

Hybrid Rice

In our country, an excellent progress has been made in hybrid rice research and development. As a result of concerted efforts over the last three decades, 133 hybrids have been released for commercial cultivation in different rice growing states across the country. Among these, 40 hybrids have been developed by the public sector, while the remaining 93 are developed by the private sector. The private sector is playing a very important role in hybrid rice research and development in the country. During the year 2021, 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 (2021-22), six rice hybrids viz., NPH-X1, MR-8666, SAVA-200, SAVA-300, CR Dhan 702 and CR Dhan 703 were released and notified by the CSCCSN & RV for commercial cultivation in different parts of the country. Among these NPH-X1, MR 8666 are central releases; SAVA-200, SAVA-300, CR Dhan 702 and CR Dhan 703 are state releases.

For identification of high yielding and widely adapted hybrids, a national level three tier system of evaluation is being adapted and in this, the hybrids developed by research network centres, including some of the voluntary centres 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 medium slender grain type hybrids. IHRTs are conducted at 30-35 locations and these trials consist of test hybrids, national varietal / hybrid checks, zonal and local varietal checks in the respective maturity and grain type groups.

The location data is considered for analysis and the hybrids are promoted to the next stage of testing i.e., Advance Varietal Trial-1 (AVT-1) based on criterion mentioned in the proceeding of 56th ARGM (p14-15).

1. The significance of the trial is determined based on F-value. If the F value at individual location is not significant, data from such locations are not considered for assessment of entries.
2. 'Minimum experimental mean yield of 4 t/ha, for inbreds and 5 t/ha for hybrid trial is a requirement for inclusion of location data for assessment of entries'. However, it has been slightly modified this year to include the yield data up to 4 t/ha for IHRTs as many locations were getting dropped, if 5 t/ha limit is applied.
3. CV for trial acceptance is in the range of 5-20%.
4. CD @ 5% is considered as a criteria for promotion of entries.

During Kharif 2021, four hybrid trials were conducted and evaluated and test locations are given in Table-1 and Table-2 respectively.

Table-1: Details of Initial Hybrid Rice Trials conducted during Kharif 2021

S. No	Name of the trial	No. of hybrids evaluated		No. of test locations
		Public	Private	
1.	Initial Hybrid Rice Trial - Early	6	17	33
2.	Initial Hybrid Rice Trial - Mid Early	7	26	34
3.	Initial Hybrid Rice Trial - Medium	2	13	35
4.	Initial Hybrid Rice Trial - Medium Slender	5	5	32

Table 2: Zone wise test centres for Initial Hybrid Rice Trials, Kharif 2021

Zone	No. of Locations	Name of Locations
Zone II (Northern)	5	Public Sector: Malan (MLN), Kaul (KUL), Ludhiana (LDN), New Delhi (IAR) Pantnagar (PNT)
Zone III (Eastern)	13	Public Sector: Chinsurah (CHN), Chiplitima (CHP), Cuttack (NRRI), Dhangain (DNG), Hazaribagh (HQB), Masodha (MSD), Nagina (NGN), Ranchi (RCI), Varanasi (VRN) Private Sector: Rasi Seeds (RSI), JK Agri Genetics (JKA), Syngenta (SYN), Trimurthi Seeds (TMT)
Zone IV (North Eastern)	2	Public Sector: Arundhatinagar (ARD), Titabar (TTB)
Zone V (Central)	9	Public Sector: Jabalpur (JBP), Raipur (RPR), Sakoli (SKL), Sindewahi (SND), Waraseoni (WRS) Private Sector: Ankur Seeds (ANK), Nuziveedu Seeds (NUZ), Rasi Seeds (RSI), VNR Seeds (VNR)
Zone VI (Western)	7	Public Sector: Karjat (KJT), Navsari (NVS), Nawagam (NWG), Pondaghat (PDG), Radhanagari (RDN), Shirgaon (SHG), Vadgaon Maval (VDG)
Zone VII (Southern)	12	Public Sector: Aduthurai (ADT), Bapatla (BPT), Coimbatore (CBT), Hyderabad (IIRR), Karaikal (KRK), Malagi (MLG), Mandya (MND), Maruteru (MTU), Ragolu (RGL), Sirsi (SRS), Warangal (WGL) Private Sector: Bayer Bio Sciences (BAY)

1. Initial Hybrid Rice Trial - Early (IHRT-E)

Twenty three test hybrids (17 and 6 from private and public sector respectively) were evaluated in 33 locations comprising Zone 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-3.

