024		11-07-2024				10-07-2024		25.06.24					
D/P		05-08-2024		14-08-2024		05-08-2024				06-08-2024		20.07.24					
Local Check Name		Surma Dhan		Ranjit Sub-1		Ranjit				Bheema(MTU 1140)		Hemavathi					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No.5.3: Days to 50% flowering of Entries in AVT1-SDW, Kharif-2024

Entry No	IET No	Zone III										Zone III (5)	Zone IV			Zone IV (1)		Zone VII		Zone VII (2)	Overall (8)
		OD		OD (2)	WB		WB(1)	BI	UP		UP(1)		AS			AS (1)	AP	KA			
		CTK	BBN	mean	CHN	CNG@	mean	PSA	GGT	MSD@	mean		mean	TTB	GER@	KMJ@	mean	MTU	MGD		
501	CR Dhan 506 (NC)	136	130	133	132	140	132	128	116	114	116	128	119	123	118	119	122	93	108	122	
502	31258	117	125	121	130	142	130	123	110	117	110	121	126	123	123	126	122	103	113	120	
503	32196	88	80	84	131	98	131	95	86	116	86	96	129	96	121	129	82	117	100	101	
504	32193	135	141	138	137	141	137	138	120	120	120	134	124	130	118	124	122	105	114	128	
505	32198	126	109	118	127	124	127	122	117		117	120	124	123	122	124	111	95	103	116	
506	Varshadhan (RP)	135	128	132	136	139	136	128	114	115	114	128	119	123	116	119	123	91	107	122	
507	29026	138	129	134	137	108	137	130	109	119	109	129	121	123	110	121	124	103	114	124	
508	Zonal Check	137	126	132	131	130	131	130	114	118	114	128	124	123	117	124	122	111	117	124	
509	29031	138	129	134	137	118	137	124	106	119	106	127	121	123	117	121	123	102	113	123	
510	Local Check	136	121	129	125	135	125	119	110	117	110	122	118	130	106	118	117	96	107	118	
	Mean	129	122	125	132	128	132	124	110	117	110	123	123	122	117	123	117	102	109	120	

Table No.5.4: Plant Height of Entries in AVT1-SDW, Kharif-2024

Entry No	IET No	Zone III										Zone III (5)	Zone IV			Zone IV (2)	Zone VII		Zone VII (2)	Overall (8)	
		OD		OD(2)	WB		WB(1)	BI	UP		UP(1)		AS				AS (1)	AP			KA
		CTK	BBN	mean	CHN	CNG@	mean	PSA	GGT	MSD@	mean		mean	TTB	GER@		KMJ@	mean			mean
501	CR Dhan 506 (NC)	168	170	169	131	205	131	123	117	115	117	142	116	143	141	116	116	122	111	117	132
502	31258	128	107	118	110	136	110	109	102	125	102	111	84	106	105	84	84	122	104	113	108
503	32196	125	102	114	101	92	101	100	95	115	95	105	87	107	132	87	87	83	116	100	101
504	32193	168	137	153	154	194	154	129	104	120	104	138	123	153	130	123	123	122	92	107	129
505	32198	128	113	121	105	135	105	109	100	-	100	111	80	110	115	80	80	111	95	103	105
506	Varshadhan (RP)	179	172	176	152	215	152	122	114	127	114	148	139	159	178	139	139	123	113	118	139
507	29026	192	175	184	162	218	162	126	110	118	110	153	126	163	139	126	126	124	97	111	139
508	Zonal Check	139	117	128	104	191	104	120	112	102	112	118	99	130	131	99	99	122	115	119	116
509	29031	189	172	181	157	213	157	129	105	130	105	150	129	154	134	129	129	123	100	112	138
510	Local Check	148	138	143	119	211	119	128	115	141	115	130	110	138	137	110	110	117	121	119	125
	Mean	156	140	148	130	181	130	120	107	121	107	131	109	136	134	109	109	117	106	112	123

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 5.5: Number of Panicles/m² of entries in AVT1-SDW, Kharif 2024

Entry No	IET No	Zone-III										Zone III (5)	Zone IV			Zone IV(1)		Zone VII		Zone VII (2)	Overall (8)
		OD		OD(2)	WB		WB(1)	BI	UP				UP(1)	AS			AS(1)	AP	KA		
		CTK	BBN	mean	CHN	CNG@	mean	PSA	GGT	MSD@	mean		mean	TTB	GER@	KMJ@	mean	MTU	MGD		
501	CR Dhan 506 (NC)	312	297	305	231	393	231	243	163	255	163	249	250	234	223	250	330	252	291	261	
502	31258	301	224	263	308	359	308	226	162	275	162	244	237	267	241	237	331	326	329	268	
503	32196	282	206	244	363	359	363	231	138	341	138	244	241	250	274	241	322	310	316	265	
504	32193	238	186	212	275	352	275	234	181	284	181	223	220	241	180	220	361	255	308	247	
505	32198	289	198	244	275	367	275	224	160		160	229	252	230	261	252	317	226	272	241	
506	Varshadhan (RP)	316	212	264	220	370	220	275	176	302	176	240	216	240	141	216	334	281	308	259	
507	29026	278	286	282	308	341	308	249	166	304	166	257	232	245	157	232	350	277	314	273	
508	Zonal Check	209	301	255	572	374	572	241	175	277	175	300	253	257	214	253	332	251	292	297	
509	29031	205	214	210	253	344	253	245	159	314	159	215	225	254	174	225	306	278	292	237	
510	Local Check	239	283	261	341	381	341	266	181	278	181	262	256	266	232	256	334	291	313	276	
	Mean	267	241	254	315	364	315	243	166	292	166	246	238	248	210	238	332	275	303	263	

Table No.5.6: Grain quality characteristics of Entries in AVT1-SDW, Kharif-2024

Entry No	IET No	Hull	Mill	HRR	KL	KB	L/B	KLAC	ER	WU	VER	ASV	GC	AC	GT
501	CR Dhan 506 (NC)	73.00	60.24	53.50	4.25	2.34	1.82	7.89	1.86	155.00	4.00	5.00	55.00	20.00	SB
502	31258	77.00	68.27	66.77	5.21	2.19	2.38	9.41	1.81	165.00	4.25	6.00	53.00	23.70	SB
503	32196	76.00	63.72	54.95	6.37	1.90	3.35	11.24	1.76	145.00	4.00	4.00	54.00	20.50	LS
504	32193	75.00	63.26	56.09	5.58	2.46	2.27	9.99	1.79	155.00	4.00	5.00	50.00	21.20	SB
505	32198	63.00	52.90	45.00	6.13	2.13	2.88	10.86	1.77	135.00	3.75	4.00	48.00	24.50	LB
506	Varshadhan (RP)	77.00	64.80	60.00	6.58	2.34	2.81	11.57	1.76	195.00	4.00	4.00	46.00	23.50	LB
507	29026	76.00	64.99	60.99	6.51	2.32	2.81	11.46	1.76	175.00	4.00	3.00	47.00	24.00	LB
508	Zonal Check	80.00	65.90	57.91	4.76	2.37	2.01	8.70	1.83	165.00	4.50	4.00	55.00	24.00	SB
509	29031	76.00	65.80	62.18	6.44	2.52	2.56	11.35	1.76	175.00	4.00	5.00	50.00	21.00	LB
510	Local Check	75.00	58.70	50.20	5.79	2.82	2.05	10.33	1.78	185.00	4.00	6.00	52.00	19.00	SB

INITIAL VARIETY TRIAL-SEMI DEEP WATER (IVT-SDW)

Locations:12

Test Entries: 28

Checks:CR Dhan 506 –National check; CR Dhan 510 (Eastern & North Eastern) and MTU 1172 (Southern) – Zonal check; CR Dhan 508 (CTC), Mrunalini (BBN), Rajdeep (CHN), Amal-mana (CNG), Sudha (PSA), NDGR-201 (GGT), NDR 9930111 (MSD), Surma Dhan (TTB), Ranjit (KMJ), MTU 1140 (MTU), Hemavathi (MGD)-Local check

The IVT-SDW trial was constituted with twenty-eight entries and three checks, CR Dhan 506 (National Check), CR Dhan 510 (Eastern and North Eastern-Zonal Check), MTU 1172 (Southern-Zonal Check) and local checks. The trial was conducted at twelve locations under three different zones. The locations included Bhubaneswar, Canning, Chinsura, Ghagraghat, Masodha, Cuttack and Pusa in Zone-III, Karimganj, Titabar and Arundhatinagar in Zone-IV, Mugad and Maruteru in Zone-VII.

The trial got damaged at Arundhatinagar due to flood. Details of water depth (cm) maintained at different centers in IVT-SDW, kharif-2024, during the crop growth period is presented in following tables.

Details of water regime (cm) at different centers in IVT-SDW, Kharif-2024:

Location	Week	June	July	Aug	Sept	Oct	Nov	Dec
Maruteru	1 st				30	40	30	
	2 nd			25	40	40		
	3 rd			25	42	30		
	4 th			36	43	30		
Average				28.6	38.7	35	30	
Chinsurah	1 st	20	0	60	40	50	30	
	2 nd	15	0	50	35	40	20	
	3 rd	0	10	40	40	50	15	
	4 th	0	65	40	50	30	0	
Average		17.5	37.5	47.5	41.2	42.5	21.6	
Bhubaneswar	1 st				40	30	25	
	2 nd			10	40	25	22	
	3 rd			30	40	22	15	
	4 th			45	35	27	10	
Average				28.3	38.7	26	18	
Cuttack	1 st			40	50	40		
	2 nd			40	55	40		
	3 rd		20	45	50	45		
	4 th		35	50	45	40		
Average			27.5	43.7	50	41.2		
Masodha	1 st				30	50	7	
	2 nd			20	50	30	5	
	3 rd			40	55	18		
	4 th			35	70	10		
Average				31.6	51.2	27	6	
Ghagraghat	1 st				72	66		
	2 nd				68	47		
	3 rd			63	67			
	4 th			61	67			
Average				62	68.5	56.5		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Location	Week	June	July	Aug	Sept	Oct	Nov	Dec
Pusa	1 st		20	45	58	55		
	2 nd		20	55	58	50		
	3 rd		25	55	58			
	4 th		35	55	60			
Average			25	52.5	58.5	52.5		
Canning	1 st		43	52	53	46	29	
	2 nd		49	52	51	44	29	
	3 rd		55	54	53	34	21	
	4 th		55	51	51	31	12	
Average			50.5	52.2	52	38.7	22.7	
Karimganj	1 st	80.0	59.2	50.4	44.8	30.4	3.8	
	2 nd	80.8	58.4	48.0	44.0	28.0	3.4	
	3 rd	78.4	54.4	46.4	42.4	24.8	3.0	
	4 th	76.0	52.0	44.0	40.0	22.4	2.6	
Average		78.8	56	47.2	42.8	26.4	3.2	
Titabar	1 st				65	52	11	
	2 nd				51	61	10	
	3 rd			30	35	33	7	
	4 th			36	47	18	5	
	5 th			45	45	14	3	
Average				37	44.5	31.5	6.3	
Mugad	1 st			5	10	30	30	10
	2 nd			5	20	30	20	5
	3 rd			10	20	40	20	5
	4 th		5	10	20	40	10	
Average			5	7.5	17.5	35	20	6.6

Data on yield, days to 50% flowering, plant height and no. of panicles/m² were received from the eleven test locations. Due to low CV value (<5%) data from Masodha (4.06%) and Karimganj (2.39%), were not included for analysis. Overall, data from nine out of eleven trial locations were included for analysis and are presented in tables 6.2 to 6.5 Data for adaptability parameters including, seedling survival %, elongation ability score, kneeling ability score, grain shattering score and phenotypic acceptability score are presented as follows.

Adaptability Parameters of entries in IVT-SDW, Kharif-2024

Entry No.	Phenotypic Acceptability											
	CTK	BBS	MTU	CHN	PSA	GGT	MSD	KMJ	TTB	CNG	ARD	MGD
601		1	5	1		3	3	3				3
602		5	9	5		1	3	3				3
603		3	5	1		7	3	3				3
604		3	5	3		1	1	3				3
605		3	5	3		3	3	5				5
606		5	5	3		5		3				3
607		1		3		1	5	5				5
608		3	7	1		5	5	3				3
609		3	7	3		3	1	3				3
610		5	5	3		1	5	1				5
611		5	9	1		5	5	3				3

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entry No.	Phenotypic Acceptability											
	CTK	BBS	MTU	CHN	PSA	GGT	MSD	KMJ	TTB	CNG	ARD	MGD
612		3	5	3		3	3	1				3
613		5	7	5		1	5	5				1
614		5	7	3		1	1	1				3
615		3	5	1		7	3	3				3
616		5	7	1		1	5	3				3
617		3	7	5		1	3	1				1
618		3	5	1		3	3	3				3
619		1	7	3		3	1	5				3
620		3	5	1		1	1	1				5
621		3	5	1		3	5	5				3
622		3	5	3		1	5	1				3
623		5	7	3		1	1	3				5
624		5	7	3		1	3	1				3
625		5	7	5		3	5	1				3
626		3	7	1		1	3	1				3
627		3	5	1		3	1	5				3
628		5	9	3		5	1	3				5
629		5	3	5		1	7	1				1
630		3	9	3		5	7	3				3
631(LC)		1	3	1		1	3	1				3

(Contd.) Adaptability parameters of entries in IVT-SDW, Kharif 2024

Entry No.	Kneeing ability											
	CTK	BBS	MTU	CHN	PSA	GGT	MSD	KMJ	TTB	CNG	ARD	MGD
601		1	NL	3	3		1					3
602		3	7	1	5		3					5
603		3	3	3	5		1					3
604		3	1	1	3		3					5
605		5	1	3	3		3					3
606		5	NL	1	3							5
607		5		1	3		3					1
608		3	1	1	5		3					3
609		5	5	3	5		1					3
610		3	5	1	5		1					3
611		1	5	1	5		1					5
612		3	3	3	3		3					3
613		3	5	5	3		3					3
614		5	5	1	3		3					3
615		5	5	3	5		1					5
616		5	5	3	5		1					1
617		3	5	1	5		3					3
618		3	1	1	1		1					5
619		5	3	3	3		1					3
620		5	NL	1	3		1					3
621		5	NL	1	1		1					1
622		3	NL	3	5		3					3
623		3	5	1	3		1					3
624		3	5	3	1		1					3
625		1	5	3	1		3					1

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entry No.	Kneeing ability											
	CTK	BBS	MTU	CHN	PSA	GGT	MSD	KMJ	TTB	CNG	ARD	MGD
626		1	5	1	1		3					3
627		1	3	3	1		1					3
628		1	5	5	3		3					1
629		3	3	3	5		3					3
630		3	3	1	3		0					2
631(LC)		5	NL	1	1		1					5

(Contd.) Adaptability parameters of entries in IVT-SDW, Kharif2024

Entry No.	Elongation Ability													Grain Shattering												
	CTK	BS	MTU	CHN	PSA	GGT	MSD	KMJ	TTB	CNG	ARD	MGD	CTK	BS	MTU	CHN	PSA	GGT	MSD	KMJ	TTB	CNG	ARD	MGD		
601		1	3	3	3	3	3			7		3	3	3	3	5		1	3	3					3	
602		7	5	3	5	3	1			9		3	5	3	5	3		1	1	3					1	
603		1	3	3	5	5	3			7		5	5	5	3	5		1	0	3					1	
604		1	3	5	3	3	1			7		5	3	3	3	5		1	1	5					1	
605		5	3	5	3	3	3			9		1	5	3	5	5		1	1	5					3	
606		3	3	3	3	5				3		3	3	1	3	5		1		3					1	
607		1		3	3	3	1			5		3	3	5		5		1	3	5					1	
608		7	5	1	5	5	3			3		3	3	7	3	3		3	1	3					1	
609		7	1	1	5	5	1			1		5	5	7	5	5		1	1	3					5	
610		7	3	5	5	3	3			7		5	3	3	3	5		1	3	3					3	
611		3	5	3	5	5	1			5		5	3	3	1	5		1	3	3					3	
612		1	1	3	3	3	1			5		1	3	5	3	5		1	3	3					5	
613		7	1	1	3	3	3			1		3	5	5	3	3		1	1	3					3	
614		7	1	1	3	3	1			1		3	5	3	5	3		1	1	3					1	
615		5	3	3	5	5	3			9		5	3	5	3	5		1	3	5					1	
616		7	1	7	5	3	3					5	3	1	1	5		1	3	3					1	
617		3	5	3	5	3	1			7		3	5	5	5	3		1	1	3					3	
618		3	3	5	1	3	3			7		5	5	5	3	5		1	3	5					3	
619		1	1	1	3	3	1			3		7	5	5	3	5		1	1	5					1	
620		5	1	3	3	3	3			7		3	5	5	1	5		1	3	3					3	
621		1	5	3	1	3	1			5		3	3	3	3	5		1	3	5					1	
622		1	3	3	5	3	3			5		3	1	3	3	5		1	3	3					1	
623		3	1	3	3	1	1			3		1	3	1	3	5		1	1	3					1	
624		5	1	3	1	3	1			7		5	3	1	5	5		1	1	3					1	
625		7	3	5	1	3	3			5		3	5	7	5	3		1	3	3					1	
626		3	5	7	1	3	5			5		5	3	5	7	5		1	1	3					3	
627		1	1	7	1	3	1			7		3	1	5	5	5		1	1	5					3	
628		7	1	3	3	5	3			1		3	5	3	7	3		1	1	3					3	
629		7	5	7	5	3	5			7		5	3	3	3	3		1	5	3					1	
630		3	1	1	3	5	3			1		3	3	5	5	5		1	0	5					1	
631(LC)		1	5	3	1	3	3			1		1	3	5	3	5		1	1	3					3	

Performance of test entries on overall basis:

The experimental mean for grain yield was recorded to be 3702 kg/ha, while the mean grain yield of entries varied from 3025 kg/ha (IET 33172) to 4445 kg/ha (LC). Days to 50% flowering ranged from 105 days in case of IET 33166 to 123 days in case of IET 33192 with overall mean value of 118 days. Plant height of the entries varied from 101 cm (IET 33166 &

Annual Progress Report 2024 Vol. I – Varietal Improvement

IET 33178) to 132 cm (IET 33177) with the overall mean plant height of 114 cm for the trial. For no. of panicles/m², the values ranged from 215 panicles/m² (IET 33189) to 363 panicles/m² (IET 33174), with the overall mean of 280 panicles/m² for the trial. Local check was found to be the best performer among the varietal checks, with mean yield of 4445 kg/ha, mean plant height of 124 cm, 116 days to 50% flowering and 248 panicles/m² and hence, considered for comparison of test entries on overall performance basis. None of the entries recorded higher yield than the best varietal check (Local check mean) and none of the entries was found to be significantly superior to the best varietal check (BVC + CD). Therefore, on overall performance basis, none of the entries are promoted to 2nd year testing.

Performance of promising entries in IVT-SDW, Kharif-2024:

Performance of test entries in Zone III:

Data was received from six different locations including Bhubaneswar and Cuttack in Odisha, Chinsura and Canning in West Bengal, Pusa in Bihar and Ghagrahat and Masodha in Uttar Pradesh. Due to low CV (<5%), data from Masodha was not considered for analysis. Mean yield for the zone was recorded as 3484 kg/ha, mean value for days to 50% flowering was 119 days, mean plant height value 119 cm and the mean value for panicles/m² was 280. Yield for the zone ranged from 2475 kg/ha (IET 33166) to 4056 kg/ha (IET 33182), days to 50% flowering ranged from 107 days (IET 33166) to 130 days (IET 33185), plant height ranged from 102 cm (IET 33191) to 144 cm (IET 33177) while panicle/m² ranged from 203 (IET 33169) to 258 (IET 33181). Among all the three checks, the local check, performed as the best varietal check with mean yield of 4136 kg/ha, mean height of 129 cm, days to 50% flowering as 120 days and mean value for panicle/m² as 248. The performance was not significantly superior to the best varietal check, for any of the test entries. Therefore, none of the entries are promoted for 2nd year testing in the zone.

Performance of test entries in Zone IV:

Data was received from two locations, Titabar and Karimganj in Assam. However, CV was lesser than 5% for Karimganj and therefore, the data was not considered for further analysis. Yield for the zone was recorded as 4499 kg/ha, value for days to 50% flowering was 125 days, plant height was 100 cm and the value for panicles/m² was 280. Yield for the zone ranged from 1227 kg/ha (IET 33184) to 6630 kg/ha (IET 33185), days to 50% flowering ranged from 114 days (IET 33166) to 134 days (IET 33175), plant height ranged from 86 cm (IET 33188) to 118 cm (IET 33182) while panicle/m² ranged from 215 (IET 33189) to 363 (IET 33174). National check CR Dhan 506 performed as the best varietal check with mean yield of 7044 kg/ha, mean height of 118 cm, days to 50% flowering as 122 days and mean value for panicle/m² as 252. The performance was not significantly superior to the best varietal check (National Check- CR Dhan 506), for any of the test entries. Therefore, none of the entries are promoted for 2nd year testing in the zone.

Performance of test entries in Zone VII:

Data was received from two location Maruteru and Mugad. Yield for the zone was recorded as 4057 kg/ha, value for days to 50% flowering was 107 days, mean plant height was 106 cm and the mean value for panicles/m² was 280. Yield for the zone ranged from 2972 kg/ha (IET 33190) to 5119 kg/ha (IET 33184), days to 50% flowering ranged from 93 days (IET 33185) to 120 days (IET 33167), plant height ranged from 90 cm (IET 33185) to 124 cm (IET 33167) while panicle/m² ranged from 215 (IET 33189) to 363 (IET 33174). The zonal check

Annual Progress Report 2024 Vol. I – Varietal Improvement

MTU 1172 was the best varietal check, with mean yield of 5188 kg/ha, mean plant height of 102 cm, days to 50% flowering as 114 days with mean value for panicle/m² as 312. The performance was not significantly superior to the best varietal check, for any of the test entries. Therefore, none of the entries are promoted for 2nd year testing in the zone.

In IVT-SDW, 28 test entries were evaluated, out of which none of the entries performed superior than the best check, hence, none of the test entries were promoted to the 2nd year of testing.

Overall mean basis: Nil

Promoted in zone III: Nil

Promoted in zone IV: Nil

Promoted in zone VII: Nil

Table No.6.1: Composition of entries in Initial Variety Trial–Semi Deep Water (IVT-SDW) Kharif -2024:

Entry No.	IET No.	Designation	Cross combination	Grain Type
601	33165	MTU 2670-30-1-1-1 (MTU 1448)	MTU 1061/Swarna Sub 1	MS
602	33166	NDR 8024	R 49830-7-1-2-3/Sabita/IR 69502-6-SRN-3-UBN-1-3-1-3-2	MB
603	33167	CR 3988-46-8-8-1	AC 38562/Niraj//Ratna x Pooja	SB
604	33168	NDR 8015	BKP 246/Sabita/IR 49830-33-1-3-2	SB
605	33169	CR 4205-226-45-80-7	CR Dhan 307/ <i>O. longistaminata</i> (AC-110404)	MB
606	33170	TTB 1375-7-13	IRGC 71493/RANJIT*3	MS
607	33171	ORS-MBB 4	Hundar Local Sel.	MB
608	CR Dhan 506 (NC)			
609	33172	CN2164-54-3-1-1-1	Shatabdi X KMR3	LB
610	33173	OR 2774	CN 1920 / Gayatri	MB
611	33174	CR 3987-1-1-2-2-2-2	AC38562/Niraj//Pooja	SB
612	33175	OR 2776	CN 1234-12-1/OR 1898-8	MB
613	33176	CR-2859-S-B-3-1-B-B-3	Varshadhan/ FL 496	MS
614	33177	CSRC(D)-5-2-2-2-1	Pankaj X Najani	LS
615	33178	ORR 1827	CR 1009 X Pateni	MS
616	33179	NIC 1-1-3B (MTU 1446)	Swarnasub1/MTUII110-9-1-1-1/FL478/AC39416A	MS
617	33180	CR 6306-278-55-8-7	CR-3866-22-1/CR Dhan 307	MS
618	33181	MTU2721-7-1-2-1 (MTU1447)	(PLA 1100/GMS70)/MTU 1156	MS
619	33182	CR 2688-1-7-2-1-1-2	Chakakhi/AC 38599	SB
620	33183	MTU 2720-27-2-1-1 (MTU 1450)	(MTU 1064/CR3598-1-4-2-1)/(MTU 1140/RNR 15048)	MS
621	CR Dhan 510 (Eastern & North Eastern) and MTU 1172 (Southern) (ZC)			
622	33184	TTB 1370-16-1	RANJIT*3/IRBB 56	MS
623	33185	CR 2628-5-3-1-1-2	Varshadhan/AC 38606	LB
624	33186	IRGC 78257-1 CR 6457-1	KHAOOAWM	SB
625	33187	OR 2518-7	Bhubanan /IR 64	MB
626	33188	CR 3988-12-3-1-1	AC 38562/Niraj//Ratna x Pooja	SB
627	33189	MTU 2716-28-2-2-2 (MTU 1449)	(MTU 1140/RNR 15048)// T12	MS
628	33190	CR-2860-S-B-5-2-1-1	Varshadhan/ SR 26B	MB
629	33191	RP Bio4918-db-NPS40	Swarna / <i>O.nivara</i>	LS
630	33192	CR 4439-46-8-1	Pooja/ CR dhan 305	SB
631	Local check			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 6.2: Grain Yield (kg/ha) of IVT-SDW Kharif-2024

Entry No	IET No	Zone III															Zone III (6)						
		OD		OD(2)		WB		WB(2)		BI		UP		UP(1)		mean							
		CTK	BBN	mean	CHN	CNG	mean	PSA	GGT	MSD@	mean												
601	33165	3931	2	5000	2.5	4466	2 16%	5430		1652		3541		3810		2305		3289		2305		3688	
602	33166	1840		1846		1843		2945		1116		2031		2714		4388	4 *	4521		4388	4 * 18%	2475	
603	33167	2682		4504	5	3593	6	7321	1 *	1323		4322	9	2889		1818		4725		1818		3423	
604	33168	3199	6	3929	10	3564	7	4547		1643		3095		3365		3812	9	5363	4.5	3812	9	3416	
605	33169	2515		2560		2538		3784		1249		2517		3429		1729		4831		1729		2544	
606	33170	2895		3691		3293		5138		1436		3287		3333		1685				1685		3030	
607	33171	2942		5298	1	4120	4 7%	5454		1731		3593		3651		3501		4089		3501		3763	10
608	CR Dhan 506 (NC)	2810		3214		3012		4620		2734	10	3677		2857		2039		4286		2039		3046	
609	33172	2558		2738		2648		4016		3025	6	3521		2476		2039		5618	2 *	2039		2809	
610	33173	3050	10	2679		2865		5524		1431		3478		2857		4033	7	3480		4033	7 8%	3262	
611	33174	2608		3750		3179		6828	3	1752		4290	10	3174		2217		4127		2217		3388	
612	33175	2950		4048	9	3499	10	5444		2307		3876		3492		2660		3679		2660		3484	
613	33176	2176		1766		1971		3353		2721		3037		3969	8	3679		4663		3679		2944	
614	33177	2567		1746		2157		4294		4597	2	4446	7	3492		4432	3 *	5230	7.5	4432	3 * 19%	3521	
615	33178	3354	5	3274		3314		6423	6	1455		3939		3270		2305		4850		2305		3347	
616	33179	3051	9	2262		2657		6962	2			6962	1 * 48%	2698		3900	8	3435		3900	8	3775	9
617	33180	2433		3810		3122		3433		1541		2487		2921		4211	5 *	5182		4211	5 * 13%	3058	
618	33181	2777		3691		3234		6774	5	2762	9	4768	4	4762	2	3546		4654		3546		4052	3
619	33182	2525		4584	4	3555	9	5914	9	5328	1 *	5621	2 19%	3810		2172		5280	6	2172		4056	2
620	33183	2344		3333		2839		6802	4	2961	7	4882	3	3698		3546		5627	1 *	3546		3781	8
621	Zonal Check	3469	4	4227	8	3848	5	6272	7	2100		4186		4921	1	3280		5226	9	3280		4045	4
622	33184	3594	3	5000	2.5	4297	3 12%	5221		1636		3429		3032		3767	10	4198		3767	10	3708	
623	33185	3166	7	3810		3488		5829		2824	8	4327	8	3603		4876	1 *	5363	4.5	4876	1 * 31%	4018	5
624	33186	3036		3691		3364		5885		1902		3894		4286	4	4654	2 *	5230	7.5	4654	2 * 25%	3909	7
625	33187	1988		3274		2631		3901		1938		2920		4175	5	1640		3980		1640		2819	
626	33188	2925		3810		3368		5911	10	2303		4107		4032	6	3368		4787		3368		3725	
627	33189	4868	1 *	4465	6	4667	1 * 21%	6241	8	1481		3861		4000	7	2571		5616	3 *	2571		3938	6
628	33190	2110		3036		2573		4203		3768	5	3986		3810		2039		5208	10	2039		3161	
629	33191	3163	8	2976		3070		3434		1356		2395		3080		4166	6 *			4166	6 * 12%	3029	
630	33192	2681		3810		3246		5216		3935	4	4576	6	3968	9	1419				1419		3505	
631	Local check	2737		4385	7	3561	8	5111		4318	3	4715	5	4540	3	3723		5053		3723		4136	1
Exp. Mean		2869		3555		3114		5233		2432		4089		3552		3081		4700		3081		3484	
CD		718		684		672		1035		684		1276		527		381		312		381		394	
CV%		15.33		9.421796		13.22		12.11		14.23105		19.11		9.09		7.57		4.06		7.57		6.93	
F		5.48		15.63		7.09		10.86		28.7		5.49		10.99		59.65		39.96		59.65		11.24	
P		<.0001		<.0001		<.0001		<.0001		<.0001		<.0001		<.0001		<.0001		<.0001		<.0001		<.0001	
S/NS		S		S		S		S		S		S		S		S		S		S		S	
D/S		21-06-2024		02-07-2024				26-06-2024		04-07-2024				29-06-2024		12-07-2024		17-07-2024					
D/P		20-07-2024		06-08-2024				22-08-2024		06-08-2024				27-07-2024		Direct Seeded		18-08-2024					
Local Check Name		CR DHAN-508		Mrunalini				Raideen		Amalmana				Sudha		NDGR-201		NDR 9930111					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 6.2 (cont.): Grain Yield (kg/ha) of IVT-SDW Kharif-2024

Entry No	IET No	Zone IV				Zone IV(1)		Zone VII				Zone VII (2)		Overall (9)	
		AS				AS(1)		AP		KA		mean		mean	
		TIB	KMJ@			mean		MTU		MGD					
601	33165	2670		1969		2670		3758		5372	2	4565	6.5	3770	
602	33166	6164	7	2369	10	6164	7	3578		4449		4014		3227	
603	33167	6437	5	2649	3 *	6437	5	3770	10	4594		4182		3926	
604	33168	3020		1793		3020		4337	8	4717		4527	8	3619	
605	33169	5150		1787		5150		3752		5377	1	4565	6.5	3283	
606	33170	4443		1836		4443		4797	4	4705		4751	4	3569	
607	33171	3467		1827		3467				4694		4694	5	3842	
608	CR Dhan 506 (NC)	7044	1	1829		7044	1	2318		5284	5	3801		3658	
609	33172	4217		1998		4217		1894		4265		3080		3025	
610	33173	5077		2887	2 *	5077		1870		4637		3254		3462	
611	33174	2964		3011	1 *	2964		3088		4905	10	3997		3476	
612	33175	3220		2031		3220		1816		4279		3048		3357	
613	33176	3473		1947		3473		1595		4527		3061		3029	
614	33177	4073		1847		4073		2175		4330		3253		3523	
615	33178	5867	9	2136		5867	9	3315		4691		4003		3773	
616	33179	5813	10	2184		5813	10	3704		4050		3877		4055	7
617	33180	3427		1947		3427		2665		4987	9	3826		3270	
618	33181	2170		2418	8.5	2170		4767	5	4230		4499	9	3942	10
619	33182	6053	8	2080		6053	8	3196		5330	4	4263		4324	2
620	33183	4913		2313		4913		4510	7	5371	3	4941	3	4164	5
621	Zonal Check	4133		2489	5	4133		5711	1	4665		5188	1	4309	3
622	33184	1227		2300		1227		5000	2	5238	6	5119	2	3746	
623	33185	6630	3	1867		6630	3	3495		4016		3756		4250	4
624	33186	3520		2327		3520		4080	9	4660		4370		3968	8
625	33187	4837		2462	7	4837		2784		5019	8	3902		3284	
626	33188	6360	6	2496	4	6360	6	3358		4797		4078		4096	6
627	33189	3177		2073		3177		4600	6	4230		4415	10	3959	9
628	33190	6601	4	1767		6601	4	1679		4265		2972		3501	
629	33191	5064		1991		5064		3304		5056	7	4180		3511	
630	33192	1540		2418	8.5	1540		2563		4170		3367		3256	
631	Local check	6707	2	2482	6	6707	2	4917	3	3571		4244		4445	1
Exp. Mean		4499		2178		4499		3413		4660		4057		3702	
CD		645		85		645		1230		626		630		383	
CV%		8.78		2.39		8.78		17.62629		6.58029		7.598494		6.34	
F		50.29		122.06		50.29		6.93		4.53		8.09		8.94	
P		<.0001		<.0001		<.0001		<.0001		<.0001		<.0001		<.0001	
S/NS		S		S		S		S		S		S		S	
D/S		08-07-2024		15-07-2024		08-07-2024		10.7.2024		20.06.24					
D/P		05-08-2024		10-08-2024		05-08-2024		6.08.2024		18.07.24					
Local Check Name		Surma Dhan		Ranjit		Surma Dhan		MTU 1140		Hemavathi					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 6.3: Days to 50% Flowering of entries in IVT-SDW Kharif 2024

Entry No.	IET No.	Zone III											Zone III (6)	Zone IV			Zone VII		Zone VII (2)	Overall (9)
		OD		OD (2)	WB		WB (2)	BI	UP		UP (1)	AS		AS(1)	AP	KA				
		CTK	BBN		mean	CHN			CNG	mean		PSA					GGT	MSD@		
601	33165	118	122	120	118	123	126	135	108	106	122	106	121	131	129	131	122	114	118	121
602	33166	93	101	97	123	117	120	95	110	117	110	107	114	123	114	91	100	96	105	
603	33167	131	116	124	136	118	127	96	116	121	116	119	125	116	125	119	121	120	120	
604	33168	120	106	113	136	114	125	115	113	124	113	117	122	130	122	111	106	109	116	
605	33169	97	102	100	127	113	120	96	110	119	110	108	120	115	120	102	112	107	109	
606	33170	121	118	120	144	131	138	106	100		100	120	127	129	127	122	78	100	116	
607	33171	122	119	121	138	127	133	109	99	120	99	119	128	122	128		99	99	118	
608	CR Dhan 506 (NC)	136	110	123	135	123	129	109	106	118	106	120	122	128	122	122	112	117	119	
609	33172	118	117	118	127	120	124	110	112	117	112	117	116	122	116	109	115	112	116	
610	33173	132	116	124	140	122	131	108	99	123	99	120	129	124	129	113	119	116	120	
611	33174	132	124	128	133	126	130	111	107	122	107	122	126	123	126	118	100	109	120	
612	33175	117	124	121	139	124	132	123	107	120	107	122	134	130	134	123	91	107	120	
613	33176	124	117	121	126	117	122	104	107	120	107	116	118	114	118	106	91	99	112	
614	33177	117	117	117	127	118	123	104	107	117	107	115	121	115	121	106	86	96	111	
615	33178	112	107	110	134	125	130	103	116	121	116	116	123	122	123	104	108	106	115	
616	33179	113	110	112	140		140	116	111	118	111	118	123	120	123	107	114	111	117	
617	33180	114	106	110	128	124	126	107	107	119	107	114	121	125	121	102	105	104	113	
618	33181	115	115	115	136	123	130	117	100	120	100	118	130	126	130	118	93	106	116	
619	33182	136	105	121	140	128	134	109	110	121	110	121	123	130	123	124	108	116	120	
620	33183	121	122	122	143	128	136	115	108	117	108	123	129	129	129	118	113	116	122	
621	Zonal Check	136	125	131	135	129	132	109	115	115	115	125	124	119	124	122	105	114	122	
622	33184	123	122	123	144	131	138	106	105	121	105	122	129	131	129	123	99	111	120	
623	33185	134	145	140	149	133	141	104	113	116	113	130	124	125	124	94	91	93	121	
624	33186	112	115	114	144	125	135	113	106	119	106	119	133	126	133	112	88	100	116	
625	33187	113	110	112	139	126	133	103	115	121	115	118	125	129	125	103	93	98	114	
626	33188	116	113	115	141	132	137	104	106	117	106	119	124	129	124	116	100	108	117	
627	33189	118	119	119	141	125	133	108	112	119	112	121	130	120	130	115	88	102	117	
628	33190	127	112	120	129	117	123	114	110	117	110	118	120	128	120	106	103	105	115	
629	33191	113	139	126	148	123	136	113	110	126	110	124	122	126	122	104	102	103	119	
630	33192	135	118	127	147	119	133	116	110	125	110	124	133	123	133	126	102	114	123	
631	Local check	134	117	126	128	116	122	117	108	117	108	120	120	114	120	116	91	104	116	
	Exp. Mean	121	116	120	137	123	131	109	108	120	108	119	125	124	125	112	101	107	118	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 6.4: Plant Height (cm) of IVT-SDW *Kharif-2024*

Entry No.	IET NO	Zone III											Zone IV			Zone VII		Zone VII (2)	Overall (9)
		OD		OD(2)	WB		WB (2)	BI	UP		UP(1)	Zone III (6)	AS		Zone IV (1)	AP	KA		
		CTK	BBN	Mean	CHN	CNG	Mean	PSA	GGT	MSD@	Mean	Mean	Mean	TTB	KMJ@	Mean	MTU	MGD	Mean
601	33165	134	109	122	121	100	111	113	85	84	85	110	89	128	89	122	96	109	108
602	33166	130	100	115	120	77	99	98	95	117	95	103	95	120	95	91	105	98	101
603	33167	129	118	124	134	101	117	117	80	88	80	113	93	125	93	119	130	124	113
604	33168	135	121	128	110	100	105	108	95	90	95	112	90	141	90	112	112	112	109
605	33169	138	115	127	110	69	89	87	94	92	94	102	96	123	96	103	121	112	104
606	33170	109	134	122	116	130	123	115	75	0	75	113	107	115	107	122	86	104	111
607	33171	145	128	137	138	113	125	101	103	110	103	121	106	150	106	0	105	105	117
608	CR Dhan 506 (NC)	160	145	153	143	129	136	106	86	100	86	128	118	122	118	121	111	116	124
609	33172	174	157	166	141	159	150	111	77	125	77	137	111	143	111	111	121	116	129
610	33173	128	122	125	109	94	101	118	108	80	108	113	96	119	96	113	110	112	111
611	33174	144	135	140	139	125	132	116	75	96	75	122	89	118	89	118	91	105	115
612	33175	131	148	140	136	120	128	104	79	110	79	120	111	130	111	124	95	109	116
613	33176	178	143	161	150	166	158	113	101	118	101	142	94	132	94	106	81	93	126
614	33177	180	158	169	156	171	164	102	97	140	97	144	106	129	106	105	115	110	132
615	33178	119	117	118	117	84	101	107	82	115	82	104	91	123	91	103	86	94	101
616	33179	129	113	121	103	0	103	100	107	112	107	110	88	112	88	108	87	97	104
617	33180	131	117	124	122	98	110	103	85	110	85	109	89	117	89	102	107	104	106
618	33181	135	118	127	124	101	112	115	93	94	93	114	94	124	94	118	87	102	109
619	33182	171	158	165	161	131	146	105	81	105	81	134	118	143	118	124	108	116	128
620	33183	130	122	126	127	98	113	102	82	96	82	110	94	117	94	118	79	98	106
621	Zonal Check	137	133	135	122	107	114	98	77	82	77	112	96	121	96	122	83	102	108
622	33184	157	121	139	123	114	118	107	102	80	102	121	90	124	90	122	90	106	114
623	33185	148	162	155	139	134	137	103	117	110	117	134	115	127	115	95	86	90	122
624	33186	152	144	148	126	105	115	101	77	90	77	117	117	121	117	112	83	98	113
625	33187	132	135	134	110	114	112	97	112	87	112	117	107	113	107	102	100	101	112
626	33188	114	122	118	109	113	111	89	83	113	83	105	86	111	86	116	110	113	105
627	33189	122	119	121	114	99	107	104	98	90	98	109	92	119	92	115	98	106	107
628	33190	172	143	158	144	146	145	114	78	120	78	133	118	138	118	107	104	105	125
629	33191	123	100	112	98	93	95	100	96	100	96	102	87	96	87	104	118	111	102
630	33192	154	185	170	159	156	158	109	81	92	81	141	113	171	113	126	97	111	131
631	Local check	145	133	139	117	160	138	105	112	132	112	129	102	109	102	116	123	120	124
	Mean	141	131	136	127	117	122	105	91	103	91	119	100	125	100	112	101	106	114

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 6.5: No. of Panicles in sqm of IVT-SDW Kharif-2024

Entry No.	IET NO	Zone III										Zone IV		Zone VII			Overall (9)		
		OD		OD(2)	WB		WB(2)	BI	UP		UP(1)	ZONE III (6)	AS		ZONE IV (1)	AP		KA	ZONE VII (2)
		CTK	BBN	Mean	CHN	CNG	Mean	PSA	GGT	MSD@	Mean	Mean	TTB	KMJ@	Mean	MTU		MGD	Mean
601	33165	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312
602	33166	281	281	281	281	281	281	281	281	281	281	281	281	281	281	281	281	281	281
603	33167	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248
604	33168	342	342	342	342	342	342	342	342	342	342	342	342	342	342	342	342	342	342
605	33169	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275
606	33170	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312
607	33171	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264
608	CR Dhan 506 (NC)	252	252	252	252	252	252	252	252	252	252	252	252	252	252	252	252	252	252
609	33172	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284
610	33173	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308	308
611	33174	363	363	363	363	363	363	363	363	363	363	363	363	363	363	363	363	363	363
612	33175	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312
613	33176	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280
614	33177	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284
615	33178	247	247	247	247	247	247	247	247	247	247	247	247	247	247	247	247	247	247
616	33179	247	247	247	247	247	247	247	247	247	247	247	247	247	247	247	247	247	247
617	33180	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245
618	33181	281	281	281	281	281	281	281	281	281	281	281	281	281	281	281	281	281	281
619	33182	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248
620	33183	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283
621	Zonal Check	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312
622	33184	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316	316
623	33185	226	226	226	226	226	226	226	226	226	226	226	226	226	226	226	226	226	226
624	33186	305	305	305	305	305	305	305	305	305	305	305	305	305	305	305	305	305	305
625	33187	282	282	282	282	282	282	282	282	282	282	282	282	282	282	282	282	282	282
626	33188	347	347	347	347	347	347	347	347	347	347	347	347	347	347	347	347	347	347
627	33189	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215
628	33190	249	249	249	249	249	249	249	249	249	249	249	249	249	249	249	249	249	249
629	33191	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274
630	33192	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248
631	Local check	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248
	mean	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280

INITIAL VARIETY TRIAL – DEEP WATER (IVT-DW)

Locations : 2 Test Entries: 9

Checks : CR Dhan 500 (National check), CR Dhan 502 (Zonal check) and local check (Sabita/NDGR 702) Table:7.1

Initial varietal trial for deep water condition (IVT-DW) was constituted with 9 test entries and 3 checks (Trial no. 7). All the 9 test entries were in first year of testing. The trial was sent to 3 locations for evaluation and the data was received from all 3 locations. However, data received from NRRI, Cuttack was rejected as the recommended water level (>75cm at least for one month) was not maintained. The data from two locations only (Chinsurah and Ghagrahat) were considered for selection of promising entry. The information related to adaptability parameters such as, elongation ability score, kneeing ability score, grain shattering score and phenotypic acceptability score were considered to assess the performances.

The data on yield, days to 50% flowering, plant height and number of panicles/m² of test entries in initial varietal trial for deep water conducted during kharif 2023 is provided in Tables 7.2-7.5

On overall basis, the experimental mean yield ranged from 3132 kg/ha (IET 33197) to 4846 kg/ha (IET 33193) and days to 50% flowering from 118 days (IET 33197) to 132 days (ZC CR Dhan 502) among test entries. The plant height of test entries ranged from 110 cm (IET 33196, 33200) to 152 cm (local check) and number of panicles/m² ranged from 143 (IET 33196) to 260 (IET 33199).

The test entry IET 33193, IET 33194 and IET 33201 though performed significantly better than the local check but no entry found to perform significantly better than the best varietal check (BVC + CD). So of all these entries on the overall basis in Zone III was not promising considering the best varietal check (BVC + CD).

Entries promoted to AVT-1

Nil

Annual Progress Report 2024 Vol. I – Varietal Improvement

Details of water regime(cm) at different centers in IVT DW, *Kharif* 2024

Location	week	June	July	August	September	October	November
Chinsurah	1st			20	40	100	10
	2nd			25	70	55	
	3rd			30	82	45	
	4th	0	20	35	90	25	
Ghagrahat	1st				87	80	
	2nd				85	64	
	3rd			75	85		
	4th			76	88		
NRRI, CUTTACK	1st			30	15	60	40
	2nd			40	50	55	40
	3rd			60	55	50	30
	4th		15	60	60	50	10

Adaptability parameters of entries in IVT DW, *Kharif*-2024

Entry No.	Kneeing Ability Score (1-5)			Grain Shattering Score (1-9)			Phenotypic Acceptability Score(1-9)			Elongation Ability Score (1-9)		
	CHN	GGT	NRRI	CHN	GGT	NRRI	CHN	GGT	NRRI	CHN	GGT	NRRI
701	5	3		3	3		5	3		5	3	
702	3	1		3	3		5	3		5	3	
703	3	3		3	3		3	5		3	5	
704	3	9		3	9		5	9		5	7	
705	3	3		3	3		3	3		5	3	
706	3	3		3	3		5	3		7	3	
707	3	3		3	3		5	3		3	3	
708	3	3		5	3		5	3		5	3	
709	3	3		3	3		5	3		5	5	
710	3	3		3	3		7	5		5	5	
711	3	3		3	3		3	3		5	3	
712 (LC)	3	1		3	3		5	3		5	3	

Trial no. 7.1 Composition of entries in Initial Variety Trial-Deep Water (IVT-DW),*Kharif* 2024

Entry No.	IET No.	Designation	Cross combination	Grain Type
1st year of testing				
701	33193	CR 38-28-41-1-5-3-1	CR 500/Varshadhan	MB
702	33194	NDGR 714	Pankaj/jalnidhi-GHT-1	SB
703	33195	CR 3145-412-3-3-2	IR 49830-7/Gayatree//FL 496	SB
704	CR Dhan 502 (ZC)			
705	33196	CR 4138-14-2-1	CR 2146-12-1-1-1/CR MAS 22-32-71	MS
706	33197	CR 4205-229-77	CR Dhan 307/O. longistaminata (AC-110404)	MB
707	33198	CR 2608-5-3-1-1-2-3	Chakaakhi/AC 38599	LB
708	CR Dhan 500(NC)			
709	33199	CR 4017-1-1-1-1-2-3	IR42/AC 20431B	MS
710	33200	CR 6306-278-65-90-2	CR-3866-22-1/CR Dhan 307	MS
711	33201	CR 2538-42-17-32-3-1	CRLC 899/IR49830-7	LB
712	Local Check			

Annual Progress Report 2024 Vol. I – Varietal Improvement

TableNo.7.2. Grain Yield (Kg/ha) of entries in IVT-DW, Kharif 2024

Entry No	IET No	Zone III				Zone III (2)		Overall (2)	
		WB		UP		mean		mean	
		CHN		GGT					
701	33193	6135	1 15%	3557	2	4846	1 6%	4846	1 6%
702	33194	4680	8	3856	1 9%	4268	4	4268	4
703	33195	4795	7	2494	9	3645	9	3645	9
704	CRDhan502 (ZC)	4572	9			4572	2	4572	2
705	33196	4960	4	3258	5	4109	7	4109	7
706	33197	3836		2427	10	3132		3132	
707	33198	5258	3	3092	6.5	4175	6	4175	6
708	CRDhan500 (NC)	5324	2	3524	3.5	4424	3	4424	3
709	33199	4927	5	2959	8	3943	8	3943	8
710	33200	4249	10	2328		3289		3289	
711	33201	4861	6	3524	3.5	4193	5	4193	5
712	Local Check	4058		3092	6.5	3575	10	3575	10
Exp. Mean		4804.54		3100.77		4013.94		4013.94	
CD		1003.16		422.49		602.99		602.99	
CV%		14.51		9.44		10.44		10.44	
F		3.11		12.15		6.09		6.09	
P		0.0056		<.0001		<.0001		<.0001	
S/NS		S		S		S		S	
D/S		26.06.2024		07-01-2024					
D/P		27.07.2024		Direct seeded					
Local Check Name		SABITA		NDGR 702(JaiBhawani)					

TableNo.7.3. Days to 50% flowering of entries in IVT-DW, Kharif 2024

Entry No	IET No	Zone III		Zone III (2)	Overall (2)
		WB	UP		
		CHN	GGT	mean	mean
701	33193	129	128	129	129
702	33194	122	118	120	120
703	33195	131	128	130	130
704	CRDhan502 (ZC)	132		132	132
705	33196	130	127	129	129
706	33197	115	121	118	118
707	33198	135	125	130	130
708	CRDhan 500 (NC)	132	120	126	126
709	33199	131	122	127	127
710	33200	119	120	120	120
711	33201	133	121	127	127
712	Local Check	124	117	121	121
Exp. Mean		127.65	122.27	125.38	125.38
CD		1.21	3.97	2.05	2.05
CV%		0.66	2.25	1.14	1.14

Annual Progress Report 2024 Vol. I – Varietal Improvement

TableNo.7.4:Plant height of entries in IVT-DW, Kharif 2024

Entry No	IET No	Zone III		Zone III (2)	Overall (2)
		WB	UP		
		CHN	GGT	mean	mean
701	33193	151	131	141	141
702	33194	159	134	147	147
703	33195	155	124	140	140
704	CR Dhan 502 (ZC)	142	.	142	142
705	33196	90	129	110	110
706	33197	95	132	114	114
707	33198	154	141	148	148
708	CR Dhan 500 (NC)	163	135	149	149
709	33199	116	127	122	122
710	33200	102	117	110	110
711	33201	143	128	136	136
712	Local Check	165	138	152	152
Exp. Mean		136	131	134	134

TableNo.7.5: No. of Panicles/m²of entries in IVT-DW, Kharif 2024

Entry No	IET No	Zone III		Zone III(2)	Overall (2)
		WB	UP		
		CHN	GGT	mean	mean
701	33193	190	125	158	158
702	33194	322	135	229	229
703	33195	281	115	198	198
704	CRDhan502 (ZC)	239		239	239
705	33196	173	113	143	143
706	33197	297	104	201	201
707	33198	231	117	174	174
708	CRDhan 500 (NC)	272	126	199	199
709	33199	404	115	260	260
710	33200	289	108	199	199
711	33201	272	129	201	201
712	Local Check	231	124	178	178
Exp. Mean		267	119	198	198
CD		66.8	9.1	38.27	38.27
CV%		17.41	5.29	13.44	13.44

INITIAL VARIETAL TRIAL - Rainfed Direct seeded- Mid duration (IVT-R-DS-M)

Location: 10

Test Entries:36

Checks: DRR Dhan 42, CR Dhan 804, CR Dhan 312 and Local check

Table: 8

Direct Seeded Rice (DSR) cultivation is an age-old practice in rainfed medium land in plateau region comprising the states of Jharkhand, Chattisgarh, Odisha, M.P., U.P. and parts of West Bengal. It is estimated to have around 2.5 – 3.0million hectare rice area is under Direct Seeded Rice of medium duration in medium land situation, in such land usually broadcasting of paddy seeds is done either with sprouted or unsprouted seeds at the beginning of monsoonal rain. Sometimes line sowing with seed drill is done behind the furrow at a distance of 15-20 cm between row and 5-10cm within row. Generally, variety with 115-130 maturity duration are preferred.

DSR is gaining popularity in recent years due to escalating cost of production, unavailability of labourer for transplanting, change in rainfall pattern and uncertainty in adequate rainfall due to climate change. Availability of potent pre and post emergence herbicide that effectively control weeds and of course availability of suitable varieties that adapt well to DSR cultivation with comparatively better yield are some of the factors that are responsible for its popularity. The direct seeded medium duration rice varieties have several advantages that making them important choice for sustainable agriculture like water conservation and suitable technology for water scares areas. A labour saving and climate resilient technology suit well to aberrant climate change and water scarcity with a comparatively stable yield. DSR also reduces methane emission unlike transplanted rice where 10-15 cm water level is maintained. In DSR efficient nutrient management is possible due to no water stagnation in the field. To perform better under DSR condition, a variety should have key traits like early vigour, anaerobic germination, weed competitiveness, comparatively deeper root system, nutrient use efficient with stable yield. This trial is aims at identifying culture that perform better under DSR situation.

This trial i.e. IVT-Rainfed Direct seeded- Mid duration (IVT-R-DS-M) constituted of 36 test entries including 4 checks out of which one was local check. The other checks were DRR Dhan 42 (Check 1), CR Dhan 804 (Check 2) and CR Dhan 312 (Check 3). The trial was sent to 16 test locations out of which in 13 locations trials were conducted and the data was received from all 13 test locations. The trial failed at Masodha due to less rain and high weed infestation; Titabar due to heavy rain just after sowing and a Pundibari due to high rainfall. Besides, the data from Gangtok, Sikkim and Lembucherra, Tripura were not considered in final reporting, respectively due to small plot size and non-significant F value.

Based on the results of the qualified locations the report is as under for various zones. The studied traits were grain yield (kg/ha), days to 50% flowering duration (days), plant height (cm) and panicles/m² (no.)

Annual Progress Report 2024 Vol. I – Varietal Improvement

On overall basis comprising of 11 qualified test locations, grain yield in kg/ha ranged from 3547 (IET 33223) to 5550 (IET 33216) with a mean of 4598 kg/ha; days to 50% flowering varied from 83 (IET 33205 and 33222) to 107 (IET 33230) with a mean of 93 days; plant height ranged from 79.8 (CR Dhan 804) to 122.2 cm (IET 33214) with a mean of 101.1cm and panicles/m² varied from 268 (IET 33232) to 333 numbers (IET 33224) with an average of 303 numbers. No entry found significantly superior to the best check CR Dhan 312 based on significant F value.

Since the data of Gangtok, Sikkim (Zone I) and Lembucherra, Tripura (zone IV) representing one location is not considered in final results and zone VII (Ragalu, Mugad and Pannampet) from where no entry was qualified for promotion the detailed description on studied traits are not discussed, however, the information is available on table 8.2, 8.3., 8.4 and 8.5 respectively for grain yield (kg/ha), days to 50% flowering(days), plant height(cm) and panicles/m² (no.)

In zone III, the grain yield of entries ranged from 2976 (CR Dhan 804, check 2) to 5446 kg ha⁻¹ (IET 33216, BRR 2186) with a zonal trial mean of 4163 kg ha⁻¹. The check 3 (CR Dhan 312) was the best check with grain yield of 4802 kg/ha. The only entry that significantly out-yielded the best check was **IET 33216(BRR 2186) and qualified for promotion**. The days to 50% flowering varied from 84 (IET 33222) to 111 days (IET 33230) with a mean of 95 days. Plant height (cm) ranged from 75.1 (CR Dhan 804, check 2) to 139.4cm (IET 33214) with a zonal average of 109.7 cm. Similarly, the panicles/m² varied from 238 (IET 33207) to 380 (IET 33222) with a zonal average of 312.

In zone V, two entries showed statistically significant grain yield superiority over the best check DRR Dhan 42 (check 1) that yielded 5428 kg ha⁻¹. **IET 33204 (RNR 31672) that yielded 6590 kg ha⁻¹ and IET 33202 (CR 4209-228-1-55-77-2) showed significant yield superiority over the best check DRR Dhan 42**. In this zone grain yield (kg ha⁻¹) varied from 3318 (IET 33231) to 6590 kg ha⁻¹(IET 33204) with an average grain yield of 4314 kg ha⁻¹. Days to 50% flowering (DFF) ranged from 76 (DRR Dhan 42, Check 1) to 102 days (IET 33225) with a mean of 88 days; plant height(cm) varied from 48.5 (IET 33224) to 76.9 cm (IET 33214) with an average plant height of 65.6cm and the panicles/m² ranged from 134 (IET 33231) to 315 (IET 33202) with a mean of 206.

Based on the results, only three entries qualified for promotion to AVT 1, those are IET 33216 in zone III and IET 33204 and IET 33202 in zone V. No other entry qualified for promotion in zone VII and on Overall basis.

Entry qualified for promotion

Zone III – IET 33216

Zone V - IET 33204 and IET 33202

Zone VII - None

Overall – None

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 8.1 Composition of entries in IVT-Rainfed Direct seeded- Mid duration (IVT-R-DS-M), Kharif 2024

Entry no	IET no	Designation	Cross combination	Grain type
801	33202	CR 4209-228-1-55-77-2	CR Dhan 307/ <i>O. Rufipogan</i> (AC-100005)	MB
802	33203	CR 3573-3-1-3-1-1-2	Sasyaree/Naveen	MS
803	33204	RNR 31672	TME 80518 X BPT 5204	LS
804	33205	CRR 822-20-1-2-2	IR11L152/SABITRI	LS
805	DRR Dhan 42			
806	33206	CR-4086-5-B-6	CR2814-1-S-1-6-3-2B-1/Binadhan 10	SB
807	33207	CR6312(IR132084-B-26-1-2B-2)	CIHERANG-SUB1-AG1/IR 64-SALTOL181//CIHERANG-SUB1AG1/IR87707-445-B-B-B	LS
808	33208	MLD 275-IR20R1992	TCCP 266-1-3B-13-1-3*4/TKM 9	LS
809	33209	CR-4171-1-2-1-B	CR DHAN-311 / BPT-5204	MS
810	33210	RNR 37986	PSBRC 68 X RP-Patho-10-6-1	LS
811	33211	TRC 2024-2/TRC H2TC 5509-B-B-8-1	Hakuchuk 2 X Tripura Sarat	LS
812	33212	CRR 834-IR18R1041	SUPA/3*IRRI 154	LS
813	33213	CR3785-1-1-1-1-3-1	Surendra/Ratna	MB
814	33214	MGD-24-5	BPT5204 X Antrasali-13	SB
815	33215	CR 3993-514-2-15-6-4	CR 1009 / <i>O. brachyantha</i> //CR 1009	MS
816	33216	BRR 2186	CRL22/MTU1071-TCN-188-sel.	MS
817	33217	BRK-590 IR15T1302	IRRI 154/IR 66946-3R-178-1-1//IRRI 147	LS
818	CR Dhan 804			
819	33218	CR 3543-4-3-2-1-1-3	Prasad/Divya	MB
820	33219	CR6311 (IR18R1124)	SUPA/3*IRRI 154	LS
821	33220	TRC 2024-3/TRC H2TJ 5516-B-B-5-14	Hakuchuk 2 X Tripura Jala	LS
822	33221	CRAC-4423-49	Doubled Haploid of F1s (Savitri x Pokkali)	MB
823	33222	CRR 756-1-1	IR08L183/MTU 1010	LS
824	33223	CRAC-4424-122	Doubled haploid of 8433DT	LS
825	33224	CR-4199-2-B-1-2-B-2	CR DHAN-310 / MAUDAMANI	MB
826	CR Dhan 312			
827	32103	CGR 5 (S)	Samba Mahsuri* ² / <i>O. rufipogon</i> -VN90-1032-58(3)	MS
828	33225	CR 4326-1-1-1-2-1	CR3543-61/CR 3553-151	MS
829	33226	CR-4086-B-3-1-1	CR2814-1-S-1-6-3-2B-1/Binadhan 10	SB
830	33227	CR-4234-1-2-3-B	CR DHAN-311 / CGR-1062	MS
831	33228	CR 3561-5-2-1-1-2-2-1	Surendra/Annapurna	MS
832	33229	TRC 2024-1/TRC H2TS 5509-B-B-1-24	Hakuchuk 2 X Tripura Sarat	LB
833	33230	NDR 2024-TFR-16	CSR 27 Mutant	SB
834	33231	CR 4483-2-2-2-1-3-2	CR3580-3-2-1-1-1/Harishankar	MS
835	33232	BRR 0204	RYC 230 X MTm4822	MS
836	Local Check			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 8. 2 Grain yield of entries (kg/ha) in IVT-Rainfed Direct seeded- Mid duration (IVT-R-DS-M), Kharif 2024

Entry No	IET No	Zone I		Zone III											
		SK		OD				OD(2)		WB			WB(2)		
		SKM@	CTK	JYP		mean		CHN		HTW	mean				
801	33202	1684		1995		6289	4	4142		5129	9	4257	9	4693	8
802	33203	1695		3010		6460	1	4735	7	5834	2	4690	7	5262	1 * 13%
803	33204	2185	10	3728	8	3433		3581		2677				2677	
804	33205	663		2386		3546		2966		4054		3944		3999	
805	DRR Dhan 42	1964		2463		4141		3302		3386		3175		3281	
806	33206	2440	8	4856	3 *	5203		5030	5 11%	3633		4072		3853	
807	33207	1830		3771	7	4017		3894		3352		3153		3253	
808	33208	1245		2007		5565		3786		3816		4137		3977	
809	33209	1000		2908		5730		4319		3871		3782		3827	
810	33210	1108		4317	4 *	5625		4971	6 9%	2211		3994		3103	
811	33211	940		1994		4650		3322		4373		5547	1 *	4960	4 6%
812	33212	2042		3111		4652		3882		4772	10	4047		4410	
813	33213	1010		2690		6066	6	4378	10	4353		3857		4105	
814	33214	578		2183		3726		2955		3673		4169		3921	
815	33215	1640		3056		4767		3912		2756		3874		3315	
816	33216	3293	4	4139	5 *	6306	3	5223	3 15%	4306		3484		3895	
817	33217	1480		2528		4540		3534		3541		3728		3635	
818	CR Dhan 804	1338		2079		3385		2732		2630		2990		2810	
819	33218	550		1675		4688		3182		5389	8	4200	10	4795	7
820	33219	875		3218	10	5049		4134		5451	6	3713		4582	10
821	33220	2965	6	3833	6	6424	2	5129	4 13%	5693	3	4020		4857	6
822	33221	1203		1731		3907		2819		3744		3889		3817	
823	33222	3869	2	1630		3082		2356		3303		5322	3 *	4313	
824	33223	1993		2062		3351		2707		2911		3357		3134	
825	33224	473		6557	1 *	5781		6169	1* 36%	3092		3789		3441	
826	CR Dhan 312	3075	5	2266		5902	9	4084		5426	7	3909		4668	9
827	32103	1353		2324		6003	8	4164		3370		4737	6	4054	
828	33225	2043		3019		5738		4379	9	3894		3830		3862	
829	33226	2058		2861		4933		3897		3510		3747		3629	
830	33227	1380		2756		4007		3382		2595		5397	2 *	3996	
831	33228	2418	9	3535	9	5131		4333		5951	1	3866		4909	5 5%
832	33229	3403	3	2189		5882	10	4036		3803		3667		3735	
833	33230	2670	7	5161	2 *	6073	5	5617	2* 24%	5649	4	4847	5	5248	2 12%
834	33231	2170		2723		4705		3714		3361		4352	8	3857	
835	33232	3975	1	2902		3308		3105		5495	5	4962	4 *	5229	3 12%
836	Local Check	513		3032		6049	7	4541	8	3759		4092		3926	
Exp. Mean		1808.67		2963.51		4947.36		3955.44		4020.92		4073.89		4027.99	
CD		1624.1		1031.52		1502.71		824.69		1015.98		816.91		592.25	
CV%		44.23157		17.15		14.96		10.27		12.45		9.87		7.24	
F		2.8		8.72		4.02		9.12		8.81		4.54		10.98	
P		0.0015		<.0001		<.0001		<.0001		<.0001		<.0001		<.0001	
S/NS		S		S		S		S		S		S		S	
D/S		24.06.2024		11.06.2024		12.06.24				25.06.2024		09.07.2024			
D/P		Sanu Attey		Naveen		Kalinga Dhan 1203				KAUSHALYA		MTU 1010			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 8. 2(Contd.) Grain yield of entries (kg/ha) in IVT-Rainfed Direct seeded- Mid duration (IVT-R-DS-M), Kharif 2024

Entry No	IET No	Zone III										Zone IV		Zone V	
		BI				BI(2)		JH		Zone III (7)		TP		MP	
		SBR	BKG	mean		HZB		mean		LMB@	JBP				
801	33202	5873	1	5256	5	5565	2 * 22%	4738		4791	6	5000		6375	2* 17%
802	33203	5719	2	4311	10	5015	3 10%	5550		5082	3 6%	5023		5750	3 6%
803	33204							6366	10	4051		5295	7	6590	1* 21%
804	33205	2202		3267		2735		4947		3478		4789		5176	6
805	DRR Dhan 42	3095		3867		3481		4808		3562		4467		5428	5
806	33206	3770		2717		3244		6479	9	4390		3067		4562	
807	33207	2446		4494	9	3470		4141		3625		5806	4	5083	7
808	33208	4618	8	3173		3896		3734		3864		5461	6	4932	8
809	33209	4296		3439		3868		6638	6	4381		5217	8	3916	
810	33210	2262		3962		3112		2673		3578		4506		4809	10
811	33211	4192		3267		3730		6015		4291		4100		3977	
812	33212	2590		4750	8	3670		4331		4036		4272		4691	
813	33213	4331		2867		3599		5425		4227		3744		3562	
814	33214	3175		3734		3455		5342		3715		4989		3762	
815	33215	3998		3061		3530		5411		3846		4795		3883	
816	33216	5342	5	7933	1 *	6638	1 * 45%	6615	8	5446	1* 13%	5183	9	5603	4
817	33217	2520		3639		3080		7215	1	3959		4395		4638	
818	CR Dhan 804	2307				2307		4463		2976		4317		3828	
819	33218	4480	9	4189		4335		3535		4022		5083	10	4594	
820	33219	2257		6539	2	4398	9	5179		4487	10	3484		3740	
821	33220	4732	7	3617		4175		5325		4806	4	4578		3955	
822	33221	3089		3861		3475		6651	5	3839		4378		3783	
823	33222	1409		3889		2649		5345		3426		4467		3942	
824	33223	2693		3978		3336		4052		3201		6233	1.5	3416	
825	33224	3631		3339		3485		3714		4272		4083		3542	
826	CR Dhan 312	5585	3	3572		4579	6	6957	3	4802	5	4667		3410	
827	32103			3572		3572		4012		4003		3978		3564	
828	33225	4291		4895	6	4593	5	5896		4509	9	3483		3416	
829	33226	3810		4761	7	4286		6897	4	4360		4339		3925	
830	33227	2838		3006		2922		6300		3843		4473		3421	
831	33228	3755		3506		3631		6632	7	4625	7	5628	5	3553	
832	33229	3899		5872	3	4886	4 7%	5173		4355		3972		3978	
833	33230	5566	4	3378		4472	7	5411		5155	2 7%	4939		3709	
834	33231	4971	6	3834		4403	8	3830		3968		5850	3	3318	
835	33232	4474	10	4239		4357	10	5087		4352		6233	1.5	4867	9
836	Local Check	2138		5695	4	3917		7136	2	4557	8	3717		4620	
Exp. Mean		3716.06		4102.15		3881.39		5333.71		4163.07		4722.32		4314.24	
CD		1191.4		1078.34		778.99		2028.25		476.34		1876.32		442.38	
CV%		15.76		12.92		9.88		18.73		5.64		19.57		5.05	
F		8.44		8.76		9.9		2.75		11.02		1.18		31.5	
P		<.0001		<.0001		<.0001		0.0018		<.0001		0.3124		<.0001	
S/NS		S		S		S		S		S		NS		S	
D/S		14-06-2024		17-07-2024				10-07-2024				12-07-2024		20-06-2024	
D/P		Sabour Ardhial		Sabour Shree				CR Dhan 320				TRC 2014-8		JR 206	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 8. 2(Contd.) Grain yield of entries (kg/ha) in IVT-Rainfed Direct seeded- Mid duration (IVT-R-DS-M), Kharif 2024

Entry No	IET No	Zone VII(3)										Overall (11)	
		AP		KA				KA (2)					
		RGL		PNP		MGD		mean		mean			mean
801	33202	9051	2	4396	4	7623	6	6010	4	7023	2	5544	
802	33203	7413		2800		6524		4662		5579		5278	4
803	33204	6348				4899		4899		5624		4863	
804	33205	5449		3084		7926	3	5505	10	5486		4180	
805	DRR Dhan 42	8971	3	3435		4869		4152		5758		4331	
806	33206	7493		4521	2	7570	8	6046	3	6528	5	4989	7
807	33207	5739		4106		7355	10	5731	6	5733		4332	
808	33208	8355	6	4022		7879	4	5951	5	6752	3	4749	
809	33209	6659		3771		7595	7	5683	8	6008		4782	
810	33210	5993		2937		6855		4896		5262		4149	
811	33211	8297	7	3801		5624		4713		5907		4703	
812	33212	5826		3316		4587		3952		4576		4243	
813	33213	6500		4142	10	5200		4671		5281		4454	
814	33214	7015		2554		5288		3921		4952		4056	
815	33215	7015		4042		4687		4365		5248		4232	
816	33216	5928		4252	7	7139		5696	7	5773		5550	1
817	33217	5674		3131		4509		3820		4438		4151	
818	CR Dhan 804	8870	4	2666		6963		4815		6166	8	4018	
819	33218	6986		3366		7529	9	5448		5960		4603	
820	33219	5805		3666		4565		4116		4679		4471	
821	33220	7725		4245	8	6135		5190		6035	9	5064	6
822	33221	5609		3613		5881		4747		5034		4160	
823	33222	5804		4302	5	4338		4320		4815		3851	
824	33223	5819		3006		4369		3688		4398		3547	
825	33224	6044		3787		6999		5393		5610		4570	
826	CR Dhan 312	6942		5913	1	8598	1	7256	1	7151	1	5316	3
827	32103	6051		2675		5663		4169		4796		4197	
828	33225	7920	9	4166	9	5141		4654		5742		4746	
829	33226	8507	5	3922		5665		4794		6031	10	4776	
830	33227	7884		3284		4420		3852		5196		4173	
831	33228	7145		3767		6295		5031		5736		4831	
832	33229	7225		4457	3	8498	2	6478	2	6727	4	4968	8
833	33230	7979	8	2915		7005		4960		5966		5245	5
834	33231	9181	1	3748		6570		5159		6500	6	4599	
835	33232	7674		3706		7653	5	5680	9	6344	7	4942	9
836	Local Check	7891	10	4256	6	4990		4623		5712		4878	10
Exp. Mean		7077.24		3707.44		6205.53		4973.03		5681.14		4598.19	
CD		1042.75		737.37		1755.39		924.66		801.82		379.66	
CV%		7.26		9.79		13.93		9.16		6.95		4.07	
F		9.72		7.11		4.63		6.43		6.43		13.05	
P		<.0001		<.0001		<.0001		<.0001		<.0001		<.0001	
S/NS		S		S		S		S		S		S	
D/S		4.7.2024		12-08-2024		16.06.24							
D/P		MTU 1121		KPR 1		PSB_68							

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 8. 3 Days to 50% flowering of entries in IVT-Rainfed Direct seeded- Mid duration (IVT-R-DS-M), Kharif 2024

Entry No	IET No	Zone III											Zone I	Zone IV	Zone V	
		SK		OD		OD(2)	WB		WB(2)	BI		BI(2)	JH	III (7)	TP	MP
		SKM@	CTK	JYP	mean	CHN	HTW	mean	SBR	BKG	mean	HZB	mean	LMB@	JBP	
801	33202	117	85	122	104	101	100	101	113	93	103	99	102	121	94	
802	33203	104	89	105	97	106	104	105	111	90	101	93	100	104	93	
803	33204	108	82	106	94	99	.	99	.	.	.	90	94	119	89	
804	33205	92	81	103	92	80	79	80	86	86	86	77	85	118	77	
805	DRR Dhan 42	96	84	105	95	84	85	85	94	88	91	83	89	99	76	
806	33206	108	82	108	95	94	88	91	92	89	91	92	92	106	82	
807	33207	105	79	104	92	98	87	93	98	87	93	79	90	96	92	
808	33208	106	80	105	93	81	88	85	88	85	87	89	88	118	94	
809	33209	115	79	106	93	93	90	92	90	87	89	89	91	104	91	
810	33210	97	83	99	91	86	80	83	89	84	87	87	87	96	96	
811	33211	117	82	111	97	106	109	108	114	93	104	96	102	100	100	
812	33212	97	82	113	98	105	88	97	107	84	96	83	95	106	88	
813	33213	106	81	109	95	97	98	98	102	93	98	91	96	101	85	
814	33214	123	85	96	91	107	99	103	90	85	88	92	93	105	89	
815	33215	109	80	103	92	93	78	86	90	88	89	81	88	96	88	
816	33216	118	87	116	102	103	78	91	110	91	101	99	98	106	82	
817	33217	99	84	107	96	105	79	92	87	86	87	86	91	99	77	
818	CR Dhan 804	98	86	108	97	84	77	81	83	.	83	74	85	99	93	
819	33218	116	90	108	99	95	99	97	110	88	99	95	98	122	85	
820	33219	109	86	109	98	103	89	96	94	87	91	90	94	97	82	
821	33220	120	90	109	100	107	110	109	118	98	108	99	104	100	93	
822	33221	97	85	111	98	95	80	88	91	81	86	81	89	104	81	
823	33222	96	81	103	92	73	78	76	89	86	88	79	84	104	80	
824	33223	96	81	105	93	84	85	85	102	81	92	79	88	107	77	
825	33224	128	83	117	100	106	117	112	128	104	116	106	109	116	92	
826	CR Dhan 312	116	86	114	100	106	103	105	122	96	109	100	104	106	88	
827	32103	108	89	109	99	104	78	91	.	93	93	95	95	99	83	
828	33225	113	94	115	105	100	101	101	104	91	98	97	100	98	102	
829	33226	107	80	107	94	83	93	88	104	87	96	92	92	102	97	
830	33227	97	83	105	94	81	77	79	88	78	83	82	85	100	87	
831	33228	114	88	105	97	101	103	102	109	93	101	100	100	118	94	
832	33229	116	86	117	102	109	101	105	116	95	106	98	103	100	92	
833	33230	128	90	122	106	122	119	121	132	95	114	97	111	117	87	
834	33231	117	88	107	98	104	100	102	126	88	107	96	101	118	92	
835	33232	108	85	112	99	105	98	102	107	78	93	96	97	107	92	
836	Local Check	105	81	116	99	106	77	92	119	91	105	83	96	102	82	
Mean		109	84	109	97	97	92	95	103	89	96	90	95	106	88	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 8. 3 (Contd.) Days to 50% flowering of entries in IVT-Rainfed Direct seeded- Mid duration (IVT-R-DS-M), Kharif 2024

Entry No	IET No	Zone VII				Zone VII (3)	Overall (11)
		AP	KA		KA(2)		
		RGL	PNP	MGD	mean	mean	mean
801	33202	95	91	85	88	90	98
802	33203	94	88	88	88	90	96
803	33204	83	.	91	91	87	91
804	33205	74	85	84	85	81	83
805	DRR Dhan 42	74	86	85	86	82	86
806	33206	87	89	88	89	88	90
807	33207	87	87	88	88	87	90
808	33208	83	92	97	95	91	89
809	33209	87	90	86	88	88	90
810	33210	78	86	91	89	85	87
811	33211	99	90	89	90	93	99
812	33212	90	87	86	87	88	92
813	33213	93	89	83	86	88	93
814	33214	99	82	91	87	91	92
815	33215	78	89	83	86	83	86
816	33216	97	91	89	90	92	95
817	33217	82	86	86	86	85	88
818	CR Dhan 804	73	85	85	85	81	85
819	33218	95	91	99	95	95	96
820	33219	87	88	89	89	88	91
821	33220	100	96	109	103	102	103
822	33221	78	85	84	85	82	87
823	33222	78	87	83	85	83	83
824	33223	79	85	86	86	83	86
825	33224	110	88	112	100	103	106
826	CR Dhan 312	100	89	96	93	95	100
827	32103	100	86	92	89	93	93
828	33225	98	88	101	95	96	99
829	33226	86	90	112	101	96	94
830	33227	81	85	103	94	90	86
831	33228	95	94	108	101	99	99
832	33229	101	94	113	104	103	102
833	33230	110	97	109	103	105	107
834	33231	95	90	94	92	93	98
835	33232	94	89	94	92	92	95
836	Local Check	103	88	100	94	97	95
Mean		90	89	93	91	91	93

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 8.4: Plant height (cm) of entries in IVT-Rainfed Direct seeded- Mid duration (IVT-R-DS-M), Kharif 2024

Entry No	IET No	Zone I		Zone III								Zone III	Zone IV	Zone V	
		SK	OD		OD(2)	WB		WB(2)	BI		BI(2)	JH	III (7)	TP	MP
		SKM@	CTK	JYP	mean	CHN	HTW	mean	SBR	BKG	mean	HZB	mean	LMB@	JBP
801	33202	85	127.1	114	120.6	137	102	119.5	112.5	114.7	113.6	90.5	114	106	72.3
802	33203	76.8	123.8	114.2	119	141	104	122.5	124	135.2	129.6	105	121	79	66.2
803	33204	81.3	93.7	82.1	87.9	97.5		97.5				88	90.3	95	62.7
804	33205	68.7	103	110.8	106.9	99	89	94	93	114.5	103.8	76.4	98	119	66.4
805	DRR Dhan 42	71	107.2	95.5	101.4	104	93	98.5	89	106	97.5	81.2	96.6	120	59.2
806	33206	69.4	142.1	97.2	119.7	127	91	109	108	90	99	99.4	107.8	119	69.9
807	33207	72.2	122.4	105.1	113.8	108	91	99.5	76	112.3	94.2	97.8	101.8	100	63.3
808	33208	67.8	110.1	102.1	106.1	132	94	113	99.5	118.7	109.1	89	106.5	116	60
809	33209	92.5	129.5	128.5	129	114	99	106.5	116	103.8	109.9	97.9	112.7	108	68
810	33210	73.6	103.6	97.2	100.4	108.5	85	96.8	78	113.2	95.6	83.3	95.5	120	54.9
811	33211	86	137.9	123.3	130.6	132	116	124	125.5	126	125.8	102.8	123.4	96	72.6
812	33212	73.2	119.4	105.9	112.7	121.5	79	100.3	100.5	112.5	106.5	92	104.4	112	63.9
813	33213	79	127.4	116.1	121.8	135.5	104	119.8	115	111.7	113.4	115.5	117.9	100	75
814	33214	109.8	170.5	141	155.8	166.5	130	148.3	147	113.7	130.4	106.5	139.3	102	76.9
815	33215	77.2	122.6	120.8	121.7	121	98	109.5	118	113	115.5	88.9	111.8	116	68.8
816	33216	76.7	110.6	91.6	101.1	120.5	77	98.8	99	112.8	105.9	77.2	98.4	108	57.3
817	33217	73.3	110.5	107.9	109.2	113.5	83	98.3	89	121.7	105.4	92.5	102.6	114	66.4
818	CR Dhan 804	60.2	93.7	92.7	93.2	111.5	71	91.3	82		41	74.5	75.1	78	56.7
819	33218	82.3	141.8	115.4	128.6	120	88	104	113	126.8	119.9	87.4	113.2	110	69.9
820	33219	68.9	126.4	108.2	117.3	129.5	82	105.8	98	111.5	104.8	84.9	105.8	104	66
821	33220	74.6	110.7	115.3	113	139	82	110.5	124	140.7	132.4	115.4	118.2	87	66.2
822	33221	68.5	123.9	108.7	116.3	128	90	109	115	124.2	119.6	118.3	115.4	109	65.9
823	33222	86.2	125.9	124.4	125.2	98.5	90	94.3	101	114.2	107.6	94.6	106.9	100	71
824	33223	85.1	129.7	114.9	122.3	141	105	123	110.5	119.7	115.1	97.5	116.9	105	63.1
825	33224	75.6	129.4	119.4	124.4	133	97	115	132	123.5	127.8	78	116	94	48.5
826	CR Dhan 312	71.9	107.1	90.8	99	119.5	74	96.8	115.5	111.2	113.4	73.3	98.8	112	56.4
827	32103	97.1	128.5	123.5	126	131	89	110		119.5	119.5	94.5	114.3	130	67
828	33225	70.5	132.7	109.7	121.2	142.5	93	117.8	110.5	130.3	120.4	93.4	116	93	71.3
829	33226	85.3	119.8	123.9	121.9	151	90	120.5	104.5	118.8	111.7	92.9	114.4	118	69.5
830	33227	78.3	123.3	133	128.2	116.5	107	111.8	112.5	117.7	115.1	103.4	116.2	102	71.3
831	33228	70.2	117.8	102	109.9	128	96	112	105.5	120.5	113	82.4	107.5	115	58.7
832	33229	78.5	125.4	131	128.2	151.5	100	125.8	125.5	113.5	119.5	106.5	121.9	117	66.1
833	33230	70.2	125.8	110.5	118.2	147.5	91	119.3	122.5	121.8	122.2	93.3	116.1	105	63.5
834	33231	71.8	132.3	120.8	126.6	114.5	97	105.8	120.5	119.8	120.2	92.9	114	104	75.1
835	33232	76.1	127.9	110.4	119.2	118.5	94	106.3	108.5	123.5	116	96.9	111.4	120	71.7
836	Local Check	101.3	131.7	97.3	114.5	133	82	107.5	103	138.3	120.7	87.5	110.4	87	59.6
	Mean	77.9	122.6	111.3	117	125.9	92.9	109.5	108.6	114.7	111.9	93.1	109.7	106.1	65.6

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 8.4 (Contd.) Plant height (cm) of entries in IVT-Rainfed Direct seeded- Mid duration (IVT-R-DS-M), Kharif 2024

Entry No	IET No	Zone VII				Zone VII (3)	Overall (11)
		AP	KA		KA(2)		
		RGL	PNP	MGD	mean	mean	mean
801	33202	110	74	89	81.5	91	104.6
802	33203	130.9	66.3	89.5	77.9	95.6	100
803	33204	111.2	0	78.4	39.2	63.2	89.6
804	33205	115.3	84.9	88.5	86.7	96.2	91.5
805	DRR Dhan 42	106.7	68.4	86.4	77.4	87.2	94.9
806	33206	124.7	74.4	98.9	86.7	99.3	99.9
807	33207	116.4	75	89.6	82.3	93.7	94.4
808	33208	114.3	70.5	80.7	75.6	88.5	104.2
809	33209	134.4	88.4	110	99.2	110.9	100.4
810	33210	108	65	88.3	76.7	87.1	97.7
811	33211	143.4	91.9	97.5	94.7	110.9	109.7
812	33212	114	68.5	97.3	82.9	93.3	98.2
813	33213	126.7	76.5	70.8	73.7	91.3	112.3
814	33214	157	84.4	91.7	88.1	111	122.2
815	33215	124.4	87.8	87.8	87.8	100	100.6
816	33216	101	53.6	112.6	83.1	89.1	90.8
817	33217	97.4	67.6	78.4	73	81.1	91.9
818	CR Dhan 804	91.6	66.1	78.2	72.2	78.6	79.8
819	33218	126	69.8	86.4	78.1	94.1	100.4
820	33219	106.1	68	71.7	69.9	81.9	99
821	33220	132.4	78.9	71.1	75	94.1	107.2
822	33221	128	80.6	77.5	79.1	95.4	106.3
823	33222	128.9	83.4	78	80.7	96.8	98.5
824	33223	122.5	81.8	68	74.9	90.8	104.1
825	33224	127.9	67.9	82.5	75.2	92.8	103
826	CR Dhan 312	119.3	65.3	79.3	72.3	88	95.4
827	32103	118.6	75.3	97.5	86.4	97.1	102.1
828	33225	118.5	66.8	77.9	72.4	87.7	107
829	33226	131.8	79.1	84.1	81.6	98.3	106.9
830	33227	129.3	90.3	84.3	87.3	101.3	102.6
831	33228	111	66.5	79.4	73	85.6	102.7
832	33229	148.4	85.4	77.1	81.3	103.6	107.1
833	33230	119.7	72.1	69.5	70.8	87.1	107
834	33231	128.1	77.1	84.1	80.6	96.4	102.6
835	33232	117.6	71.6	69.5	70.6	86.2	103
836	Local Check	110.4	87	96.6	91.8	98	101.6
Mean		120.9	73.1	84.7	78.9	92.9	101.1

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 8.5 Number of Panicle/m² of entries in IVT-Rainfed Direct seeded- Mid duration (IVT-R-DS-M), Kharif 2024

Entry No	IET No	Zone I		Zone III									Zone	Zone IV	Zone V	
		SI	OD		OD(2)		WB		WB(2)		BI	BI(2)	JH	III (7)	TP	MP
		SKM@	CTK	JYP	mean	CHN	HTW	mean	SBR	BKG	mean	HZB	mean	LMB@	JBP	
801	33202	184	254	409	332	347	240	294	310	278	294	263	263	238	315	
802	33203	232	382	468	425	413	240	327	336	281	309	302	302	300	295	
803	33204	169	404	288	346	380		380				335	335	338	264	
804	33205	151	423	359	391	479	320	400	338	224	281	291	291	338	233	
805	DRR Dhan 42	317	416	476	446	396	288	342	301	349	325	327	327	250	207	
806	33206	173	424	472	448	231	256	244	229	190	210	315	315	288	241	
807	33207	281	403	419	411	248	288	268	251	282	267	238	238	413	246	
808	33208	269	452	382	417	215	304	260	406	305	356	278	278	250	257	
809	33209	241	370	375	373	215	288	252	354	278	316	315	315	275	221	
810	33210	137	287	385	336	363	416	390	248	250	249	255	255	300	194	
811	33211	214	264	489	377	330	272	301	275	328	302	299	299	288	192	
812	33212	211	367	409	388	396	318	357	280	319	300	286	286	338	212	
813	33213	200	505	482	494	198	256	227	255	209	232	319	319	238	203	
814	33214	222	216	402	309	429	256	343	226	298	262	336	336	263	143	
815	33215	199	314	489	402	413	224	319	303	280	292	378	378	275	178	
816	33216	278	533	409	471	149	304	227	430	354	392	316	316	363	292	
817	33217	190	455	385	420	165	304	235	305	339	322	365	365	350	266	
818	CR Dhan 804	253	443	415	429	363	384	374	303		303	262	262	425	164	
819	33218	150	289	387	338	231	272	252	269	370	320	278	278	263	199	
820	33219	186	473	432	453	479	336	408	301	330	316	340	340	313	163	
821	33220	280	444	432	438	248	288	268	376	271	324	330	330	313	214	
822	33221	186	418	385	402	429	320	375	298	256	277	340	340	200	193	
823	33222	191	453	386	420	495	400	448	245	220	233	380	380	213	216	
824	33223	281	453	456	455	248	288	268	349	273	311	297	297	263	193	
825	33224	170	312	516	414	479	272	376	373	288	331	256	256	188	215	
826	CR Dhan 312	260	406	533	470	429	208	319	297	134	216	370	370	338	135	
827	32103	183	400	546	473	281	368	325		277	277	302	302	363	151	
828	33225	239	318	432	375	132	224	178	323	266	295	335	335	313	153	
829	33226	284	352	410	381	281	240	261	273	229	251	315	315	300	194	
830	33227	250	503	386	445	149	416	283	345	257	301	326	326	288	186	
831	33228	225	438	395	417	297	288	293	313	272	293	303	303	350	186	
832	33229	292	305	439	372	182	304	243	365	312	339	287	287	288	191	
833	33230	224	277	380	329	330	208	269	335	299	317	353	353	275	229	
834	33231	208	268	415	342	545	368	457	311	233	272	293	293	488	134	
835	33232	183	275	415	345	182	288	235	287	350	319	285	285	388	145	
836	Local Check	157	416	425	421	297	352	325	395	280	338	349	349	250	180	
	Mean	219	381	425	403	318	297	309	312	279	295	312	312	303	206	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 8.5 (Contd.) Number of Panicle/m² of entries in IVT-Rainfed Direct seeded-Mid duration (IVT-R-DS-M), Kharif 2024