Table-3: Composition of Initial Hybrid Rice Trial - Early (IHRT-E), Kharif 2021

S. No.	IET No.	Name	Nominating Agency
1	29685	JRH-133	JNKVV, Jabalpur
2	29686	CP R414	CP Seeds, Bangalore
3	29687	RALLIS-20101	Rallis (I) Ltd., Hyderabad
4	29688	RALLIS-20102	Rallis (I) Ltd., Hyderabad
5	29689	HRI-214	Bayer Bioscience, Hyderabad
6	29690	UPLRH-180842	UPL, Hyderabad
7	29691	VNR-228	VNR Seeds, Raipur
8	29692	UPLRH-162087	UPL, Hyderabad
9	29693	US-321	Seed Works, Hyderabad
10	29694	UPLRH-181325	UPL, Hyderabad
11	29695	KAVERI-7227	Kaveri Seeds, Hyderabad
12	29696	PAN-2150	PAN Seeds, Hyderabad
13	29697	TNRH-297	TNAU, Coimbatore
14	29698	NPH-X60	Nuziveedu Seeds, Hyderabad
15	29699	IIRRH-152	ICAR-IIRR, Hyderabad
16	29700	JKRH-1004	JK Seeds, Hyderabad
17	29701	PHI-21101	Pioneer, Hyderabad
18	29702	MEPH-162	MAHYCO, Hyderabad
19	29703	PHI-21102	Pioneer, Hyderabad
20	29704	IIRRH-150	ICAR-IIRR, Hyderabad
21	29705	MEPH-163	MAHYCO, Hyderabad
22	29706	IIRRH-151	ICAR-IIRR, Hyderabad
23	29707	IIRRH-153	ICAR-IIRR, Hyderabad
24	-	US-314 (NCH)	National Check Hybrid
25	-	CO-51 (NCV)	National Check Variety
26	-	PR-124/Luit/NDR-97/ Sahbhagidhan/MTU- 1153 (RCV)	Regional Check Variety
27	-	Local Check Variety (LCV)	Local Check Variety

The detailed location wise and zone wise performance for grain yield and days to 50% flowering (DFF) is given in Appendix-1 & 2 respectively. The overall DFF ranged from 79 to 92 days. The national varietal check (CO-51) had overall mean of 83 days, zonal check of 85 days, local check of 86 days and national hybrid check (US 314) of 87 days. The grain quality characteristics of test entries are given in Appendix-3.

Based on overall mean, nine hybrids viz., PHI 21102, UPLRH-180842, UPLRH-181325, HRI-214, KAVERI-7227, PAN-2150, PHI-21101, VNR-228 and UPLRH 162087 significantly out yielded the best varietal and hybrid check (Table-4). Besides these, based on zonal means, two hybrids viz., US-321, JKRH-1004 (Zone II) were found promising. Of these 11 hybrids viz., seven hybrids viz., UPLRH-180842, UPLRH-181325, HRI-214, PAN 2150, PHI 21101, VNR-228, UPLRH-162087 are promoted to AVT-1-E-TP. The status of the remaining four hybrids viz., PHI-21102, KAVERI-7227, US 321 and JKRH 1004 (as they are falling short of quality requirements as per the IIRR data) will be decided, once the quality data from other two testing centres are received.

Table 4: Promising hybrids identified in IHRT-E, Kharif 2021

S. No	Hybrid	IET No	DFF	Grain Type	Mean Yield (kg/ha)							Remarks
					Over all	Zone II	Zone III	Zone IV	Zone V	Zone VI	Zone VII	
1	PHI-21102	29703	91	LS	6743*#	8434*#	6698*#	5118	6608*#	5582*	8211*#	Low AC: 15.31
2	UPLRH-180842	29690	91	LB	6687*#	8033*#	6556*#	5323	6584*#	6412*	7757*#	Promoted to AVT-1-E-TP
3	UPLRH-181325	29694	90	LS	6673*#	8584*#	6378*	4895	6794*#	6362*	7508*#	Promoted to AVT-1-E-TP
4	HRI-214	29689	88	LB	6553*#	7526*	6421*	4090	6486*	6054*	5477	Promoted to AVT-1-E-TP
5	KAVERI 7227	29695	87	LB	6521*#	8162*#	6976*#	5145	5982*	5207	7616*#	Low AC: 14.63
6	PAN 2150	29696	91	LS	6447*#	7523*#	6459*	4846	6019*	6071*	7862*#	Promoted to AVT-1-E-TP
7	PHI-21101	29701	88	LB	6444*#	8198*#	6785*#	4677	4583	5372	7040*	Promoted to AVT-1-E-TP
8	VNR 228	29691	86	SB	6419*#	7635*#	6330*	4758	6522*#	5962*	7194*	Promoted to AVT-1-E-TP
9	UPLRH 162087	29692	87	LS	6395*#	7394*	6431*	5187	6361*	5816*	7388*#	Promoted to AVT-1-E-TP
10	US 321	29693	81	LS	6092*	7439*#	6154	5940	5920*	5148	7066*	High AC: 26.28 Low GC: 25
11	JKRH 1004	29700	83	LS	5604*	7639*#	5722	4711	5311	5236	5527	Low AC: 18.92
	US 314	NCH	87	MS	6101	6983	6195	6008	6007	6111	6380	
	Co 51	NCV	83	MS	5142	5594	5572	4724	4991	4008	5950	
		ZCV	85	LB	4964	4351	4888	5462	4972	3876	6870	
		LCV	86	SB	5359	6372	5888	3404	5081	5048	5670	
	CD (0.05)				170.86	413.94	316.43	499.21	499.35	439.04	388.26	
	HC + CD (0.05)				6272	7397	6511	6507	6506	6550	6768	
	BVC+ CD (0.05)				5530	6786	6204	5961	5580	5487	7258	

#: Denotes superior to Hybrid Check; *: Denotes superior to Best Varietal Check.

2. Initial Hybrid Rice Trial - Mid Early (IHRT-ME)

Mid Early trial comprising of 33 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 34 locations. Among the 33 hybrids evaluated, 26 were from private sector and seven from public sector. The composition of the trial is given in Table-5.

Table-5: Composition of Initial Hybrid Rice Trial - Mid Early (IHRT-ME), Kharif 2021

S. No.	IET No.	Name	Nominating Agency
1	29708	MALI-348	Mali Agri tech., Ranaghat
2	29709	JRH-134	JNKVV, Jabalpur
3	29710	CP R444	CP Seeds, Bangalore
4	29711	IRH-128	IGKV, Raipur
5	29712	Indam 300-021	Indo-American Seeds, Hyderabad
6	29713	IRH-129	IGKV, Raipur
7	29714	Indam 200-053	Indo-American Seeds, Hyderabad
8	29715	IRH-130	IGKV, Raipur
9	29716	RALLIS-20308	Rallis (I), Ltd., Hyderabad
10	29717	RRX-271	Rasi Seeds, Hyderabad
11	29718	UPLRH-180839	UPL, Hyderabad
12	29719	NPH-X5+	Nuziveedu Seeds, Hyderabad
13	29720	UPLRH-169054	UPL, Hyderabad
14	29721	UPLRH-189001	UPL, Hyderabad
15	29722	RNRH-15	RRC, PJTSAU, Hyderabad
16	29723	SPH-43	Super Seeds, Hyderabad
17	29724	PAN-2140	PAN Seeds, Hyderabad
18	29725	NPH-X49	Nuziveedu Seeds, Hyderabad
19	29726	PHI-21103	Pioneer, Hyderabad
20	29727	PRSH-2009	Prabhat Agri Biotech, Hyderabad
21	29728	US-346	Seed Works, Hyderabad
22	29729	ARRH-23316	Ankur Seeds, Nagpur
23	29730	US-355	Seed Works, Hyderabad
24	29731	RNC-0334	Syngenta, Hyderabad
25	29732	KPHDF8PX	Kaveri Seeds, Hyderabad
26	29733	JKRH-1038	JK Seeds, Hyderabad
27	29734	PHI-21104	Pioneer, Hyderabad
28	29735	MEPH-164	MAHYCO, Hyderabad
29	29736	PHI-21105	Pioneer, Hyderabad
30	29737	IIRRH-148	ICAR-IIRR, Hyderabad
31	29738	RNC-0457	Syngenta, Hyderabad
32	29739	MEPH-165	MAHYCO, Hyderabad
33	29740	IIRRH-149	ICAR-IIRR, Hyderabad
34	-	US-312 (NCH)	National Check Hybrid
35	-	Gontra Bidhan-3 (NCV)	National Check Variety
36	-	PR-113/Lalat/ Karjat-7/MTU-1010 (RCV)	Regional Check Variety
37	-	Local Check Variety (LCV)	Local Check Variety

Performance of the hybrids with respect to grain yield and days to 50% flowering (DFF) are given in Appendix-4 & 5 respectively. The grain quality characteristics of test entries are given in Appendix-6.

Performance of promising hybrids identified in different zones is given in Table-6. In the trial, mean DFF of checks ranged from 87 to 100 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 93, 94 and 95 days respectively.

Table 6: Promising hybrids identified in IHRT-ME, Kharif 2021

S. No	Hybrid	IET No	DFF	Grain Type	Mean Yield (kg/ha)							Remarks
					Over All	Zone II	Zone III	Zone IV	Zone V	Zone VI	Zone VII	
1	PHI- 21103	29726	94	LS	7054*#	6808*	6976*#	7125*	6262	5993	8399*#	High AC: 25.66 Low GC: 22
2	PHI-21105	29736	92	LS	7042*#	7651*#	6699*#	6875*	6625#	5211	8460*#	Promoted to AVT-1-ME-TP
3	PHI-21104	29734	97	LB	6912*#	6796#	6847*#	6900*	6925#	5698	7660*	Promoted to AVT-1-ME-TP
4	RNC-0457	29738	96	LS	6803*#	7464*#	6478#	7156*	6638#	5929	7435*	Promoted to AVT-1-ME-TP
5	RNC-0334	29731	96	LB	6743*#	7039*	6590*#	6112	6647#	5783	7434*	Promoted to AVT-1-ME-TP
6	KPHDF8PX	29732	93	LS	6706*#	7362*#	6635*#	7251	6668#	5653	6964	High AC: 26.28 Low GC: 22
7	MALI-348	29708	94	LS	6647*	7868*#	6401	6004	6484	5182	7311	Promoted to AVT-1-ME-TP
8	IRH-130	29715	93		5203	7707*#	5093	6491	5274	3962	5077	Promoted to AVT-1-ME-TP
9	UPLRH-180839	29718	93	LB	6522	7576*#	6260	6944	6592	5464	6778	Promoted to AVT-1-ME-TP
10	Indam 200-053	29714	98	LS	6463	7429*#	6331	5570	6470	5415	6792	Promoted to AVT-1-ME-TP
11	NPH-X5+	29719	91	SB	6432	7414*#	5925	7033*	6231	6577*	6641	Low AC: 14.52
12	MEPH 164	29735	93	LB	6517	7258*#	6172	5858	6055	5781	7511*	High AC: 25.96 Low GC: 22
13	ARRH-23316	29729	97	LB	6536	5874	6907*#	7346*#	6745*#	5022	6856	Promoted to AVT-1-ME-TP
14	RRX-271	29717	95	LS	6659*	6702*	6876*#	6181	6719#	5428	6969	Promoted to AVT-1-ME-TP
15	MEPH 165	29739	94	LB	6693*	5975	6543*#	6273	6576	6201	7645*	High AC: 26.84 Low GC: 22
16	US-312	NCH	95	MS	6509	6171	6172	6818	6160	6267	7485	
17	Gontra Bidhan-3	NCV	93	SB	6439	6422	6297	6295	6662	5753	6837	
18		ZCV	94	LS	5263	5880	5302	5225	5501	4273	5221	
19		LCV	95	SB	5890	6769	5825	4408	5362	4647	6743	
	CD(0.05)				195.41	456.98	243.47	501.65	454.69	565.36	529.08	
	HC + CD (0.05)				6704	6628	6415	7320	6615	6832	8014	
	BVC + CD (0.05)				6634	7226	6540	6797	7117	6318	7366	