Entry No	IET No	Zone VII				Zone VII (3)	Overall (11)
		AP	KA		KA(2)	mean	mean
		RGL	PNP	MGD	mean		
801	33202	265	217	272	245	251	291
802	33203	244	241	298	270	261	320
803	33204	321		279	279	300	323
804	33205	267	240	327	284	278	321
805	DRR Dhan 42	281	221	313	267	272	325
806	33206	229	225	377	301	277	287
807	33207	316	231	350	291	299	303
808	33208	240	238	381	310	286	318
809	33209	303	255	416	336	325	308
810	33210	240	214	346	280	267	294
811	33211	262	220	317	269	266	295
812	33212	251	231	268	250	250	305
813	33213	240	207	310	259	252	287
814	33214	248	196	301	249	248	272
815	33215	272	231	286	259	263	299
816	33216	240	222	344	283	269	328
817	33217	207	220	357	289	261	300
818	CR Dhan 804	294	230	338	284	287	326
819	33218	270	224	330	277	275	284
820	33219	229	200	380	290	270	332
821	33220	251	221	271	246	248	302
822	33221	294	200	267	234	254	306
823	33222	227	221	296	259	248	316
824	33223	242	221	311	266	258	303
825	33224	329	218	331	275	293	333
826	CR Dhan 312	306	248	274	261	276	297
827	32103	285	250	279	265	271	315
828	33225	235	266	303	285	268	265
829	33226	323	207	357	282	296	287
830	33227	240	206	348	277	265	304
831	33228	294	224	361	293	293	307
832	33229	270	230	321	276	274	292
833	33230	327	182	242	212	250	281
834	33231	229	238	348	293	272	309
835	33232	283	220	232	226	245	268
836	Local Check	252	235	339	287	275	317
Mean		267	224	319	272	271	303

Annual Progress Report 2024 Vol. I – Varietal Improvement

**Grain yield of entries (kg/ha) in IVT-Rainfed Direct seeded- Mid duration (IVT-R-DS-M),
Kharif 2024 in various zone and on Overall basis**

Entry No	IET No	Zone III (7)		Zone IV	Zone V		Zone VII(3)		Overall		
		mean		TP	MP						
				LMB@	JBP		mean		mean		
801	33202	4791	6	5000		6375	2* 17%	7023	2	5544	
802	33203	5082	3 6%	5023		5750	3 6%	5579		5278	4
803	33204	4051		5295	7	6590	1* 21%	5624		4863	
804	33205	3478		4789		5176	6	5486		4180	
805	DRR Dhan 42	3562		4467		5428	5	5758		4331	
806	33206	4390		5067		4562		6528	5	4989	7
807	33207	3625		5806	4	5083	7	5733		4332	
808	33208	3864		5461	6	4932	8	6752	3	4749	
809	33209	4381		5217	8	3916		6008		4782	
810	33210	3578		4506		4809	10	5262		4149	
811	33211	4291		4100		3977		5907		4703	
812	33212	4036		4272		4691		4576		4243	
813	33213	4227		3744		3562		5281		4454	
814	33214	3715		4989		3762		4952		4056	
815	33215	3846		4795		3883		5248		4232	
816	33216	5446	1* 13%	5183	9	5603	4	5773		5550	1
817	33217	3959		4395		4638		4438		4151	
818	CR Dhan 804	2976		4317		3828		6166	8	4018	
819	33218	4022		5083	10	4594		5960		4603	
820	33219	4487	10	3484		3740		4679		4471	
821	33220	4806	4	4578		3955		6035	9	5064	6
822	33221	3839		4378		3783		5034		4160	
823	33222	3426		4467		3942		4815		3851	
824	33223	3201		6233	1.5	3416		4398		3547	
825	33224	4272		4083		3542		5610		4570	
826	CR Dhan 312	4802	5	4667		3410		7151	1	5316	3
827	32103	4003		3978		3564		4796		4197	
828	33225	4509	9	3483		3416		5742		4746	
829	33226	4360		4339		3925		6031	10	4776	
830	33227	3843		4473		3421		5196		4173	
831	33228	4625	7	5628	5	3553		5736		4831	
832	33229	4355		3972		3978		6727	4	4968	8
833	33230	5155	2 7%	4939		3709		5966		5245	5
834	33231	3968		5850	3	3318		6500	6	4599	
835	33232	4352		6233	1.5	4867	9	6344	7	4942	9
836	Local Check	4557	8	3717		4620		5712		4878	10
Exp. Mean		4163.07		4722.32		4314.24		5681.14		4598.19	
CD		476.34		1876.32		442.38		801.82		379.66	
CV%		5.64		19.57		5.05		6.95		4.07	
F		11.02		1.18		31.5		6.43		13.05	
P		<.0001		0.3124		<.0001		<.0001		<.0001	
S/NS		S		NS		S		S		S	
D/S				12-07-2024		20-06-2024					
D/P				TRC 2014-8		JR 206					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Grain yield of promising entries with checks (kg/ha) in IVT-Rainfed Direct seeded- Mid duration (IVT-R-DS-M), Kharif 2024 in various zone and on Overall basis

Entry No	IET No	Zone III (7)		Zone IV		Zone V		Zone VII(3)		Overall	
		mean		TP	MP	JBP		mean		mean	
				LMB@							
801	33202	4791	6	5000		6375	2* 17%	7023	2	5544	
803	33204	4051		5295	7	6590	1* 21%	5624		4863	
805	DRR Dhan 42	3562		4467		5428	5	5758		4331	
816	33216	5446	1* 13%	5183	9	5603	4	5773		5550	1
818	CR Dhan 804	2976		4317		3828		6166	8	4018	
826	CR Dhan 312	4802	5	4667		3410		7151	1	5316	3
836	Local Check	4557	8	3717		4620		5712		4878	10
Exp. Mean		4163.07		4722.32		4314.24		5681.14		4598.19	
CD		476.34		1876.32		442.38		801.82		379.66	
CV%		5.64		19.57		5.05		6.95		4.07	
F		11.02		1.18		31.5		6.43		13.05	
P		<.0001		0.3124		<.0001		<.0001		<.0001	
S/NS		S		NS		S		S		S	

Performance of promising entry with checks for grain yield(kg/ha), DFF, PH and panicles/m² in zone III

Entry No	IET No	Grain yield Kg ha ⁻¹ Zone III (7)		DFF(days)	PH (cm)	Panicles/m ²
		mean		mean	mean	mean
816	33216	5446	1* 13%	98	98.4	316
805	DRR Dhan 42	3562		89	96.6	327
818	CR Dhan 804	2976		85	75.1	262
826	CR Dhan 312	4802	5	96	98.8	370
836	Local Check	4557	8	96	110.4	349
	Expt.Mean	4163		95	109.7	312

Table 12. Performance of promising entries with checks for grain yield(kg/ha), DFF, PH and panicles/m² in zone VI

Entry No	IET No	Grain yield Kg ha ⁻¹ Zone V (1) JBP		DFF	PH (cm)	Panicles/m ²
		mean		mean	mean	mean
801	33202	6375	2* 17%	84	72.2	315
803	33204	6590	1* 21%	89	62.7	264
805	DRR Dhan 42	5428	5	76	59.2	207
818	CR Dhan 804	3828		93	56.7	164
826	CR Dhan 312	3410		88	56.4	135
836	Local Check	4620		82	59.6	180
	Expt.Mean	4314.		88	65.6	206

INITIAL VARIETY TRIAL- DIRECT SEEDED RAINFED SHALLOW LOWLAND (IVT-R-DS-L)

Locations: 04

Entries: 27

Checks: NC 1: Swarna sub-1, CR Dhan 802, Local check

The Initial Variety Pilot Trial- Direct seeded Rainfed Shallow Lowland -Late (IVT –RSL-DS-L) was constituted with the objective of identifying entries suitable for direct seeded rice in lowlands in general and Rainfed Shallow lowland (Late duration) in particular. Direct Seeded Rice (DSR) solves several potential problems of modern agriculture. It reduces water use by avoiding the need for continuous flooding, and thereby conserving this valuable resource. Moreover, manual labour savings are also substantial since DS eradicates the labour-intensive transplanting of seedlings.

The trial consisted of one entry of 2nd year of testing and remaining 26 entries as new nomination along with three checks. Swarna Sub1 and CR Dhan 802 were taken as National check along with a local check. The trial was sent to nine locations: five in zone III, one in Zone I, one in Zone V and 2 in Zone VII. Masodha, Sikkim and Pundibari did not conduct trial. Rest of the locations conducted the trial. The data were considered from all the locations, viz., Cuttack, Jeypore, Bikramganj (Zone III), Jabalpur (Zone V), Mugad and Ragalu (Zone VII).

The CV of the experiments ranged from 7.1 (Jabalpur) to 18.07 (Cuttack). Experimental mean varied from 2856 kg/ha at Cuttack to 6017 kg/ha at Ragolu. Overall mean yield of the entries varies from 3627 kg/ha (IET 33239) to 4954 kg/ha (IET 33257), days to 50% flowering varies from 88 days (IET 33244) to 113 days (IET 33251), plant height varies from 84 cm (IET 33247) to 132 cm (IET 33236) and no of panicles varies from 264 (IET 33242) to 340 (IET 33250).

Performance of the entry in AVT -1-R-DS-L, Kharif 2024

IET 32223 (CR 3494-1-2-1-2-1-1-3) derived from the cross of Lalat/IR 36 yielded 5070 kg/ha with 99 days to 50% flowering in Zone V and found significantly superior than the best check, Swarna Sub1 which yielded 4158 kg/ha in 88 days to 50% flowering. IET 32223 had 21% amylose content. But due to low HRR (45.6%) this line is discontinued.

Performance of entries in IVT- RSL-DS-L, Kharif 2024

On overall basis no entry was found significantly superior over the best check and in Zone III also no entry was found superior over the best check.

In Zone V, IET 33242, IET 33241 and IET 33257 and in Zone VII, IET 33248 were found significantly superior over the best check, Swarna Sub1.

IET 33242 with 5496 kg/ha grain yield in 82 days 50% flowering stood first in Jabalpur, MP. This was followed by IET 33241 which yielded 5292 kg/ha in 87 days to 50% flowering and IET 33257 which yielded 4890 kg/ha in 90 days to 50% flowering. These entries were found superior over the best check, Swarna Sub1 which yielded 4158 kg/ha in 88 days to 50% flowering. Therefore, IET 33241, IET 33242, IET 33257 are promoted to AVT-1 in Zone V.

In Zone VII, IET 33248 with 7240 kg/ha grain yield in 102 days to 50% flowering was

Annual Progress Report 2024 Vol. I – Varietal Improvement

significantly superior over the best check, Swarna Sub1 which yielded 6230 kg/ha with 107 days to 50% flowering and as well as over CR Dhan 802 which yielded 5573 kg/ha in 101 days to 50% flowering. This entry stood first with yield of 7979 kg/ha in Mugad, Karnataka. Therefore, IET 33248 is promoted to AVT-1 in Zone VII.

Performance of the promoted entries in IVT- RSL-DS-L, Kharif 2024

IET No/ Designation/ Cross Combination	Mean grain yield (kg/ha)/FD days			Remarks
	V	VII	Overall	
IET 33242 (MGD-24-23)	5496 106 (106)			Promoted in Zone-V
IET 33241 (CR 4477-2-3-2-1-1-2)	5292 87 (97)			Promoted in Zone-V
IET 33257 (CR 4205-226-52-50-7-1)	4890 88 (101)			Promoted in Zone-V
IET 33248 (CR4376-1-1-1-1-1-2)		7240 102 (103)		Promoted in Zone-VII
National check Swarna Sub1	4158 88 (106)	6230 107 (106)		
National Check CR Dhan 802	3306 101 (101)	5573 101 (101)		
Local check	3726 92 (108)	5513 116 (108)		
CD	590	930		

Entries promoted to AVT-1

- **Zone III:** Nil
- **Zone V:** IET 33241, IET 33242, IET 33257
- **Zone VII:** IET 33248
- Overall basis: Nil

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 9.1: Composition of entries in IVT-Rainfed Direct seeded- Late duration (IVT-R-DS-L), Kharif 2024

Entry no	IET no	Designation	Cross combination	Grain type
2nd year of testing				
901	32223	CR 3494-1-2-1-2-1-1-3	Lalat /IR 36	LB
1st year of testing				
902	33233	CR 4358-3-3-1-1-2-1	CR3543-6-3-1-2-1-1/CR 3510-12-1-1-2-2-1	MS
903	CR Dhan 802			
904	33234	CR-2860-S-B-96-1-1	Varshadhan/SR 26B	MS
905	33235	CR 4454-4-3-3-1-1	// Swarna Sub 1RanidhanXCR Dhan 800	MS
906	33236	MGD 24-3	BPT 5204 X Antrasali 11	SB
907	33237	CR 3993-33-58-7-5	CR 1009 /O. brachyantha//CR 1009	MS
908	33238	PAN-804DS	Pan-804/Swarna*Pan-804	SB
909	33239	CR 3848-18-3-1-1-1	Guntabhidhan/CR Dhan 203	LS
910	33240	CR 3993-13-14-88-15	CR 1009 /O. brachyantha//CR 1009	SB
911	Swarna Sub1			
912	33241	CR4477-2-3-2-1-1-2	CR3511-3-2-2-5-1-1/CR 3557-2-1-1-1-1-1	MS
913	33242	MGD-24-23	BPT 5204 X Doddiga-34	SB
914	33243	CR4353-2-2-1-1-1-2	CR3561-3-2-1-1-1/CR3504-5-3-1-1-1-1-2	MS
915	33244	CR-3478-1-M-3-1-5-1-2	MTU1010/KORGUT//IR64/FL478//IR-73931-40-1-2-3-2-22-1	MB
916	33245	CR4314-1-1-1-1-2-2	CR3755-1-3-1-2-1-1/CR 3561-5-1-1-1-1-1-3	MS
917	33246	NDR 2024-TFR-14	BPT 5204 Mutant	LS
918	33247	CR3783-1-3-2-1-1-2	Surendra/Abhaya	MS
919	33248	CR4376-1-1-1-1-1-2	CR3553-15-1-1-1-1-1/CR3759-1-1-2-1-1	MS
920	33249	CR 4478-1-3-1-1-3-2	Tapaswini/CR 3494-15-1-1-1-1	MS
921	33250	CR4354-3-1-1-2-2-1	CR 3549-11-2-1-1-1/CR 3511-3-4-1-1-1-1	MB
922	33251	CR 4138-6-1-1-1	CR 2416-12-1-1-1/CR MAS 22-32-71	SB
923	33252	ORR 1825	IR 76561-AC-8-8 X CR 1009	MS
924	33253	CR 4630-9-1-1-1-1	CR Dhan 316/CR 3976-2-2-1-1-1	SB
925	33254	CR 6306-278-15-6-3	CR-3866-22-1/CR Dhan 307	MB
926	33255	CR 4410-6-3-1-1-1-2	CR 3580-7-3-1-2 -1/CR 3759-1-1-2-1-1	LB
927	33256	CR 3988-6-3-1-1-2	Pooja/AC38687	SB
928	33257	CR 4205-226-52-50-7-1	CR Dhan 307/O. longistaminata (AC-110404)	MB
929	33258	CR 4439-10-3-1-1	Pooja/CR Dhan 305	SB
930	Local Check			

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No.9.2 : Grain Yield (kg/ha) of IVT-RSL DS-L Kharif-2024

Entry No	IET No	Zone III								Zone III		Zone V		Zone VII				Zone VII		Overall	
		OD				OD(2)		BI		(3)	MP		AP		KA		(2)	(6)			
		CTK		JYP		mean		BKG			mean		JBP		RGL				MGD		mean
901	32223	2766		5880	2	4323	6	3896		4181	7	5070	3 *	6250		5811	10	6031	10	4946	2
902	33233	4261	3	5239	6	4750	2 8%	4210		4570	3	3906		5250		6715	3	5983		4930	3
903	CR Dhan 802	2371		3928		3150		4735	8	3678		3306		6100		5046		5573		4248	
904	33234	3982	4	4453		4218	7	3241		3892		4332	7	4100		4511		4306		4103	
905	33235	2899		4261		3580		4427		3862		3648		7500	4.5	4368		5934		4517	
906	33236	2552		4195		3374		3840		3529		3618		5850		5284		5567		4223	
907	33237	2891		4404		3648		4473	10	3923	10	3960		7200	6	4725		5963		4609	
908	33238	2052		3196		2624		5596	1	3615		4242		6900	8	6377	6	6639	4 7%	4727	7
909	33239	1246		3058		2152		3628		2644		3480		4950		5402		5176		3627	
910	33240	2229		3961		3095		5339	3	3843		3624		6450		6098	8	6274	7	4617	
911	Swarna Sub1	2124		3126		2625		4849	6	3366		4158		7150	7	5309		6230	8	4453	
912	33241	1475		5110	7	3293		3976		3520		5292	2 *	5500		4778		5139		4355	
913	33242	4840	1 *	3062		3951	8.5	2681		3528		5496	1 *	3700		4653		4177		4072	
914	33243	3017	10	4573		3795		4370		3987	9	3576		4850		5507		5179		4316	
915	33244	2681		3112		2897		3623		3139		4032		6150		5330		5740		4155	
916	33245	2635		4777	10	3706		4330		3914		4326	8	4650		6386	5	5518		4517	
917	33246	2440		3854		3147		4535	9	3610		4290	9	6300		6403	4	6352	6	4637	10
918	33247	2771		3356		3064		3092		3073		4590	6 10%	6550	9	6238	7	6394	5	4433	
919	33248	2172		5092	8	3632		3394		3553		3606		6500	10	7979	1*	7240	1*	4791	5
920	33249	2281		4596		3439		4324		3734		3960		5950		4618		5284		4288	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Entry No	IET No	Zone III						Zone III		Zone V		Zone VII				Zone VII		Overall			
		OD			OD(2)		BI		(3)		MP		AP		KA		(2)		(6)		
		CTK		JYP	mean		BKG		mean		JBP		RGL		MGD		mean		mean		
921	33250	3557	7	5624	3	4591	3	4809	7	4663	2	3534		5300		4509		4905		4556	
922	33251	3205	9	5623	4	4414	4			4414	5	3780		4900		4577		4739		4417	
923	33252	2836		4247		3542		4901	5	3995	8	4638	5 12%	7500	4.5	4461		5981		4764	6
924	33253	2612		4086		3349		4165		3621		3606		8050	1 13%	5572		6811	3 9%	4682	9
925	33254	2428		3102		2765		3742		3091		3660		7650	3 7%	4566		6108	9	4191	
926	33255	3245	8	4656		3951	8.5	3166		3689		3402		7800	2 9%	6066	9 14%	6933	2 11%	4723	8
927	33256	3718	6	5972	1	4845	1 10%	3389		4360	6	3828		4650		4734		4692		4382	
928	33257	4396	2	3491		3944	10	5585	2 6%	4491	4	4890	4 * 18%	5950		5412		5681		4954	1
929	33258	2235		5490	5	3863		2796		3507		4248	10	4400		6733	2 27%	5567		4317	
930	Local Check	3772	5	5041	9	4407	5	5254	4	4689	1	3726		6450		4575		5513		4803	4
Exp. Mean		2856.02		4351.9		3603.96		4150.29		3789		4060.8		6016.67		5424.47		5720.57		4478.17	
CD		1055.69		965.68		723.27		1140.39		538.59		589.57		929.31		1823.03		929.51		402.8	
CV%		18.07		10.85		9.81		13.41		6.95		7.1		7.55		16.43		7.94		4.4	
F		5.18		7.41		7.14		4.15		7.01		7.84		13.18		2.01		5.36		4.66	
P		<.0001		<.0001		<.0001		0.0002		<.0001		<.0001		<.0001		0.0329		<.0001		<.0001	
S/NS		S		S		S		S		S		S		S		S		S		S	
D/S		11.06.2024		12.07.24				15-07-2024				20-06-2024		4.7.2024		14.06.24					
Local Check Name		CR Dhan 801		Hasanta				R. M -1				JR 206		MTU 1318		Abhilash					

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 9.3 : Days to 50% Flowering of IVT-RSL DS-L Kharif-2024

Entry No	IET No	Zone III				Zone III (3)	Zone V	Zone VII		Zone VII (2)	Overall (6)
		OD		OD(2)	BI		MP	AP	KA		
		CTK	JYP	mean	BKG	mean	JBP	RGL	MGD	mean	mean
901	32223	96	112	104	95	101	99	95	99	97	99
902	33233	107	105	106	93	102	99	98	90	94	99
903	CR Dhan 802	96	114	105	98	103	101	97	104	101	101
904	33234	97	112	105	105	105	97	113	120	117	107
905	33235	101	114	108	98	104	105	103	108	106	105
906	33236	97	110	104	93	100	101	106	95	101	101
907	33237	97	112	105	93	101	89	97	91	94	97
908	33238	95	106	101	100	100	92	103	107	105	100
909	33239	98	106	102	82	95	79	88	90	89	90
910	33240	108	111	110	91	103	83	95	91	93	97
911	Swarna Sub1	107	124	116	105	112	88	104	109	107	106
912	33241	98	112	105	92	101	87	97	95	96	97
913	33242	95	123	109	107	108	82	112	119	116	106
914	33243	98	114	106	93	102	82	97	99	98	97
915	33244	99	106	103	80	95	81	78	89	84	88
916	33245	107	109	108	98	105	79	97	103	100	98
917	33246	98	113	106	106	106	84	98	107	103	100
918	33247	107	112	110	101	107	91	111	106	109	105
919	33248	103	114	109	95	104	106	100	103	102	103
920	33249	107	105	106	94	102	104	98	96	97	101
921	33250	110	112	111	98	107	101	105	107	106	105
922	33251	101	116	109		109	102	123	122	123	113
923	33252	105	116	111	98	106	104	103	105	104	105
924	33253	108	107	108	94	103	100	98	107	103	102
925	33254	108	111	110	97	105	101	99	107	103	103
926	33255	101	112	107	100	104	89	97	99	98	100
927	33256	95	117	106	107	106	93	112	111	112	106
928	33257	111	109	110	97	106	90	97	106	102	101
929	33258	103	115	109	107	108	88	114	116	115	107
930	Local Check	109	112	111	97	106	92	119	112	116	108
	Mean	102	112	107	97	104	93	102	104	103	102

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No.9.4 : Plant Height(cm) of IVT-RSL DS-L *Kharif*-2024

Entry No	IET No	Zone III				Zone III (3)	Zone V	Zone VII		Zone VII (2)	Overall (6)
		OD		OD(2)	BI		MP	AP	KA		
		CTK	JYP	mean	BKG	mean	JBP	RGL	MGD	mean	mean
901	32223	114	117	116	121	117	71	150	100	125	112
902	33233	139	106	123	126	124	72	136	82	109	110
903	CR Dhan 802	110	91	101	109	103	63	112	83	98	95
904	33234	142	106	124	126	125	59	132	116	124	114
905	33235	113	88	101	102	101	60	104	78	91	91
906	33236	149	143	146	116	136	87	175	119	147	132
907	33237	128	104	116	121	118	68	112	87	100	103
908	33238	130	112	121	116	119	61	118	70	94	101
909	33239	135	109	122	127	124	66	125	90	108	109
910	33240	134	108	121	127	123	75	126	88	107	110
911	Swarna Sub1	126	83	105	110	106	57	94	77	86	91
912	33241	139	103	121	127	123	62	127	78	103	106
913	33242	131	155	143	157	148	61	164	117	141	131
914	33243	125	107	116	127	120	71	148	78	113	109
915	33244	138	106	122	128	124	67	120	75	98	106
916	33245	116	87	102	108	104	60	114	66	90	92
917	33246	109	98	104	113	107	61	123	77	100	97
918	33247	124	84	104	85	98	44	103	64	84	84
919	33248	124	97	111	101	107	55	110	86	98	96
920	33249	141	110	126	110	120	75	135	99	117	112
921	33250	134	102	118	114	117	66	138	83	111	106
922	33251	123	89	106	.	106	57	102	67	85	88
923	33252	131	114	123	129	125	81	139	88	114	114
924	33253	130	102	116	102	111	64	128	72	100	100
925	33254	139	114	127	119	124	79	134	67	101	109
926	33255	140	107	124	132	126	86	161	97	129	121
927	33256	123	111	117	98	111	65	131	87	109	103
928	33257	126	110	118	108	115	72	119	77	98	102
929	33258	137	93	115	82	104	50	132	70	101	94
930	Local Check	134	103	119	108	115	64	116	105	111	105
Mean		129	105	118	115	117	66	128	85	106	105

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No.9.5 : Number of panicles/ sq m of IVT-RSL DS-L Kharif-2024

Entry No	IET No	Zone III				Zone III (3)	Zone V	Zone VII		Zone VII (2)	Overall (6)
		OD		OD(2)	BI		MP	AP	KA		
		CTK	JYP	mean	BKG	mean	JBP	RGL	MGD	mean	mean
901	32223	424	312	368	271	336	241	265	363	314	313
902	33233	337	275	306	250	287	301	242	324	283	288
903	CR Dhan 802	277	345	311	292	305	190	262	375	319	290
904	33234	323	298	311	321	314	195	268	397	333	300
905	33235	296	312	304	290	299	189	219	335	277	274
906	33236	370	275	323	315	320	204	243	343	293	292
907	33237	439	345	392	298	361	194	262	257	260	299
908	33238	259	295	277	313	289	156	223	381	302	271
909	33239	360	328	344	281	323	298	241	254	248	294
910	33240	352	325	339	283	320	238	282	363	323	307
911	Swarna Sub1	306	395	351	272	324	233	238	336	287	297
912	33241	454	258	356	281	331	245	291	362	327	315
913	33242	322	248	285	232	267	198	246	339	293	264
914	33243	308	317	313	311	312	259	205	281	243	280
915	33244	275	311	293	304	297	210	230	319	275	275
916	33245	260	301	281	317	293	252	227	295	261	275
917	33246	370	271	321	384	342	225	246	294	270	298
918	33247	377	308	343	323	336	227	340	335	338	318
919	33248	286	321	304	304	304	185	319	369	344	297
920	33249	313	351	332	321	328	257	237	348	293	305
921	33250	425	372	399	360	386	224	329	332	331	340
922	33251	382	319	351		351	193	333	339	336	313
923	33252	341	221	281	318	293	318	264	292	278	292
924	33253	255	295	275	322	291	277	281	279	280	285
925	33254	287	258	273	283	276	310	244	281	263	277
926	33255	313	359	336	295	322	301	203	276	240	291
927	33256	332	302	317	290	308	184	252	275	264	273
928	33257	235	295	265	381	304	298	203	344	274	293
929	33258	397	298	348	363	353	206	332	317	325	319
930	Local Check	421	228	325	311	320	289	308	343	326	317
Mean		337	305	321	306	316	237	261	325	293	295

Table No 9.6: Grain Quality characteristics of entries in IVT-R-DS-L Kharif 2024 at CRRRI, Cuttack

Entry No	IET No	Hull	Mill	HRR	KL	KB	L/B	KLA C	ER	WU	VE R	AS V	GC	AC	GT
901	32223	81.00	66.00	45.60	5.57	2.40	2.32	9.98	1.79	145.00	4.00	5.00	57.00	21.00	SB
903	CR Dhan 802	80.20	67.00	53.40	5.68	2.10	2.70	10.15	1.79	155.00	4.00	6.00	61.20	20.50	SB
911	Swarna Sub 1	79.30	68.00	55.20	5.47	2.40	2.28	9.82	1.80	165.00	4.00	5.00	58.90	22.30	SB
930	Local Check	78.20	66.00	51.20	5.32	2.30	2.31	9.58	1.80	185.00	4.00	6.00	61.80	20.40	SB

**ADVANCE VARIETY TRIAL 1- NIL (SUBMERGENCE) (AVT 1-NIL
SUB)**

Locations : 08 **Test Entries: 14**
Entries : NILs: 08; RPs: 04; Sensitive Check: 02
Checks/ : RP: Varshadhan, Rajendra Sweta, Sabour Shree
Recurrent/ Swarna sub1 (RP &TC)
Donor Swarna & MTU 1010 (Sensitive Checks)
Parents

This trial includes 08 NILs along with their respective recurrent parents (4). The IETs 32123 and 32124 were sister lines from the cross Swarna Sub 1*4 / Robin and were in the second year of testing. The NILs derived from Sabour Shree (IETs 32121 and 32122) were also in the second year of testing. The IETs 29026 and 29031 were sister lines from the cross Varshadhan*3/IR 49830-7 and were tested as repeat entries. The NILs derived from Rajendra Sweta (IETs 33261) and Sabour Shree (IETs 33262) were in the first year of testing.

The data pertaining to yield, days to 50% flowering, plant height, panicles/m² are presented in **Tables** .

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 eight locations. The trial was damaged at Sabour. The data from Cuttack was not considered as only one replication data was available. The data from Masodha was not considered due to very high percentage of seedling survival of the sensitive check (MTU 1010). The data from Maruteru, Aduturai and Karaikal were not considered as there was no significant difference between the sensitive check (MTU 1010) and tolerant check (Swarna Sub1) with respect to seedling survival. The data from Sirsi was not considered as there was no submergence stress and only 5-10 cm of water depth was maintained. Hence, data received from Bikramganj was only considered for analysis.

Based on mean yield under submergence stress condition during *kharif* 2024, all the three NILs of Sabour Shree (IETs 32121, 32122 and 33262) were found to be significantly superior to their recurrent parent. The NILs of Varshadhan (IETs 29031 and 29026) and Rajendra Sweta (IET 33261) performed at par with recurrent parent for yield under submergence. As IET 32124 and IET 32123 were Swarna sub1 NILs introgressed with herbicide tolerance gene, the purpose of testing these two genotypes were to check the effect of Sub1 gene only. In this context, both these entries were found significantly superior to Swarna.

With respect to mean seedling survival percentage under submergence stress, all the tested NILs derived from Varshadhan, Sabour Shree and Rajendra Sweta performed better than their respective recurrent parents and both the sensitive checks. However, the NIL of Rajendra Sweta (IET 33261) was showing low seedling survival (31%) under submergence condition.

The NILs derived from Swarna Sub 1 (IET 32124 and 32123) were found significantly superior than the sensitive checks (Swarna and MTU 1010) for seedling survival percentage.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Summary of two years performance of entries found promising in AVT-1 NIL-Submergence

The NILs derived from Sabour Shree (IETs 32121, 32122) performed significantly better for grain yield under submergence stress than the recurrent parent in 2024. The yield was higher than recurrent parent in 2023, but not significantly superior. The seedling survival percentage under submergence was better than its recurrent parent in both the years. Hence both the NILs of Sabour Shree (IETs 32121 and 32122) were found to be promising under submergence stress.

All the two NILs derived from Varshadhan (IETs 29031 and 29026) performed significantly better than the recurrent parent with regard to yield and seedling survival under submergence stress in 2023. However, in 2024, both the NILs were found to be at par with the recurrent parent for yield and seedling survival percentage.

The herbicide tolerant NILs IET 32124 and IET 32123 developed in Swarna Sub1 background performed significantly better than Swarna with regard to yield and seedling survival under submergence stress in both the years. However, they were found to be at par with Swarna Sub1 over the years.

Grain yield (Kg/ha) of NIL entries in AVT-1 NIL- SUB along with their recurrent parents under submergence stress condition, *kharif*, 2024

IET No.	BKG	CTK@	MSD@	MTU@	KRK@	ADT@	SRS@	Mean
32121 (Sabour Shree -NIL)	4745	2614	3655	1579	1693	2204	5225	4745*
32122 (Sabour Shree -NIL)	5261	2209	2796	1730	1930	2191	6250	5261*
33262 (Sabour Shree -NIL)	4966	1451	1825	439	3385	2043	3850	4966*
Sabour Shree (RP)	2104	1000	3137	0	0	2258	4100	2104
29026 (Varshadhan -NIL)	4488	1209	1677	2136	1645	2150	6788	4488
29031 (Varshadhan -NIL)	5039	1831	4383	3599	1445	2164	6488	5039
Varshadhan (RP)	4569		4585	670	0	2043	7288	4569
32124 (Swarna sub-1 -NIL)	4321	1611	0	0	1520	2231	4725	4321
32123 (Swarna sub-1 -NIL)	3792	2354	0	0	3945	2312	3188	3792
Swarna sub-1 (RP &TC)	5158	1906	1778	3030	4220	2177	4788	5158
33261 (Rajendra Sweta -NIL)	2312	760	2005	965	0	2285	2438	2312
Rajendra Sweta (RP)	2056		3573	2450	0	2043	5800	2056
Swarna (Sensitive check 1)	1787		1397				3750	1787
MTU 1010 (Sensitive Check 2)	2168	1243	4550	1970	4262	2312	5063	2168
Exp. Mean	3769.05	1653.45	2525.88	1428.36	1849.62	2185.62	4981.25	3769.05
CD	1014.34		181.25	416.09	438.17	515.32	1520.2	1014.34

*Significantly ($p < 0.05$) superior over the recurrent parent

@Not considered for analysis due to high seedling survival under submergence stress or un acceptable CV%

Annual Progress Report 2024 Vol. I – Varietal Improvement

Seedling Survival percentage of NIL entries in AVT-1 NIL- SUB over their recurrent parents under submergence stress condition, *kharif*, 2024

Recurrent Parent	NIL- IET No.	NIL-Seedling Survival (%)							RP-Seedling Survival (%)							% recurrent parent	% over susceptible check 1	% over susceptible check 2		
		CTK@	BKG	KRK@	MTU@	MSD@	ADT@	SRS@	Mean	CTK@	BKG	KRK@	MTU@	MSD@	ADT@				SRS@	Mean
Sabour Shree	32121	27.27	76.50	52.16	11.53	40.00	55.00		76.50	2.44	29.00	0	0	32.33	48.33		29.00	163.79	188.68	188.68
	32122	44.35	78.50	40.51	8.84	20.00	61.67		78.50	2.44	29.00	0	0	32.33	48.33		29.00	170.69	196.23	196.23
	33262	42.28	77.00	82.15	3.45	15.33	58.33		77.00	2.44	29.00	0	0	32.33	48.33		29.00	165.52	190.57	190.57
Varshadhan	29026	47.93	79.50	49.18	22.73	22.67	50.00		79.50		79.00	0	14.14	70.00	41.67		79.00	0.63	200.00	200.00
	29031	70.08	82.50	50.69	24.92	82.33	48.33		82.50		79.00	0	14.14	70.00	41.67		79.00	4.43	211.32	211.32
Swarna sub-1	32124	63.49	73.50	48.50	0	0	53.33		73.50	57.27	79.50	76.48	16.41	14.33	58.33		79.50	-7.55	177.36	177.36
	32123	29.00	69.00	80.30	0	0	58.33		69.00	57.27	79.50	76.48	16.41	14.33	58.33		79.50	-13.21	160.38	160.38
Rajendra Sweta	33261	20.00	31.00	0	10.27	27.67	55.00		31.00		29.00	0	17.68	45.33	46.67		29.00	6.90	16.98	16.98
Swarna (Sensitive check 1)			26.50		NG	9.67	NG		26.50											
MTU 1010 (Sensitive Check 2)		14.29	26.50	75.14	13.80	75.33	51.67		26.50											

Annual Progress Report 2024 Vol. I – Varietal Improvement

Details of water regime (cm) at different centers in AVT 1 NIL-Sub, Kharif 2024

Location	Week	June	July	August	September	October	November	December
Maruteru	1 st				85	35	30	
	2 nd			20	85	30	30	
	3 rd			37	20	30	20	
	4 th			35	20	30	20	
Average								
Sirsi	1 st		5-10	5-10	5-10	5-10		
	2 nd		5-10	5-10	5-10	5-10		
	3 rd		5-10	5-10	5-10			
	4 th		5-10	5-10	5-10			
Average								
Cuttack	1 st	nil	nil	nil	80			
	2 nd	nil	nil	nil	80			
	3 rd	nil	nil	nil				
	4 th	nil	nil	nil				
Average								
Masodha	1 st				30	50	7	
	2 nd			20	50	30	5	
	3 rd			40	55	18		
	4 th			35	70	10		
Average								

Adaptability parameters of entries in AVT 1-NIL- Sub, Kharif 2024

Entry No.	Elongation Ability				Kneeing ability			
	BKG	MTU	MSD	ADT	BKG	MTU	MSD	ADT
6301	7	No survival		5	3			3
6302	7	9	3	5	3	5	3	5
6303	5	No survival		3	3			3
6304	5	9	1	7	5	3	0	5
6305	3	No survival	1	7	1		1	3
6306	5	5	3	7	5	5	3	5
6307	3	9	3	5	1	5	1	5
6308	5	9	3	5	5	5	3	3
6309	5	5	1	7	5	5	1	5
6310	5	5	3	9	5	5	3	5
6311	3	9	1	5	3	5	3	3
6312	3	Germination failed	0		1		0	
6313	3	9	1	5	1	5	3	5
6314	7	9	1	5	5	5	1	7

Annual Progress Report 2024 Vol. I – Varietal Improvement

(Contd.)Adaptability parameters of entries in AVT 1-NIL- Sub, Kharif 2024

Entry No.	Grain Shattering				Phenotypic Acceptability			
	BKG	MTU	MSD	ADT	BKG	MTU	MSD	ADT
6301	5			5	3			5
6302	5	5	1	3	3	5	5	7
6303	5			5	3			3
6304	5	5	1	5	3	3	7	7
6305	7		1	5	5		5	5
6306	5	3	1	7	5	5	5	7
6307	7	3	1	3	5	5	3	3
6308	3	5	3	5	5	5	7	3
6309	7	3	1	5	3	3	1	7
6310	3	3	1	5	3	5	3	7
6311	3	5	1	5	7	3	5	5
6312	3		1		7		9	
6313	3	5	1	5	7	5	3	3
6314	5	5	0	5	7	3	7	3

(Contd.)Adaptability parameters of entries in AVT 1-NIL- Sub, Kharif 2024

Entry No.	Submergence score		Regeneration score(%)	
	BKG	MTU	MSD	ADT
6301	86	9		45
6302	88	5	20	50
6303	85	9		55
6304	88	5	15	60
6305	32	9	25	50
6306	84	5	15	50
6307	32	5	45	50
6308	90	3	20	55
6309	92	3	50	50
6310	85	7	68	45
6311	34	7	20	50
6312	26		5	
6313	33	5	35	45
6314	85	7	10	55

Annual Progress Report 2024 Vol. I – Varietal Improvement

Overall performance of NILs those are in the second year of testing in AVT 1-NIL-Sub

IET No./ Designation/Cross combination of NIL	2023						2024			
	BKG		KRK		MEAN		BKG		MEAN	
	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP
IET 32121 (BRR0263) Sabour Shree X Swarna Sub 1	4482	4943	4150	1367	4316	3155	4745	2104	4745*	2104
IET 32122 (BRR0266) Sabour Shree X Swarna Sub 1	4508	4943	3125	1367	3817	3155	5261	2104	5261*	2104
IET 29031 (CR 2538-42-17-32-3-2) Varshadhan*3/ IR49830-7	4595	3135	3942	1428	4269*	2282	5039	4569	5039	4569
IET 29026 (CR 2538-42-17-32-3-3) Varshadhan*3/IR49830-7	4655	3135	3392	1428	4024*	2282	4488	4569	4488	4569
IET 32124 (CR 4430-13-19-1-1) Swarna Sub 1*4/ Robin	5175	5736	3942	3850	4559	4793	4321	5158	4321	5158
IET 32123 (CR 4430-1-3-2-1) Swarna Sub 1*4/ Robin	5680	5736	3550	3850	4615	4793	3792	5158	3792	5158
Exp. Mean	3858.89		2912.46		3325.00		3769.05		3769.05	
CD	1038.91		679.78		626.83		1014.34		1014.34	

Overall performance in seedling survival percentage of NILs those are in the second year of testing in AVT 1-NIL-Sub

IET No./ Designation/ Cross combination	Year	Seedling Survival (%) under submergence condition		
		RP survival	NIL survival	% over RP
IET 32121 (BRR0263) Sabour Shree X Swarna Sub 1	2024	BKG 29.00 Overall 29.00	BKG 76.50 Overall 76.50	BKG 163.79 Overall 163.79
	2023	BKG 88 KRK 83.91 Overall 85.96	BKG 58 KRK 51.08 Overall 54.54	BKG 51.72 KRK 64.27 Overall 57.60
IET 32122 (BRR0263) Sabour Shree X Swarna Sub 1)	2024	BKG 29.00 Overall 29.00	BKG 78.50 Overall 78.50	BKG 170.69 Overall 170.69
	2023	BKG 58 KRK 51.08 Overall 54.54	BKG 82 KRK 83.85 Overall 82.93	BKG 41.37 KRK 64.15 Overall 57.60
IET 29026 (CR 2538-42-17-32-3-3) Varshadhan*3/IR4983 0-7	2024	BKG 79.00 Overall 79.00	BKG 79.50 Overall 79.50	BKG 0.63 Overall 0.63
	2023	BKG 44 KRK 53.96 Overall 48.98	BKG 74 KRK 87.98 Overall 80.99	BKG 68.18 KRK 63.04 Overall 65.35
IET 29031 (CR 2538-42-17-32-3-2) Varshadhan*3/IR4983 0-7	2024	BKG 79.00 Overall 79.00	BKG 82.50 Overall 82.50	BKG 4.43 Overall 4.43
	2023	BKG 44 KRK 53.96 Overall 48.98	BKG 84 KRK 82.30 Overall 83.15	BKG 90.90 KRK 53.96 Overall 65.35
IET 32124 (CR 4430-13-19-1-1) Swarna Sub 1*4 / Robin	2024	BKG 79.50 Overall 79.50	BKG 73.50 Overall 73.50	BKG -7.55 Overall -7.55
	2023	BKG 90 KRK 79.9 Overall 84.95	BKG 88 KRK 87.90 Overall 87.95	BKG -2.22 KRK 10.01 Overall 3.53
IET 32123 (CR 4430-1-3-2-1) Swarna Sub 1*4 / Robin	2024	BKG 79.50 Overall 79.50	BKG 69.00 Overall 69.00	BKG -13.12 Overall -13.12
	2023	BKG 90 KRK 79.9 Overall 84.95	BKG 82 KRK 84.58 Overall 83.29	BKG -8.88 KRK 5.58 Overall -1.95

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No.63.1: Composition of entries in Advance Variety Trial 1- Near Isogenic Lines -Submergence (AVT 1-NIL SUB), *kharif* 2024

Entry No.	IET No.	Designation	Cross Combination	Grain Type
2nd year of testing				
6301	32124	CR 4430-13-19-1-1	Swarna Sub 1*4 / Robin	MS
6302	32121	BRR0263	Sabour Shree X Swarna Sub 1	MS
6303	32123	CR 4430-1-3-2-1	Swarna Sub 1*4 / Robin	MS
6304	32122	BRR0266	Sabour Shree X Swarna Sub 1	MS
6305	Sabour Shree (RP)			
6306	29026	CR 2538-42-17-32-3-2	Varshadhan*3/IR49830-7	LB
6307	MTU 1010 (Sensitive Check 2)			
6308	Swarna Sub 1 (RP & TC)			
6309	29031	CR 2538-42-17-32-3-3	Varshadhan*3/IR49830-7	LB
6310	Varshadhan (RP)			
1st year of testing				
6311	33261	BRR0297	RajendraSweta X Swarna Sub 1	MS
6312	Swarna (Sensitive Check 1)			
6313	Rajendra Sweta (RP)			
6314	33262	BRR0298	Sabour Shree X Swarna Sub 1	MS

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 63.2: Grain Yield (Kg/ha) of entries in AVT-1 NIL SUB Kharif 2024

Entry No	IET No					Zone III		Zone VII				Overall (1)	
		BI		OD	UP	(1)		AP	PU	TN	KA	(1)	
		BKG		CTK@	MSD@	mean		MTU@	KRK@	ADT@	SRS@	mean	
6301	32124	4321	8 * 99%	1611	0	4321	8 * 99%	0	1520	2231	4725	4321	8 * 99%
6302	32121	4745	5 * 119%	2614	3655	4745	5 * 119%	1579	1693	2204	5225	4745	5 * 119%
6303	32123	3792	9 * 75%	2354	0	3792	9 * 75%	0	3945	2312	3188	3792	9 * 75%
6304	32122	5261	1 * 143%	2209	2796	5261	1 * 143%	1730	1930	2191	6250	5261	1 * 143%
6305	Sabour Shree (RP)	2104		1000	3137	2104		0	0	2258	4100	2104	
6306	29026	4488	7 * 107%	1209	1677	4488	7 * 107%	2136	1645	2150	6788	4488	7 * 107%
6307	MTU 1010 (Sensitive Check 2)	2168		1243	4550	2168		1970	4262	2312	5063	2168	
6308	Swarna Sub 1 (RP & TC)	5158	2 * 138%	1906	1778	5158	2 * 138%	3030	4220	2177	4788	5158	2 * 138%
6309	29031	5039	3 * 132%	1831	4383	5039	3 * 132%	3599	1445	2164	6488	5039	3 * 132%
6310	Varshadhan (RP)	4569	6 * 111%		4585	4569	6 * 111%	670	0	2043	7288	4569	6 * 111%
6311	33261	2312	10 7%	760	2005	2312	10 7%	965	0	2285	2438	2312	10 7%
6312	Swarna (Sensitive Check 1)	1787			1397	1787					3750	1787	
6313	Rajendra Sweta (RP)	2056			3573	2056		2450	0	2043	5800	2056	
6314	33262	4966	4 * 129%	1451	1825	4966	4 * 129%	439	3385	2043	3850	4966	4 * 129%
Exp. Mean		3769.05		1653.45	2525.88	3769.05		1428.36	1849.62	2185.62	4981.25	3769.05	
CD		1014.34			181.25	1014.34		416.09	438.17	515.32	1520.2	1014.34	
CV%		16.04			4.275476	16.04		17.28635	14.05777	13.99	14.12659	16.04	
F value		15.13			607.14	15.13		70.21	119.12	0.3	8.25	15.13	
P value		<.0001			<.0001	<.0001		<.0001	<.0001	0.9832	0.0003	<.0001	
S/NS		S			S	S		S	S	NS	S	S	
D/S		29-06-2024			16.07.2024			10.07.24	02-09-2024	29.07.2024	26-06-2024		
D/P		01-08-2024			16.08.2024			13.08.24	14-10-2024	29.08.2024	16-07-2024		

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 63.3: Days to 50 % flowering of entries in AVT-1 NIL-SUB Kharif, 2024

Entry No	IET NO	Zone III			Zone III (1)	Zone VII				Overall (1)
		BI	OD	UP		AP	PU	TN	KA	
		BKG	CTK@	MSD@	mean	MTU@	KRK@	ADT@	SRS@	mean
6301	32124	74	70		74		73	92	89	74
6302	32121	120	80	105	120	104	96	120	100	120
6303	32123	77	70		77		64	93	84	77
6304	32122	122	102	120	122	65	79	123	106	122
6305	Sabour Shree (RP)	118	85	100	118			127	90	118
6306	29026	146	101	112	146	116	109	158	141	146
6307	MTU 1010 (Sensitive Check 2)	96	77	101	96	65	106	91	92	96
6308	Swarna Sub 1 (RP & TC)	78	66	80	78	62	65	97	83	78
6309	29031	139	120	120	139	96	109	120	139	139
6310	Varshadhan (RP)	121		130	121	110		133	134	121
6311	33261	75	64	103	75	65		98	68	75
6312	Swarna (Sensitive Check 1)	69		122	69				69	69
6313	Rajendra Sweta (RP)	74		130	74	65		92	92	74
6314	33262	111	82	102	111	63	74	104	87	111
Mean		101	83	110	101	81	86	111	98	101

Table No. 63.4 : Plant height of entries in AVT-1 NIL-SUB Kharif, 2024

Entry No	IET No	Zone III			Zone III (1)	Zone VII				Overall (1)
		BI	OD	UP		AP	PU	TN	KA	
		BKG	CTK@	MSD@	mean	MTU@	KRK@	ADT@	SRS@	mean
6301	32124	128	125		128		93	110	114	128
6302	32121	122	127	115	122	126	93	110	110	122
6303	32123	126	123		126		94	113	114	126
6304	32122	121	113	119	121	105	95	110	106	121
6305	Sabour Shree (RP)	129	127	116	129			106	106	129
6306	29026	134	113	118	134	124	91	116	122	134
6307	MTU 1010 (Sensitive Check 2)	116	130	116	116	104	91	117	87	116
6308	Swarna Sub 1 (RP & TC)	129	125	121	129	120	89	113	114	129
6309	29031	133	116	119	133	122	97	104	119	133
6310	Varshadhan (RP)	133		118	133	124		112	128	133
6311	33261	114	123	121	114	103		115	101	114
6312	Swarna (Sensitive Check 1)	132		119	132				110	132
6313	Rajendra Sweta (RP)	114		121	114	114		120	110	114
6314	33262	115	125	121	115	118	103	113	110	115
Mean		125	122	119	125	116	94	112	111	125

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No. 63.5: No. of Panicle/m² of entries in AVT-1 NIL-SUB Kharif, 2024

Entry No	IET NO	Zone III			Zone III (1)	Zone VII				Overall I (1)
		BI	OD	UP		AP	PU	TN	KA	
		BKG	CTK @	MSD @	mean	MTU @	KRK @	ADT @	SRS @	mean
6301	32124	181	391		181		197	235	426	181
6302	32121	128	515	221	128	149	216	262	390	128
6303	32123	218	450		218		469	246	400	218
6304	32122	186	350	200	186	99	207	340	350	186
6305	Sabour Shree (RP)	151	206	233	151			322	386	151
6306	29026	229	210	169	229	162	135	278	294	229
6307	MTU 1010 (Sensitive Check 2)	144	340	283	144	147	405	261	370	144
6308	Swarna Sub 1 (RP & TC)	222	425	189	222	114	452	328	446	222
6309	29031	186	300	295	186	183	123	301	340	186
6310	Varshadhan (RP)	237		286	237	151		297	320	237
6311	33261	195	235	186	195	176		256	453	195
6312	Swarna (Sensitive Check 1)	165		139	165				502	165
6313	Rajendra Sweta (RP)	173		251	173	158		242	393	173
6314	33262	166	410	195	166	116	342	334	350	166
Mean		184	348	221	184	146	283	285	387	184

**ADVANCE VARIETY TRIAL 1-NEAR ISOGENIC LINES-DROUGHT
(AVT1-NIL-DRT)**

Locations: 11

Test Entries: 06

Checks: **IR64** – Sensitive Check; **Sahbhagidhan** – Tolerant Check;
Vandana – National Check; **MTU 1010**: HYV Check.

Recurrent Parents: IR64, MTU100 and Improved Samba Mahsuri/ DRR Dhan 50

Advance variety trial 1-NIL (drought) was conducted across 11 locations (Four zones: Zone III, V, VI 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, 2024. Yield trials for the NIL entries along with its recurrent parents were conducted in the trials of respective ecologies for which those are notified.

Data of nine centers (Cuttack, Jeypore, Bikramganj, Ranchi, Hazaribagh, Raipur, Jabalpur, Rewa, Coimbatore and Mugad) were not considered due to lack of significant differences in yield levels of tolerant check and sensitive check. Data from Jabalpur despite significantly lower yield of was not considered as the mean yield of the trial was very high. Data from only one center (Vyra) was only considered for further analysis where trial was conducted under rainout shelter and highly significant differences in yield level was recorded between tolerant and susceptible checks and mean yield of trial was <3.0 t/ha. The criteria considered to accept or reject trial locations have been represented in following table. The CD values were calculated at 10% level.

Table: Criteria for selection or rejection of trial locations

Entry No	Genotype	Zone III					Zone V			ZONE VI	Zone VII		Over all (1)	
		OD		BI		JH		CG	MP		GU	TN		KA
		CTK	JYP	BKG	RCI	HZB	RPR	JBP	RE	VYR	CBT	MGD		mean
		@	@	@	@	@	@	W@		@	@			
6406	IR 64 (RP & Sensitive Check)	748	220	4163	396	2888	446	448	2747	1467	225	5409	1467	
6409	Sahbhagidhan (Tolerant Check)	635	204	4182	380	2337	279	637	2226	2496	223	3700	2496	
	Performance of Sensitive check over tolerant check	At-par					Superior	At-par	Superior	Inferior	At-par	Superior	-	
	Exp. Mean	656.44	209.49	4131.8	362.2	2315.19	476.0	475.19	3259.4	2403.9	208.86	4746.6	2403.9	
	CD VALUE	558.85	405.22	957.51	445.5	313.92	772.95	404.02	428.28	482.66	320.9	1297.98	482.66	
	CV%	50.28	11.42	13.69	7.26	8.01	93.81	5.02	7.76	11.86	9.07	16.15	11.86	

@ Data from the location not considered.
CD value was calculated at 10% level

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 64.1: Composition of entries in Advance Variety Trial 1- Near Isogenic Lines-Drought (AVT 1-NIL DRT), Kharif 2024

Entry No.	IET No.	Designation	Cross combination	Grain Type
1st year of testing				
6401	32982	RP 6828- GPV-1871-189-8-9-6	DRR Dhan 50*2/SAB-4-7-5	MS
6402	Vandana (NC)			
6403	32043	DST 2bp 20-4-14-14	MTU1010(Orsa/MTU1010/INDTODRT0236/20	LS
6404	DRR Dhan-50 (RP)			
6405	33265	CRR835-9-22-B	CRR 751-1-12/CRR750-6-B-B-1// CRR 744-74-41-B	LS
6406	IR 64 (RP & Sensitive Check)			
6407	MTU 1010 (RP)			
6408	32981	RP 6827-GPV-1500-177-7-2-1	DRR Dhan 50*2/SAB-4-7-5	MS
6409	Sahbhagidhan (Tolerant Check)			
6410	33266	CRR 835-8-5-B	CRR 751-1-12/CRR750-6-B-B-1// CRR 744-74-41-B	LS
6411	33267	RP 6829-GPV-2242-189-2 -24-10	DRR Dhan 50*2/SAB-4-7-5	MS
6412	Sambha Masuri (RP)			

Performance of NIL entries

NILs of IR64:

Two NILs of IR64 (IET 33265 and 33266) were tested against IR64 which is a recurrent parent as well as sensitive check. The genotypes showed significantly superior performance in comparison to recurrent parent for grain yield. Hence, the two NILs were considered as drought tolerant.

Table: Comparative grain yield of NILs of IR64 against the recurrent parent in Advance Variety Trial 1- Near Isogenic Lines-Drought (AVT 1-NIL DRT), Kharif 2024.

Entry No.	IET No.	Genotype	Grain yield (Kg/ha)	Remarks	IR64 + CD value
6405	33265	NIL-IR64	2052*	Superior to IR64	1949.66
6410	33266	NIL-IR64	2502*	Superior to IR64	1949.66
6406	-	IR64 (RP)	1467		

NIL of MTU 1010:

One MTU1010 NIL entry (IET32043) was tested against the recurrent parent. It showed inferior performance compared to the recurrent parent in term of grain yield. Hence, it was not considered as drought tolerant, hence not promising.

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table: Comparative grain yield of NILs of MTU1010 against the recurrent parent in Advance Variety Trial 1- Near Isogenic Lines-Drought (AVT 1-NIL DRT), *Kharif* 2024.

Entry No.	IET No.	Genotype	Grain yield (Kg/ha)	Remarks	MTU 1010 - CD value
6403	IET 32043	NIL-MTU1010	1689	Inferior to MTU 1010	1878.34
6407	-	MTU1010 (RP)	2361		

NIL of DRR Dhan 50/Sambha Mahsuri:

Three NIL entries of **DRR Dhan 50/Sambha Mahsuri** (IET 32981, 32982 and 33267) was tested against the recurrent parent. All the three entries showed inferior performance compared to the recurrent parent Sambha Mahsuri in term of grain yield. In comparison to DRR Dhan 50, IET 32982 showed inferior performance. The other two NIL entries (IET 32981 and 33267) showed inferior performance. Hence, none of the entries were considered as drought tolerant, or promising

Table: Comparative grain yield of NILs of DRR Dhan 50/Sambha Mahsuri against the recurrent parent in Advance Variety Trial 1- Near Isogenic Lines-Drought (AVT 1-NIL DRT), *Kharif* 2024.

Entry No.	IET No.	Genotype	Grain yield (Kg/ha)	Remarks	Sambha Mahsuri + CD VALUE	Sambha Mahsuri - CD VALUE	DRR Dhan 50 + CD VALUE	DRR Dhan 50 - CD VALUE
6401	32982	NIL-DRR Dhan 50/Sambha Mahsuri	2084	Inferior to DRR Dhan 50 and Sambha Mahsuri	4181.66	3216.34	3105.66	2140.34
6408	32981	NIL-DRR Dhan 50	2491	At-par to DRR Dhan 50 and	4181.66	3216.34	3105.66	2140.34
6411	33267	NIL-DRR Dhan 50	2468	Inferior to Sambha Mahsuri	4181.66	3216.34	3105.66	2140.34
6404		DRR Dhan-50 (RP)	2623	Inferior to Sambha Mahsuri	4181.66			
6412		Sambha Mahsuri (RP)	3699	Superior to DRR Dhan 50				

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 64.2: Grain yield of entries in Advance Variety Trial 1- Near Isogenic Lines-Drought (AVT 1-NIL DRT), Kharif 2024.

Entry No	IET No	Zone III									
		OD				BI		JH			
		<u>CTK@</u>		<u>JYP@</u>		<u>BKG@</u>		<u>RCI@</u>		<u>HZB@</u>	
6401	32982	642	6	1795	10	4169	6	3600	7	2112	8
6402	Vandana (NC)	548	10	2129	8	5347	2	4667	3	3223	1
6403	32043	741	5	2627	1 *	3654	9	3333	9	2443	4
6404	DRR Dhan-50 (RP)	990	1	1471		2822		1000		2222	7
6405	33265	619	9	2339	2	3461		3067	10	2002	9
6406	IR 64 (RP & Sensitive Check)	748	4	2205	5	4163	7	3967	4	2888	2
6407	MTU 1010 (RP)	821	3	2251	4	3862	8	3833	5	2557	3
6408	32981	365		2293	3	4745	3	4767	2	1945	10
6409	Sahbhagidhan (Tolerant Check)	635	7	2041	9	4182	5	3800	6	2337	5
6410	33266	883	2	1686		3540	10	3567	8	2275	6
6411	33267	252		2151	7	4245	4	5767	1 *	1834	
6412	Sambha Masuri (RP)	633	8	2152	6	5394	1	2100		1944	
Exp. Mean		656.44		2094.94		4131.79		3622.22		2315.19	
CD		558.85		405.22		957.51		445.5		313.92	
CV%		50.28		11.42		13.69		7.26		8.01	
F		1.17		5.12		4.41		66.13		14.94	
P		0.3596		0.0006		0.0105		<.0001		<.0001	
S/NS		NS		S		S		S		S	
D/S		07-08-2024		04.07.24		Direct		28.06.2024		26.06.2024	
D/P						19-07-2024		22.07.2024		10.08.2024	

Table No 64.2 (cont.): Grain yield of entries in Advance Variety Trial 1- Near Isogenic Lines-Drought (AVT 1-NIL DRT), Kharif 2024.

Entry No	IET No	Zone V						ZONE VI	
		CG		MP				GU	
		<u>RPR@</u>		<u>JBP@</u>		<u>REW@</u>		<u>VYR</u>	
6401	32982	0	8	3907	10	2783	8	2084	9
6402	Vandana (NC)	1262	-2	3120		4793	1	2915	2
6403	32043	409	3	4480	5.5	3542	5	1689	
6404	DRR Dhan-50 (RP)	1241	-1	5371	4	2619	10	2623	3
6405	33265	255	6	7009	1 *	3895	3	2052	10
6406	IR 64 (RP & Sensitive Check)	446	2	4480	5.5	2747	9	1467	
6407	MTU 1010 (RP)	475	1	6229	3	3718	4	2361	8
6408	32981	0	8	4424	8	2491		2491	6
6409	Sahbhagidhan (Tolerant Check)	279	4	6372	2	2226		2496	5
6410	33266	264	5	2885		3000	7	2502	4
6411	33267	0	8	4477	7	3082	6	2468	7
6412	Sambha Masuri (RP)	1082	0	4269	9	4218	2	3699	1 * 27%
Exp. Mean		476.03		4751.89		3259.44		2403.94	
CD		772.95		404.02		428.28		482.66	
CV%		93.81		5.02		7.76		11.86	
F		4.18		84.84		28.23		12.2	
P		0.0021		<.0001		<.0001		<.0001	
S/NS		S		S		S		S	
D/S		01.07.2024		02-07-2024		02.07.2024		26-06-2024	
D/P		28.07.2024		24-07-2024		10-08-2024		20-07-2024	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 64.2 (cont.): Grain yield of entries in Advance Variety Trial 1- Near Isogenic Lines-Drought (AVT 1-NIL DRT), Kharif 2024.

Entry No	IET No	Zone VII				Overall (1)	
		TN		KA			
		<u>CBT@</u>		<u>MGD@</u>		mean	
6401	32982	1859		5738	2	2084	9
6402	Vandana (NC)	1983	8	4064	10	2915	2
6403	32043	2100	7	5225	4	1689	
6404	DRR Dhan-50 (RP)	1877	10	4317	8	2623	3
6405	33265	2244	2	4225	9	2052	10
6406	IR 64 (RP & Sensitive Check)	2251	1	5409	3	1467	
6407	MTU 1010 (RP)	2228	5	4838	6	2361	8
6408	32981	1949	9	4929	5	2491	6
6409	Sahbhagidhan (Tolerant Check)	2233	4	3700		2496	5
6410	33266	2242	3	3627		2502	4
6411	33267	1874		4805	7	2468	7
6412	Sambha Masuri (RP)	2223	6	6083	1	3699	1 * 27%
Exp. Mean		2088.61		4746.58		2403.94	
CD		320.9		1297.98		482.66	
CV%		9.07		16.15		11.86	
F		2.32		3.13		12.2	
P		0.0443		0.0109		<.0001	
S/NS		S		S		S	
D/S		12.8.2024		18.06.24			
D/P		5.9.2024		Drill Sown			

Table No 64.3: Days to 50% flowering of entries in AVT 1-NIL DRT Kharif 2024

Entry No	IET No	Zone III					Zone V			Zone VI	Zone VII		Overall (1) mean
		OD		BI	JH		CG	MP		GU	TN	KA	
		<u>CTK@</u>	<u>JYP@</u>	<u>BKG@</u>	<u>RCI@</u>	<u>HZB@</u>	<u>RPR@</u>	<u>JBP@</u>	<u>REW@</u>	VYR	<u>CBT@</u>	<u>MGD@</u>	
		@	@	@	@	@	@	@	@		@	@	
6401	32982	75	97	91	101	100		85	86	90	77	106	90
6402	Vandana (NC)	78	93	84	83	91	85	90	88	74	85	103	74
6403	32043	72	89	83	78	88	85	78	84	70	76	99	70
6404	DRR Dhan-50 (RP)	104	102	101	119	113	100	86	89	98	77	106	98
6405	33265	76	88	79	78	90	85	94	85	76	79	104	76
6406	IR 64 (RP & Sensitive Check)	73	89	83	82	88	86	79	85	73	77	101	73
6407	MTU 1010 (RP)	73	89	81	82	88	86	91	83	69	79	99	69
6408	32981	76	102	91	102	97		83	81	90	83	104	90
6409	Sahbhagidhan (Tolerant Check)	66	88	80	77	83	81	93	85	68	68	100	68
6410	33266	72	102	81	77	89	84	79	85	76	80	101	76
6411	33267	79	101	94	100	100		82	89	90	84	101	90
6412	Sambha Masuri (RP)	104	99	96	127	120	100	82	89	102	77	107	102
Exp. Mean		79	95	87	92	96	88	85	86	81	79	103	81

Annual Progress Report 2024 Vol. I – Varietal Improvement

Table No 64.4: Plant Height (cm) of entries in AVT 1-NIL DRT Kharif 2024

Ent ry No	IET No	Zone III					Zone V			Zone VI	Zone VII		Over all (1)
		OD		BI	JH		CG	MP		GU	TN	KA	
		CTK @	JYP @	BKG @	RCI @	HZB @	RPR @	JBP @	REW @	VYR	CBT @	MGD @	mean
6401	32982	57	79	102	93	78	75	74	74	113	94	71	113
6402	Vandana (NC)	62	80	97	92	89	89	63	71	125	89	64	125
6403	32043	74	81	103	96	89	91	61	76	115	94	68	115
6404	DRR Dhan-50 (RP)	65	81	124	96	86	99	82	92	123	80	74	123
6405	33265	92	103	125	118	108	110	91	78	143	99	90	143
6406	IR 64 (RP & Sensitive Check)	58	74	112	93	85	77	64	82	112	94	71	112
6407	MTU 1010 (RP)	66	85	113	97	92	94	84	85	118	96	72	118
6408	32981	54	71	97	88	73	70	77	71	111	83	69	111
6409	Sahbhagidhan (Tolerant Check)	75	82	101	104	104	103	96	90	128	95	75	128
6410	33266	70	91	117	110	115	110	71	91	142	99	81	142
6411	33267	47	70	96	88	74	70	76	71	112	80	69	112
6412	Sambha Masuri (RP)	49	71	100	92	77	85	78	88	114	75	68	114
	Mean	64	81	107	97	89	89	76	81	121	90	73	121

Table No 64.5: Number of Panicles/m² of entries in AVT 1-NIL DRT Kharif 2024

Ent ry No	IET No	Zone III					Zone V			Zone VI	Zone VII		Over all (1)
		OD		BI	JH		CG	MP		GU	TN	KA	
		CTK @	JYP @	BKG @	RCI @	HZB @	RPR @	JBP @	REW @	VYR	CBT @	MGD @	mean
6401	32982	160	215	358	440	205	426	278	222	235	232	342	235
6402	Vandana (NC)	120	223	268	292	222	497	268	241	172	233	238	172
6403	32043	127	228	349	327	227	428	232	262	170	252	324	170
6404	DRR Dhan-50 (RP)	184	227	299	152	234	548	296	304	200	221	317	200
6405	33265	135	176	281	279	229	456	244	273	218	239	340	218
6406	IR 64 (RP & Sensitive Check)	143	259	275	378	222	461	263	303	189	224	302	189
6407	MTU 1010 (RP)	157	218	330	373	228	416	287	197	165	230	329	165
6408	32981	140	201	289	406	222	301	235	266	198	233	299	198
6409	Sahbhagidhan (Tolerant Check)	128	196	310	320	233	417	209	295	189	234	300	189
6410	33266	151	224	250	362	213	451	225	236	187	241	295	187
6411	33267	88	238	241	494	253	233	254	287	207	235	362	207
6412	Sambha Masuri (RP)	126	244	337	297	219	586	240	304	236	235	344	236
	Exp. Mean	138	221	299	343	226	435	253	266	197	234	316	197

AICRIP Monitoring Report, 2024

There were seven monitoring teams, those conducted monitoring of AICRIP trials during 2024 kharif. The first team comprised viz., Dr. Reshmiraj KR, Dr. Keerthana U, Mrs. Rubina Khanam and Dr. K. Suneetha and Dr. Annamalai. The team visited Cuttack, Bhubaneswar, Chiplima, Jeypore. There were 37 breeding trials, in ICAR- CRRI, Cuttack; 13 in OUAT, Bhubaneswar, 15 in OUAT, Chiplima and 20 in OUAT, Jeypore. Besides there were 4 agronomy trials at CRRI, Cuttack and 4 at OUAT, Chiplima. However, Bhubaneswar, OUAT could not conduct 2 breeding trials and Chiplima. All the conducted trials were in good condition. Similarly, there were 3 physiology trials and 2 soil science trials at ICAR-CRRI, Cuttack along with 15 pathology and 4 entomology trials. All the trials were conducted properly. The major issue in Cuttack was disease i.e., Sheath rot, Bacterial Leaf Blight and Grain discoloration/ dirty panicle. The major insect pest observed was stem borer, Leaf folder and Gundhi bug. In Chiplima, the major disease observed was sheath blight, brown spot and bacterial blight. No incidence of neck blast was observed in this season. The major insect pest was yellow stem borer and gall midge with less of leaf folder infestation. The administrative difficulty was manpower and fund release in time. In Bhubaneswar, High infection of brown spot was observed. Grain discoloration and sheath blight was also observed moderately. The Gundhibug infestation was observed in most of the trials. In OUAT, Jeypore, high incidence of false smut and brown spot was also observed. Gundhi bug and yellow stem borer infestation was observed in many of the field trials.



Fig1. Monitoring at ICAR-CRRI, Cuttack, Bhubaneswar, chiplima and Jeypore (left to right, top and bottom)

The second team comprised of Dr.Somnath Roy, Dr. S Mondal, Dr. (Mrs.) Sangita Mohanty and Dr. V Prakasam visited Ranchi, Hazaribagh, Hathwara, Bankura. They inspected 27 breeding,7 agronomy, 2 physiology, 15 pathology, 6 entomology trials in Ranchi; 8 breeding, 2 agronomy,1 soil science, 17 pathology, 1 entomology trials at Hazaribag; 10 breeding trials at Hathwara; 13 breeding, 4 agronomy, 5 pathology trials at Bankura. Most of the trials conducted properly, except except AVT1-E(DS) trial at IIAB, Ranchi due to inadequate crop stand. In Hazaribag the AVT 1 Drt Nil trial was conducted in Rain out shelter. Few entries had low germination % (observed in multiple centers). Disease

Annual Progress Report 2024 Vol. I – Varietal Improvement

occurrence like brown spot, blast and BLB was more at BAU, Ranchi. At other centers disease pressure was less. Occurrence of YSB was observed in Ranchi – other centers showed negligible insect pest occurrence.



Fig2. Monitoring at Hazaribag, BAU, Ranchi, Hathwara and Bankura (left to right, top and bottom)

The third team consisted of Dr. Mridul Chakraborti and Dr. Anjani Kumar visited ICAR-RCER, Patna; RPCAU, Pusa; BAU, Sabour and BAU, Bikramganj. They inspected 4 breeding trials at Patna; 14 breeding, 6 agronomy, 5 soil science, 8 pathology, 7 entomology trials at Pusa; 15 breeding, 1 agronomy and 8 pathology trials at Sabour; 25 breeding, 9 agronomy, 8 pathology trials at Bikramganj in Bihar. All the trials were conducted (except one i.e., AVT-NIL-Sub trial at BAU, Sabour) meticulously and it is praiseworthy. The natural rainfall and flood during de-submergence damaged the trial AVT-NIL-Sub trial. Extensive mealy bug damage was recorded in all DSR trials of Bikramganj whereas adjacent transplanted plots didn't show damage. Besides, vast area of Rohtas district growing Swarna variety showed massive invasion of weedy rice. ICAR-RCER is naming all varieties with Swarna in the beginning ("Swarna-...") even for EDS or aerobic varieties. Its creating confusion among stakeholders. In this context, it needs to revisit such nomenclature.





Fig3. General view of ICAR-RCER, Patna; Damaged Sub-Nil plot; Weedy Rice and its close view; dwarf plant type in semi-deep trial; Mealy bug infestation in DSR trials at Bikramganj (left to right and top to bottom)

The fourth team led by Dr. S. K. Dash, Dr. Raghu Ram, Dr. B. Raghavendra Goud visited Eastern (UP) trials at Kanpur, Ghagraghat, Lucknow, Faizabad, Varanasi etc. There were 5 breeding, 3 agronomy, 2 soil science trials in Kanpur. In Kanpur very good trials conducted for AL and CSTVT, but other normal irrigated trials needs some more supervision. There were 5 breeding, 4 agronomy, 3 soil science, 4 pathology and 7 entomology trials at Ghagraghat; 33 breeding, 5 agronomy, 2 physiology, 8 pathology and 5 entomology trials at Masoda; 16 breeding, 9 agronomy, 1 soil science, 5 pathology trials at Varanasi. The results in entomology trials at Ghagraghat were not considered as most of the entries were severely infested by Leaf folder along with improper management of trials. The Performance of the breeding lines were not good as those were infected by brown spot and stem borer infestation. Due to the late transplanting, the disease incidence was not observed at early tillering stage in pathology trials. The scientists were requested to compile the information and send it to nodal centre. Similarly, in In Masoda blast was predominant. In Varanasi, there is a problem of staff apart from breeding discipline. In Masoda, rainfed Late/ Medium trials rejected, besides, IVT RSL and AVT1 RSL are not in perfect ecology.

Annual Progress Report 2024 Vol. I – Varietal Improvement



Fig 4. Trials at Kanpur; Soil whitening in sodic soil at Dilipnagar Farm-Kanpur; Trial at Ghagrahat; irrigated Trial at Masoda; lowland trial at Masoda; Trials at Varanasi (left to right, top to bottom)

The fifth team consists of Dr. J. Meher, Dr. A. Mukherjee and Dr. Mohammad Shahid, visited Chinsurah, Canning, Malda, Pundibhari of WB. They monitored 10 breeding trials at Malda; 24 breeding trials, 13 agronomy, 2 physiology, 2 soil science, 12 pathology, 14 entomology trials at Chinsurah and 5 breeding trials at Canning. All the trials have been conducted properly. However, some trials at Chinsurah could not be conducted viz., IVT- DSR-M, AVT & IVT- AGT, IVT – Colour Grain, NILs & GELs. Besides, IVT-CSTVT, AVT1 –CSTVT and AVT 2- NILs & CSTVT trials could not be monitored. In Canning, few local checks are used in most of the trials, therefore it was suggested to use appropriate checks of the ecology for desirable result.

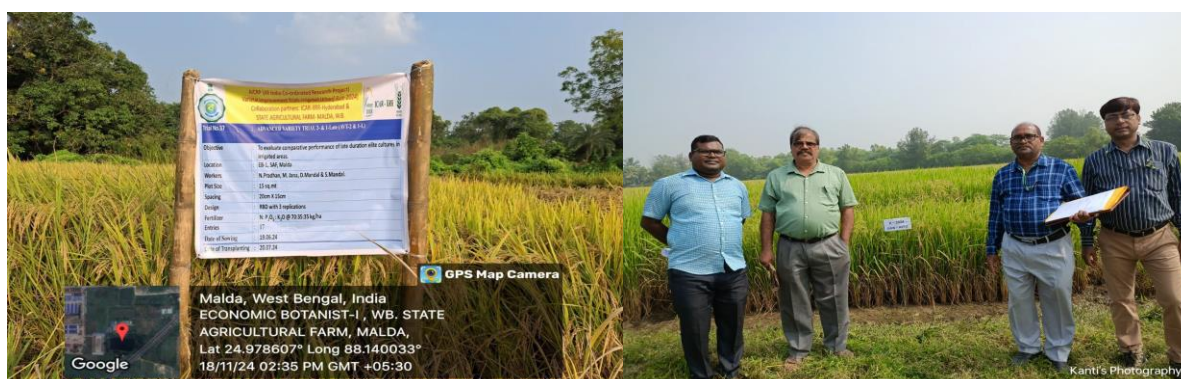




Fig 5. Trials at Malda and Chinsurah, WB

The 6th team comprised Dr. Manas Bag, Dr. Ananta and Dr. Milan Kumar Lal visited Arundhutinagar, Lembuchera, Lamphelphat and Imphal. There were 21 breeding (conducted 09), 04 pathology, 02 entomology at Arundhutinagar; 21 breeding (17 conducted) at Lembuchera; 03 breeding, 3 pathology at Lamphelphat; 3 breeding trials at Imphal. AVT 2&1- Aerob could not be conducted at Lembuchera and Arundhutinagar, Tripura due to non-receipt of seeds and damage by heavy rainfall respectively. In Arundhutinagar JD has shown interest to conduct Agronomy and Entomology trial, whereas, in Lamphelphat, Scientist (Pl. Pathology) has shown interest to conduct other pathology trials.



Fig 6. Trials at Arundhutinagar (Top left and right), Lembuchera and Lamphelphat (bottom left and right)

The 7th team composed of Dr. S. Sarkar, Dr. Anie Poonam and Dr. Chitra Shanker for monitoring of trials at Titabar, Gerua, Barapani (ICAR-RC, CAU) and Upper Shillong. There were 13 breeding and 01 entomology trials at Gerua; 28 breeding, 9 agronomy, 6 physiology, 6 soil science, 7 pathology and 9 entomology trials in Titabar; 2 breeding trials at

Annual Progress Report 2024 Vol. I – Varietal Improvement

ICAR-RC; 2 breeding trials at CAU, Barapani and 03 breeding, 1 agronomy, 3 pathology trials at Upper shillong. In Gerua AVT2 and S1 L had differential seed receipt and bird damage whereas, BST trials was damaged by bird, monkey and rats. Similarly, AVT2 & IVT-M(H) and AVT1& IVT-U (H) trials were affected by grain discolouration. The performance of Japonica trials is very poor at all locations and it was suggested to improve the trial management whereas, in Titabar, it was suggested to maintain water table in the trials.



Fig 7. AICRIP Monitoring team at Titabar, Assam (Physiology trails) and Umiam, Meghalaya(Left to right)

Moreover, virtual monitoring has been conducted at ICAR Research Complex for NEH Region, Nagaland, UBKV, Pundibari and ICAR-RC-NEH Region, Sikkim Centre. The number of trials conducted at Nagaland were 2 (breeding); Sikkim 3(breeding-1 and agronomy-2) and UBKV -3 (breeding). The IVT DS trial at Sikkim could not be conducted due to late delivery of seeds whereas, IVT-RSL-DS and AVT 1-RSL-DS could not be conducted due to heavy rainfall.

**NRRI, Cuttack – Scientists and Staff involved
in the Co-ordination and Report Writing**

Sl. No	Work responsibility	Assigned to
1.	Coordination of AICRIP (Rainfed) Activities	Dr. (Mrs.) Sanghamitra Samantaray
2.	Promotion and Deletion of Tested Entries and checking of reports	Dr. K. Chattopadhyay Dr. Sushanta Kumar Dash Dr. Mridul Chakraborti Dr. Ramlakhan Verma
3.	Data entry, trial wise data arrangement, compilation, management of all AICRIP Data	Mr. Bidyasagar Mandal
4.	Data Checking and Proof Reading of AICRIP Trials (Rainfed)	Mr. Lalan K Singh Mr. Debakanta Nayak Mr. Satyabrata Barik Mr. Manoj Kumar Patra Mr. Ranjan Rana
5.	Grain Quality analysis	Dr. Torit Baran Bagchi Dr. Navaneeta Basak
6.	Statistical Analysis of Trials	Dr. Nitiprasad Jambhulkar Dr R L Verma
7.	Monitoring Report preparation of CRRI trials and trials at centers under Zone III & Zone IV	Dr. J. Meher Dr. Parameswaran C
8.	Consistency in performance and Report Writing of AVT 1-E DS & AVT 1-NIL DRT	Dr. Mridul Chakraborti Dr. Lambodar Behera
9.	Report Writing of IVT-E DS	Dr. Sutapa Sarkar Dr. Devanna
10.	Consistency in performance and Report Writing of AVT 1-RSL & AVT 1-NIL SUB	Dr. M K Kar Dr. Resmi Raj K.R.
11.	Report Writing of IVT-RSL	Dr. Lotan Kumar Bose Dr. Kutubuddin Ali Molla
12.	Consistency in performance and Report Writing of AVT 1-SDW	Dr R L Verma
13.	Report Writing of IVT-SDW	Dr. Rameswar Prasad Sah
14.	Consistency in performance and Report Writing of IVT-DW	Dr. P. Sanghamitra
15.	Report Writing of IVT-R-DS-M	Dr J Meher Dr. Sushanta Kumar Dash
16.	Report Writing of IVT-R-DS-L	Dr. K. Chattopadhyay

PROGRESS REPORT
KHARIF 2024
VARIETAL IMPROVEMENT
AICRIP NATIONAL
BASMATI TRIALS
ICAR-IARI, New Delhi

ADVANCE VARIETY TRIAL – BASMATI (AVT - BT)

Locations: 12

Test Entries: 28

Checks and Recurrent Parents: Pusa Basmati 1 (YC & RP),
Pusa Basmati1121 (YC & QC),
Taraori Basmati (QC), Pusa Basmati 1509 (YC & RP)
Pusa RH 10 (HC), Local Check (LC)

Advance Variety Trial - Basmati including both AVT1-BT, AVT1-BT NIL, AVT 2 and AVT2-BT NIL was constituted with 28 entries including 20 varietal test entries; one hybrid entry; five near-isogenic lines; two recurrent parents namely, Pusa Basmati 1 and Pusa Basmati 1509; six checks namely Pusa Basmati-1 (Yield Check), Pusa Basmati 1121 (Yield and Quality Check), Taraori Basmati (Quality Check), Pusa RH10 (Hybrid Check), Pusa Basmati 1509 (Observational Check) and local check (**Table 42.1**). Pusa Basmati 1509 was included as observational check during Kharif 2024. Out of the 20 test entries, two entries namely, IET 30533 and IET 30535 were in III year of testing (AVT2-BT) and 13 entries were in II year of testing (AVT1-BT). Of the 5 NIL entries tested, two NILs of Pusa Basmati 1509 namely, IET31306 and IET31307 were in final year of testing (AVT2-BT NIL); three NIL entries namely, IET32296, IET32297 and IET32298 were in AVT1-BT NIL stage. Among these, IET32296 and IET32297 were NILs of Pusa Basmati 1509 possessing inbuilt resistance to Bacterial blight, blast and herbicide tolerance, while IET32298 was NIL of Pusa Basmati 1 with salinity tolerance. Trial was conducted at 13 locations in the GI area earmarked for the cultivation of Basmati rice. Out of 12 test locations, the data from 9 locations namely, New Delhi, Kaul, Nagina, Modipuram, Ludhiana, Rauni, Gurdaspur, Kapurthala and Chatha was considered for analysis. The data from Pantnagar was not considered for analysis due to low experimental mean, high CV, while the data from Karnal and Modipuram (SV) was also not considered for analysis, based on the trial conditions recorded by the monitoring team.

The experimental mean of the locations ranged from 1439 kg/ha at Pantnagar to 5344 kg/ha at Modipuram (BEDF), while CV ranged from 4.4 % at Modipuram (SV) to 55.7 % at Pantnagar. Days to 50% flowering ranged from 85 days (IET 32298) to 106 days (IET 31294 and IET 31303). Plant height of the entries ranged from 95 cm (IET 31301 and Pusa Basmati 1509) to 132 cm (Taraori Basmati) while panicles per sq.m. ranged from 303 (Pusa Basmati 1) to 346 (IET 31296). Among the checks, hybrid check, Pusa RH 10 registered 5163 kg/ha with 5th rank based on overall mean. The data on yield, days to 50% flowering, plant height, number of panicles/m², quality and panel test are presented in tables 42.2 to 42.7. The details on the performance of entries are presented below:

Performance of entries in AVT2-BT in III year of testing

Two entries namely, IET 30533 and IET 30535 were in third year of testing and both the entries were significantly superior to the yield of 4445 kg/ ha recorded by the best check variety, Pusa Basmati 1121.

On overall mean basis, the entry, IET30533 (HKR-17-422) derived from the cross HKR98-476/CSR30 was significantly high yielding (5288 kg/ ha) with an yield advantage of 18.2%

over the best varietal check Pusa Basmati 1121. It recorded KLAC of 13.89 mm, elongation ratio (1.69), intermediate amylose content (22.81%) and mild aroma. **Based on all the three years of testing, the entry IET30533 was found promising.**

The entry IET30535 (CSRBT-252-19) derived from the cross, Pusa Sugandh 5/CSR10 was significantly high yielding with an yield advantage of 22.6% over the best varietal check Pusa Basmati 1121. It recorded a HRR of 64.39%, KLAC of 12.41 mm, elongation ratio (1.70) and intermediate amylose content (23.93%) and strong aroma. However, it recorded hard kernels and swelling upon cooking with an **undesirable overall acceptability score of 1 out of 5 in the panel test.** Further it was **ranked poor with low panel test scores across all three years of testing (Rank 26 of 29 entries in 2022, Rank 11 of 13 entries in 2023, Rank 26 of 28 entries in 2024).** The entry IET30535 completed three years of testing.

IET No/ Designation/ Cross Combination	Trial	GY	FD	Grain Type	Yield over best check (%)	Performance rank increase over best check		
						State	Yield	% over BC
IET 30533 (HKR17-422) HKR98-476/CSR30	IVT-BT	5310	92	LS	31.7	DE	5951	35.9
						PU	5177	55.8
						HA	6155	74.6
						UP	4740	3.7
	AVT1-BT	6277	91	LS	50.46	DE	6513	10.0
						PU	7073	23.0
AVT2-BT	5288	94	LS	18.23	JK	5467	23.0	
					UP	5502	13.0	
PU	4815	8.0						
HA	6419	57.0						
IET 30535 (CSRBT-252-19) Pusa Sugandh 5/CSR10	IVT-BT	5547	102	LS	37.6	DE	6081	38.9
						PU	5038	51.6
						HA	6453	83.1
						UP	5091	11.4
	AVT1-BT	6108	101	LS	46.40	DE	8409	42.0
						PU	5920	3.0
						HA	5763	54.0
						UP	6850	52.0
						JK	3945	28.0
AVT2-BT	4460	97	LS	22.6	JK	5267	19.0	
					UP	6009	23.0	
					PU	5046	13.0	
HA	6325	54.0						

Performance of entries in AVT1-BT (second year of testing)

A total of 13 entries were tested in AVT1-BT, of which IET31293 was a hybrid entry. The entries IET31300 and IET31302 were found non-uniform due to segregation and/or mixture during the monitoring team visit across the test locations. Therefore, these entries were discontinued.

The entries IET31290, IET31294, IET31297, IET31298, IET31301 and IET31303 were not significantly superior to the best varietal check, Pusa Basmati 1121. Therefore, these entries were discontinued.

On overall basis, the entry IET31299 (PAU 7842-13-2-1 (RYT 4087)) from the cross PB1718/Pusa1601-105-46-1-1 was significantly superior over best varietal check, Pusa Basmati 1121. It recorded HRR of 56.70%, milled rice length of 8.34mm, kernel length after cooking of 15.14mm, intermediate amylose content and mild aroma. **The entry IET 31299 has been promoted to AVT2.**

The entry IET 31291 (UPR4636-18-2-1-1) from the cross PSD17/ UPR3375-8-1-1 recorded an average yield of 4998kg/ha which was significantly superior over best varietal check Pusa Basmati 1121. It recorded a HRR of 52.08%, KL of 7.84 mm, KLAC of 13.32 mm, intermediate amylose content and strong aroma. However, **its elongation ratio was 1.66 during Kharif 2024 and 1.68 during Kharif 2023**, which is lower than that of the minimum elongation ratio of 1.7 for Basmati rice. Additionally, it recorded an **undesirable overall acceptability score of 1.5 out of 5 in the panel test**. Therefore, **the entry IET 31291 has been discontinued.**

The entry IET 31292 (CSR301-16-BT-208) from the cross PB1121/CSR26 recorded an average yield of 5070 kg/ha which was significantly superior over best varietal check. It possessed high HRR of 64.05%, KL of 7.6 mm, KLAC of 12.99 mm and mild aroma. However, the kernel elongation ratio was 1.69 which is less than the minimum elongation ratio of 1.7. Furthermore, the entry recorded undesirable overall acceptability in the panel test with the last rank among all the test entries with the overall acceptability score of 1.0. **Therefore, this entry has been discontinued.**

The entry IET 31296 (CSR BT-252-146) from the cross CSR30/CSR36 recorded an average yield of 5452 kg/ha which was significantly superior over best varietal check. However, the mean KLAC was 11.45mm and elongation ratio was 1.58 which is below the minimum KLAC of 12.00mm and minimum elongation ratio of 1.7. **Therefore, the entry IET 31296 has been discontinued.**

The entry IET 31302 (CSR301-16-ST-153) from the cross PB1121/CSR27 recorded an average yield of 5135 kg/ha which was significantly superior over best varietal check. The mean KLAC was 12.44 mm with intermediate amylose content. However, its elongation ratio was 1.58 which is below the minimum elongation ratio of 1.7. **Therefore, the entry IET 31302 has been discontinued.**

The hybrid entry IET 31293 (SHAAN) with the parentage F301A/98R was evaluated in AVT1-BT trial. The mean yield of this hybrid was 5772 kg/ha, which was significantly superior to the hybrid check Pusa RH10 which possessed mean yield of 5140 kg/ha. The

HRR was 62.77%, KL of 8.24mm, KLAC of 13.55mm, intermediate amylose content of 24.10%. However, the elongation ratio was 1.64 which was below the minimum elongation ratio of 1.7. **Therefore, the hybrid entry IET 31293 has been discontinued.**

IET Designation/ Cross Combination	No/ Trial	GY	FD	Grain Type	Yield over best check (%)	Performance Rank (%) increase over best check		
						State	Yield	% over BC
IET 31299 (PAU 7842-13-2-1 (RYT 4087))	IVT-BT	5207	106	ELS	24.8	DE	6253	5.67
						HA	4715	26.29
						UP	5950	32.22
						JK	4250	37.76
PB1718/Pusa1601-105-46-1-1	AVT1-BT	4924	100	ELS	10.8	UP	5534	13.0
						HA	4711	15.0

Entries promoted to AVT2-BT: IET 31299

Performance of AVT2-NIL entries

Near Isogenic Lines for bacterial blight, blast and bakanae resistance

Two entries namely, IET 31306 and IET 31307 in the background of Pusa Basmati 1509 were evaluated for yield and grain quality in the regular Basmati trial and for testing bacterial blight, blast and bakanae resistance, a separate trial under NSN was conducted in hot spot regions of the Basmati GI locations.