#: Denotes superior to Hybrid Check; *: Denotes superior to Best Varietal Check.

Based on the overall mean, six hybrids viz., PHI-21103, PHI-21105, PHI-21104, RNC-0457, RNC-0334 and KPHDF8PX were found promising and based on zonal means, nine hybrids viz.,MALI-348, IRH-130, UPLRH-180839, Indam 200-053, NPH-X5+, MEPH-164 (Zone II); ARRH-23316 (Zone-III, IV & V), RNX-271, MEPH-165 (Zone III). Of these 15 hybrids, 10 hybrids viz., PHI-21105, PHI-21104, RNC-0457, RNC-0334, MALI-348, IRH-

130, UPLRH-180839, Indam 200-053, ARRH-23316 and RRX-271 are promoted to AVT-1-ME-TP. The status of remaining five hybrids viz., PHI-21103, KPHDF8PX, NPH-X5+, MEPH-164 and MEPH-165 (as they falling short of quality requirements as per IIRR data), will be decided once the quality data from other two testing centres are received.

3. Initial Hybrid Rice Trial-Medium (IHRT-M)

The IHRT-M, conducted at 35 locations with 15 hybrids along with four checks viz., HRI-174 (national hybrid check); NDR-359 (national varietal check); zonal varietal checks (PR-121-Zone-II; CR Dhan 300-Zone-III and IV; IR-64-Zone-V; Akshayadhan-Zone-VI; Jaya-Zone-VII) and local checks of their respective locations. Besides these, two observational hybrid checks viz., 28P67 and Bio-799 were included in the trial to evaluate their performance vis-à-vis the existing hybrid check HRI-174 and if found promising to replace the HRI-174 as national hybrid check. Among the 15 test hybrids evaluated, 13 are from private sector and two from public sector. The details of about the composition of the trial are given in Table-7.

Table-7: Composition of Initial Hybrid Rice Trials - Medium (IHRT-M), Kharif 2021

S. No.	IET No.	Name	Nominating Agency
1	29741	HRI-209	Bayer Bioscience, Hyderabad
2	29742	RRX-338	Rasi Seeds, Hyderabad
3	29743	HRI-211	Bayer Bioscience, Hyderabad
4	29744	RRX-438	Rasi Seeds, Hyderabad
5	29745	PAN-2435	PAN Seeds, Hyderabad
6	29746	RNE-0219	Syngenta, Hyderabad
7	28999	Marshal-135 Pro (Repeat)	Savannah Seeds, Hyderabad
8	29747	RNE-03337	Syngenta, Hyderabad
9	29748	US-384	Seed Works, Hyderabad
10	29749	VNR-230	VNR Seeds, Raipur
11	29750	PHI-21106	Pioneer, Hyderabad
12	29751	PHI-21107	Pioneer, Hyderabad
13	29752	CRHR-156	ICAR-NRRI, Cuttack
14	29753	PHI-20108	Pioneer, Hyderabad
15	29754	IIRRH-154	ICAR-IIRR, Hyderabad
16	-	HRI-174 (NCH)	National Check Hybrid
17	-	NDR-359 (NCV)	National Check Variety
18	-	28P67 (OBCH-1)	Observational Check Hybrid-1
19	-	Bio-799 (OBCH-2)	Observational Check Hybrid-2
20	-	PR-121/CR Dhan-300/ IR-64 Akshayadhan/Jaya (RCV)	Regional Check Variety
21	-	Local Check Variety (LCV)	Local Check Variety

The location wise mean data of grain yield and DFF are given in Appendix-7 & 8 respectively. The grain quality characteristics of test entries are given in Appendix-9

The list of promising hybrids with yield advantages over the best checks in their respective zones is given in Table-8.

Table-8: Promising hybrids identified in IHRT-M Kharif 2021

S. No	Hybrid	IET No	DFF	Grain Type	Mean Yield (kg/ha)							Remarks
					Over all	Zone II	Zone III	Zone IV	Zone V	Zone VI	Zone VII	
1	PHI-21106	29750	97	LB	7079*#	8142*#	6670*#	7005*#	6680*#	6575*#	7825*	High AC: 26.22 Low GC: 22
2	HRI-211	29743	100	LB	6987*#	8143*#	6681*#	6241*#	6771*#	6681*#	7467*	Promoted to AVT-1-M-TP
3	RNE-03337	29747	99	SB	6818*#	7427*#	6667*#	6174*#	6310*	6566*#	7522*	High AC: 25.78 Low GC: 22
4	HRI-209	29741	97	MS	6712*#	7190*#	6775*#	7016*#	6764*#	5748	6943	Promoted to AVT-1-M-TP
5	PHI-20108	29753	97	LB	6695*#	6369	6541*	6638*#	6233*	6182*	7731*	Promoted to AVT-1-M-TP
6	VNR-230	29749	100	LB	6680*#	7744*#	6178*	6183*#	6143*	6108*	7800*	Promoted to AVT-1-M-TP
7	RRX-338	29742	98	LB	6572*	6817*#	7242*#	5699*	6646*#	5375	6627	Promoted to AVT-1-M-TP
8	RRX-438	29744	99	LS	6551*	5980	7165*#	4898	6332*	6179*	6920	Promoted to AVT-1-M-TP
9	RNE-0219	29746	100	SB	6599*	6447	6687*#	5936*	6007*	5886	7685*	High AC: 26.69 Low GC: 22
10	US-384	29748	98	LB	6318*	6676*	6558*#	5048	5909*	5761	6940	Promoted to AVT-1-M-TP
11	PHI-21107	29751	100	LB	6472*	6303	6368*	6437*#	6212*	4889	7877	Promoted to AVT-1-M-TP
12	CRHR-156	29752	107	LS	5734	3700	6173*	6225*#	5500	4495	6729	Promoted to AVT-1-M-TP
13	HRI-174	NCH	99	LB	6444	6051	6260	5755	6203	5931	7500	
14	NDR-359	NCV	98	LB	5548	5216	5591	4962	4791	4886	6848	
		ZCV	100	SB	5298	4899	5309	4492	4287	5518	6384	
		LCV	99	SB	5748	6226	5591	4774	5446	4816	6798	
	CD (0.05)				159.28	481.89	297.89	317.92	307.85	467.22	446.2	
	NCH + CD(0.05)				6603	6533	6558	6073	6511	6398	7946	
	BVC+ CD(0.05)				5907	6708	5889	5280	5754	5985	7294	

#: Denotes superior to Hybrid Check; *: Denotes superior to Best Varietal Check.

Based on the overall mean, six hybrids viz., PHI-21106, HR-211, RNE-0337, HRI-209, PHI-20108 and VNR-230 based on zonal means six hybrids viz., RRX-338 (Zone-II, III, V); RRX-438, RNE-0219, US-384 (Zone-III); PHI-21107, CRHR-156 (Zone-IV) were found to be promising with required yield advantage over the varietal and hybrid checks. Of these 12 hybrids, nine hybrids viz., HRI-211, HRI-209, PHI-20108, VNR-230, RRX-338, RRX-438, US-384, PHI-21107 and CRHR-156 are promoted to AVT-1-M-TP trial. The status of remaining three hybrids viz., PHI-21106, RNE-0337 and RNE-0219 (as they are falling short of quality requirements as per IIRR data), will be decided, once the quality data from other two testing centres are received.

The observational hybrid check 28P67 and Bio-799 have shown ‘NO’ significant yield superiority over the national hybrid check (HRI-174) (Table-9). They are inferior to HRI-174 in Zone-II, Zone-IV, Zone-V, Zone-VI, Zone-VII and overall mean basis (only in Zone-III, 28P67 has shown its yield superiority over HRI-174). Because of their inferior and inconsistent yield performance across the zones, they are ‘NOT’ considered to replace HRI-174 as nation yield check.

Table-9: Performance of Observational Hybrid Checks viz., 28P67 & Bio-799 over the existing national Hybrid check HRI-174 in IHRT-M, Kharif 2021

S. No	Hybrid	DFF	Grain Type	Mean Yield (kg/ha)						
				Overall	Zone II	Zone III	Zone IV	Zone V	Zone VI	Zone VII
1	28P67	96	LB	6397	6071	6669*	6050	5920	5702	7153
2	Bio-799	97	LS	6076	6245	5782	5765	5973	5292	6999
3	HRI-174	99	LB	6444	6051	6260	5755	6203	5931	7500
	CD (0.05)			159.28	481.89	297.89	317.92	307.85	467.22	446.2
	HCV+ CD (0.05)			6603	6533	6558	6073	6511	6398	7946

4. Initial Hybrid Rice Trial - Medium Slender (IHRT-MS) Kharif 2021

The trial consisting of 10 hybrids, five each from public as well as private sector, was conducted at 32 locations. It has five checks viz., national hybrid check (27P63 and JKRH-3333); 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-10.