The entry IET 31306 (Pusa 3136-12-10-46-14) possessing genes *xa13*, *Xa21*, *Xa38*, *Pi9*, *Pib*, *qBKL1.1* and *qBKL1.2* exhibited on par yield performance with its recurrent parent, Pusa Basmati 1509 across both the years of testing. It recorded HRR of 42.25%, KL of 8.46 mm, KLAC of 15.63 mm, ER of 1.9 with intermediate amylose content of 21.36%. The entry exhibited resistance to bacterial blight disease with the score of 4 and 3, while its recurrent parent exhibited susceptible reaction with score of 6 and 6.5 in AVT1-NIL and AVT2-NIL trials, respectively. The entry IET 31306 also exhibited resistance to blast disease with score of 1 and 3, while its recurrent parent Pusa Basmati 1509 exhibited susceptible reaction with the score of 9 and 7, during AVT1-NIL and AVT2-NIL trials, respectively. The entry displayed 50% disease incidence to bakanae during AVT1-NIL and in AVT2-NIL disease incidence was 46.92% less than the recurrent parent Pusa Basmati 1509. The entry completed three years of testing.

The entry IET 31307 (Pusa 3136-49-2-105-19) possessing genes *xa13*, *Xa21*, *Xa38*, *Pi9*, *Pib*, *qBKL1.1* and *qBKL1.2* exhibited on par yield performance with its recurrent parent Pusa Basmati 1509. It possessed HRR of 47.41%, KL of 8.32 mm, KLAC of 15.14 mm, ER of 1.88 with intermediate amylose content 22.37% and mild aroma, which is comparable to the recurrent parent Pusa Basmati 1509. The entry exhibited resistance to bacterial blight disease with the score of 4 and 2.5, while its recurrent parent exhibited susceptible reaction with score of 6 and 6.5 in AVT1-NIL and AVT2-NIL trials, respectively. The entry IET 31307 also exhibited resistance to blast disease with score of 2 and 3, while its recurrent parent

Pusa Basmati 1509 exhibited susceptible reaction with the score of 9 and 7, during AVT1-NIL and AVT2-NIL trials, respectively. The entry displayed 33.4% and 25.31% less disease incidence to bakanae during AVT1-NIL and AVT-NIL trials, respectively as compared to its recurrent parent Pusa Basmati 1509. **Considering the grain yield, grain and cooking quality, and reaction to bacterial blight, blast and bakanae diseases, the entry IET 31307 has been found promising.**

Overall performance of the bacterial blight, blast and bakanae NIL entries evaluated during Kharif 2023 and 2024

Genotypes	Recurrent parent		IET31306		IET31307	
	Pusa Basmati 1509		Pusa 3136-49-2-105-19		Pusa 3136-49-2-105-19	
Trials	AVT1-NIL	AVT2-NIL	AVT1-NIL	AVT2-NIL	AVT1-NIL	AVT2-NIL
Genes	-		<i>xa13, Xa21, Xa38, Pi9, Pib, qBK1.1 and qBK1.2</i>		<i>xa13, Xa21, Xa38, Pi9, Pib, qBK1.1 and qBK1.2</i>	
Yield Performance (kg/ha)	5469	4764	5702	4435	5516	4725
CD (0.05)			290	437	290	437
Bacterial blight score	6	6.5	4	3	4	2.5
Blast score	9	7	1	3	2	3
% reduction of bakanae incidence as compared to recurrent parent	-	-	0%	46.92%	33.4%	25.31%

Performance of salinity NIL of PB1 evaluated in AVT1-NIL-BT during Kharif 2024

The entry IET 32298 carrying QTL for salinity tolerance developed from the cross PB1*2/*Oryza glaberrima* S. was evaluated for its yield performance under regular Basmati trial. It yielded significantly superior to its recurrent parent Pusa Basmati 1. Further, it was also tested under AVT 1-BT NIL; CSTVT- Coastal Saline Tolerant Variety Trial (Trial No. 62) to test for its performance under salinity stress conditions. However, the performance of the entry IET 32298 was significantly inferior to its recurrent parent Pusa Basmati 1 in the CSTVT. Therefore, the entry has been dropped.

Sl. No.	IET No	Yield Performance (kg/ha)	Yield under salinity stress conditions (kg/ha)	Remarks
1	32298	4677	3219	The performance of the entry IET 32298 is significantly superior to the recurrent parent Pusa Basmati 1 under controlled conditions. However, under salinity stress conditions it is significantly inferior. Therefore, the entry has been dropped.
2	Pusa Basmati 1 (RP)	4186	4417	
	CD (0.05)	437	556	

Performance of near isogenic lines of Pusa Basmati 1509 carrying resistance to bacterial leaf blight, blast and herbicide tolerance in AVT1-BT NIL

A total of two NIL entries namely, IET32296 and IET32297 carrying the bacterial blight resistance genes *xa13+Xa21*; blast resistance genes *Pi2+Pi54*; and herbicide tolerance *AHAS^{rb}* were evaluated for yield and grain quality in the AVT1-NIL trial along with its recurrent parent Pusa Basmati 1509. These entries were evaluated for bacterial leaf blight and

blast resistance in a separate trial under NSN conducted in hot spot regions in the Basmati GI locations to determine the resistance of NILs for bacterial leaf blight and blast disease.

Further, both the entries along with its recurrent parent Pusa Basmati 1509 and checks Pusa Basmati 1, Pusa Basmati 1121 and Pusa Basmati 1985 were evaluated under dryDSR conditions with following treatments across four locations namely, IARI, Ludhiana, Nagina and Kaul.

- Treatment 1 : Imazethapyr 10% SL @2.0g/L applied at 18-22 DAS
 Treatment 2 : Manual Weeding
 Treatment 3 : Untreated control (weedy check)

Data from four locations namely, New Delhi, Ludhiana, Kaul and Nagina were analysed and the data is presented in following table:

Treatment	Entry	IET No	Kaul	IARI	PAU	NGN	Mean
T1: Imazethapyr 10% SL (X dose)	1914	32296	0.0	0.0	0.0	0.0	0.0
	1915	32297	4.6	5.2	4.8	4.8	4.9
	1923	PB1121	0.0	0.0	0.0	0.0	0.0
	1924	PB 1	0.0	0.0	0.0	0.0	0.0
	1927	PB 1509 (RP)	0.0	0.0	0.0	0.0	0.0
	Check	PB 1985	4.5	3.6	4.9	4.9	4.5
T2: Pendimethalin fb bispyribac sodium	1914	32296	4.1	4.0	4.1	4.9	4.1
	1915	32297	4.8	3.3	4.9	4.9	4.3
	1923	PB1121	4.0	3.8	2.8	4.8	3.8
	1924	PB 1	3.9	3.1	2.0	4.9	3.5
	1927	PB 1509 (RP)	4.2	3.6	4.7	4.0	4.1
	Check	PB 1985	4.7	4.3	4.8	4.7	4.6
T3: Untreated Control (Weedy check)	1914	32296	1.5	0.0	0.0	1.6	0.5
	1915	32297	1.5	5.6	0.0	1.5	2.4
	1923	PB1121	1.1	0.0	0.0	1.5	0.6
	1924	PB 1	1.2	0.0	0.0	1.4	0.6
	1927	PB 1509 (RP)	1.6	3.1	0.0	1.4	1.5
	Check	PB 1985	1.4	4.5	0.0	1.5	1.9
		CD (0.05)	1.0	0.6	0.6	0.4	0.5

IT: Imazethapyr treatment; PFB: Pendimethalin fb bispyribac sodium treatment; WFC: Weed Free Control

IET 32296 (Pusa 3139-1-38-6-12-10) derived from the cross Pusa Basmati 1847/Pusa Basmati 1985 possessing genes *xa13+Xa21* for bacterial blight resistance; *Pi2+Pi54* for blast resistance and *AHAS^{rb}* for herbicide tolerance. In the first year of testing it exhibited on par performance with the recurrent parent Pusa Basmati 1509. Further, for bacterial blight it exhibited susceptible reaction with disease severity index of 7.0 and exhibited moderate resistance to blast disease. Further, it was found sensitive to Imazethapyr herbicide. **Therefore, this entry has been discontinued.**

IET 32297 (Pusa 3139-1-151-1-3-4) exhibited on par performance with its recurrent parent Pusa Basmati 1509. For bacterial blight disease, it exhibited resistant reaction with average disease score of 4, while its recurrent parent was susceptible with average disease score of 6.5. For blast disease, the entry IET32297 was found resistant with DSI of 3, while its recurrent parent was susceptible with the disease score of 7. Quality wise, it is similar to its recurrent parent. Under dryDSR trial, the entry IET 32297 was found to be tolerant to Imazethapyr and yielded 49 q/ha, as compared to the recurrent parent PB1509 which showed complete mortality. The entry was found to be at par with the recurrent parent under dryDSR conditions with the Pendimethalin fb bispyribac sodium treatment based weed management. **Therefore, IET 32297 has been promoted to AVT2-NIL-BT.**

INITIAL VARIETY TRIAL – BASMATI (IVT - BT)

Locations: 12

Test Entries: 24

Checks: Pusa Basmati 1 (YC), Pusa Basmati 1121 (YC & QC), Taraori Basmati (QC), Pusa RH 10 (HC), Pusa Basmati 1509 (OC) and Local Check (LC)

Initial Variety Trial – Basmati was constituted with 24 entries comprising of 17 varietal entries, one hybrid entry and six checks namely, Pusa Basmati-1 (Yield Check), Pusa Basmati 1121 (Yield & Quality Check), Taraori Basmati (Quality Check), Pusa RH10 (Hybrid Check), Pusa Basmati 1509 (Observational Check) and Local Check (LC) (Table 42.13). Out of 17 varietal test entries, two entries namely, Pusa 3126-9-21-120-10 and Pusa 3126-27-29-157-58 were biofortified lines of Pusa Basmati 1509 with zinc. The trial was conducted at 12 locations within the Basmati GI area and data was received from all the centres. Out of 12 test locations, the data from nine locations namely, New Delhi, Kaul, Nagina, Modipuram (BDF), Ludhiana, Rauni, Gurdaspur, Kapurthala and Chatha was considered for analysis, while the data from Pantnagar was not considered for analysis due to low experimental mean and very high CV. The data from Karnal and Modipuram (SB) was also not considered for analysis as the trial was not in good condition as recorded by the monitoring team. Experimental mean of the locations ranged from 2013 kg/ha at Pantnagar to 4970 kg/ha at Ludhiana while CV ranged from 4.8 % at Modipuram (SVPUAT) to 16.0 % at Pantnagar. Among the checks, hybrid check, Pusa RH 10 registered 5355 kg/ha with 2nd rank based on overall mean. Of the two yield checks, Pusa Basmati 1 was the best performing check on overall mean basis with yield of 4707 kg/ha. The data on yield, days to 50% flowering, plant height, number of panicles/m², quality and panel test are presented in 42.9 to 42.14, respectively.

Out of 15 varietal entries tested, 14 entries namely, IET32299, IET32300, IET32301, IET32302, IET32303, IET32304, IET32305, IET32307, IET32308, IET32309, IET32313, IET32314, IET32315 and IET32316 were discontinued as they were significantly inferior to the best varietal check, Pusa Basmati 1.

The entry IET32306 (CSR BT 252-179) from the cross CSR30/CSR36 was found to produce an average yield of 5251kg/ha which was significantly superior to the best varietal check Pusa Basmati 1 which yielded 4709 kg/ha. The entry recorded a kernel length of 7.53 mm, KLAC of 12.83 mm, with **an elongation ratio of 1.69, which is less than minimum elongation ratio of 1.7. The entry exhibited swelling upon cooking and undesirable overall acceptability in the panel test. Therefore, the entry is discontinued.**

The hybrid entry IET32310 (TMRH 2112) recorded highest yield in the trial with yield of 6028 kg/ha which was significantly superior to the hybrid check Pusa RH 10 which yielded 5287 kg/ha. The entry recorded a kernel length of 7.78 mm, KLAC of 13.28 mm, with an elongation ratio of 1.70. However, the entry was found to be **tasteless (score of 2.75) and recorded an overall acceptability score of 1.8 with poor ranking (20 out of 24 entries), which is undesirable. Therefore, the entry is discontinued.**

The two zinc biofortified entries namely, IET32311 (Pusa 3126-9-21-120-10) and IET32312 (Pusa 3126-27-29-157-58) recorded yield of 4765 and 5092 kg/ha, respectively as compared to best varietal check Pusa Basmati 1 which yielded 4709 kg/ha. These two entries were found to be on par with the best varietal check. These two entries also meet the minimum standards of Basmati grain and cooking quality traits. These entries will be considered for promotion after ascertaining their zinc content in the grains.

Table 42.1: Composition of entries in Advance Variety Trial - Basmati (AVT - BT), Kharif 2024

Entry No.	IET No	Designation	Cross Combination	Grain Type
1901	31290	PAU 8484-111-1-1 (RYT 4078)	PB 1509/PB5//PB 1509*2	ELS
1902	31299	PAU 7842-13-2-1 (RYT 4087)	PB 1718/PUSA 1601-105-46-1-1	ELS
1903	31291	UPR4636-18-2-1-1	PSD17/UPR3375-8-1-1	LS
1904	31292	CSR301-16-BT-208	PB 1121/CSR26	LS
1905	31293	SHAAN	F301A/98R	ELS
1906	31294	PUSA 3067-16-10-6	PB 1121/PUSA 6A/PUSA 1705-86	ELS
1907	31296	CSR BT-252-146	CSR30/CSR 36	LS
1908	31297	PUSA 3076-12-1-2-9	PB 1509//PB 1568/PB 1609	ELS
1909	31298	UPR4635-15-1-1-1	PSD17/UPR3951-1-3-1	ELS
1910	31300	SCR-YET73	PB1/CSR46	LS
1911	31301	PUSA 3067-16-10-5	PB 1121//PUSA 6A/PUSA 1705-86	ELS
1912	31302	CSR301-16-ST-153	PB 1121/CSR 27	LS
1913	31303	PUSA 3083-17-8-3-13-1-17	PUSA 1851/PB 1121//PUSA 1568/PUSA 1790	ELS
1914	32296	PUSA 3139-1-38-6-12-10	PUSA BASAMTI 1847/PUSA BASMATI 1985	ELS
1915	32297	PUSA 3139-1-151-1-3-4	PUSA BASAMTI 1847/PUSA BASMATI 1985	ELS
1916	32298	GKTK-BC21-1-3/NIL	PB1*2/ <i>Oryza glaberrima S</i>	LS
1917		Pusa Basmati 1	Recurrent Parent	LS
1918	30533	HKR-17-422	HKR98-476/CSR30	LS
1919	30535	CSRBT-252-19	PS5/CSR10	LS
1920	31306	PUSA 3136-12-10-46-14		ELS
1921	31307	PUSA 3136-49-2-105-19		ELS
1922		Pusa Basmati 1509	Recurrent Parent (RP)	ELS
1923		Pusa Basmati 1121	Yield and Quality Check (Y&QC)	ELS
1924		Pusa Basmati 1	Yield Check (YC)	LS
1925		Pusa RH 10	Hybrid Check (HC)	LS
1926		Taraori Basmati	Quality Check (QC)	LS
1927		Pusa Basmati 1509	Observational Check (OC)	ELS
1928		Local Check	Local Check (LC)	

Table 42.2: Grain Yield of entries in AVT-BT, Kharif 2024

Entry No.	IET No	ND (1)		@UK (1)		PUN(4)						Mean		
		IARI		PNT	LDH		RUN		GDP		KPT			
1901	31290	4654		1937	4881		4569		4987	8	4402		4710	
1902	31299	5333	3	1138	4888	10	4262		4458		4192		4450	
1903	31291	4596		1652	5435	4	4578	9	5383	2	4619	10	5004	6
1904	31292	5042	10	2209	5150	8	4340		4462		4944	4	4724	10
1905	31293	5633	1	2129	6002	1	5817	1	5349	3	5496	1	5666	1
1906	31294	3805		107	4008		3642		4809		4047		4126	
1907	31296	5051	9	1776	5692	2	5087	2	5161	6	5014	3	5239	2
1908	31297	5321	4	118	4049		3842		4602		4869	7	4340	
1909	31298	3941		2132	5426	5	4687	6	5212	4	4917	6	5060	4
1910	31300	4519		1678	4777		4282		4441		4810	8	4577	
1911	31301	3432		376	3242		3223		4358		4080		3726	
1912	31302	5429	2	2425	4884		4319		4966	9	4388		4639	
1913	31303	5085	8	421	3894		4098		3853		3635		3870	
1914	32296	4075		1733	4676		4574	10	4812		4352		4603	
1915	32297	4119		1525	4628		4222		4962	10	4309		4530	
1916	32298	4135		1948	4619		4474		4485		4438		4504	
1917	PB1	4260		1208	4398		4122		4714		4000		4308	
1918	30533	5144	7	1439	5135	9	4825	4	4774		4528		4815	8
1919	30535	5234	5	1749	5366	6	4781	5	4816		5221	2	5046	5
1920	31306	3996		1339	4505		4315		4385		4240		4361	
1921	31307	3487		1509	4815		4654	7	5187	5	4623	9	4820	7
1922	PB1509	4078		1460	4568		4477		4990	7	4330		4591	
1923	PB1121	4540		1082	4568		4022		4672		4565		4457	
1924	PB1	4045		1209	3865		3292		3874		3870		3725	
1925	PRH10	5149	6	2018	5312	7	4635	8	4621		4540		4777	9
1926	TB	3797		395	3998		3814		4143		4116		4018	
1927	PB1509	4171		1625	4685		3954		4153		4049		4210	
1928	LC	4873		1957	5454	3	4912	3	5529	1	4937	5	5208	3
Exp Mean		4534		1439	4747		4351		4720		4483		4575	
CV(%)		15.5		55.7	7.2		7.2		5.5		7.6		6.9	
CD(0.5)		1151		1322	560		510		427		554		375.923	
F		*			*		*		*		*		*	
Sowing Date		30.06.2024		15.07.2024	03.07.2024		02.07.2024		04.07.2024		02.07.2024			
Transplanting		26.07.2024		02.08.2024	02.08.2024		02.08.2024		02.08.2024		02.08.2024			
Local Check		Pusa Basmati 1692		Pant Dhan 12	Punjab Basmati 7		Punjab Basmati 7		Punjab Basmati 7		Punjab Basmati 7			

@ not included in means

Table 42.2 (contd...): Grain Yield of entries in AVT-BT, Kharif 2024

Entry No.	IET No	HR		HR (1)		UP (2)					UP		
		KUL		@ KAR	Mean		NGN		MDP (BDF)		@ MDP (SV)	Mean	
1901	31290	5823	7	5271	5823	7	4954	10	4875		4705	4914	
1902	31299	4711		3500	4711		5083	6	5986	7	5090	5534	6
1903	31291	4433		4416	4433		4831		5806	8	4593	5319	10
1904	31292	5337		5707	5337		4809		6308	5	4587	5559	5
1905	31293	6478	1	5338	6478	1	4648		6989	1	5862	5819	3
1906	31294	4100		4037	4100		3916		4158		4440	4037	
1907	31296	5800	8	5562	5800	8	6304	1	6129	6	5087	6217	1
1908	31297	3967		4300	3967		3771		4982		5060	4376	
1909	31298	5467		4239	5467		4877		5233		5040	5055	
1910	31300	5367		5654	5367		4788		5341		4793	5064	
1911	31301	3174		4032	3174		3873		4516		3627	4194	
1912	31302	6009	6	5529	6009	6	5255	3	5699	9	4617	5477	8
1913	31303	3467		5131	3467		3894		5161		3180	4528	
1914	32296	6139	5	3530	6139	5	6264	2	5054		4693	5659	4
1915	32297	5709	9	3921	5709	9	5016	8	4982		3827	4999	
1916	32298	5233		3940	5233		5164	5	4982		4407	5073	
1917	PB1	3397		4984	3397		3629		4624		3057	4126	
1918	30533	6419	2	6009	6419	2	4659		6344	4	4863	5502	7
1919	30535	6325	3	5951	6325	3	5244	4	6774	2	5920	6009	2
1920	31306	4429		3543	4429		5067	7	4480		4700	4774	
1921	31307	5452		4569	5452		4020		5054		4603	4537	
1922	PB1509	5589	10	3671	5589	10	4512		5197		4763	4854	
1923	PB1121	3871		4288	3871		3811		5520	10	4213	4665	
1924	PB1	4100		4003	4100		5008	9	4767		4228	4888	
1925	PRH10	6324	4	4155	6324	4	4426		6487	3	5373	5457	9
1926	TB	3387		3371	3387		4345		4158		4008	4251	
1927	PB1509	5056		3947	5056		4686		4982		4653	4834	
1928	LC	4471		3848	4471		4911		5054		4933	4983	
Exp Mean		5001		4516	5001		4706		5344		4604	5025	
CV(%)		6.7		9.0	6.7		5.9		7.6		4.4	6.9	
CD(0.5)		555		829	555		451		663		332	397	
F		*		*	*		*		*		*	*	
Sowing Date		01.07.2024		28.06.2024			29.06.2024		28.06.2024		28.06.2024		
Transplanting		25.07.2024		29.07.2024			25.07.2024		25.07.2024		25.07.2024		
Local Check		Haryana Basmati 2		Basmati CSR30			Pusa Basmati 1847		Pusa Basmati 1509		Pusa Basmati 1509		

@ not included in means

Table 42.2 (contd...): Grain Yield of entries in AVT- BT, Kharif 2024

Entry No.	IET No	JK (1)		Overall (9)		DFF (days)	PH (cm)
		CHT		Mean			
1901	31290	4467		4846		92	105
1902	31299	5400	3	4924		100	113
1903	31291	5300	4	4998	9	93	107
1904	31292	5233	9	5070	7	95	121
1905	31293	5533	1	5772	1	95	105
1906	31294	3933		4046		106	96
1907	31296	4833		5452	2	91	103
1908	31297	4967		4485		103	122
1909	31298	4033		4866		94	106
1910	31300	5300	5	4847		91	110
1911	31301	3500		3711		103	95
1912	31302	5267	7	5135	6	92	118
1913	31303	5300	6	4265		106	104
1914	32296	4933		4987	10	87	97
1915	32297	4500		4716		87	97
1916	32298	4567		4677		85	97
1917	PB1	4533		4186		102	107
1918	30533	5467	2	5255	4	94	105
1919	30535	5267	8	5448	3	97	99
1920	31306	4500		4435		87	98
1921	31307	5233	10	4725		86	98
1922	PB1509	5133		4764		87	97
1923	PB1121	4433		4445		101	109
1924	PB1	4233		4117		102	105
1925	PRH10	4767		5140	5	90	104
1926	TB	3867		3958		100	132
1927	PB1509	4767		4500		86	95
1928	LC	5100		5027	8	98	108
Exp Mean		4799		4743			
CV(%)		8.6		8.3			
CD(0.5)		672		436.8			
F		*		*			
Sowing Date		08.07.2024					
Transplanting		29.07.2024					
Local Check		Jammu Basmati-129					

@ not included in means, DFF-Days to 50% flowering, PH- Plant height

Table No. 42.3: Days to 50% flowering (DFF) of entries in AVT-BT during *Kharif* 2024

Entry No.	IET No.	ND	UK	PUN				PUN (4)	HR		HR (1)	UP			UP (2)	JK	Overall Mean (9)
		IAR I	@ PANT	LD H	RUN	GD P	KP T	Mean	@ KAR	KUL	Mean	MDP (BDF)	@ MDP (SV)	NGN	Mean	CH T	
1901	31290	105	84	93	89	97	89	92	105	79	108	88	88	98	93	89	92
1902	31299	118	98	100	99	95	98	98	118	92	130	99	99	107	103	96	100
1903	31291	107	88	88	88	90	87	88	107	87	99	91	91	100	96	95	93
1904	31292	110	88	95	92	91	91	92	110	86	127	92	92	105	98	95	95
1905	31293	108	89	94	95	88	93	93	108	86	105	92	92	100	96	95	95
1906	31294	116	95	105	103	100	104	103	116	96	104	103	103	117	110	110	106
1907	31296	101	85	90	87	91	90	89	101	85	104	85	85	96	90	97	91
1908	31297	110	102	104	103	97	102	101	110	94	146	102	102	111	106	103	103
1909	31298	98	88	91	93	96	94	94	98	86	111	91	91	100	96	96	94
1910	31300	99	88	90	90	85	88	88	99	83	123	90	90	98	94	93	91
1911	31301	119	104	103	97	97	96	98	119	96	99	102	102	118	110	104	103
1912	31302	104	86	92	90	93	89	91	104	81	124	90	90	98	94	93	92
1913	31303	110	103	106	100	99	106	103	110	105	107	105	105	117	111	103	106
1914	32296	102	76	88	85	87	85	86	102	78	98	83	83	91	87	85	87
1915	32297	101	77	86	85	95	85	88	101	79	101	78	78	91	85	80	87
1916	32298	100	74	86	82	82	84	83	100	80	100	81	81	89	85	80	85
1917	PB1 (RP)	111	97	101	100	97	104	101	111	93	120	99	99	112	105	102	102
1918	30533	102	84	91	90	102	93	94	102	88	99	86	86	101	93	92	94
1919	30535	101	81	96	97	97	98	97	101	93	108	93	93	100	97	95	97
1920	31306	101	77	87	88	94	89	90	101	76	102	79	79	87	83	81	87
1921	31307	97	78	83	83	93	85	86	97	75	102	80	80	91	86	85	86
1922	PB 1509 (RP)	100	76	87	85	95	85	88	100	77	100	84	84	92	88	80	87
1923	PB1121 (Y&QC)	107	96	101	101	106	101	102	107	91	121	98	98	108	103	95	101
1924	PB 1 (YC)	109	97	102	102	105	102	103	109	93	119	99	99	110	104	100	102
1925	PRH 10 (HC)	100	79	89	89	89	87	89	100	84	106	86	86	99	92	88	90
1926	TB (QC)	105	94	101	98	98	104	100	105	96	140	98	98	101	100	102	100
1927	PB 1509 (OC)	99	76	87	82	83	86	85	99	78	102	81	81	92	87	81	86
1928	LC	119	98	100	98	99	98	99	119	96	127	82	82	97	89	90	98
Exp. Mean		105	88	94	93	94	93	94	105	87	112	91	91	101	96	93	
Standard Error		1.24	1.76	1.30	1.28	1.16	1.36	1.19	1.24	1.45	2.53	1.54	1.54	1.66	1.57	1.54	

Annual Progress Report 2024 Vol. I- Varietal Improvement

Table 42.4: Plant height (cm) of entries in AVT-BT during *Kharif* 2024

Entry No.	IET No.	ND	UK	PUN			PUN (4)	HR		HR (1)	UP			UP (2)	JK	Overall Mean (9)	
		IARI	@ PANT	LDH	RUN	GDP	KPT	Mean	@ KAR	KUL	Mean	MDP (BDF)	@ MDP (SB)	NGN	Mean		CHT
1901	31290	87.0	125.0	108.3	107.7	121.5	98.3	109.0	87.0	108.0	108.0	108.7	109	101.6	105.2	103.44	105
1902	31299	84.3	134.0	124.0	118.6	111.5	115.3	117.4	84.3	130.0	130.0	124.8	125	104.2	114.5	100.76	113
1903	31291	90.0	117.0	109.7	116.6	120.2	103.7	112.6	90.0	99.0	99.0	112.9	113	104.8	108.9	102.70	107
1904	31292	106.0	134.0	131.3	125.7	131.7	125.1	128.4	106.0	127.0	127.0	129.3	129	105.4	117.4	106.60	121
1905	31293	88.5	120.0	113.3	110.8	113.0	106.5	110.9	88.5	105.0	105.0	117.3	117	101.2	109.3	93.40	105
1906	31294	81.3	101.0	96.7	97.2	107.3	96.4	99.4	81.3	104.0	104.0	100	100	96.0	98.0	85.07	96
1907	31296	86.5	128.0	106.3	105.1	122.3	103.4	109.3	86.5	104.0	104.0	108.1	108	102.6	105.4	89.50	103
1908	31297	95.8	150.0	126.3	124.3	127.6	111.9	122.5	95.8	146.0	146.0	144.3	144	103.8	124.1	121.14	122
1909	31298	81.8	112.0	107.7	108.6	123.3	105.3	111.2	81.8	111.0	111.0	118.9	119	96.2	107.6	97.20	106
1910	31300	95.0	112.0	112.0	117.5	113.9	108.3	113.0	95.0	123.0	123.0	118.7	119	96.4	107.6	106.00	110
1911	31301	79.0	104.0	98.7	94.5	114.7	97.6	101.4	79.0	99.0	99.0	99.5	100	92.8	96.2	78.40	95
1912	31302	103.8	136.0	123.0	123.3	126.1	115.7	122.0	103.8	124.0	124.0	121.4	121	109.8	115.6	112.20	118
1913	31303	83.8	116.0	109.7	104.9	128.1	104.6	111.8	83.8	107.0	107.0	111	111	101.8	106.4	87.47	104
1914	32296	69.3	99.0	96.0	100.1	112.5	97.1	101.4	69.3	98.0	98.0	105.1	105	99.4	102.3	91.10	97
1915	32297	71.8	103.0	92.0	96.0	127.5	97.7	103.3	71.8	101.0	101.0	102.3	102	93.2	97.8	87.30	97
1916	32298	76.3	110.0	94.7	101.7	113.5	97.7	101.9	76.3	100.0	100.0	102.1	102	98.8	100.5	89.27	97
1917	PB1 (RP)	88.8	126.0	112.3	108.6	113.4	100.5	108.7	88.8	120.0	120.0	119.5	120	102.0	110.8	93.76	107
1918	30533	86.5	114.0	115.0	104.9	109.7	105.6	108.8	86.5	99.0	99.0	117.5	118	106.6	112.1	100.16	105
1919	30535	81.0	102.0	96.7	104.4	119.7	102.1	105.7	81.0	108.0	108.0	105.8	106	91.8	98.8	85.27	99
1920	31306	70.0	105.0	98.7	97.3	122.0	98.1	104.0	70.0	102.0	102.0	105.7	106	96.6	101.2	96.10	98
1921	31307	68.8	107.0	102.0	97.2	118.0	98.4	103.9	68.8	102.0	102.0	102.8	103	96.4	99.6	95.93	98
1922	PB 1509 (RP)	68.5	102.0	97.7	95.9	118.7	95.8	102.0	68.5	100.0	100.0	103.2	103	97.4	100.3	95.77	97
1923	PB1121 (Y & QC)	81.0	113.0	112.3	111.0	115.3	108.5	111.8	81.0	121.0	121.0	127.2	127	102.4	114.8	104.74	109
1924	PB 1 (YC)	90.0	126.0	106.3	106.1	103.6	108.0	106.0	90.0	119.0	119.0	116.7	117	100.6	108.7	91.40	105
1925	PRH 10 (HC)	86.5	121.0	111.0	105.9	119.4	105.3	110.4	86.5	106.0	106.0	116	116	100.0	108.0	83.96	104
1926	TB (QC)	97.3	136.0	149.3	138.3	149.3	134.7	142.9	97.3	140.0	140.0	151.4	151	112.6	132.0	117.07	132
1927	PB 1509 (OC)	65.3	103.0	97.3	95.1	111.1	93.7	99.3	65.3	102.0	102.0	107.9	108	96.4	102.2	87.27	95
1928	LC	83.0	124.0	107.7	107.6	119.1	111.3	111.4	83.0	127.0	127.0	102.7	103	110.0	106.4	104.47	108
Exp. Mean		83.8	117.1	109.1	108.0	119.1	105.2	110.4	83.8	112	112	114	114	101	108	97	
Standard Error		1.98	2.51	2.43	2.05	1.70	1.75	1.98	1.98	2.53	2.53	2.41	2.41	0.99	1.56	1.95	

Annual Progress Report 2024 Vol. I- Varietal Improvement

Table No. 42.5: Panicles/m² of entries in AVT-BT during *Kharif* 2024

Entry No.	IET No.	ND	UK	PUN				PUN (4)	HR		HR (1)	UP			UP (2)	JK	Overall Mean (9)
		IARI	@ PANT	LDH	RUN	GDP	KPT	Mean	@ KAR	KUL	Mean	MDP (BDF)	@ MDP (SB)	NGN	Mean	CHT	
1901	31290	444	352	286	273	372	270	300	444	405	405	308.6	308.6	237.5	273.1	357	328
1902	31299	290	426	280	355	325	325	321	290	413	413	349.7	349.7	226.2	288.0	345	323
1903	31291	413	316	257	257	349	246	277	413	358	358	301.9	301.9	235.4	268.7	405	314
1904	31292	535	324	251	297	368	273	298	535	362	362	264.2	264.2	240.1	252.1	389	331
1905	31293	459	321	280	317	365	277	310	459	380	380	313	313.0	271.0	292.0	339	333
1906	31294	375	386	293	320	327	327	317	375	394	394	348.5	348.5	222.2	285.4	313	324
1907	31296	511	307	278	269	375	334	314	511	392	392	324.1	324.1	242.3	283.2	386	346
1908	31297	403	365	307	291	375	269	311	403	434	434	333	333.0	219.6	276.3	337	330
1909	31298	385	400	288	270	378	271	302	385	360	360	276.4	276.4	231.0	253.7	299	307
1910	31300	520	257	290	317	390	308	326	520	356	356	348.5	348.5	233.7	291.1	301	340
1911	31301	362	383	295	353	342	289	320	362	323	323	369.6	369.6	261.8	315.7	357	328
1912	31302	480	258	299	277	397	266	310	480	368	368	230.9	230.9	235.4	233.2	352	323
1913	31303	440	427	299	333	394	307	333	440	298	298	341.9	341.9	265.3	303.6	321	333
1914	32296	296	366	288	369	363	295	329	296	375	375	337.4	337.4	278.5	308.0	312	324
1915	32297	318	401	306	376	387	287	339	318	358	358	348.5	348.5	231.0	289.8	311	325
1916	32298	321	304	275	312	370	295	313	321	318	318	338.6	338.6	231.0	284.8	299	307
1917	PB1 (RP)	428	316	300	317	357	341	329	428	365	365	377.4	377.4	270.6	324.0	281	337
1918	30533	607	255	262	253	368	277	290	607	372	372	286.4	286.4	250.8	268.6	287	329
1919	30535	560	329	279	273	388	267	302	560	384	384	314.1	314.1	218.9	266.5	334	335
1920	31306	304	394	299	297	383	291	318	304	324	324	316.4	316.4	226.6	271.5	307	306
1921	31307	416	246	289	293	308	269	290	416	388	388	310.8	310.8	226.5	268.6	306	312
1922	PB 1509 (RP)	313	386	275	312	387	286	315	313	339	339	328.6	328.6	235.4	282.0	282	306
1923	PB1121 (Y & QC)	390	413	297	313	399	272	321	390	328	328	384.1	384.1	220.0	302.1	290	322
1924	PB 1 (YC)	349	433	260	248	397	303	302	349	330	330	344.1	344.1	198.0	271.1	297	303
1925	PRH 10 (HC)	382	311	260	268	377	303	302	382	359	359	310.8	310.8	237.6	274.2	309	312
1926	TB (QC)	286	394	330	293	391	318	333	286	373	373	380.7	380.7	220.0	300.4	309	322
1927	PB 1509 (OC)	330	336	304	349	317	299	317	330	377	377	325.2	325.2	244.2	284.7	299	316
1928	LC	278	311	293	325	353	283	313	278	353	353	305.3	305.3	213.4	259.4	303	301
Exp. Mean		400	347	286	305	368	291	312	400	364	364	326	326	237	281	322	
Standard Error		17.01	10.54	3.37	6.64	4.76	4.40	2.73	17.01	5.81	5.81	6.61	6.61	3.58	3.79	6.26	

Table 42.6. Summary of the mean grain and cooking quality characteristics of entries in AVT-BT

Entry No	IET No.	Hull %	Mill %	\$ HRR %	KL (mm)	KB (mm)	L/B	\$ KLAC (mm)	\$ ER	ASVAC (%)	#	* GC (mm)	\$ WU (ml/100 g)	\$ VER
1901	31290	77.00	67.07	44.80	8.42	1.91	4.44	15.83	1.97	6.83	22.45	47.8	316.3	5.18
1902	31299	77.69	68.71	56.70	8.34	1.76	4.76	15.14	1.88	7.00	24.32	48.5	357.5	5.38
1903	31291	77.95	68.39	52.08	7.84	1.64	4.79	13.32	1.66	7.00	24.53	54.3	378.8	5.42
1904	31292	79.21	71.46	64.05	7.60	1.75	4.40	12.99	1.69	7.00	25.05	55.0	320.0	5.32
1905	31293	78.61	72.75	62.77	8.24	1.76	4.69	13.55	1.64	6.89	24.10	58.5	343.8	5.55
1906	31294	78.59	68.40	56.61	8.19	1.80	4.56	15.53	1.96	7.00	22.32	49.0	370.0	5.06
1907	31296	77.73	66.93	43.91	7.06	1.76	4.02	11.45	1.58	7.00	21.78	46.8	368.8	5.09
1908	31297	76.89	68.53	53.29	8.69	1.75	4.97	15.33	1.80	7.00	22.35	66.8	360.0	4.99
1909	31298	78.00	68.79	50.89	7.77	1.60	4.91	13.77	1.80	6.33	24.33	41.8	381.3	5.48
1910	31300	76.08	67.52	53.20	7.86	1.62	4.91	12.98	1.63	6.89	23.51	49.8	332.5	5.30
1911	31301	78.11	69.16	53.67	7.84	1.73	4.55	13.87	1.76	6.31	22.76	59.8	357.5	5.33
1912	31302	78.76	71.27	54.97	7.62	1.78	4.46	12.44	1.58	6.33	23.56	59.7	332.5	4.68
1913	31303	76.66	67.66	53.83	8.08	1.60	5.07	14.65	1.84	7.00	22.35	45.2	376.3	5.27
1914	32296	77.03	65.00	39.06	7.95	1.73	4.75	15.58	1.96	6.56	22.70	42.2	335.0	5.47
1915	32297	77.52	65.12	41.58	8.32	1.75	4.76	16.10	1.94	6.33	20.81	42.0	375.0	5.79
1916	32298	77.76	68.57	44.94	8.21	1.73	4.75	14.62	1.85	6.78	21.69	40.5	347.5	5.21
1917	PB1 (RP)	79.41	69.56	53.58	7.67	1.63	4.74	14.13	1.90	7.00	22.82	37.7	357.5	5.62
1918	30533	77.46	69.03	54.27	8.13	1.78	4.58	13.89	1.69	6.81	22.81	45.2	361.3	5.75
1919	30535	79.28	72.44	64.39	7.29	1.80	4.08	12.41	1.70	3.72	23.93	50.3	208.8	4.98
1920	31306	77.19	62.39	42.25	8.46	1.80	4.72	15.63	1.90	5.81	21.36	39.8	321.3	5.24
1921	31307	76.68	65.55	47.41	8.32	1.76	4.73	15.14	1.88	6.92	22.37	47.5	341.3	5.58
1922	PB 1509 (RP)	76.71	63.46	40.54	8.10	1.71	4.74	15.14	1.96	5.81	21.48	51.3	318.8	5.65
1923	PB1121 (Y & QC)	77.29	66.36	54.20	8.41	1.72	4.91	14.89	1.82	7.00	24.04	52.0	361.3	5.24
1924	PB 1 (YC)	76.70	68.47	55.78	7.66	1.64	4.73	14.32	1.88	7.00	24.98	43.3	385.0	5.84
1925	PRH 10 (HC)	80.51	73.88	58.52	7.52	1.77	4.27	13.18	1.76	6.67	23.94	43.8	388.8	5.34
1926	TB (QC)	78.63	69.49	59.63	7.49	1.73	4.33	13.09	1.72	5.67	22.96	44.3	220.0	5.43
1927	PB 1509 (OC)	77.52	67.90	44.81	8.13	1.75	4.67	15.63	2.05	6.50	22.85	41.5	333.8	5.21
1928	LC	77.20	68.30	51.35	8.13	1.74	4.69	15.25	1.97	6.86	22.91	42.7	353.8	5.21

\$ Mean is based on IARI & BEDF data

Mean is based on BEDF & CRR1 data

* Mean is based on IARI, BEDF & CRR1 data

Table 42.6a. Summary of the grain quality characteristics of entries in Advanced Varietal Trial - Basmati (AVT-BT) conducted at ICAR-IARI, New Delhi and analyzed at ICAR-IARI, New Delhi

Entry No	IET No	Hull%	Mill%	HRR%	KL(mm)	KB(mm)	L/B	KLAC(mm)	ER
1901	31290	77.62	68.4	43.16	8.17	1.70	4.80	15.53	1.90
1902	31299	79.66	72.91	59.02	7.97	1.72	4.64	14.60	1.83
1903	31291	80.23	71.09	50.33	7.65	1.51	5.07	12.66	1.65
1904	31292	82.16	76.8	63.86	7.63	1.70	4.49	13.46	1.76
1905	31293	81.25	75.24	61.19	8.37	1.66	5.04	12.60	1.51
1906	31294	80.8	72.39	57.17	7.95	1.66	4.79	15.00	1.89
1907	31296	80.23	69.94	47.29	6.90	1.68	4.11	10.10	1.46
1908	31297	77.62	69.61	58.10	8.85	1.68	5.27	15.33	1.73
1909	31298	79.21	70.26	51.36	7.35	1.48	4.97	13.30	1.81
1910	31300	78.98	69.87	57.08	8.52	1.66	5.13	12.80	1.50
1911	31301	78.64	71.74	56.60	8.10	1.66	4.88	14.60	1.80
1912	31302	81.14	74.03	58.89	7.80	1.80	4.34	11.80	1.51
1913	31303	78.75	70.15	59.18	7.85	1.53	5.13	14.20	1.81
1914	32296	78.98	66.94	36.47	7.60	1.65	4.60	14.90	1.96
1915	32297	79.43	67.74	43.08	8.12	1.68	4.83	16.20	1.99
1916	32298	78.75	71.38	45.46	8.28	1.67	4.97	15.20	1.84
1917	PB1 (RP)	78.3	71.25	55.40	7.30	1.53	4.77	13.60	1.86
1918	30533	78.98	73.07	54.69	8.00	1.73	4.62	13.10	1.64
1919	30535	80	76.24	63.15	7.40	1.75	4.24	12.60	1.70
1920	31306	78.98	64.72	41.41	8.37	1.65	5.09	16.40	1.96
1921	31307	78.98	66.53	49.30	8.23	1.68	4.90	15.20	1.85
1922	PB 1509 (RP)	77.96	64.02	34.96	8.20	1.66	4.94	16.20	1.98
1923	PB1121 (Y & QC)	76.94	68.79	58.29	8.17	1.68	4.86	14.90	1.82
1924	PB 1 (YC)	78.53	69.75	60.20	7.45	1.66	4.49	14.00	1.88
1925	PRH 10 (HC)	83.64	78.98	62.98	7.13	1.78	4.01	12.60	1.77
1926	TB (QC)	81.71	75.07	63.39	7.42	1.67	4.45	12.80	1.73
1927	PB 1509 (OC)	79.78	70.15	43.03	7.95	1.66	4.79	16.40	2.06
1928	LC	81.71	74.17	55.59	8.20	1.66	4.94	16.60	2.02

Table 42.6a (contd...): Summary of the grain quality characteristics of entries in Advanced Varietal Trial - Basmati (AVT BT) conducted at ICAR-IARI, New Delhi and analyzed at ICAR-IARI, New Delhi

Entry No	IET No	WU(ml/100g)	VER	ASV	GC(mm)	grain type	chalkiness	Aroma
1901	31290	312.5	5.60	7	41.5	ELS	VOC	SS
1902	31299	355.0	6.00	7	38.5	ELS	OC	MS
1903	31291	377.5	5.40	7	56.5	ELS	VOC	SS
1904	31292	315.0	5.60	7	45.0	ELS	A	MS
1905	31293	342.5	5.60	7	47.5	ELS	VOC	MS
1906	31294	360.0	5.30	7	42.5	ELS	VOC	SS
1907	31296	367.5	5.49	7	44.5	LS	A	SS
1908	31297	355.0	4.55	7	42.5	ELS	A	SS
1909	31298	387.5	5.66	3,7	38.5	LS	VOC	MS
1910	31300	325.0	5.92	7	43.5	ELS	VOC	SS
1911	31301	330.0	5.43	3,7	44.5	ELS	VOC	SS
1912	31302	335.0	4.68	7	48.5	ELS	VOC	MS
1913	31303	357.5	5.66	7	41.0	ELS	VOC	MS
1914	32296	340.0	6.00	5,7	46.5	ELS	VOC	SS
1915	32297	380.0	6.00	4,7	38.5	ELS	VOC	SS
1916	32298	350.0	5.66	7	45.0	ELS	VOC	MS
1917	PB1 (RP)	355.0	6.00	7	43.0	LS	A	MS
1918	30533	372.5	6.00	7	40.0	ELS	A	MS
1919	30535	337.5	4.93	2,3,4	45.5	LS	A	SS
1920	31306	302.5	5.66	5,7	37.5	ELS	VOC	SS
1921	31307	342.5	5.66	7	44.0	ELS	VOC	MS
1922	PB 1509 (RP)	302.5	6.00	5,7	51.5	ELS	VOC	MS
1923	PB1121 (Y & QC)	367.5	5.66	7	46.5	ELS	A	SS
1924	PB 1 (YC)	400.0	6.80	7	41.5	LS	A	MS
1925	PRH 10 (HC)	412.5	5.66	5,7	48.5	LS	A	MS
1926	TB (QC)	180	5.83	5	38.5	LS	A	SS
1927	PB 1509 (OC)	317.5	5.66	5,7	48.5	ELS	VOC	MS
1928	LC	337.5	5.66	7	48.5	ELS	OC	SS

HULL: Hulling(%) MILL: Milling(%) HRR: Head Rice Recovery KL: Kernal length (mm) KB: Kernal Breadth(mm) L/B : Length and Breadth(mm) Grain chalk: Grain Chalkiness VOC Very Occasionally Chalky OC: Occasionally Chalky P: Present A: Absent KLAC: Kernal length after cooking WU: Water uptake ER: Elongation ratio AC: Amylose content (%) ASV: Alkali Spreading Value ELS: Extra Long Slender LS: Long Slender MS: Medium Slender SS: Strongly Scented MS: Mild Scented NS: Non Scented

Table 42.6b. Summary of the grain quality characteristics of entries in Advanced Varietal Trial - Basmati (AVT-BT) conducted at ICAR-IARI, New Delhi and analyzed at ICAR-IIRR, Hyderabad Kharif 2024

Entry No	IET No	Hull%	Mill%	KL (mm)	KB (mm)	L/B	Grain Type	Grain Chalk	ASV
1901	31290	77.1	67.0	8.44	2.12	4.01	LS	VOC	7.0
1902	31299	77.2	68.9	8.46	1.98	4.27	LS	OC	7.0
1903	31291	77.2	66.3	7.59	1.68	4.51	LS	VOC	7.0
1904	31292	78.2	70.4	7.51	2.00	3.75	LS	OC	7.0
1905	31293	80.2	72.5	8.61	1.90	4.53	LS	VOC	7.0
1906	31294	78.6	69.0	7.95	1.90	4.18	LS	VOC	7.0
1907	31296	76.7	63.2	7.27	1.91	3.80	LS	VOC	7.0
1908	31297	78.0	68.3	8.93	1.92	4.65	LS	A	7.0
1909	31298	77.7	69.8	7.71	1.84	4.19	LS	VOC	7.0
1910	31300	76.8	67.3	7.94	1.75	4.53	LS	VOC	7.0
1911	31301	78.1	68.6	7.60	1.84	4.13	LS	OC	7.0
1912	31302	78.2	70.3	7.63	2.17	3.51	LS	OC	5.0
1913	31303	77.5	68.9	7.90	1.65	4.78	LS	VOC	7.0
1914	32296	75.5	61.8	8.57	1.89	4.53	LS	VOC	7.0
1915	32297	75.5	60.8	8.37	1.95	4.29	LS	OC	7.0
1916	32298	76.7	65.4	8.67	1.86	4.66	LS	VOC	7.0
1917	PB1 (RP)	77.9	69.2	7.49	1.72	4.35	LS	VOC	7.0
1918	30533	77.3	68.2	8.00	1.90	4.21	LS	OC	7.0
1919	30535	80.0	71.2	7.49	2.09	3.58	LS	VOC	4.0
1920	31306	75.3	58.5	8.31	1.82	4.56	LS	VOC	5.0
1921	31307	77.3	63.0	8.42	1.78	4.73	LS	VOC	7.0
1922	PB 1509 (RP)	76.1	62.8	8.35	1.86	4.48	LS	VOC	5.0
1923	PB1121 (Y & QC)	76.8	66.5	8.62	1.87	4.60	LS	VOC	7.0
1924	PB 1 (YC)	78.7	68.8	7.04	1.69	4.16	LS	VOC	7.0
1925	PRH 10 (HC)	81.2	71.7	7.47	1.88	3.97	LS	VOC	7.0
1926	TB (QC)	76.9	67.9	7.22	1.84	3.92	LS	A	7.0
1927	PB 1509 (OC)	76.3	65.8	8.47	2.02	4.19	LS	OC	7.0
1928	LC	76.5	65.8	8.39	1.89	4.43	LS	VOC	7.0

HULL: Hulling(%) MILL: Milling(%) KL: Kernal length (mm) KB: Kernal Breadth(mm) L/B : Length and Breadth(mm) Grain chalk: Grain Chalkiness VOC Very Occasionally Chalky OC: Occasionally Chalky P: Present A: Absent ASV: Alkali Spreading Value

Table 42.6c: Summary of the grain quality characteristics of entries in Advanced Varietal Trial - Basmati (AVT BT) conducted at ICAR-IARI, New Delhi and analyzed at ICAR-NRRI, Cuttack during Kharif 2024.

Entry No	IET No	Hull%	Mill%	KL (mm)	KB(mm)	L/B	ASV	GC	Amylose %	Grain type
1901	31290	77.6	65.3	8.6	1.98	4.34	5	48	22.5	ELS
1902	31299	78.6	64.3	8.5	1.58	5.38	6	52	24.5	ELS
1903	31291	78.5	68.3	8.6	1.65	5.21	5	54	23.5	ELS
1904	31292	79.6	65.3	7.55	1.45	5.21	6	45	26.5	ELS
1905	31293	74.5	67.5	7.54	1.65	4.57	4	48	24.5	ELS
1906	31294	78.6	62.2	8.65	1.85	4.68	5	47	22.1	ELS
1907	31296	78.6	69.5	7.32	1.63	4.49	5	46	22.3	LS
1908	31297	76.3	68.3	7.65	1.58	4.84	5	58	23.5	ELS
1909	31298	78.5	64.8	8.57	1.45	5.91	4	47	24.3	ELS
1910	31300	74.5	66.9	7.69	1.35	5.70	6	55	23.2	ELS
1911	31301	79.6	67.5	7.75	1.65	4.70	4	45	25.3	ELS
1912	31302	78.5	68.3	7.5	1.23	6.10	4	48	24.3	LS
1913	31303	77.2	67.5	8.6	1.54	5.58	5	42	24.3	ELS
1914	32296	79.3	68.6	8.07	1.87	4.32	5	40	25.3	ELS
1915	32297	80.2	68.3	7.35	1.68	4.38	4	45	21.3	LS
1916	32298	78.6	69.5	7.24	1.59	4.55	5	49	23.2	LS
1917	PB1 (RP)	85.3	68.3	8.65	1.54	5.62	4	45	22.6	ELS
1918	30533	78.6	67.5	8.45	1.68	5.03	4	47	23.5	ELS
1919	30535	78.4	66.5	6.39	1.58	4.04	5	58	24.3	LS
1920	31306	79.5	65	8.64	1.98	4.36	4	56	20.3	ELS
1921	31307	74.5	66.9	8.25	1.78	4.63	5	62	24.3	ELS
1922	PB 1509 (RP)	77.8	64.5	7.37	1.58	4.66	5	60	22.3	LS
1923	PB1121 (Y & QC)	80.2	63.4	8.7	1.58	5.51	5	67	25.3	ELS
1924	PB 1 (YC)	74.6	67.8	8.69	1.45	5.99	5	61	25.6	ELS
1925	PRH 10 (HC)	77.9	68.6	7.98	1.58	5.05	5	58	27	ELS
1926	TB (QC)	79.6	64.5	7.68	1.65	4.65	6	52	24.5	ELS
1927	PB 1509 (OC)	78.5	69.3	7.69	1.58	4.87	5	51	25.6	ELS
1928	LC	74.6	64.5	7.58	1.58	4.80	6	52	24.5	ELS

HULL: Hulling(%) MILL: Milling(%) KL: Kernal length (mm) KB: Kernal Breadth(mm) L/B : Length and Breadth(mm) Grain chalk: Grain Chalkiness VOC Very Occasionally Chalky OC: Occasionally Chalky P: Present A: Absent ASV: Alkali Spreading Value

Table 42.6d: Summary of the grain quality characteristics of entries in Advanced Varietal Trial - Basmati (AVT-BT) conducted at ICAR-IARI, New Delhi and analyzed at BEDF, Modipuram during Kharif 2024

Entry No	IET No	Hull%	Mill%	HRR%	KL(mm)	KB(mm)	L/B	KLAC (mm)	ER
1901	31290	75.67	67.59	46.44	8.49	1.85	4.59	17.20	2.03
1902	31299	75.28	68.71	54.37	8.45	1.78	4.75	16.20	1.92
1903	31291	75.86	67.87	53.82	7.50	1.71	4.39	12.55	1.67
1904	31292	76.86	73.34	64.24	7.70	1.86	4.14	12.40	1.61
1905	31293	78.48	75.76	64.34	8.45	1.82	4.64	14.95	1.77
1906	31294	76.37	70.01	56.05	8.21	1.78	4.61	16.75	2.04
1907	31296	75.39	65.07	40.53	6.75	1.83	3.69	11.50	1.70
1908	31297	75.62	67.89	48.47	9.34	1.82	5.13	17.40	1.86
1909	31298	76.57	70.28	50.41	7.43	1.62	4.59	13.30	1.79
1910	31300	74.05	66.02	49.31	7.31	1.70	4.30	12.80	1.75
1911	31301	76.11	68.8	50.73	7.90	1.76	4.49	13.60	1.72
1912	31302	77.2	72.43	51.04	7.56	1.94	3.90	12.50	1.65
1913	31303	73.19	64.1	48.47	7.97	1.67	4.77	15.00	1.88
1914	32296	74.34	62.66	41.67	8.30	1.81	4.59	16.25	1.96
1915	32297	74.93	63.63	40.09	8.51	1.82	4.68	16.00	1.88
1916	32298	76.99	67.98	44.41	8.64	1.79	4.83	16.05	1.86
1917	PB1 (RP)	76.14	69.5	51.76	7.24	1.71	4.23	13.95	1.93
1918	30533	74.95	67.36	53.84	8.05	1.80	4.47	14.05	1.74
1919	30535	78.73	75.82	65.62	7.88	1.77	4.45	13.35	1.69
1920	31306	74.99	61.33	43.09	8.51	1.74	4.89	15.65	1.84
1921	31307	75.94	65.77	45.51	8.36	1.80	4.64	16.00	1.91
1922	PB 1509 (RP)	74.96	62.53	46.12	8.46	1.73	4.89	16.40	1.94
1923	PB1121 (Y & QC)	75.2	66.74	50.10	8.15	1.74	4.68	14.85	1.82
1924	PB 1 (YC)	74.95	67.54	51.36	7.45	1.75	4.26	14.05	1.89
1925	PRH 10 (HC)	79.31	76.25	54.05	7.48	1.85	4.04	13.15	1.76
1926	TB (QC)	76.31	70.47	55.87	7.64	1.78	4.29	13.15	1.72
1927	PB 1509 (OC)	75.48	66.36	46.59	8.40	1.74	4.83	17.15	2.04
1928	LC	76	68.72	47.1	8.36	1.82	4.59	16.00	1.91

Table 42.6d. (contd...): Summary of the grain quality characteristics of entries in Advanced Varietal Trial - Basmati (AVT BT) conducted at ICAR-IARI, New Delhi and analyzed at BEDF, Modipuram during Kharif 2024

Entry No	IET No	WU(ml/100 g)	VE R	AS V	GC(mm)	Amylose %	Grain type	Chalkiness	Aroma
1901	31290	320.0	4.75	6.5	54.0	22.40	ELS	VOC	SS
1902	31299	360.0	4.75	7	55.0	24.14	ELS	OC	MS
1903	31291	380.0	5.43	7	52.5	25.56	LS	VOC	SS
1904	31292	325.0	5.03	7	75.0	23.60	ELS	A	MS
1905	31293	345.0	5.50	6.67	80.0	23.69	ELS	VOC	MS
1906	31294	380.0	4.82	7	57.5	22.54	ELS	VOC	SS
1907	31296	370.0	4.69	7	50.0	21.25	LS	A	SS
1908	31297	365.0	5.43	7	100.0	21.20	ELS	A	SS
1909	31298	375.0	5.30	7	40.0	24.36	LS	VOC	MS
1910	31300	340.0	4.69	6.67	51.0	23.82	LS	VOC	SS
1911	31301	385.0	5.23	6.92	90.0	20.22	ELS	VOC	SS
1912	31302	330.0	4.69	7	82.5	22.81	ELS	VOC	MS
1913	31303	395.0	4.88	7	52.5	20.40	ELS	VOC	MS
1914	32296	330.0	4.94	6.67	40.0	20.09	ELS	VOC	SS
1915	32297	370.0	5.57	6.5	42.5	20.31	ELS	VOC	SS
1916	32298	345.0	4.75	6.34	27.5	20.18	ELS	VOC	MS
1917	PB1 (RP)	360.0	5.23	7	25.0	23.03	LS	A	MS
1918	30533	350.0	5.50	6.42	48.5	22.11	ELS	A	MS
1919	30535	80.0	5.03	4.17	47.5	23.55	ELS	A	SS
1920	31306	340.0	4.8	6.42	26.0	22.41	ELS	VOC	SS
1921	31307	340.0	5.50	6.75	36.5	20.44	ELS	VOC	MS
1922	PB 1509 (RP)	335.0	5.30	6.42	42.5	20.66	ELS	VOC	MS
1923	PB1121 (Y & QC)	355.0	4.82	7	42.5	22.77	ELS	A	SS
1924	PB 1 (YC)	370.0	4.88	7	27.5	24.35	LS	A	MS
1925	PRH 10 (HC)	365	5.02	7	25	20.88	LS	A	MS
1926	TB (QC)	260	5.02	5	42.5	21.41	ELS	A	SS
1927	PB 1509 (OC)	350	4.75	6.5	25	20.09	ELS	VOC	MS
1928	LC	370	4.75	6.59	27.5	21.32	ELS	OC	SS

HULL: Hulling(%) MILL: Milling(%) HRR: Head Rice Recovery KL: Kernal length (mm) KB: Kernal Breadth(mm) L/B : Length and Breadth(mm) Grain chalk: Grain Chalkiness VOC Very Occasionally Chalky OC: Occasionally Chalky P: Present A: Absent KLAC: Kernal length after cooking WU: Water uptake ER: Elongation ratio AC: Amylose content (%) ASV: Alkali Spreading Value ELS: Extra Long Slender LS: Long Slender MS: Medium Slender SS: Strongly Scented MS: Mild Scented NS: Non Scented

Table 42.7: Panel Test Scores of entries in Advance Variety Trial - Basmati (AVT-BT) conducted at ICAR-IARI, New Delhi Kharif 2024

Entry No	IET No.	Appearance	Cohesiveness	Tenderness on Touching	Tenderness on Chewing	Taste	Aroma	Elongation	Overall Acceptability	Total	Mean	Rank
1901	31290	5.00	4.33	4.33	4.00	4.00	3.60	4.00	3.67	32.93	4.12	11
1902	31299	4.83	4.67	4.17	4.33	4.17	3.60	4.40	4.33	34.50	4.31	4
1903	31291	4.50	2.17	2.67	2.67	2.83	2.67	2.67	1.50	21.67	2.71	27
1904	31292	3.50	3.83	3.33	3.17	2.00	1.80	2.00	1.00	20.63	2.58	28
1905	31293	4.50	4.00	4.00	4.00	3.17	3.20	2.83	2.83	28.53	3.57	21
1906	31294	3.67	3.50	4.50	4.00	3.33	3.40	4.33	3.17	29.90	3.74	19
1907	31296	4.50	4.50	2.83	2.67	2.00	2.40	2.00	1.00	21.90	2.74	24
1908	31297	3.83	4.83	4.33	4.33	3.83	3.80	4.00	2.67	31.63	3.95	14
1909	31298	4.17	4.50	4.50	4.33	3.67	3.60	3.17	2.50	30.43	3.80	17
1910	31300	3.33	3.50	4.00	3.83	3.00	3.00	2.33	1.00	24.00	3.00	23
1911	31301	4.00	3.67	4.50	4.50	4.00	3.80	3.17	2.67	30.30	3.79	18
1912	31302	3.83	3.67	3.17	2.83	2.50	2.60	2.00	1.17	21.77	2.72	25
1913	31303	4.00	4.75	4.75	4.75	4.50	4.00	4.00	3.75	34.50	4.31	5
1914	32296	5.00	4.25	4.75	4.75	4.25	3.67	4.50	4.00	35.17	4.40	2
1915	32297	4.50	4.25	3.75	3.50	4.00	4.00	3.75	3.25	31.00	3.88	15
1916	32298	4.50	4.50	4.50	4.50	4.00	3.33	3.50	3.50	32.33	4.04	12
1917	PB1 (RP)	4.25	5.00	5.00	4.00	4.50	3.67	3.75	4.25	34.42	4.30	7
1918	30533	4.25	4.25	4.00	4.00	3.25	3.67	3.50	2.75	29.67	3.71	20
1919	30535	4.00	4.50	2.50	2.75	2.50	2.50	2.00	1.00	21.75	2.72	26
1920	31306	4.25	3.00	4.50	4.75	3.75	3.50	3.50	3.50	30.75	3.84	16
1921	31307	4.50	4.00	5.00	4.50	4.25	3.75	3.75	3.75	33.50	4.19	9
1922	PB 1509 (RP)	5.00	4.00	4.75	5.00	4.25	4.00	4.00	3.75	34.75	4.34	3
1923	PB1121 (Y & QC)	4.25	4.00	4.25	4.50	4.50	4.75	4.25	4.00	34.50	4.31	6
1924	PB 1 (YC)	5.00	4.25	5.00	5.00	4.00	4.00	4.25	4.00	35.50	4.44	1
1925	PRH 10 (HC)	4.25	4.00	4.00	3.67	2.50	3.25	2.00	2.00	25.67	3.21	22
1926	TB (QC)	4.25	4.50	4.25	4.33	4.00	4.25	3.00	3.25	31.83	3.98	13
1927	PB 1509 (OC)	4.25	4.50	4.50	4.67	4.50	4.00	4.25	3.75	34.42	4.30	8
1928	LC	4.50	4.50	4.50	4.67	4.00	4.00	3.75	3.25	33.17	4.15	10

Table 42.8: Composition of entries in Initial Variety trial –Basmati (IVT-BT), Kharif 2024

Entry No.	IET No	Designation	Cross Combination	Grain Type
1801	32299	SBJR-129-06	Ranbir Basmati/ Pb. Basmati 4	LS
1802	32300	SBJR-145-22	Ranbir Basmati/ Pb. Basmati 4	LS
1803	32301	SBJR-139-14	Ranbir Basmati/ Pb. Basmati 4	LS
1804	32302	HKR 03-408	HKR 240/ Taraori Basmati	LS
1805	32303	PAU 798-26-1-1	Pusa Basmati 1884-9-12-14/ Pusa Basmati 1121*2	ELS
1806	32304	PAU 7995-7-1-10-2	Pusa Basmati 1509/RYT 3390//Pusa Basmati 1509	ELS
1807	32305	CSR TPB 252-208	TRY1 / PB1	LS
1808	32306	CSR BT 252-179	CSR30 / CSR36	LS
1809	32307	NS BAS-1	7010/BSN14-1-1-1-9	ELS
1810	32308	UPR4712-6-1-1-1	Pant Sugandh Dhan 27/ UPR4022-7-1-1	LS
1811	32309	UPR 4707-6-2-1-1	Pant Sugandh Dhan 17/ Pusa 1609-09-9-4	LS
1812	32310	TMRH 2112 (Hybrid)	Hybrid	LS
1813	32311	PUSA 3126-9-21-120-10	Pusa Basmati 1509/ Karuppunel	ELS
1814	32312	PUSA 3126-27-29-157-58	Pusa Basmati 1509/ Karuppunel	ELS
1815	32313	BB-1	Ranbir Basmati*3/PB1637	LS
1816	32314	RPL-1075-2	Ranbir Basmati*3/PB1 (Pi9)// Ranbir Basmati*/DHMAS164	LS
1817	32315	MT9	Mutant of Basmati 370	LS
1818	32316	SJR 103-2-2	Pusa 2517-2-51-1/ Vasumati	LS
1819		Pusa Basmati 1121 (Y & QC)		ELS
1820		Pusa Basmati 1 (YC)		LS
1821		Pusa RH 10 (HC)		LS
1822		Taraori Basmati (QC)		LS
1823		Pusa Basmati 1509 (OC)		ELS
1824		Local Check		

Table No. 42.9: Grain yield (kg/ha) of entries in IVT-BT during *Kharif* 2024

Entry No.	IET No	ND (1)		UK (1)	PUN						PUN (4)			
		IARI		@PNT	LDH	KPT		GDP	RAUNI		Mean			
1801	32299	3900		1222	3761		4305		3840		3765		3918	
1802	32300	3454		1749	4806		4557		4600		4603		4641	
1803	32301	3265		1451	3656		3871		3700		3569		3699	
1804	32302	4252		1437	4444		4636		4300		4186		4391	
1805	32303	4748		2558	4556		4329		4475		4721		4520	
1806	32304	4732		2136	5161	10	4583		4720		5408	4	4968	
1807	32305	5687	6	1484	5400	8	5355	2	5210	5	4937		5225	6
1808	32306	5930	4	2474	5761	3	4990	7	5550	3	4902		5301	3
1809	32307	4599		1654	4922		4850		5300	4	5183	6	5064	10
1810	32308	6630	2	2636	5278	9	4773		4750		5135	9	4984	
1811	32309	4598		2585	5439	7	4971	8	5080		5587	3	5269	4
1812	32310	6777	1	2304	6039	1	5705	1	5125	10	5826	1	5674	1
1813	32311	4844	10	2016	4250		5038	6	5210	6	5174	7	4918	
1814	32312	4822		2265	5511	5	5060	5	5150	8	5105	10	5206	7
1815	32313	4236		1685	4256		3850		4615		3934		4164	
1816	32314	4579		1759	4728		4114		4900		4200		4486	
1817	32315	6400	3	1985	5456	6	4840		4750		5173	8	5055	
1818	32316	4619		1755	5600	4	4669		4795		5299	5	5091	9
1819	PB1121 (Y & QC)	5770	5	1414	4617		4886	10	5750	2	4541		4948	
1820	PB 1 (YC)	3679		2211	4956		4849		5150	9	4907		4965	
1821	PRH 10 (HC)	5192	9	2774	5950	2	4898	9	5100		5763	2	5428	2
1822	TB (QC)	5421	7	1209	4556		4374		4230		3962		4280	
1823	PB 1509 (OC)	4638		1989	5150		5249	3	5200	7	4892		5123	8
1824	Local Check	5381	8	3560	5033		5188	4	5780	1	5014		5254	5
Mean		4923		2013	4970		4748		4887		4824		4857	
CV(%)		9.9		16.0	6.6		5.9		7.5		7.5		7	
CD(0.5)		1008		667	681		575		759		749		443.8	1
F		*		*	*		*		*		*			
Sowing Date				15.07.2024	03.07.2024		02.07.2024		05.07.2024		29.06.2024			
Transplanting Date				01.08.2024	01.08.2024		02.08.2024		30.07.2024		28.07.2024			
Local Check		Pusa Basmati 1692		Pant Basmati 1	Punjab Basmati 7		Punjab Basmati 7		Punjab Basmati 7		Punjab Basmati 7			

@ not included in means

Table 42.9 (Contd...): Grain yield (kg/ha) of entries in IVT-BT during Kharif 2024

Entry No.	IET No	HR		HR(1)		UP			UP(2)				
		KAUL	@KAR	Mean	NGN	MDP (BDF)	@MDP (SV)	Mean					
1801	32299	4675	7	3240	4675	7	4271	3611	2420	3941			
1802	32300	3766		4164	3766		4489	9	4491	3470	4490	10	
1803	32301	6101	3	3669	6101	3	4047		3750	2660	3899		
1804	32302	4510	9	3438	4510	9	3939		3982	2603	3960		
1805	32303	3876		3531	3876		4303		5047	5	4370	4675	9
1806	32304	4006		3091	4006		5409	5	5325	4	3660	5367	3
1807	32305	5962	4	4741	5962	4	3881		4167		4310	4024	
1808	32306	5125	5	5115	5125	5	5563	4	4491		5020	5027	5
1809	32307	3650		3339	3650		4482	10	4306		4050	4394	
1810	32308	3350		5297	3350		3868		5047	6	4940	4458	
1811	32309	4007		3927	4007		4188		4537		4040	4363	
1812	32310	6107	2	5434	6107	2	6458	1	6667	1	5485	6563	1
1813	32311	3974		3779	3974		5959	2	4537		4020	5248	4
1814	32312	6353	1	3476	6353	1	3920		4954	7	4370	4437	
1815	32313	4113		3493	4113		4501	8	3426		2850	3964	
1816	32314	4270	10	3201	4270	10	4124		3982		3305	4053	
1817	32315	3262		4703	3262		5077	6	4584	10	4640	4830	6
1818	32316	4877	6	4967	4877	6	3894		4399		4355	4146	
1819	PB1121 (Y & QC)	3214		3856	3214		3888		4954	8	4550	4421	
1820	PB 1 (YC)	4635	8	3256	4635	8	4322		4537		4450	4430	
1821	PRH 10 (HC)	3350		5275	3350		5857	3	5926	2	5060	5892	2
1822	TB (QC)	3839		5202	3839		3856		4260		2615	4058	
1823	PB 1509 (OC)	3225		5013	3225		4035		5371	3	4920	4703	7
1824	Local Check	3905		3003	3905		4508	7	4862	9	5040	4685	8
Mean		4340		4092	4340		4535		4634		4050	4584	
CV(%)		6.4		11.0	6.4		8.5		6.8		4.8	7.7	
CD(0.5)		573		932	573		799		656		405	500	
F		*		*	*		*		*		*	*	
Sowing Date		01.07.2024		28.06.2024			29.06.2024		29.06.2024		29.06.2024		
Transplanting Date		30.07.2024		29.07.2024			25.07.2024		26.07.2024		26.07.2024		
Local Check		Haryana Basamti 2		Basmati CSR 30			Pusa Basmati		Pusa Basmati 1509		Pusa Basmati 1509		

@ not included in means

Table No 42.9 (Contd...): Grain yield (kg/ha) of entries in IVT-BT during Kharif 2024

Entry No.	IET No	JK (1)		Overall	
		CHT		Mean	
1801	32299	3700		3981	
1802	32300	4850		4402	
1803	32301	4700		4073	
1804	32302	4200		4272	
1805	32303	5450	3	4612	
1806	32304	4850		4910	6
1807	32305	4150		4972	8
1808	32306	4950	8	5251	3
1809	32307	5000	7	4699	
1810	32308	4500		4815	
1811	32309	4850		4806	10
1812	32310	5550	1	6028	1
1813	32311	3900		4765	9
1814	32312	4950	9	5092	4
1815	32313	4200		4126	
1816	32314	4550		4383	
1817	32315	5050	6	4955	7
1818	32316	5450	4	4845	
1819	PB1121 (Y & QC)	4300		4658	
1820	PB 1 (YC)	5350	5	4709	
1821	PRH 10 (HC)	5550	2	5287	2
1822	TB (QC)	4150		4294	
1823	PB 1509 (OC)	4900		4740	
1824	Local Check	4950	10	4958	5
Mean		4752		4732	
CV(%)		10.8		8	
CD(0.5)		1058		537.5	
F		*		*	
Sowing Date		08.07.2024			
Transplanting Date		28.07.2024			
Local Check		Jammu Basmati-129			

@ not included in means, DFF-Days to 50% flowering, PH- Plant height

Table 42.10: Days to 50% flowering (DFE) of entries in IVT-BT during Kharif 2024

Entry No.	IET No.	ND	UK	PUN				PUN (4)	HR		HR (1)	UP			UP (2)	JK	Overall Mean (9)
		IAR I	@ PANT	LD H	RUN	GDP	KPT	Mean	@ KAR	KUL	Mean	MDP (BDF)	@ MDP (SV)	NG N	Mean	CH T	
1801	32299	95	88	92	97	92	96	94	110	76	76	89	89.0	96.5	92.8	96	92
1802	32300	91	83	91	95	93	94	93	101	93	93	87	86.5	101	93.8	93	93
1803	32301	89	83	88	93	90	94	91	96	81	81	87	86.5	94.5	90.5	82	89
1804	32302	103	99	100	105	102	100	101	102	95	95	102	102.0	105.5	103.8	101	101
1805	32303	99	93	100	100	97	97	98	105	91	91	97	97.0	105	101.0	96	98
1806	32304	87	74	88	87	85	88	87	104	92	92	84	84.0	84.5	84.3	83	86
1807	32305	89	84	92	97	93	92	93	100	80	80	90	89.5	103	96.3	90	92
1808	32306	94	88	95	101	100	97	98	107	83	83	97	97.0	101.5	99.3	96	96
1809	32307	98	96	100	104	102	97	100	105	86	86	97	97.0	103.5	100.3	100	98
1810	32308	102	96	104	105	111	109	107	109	84	84	100	100.0	113	106.5	107	104
1811	32309	90	90	95	102	98	99	98	96	78	78	95	95.0	106	100.5	101	96
1812	32310	89	79	91	90	89	92	90	103	73	73	87	86.5	95	90.8	88	88
1813	32311	89	81	88	90	88	89	88	100	85	85	82	81.5	90	85.8	86	87
1814	32312	88	73	84	86	86	87	86	99	83	83	81	81.0	84	82.5	82	85
1815	32313	98	88	100	97	100	95	98	100	91	91	96	95.5	101	98.3	95	97
1816	32314	99	84	91	96	97	94	94	101	94	94	92	92.0	91	91.5	93	94
1817	32315	90	82	88	93	91	90	90	101	88	88	89	89.0	94.5	91.8	86	90
1818	32316	93	88	94	94	94	95	94	104	89	89	90	89.5	98	93.8	94	93
1819	Pusa Basmati 1121 (Y & QC)	101	98	104	103	101	104	103	102	91	91	96	95.5	106.5	101.0	95	100
1820	Pusa Basmati 1 (YC)	106	96	103	104	100	100	101	119	75	75	98	98.0	111	104.5	98	99
1821	Pusa RH 10 (HC)	91	79	93	90	91	88	90	101	81	81	84	84.0	95.5	89.8	88	89
1822	Taraori Basmati (QC)	87	98	100	104	102	106	103	101	94	94	100	100.0	103.5	101.8	96	99
1823	Pusa Basmati 1509 (OC)	87	77	85	90	87	87	87	99	85	85	81	81.0	86.5	83.8	84	86
1824	Local Check	89	95	95	97	99	94	96	122	97	97	83	82.5	96.5	89.5	93	93
Exp. Mean		94	87	94	96	95	95	95	103	86	86	91	91	99	95	92	
Standard Error		1.10	1.50	1.14	1.13	1.22	1.11	1.10	1.17	1.28	1.28	1.26	1.26	1.48	1.32	1.25	

Table 42.11: Plant height (cm) of entries in IVT-BT during Kharif 2024

Entry No.	IET No.	ND	UK	PUN				PUN (4)	HR	
		IARI	@ PANT	LDH	RUN	GDP	KPT	Mean	@KAR	KUL
1801	32299	125	117	123	117	126	116	121	84	96
1802	32300	119	124	127	122	132	109	122	83	126
1803	32301	140	135	138	132	146	127	136	113	108
1804	32302	137	126	137	128	143	116	131	89	142
1805	32303	126	120	130	124	133	124	128	87	128
1806	32304	100	99	107	100	112	99	105	74	120
1807	32305	136	135	131	124	131	118	126	96	112
1808	32306	118	111	113	105	120	109	112	82	105
1809	32307	102	110	107	102	109	100	104	80	130
1810	32308	105	106	102	97	100	93	98	76	125
1811	32309	114	119	117	118	122	118	119	89	112
1812	32310	108	117	114	108	123	113	114	87	104
1813	32311	97	100	113	100	114	107	108	82	128
1814	32312	100	108	108	100	113	99	105	83	113
1815	32313	128	135	121	123	136	124	126	97	118
1816	32314	130	127	132	125	138	125	130	88	107
1817	32315	117	119	117	115	124	115	118	97	133
1818	32316	104	100	105	101	113	98	104	94	119
1819	Pusa Basmati 1121 (Y & QC)	120	127	120	116	124	109	117	91	132
1820	Pusa Basmati 1 (YC)	150	124	113	108	120	104	111	88	105
1821	Pusa RH 10 (HC)	117	109	113	108	118	116	114	88	158
1822	Taraori Basmati (QC)	105	140	148	143	149	148	147	110	116
1823	Pusa Basmati 1509 (OC)	97	99	103	96	109	100	102	78	141
1824	Local Check	102	111	107	107	112	106	108	106	126
Exp. Mean		116	117	118	113	124	112	117	89	121
Standard Error		2.84	2.32	2.34	2.38	2.40	2.31	2.29	1.90	2.72

Table 42.11 contd.: Plant height (cm) of entries in IVT-BT during Kharif 2024

Entry No.	IET No.	HR (1)	UP			UP (2)	JK	Overall Mean (9)
		Mean	MDP (BDF)	@ MDP (SV)	NGN	Mean	CHT	
1801	32299	96	122	122.4	112.8	118	113	117
1802	32300	126	120	119.9	98	109	113	118
1803	32301	108	153	152.6	120.4	136	147	134
1804	32302	142	139	139.0	116	127	117	130
1805	32303	128	128	128.3	110	119	109	124
1806	32304	120	104	103.7	93.6	99	88	103
1807	32305	112	131	131.4	113.4	122	104	122
1808	32306	105	114	114.4	111	113	101	111
1809	32307	130	111	110.8	96.6	104	103	107
1810	32308	125	101	100.6	95	98	91	101
1811	32309	112	114	113.8	105.8	110	100	113
1812	32310	104	119	119.3	107.6	113	107	112
1813	32311	128	104	104.0	90.2	97	97	105
1814	32312	113	107	106.9	95.4	101	93	103
1815	32313	118	127	127.1	113.8	120	111	122
1816	32314	107	125	125.3	113.2	119	109	123
1817	32315	133	117	116.6	112.2	114	105	117
1818	32316	119	106	106.4	96.6	101	93	104
1819	Pusa Basmati 1121 (Y & QC)	132	120	119.8	108.8	114	108	117
1820	Pusa Basmati 1 (YC)	105	115	115.3	106.6	111	93	113
1821	Pusa RH 10 (HC)	158	114	114.1	100.4	107	94	115
1822	Taraori Basmati (QC)	116	149	148.9	126.8	138	129	135
1823	Pusa Basmati 1509 (OC)	141	106	106.1	93.8	100	92	104
1824	Local Check	126	103	102.9	115	109	108	110
Exp. Mean			119	119	106	113	105	
Standard Error			2.63	2.63	1.84	2.13	2.50	

Table 42.12: Panicles/m² of entries in IVT-BT during Kharif 2024

Entry No.	IET No.	ND	UK	PUN				PUN (4)	HR	
		IAR I	@PAN T	LD H	RU N	GD P	KP T	Mean	@KA R	KU L
1801	32299	442	258	241	285	330	271	282	302	411
1802	32300	544	364	294	324	383	279	320	422	365
1803	32301	442	334	267	284	322	254	282	374	333
1804	32302	578	490	320	389	393	294	349	319	356
1805	32303	663	410	302	318	385	350	339	347	365
1806	32304	578	413	264	325	358	256	301	291	359
1807	32305	442	319	289	293	375	264	305	443	392
1808	32306	595	347	275	310	345	254	296	486	355
1809	32307	663	279	304	315	398	310	332	318	382
1810	32308	680	269	256	242	323	267	272	555	350
1811	32309	442	302	251	244	305	234	259	405	378
1812	32310	697	318	254	247	338	288	281	571	390
1813	32311	629	267	279	335	380	289	321	384	315
1814	32312	578	407	304	350	375	294	331	329	365
1815	32313	697	326	271	328	347	267	303	342	384
1816	32314	663	422	279	312	365	297	313	296	358
1817	32315	493	302	294	298	375	278	311	427	375
1818	32316	391	275	304	290	378	304	319	459	354
1819	Pusa Basmati 1121 (Y & QC)	629	481	311	327	353	310	325	389	348
1820	Pusa Basmati 1 (YC)	510	257	308	316	380	330	333	306	338
1821	Pusa RH 10 (HC)	561	281	304	297	398	308	327	523	352
1822	Taraori Basmati (QC)	476	449	340	358	400	317	354	491	406
1823	Pusa Basmati 1509(OC)	578	351	315	288	380	298	320	475	352
1824	Local Check	544	328	318	368	384	343	353	286	349
Exp. Mean		563	343	289	310	365	290	314	397	364
Standard Error		17.3								
		7	13.41	4.83	6.94	5.06	5.49	4.83	16.52	4.29

Table 42.12 (contd...): Panicles/m² of entries in IVT-BT during *Kharif* 2024

Entry No.	IET No.	HR (1)	UP			UP (2)	JK	Overall Mean (9)
		Mean	MDP (BDF)	MDP (SV)@	NGN	Mean	CHT	
1801	32299	411	365	365	327	346	303	330
1802	32300	365	348	348	281	314	313	348
1803	32301	333	373	373	300	337	286	318
1804	32302	356	401	401	307	354	294	370
1805	32303	365	346	346	319	333	330	375
1806	32304	359	361	361	298	330	291	343
1807	32305	392	241	241	284	263	306	321
1808	32306	355	315	315	274	294	307	337
1809	32307	382	366	366	251	308	365	373
1810	32308	350	256	256	218	237	301	321
1811	32309	378	265	265	281	273	306	301
1812	32310	390	268	268	315	292	304	344
1813	32311	315	293	293	280	287	297	344
1814	32312	365	370	370	320	345	297	361
1815	32313	384	320	320	300	310	284	355
1816	32314	358	435	435	310	372	298	369
1817	32315	375	298	298	277	288	292	331
1818	32316	354	301	301	284	293	319	325
1819	Pusa Basmati 1121 (Y & QC)	348	355	355	274	314	308	357
1820	Pusa Basmati 1 (YC)	338	315	315	248	281	313	340
1821	Pusa RH 10 (HC)	352	270	270	266	268	307	340
1822	Taraori Basmati (QC)	406	430	430	245	337	286	362
1823	Pusa Basmati 1509(OC)	352	306	306	314	310	305	348
1824	Local Check	349	286	286	284	285	307	354
	Exp. Mean	364	328	328	286	307	305	
	Standard Error	4.29	10.06	10.06	5.14	6.19	3.16	

Table 42.13: Summary of the mean grain and cooking quality characteristics of entries in IVT-BT

Entry No	IET No.	Hull %	Mill %	HRR %	KL (mm)	KB (mm)	L/B	\$ KLAC (mm)	ER \$	AS \$	AC (%)	# GC (mm)	\$ VER	\$ WU (ml)
1801	32299	79.73	70.43	50.57	7.27	1.67	4.35	12.21	1.68	6.6	24.5	42.5	5.41	346.3
1802	32300	77.95	68.04	54.77	8.20	1.79	4.64	14.25	1.72	6.6	21.4	54.8	4.96	283.8
1803	32301	75.99	63.85	45.00	7.98	1.64	4.89	13.55	1.74	6.3	21.6	54.7	5.28	343.8
1804	32302	76.72	69.02	54.52	7.47	1.70	4.41	12.73	1.72	5.0	22.0	53.7	5.55	290.0
1805	32303	75.81	65.55	53.52	8.57	1.67	5.15	17.13	2.01	6.8	21.9	52.0	5.58	356.3
1806	32304	77.67	67.46	49.32	8.76	1.78	4.95	16.50	1.96	6.2	21.2	52.5	5.75	348.8
1807	32305	77.64	67.77	52.20	7.76	1.66	4.71	14.03	1.74	4.8	24.2	64.7	5.25	277.5
1808	32306	77.73	67.65	55.30	7.53	1.60	4.74	12.83	1.69	6.7	24.9	42.5	6.12	401.3
1809	32307	75.12	65.49	55.40	8.64	1.70	5.11	15.45	1.79	6.6	22.8	47.3	5.78	392.5
1810	32308	77.16	65.90	48.62	7.82	1.68	4.67	13.33	1.68	5.0	24.1	57.3	5.36	320.0
1811	32309	79.24	70.61	53.29	8.14	1.68	4.85	14.45	1.73	6.5	24.1	44.5	4.23	415.0
1812	32310	79.53	72.16	57.83	7.78	1.73	4.52	13.28	1.70	6.6	24.0	49.3	5.36	356.3
1813	32311	78.94	69.63	53.35	8.43	1.72	4.96	15.80	1.90	6.1	23.0	54.5	5.40	315.0
1814	32312	77.85	68.80	50.72	7.94	1.70	4.70	15.83	1.99	6.6	23.4	47.8	5.95	326.3
1815	32313	80.53	71.39	56.57	6.84	1.58	4.34	12.28	1.79	6.9	22.5	48.5	5.38	345.0
1816	32314	79.24	71.32	61.80	6.88	1.70	4.06	12.25	1.82	6.6	21.4	47.5	4.95	357.5
1817	32315	78.68	70.24	57.88	8.17	1.83	4.52	12.95	1.59	6.7	23.8	50.0	5.95	360.0
1818	32316	77.69	68.83	57.03	7.98	1.72	4.67	13.83	1.77	6.6	24.9	42.6	5.58	317.5
1819	PB1121 (Y & QC)	77.23	67.66	58.31	8.50	1.74	4.89	17.55	2.07	6.5	23.3	54.2	5.41	350.0
1820	PB 1 (YC)	78.12	68.42	59.94	7.68	1.70	4.56	13.35	1.76	4.9	22.3	57.5	5.25	222.5
1821	PRH 10 (HC)	78.89	70.52	57.23	7.89	1.66	4.76	13.95	1.75	6.5	23.9	39.7	4.68	360.0
1822	TB (QC)	79.94	70.35	52.01	7.46	1.78	4.34	12.60	1.69	6.1	22.7	55.2	5.68	400.0
1823	PB 1509 (OC)	77.33	68.42	48.89	8.50	1.76	4.85	17.05	2.02	6.4	22.6	54.3	5.71	328.8
1824	Local Check	78.43	68.53	53.30	8.45	1.84	4.60	16.53	1.99	6.7	24.8	50.3	5.41	342.5

\$ Mean is based on IARI & BEDF data

Mean is based on IARI, CRR1 & IIRR data

Table 42.13a: Summary of the grain quality characteristics of entries in IVT-BT conducted at ICAR-IARI, New Delhi and analyzed at ICAR-IARI, New Delhi Kharif 2024