Table-10: Composition of Initial Hybrid Rice Trial - Medium slender (IHRT-MS), Kharif 2021

S. No.	IET No.	Name	Nominating Agency
1	29755	KRH-8	ZARS, Mandya
2	29756	US-301	Seed Works, Hyderabad
3	29757	VNR-229	VNR Seeds, Raipur
4	29758	KRH-11	ZARS, Mandya
5	29759	MEPH-166	MAHYCO, Hyderabad
6	29760	TMRH-5766	Trimurthi Seeds, Hyderabad
7	29761	CRHR-153	ICAR-NRRI, Cuttack
8	29762	SRH-5402	Shakthi Seeds, Hyderabad
9	29763	CRHR-154	ICAR-NRRI, Cuttack
10	29764	CRHR-155	ICAR-NRRI, Cuttack
11	-	JKRH-3333 (NCH-1)	National Check Hybrid-1
12	-	27P63 (NCH-2)	National Check Hybrid-2
13	-	WGL-14 (NCV-1)	National Check Variety-1
14	-	BPT-5204 (NCV-2)	National Check Variety-2
15	-	Improved Samba Mahsuri/Ketekejoha/Karjat-6/ADT-49 (RCV)	Regional Check Variety

The location wise mean data of grain yield and DFF are given in Appendix-10 and 11 respectively. The grain quality characteristics of test entries are given in Appendix-12.

Based on overall mean two hybrids viz., TMRH-5766 and VNR-229 and on zonal mean basis, one hybrid CRHR-154 (Zone-III) were found promising with required yield advantage over the varietal and hybrid checks (Table-11). Of these three hybrids, one hybrid CRHR-154 is promoted to AVT-1 MS trial. Remaining two hybrids viz., TMRH-5766 and VNR-229 are dropped from further evaluation, as they were found to have non-MS grain type.

Table-11: Promising hybrids identified in IHRT-MS, Kharif 2021

S. No	Hybrid	IET No	DFF	Grain Type	Mean Yield (kg/ha)					Remarks
					Over all	Zone III	Zone V	Zone VI	Zone VII	
1	TMRH 5766	29760	93	LS	6379*#	6442	5798*	6326	6588*#	Non-MS grain type
2	VNR-229	29757	94	LB	6253*#	6733#	5785*	6424*	5986#	Non-MS grain type
3	CRHR-154	29763	103	SS	6145*	7235*#	5400*	5948	6063#	Promoted to AVT-1-MS
4	JKRH-3333	NCH-1	94	MS	6022	6355	6030	5921	5551	
5	27P63	NCH-2	100	MS	5990	5836	6093	6627	5558	
6	WGL-14	NCV-1	102	MS	5826	6401	4961	5822	6059	
7	BPT 5204	NCV-2	104	MS	5840	6657	5137	5498	6174	
8		ZCV	102	MS	5424	6223	4516	4167	6136	
	CD (0.05)				179.4	303.87	262.85	552.9	340.75	
	Best NCH + CD (0.05)				6201	6659	6356	7180	5899	
	BVC+ CD (0.05)				6019	6961	5400	6375	6515	

#: Denotes superior to Hybrid Check; *: Denotes superior to Best Varietal Check.

Appendix-1: Grain Yield (kg/ha) of hybrids in IHRT-Early, Kharif 2021

S. No.	IET No.	Name	Zone II						Zone III (contd.)					
			MLN	LDN	KUL	PNT	IAR	Zone II Mean (5)	MSD	NGN	JKA	UP Mean (3)	SYN	CHN
1	29685	JRH-133	5325	6890	6767(10)	5181	8505	6534	6209	6404(9)	6870(7)	6494(7)	5249	5295
2	29686	CP R414	6190	8155	5333	4856	9054(11)	6718	6005	8352(1)	6208	6855(1)	6428	5093
3	29687	RALLIS-20101	6061	7592	4800	4315	8710	6296	5748	4251	6194	5397	8562(1)	6051
4	29688	RALLIS-20102	7922(6)	7514	5167	4871	8726	6840	5882	7347(2)	5690	6306	6522	5799
5	29689	HRI-214	6580	7943	6800 (9)	6119(6)	8839	7256	6168	6358(10)	6622(11)	6383(9)	7190	6657(9)
6	29690	UPLRH-180842	7489(8)	9783(5)	7700(1)	5645	9548(4)	8033(5)	6495(1)	6713(6)	6982(4)	6730(2)	7625(7)	6858(8)
7	29691	VNR-228	7662(7)	8484(10)	7167 (5)	5774(10)	9086(10)	7635(7)	6495 (3)	6437(8)	7053(2)	6662(4)	7244(11)	6354
8	29692	UPLRH-162087	7316(10)	8484(9)	7167(5)	4595	9409(7)	7394(10)	5882	6888(4)	6797(8)	6523(6)	7080	7766(2)
9	29693	US-321	7143	8919(7)	5567	5909(7)	9656(3)	7439(9)	6250(9)	5161	6317	5909	6499	7262(6)
10	29694	UPLRH-181325	8139(4)	10524(1)	7367(3)	7157(1)	9737(2)	8584(1)	6087	3972	6125	5395	8166(3)	7312(5)
11	29695	KAVERI-7227	8009(5)	9872(3)	7233 (4)	5886(9)	9812(1)	8162(4)	5351	6116	6994(3)	6154	7217	7110(7)
12	29696	PAN-2150	6147	9342(6)	6833(8)	6133(5)	9161(9)	7523(8)	6454(4)	6675(7)	6198	6442(8)	7182	5345
13	29697	TNRH-297	4892	7324	3800	5093	7075	5637	6258(8)	4259	5739	5419		6051
14	29698	NPH-X60	6797	7821	4667	5537	8645	6693	6168	4009	5660	5279	7465(8)	6304
15	29699	IIRRH-152	2165	4169	2533	3534	4183	3317	5617	5378	6212	5736	8290(2)	5295
16	29700	JKRH-1004	7403(9)	8200(11)	7033 (7)	6133(4)	9425(6)	7639(6)	6168	4318	6752(9)	5746	8083(4)	5900
17	29701	PHI-21101	9913(1)	9849(4)	5467	6400(3)	9360(8)	8198(3)	6209(11)	6128	7232(1)	6523(5)	7075	6556(11)
18	29702	MEPH-162	8615(3)	5741	4200	3577	8699	6166	6495(1)	6254(11)	6279	6343(10)	6587	5497
19	29703	PHI-21102	8788(2)	9883(2)	7467(2)	6497(2)	9538(5)	8434(2)	6417(5)	7017(3)	6673(10)	6702(3)	6192	7917(1)
20	29704	IIRRH-150	6234	6756	4167	5753(11)	8414	6265	6291(7)	4159	6402	5618	7003	6051
21	29705	MEPH-163	5671	5524	4000	4892	8419	5701	5576	4898	6239	5571	7683(6)	5850
22	29706	IIRRH-151	4892	6081	4933	4958	8419	5857	5494	3579	5972	5015	6050	6455
23	29707	IIRRH-153	5281	7191	5033	5125	8790	6284	6238(10)	5423	6188	5950	6952	7463(4)
24	US-314 (NCH)		6623	7731	6733(11)	5894(8)	7935	6983	6332(6)	4118	6924(6)	5791	7341(10)	7615(3)
25	CO-51 (NCV)		5931	5334	4667	4323	7715	5594	5502	3988	6144	5211	7800(5)	6606(10)
26	Zonal Check Variety (ZCV)		3636	4454	2700	4198	6769	4351	4551	6750(5)	6157	5819	7417(9)	5446
27	Local Check Variety (LCV)		7229	8818(8)	5733	2938	7140	6372	4003	5970	6939(5)	5637	6833	5345
Exp. Mean			6595	7718	5594	5233	8547	6737	5939	5590	6428	5986	7144	6343
CD (0.05)			960.67	910.96	557.05	877.62	942.35	413.94	485.35	513.31	561.98	309.1	674.88	956.82
CV			8.92	7.23	6.10	10.27	6.75	3.76	5.00	5.62	5.35	3.16	5.79	9.24
F Value			**	**	**	**	**	**	**	**	**	**	**	**
NHC+CD (0.05)								7397						
BVC+CD (0.05)								6786						
D/S			15.6.21	9.6.21	8.6.21	11.6.21	9.6.21		15.6.21	28.6.21	16.6.21		2.7.21	25.6.21
D/P			9.7.21	10.7.21	10.7.21	6.7.21	5.7.21		15.7.21	22.7.21	10.7.21		27.7.21	22.7.21
Gross Plot Size (Sq.m)			3.85	7.56	10.00	10.13	10.00		10.00	10.00	10.00		10.00	8.28
Net Plot Size (Sq.m)			3.85	5.98	10.00	10.13	10.00		8.16	7.99	10.00		10.00	6.61
Local Check Variety				PR 126	HKR-48	Govind	IR 64		NDR 97		NDR 97		Jarasandh	Ajit

**-Highly Significant; *-significant; ns-not significant

(Contd...)