Entry No	IET No	Hull%	Mill%	HRR%	KL (mm)	KB (mm)	L/B	KLAC (mm)	ER	WU (ml/100g)
1801	32299	81.82	68.31	45.50	7.12	1.65	4.33	12.06	1.70	337.5
1802	32300	79.44	67.28	56.68	8.12	1.65	4.93	13.80	1.70	267.5
1803	32301	78.18	64.92	40.75	7.72	1.53	5.04	13.30	1.72	337.5
1804	32302	78.87	67.99	56.76	7.22	1.65	4.39	12.60	1.75	260.0
1805	32303	78.87	67.39	55.32	8.37	1.65	5.09	17.10	2.04	337.5
1806	32304	78.64	65.06	44.21	8.26	1.65	5.02	17.50	2.12	327.5
1807	32305	78.3	66.08	52.43	7.88	1.62	4.88	13.10	1.66	255.0
1808	32306	79.55	68.58	56.16	7.47	1.65	4.54	12.30	1.65	377.5
1809	32307	77.73	66.07	56.29	8.45	1.65	5.14	15.20	1.80	380.0
1810	32308	77.54	65.32	49.11	7.90	1.66	4.76	13.06	1.65	350.0
1811	32309	80.46	68.63	54.00	8.12	1.63	4.98	13.90	1.71	410.0
1812	32310	80.98	69.57	56.56	7.57	1.73	4.37	13.30	1.76	347.5
1813	32311	81.94	70.39	53.50	8.07	1.66	4.86	16.20	2.01	300.0
1814	32312	79.32	66.82	49.27	7.78	1.65	4.73	15.80	2.03	327.5
1815	32313	82.16	70.08	55.15	6.86	1.58	4.34	12.26	1.79	335.0
1816	32314	79.78	68.05	63.58	6.58	1.66	3.96	11.70	1.78	365.0
1817	32315	79.78	68.65	61.77	7.88	1.70	4.65	12.60	1.60	355.0
1818	32316	79.32	68.26	59.85	7.50	1.63	4.60	13.26	1.77	355.0
1819	PB1121(Y&QC)	78.87	67.99	58.79	8.18	1.65	4.97	18.30	2.24	330.0
1820	PB 1 (YC)	80	68.73	62.18	7.28	1.65	4.43	12.80	1.76	225.0
1821	PRH 10 (HC)	80.57	69.34	59.20	7.85	1.65	4.77	13.00	1.66	365.0
1822	TB (QC)	80.69	69.68	51.47	7.23	1.70	4.27	12.20	1.69	400.0
1823	PB 1509 (OC)	78.07	67.31	48.62	8.18	1.66	4.93	17.14	2.10	317.5
1824	Local Check	79.89	67.42	54.83	8.13	1.66	4.90	16.46	2.02	345.0

Table 42.13a contd.: Summary of the grain quality characteristics of entries in IVT-BT conducted at ICAR-IARI, New Delhi and analyzed at ICAR-IARI, New Delhi Kharif 2024

Entry No	IET No	VER	ASV	GC(mm)	Amylose %	Grain Type	Chalkiness	Aroma
1801	32299	6.00	7	50.0	25.35	LS	OC	SS
1802	32300	5.23	7	55.0	20.04	ELS	VOC	SS
1803	32301	5.87	7	47.5	20.48	ELS	VOC	SS
1804	32302	6.00	5	43.5	20.70	LS	Abs	SS
1805	32303	5.66	7	50.0	20.43	ELS	VOC	MS
1806	32304	6.00	7	46.5	20.48	ELS	VOC	SS
1807	32305	5.27	5,4	55.0	20.22	ELS	VOC	MS
1808	32306	6.80	7	50.0	23.26	LS	Abs	MS
1809	32307	6.80	7	42.5	22.91	ELS	VOC	SS
1810	32308	5.28	5	65.0	22.91	ELS	VOC	SS
1811	32309	3.70	7	37.5	23.57	ELS	VOC	SS
1812	32310	5.63	7	68.5	24.13	ELS	VOC	SS
1813	32311	5.57	7	52.5	21.48	ELS	OC	MS
1814	32312	6.80	7	49.0	22.24	ELS	VOC	SS
1815	32313	5.60	7	50.0	21.30	LS	VOC	MS
1816	32314	5.14	7	42.5	19.09	ELS	VOC	SS
1817	32315	6.40	7	38.5	25.35	ELS	P	SS
1818	32316	5.66	7	40.8	25.35	LS	VOC	SS
1819	PB1121 (Y & QC)	6.00	7	47.5	21.78	ELS	OC	MS
1820	PB 1 (YC)	5.33	5	45.0	20.48	LS	VOC	SS
1821	PRH 10 (HC)	4.00	7	44.0	20.87	ELS	VOC	SS
1822	TB (QC)	6.00	5,7	43.5	20.43	LS	OC	SS
1823	PB 1509 (OC)	6.60	7	45.0	20.35	ELS	P	MS
1824	Local Check	6.00	7	50.0	25.04	ELS	P	SS

HULL: Hulling(%) MILL: Milling(%) HRR: Head Rice Recovery KL: Kernal length (mm) KB: Kernal Breadth(mm) L/B : Length and Breadth(mm) Grain chalk: Grain Chalkiness VOC Very Occasionally Chalky OC: Occasionally Chalky P: Present A: Absent KLAC: Kernal length after cooking WU: Water uptake ER: Elongation ratio AC: Amylose content (%) ASV: Alkali Spreading Value ELS: Extra Long Slender LS: Long Slender MS: Medium Slender SS: Strongly Scented MS: Mild Scented NS: Non Scented

Table 42.13b: Summary of the grain quality characteristics of entries in IVT-BT conducted at ICAR-IARI, New Delhi and analyzed at ICAR-IIRR, Hyderabad Kharif 2024

Entry No	IET No	Hull%	Mill%	KL (mm)	KB (mm)	L/B	Grain Type	Grain Chalk	ASV	AC %	GC (mm)
1801	32299	80.0	68.3	6.99	1.67	4.18	LS	VOC	7.0	26.37	22
1802	32300	78.1	68.6	7.79	1.85	4.21	LS	A	7.0	22.00	53
1803	32301	75.5	64.4	7.23	1.74	4.15	LS	A	5.0	22.58	59
1804	32302	75.4	65.5	7.24	1.74	4.16	LS	A	4.0	22.20	63
1805	32303	74.6	64.9	8.52	1.75	4.86	LS	VOC	7.0	22.93	52
1806	32304	77.7	65.7	8.72	1.90	4.58	LS	VOC	5.0	21.38	57
1807	32305	76.8	67.3	7.49	1.84	4.07	LS	VOC	4.0	26.81	85
1808	32306	76.9	66.0	7.57	1.71	4.42	LS	A	7.0	27.07	25
1809	32307	74.3	65.1	8.66	1.88	4.60	LS	VOC	7.0	22.96	47
1810	32308	77.6	66.4	7.56	1.84	4.10	LS	VOC	4.0	27.45	49
1811	32309	78.9	67.3	8.07	1.79	4.50	LS	VOC	7.0	27.04	42
1812	32310	79.5	71.9	7.81	1.91	4.08	LS	VOC	7.0	26.10	23
1813	32311	77.9	65.4	8.50	1.97	4.31	LS	OC	7.0	21.94	59
1814	32312	77.4	65.0	7.73	1.89	4.08	LS	VOC	7.0	24.72	45
1815	32313	81.1	70.7	6.69	1.64	4.07	LS	A	7.0	24.31	45
1816	32314	78.9	71.1	6.75	1.76	3.83	LS	A	7.0	24.81	46
1817	32315	77.7	69.5	8.13	1.99	4.08	LS	OC	7.0	23.70	55
1818	32316	77.6	69.6	7.88	1.85	4.25	LS	VOC	7.0	28.65	27
1819	PB1121 (Y & QC)	76.0	67.1	8.29	1.83	4.53	LS	VOC	7.0	25.19	54
1820	PB 1 (YC)	76.8	68.9	7.55	1.84	4.10	LS	A	5.0	24.31	68
1821	PRH 10 (HC)	78.7	69.4	7.62	1.75	4.35	LS	VOC	7.0	27.80	22
1822	TB (QC)	80.2	69.5	7.49	1.94	4.36	LS	VOC	7.0	24.08	68
1823	PB 1509 (OC)	77.6	67.7	8.37	1.94	4.31	LS	OC	7.0	24.90	65
1824	Local Check	78.1	68.4	8.4	1.98	4.24	LS	OC	7.0	25.54	59

HULL: Hulling(%) MILL: Milling(%) HRR: Head Rice Recovery KL: Kernal length (mm) KB: Kernal Breadth(mm) L/B : Length and Breadth(mm) Grain chalk: Grain Chalkiness, VOC-Very Occasionally Chalky, OC: Occasionally Chalky, P: Present A: Absent AC: Amylose content (%), ASV: Alkali Spreading Value, GC: Gel Consistency

Table 42.13c: Summary of the grain quality characteristics of entries in IVT-BT conducted at ICAR-IARI, New Delhi and analyzed at ICAR-NRRI, Cuttack Kharif 2024

Entry No	IET No.	Hull %	Mill %	HRR	KL (mm)	KB (mm)	L/B	Grain Type	Grain Chalk	VER
1901	28935	73.00	62.50	52.00	8.62	1.54	5.62	ELS	No	4.00
1902	28936	73.50	64.00	56.50	8.32	1.58	5.28	ELS	yes	4.25
1903	28937	66.00	59.50	50.00	7.21	1.43	5.05	LS	No	3.75
1904	28938	74.00	60.50	51.50	6.42	1.59	4.03	MS	yes	4.25
1905	28948	70.00	61.00	54.50	8.14	1.50	5.42	ELS	No	4.13
1906	28939	73.00	61.50	54.50	8.21	1.54	5.35	ELS	yes	4.13
1907	PRH 10 (HC)	78.50	62.00	48.50	7.75	1.53	5.07	ELS	yes	4.25
1908	28940	71.00	60.50	46.00	8.29	1.55	5.35	ELS	No	4.25
1909	28941	70.50	61.50	54.00	7.90	1.67	4.75	ELS	yes	4.00
1910	PB1121 (Y&QC)	71.00	60.50	51.50	7.86	1.65	4.76	ELS	yes	4.13
1911	28942	73.50	60.50	47.50	7.41	1.70	4.37	LS	yes	3.75
1912	28949	74.50	64.00	47.50	7.52	1.55	4.86	ELS	No	3.75
1913	28943	73.00	60.50	50.00	7.34	1.60	4.61	LS	No	4.00
1914	28944	74.50	63.00	52.50	8.25	1.43	5.78	ELS	yes	4.25
1915	PB1 (YC)	71.00	60.50	52.00	6.86	1.41	4.88	LS	yes	4.00
1916	28945	75.00	61.50	54.50	7.31	1.63	4.48	LS	yes	4.00
1917	28946	76.00	60.00	53.00	7.37	1.53	4.79	LS	yes	3.75
1918	TB	74.50	58.00	50.50	8.22	1.72	4.95	ELS	yes	4.00
1919	28947	74.00	62.50	55.50	7.53	1.51	5.00	ELS	No	4.25
1920	LC	73.50	60.00	43.00	7.84	1.53	5.17	ELS	yes	4.00

HULL: Hulling(%) MILL: Milling(%) HRR: Head Rice Recovery KL: Kernal length (mm) KB: Kernal Breadth(mm) L/B : Length and Breadth(mm), Grain chalk: Grain Chalkiness

Table 42.13d: Summary of the grain quality characteristics of entries in IVT BT conducted at ICAR-IARI, New Delhi and analyzed at BEDF, Modipuram during Kharif 2024

Entry No	IET No	Hull%	Mill%	HRR%	KL (mm)	KB (mm)	L/B	KLAC (mm)	ER	WU (ml/100g)
1801	32299	78.11	71.25	53.32	7.39	1.78	4.15	12.35	1.67	355.0
1802	32300	76.24	69.29	51.84	8.44	1.75	4.82	14.70	1.74	300.0
1803	32301	73.29	61.16	41.40	7.88	1.58	4.99	13.80	1.75	350.0
1804	32302	74.62	67.59	51.24	7.59	1.79	4.24	12.85	1.69	320.0
1805	32303	72.77	63.06	47.54	8.69	1.73	5.02	17.15	1.97	375.0
1806	32304	76.82	70.28	59.35	8.63	1.81	4.77	15.50	1.80	370.0
1807	32305	77.46	71.18	48.88	8.28	1.73	4.79	14.95	1.81	300.0
1808	32306	76.46	70.42	51.84	7.69	1.66	4.63	13.35	1.74	425.0
1809	32307	72.43	63.44	47.40	8.78	1.74	5.05	15.70	1.79	405.0
1810	32308	75	66.84	45.50	7.97	1.71	4.66	13.60	1.71	290.0
1811	32309	77.11	70.72	50.91	8.57	1.74	4.93	15.00	1.75	420.0
1812	32310	77.62	73.65	57.54	8.05	1.79	4.50	13.25	1.65	365.0
1813	32311	76.42	68.96	51.59	8.57	1.73	4.95	15.40	1.80	330.0
1814	32312	76.89	69.83	48.30	8.16	1.70	4.80	15.85	1.94	325.0
1815	32313	78.66	72.19	54.81	6.88	1.67	4.12	12.30	1.79	355.0
1816	32314	77.68	73.81	65.07	6.87	1.70	4.04	12.80	1.86	350.0
1817	32315	77.24	69.79	51.02	8.43	1.78	4.74	13.30	1.58	365.0
1818	32316	75.84	70.01	54.19	8.09	1.79	4.52	14.40	1.78	280.0
1819	PB1121 (Y & QC)	75.05	67.48	51.38	8.82	1.77	4.98	16.80	1.90	370.0
1820	PB 1 (YC)	76.69	71.55	61.54	7.84	1.77	4.43	13.90	1.77	220.0
1821	PRH 10 (HC)	76.27	69.54	54.24	8.08	1.72	4.70	14.90	1.84	355.0
1822	TB (QC)	78.88	73.3	49.97	7.70	1.86	4.14	13.00	1.69	400.0
1823	PB 1509 (OC)	76.66	69.65	47.30	8.75	1.84	4.76	16.95	1.94	340.0
1824	Local Check	76.72	70.63	47.56	8.52	1.92	4.44	16.60	1.95	340.0

Table 42.13d (contd...): Summary of the grain quality characteristics of entries in IVT BT conducted at ICAR-IARI, New Delhi and analyzed at BEDF, Modipuram Kharif 2024

Entry No	IET No	VER	ASV	Amylose %	grain type	chalkiness	Aroma
1801	32299	4.82	7	24.27	LS	VOC	SS
1802	32300	4.69	6.92	21.55	ELS	A	SS
1803	32301	4.69	7	22.48	ELS	VOC	SS
1804	32302	5.09	4.92	21.30	ELS	A	SS
1805	32303	5.50	7	20.31	ELS	VOC	MS
1806	32304	5.50	6.75	23.11	ELS	OC	SS
1807	32305	5.23	5	24.89	ELS	A	MS
1808	32306	5.43	6.92	25.51	ELS	A	MS
1809	32307	4.75	7	22.80	ELS	A	SS
1810	32308	5.43	5	24.71	ELS	VOC	SS
1811	32309	4.75	7	24.31	ELS	VOC	SS
1812	32310	5.09	6.92	24.09	ELS	A	SS
1813	32311	5.23	6.92	23.73	ELS	VOC	MS
1814	32312	5.09	7	22.36	ELS	VOC	SS
1815	32313	5.16	7	23.73	LS	A	MS
1816	32314	4.76	7	20.71	LS	VOC	SS
1817	32315	5.50	6.67	24.11	ELS	OC	SS
1818	32316	5.50	7	24.59	ELS	A	SS
1819	PB1121 (Y & QC)	4.82	7	22.43	ELS	VOC	MS
1820	PB 1 (YC)	5.16	4.92	22.11	ELS	A	SS
1821	PRH 10 (HC)	5.36	6.92	23.36	ELS	VOC	SS
1822	TB (QC)	5.36	6.5	22.02	ELS	A	SS
1823	PB 1509 (OC)	4.82	6.75	22.92	ELS	VOC	MS
1824(LC)	Local Check	4.82	6.75	23.76	ELS	OC	SS

HULL: Hulling(%) MILL:Milling(%) HRR:Head Rice Recovery KL:Kernal length (mm) KB:Kernal Breadth(mm) L/B : Length and Breadth(mm) Grain chalk: Grain Chalkiness VOC Very Occasionally Chalky OC: Occasionally Chalky P: Present A: Absent KLAC:Kernal 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 42.14: Panel Test Scores of entries in Initial Variety Trial- Basmati (IVT-BT), ICAR-IARI, New Delhi Kharif 2024

Entry No	IET No.	Appearance	Cohesiveness	Tenderness on Touching	Tenderness on Chewing	Taste	Aroma	Elongation	Overall Acceptability	Total	Mean	Rank
1801	32299	4.40	4.40	3.80	3.80	3.40	3.60	2.20	1.60	27.20	3.40	19
1802	32300	4.60	4.80	3.80	4.20	3.80	3.40	3.40	2.40	30.40	3.80	13
1803	32301	4.20	4.40	4.40	4.60	3.40	3.40	2.40	2.00	28.80	3.60	18
1804	32302	4.40	4.60	4.60	4.80	3.60	3.60	2.80	2.60	31.00	3.88	12
1805	32303	4.40	4.80	4.80	4.80	4.20	4.00	4.20	3.60	34.80	4.35	2
1806	32304	4.80	4.40	4.60	4.00	3.60	3.60	3.60	3.20	31.80	3.98	6
1807	32305	4.40	3.80	3.40	3.60	2.80	3.00	2.40	1.40	24.80	3.10	21
1808	32306	4.20	4.00	3.40	3.20	2.20	2.40	2.40	1.60	23.40	2.93	22
1809	32307	4.00	4.20	4.80	4.80	3.80	4.00	4.20	3.60	33.40	4.18	4
1810	32308	5.00	4.60	4.20	4.00	3.40	3.60	3.60	3.20	31.60	3.95	7
1811	32309	4.80	4.00	5.00	5.00	3.50	3.25	3.00	2.60	31.15	3.89	11
1812	32310	4.60	4.00	4.20	4.25	2.75	3.00	2.40	1.80	27.00	3.38	20
1813	32311	4.80	4.40	4.80	5.00	4.25	3.75	4.20	3.60	34.80	4.35	3
1814	32312	4.80	4.80	5.00	5.00	4.00	3.75	5.00	4.40	36.75	4.59	1
1815	32313	4.20	4.20	4.60	4.50	3.75	3.50	2.40	2.25	29.40	3.68	15
1816	32314	4.40	3.60	5.00	4.50	3.75	4.25	2.60	3.20	31.30	3.91	10
1817	32315	4.20	3.20	3.60	2.75	2.00	3.25	2.20	1.40	22.60	2.83	23
1818	32316	4.40	4.60	3.80	3.50	2.75	3.50	3.40	3.00	28.95	3.62	17
1819	PB1121 (Y & QC)	4.25	4.25	4.75	4.75	4.25	3.33	3.50	3.50	32.58	4.07	5
1820	PB 1 (YC)	4.50	4.00	4.50	4.50	3.50	3.33	2.25	2.75	29.33	3.67	16
1821	PRH 10 (HC)	4.75	4.50	4.50	4.50	3.75	3.33	3.00	3.25	31.58	3.95	8
1822	TB (QC)	5.00	2.00	2.75	3.50	2.75	3.33	1.75	1.50	22.58	2.82	24
1823	PB 1509 (OC)	4.75	3.75	4.50	4.50	3.00	3.33	4.00	3.75	31.58	3.95	9
1824	Local Check	4.50	3.75	4.50	4.50	3.25	3.33	3.25	3.00	30.08	3.76	14

LIST OF BREEDERS

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Dr.J.Aravind Kumar	:	Principal Scientist
Dr.K.Suneetha	:	Senior Scientist
Dr. S.L.Krishna Murthy	:	Senior Scientist
Dr. Jyothi Badri	:	Senior Scientist
Dr. M.S.Anantha	:	Senior Scientist
Dr. R. Abdul Fiyaz	:	Senior Scientist
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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
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Dr. C.N.N.Neeraja	:	Principal Scientist
Dr. S.K.Mangrauthia	:	Senior Scientist
Dr. Kalyani Kulkarni	:	Scientist
Dr. V papa Rao	:	Scientist
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Dr. B Sailaja	:	Principal Scientist (Computer Science)
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Dr.Sushanta Kumar Dash	:	Principal Scientist & Co-Nodal Officer AICRIP (Rainfed)
Dr. (Mrs.) Meera Kumari Kar	:	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

Annual Progress Report 2024 Vol. I – Varietal Improvement

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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)

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Dr. Haritha Bollinedi	:	Scientist

List of Technical Personnel

Mr. M.Vijay Kumar	Senior Technical Officer	Mr. Debakanta Nayak	Technical Assistant
Mr. K. Ramulu	Senior Technical Officer	Mr. Debabrata Samal	Technical Assistant
Mr. Md. Tahseen	Technical Officer	Mrs. Baneeta Mishra	Technical Assistant
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Mr. P.Koteswara Rao	Sr.Technical Asst.	Mr Bibekananda Ray	Senior Technician
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Annual Progress Report 2024 Vol. I – Varietal Improvement

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Annual Progress Report 2024 Vol. I – Varietal Improvement

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Annual Progress Report 2024 Vol. I – Varietal Improvement

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Annual Progress Report 2024 Vol. I – Varietal Improvement

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Annual Progress Report 2024 Vol. I – Varietal Improvement

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Annual Progress Report 2024 Vol. I – Varietal Improvement

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Annual Progress Report 2024 Vol. I – Varietal Improvement

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Annual Progress Report 2024 Vol. I – Varietal Improvement

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79	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
80	Karnal / Rohtak / Jind / Panipat / Anjanteli / Kurukshetra	Voluntary	Dr. LOKESHKUMAR B M, Scientist (Plant Breeding), Division of Crop Improvement, ICAR-Central Soil Salinity Research Institute (CSSRI), Kachwa Road, Karnal-132001, Haryana, 9738234049 (M), lokeshbm8050@gmail.com
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Annual Progress Report 2024 Vol. I – Varietal Improvement

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83	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
84	Khudwani	Funded	Dr. Gazala H.Khan, Junior Scientist, GPB, Mountain Research Centre for Field Crops, Khudwani, Anantnag-192102, Kashmir, J&K.
85	Kota	Funded	Dr. Manoj Kumar, Asst. Professor & Rice Breeder, Dept. Of Plant Breeding & Genetics, Agricultural Research Station, Agriculture University, Ummedganj farm, PB. No. 7, G.P.O. Nayapura, Kaithoon Road, Kota-324001, Rajasthan, 0744-2844369 (O), 8005919994 (M) manoj.vishnoi108@gmail.com
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87	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
88	Kurumbapet	Funded	Dr. N. Vijaya Kumar, Principal Scientist cum Programme Coordinator, Perunthalaivar Kamaraj Krishi Vigyan Kendra, Kurumbapet, Puducherry – 605 009 9442525675 (M). pondicherrykvk@yahoo.co.in pkkvk.py@gov.in kvkpudcucherry.org
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Annual Progress Report 2024 Vol. I – Varietal Improvement

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
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94	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
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Annual Progress Report 2024 Vol. I – Varietal Improvement

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
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105	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
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112	Maruteru	Funded	Dr. Y.Suneetha, Senior Scientist (PB), RARS, Maruteru-534122, West Godavari Dist. Andhra Pradesh, 7013166054 (M), y.suneetha@angrau.ac.in
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Annual Progress Report 2024 Vol. I – Varietal Improvement

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
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Annual Progress Report 2024 Vol. I – Varietal Improvement

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
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124	Navsari	Funded	Dr. K.S. Mungra, Assistant Research Scientist, Main Rice Research Centre, Navsari Agricultural University, Aru Cross Road, Vijalpore, Navsari-396450, Gujarat.
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Annual Progress Report 2024 Vol. I – Varietal Improvement

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
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Annual Progress Report 2024 Vol. I – Varietal Improvement

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
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Annual Progress Report 2024 Vol. I – Varietal Improvement

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
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Annual Progress Report 2024 Vol. I – Varietal Improvement

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
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164	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
165	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
166	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
167	Ranchi	Funded	Dr.Nutun Verma, Junior Scientist cum Assistant Professor, Dept. of Plant Breeding & Genetics, Birsa Agricultural University, Kanke, Ranchi, Jharkhand- 834006, 06151-2450625 (O),
168	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
169	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 adrrrttsranital@gmail.com
170	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
171	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

Annual Progress Report 2024 Vol. I – Varietal Improvement

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
172	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
173	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
174	Sabour	Voluntary	Dr. Satyendra, Asst. Professor-cum-Jr. Scientist, Dept. of Genetics and Plant Breeding, BAU, Sabour, Bhagalpur, Bihar, 9801828800 (M), drsatyendratomar@gmail.com
175	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
176	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
177	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
178	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
179	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 adrseyzarspkv@rediffmail.com madanwandhare@pdkv.ac.in
180	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
181	Sundernagar	Voluntary	Dr. Pankaj Sood, Programme Coordinator, KVK Mandi at Sundernagar-175 019, Himachal Pradesh, 01907 262547 (O) 9418222532 (M), pankajplp@rediffmail.com

Annual Progress Report 2024 Vol. I – Varietal Improvement

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
182	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
183	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
184	Titabar	Funded	Dr. Safiqul Hussain, Sr. Scientist (Rice Breeder) & PI, AICRP on Rice, Regional Agricultural Research Station, (Assam Agricultural University) Titabar, Assam – 785630, (M) 9435327610, safiqul.hussain@aau.ac.in
185	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
186	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
187	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
188	Umiam – CAU(Barapani)	Voluntary	Dr. Devyani Sen, Rice Breeder, School of Crop Improvement, College of Post Graduate Studies, Central Agricultural University, Umiam (Barapani) Meghalaya-793 104, 9402196116(M), devyani.sen@gmail.com
189	Umiam-ICAR	Voluntary	Dr. Amit Kumar, Scientist (Plant Breeding) ICAR Research Complex for NEH Region, Umiam (Barapani)– 793103, Meghalaya, 8974630789 (M), amit4118@gmail.com
190	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
191	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
192	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

Annual Progress Report 2024 Vol. I – Varietal Improvement

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
193	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
194	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
195	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
196	Varanasi	Funded	Dr. Akansha Singh, DBT-BioCARE Scientist - Rice Breeding, Dept. of Genetics and Plant Breeding, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi-221005, Uttar Pradesh 9889923109 (M), aksruchi@gmail.com
197	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
198	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
199	Wangbal	Funded	Dr. N.Kumar Singh, Rice Breeder, Rice Research Station, Govt. of Manipur, Wangbal-795138, Thoubal, Manipur 8974026929 (M), nkumarsingh2020@gmail.com
200	Warangal	Funded	Dr. B.Satish Chandra, Scientist (Plant Breeding), Regional Agricultural Research Station (PJ TSAU), Mulugu Road, Warangal – 506 007, Telangana State, 09948990788 (M), 0870-2975223, (O) chandragene@gmail.com adrrars_wgl@yahoo.co.in ricerarswarangal@gmail.com
201	Warangal	Funded	Dr. K. Rajendra Prasad, Scientist (Plant Breeding), Regional Agricultural Research Station (PJ TSAU), Mulugu Road, Warangal – 506 007, Telangana State, 09010192629 (M), krprasad456@gmail.com
202	Waraseoni	Voluntary	Dr. UttamBisen, Scientist (PB), Regional Agricultural Research Station, JNKVV, Waraseoni-481331, Balaghat, Madhya Pradesh, 09424999321/ 7999321276(M) uk_bisen@rediffmail.com

Annual Progress Report 2024 Vol. I – Varietal Improvement

Private Companies - Hybrid Rice

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Ankur Seeds Pvt. Ltd	Dr V.P. Khedkar , Mobile: 09850329757, E-mail: vpkhedikar@ankurseeds.com
Bayer Bio-Science Pvt Ltd	Dr Veeresh Gowda, Bayer Bioscience Pvt Ltd, *MCBS-Chandippa * Shankarpally-501203 Mobile : 97400 85696, Email: veeresh.rpgowda@bayer.com C/o DTDC Courier *, *HF177, Mehadipatnam *, Hyderabad-500028 Dr Ramesh Patel , Mobile: , Email: ramesh.k@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 ; 90007 11038 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 Raman Babu , Distinguished Laureate & South Asia Seed Product Development Lead Corteva Agriscience, Ascendas IT Park, 12th floor, Atria, V, Madhapur, Hyderabad, Telangana, India 500081 Email: raman.babu@corteva.com ; Mobile: +91-7702131733 Dr S. Chandrasekhar , 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 ; 95051 20722
Delta AgrigeneticsPvt.Ltd	Dr Arvind Kumar, Director (Research) Delta Agrigenetics Pvt. Ltd., Plot Nos: 99&100, Greenpark Avenue, NH-7 Road, Jeedimetla Village, Behind Surabhi Hotel, Hyderabad- 500055, Telangana. Mob: Email: arvind@deltaseeds.in Dr Nagaraju, Email: nagaraju@deltaseeds.in
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

Annual Progress Report 2024 Vol. I – Varietal Improvement

Company	Name & Address
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	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 Dr. V. Abhilash Kumar, Head, Biotechnology , Mobile: 75694 08799; Email: abhilash.kumar@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 Dr Kadam, Email: jyotiba.kadam@kaveriseeds.in Dr Girish, Email: chougulegirish.r@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, 1 st floor, Varuna towers, Sri Vensai, Komapilly, Hyderabad-500014, Telangana. Email: Maoxueqvan@lpht.com.cn, Zhangx@lpht.co.cn, kiranlal.sunrays@gmail.com
Mahindra Agri Solutions Ltd	Dr. Ponnusamy Umashankar , Head: R&D, Mahindra Agri 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 , Crop Lead - Rice, Email: sonnad.sharatbabu@mahindra.com ; Mobile: 99081 74156
Mahyco	Dr. Raman , Email: cjv.raman@mahyco.com, rams4janaki@gmail.com Mr. Ravichandra , Email: ravi.chandra@mahyco.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

Annual Progress Report 2024 Vol. I – Varietal Improvement

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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. Vikasa , Email: vikasa@biogenes.in ; Mobile: 83748 88814, 99088 17188 Nath Bio-Genes (I) Ltd., Reliance Trends Building, Plot No.3 & 4; 4th Floor, Central Park, Main Road, Kompally Hyderabad 500014. Contact No: 8374888814/09/06
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

Annual Progress Report 2024 Vol. I – Varietal Improvement

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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 3355
Savannah Seeds Pvt Ltd	Dr. Venkatesh Hubli , Director (Research), Savannah Seeds Pvt Ltd, PH-1A, 10 th Floor. Tower-A, Digital Greens, Golf Course Extn. Road, Sector-61, Gurgaon-122 102. Mobile: 9703918282, Email: vhubli@savannahseeds.com Dr Sheshagiri, Head, Rice Breeding, Email: skasul@savannahseeds.com ;
Seed Works India Private Limited	Dr. Rajinder Singh Mahala , President- Field Crops in Seed Works Email: R.Mahala@seedworks.com Survey No. 530/A, Gowdavally Village, Medchal Mandal, Medchal - Malkajgiri Dist, Telangana - 501403 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: kuldeptyagik@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's Millenium 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
Sona Genetics Pvt Ltd,	Dr. Dinesh Rajauria , Sona Genetics Pvt Ltd, 302, Maruti Crystal, Opp. Rajpath Club, SG Highway, Ahmedabad 380054, Gujarat; Email: sonaseeds98@gmail.com ; Mobile: 98250 10025 Dr Sanjay , Email:; Mobile: 95588 47096

Annual Progress Report 2024 Vol. I – Varietal Improvement

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Sri Rama Seeds Pvt Ltd	Dr Shivaprakash, Email: shivaprakashk1970@gmail.com ; babu@sriramaseeds.com 94400 24567
Star agro tech pvt Ltd	Mr. O. Krishna , Mobile: 096181 33544, Email: oggu.krishna@gprgroupco.in; oggu23@gmail.com
Super Seeds Pvt Ltd	Dr L D Sharma , Director (Research), Mobile: 94131 00245; Email: ldsharma@superseedsonline.com Dr John Victor , Rice Breeder, Email: viktorjohn@superseedsonline.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	Mr Satish Pareek- R&D Lead , satish.pareek@advantaseeds.com 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's Agrisciences Pvt. Ltd	Dr. Y. Yogeswara Rao , Executive Director, Vikky's Agrisciences 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. Upadhyay , 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

Annual Progress Report 2024 Vol. I – Varietal Improvement

Company	Name & Address
Yaganti Agrotech Pvt Ltd	Dr Jagadeesha Gouda , Director Research Plot No. 38, Greenpark Avenue, Near Suchitra Circle, NH-7, Jeedimetla(V), Hyderabad-500067. Email: jagadeesha.gouda@bharatiseeds.com ; 98499 48443; 040 40189990 Mr Mohan Reddy, Senior Breeder, mohan@bharatiseeds.com ; 98495 32925 Mr Kiran Kumar, Senior Breeder, kiran@bharatiseeds.com ; 98491 17445
Rice Millers	
Mr Hiten Bhimani	CEO , Shree Gajanan Industries, 6-26-285, Gajanan lane, Near Railway Quarters, Nizamabad-503 002, Email: hiten@gajanan.net ; Mobile: 98493 76111 www.Gajanan.net

Annual Progress Report 2024 Vol. I – Varietal Improvement

WEATHER DATA – KHARIF 2024

ADUTHURAI								
Latitude :	11° N		Longitude:	79.3°E			Elevation(m) :	19.47 MSL
Soil type:	Clay		Soil pH :	7.2			Soil texture :	Clay Loam
	July 24	Aug	Sept.	Oct.	Nov.	Dec.24	Total / Range	
No. of Rainy days	1.0	5.0	0.0	9.0	14.0	8.0	37	
Total Rainfall (mm)	12.2	50.8	0	241.4	249.5	350.8	904.7	
Avg. Max. Temp. (°C)	35.4	35.2	36.1	33.5	30.2	29.4	29.4-36.1	
Avg. Mini. Temp. (°C)	25.6	25.0	27.5	24.4	22.8	22.6	22.8-27.5	
Avg. Sunshine hours	3.2	6.5	8.3	6.2	2.2	4.3	5.117	
Avg. wind velocity (kmph)	9.9	5.9	9.1	3.2	4.1	2.3	5.75	

ALMORA								
Latitude :	290.36'N		Longitude:	79°.40 E			Elevation(m) :	1250
Soil type:	Clay loam		Soil pH :	6.5			Soil texture :	Clay
	May	June	July	Aug	Sep	Oct	Total / Range	
No. of Rainy days	4	7	17	14	9	1	52	
Total Rainfall (mm)	29.5	25.0	382.5	148.0	173.5	2.0	760.5	
Avg. Max. Temp. (°C)	33.25	35.2	30.0	27.8	30.6	30.4	35.2-20.5	
Avg. Mini. Temp. (°C)	14.96	17.86	20.5	19.5	18.0	11.7	11.7-20.5	
Avg. Sunshine hours	8.76	7.71	4.72	5.14	5.24	7.78	6.558	

ANDAMAN NICOBAR								
Latitude :	11038' 6" N		Longitude:	920443' 47" E			Elevation(m) :	10
Soil type:	Alluvial		Soil pH :	6.5-7.0			Soil texture :	Sandy loams
	June	July	August	September	October	November	Total / Range	
No. of Rainy days	22	16	19	17	15	12	101	
Total Rainfall (mm)	786.2	414	363.4	335.2	353.8	282	2535	
Avg. Max. Temp. (°C)	29.3	30.9	29.0	31.0	31.1	31.1	31.1-29	
Avg. Mini. Temp. (°C)	22.2	23.3	22.2	23.8	23.0	22.8	22.2-23.8	
Avg. wind velocity (kmph)	1.3	4.5	2.1	4.1	1.8	2.7	2.75	

ANNAMALAINAGAR								
Latitude :	110.24' N		Longitude:	790.41' N			Elevation(m) :	5.79 msl
Soil type:	Clay		Soil pH :	8.7			Soil texture	Clay loam
	July	Aug	Sep	Oct	Nov	Dec	Total / Range	
No. of Rainy days	4	5	4	9	12	8	42	
Total Rainfall (mm)	30.0	98.40	30.0	204.6	292.7	251.9	907.6	
Avg. Max. Temp. (°C)	36.4	35.6	36.2	32.8	30.0	29.8	36.4-29.8	
Avg. Mini. Temp. (°C)	22.2	20.5	20.9	19.8	18.4	17.9	17.9-22.2	
* Avg. Sunshine hours	4.6	6.8	6.1	5.4	3.5	3.8	5.033	
*Avg. wind velocity	5.6	4.2	4.3	2.2	3.6	3.5	3.9	

BANKURA								
Latitude :	23.24185		Longitude:	87.05715			Elevation (m):	84 MSL
Soil type:	Red & Lateritic		Soil pH :	4.5 – 6.0			Soil texture	Sandy Loam
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Total / Range	
No. of rainy days	01	09	07	07	05	0	29	
Total rainfall (mm)	10.4	176.6	131.4	190.18	112.9	31.3	652.8	
Avg. Max Temp. (°C)	37.50	33.27	34.45	34.22	32.41	25.00	37.5-25	
Avg. Min.Temp. (°C)	25.90	25.82	25.41	24.22	25.33		24.22-25.9	
* Avg. Sunshine hours	13.32	13.23	12.54	12.16	11.35	11.00	12.27	
* Avg. wind velocity	1.9	1.3	0.6	1.0	0.6	0.4	0.967	

Annual Progress Report 2024 Vol. I – Varietal Improvement

BAGESHWAR							
Latitude :	-		Longitude:	-		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	8	7	20	12	11	0	58
Total Rainfall (mm)	62.2	32.4	427.6	164.6	202.4	0	889.2
Avg. Max. Temp. (°C)	-	-	-	-	-	-	-
Avg. Mini. Temp. (°C)	-	-	-	-	-	-	-

BHUBANESWAR							
Latitude:	20.15 N		Longitude:	85.20 E		Elevation(m) :	25.9
Soil type:	acidic		Soil pH :	5.9		Soil texture :	Sandy Loam
	July	Aug	Sep	Oct	Nov	Dec	Total / Range
No. of rainy days	8	18	11	17	4	2	160
Total rainfall (mm)	186.00	275.00	339.00	353.00	41.00	10.00	1204
Avg. Max Temp. (°C)	45	37	36	36	35	34	45-34
Avg. Min.Temp. (°C)	20	25	24	23	20	18	18-25
* Avg. Sunshine hours	2.2	1.9	4.1	5.4	6.1	3.8	3.917

BRAHMAVAR							
Latitude	13 0 25 N		Longitude:	750 45E		Elevation (m):	10 MSL
Soil type:	Laterite		Soil pH :	5.5		Soil texture	Light textured
	Jun	July	Aug	Sep	Oct	Nov	Total / Range
No. of rainy days	26	30	24	25	12	4	121
Total rainfall (mm)	1066.6	1735.3	689.5	395.1	164.2	83.9	4134.6
Avg. Max Temp. (°C)	30.2	28.8	30.1	30.6	31.6	33.6	33.6-28.8
Avg. Min.Temp. (°C)	22.2	21.4	22.1	21.8	21.6	20.3	20.3-22.2
* Avg. Sunshine hours	1.1	0.5	2.5	2.8	4.4	7.4	3.116
* Avg. wind velocity	2.7	3.0	3.1	2.3	2.1	1.9	2.516

CANNING							
Latitude :	22.30489° N		Longitude:	88.6656° E		Elevation (m) :	6 m
Soil type:	Saline		Soil pH :	7.0-8.0		Soil texture	Heavy texture
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Total / Range
No. of Rainy days	22	20	13	8	0	1	64
Total Rainfall (mm)	357.3	602	319.9	255	0	4.8	1539
Avg. Max. Temp. (°C)	33.1	31.7	32.5	32.5	29.5	26.3	33.1-26.3
Avg. Mini. Temp. (°C)	26.8	26.0	26.2	25.1	20.6	16.1	16.1-26.8
Avg. Sunshine hours	3.7	2.2	4.9	5.2	6.6	6.0	4.767
Avg. wind velocity	7.2	5.6	6.3	3.4	1.5	2.3	4.383

CHATHA							
Latitude:	32° 40'N		Longitude:	74° 48'E		Elevation (m) :	293
Soil type:	-		Soil pH :	-		Soil texture:	Clay loam
	June	July	Aug	Sep	Oct	Nov	Total / Range
No. of Rainy days	03	12	12	6	1	0	34
Total Rainfall (mm)	45	459.6	412.2	261.4	22.4	0	1201
Avg. Max. Temp. (°C)	40.6	35.6	33.4	34.4	32.7	27.3	40.6-27.3
Avg. Mini. Temp. (°C)	24.6	26.2	25.7	24.3	18.1	11.5	11.5-26.2
Avg. Sunshine hours	6.9	5	8.2	7.6	7.1	6.9	6.95

CHINSURAH							
Latitude :	22°52' N		Longitude	88°24' E		Elevation:	8.62 m MSL
Soil type:	Clay Loam		Soil pH :	7.3		Soil texture:	Gangetic Alluvial
	June	July	Aug	Sep	Oct	Nov	Total/Range
No. of Rainy days	9	26	25	20	14	1	95
Total Rainfall (mm)	45.4	185.3	465.8	349.4	243.8	1.5	1291
Avg. Max. Temp. (°C)	36.5	34.4	32.4	33.6	32	29.2	29.2-36.5
Avg. Mini. Temp. (°C)	28.1	27.1	26.5	26.5	25	20.7	28.1-20.7

Annual Progress Report 2024 Vol. I – Varietal Improvement

CHIPLIMA							
Latitude :	20°21'N		Longitude:	80°55'E		Elevation (m) :	178.8 m MSL
Soil type:	Mixed Red, Black & Lateritic		Soil pH :	-		Soil texture:	-
	July	Aug	Sep	Oct	Nov	Dec	Total / Range
No. of Rainy days	21	24	12	04	02	02	65
Total Rainfall (mm)	34.17	32.15	32.61	29.47	31.52	27.25	187.2
Avg. Max. Temp. (°C)	26.4	27.4	28.7	26.6	20.4	20.3	20.3-28.7
Avg. Mini. Temp. (°C)	24.1	23.0	25.0	21.3	11.8	8.2	25-8.2

DEROL							
Latitude:	22° 36' N		Longitude:	73° 27' E		Elevation (m):	83.140 m
Soil type:	Sandy loam		Soil pH:	7.3		Soil texture:	-
	June	July	Aug	Sep	Oct	Nov	Total / Range
No. of Rainy days	4	15	16	14	2	0	51
Total Rainfall (mm)	209	373	726	297	48	0	1653
Avg. Max. Temp. (°C)	38.8	32.1	31.7	31.7	32.6	29.9	38.8-29.9
Avg. Mini. Temp. (°C)	31.3	25.0	24.5	24.9	26.1	19.9	19.9-31.3
Avg. Sunshine hours	8.4	3.2	2.4	3.7	6.5	8.1	5.383

GANGAVATHI							
Latitude:	15°15'40"		Longitude:	76°31'40"		Elevation (m):	406
Soil type:	Medium black		Soil pH:	6.5 to 7.5		Soil texture:	Clay soil
	July	Aug	Sep	Oct	Nov	Dec	Total / Range
No. of Rainy days	3	10	4	8	3	1	29
Total Rainfall (mm)	34.0	242.2	55.5	125.5	14.5	6.0	477.7
Avg. Max. Temp. (°C)	31.50	28.85	31.15	30.98	29.92	29.97	31.5-28.85
Avg. Mini. Temp. (°C)	24.76	24.09	23.63	23.45	18.96	20.63	18.96-24.76

GOA							
Latitude:	15°33'20"		Longitude:	73°05'53"		Elevation (m):	3M
Soil type:	Silty Clay		Soil pH:			Soil texture:	
	June	July	Aug	Sep	Oct	Nov	Total / Range
No. of Rainy days	26	31	30	21	12	3	123
Total Rainfall (mm)	832.2	2063.3	959.8	422.5	353.8	51.2	4683
Avg. Max. Temp. (°C)	31.3	29.0	30.2	30.5	32.3	34.0	34-29
Avg. Mini. Temp. (°C)	24.7	24.0	24.5	24.0	24.1	22.3	22.3-24.7
Avg. Sunshine hours	2.6	0.3	1.8	3.7	4.7	8.0	3.517
Avg. wind velocity	5.0	6.8	5.0	4.0	3.2	3.3	4.55

GOSABHA							
Latitude:	22°52' N		Longitude:	88°24' E		Elevation (m):	8.62 m MSL
Soil type:	Clay Loam		Soil pH:	7.3		Soil texture:	Gangetic Alluvial
	June	July	Aug	Sep	Oct	Nov	Total / Range
No. of Rainy days	9	26	25	20	14	1	95
Total Rainfall (mm)	45.4	185.3	465.8	349.4	243.8	1.5	1291
Avg. Max. Temp. (°C)	36.5	34.4	32.4	33.6	32	29.2	36.5-29.2
Avg. Mini. Temp. (°C)	28.1	27.1	26.5	26.5	25	20.7	20.7-28.1

HAZARIBAG							
Latitude:	23° 95'91" N		Longitude:	85° 37'20" E		Elevation (m):	614
Soil type:	Sandy-loam		Soil pH:	5.7		Soil texture:	35% clay, 53% silt, 15% sand
	June	July	Aug	Sep	Oct	Nov	Total / Range
No. of Rainy days	10	22	27	17	8	0	84
Total Rainfall (mm)	88	190.4	584.9	297.6	50.8	0	1212
Avg. Max. Temp. (°C)	37.7	30.8	29.7	30.0	29.5	26.4	37.7-26.4
Avg. Mini. Temp. (°C)	22.0	20.8	19.5	19.4	17.1	8.4	8.4-22
Avg. Sunshine hours	6.7	4.1	3.7	5.2	4.9	6.0	5.1

Annual Progress Report 2024 Vol. I – Varietal Improvement

IMPHAL							
Latitude:	24 0 45'89"N		Longitude:	94 0 03'46"E		Elevation (m):	808 MSL
Soil type:	Clay Loam		Soil pH:	5.37-5.73		Soil texture:	Clay
	June	July	Aug	Sep	Oct	Nov	Total / Range
No. of Rainy days	14	18	8	14	5	14	73
Total Rainfall (mm)	427.2	341.8	130.6	200.2	53	427.2	1580
Avg. Max. Temp. (°C)	29.9	29.8	30.6	27.9	28.3	29.9	30.6-27.9
Avg. Mini. Temp. (°C)	23.2	23.2	22.5	20.9	16.7	23.2	16.7-23.2
Avg. Sunshine hours	2.4	2.5	4.5	2.8	6.9	2.4	3.583
Avg. wind velocity	3.4	2.5	2.4	1	1.1	3.4	6

JABALPUR							
Latitude:	23.9° N		Longitude:	79.58° E		Elevation (m):	411.78 m above MSL
Soil type:	Medium black		Soil pH:	7.5		Soil texture:	clayey
	June	July	Aug	Sep	Oct	Nov	Total / Range
No. of Rainy days	6	17	13	10	1	0	47
Total Rainfall (mm)	200.8	433.1	438.4	321.4	14.4	0	1408
Avg. Max. Temp. (°C)	38.9	31.3	30.2	31.3	32.2	29.2	38.9-29.2
Avg. Mini. Temp. (°C)	27.5	25.5	24.7	24.8	21.4	12.1	12.1-27.5
Avg. Sunshine hours	5.6	2.6	2.2	4.0	7.1	6.6	4.683
Avg. wind velocity	5.7	4.5	3.8	4.2	2.2	1.4	3.633

JAGDALPUR							
Latitude:	19.05° N		Longitude:	82.02° E		Elevation (m):	552
Soil type:	Alfisol		Soil pH:	6.5		Soil texture:	Sandy loam
	June	July	Aug	Sep	Oct	Nov	Total / Range
No. of Rainy days	10	20	16	15	5	0	66
Total Rainfall (mm)	273.6	434.1	331.7	284.1	32.2	0.2	1356
Avg. Max. Temp. (°C)	33.6	28.4	29.9	30.5	32.0	29.7	33.6-28.4
Avg. Mini. Temp. (°C)	23.1	22.4	22.2	22.4	21.0	13.9	13.9-23.1
Avg. Sunshine hours	4.9	0.4	1.8	3.8	6.6	6.8	4.05
Avg. wind velocity	4.4	5.6	3.4	3.5	1.0	1.5	3.233

JEYPORE								
Latitude:	18.6N		Longitude:	82.44E		Elevation (m):	553	
Soil type:	acidic		Soil pH:	6.6		Soil texture:	Sandy Loam	
	June	July	Aug	Sep	Oct	Nov	Dec	Total / Range
No. of Rainy days	13	25	21	19	13	1	6	98
Total Rainfall (mm)	260	593	373	472	175	1	29	1903
Avg. Max. Temp. (°C)	39	31	33	34	35	33	32	39-31
Avg. Mini. Temp. (°C)	22	22	22	22	20	11	9	9-22

KARJAT								
Latitude:	18° 55' N		Longitude:	73° 18' N		Elevation (m):	51 m	
Soil type:	Medium Black		Soil pH:	6.2		Soil texture:	Clay Loam	
	June	July	Aug	Sep	Oct	Nov	Total / Range	
No. of Rainy days	14.00	30.0	24.00	22.00	12	0.0		102
Total Rainfall (mm)	507.1	2227.8	995.2	682.5	217.7	0.0		4630
Avg. Max. Temp. (°C)	34.1	29.1	31.3	31.1	33.86	34.83		34.83-29.1
Avg. Mini. Temp. (°C)	25.7	23.9	25.1	24.4	22.89	18.45		18.45-25.7
Avg. Sunshine hours	3.3	0.2	2.1	3.0	6.29	6.37		3.543
Avg. wind velocity	4.78	5.1	3.32	1.73	1.34	0.87		2.857

Annual Progress Report 2024 Vol. I – Varietal Improvement

KAUL							
Latitude:	29° 51' 29.5"N		Longitude:	76° 39' 24.3" E		Elevation (m):	230.7
Soil type:	Clay Loam		Soil pH:	8.04		Soil texture:	Clay
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Total / Range
No. of Rainy days	2	7	8	7	1	0	25
Total Rainfall (mm)	19.1	344.7	173.7	211.4	9.7	0	758.6
Avg. Max. Temp. (°C)	40.9	35.3	33.7	33.0	33.6	27.2	40.9-27.2
Avg. Mini. Temp. (°C)	26.5	27.2	26.2	24.5	19.3	12.8	27.2-12.8
Pan evaporation (mm)	6.9	3.3	1.9	1.5	1.5	0.9	
Avg. Sunshine hours	7.4	4.0	5.5	5.2	7.0	3.4	5.416
Avg. wind velocity	6.4	3.9	2.9	1.9	2.1	1.2	3.066

KHUDWANI								
Latitude:	34° N		Longitude:	73°E		Elevation (m):	1560 m amsl	
Soil type:	Clayey loam		Soil pH:	Neutral		Soil texture:	Silty clay loam	
	Apr	May	June	July	Aug	Sep	Oct	Total / Range
No. of Rainy days	14	5	9	3	14	3	2	50
Total Rainfall (mm)	270	32.2	33.8	11.2	159.2	7.5	4	517.9
Avg. Max. Temp. (°C)	18.9	26.9	28.5	32.8	28.9	29.4	26.6	32.8-18.9
Avg. Mini. Temp. (°C)	5.3	9.0	11.8	16.9	16.6	12.2	5.8	5.3-16.9

KURUMBAPET							
Latitude:	Between 11°45' and 12°15' N		Longitude:	Between 79°35' and 80°00' E		Elevation (m):	26 msl
Soil type:	Clay loam		Soil pH:	6.5		Soil texture:	Clay loam
	July	Aug	Sep	Oct	Nov	Dec	Total / Range
Total Rainfall (mm)	2	13	8	12	15	8	58
Avg. Max. Temp. (°C)	52	286	75	181	283	627	1504
Avg. Mini. Temp. (°C)	35.250 C	35.870 C	35.730 C	34.870 C	30.40 C	29.290 C	35.870-29.290
Relative Humidity (%)	23.50 C	23.480 C	23.930 C	23.00 C	21.510 C	19.250 C	19.250-23.930

LEMBUCHERRA							
Latitude:	23.569716		Longitude:	91.418352		Elevation (m):	26 M
Soil type:	Inceptisols		Soil pH:	5.2		Soil texture:	Sandy Loam
	July	Aug	Sep	Oct	Nov	Dec	Total / Range
No. of Rainy days	15	17	12	9	2	0	55
Total Rainfall (mm)	285.4	714.0	131.9	150.6	53.4	0	1335.3
Avg. Max. Temp. (°C)	33.3	31.4	33.7	31.8	30.3	26.8	33.7-26.8
Avg. Mini. Temp. (°C)	21.5	20.6	21.9	21.9	16.4	11.0	11-21.9
Avg. Sunshine hours	4.4	2.8	4.5	2.2	7.6	5.6	4.517
Avg. wind velocity	1.8	1.4	0.4	0.2	0.1	0.1	0.6667

LUDHIANA							
Latitude:	30° 54'N		Longitude:	75° 48'E		Elevation (m):	247 MSL
Soil type:	Loamy Sand		Soil pH:	7.7		Soil texture:	-
	May	June	July	Aug	Sep	Oct	Total / Range
No. of Rainy days	0	3	9	9	4	0	25
Total Rainfall (mm)	0	48.6	137.2	239.9	98.4	0.4	524.5
Avg. Max. Temp. (°C)	40.3	40.1	35.3	33.4	33.2	33.3	40.3-33.2
Avg. Mini. Temp. (°C)	24.4	27.6	28.3	26.9	25.6	20	20-28.3
Avg. Sunshine hours	10	8	3.9	6.2	6.4	7.6	7.016
Avg. wind velocity	5.1	5.3	3.9	3.7	2.6	2.1	3.783

MACHILIPATNAM							
Latitude:	16.17		Longitude:	8.15		Elevation (m):	14
Soil type:	Sandy loam		Soil pH:	9.1		Soil texture:	Fine
	Aug	Sep	Oct	Nov	Dec	Jan	Total / Range
No. of Rainy days	5	9	3	3	3	0	23
Total Rainfall (mm)	216	205.6	31.7	19.8	14	0	487.1
Avg. Max. Temp. (°C)	32.7	32.4	31.5	32.1	32.8	30.7	32.8-30.7
Avg. Mini. Temp. (°C)	27.4	26.92	26.1	24.32	19.2	20.5	19.2-27.4

Annual Progress Report 2024 Vol. I – Varietal Improvement

MALAN							
Latitude :	320 1' N			Longitude:	760 20' E	Elevation(m) :	950m
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	17	15	13	-	-	51
Total Rainfall (mm)	120.5	888.7	683.8	220	-	-	1913
Avg. Max. Temp. (°C)	36.1	31.9	23.8	26.2	26.8	24.4	36.1-23.8
Av-g. Mini. Temp. (°C)	18.4	19.1	15.7	17.0	14.5	13.3	13.3-19.1

MANDYA							
Latitude :	12.45-13.57 N			Longitude:	76.48 - 78.24 E	Elevation(m) :	695 M
Soil type:	Sandy loam			Soil pH :	6.5 – 7.1	Soil texture	Sandy loam
	July	Aug	Sep	Oct.	Nov	Dec	Total / Range
No. of Rainy days	9	7	4	8	4	3	35
Total Rainfall (mm)	75.20	62.00	101.00	116.00	37.00	59.00	450.2
Avg. Max. Temp. (°C)	27.94	29.55	30.63	29.61	29.00	28.61	30.63-27.94
Avg. Mini. Temp. (°C)	19.84	21.10	20.33	20.58	18.87	18.55	8.55-21.1
* Avg. Sunshine hours	6.68	6.68	7.02	6.60	6.92	7.00	6.816
*Avg. wind velocity	5.65	5.38	3.06	2.85	2.71	2.44	3.681

MARUTERU							
Latitude :	16.38° N			Longitude:	81.44° E	Elevation (m):	5m
Soil type:	Black alluvial clay			Soil pH :	6.5-7.5	Soil texture	Delta alluvial
	July	Aug	Sep	Oct	Nov	Dec	Total / Range
No. of rainy days	19	12	10	13	2	1	57
Total rainfall (mm)	328.4	215.2	240.6	197.4	11	17.4	1010
Avg. Max Temp. (°C)	30.10	31.42	31.20	30.89	30.80	28.58	31.42-28.58
Avg. Min.Temp. (°C)	26.00	26.55	26.32	25.05	22.97	22.35	22.35-26.55

MEDIZIPHEMA- ICAR							
Latitude :	25°45'24"N			Longitude:	93°50'26"E	Elevation (m):	295 M
Soil type:	-			Soil pH :	-	Soil texture	-
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Total / Range
No. of rainy days	11	13	12	7	11	2	56
Total rainfall (mm)	176.1	261.2	132.1	80.1	133.1	45.1	827.7
Avg. Max Temp. (°C)	32.9	33.9	33.0	32.4	29.9	28.0	33.9-28
Avg. Min.Temp. (°C)	24.6	25.5	25.0	25.0	22.2	16.0	16-25.5
* Avg. Sunshine hours	3.3	4.4	2.9	4.6	4.2	6.8	4.366
*Avg. wind velocity	1.523	1.339	1.139	1.227	1.245	1.271	1.290

MONCOMPU							
Latitude :	9°26'15"N			Longitude:	76°25'42"E	Elevation(m) :	1-2.5m below MSL
Soil type:	Alluvial clay			Soil pH :	5.5	Soil texture :	Silty Clay Loam
	June	July	Aug	Sep	Oct	Nov	Total / Range
No. of Rainy days	20	23	11	15	10	8	87
Total Rainfall (mm)	410.5	477.6	327.5	158.1	314.4	262.5	1950.6
Avg. Max. Temp. (°C)	31.3	30.2	31.1	31.9	31.8	32.2	32.2-30.2
Avg. Mini. Temp. (°C)	25.5	24.1	25.0	25.1	24.8	24.8	24.1-25.5

NAGINA							
Latitude :	29° 28'N			Longitude:	78° 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	04	13	12	10	00	00	39
Total Rainfall (mm)	78.6	508.0	191.6	205.2	00	00	983.4
Avg. Max. Temp. (°C)	37.7	33.7	32.5	32.6	32.3	27.3	37.7-27.3
Avg. Mini. Temp. (°C)	24.3	25.2	25.6	24.3	18.5	11.4	11.4-25.6
Avg. Sunshine hours	7.8	5.2	4.4	4.5	6.6	4.6	5.516
Avg. wind velocity	5.9	4.5	4.8	2.5	1.7	1.8	3.533

Annual Progress Report 2024 Vol. I – Varietal Improvement

NAVASARI								
Latitude:	20° 29'		Longitude:	73o 29'		Elevation (m):		105 m
Soil type:	Clayey		Soil pH :	7.5		Soil texture		Loamy
	June	July	Aug	Sep	Oct	Nov	Dec	Total / Range
No. of rainy days	10	21	21	13	6	0	0	71
Total rainfall (mm)	238.0	1281.0	387.0	368.0	120.0	0.0	0.0	2394
Avg. Max Temp. (°C)	34.2	30.5	30.0	31.2	34.4	33.7	29.7	34.4-29.7
Avg. Min.Temp. (°C)	26.0	25.1	24.8	24.1	23.2	17.8	14.7	14.7-26
* Avg. Sunshine hours	5.3	0.9	1.8	3.7	6.5	8.1	5.0	4.471
* Avg. wind velocity	6.3	6.8	5.4	2.5	2.2	2.4	2.7	4.042

NAWAGAM								
Latitude:	22° 48'		Longitude:	71° 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	01	06	14	14	11	02	48	
Total rainfall (mm)	1.0	113.80	199.00	538.8	276.20	5.60	1134.4	
Avg. Max Temp. (°C)	42.7	39.1	33.2	31.0	31.6	34.8	42.7-31	
Avg. Min.Temp. (°C)	26.9	27.3	26.0	25.8	25.1	23.5	23.5-27.3	
* Avg. Sunshine hours	9.6	6.9	2.2	3.4	5.6	5.6	5.55	
* Avg. wind velocity	4.8	3.9	1.8	1.9	0.4	8.0	3.466	

NRRRI CUTTACK								
Latitude	20.5N		Longitude:	86.0N		Elevation (m):		23.8M
Soil type:	Clay loam		Soil pH :	6.9		Soil texture		
	July	Aug	Sep	Oct	Nov	DEC	Total / Range	
No. of rainy days	7	21	14	17	7	0	66	
Total rainfall (mm)	215.00	269.10	279.90	277.00	84.00	0	1125	
Avg. Max Temp. (°C)	36.67	31.75	31.95	31.30	32.58	29.94	36.67-29.94	
Avg. Min.Temp. (°C)	26.95	27.15	26.77	26.60	25.68	20.95	20.95-27.15	
* Avg. Sunshine hours	4.60	1.60	1.64	3.18	4.50	4.65	3.3617	

PANVEL								
Latitude:	18° 59'		Longitude:	73° 10'E		Elevation (m) :		5 m MSL
Soil type:	Coastal saline		Soil pH :	7 - 8		Soil texture :		Silty clay
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Total / Range	
No. of Rainy days	17	35	28	30	12	0	122	
Total Rainfall (mm)	591.6	2056.6	543	726.2	165	0	4082.4	
Avg. Mini. Temp. (°C)	-	-	25.62	26.22	23.96	20.36	26.22-20.36	
Avg. Sunshine hours	79.43	95.20	92.09	83.92	72.96	44.23	44.23-95.2	

PATNA								
Latitude :	25.30° N		Longitude:	85.15° E		Elevation (m) :		52 m
Soil type:	Recent alluvial		Soil pH :	7.5		Soil texture		Clay loam
	June	July	Aug.	Sep.	Oct.	Nov	Total / Range	
No. of Rainy days	03	09	11	09	02	0	34	
Total Rainfall (mm)	74.7	167	1908	201.9	14.7	0	2366.3	
Avg. Max. Temp. (°C)	39.5	34.7	33.8	33.6	32.6	30.2	39.5-30.2	
Avg. Mini. Temp. (°C)	28.2	28.5	27.2	27.5	25.5	17.8	17.8-28.5	
Avg. Sunshine hours	NR	NR	NR	NR	NR	NR	NR	
Avg. wind velocity	NR	NR	NR	NR	NR	NR	NR	

PATTAMBI								
Latitude:	10.80		Longitude:	76.19		Elevation (m):		63M
Soil type:	LATERITE		Soil pH:			Soil texture:		
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Total / Range	
No. of Rainy days	20	15	13	13	3	4	68	
Total Rainfall (mm)	787.7	253.2	260	161.5	44.1	104.3	1610.8	
Avg. Max. Temp. (°C)	29.0	30.6	31.5	31.9	32.0	40.3	40.3-29	
Avg. Mini. Temp. (°C)	21.0	21.1	19.2	21.4	20.0	19.0	19-21.4	
Avg. Sunshine hours	36.2/1.1	124/4.2	188.6/6.0	151.7/4.8	178.4/5.9	192.1/6.1		
Avg. wind velocity	100.7/3.2	77/3.2	45/7	70.3/2.2	84.9/2.8	105/3.3		

Annual Progress Report 2024 Vol. I – Varietal Improvement

PRAYAGRAJ							
Latitude:	25.4120° N		Longitude:	81.8476° E		Elevation (m):	98m
Soil type:	Clay loam		Soil pH:	8		Soil texture:	Medium
	July	Aug	Sep	Oct	Nov	Total / Range	
No. of Rainy days	29	29	21	3	0	82	
Total Rainfall (mm)	203.3	432.1	109	1.4	0	745.8	
Avg. Max. Temp. (°C)	36	33	34	34	31	36-31	
Avg. Mini. Temp. (°C)	30	27	27	25	20	20-30	
Avg. Sunshine hours	4.5	6	6	8.5	8.5	6.7	
Avg. wind velocity	13	11	11	7	6	9.6	

PUSA							
Latitude:	25.97 N		Longitude:	85.64 E		Elevation (m):	52.0
Soil type:	calcareous		Soil pH:	8.2-8.4		Soil texture:	Sandy-loam
	June	July	Aug	Sep	Oct	Nov	Total / Range
No. of Rainy days	06	10	16	13	-	-	45
Total Rainfall (mm)	94.0	158.8	295.2	134.5	-	-	682.5
Avg. Max. Temp. (°C)	35.8	33.4	33.2	33.0	32.1	29.3	35.8-29.3
Avg. Mini. Temp. (°C)	26.3	26.8	25.4	25.5	23.2	16.6	16.6-26.8
Avg. Sunshine hours	5.2	4.4	5.3	5.3	4.6	2.9	4.616
Avg. wind velocity	7.8	10.4	9.3	9.1	6.4	5.3	8.05

RADHANAGARI							
Latitude:	18013'		Longitude:	740E		Elevation (m):	485 m
Soil type:	Laterite		Soil pH:	6.00 to 6.50		Soil texture:	Low organic matter content
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Total / Range
No. of Rainy days	17	30	20	21	11	2	101
Total Rainfall (mm)	238.5	1208.3	493.0	232.5	108.8	16	2297.1

RAGOLU							
Latitude:	18.24° N		Longitude:	83.84°E		Elevation (m):	27 MSL
Soil type:	Red sandy loam with clay base		Soil pH:	-		Soil texture:	Low organic matter content
	July	Aug	Sep	Oct	Nov	Dec	Total / Range
No. of Rainy days	8	11	7	2	1	7	36
Total Rainfall (mm)	151	139.5	186	27.2	6.10	82.10	591.9
Avg. Max. Temp. (°C)	31.85	32.20	32.50	30.27	29.80	28.77	32.5-28.77
Avg. Mini. Temp. (°C)	26.98	27.14	26.70	24.72	20.80	20.29	20.29-27.14
Avg. Sunshine hours	5.94	5.63	5.40	5.37	5.26	5.24	5.473
Avg. wind velocity	1.18	1.23	1.10	1.12	1.10	1.10	1.138

RAIPUR							
Latitude:	21o16' N		Longitude:	80o 36' E		Elevation (m):	298
Soil type:	Sandy loam		Soil pH:	-		Soil texture:	Clay loam
	June	July	Aug	Sep	Oct	Nov	Dec
No. of Rainy days	7	18	16	8	2	0	0
Total Rainfall (mm)	131.0	342.5	356.8	284.4	12.1	0.0	2.6
Avg. Max. Temp. (°C)	39.0	31.2	30.5	31.9	33.0	30.3	28.2
Avg. Mini. Temp. (°C)	27.7	25.8	25.4	25.4	24.5	16.0	15.2
Avg. Sunshine hours	5.0	2.0	2.6	4.0	6.8	6.1	4.3
Avg. wind velocity	7.3	7.6	6.8	5.5	3.0	2.3	3.3

RAJOURI							
Latitude:	33°22" N latitude		Longitude:	74°16" E longitude		Elevation (m):	915 meters
Soil type:	-		Soil pH:	-		Soil texture:	-
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Total / Range
No. of Rainy days	12	11	11	10	5	4	53
Total Rainfall (mm)	139.2	113.2	207.4	113.4	105.2	57.6	736
Avg. Max. Temp. (°C)	28.7	31.9	30.2	32.0	31.2	26.9	32-26.9
Avg. Mini. Temp. (°C)	13.2	18.4	21.1	21.3	19.0	10.7	10.7-21.3
Avg. Sunshine hours	6.3	7.6	5.2	7.7	7.4	7.6	6.966
Avg. wind velocity	0.1	0.5	0.4	0.5	0.3	0.5	0.383

Annual Progress Report 2024 Vol. I – Varietal Improvement

RAGOLU							
Latitude:	18.24 o N		Longitude:	83.84oE		Elevation (m):	27 MSL
Soil type:	Red sandy loam with clay base		Soil pH:	-		Soil texture:	Low organic matter content
	July	Aug	Sep	Oct	Nov	Dec	Total / Range
No. of Rainy days	8	11	7	2	1	7	36
Total Rainfall (mm)	151	139.5	186	27.2	6.10	82.10	591.9
Avg. Max. Temp. (°C)	31.85	32.20	32.50	30.27	29.80	28.77	32.5-28.77
Avg. Mini. Temp. (°C)	26.98	27.14	26.70	24.72	20.80	20.29	20.29-27.14
Avg. Sunshine hours	5.94	5.63	5.40	5.37	5.26	5.24	5.473
Avg. wind velocity	1.18	1.23	1.10	1.12	1.10	1.10	1.138

RANCHI							
Latitude:	27° 17' N		Longitude:	85°19' E		Elevation (m):	625 m
Soil type:	Red Lateritic		Soil pH:	5.6		Soil texture:	Sandy loam
	June	July	Aug	Sep	Oct	Nov	Total / Range
No. of Rainy days	6	18	21	13	4	0	62
Total Rainfall (mm)	81.2	473.0	657.0	407.0	63.0	0.0	1681.2
Avg. Max. Temp. (°C)	36.8	33.4	32.6	31.9	30.8	27.0	36.8-27
Avg. Mini. Temp. (°C)	25.8	23.9	23.8	22.3	19.7	13.2	13.2-25.8
Avg. Sunshine hours	NA	NA	NA	NA	NA	NA	NA
Avg. wind velocity	2.8	2.4	2.2	2.8	2.4	2.2	2.466

REWA							
Latitude:	24° 30' N		Longitude:	81° 2' E		Elevation (m):	360 msl
Soil type:	Clay loam		Soil pH:	7.3		Soil texture:	Silty Clay loam
	Jun	Jul	Aug	Sep	Oct	Nov	Total / Range
No. of Rainy days	06	12	20	13	1	0	52
Total Rainfall (mm)	24.6	195.4	458	238	5.6	0	921.6
Avg. Max. Temp. (°C)	40.5	34.4	33.2	33.2	32.8	30.8	40.5-30.8
Avg. Mini. Temp. (°C)	30.4	27.3	25.5	23.6	21.6	14.2	14.2-30.4

SAKOLI							
Latitude:	20° 04' 01N		Longitude:	79° 59' 17E		Elevation (m):	243m
Soil type:	Lateritic		Soil pH:	6.57 to 7.02 (Neutral)		Soil texture:	Clay loam
	Jun	Jul	Aug	Sep	Oct	Nov	Total / Range
No. of Rainy days	9	21	16	15	02	00	63
Total Rainfall (mm)	55.00	695.50	262.00	499.90	2.41	0.64	1515.45

Shirgaon							
Latitude:	17° 50' N		Longitude:	73° E		Elevation (m):	10
Soil type:	Lateritic		Soil pH:	6.7		Soil texture:	Porous
	Jun	Jul	Aug	Sep	Oct	Nov	Total / Range
No. of Rainy days	23	29	19	25	11	2	109
Total Rainfall (mm)	892.7	1708.8	510.6	518.2	169.6	50.0	3849.9
Avg. Sunshine hours	3.3	0.4	3.7	4.8	6.8	7.2	7.2-0.4
Avg. wind velocity	2.8	5.4	3.5	2.3	1.3	1.4	1.3-5.4

SUNDERNAGAR							
Latitude:	31°32'17'' N		Longitude:	76°53'48''E		Elevation (m):	Clay Loam
Soil type:	Clay		Soil pH:	7.8		Soil texture:	870 m
	Jun	Jul	Aug	Sep	Oct	Nov	Total / Range
No. of Rainy days	9	19	25	26	1	0	80
Total Rainfall (mm)	56.7	408.4	284.9	131.7	1.4	0	883.1
Avg. Max. Temp. (°C)	38.44	32.86	31.56	31.18	30.37	26.10	38.44-26.1
Avg. Mini. Temp. (°C)	19.76	22.70	22.06	19.76	13.22	8.23	8.23-22.7
Avg. Sunshine hours	8	8	8	7	7	6	7.333
Avg. wind velocity	0.7	0.8	0.7	0.7	0.8	0.2	0.65

Annual Progress Report 2024 Vol. I – Varietal Improvement

Trichy							
Latitude:	10045' N		Longitude:	78036' E		Elevation (m):	Clay Loam
Soil type:	Clay		Soil pH:	8.7		Soil texture:	
	Sep	Oct	Nov	Dec	Jan	Total / Range	
No. of Rainy days	2	12	12	9	2	37	
Total Rainfall (mm)	7.2	175.6	159.5	284.9	12.4	639.6	
Avg. Max. Temp. (°C)	37.3	33.8	30.3	31.1	31.2	37.3-30.3	
Avg. Mini. Temp. (°C)	26.2	24.9	24.5	25.1	22.9	22.9-26.2	
Avg. Sunshine hours	7.6	7.1	3.2	4.1	5.1	5.42	
Avg. wind velocity	3.1	1.7	1.8	1.7	2.1	2.08	

TIRUR							
Latitude:	13°7'N		Longitude:	78°56'E		Elevation (m):	39.47
Soil type:	Eceptisol		Soil pH:	7-8.5		Soil texture:	Sandy clay loam
	Jul	Aug	Sep	Oct	Total / Range		
No. of Rainy days	6	1	4	6	17		
Total Rainfall (mm)	167.5	249	80	168.4	664.9		
Avg. Max. Temp. (°C)	35.6	34.8	33.8	33.6	35.6-33.6		
Avg. Mini. Temp. (°C)	26.2	25.7	26.1	25.3	25.3-26.2		

TITABAR							
Latitude:	-		Longitude:	-		Elevation (m):	-
Soil type:	-		Soil pH:	-		Soil texture:	-
	Jun	Jul	Aug	Sep	Oct	Nov	Total / Range
No. of Rainy days	16	18	11	9	8	0	62
Total Rainfall (mm)	248.0	387.2	200.2	78.4	83.8	0	997.6
Avg. Max. Temp. (°C)	32.8	34.0	34.0	34.8	30.0	29.2	34.8-29.2
Avg. Mini. Temp. (°C)	22.4	22.7	21.6	20.9	17.8	13.6	13.6-22.7
Avg. Sunshine hours	2.0	4.3	4.3	5.4	2.1	6.1	4.033

UPPER SHILLONG							
Latitude:	2532'41" N		Longitude:	91 50'35" E		Elevation (m):	1735.80msl
Soil type:	-		Soil pH:	-		Soil texture:	-
	June	July	Aug	Sep	Oct	Nov	Total / Range
No. of Rainy days	26	21	27	15	11	-	100
Total Rainfall (mm)	563	309	396.6	89.2	153	-	1510.8
Avg. Max. Temp. (°C)	23.18	24.19	22.54	24.32	22.6	20.2	24.32-20.2
Avg. Mini. Temp. (°C)	16.68	18.25	17.43	17.35	15.9	12	12-18.25

VADGAON MAVAL									
Latitude:	187-45 North			Longitude:	73 – 41 East			Elevation (m):	677.9 m
Soil type:	Medium			Soil pH:	6.5-7.5			Soil texture:	Clay-loam
	Upto May	June	July	Aug	Sep	Oct	Nov	Dec	Total / Range
No. of Rainy days	135.2	114.6	761.8	546.2	133	96.6	0	0	1787.4
Total Rainfall (mm)	4	9	23	22	14	5	0	0	77
Avg. Max. Temp. (°C)	39.5	39.2	29.7	29	30	32.5	33.1	29.2	39.5-29
Avg. Mini. Temp. (°C)	10.7	21	22.1	22	19.8	16.5	15	12.2	10.7-22.1

WANGBAL							
Latitude:	24°8'N		Longitude:	94°E		Elevation (m):	781m
Soil type:	Clay loam		Soil pH:	5.5		Soil texture:	Fine
	Jun	Jul	Aug	Sep	Oct	Nov	Total / Range
No. of Rainy days	5	19	24	12	14	4	78
Total Rainfall (mm)	19.6	258.4	384.7	72.8	224	23.1	982.6
Avg. Max. Temp. (°C)	35	36	35	36	33	31	36-31
Avg. Mini. Temp. (°C)	19	20	19	20	16	13	13-20

WARASEONI							
Latitude:	21°45'N		Longitude:	80°50'E		Elevation (m):	301.5
Soil type:	Sandy loam		Soil pH:	7.5		Soil texture:	-
	Jun	Jul	Aug	Sep	Oct	Total / Range	
No. of Rainy days	12	28	22	14	-	76	
Total Rainfall (mm)	132.1	580.1	389.1	221.5	-	1322.8	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Trials Sent and Data Receipt

Funded Location-2024				
Region	State	Location	Total Trial Sent	Total Data Received
ZONE I-HILLS	MANIPUR	WANGBAL	2	2
	MEGHALAYA	UPPER SHILLONG	3	3
	JAMMU & KASHMIR	KHUDWANI	3	3
	HIMACHAL PRADESH	MALAN	4	4
	SOUTHERN HILLS	Ponnampet	1	1
ZONE II-NORTHERN	UTTARAKHAND	PANTNAGAR	10	7
	PUNJAB	LUDHIANA	15	13
	HARYANA	KAUL	9	9
		Karnal (ICAR-CSSRI)	10	10
	JAMMU KASHMIR	CHATHA	8	3
	RAJASTHAN	KOTA	6	5
		UTTAR PRADESH	NAGINA	10
	KANPUR	5	5	
ZONE III-EASTERN	ODISHA	JEYPORE	17	17
		CHIPLIMA	15	10
	BIHAR	BIKRAMGANJ(Dhanga in)	16	16
		PUSA	11	11
	JHARKHAND	RANCHI	18	18
	WEST BENGAL	CHINSURAH	20	13
		BANKURA	11	8
	UTTAR PRADESH	MASODHA	20	20
VARANASI		15	12	
ZONE IV- NORTH EASTERN	ASSAM	TITABAR	19	16
	TRIPURA	ARUNDHU TINAGAR	13	2
ZONE-V – CENTRAL	MADHYA PRADESH	REWA	8	8
	CHHATTISGARH	RAIPUR	19	19
		JAGADALPUR	14	14
ZONE VI – WESTERN	MAHARASHTRA	SAKOLI	11	11
	MAHARASHTRA	KARJAT	20	20
		GUJARAT	NAVSARI	22
	NAWAGAM		16	15
ZONE VII – SOUTHERN	ANDHRA PRADESH	MARUTERU	19	19
		RAJENDRANAGAR	14	12
	TELANGANA	WARANGAL	13	12
		TAMIL NADU	ADUTHURAI	18
		COIMBATORE	15	15
	KERALA	MONCOMPU	10	9
		PATTAMBI	18	17
	KARNATAKA	MANDYA	21	20
MUGAD		19	13	
BRAHMAVAR		16	15	
Total			534	468

Annual Progress Report 2024 Vol. I – Varietal Improvement

Voluntary Locations-2024

Region	State	Location	Total Trial Sent	Total Data Received
ZONE I – HILLY REGION	MANIPUR	Lamphelpat-ICAR	3	3
		IMPHAL CAU	3	2
	MEGHALAYA	Barapani (Umiam) ICAR	2	2
		CAU, Barapani	2	2
	SIKKIM	Gangtok	2	2
	UTTARAKHAND	Almora- ICAR	5	4
		Bageswar (Almora)	1	1
	JAMMU & KASHMIR	Pombay (Khudwani)	2	2
		Wadura (Khudwani)	2	2
		Rajouri	2	2
		Bandipore	1	0
		Larnoo	2	2
			Badarwa	2
	HIMACHAL PRADESH	Palampur	1	1
		Sundernagar (Malan)	3	2
		Bajura (Malan)	2	0
		Dhaulakaun	3	3
			Bhertin	1
	NAGALAND	Mediziphema - ICAR	1	1
		Nagaland (University)	2	2
SOUTHERN HILLS	TAMILNADU	Gudaluru	2	2
	KARNATAKA	Sirsi	8	5
ZONE II-NORTHERN	NEW DELHI	IARI New Delhi		
	HARYANA	Rohtak (Karnal)	2	2
		Jind (Karnal)	2	0
		Panipat (Karnal)	2	2
		Kurukshetra (Karnal)	2	2
		Anjanitel(Karnal)	2	2
	ODISHA	Bhubaneswar	9	7
		ICAR-NRRI (Cuttack)	27	25
		Ranital		0
	BIHAR	Sabour	12	11
		Patna-ICAR	5	4
	JHARKHAND	Hazaribagh	4	3
	WEST BENGAL	Canning-ICAR	3	3
		Pundibhari	4	2
		Hathwara	7	6
		Malda	11	11
		Gosaba	3	3
UTTAR PRADESH	Lucknow-ICAR	3	0	
	Gorakhpur	7	4	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Region	State	Location	Total Trial Sent	Total Data Received	
		Gautam Budha Nagar(Karnal)	2	2	
		Prayagraj	2	2	
	ASSAM	Gerua-ICAR	13	12	
	TRIPURA	Lembucherra	15	14	
ZONE-V – CENTRAL	MADHYA PRADESH	Waraseoni	7	5	
		Jabalpur	10	7	
	CHHATTISGARH	Ambikhapur	8	8	
		Bilaspur	9	4	
MAHARASHTRA	Sindewahi	14	14		
ZONE VI – WESTERN	MAHARASHTRA	Panvel	3	3	
		Shirgaon	9	6	
		Vadagaon	9	5	
		Pondaghat	2	2	
		Parbhani	2	2	
		Radhanagari	6	6	
	GUJARAT	Derol	4	2	
		Dabhoi	4	0	
		Vyara	9	9	
		Baruch (Karnal)	3	0	
	GOA	Goa	3	1	
	ZONE VII – SOUTHERN	ANDHRA PRADESH	Machilipatnam	3	3
			Ragolu	9	7
Bapatla			7	5	
Nellore			4	4	
TELANGANA		Rudrur	4	3	
		ICAR-IIRR, Hyderabad	4	4	
		Kampasagar	10	4	
		Kunaram	4	4	
		Jagtial	7	3	
TAMIL NADU		Tirur	8	2	
		Trichy	2	2	
		Annamalainagar	2	2	
KERALA		Vytilla	5	5	
KARNATAKA		Kumta			
		GANGAVATI	18	16	
		Malagi	5	0	
		Kathalgere	7	6	
PUDUCHERRY		KURUMBAPET	12	6	
		Puducherry	13	2	
		Karaikal	18	13	
Andaman & Nicobar	Portblair		1		
Total			433	323	

Annual Progress Report 2024 Vol. I – Varietal Improvement

Initial Hybrid Rice Trials (IHRTs): -Trials Sent and Data Received

Funded Locations – 2024

Zone	State	Location	Trials Sent	Data receipt	Reasons for Failure of the Expt.
Zone 1 (Hills)	Himachal Pradesh	Malan	1	1	0
Zone 2- Northern	Uttarakhand	Pantnagar	3	3	0
	Punjab	Ludhiana	3	3	0
	Haryana	Kaul	3	3	0
	Uttar Pradesh	Nagina	3	3	0
Zone 3- Eastern	Odisha	Chiplima	1	1	0
	Jharkhand	Ranchi	4	4	0
	West Bengal	Chinsurah	4	4	0
	Uttar Pradesh	Masodha	4	4	0
		Varanasi	2	2	0
Zone 4-North Eastern	Assam	Titabar	4	4	0
	Tripura	Arundhutinagar	4	2	2(Trials damaged)
Zone 5- Central	Chhattisgarh	Raipur	4	4	0
	Maharashtra	Sakoli	2	2	0
Zone 6- Western	Maharashtra	Karjat	4	4	0
	Gujarat	Nawagam	4	4	0
		Navsari	4	4	0
Zone 7- Southern	AndhraPradesh	Maruteru	4	4	0
	Telangana	Warangal	4	4	0
	Tamil Nadu	Aduthurai	2	1	1(Trial damaged)
		Coimbatore	4	4	0
	Karnataka	Brahmavar	2	2	0
		Mandya	4	4	0
		Total	74	71	3

Annual Progress Report 2024 Vol. I – Varietal Improvement

VOLUNTARY LOCATIONS – 2024

Zone	State	Location	Trials Sent	Data receipt	Reasons for Failure of the Expt.
Zone 2 (Northern)	Delhi	ICAR-IARI	2	2	0
Zone 3 (Eastern)	Odisha	ICAR-NRRI	4	4	0
	Bihar	Dhangain	3	3	0
		Sabour	3	0	3(Trials damaged due to floods)
Zone 5 (Central)	Madhya Pradesh	Jabalpur	4	4	0
		Waraseoni	4	4	0
	Maharashtra	Sindewahi	4	4	0
Zone 6 (Western)	Maharashtra	Shirgaon	2	2	0
		Vadgaon Maval	1	1	0
		Phondaghat	2	2	0
		Radhanagari	2	2	0
	Gujarat	Dabhoi	4	4	0
Zone 7 (Southern)	Andhra Pradesh	Bapatla	1	1	0
	Telangana	ICAR-IIRR	4	4	0
	Puducherry	Karaikal	2	2	0
		Total	42	39	3

Annual Progress Report 2024 Vol. I – Varietal Improvement

PRIVATE COMPANIES LOCATION

Zone	State	Location	Name of the Company	Trials Sent	Data receipt	Reasons for Failure of the Expt.
Zone 3 (Eastern)	Bihar	Nawada	Delta Agrigenetics Pvt. Ltd.	2	2	0
	Jharkhand	Ranchi	Bayer Bio-Science Pvt. Ltd.	4	4	0
	Jharkhand	Ranchi	Trimurthi Plant Sciences Pvt. Ltd.	3	3	0
	Uttar Pradesh	Bareilly	Trimurthi Plant Sciences Pvt. Ltd.	3	3	0
		Barabanki	Nuziveedu Seeds Ltd.	1	1	0
		Barabanki	Bioseed Research India	1	1	0
		Ayodhya	Indo-American Hybrid Seeds(India) Pvt. Ltd.	3	3	0
	West Bengal	Kolkata	PAN Seeds Pvt. Ltd.	1	1	0
Zone 5 (Central)	Chhattisgarh	Durg	VNR Seeds Pvt. Ltd.	4	4	0
	Maharashtra	Nagpur	Ankur Seeds Pvt. Ltd.	4	4	0
Zone 7 (Southern)	Telangana	Shankarpally	Bioseed Research India	1	1	0
			Total	27	27	0

Annual Progress Report 2024 Vol. I – Varietal Improvement

ABBREVIATIONS

ABP	Ambikapur	JBP	Jabalpur	PDG	Phondaghat
ADT	Aduthurai	JDP	Jagadapur	PLG	Palghar
ALG	Aligarh	JGL	Jagtial	PLM	Palampur
ALH	Allahabad	JND	Jind	PNB	Pundibhari
ALM	Allmora-ICAR	JRP	Jharanapani	PNP	Ponnampet
AML	Annamalainagar	JYP	Jeypore	PNT	Pantnagar
AMS	Ambasamudram	KBP	Kurumbapet	PNV	Panvel
ARD	Arundhutinagar	KHD	Khudwani	POB	Port Blair
BBN	Bhubaneswar	KJT	Karjat	PPT	Panipat
BDP	Bandipore	KLP	Kalimpong	PRK	Paramakudi
BGL	Bengaluru	KLS	Kolasib	PSA	Pusa
BGS	Bageshwar	KMP	Kampasagar	PTB	Pattambi
BJR	Bajaura	KNM	Kunaram	PTN	Patna
BKG	Bikramganj (Patna)	KNP	Kanpur	PTN	Patna-ICAR
BLP	Bilaspur	KOL	Kolkata	RCI	Ranchi
BNK	Bankura	KPT	Kapurthala	RDN	Radhanagari
BNS	Banswara	KRK	Karaikal	RDR	Rudrur
BPT	Bapatla	KRL	Karnal(CSSRI)	REW	Rewa
BRD	Bardoli	KTA	Kota	RGL	Ragolu
BRM	Brahmavar	KTG	Kathalgere	RHK	Rohtak
CBT	Coimbatore	KTR	Katrain	RJR	Rajouri
CHN	Chinsurah	KUK	Kurukshetra	RNG	Ranichouri
CHP	Chiplima	KUL	Kaul	RNR	Rajendranagar
CHT	Chatha	LCK	Lucknow	RPR	Raipur
CKD	Chakdha (Mohanpur)	LDN	Ludhiana	RUN	Rauni
CNG	Canning-ICAR	LGL	Langol	SBR	Sabour
CTK	NRRI-Cuttak (ICAR)	LMB	Lembucherra	SHL	Shalimar
CTP	Chintapalli	LPP	Lamphalpat	SHR	Shirgaon
DBI	Dabhoi	MDG	Mudigere	SKL	Sakoli
DNT	Danti	MDP	Modipuram	SND	Sindewahi
DRL	Derol	MGD	Mugad	SRS	Sirsi
DUK	Dhaulakhan	MJH	Majhera	SUN	Sundernagar
GBN	Gautam Buddha Nagar	MLN	Malan	TLJ	Tuljapur
GDL	Gudalur	MNC	Moncompu	TRR	Tirur
GDP	Gurdaspur	MND	Mandya	TRY	Trichy
GER	Gerua-ICAR	MPM	Machilipatnam	TTB	Titabar
GGT	Ghaghraghat	MSD	Masodha	UMM	Barapani (Umiam)
GNV	Gangavati	MTO	Motto	USG	Upper Shillong
GOA	Goa	MTU	Maruteru	VDG	Vadagaon
GRK	CRD-Gorakhpur	NGN	Nagina	VRN	Varanasi
GSB	Gosaba	NLP	North Lakhimpur	VTL	Vytilla
GTK	Gangtok	NLR	Nellore	VYR	Vyara
HTW	Hathwara	NND	Nandyal	WBL	Wangbal
HZB	Hazaribagh	NVS	Navsari	WDR	Wadura
IAR	IARI-New Delhi	NWG	Nawagam	WGL	Warangal
IGP	Igatpuri	PBN	Parbhani	WRS	Waraseoni
IMP	Imphal (CAU)	PBY	Pombay		

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