Appendix-1: Grain Yield (kg/ha) of hybrids in IHRT-Early, Kharif 2021

S. No.	IET No.	Name	(contd.)Zone III					Zone IV			Zone V(contd.)			
			HZB	RCI	JH Mean (2)	CTK	Zone III Mean (8)	ARD	TTB	Zone IV Mean (2)	JBP	RPR	VNR	CG Mean (2)
1	29685	JRH-133	5861(8)	5541	5701	5957	5923	5035(7)		5035	5993(6)	4930(10)	7265	6098
2	29686	CP R414	6028(7)	6516(9)	6272(8)	7035(6)	6458(6)	4514		4514	5320	5634(6)	7352	6493
3	29687	RALLIS-20101	2250	3280	2765	5879	5277	5001(8)	5472(10)	5237(7)	3690	3759	7424	5592
4	29688	RALLIS-20102	1528	3324	2426	4602	5087	3712	6042(6)	4877	3973	4256	4800	4528
5	29689	HRI-214	6111(5)	5186	5649	7079(5)	6421(8)	4090		4090	5733(9)	4845	9337(1)	7091(7)
6	29690	UPLRH-180842	5056	5452	5254	7268(3)	6556(4)	4936(11)	5709(8)	5323(6)	6687(2)	4940(9)	8796(7)	6868(8)
7	29691	VNR-228	5417	5940	5678	5702	6330	4758		4758	5787(7)	5583(7)	9259(2)	7421(2)
8	29692	UPLRH-162087	5233	5807	5520	5991(11)	6431(7)	5187(3)		5187(8)	6293(4)	5681(5)	9097(3)	7389(4)
9	29693	US-321	5694(10)	6028	5862	6024(10)	6154	5659(2)	6222(4)	5940(2)	5357	4583	8530(11)	6557
10	29694	UPLRH-181325	6667(1)	6383(10)	6525(5)	6313(8)	6378(9)	4953(10)	4836	4895	5427	5894(2)	8438	7166(6)
11	29695	KAVERI-7227	6506(2)	9264(1)	7885(1)	7246(4)	6976(1)	5145(6)		5145(9)	4970	5933(1)	8852(6)	7393(3)
12	29696	PAN-2150	6333(3)	6826(6)	6580(4)	6657(7)	6459(5)	5183(4)	4509	4846	6063(5)	5894(2)	8775(8)	7334(5)
13	29697	TNRH-297	5694(11)	6206(11)	5950(10)	5591	5686	4673	6426(3)	5549(4)	4137	3831	5947	4889
14	29698	NPH-X60	5778(9)	6693(9)	6236(9)	6057(9)	6017	4396		4396	5147	4694	8337	6516
15	29699	IIRRH-152	1694	2305	2000	3968	4845	4503	3972	4237	2347	2046	2638	2342
16	29700	JKRH-1004	4389	4211	4300	5957	5722	3206	6216(5)	4711	4753	3220	8889(5)	6054
17	29701	PHI-21101	6083(6)	7491(4)	6787(2)	7501(2)	6785(2)	4677		4677	6863(1)	4847	8578(10)	6713(9)
18	29702	MEPH-162	4889	5452	5171	5935	5923	4639	6861(1)	5750(3)	4500	4023	6579	5301
19	29703	PHI-21102	4689	7092(5)	5891	7588(1)	6698(3)	5157(5)	5079	5118(10)	6600(3)	5808(4)	9052(4)	7430(1)
20	29704	IIRRH-150	6194(4)	6649(8)	6422(7)	5879	6079	4979(9)	4077	4528	5113	3940	7886	5913
21	29705	MEPH-163	5072	6206	5639	5913	5930	4286	5916(7)	5101	5610(10)	4183	8200	6191
22	29706	IIRRH-151	5028	5895	5462	5564	5505	4804	5103(11)	4954	5497(11)	4878(11)	8236	6557(10)
23	29707	IIRRH-153	5167	8112(2)	6639(3)	5137	6335(10)	3631	3939	3785	5093	4009	6994	5502
24	US-314 (NCH)		5572	5718	5645	5939	6195	6008(1)		6008(1)	5747(8)	4972(8)	7939	6456
25	CO-51 (NCV)		4250	5408	4829	4880	5572	3954	5493(9)	4724	4963	4387	6882	5634
26	Zonal Check Variety (ZCV)		2417	1817	2117	4546	4888	4369	6555 (2)	5462(5)	2430	3931	7572	5751
27	Local Check Variety (LCV)		5194	7668(3)	6432(6)	5146	5888	2793	4015	3404	5047	2433	8689(9)	5561
Exp.Mean			4992	5795	5394	5976	6019	4602	5359	4898	5153	4560	7790	6176
CD (0.05)			637.48	1113.36	555.61	1263.5	316.43	600.53	477.63	499.21	840.27	1372.71	1050.99	860.04
CV			7.82	11.76	6.31	12.95	3.22	7.99	5.40	6.24	9.98	18.43	8.26	8.53
F Value			**	**	**	**	**	**	**	**	**	**	**	**
NHC+CD (0.05)							6511			6507				
BVC+CD (0.05)							6204			5961				
D/S			7.7.21	26.6.21		29.6.21		7.6.21	20.7.21		19.6.21	21.6.21	25.6.21	
D/P			4.8.21	23.7.21		24.7.21		7.7.21	7.8.21		11.7.21	20.7.21	14.7.21	
Gross Plot Size (Sq.m)			8.00	10.00		9.00		9.00	10.00		10.00	10.70	625.00	
Net Plot Size (Sq.m)			6.00	7.52		6.72		7.84	10.00		7.99	7.20	6.44	
Local Check Variety			Sahbhagidhan	Sahbhagidhan		Ananda			Lachi		MTU 1010	Indira Barani	MTU 1010	

**-Highly Significant; *-significant; ns-not significant

(Contd...)

Appendix-1: Grain Yield (kg/ha) of hybrids in IHRT-Early, Kharif 2021

S. No.	IET No.	Name	(contd.)Zone V					Zone VI (contd.)						
			SKL	SND	@ ANK	MH Mean (2)	Zone V Mean (5)	KJT	RDN	VDG	MH Mean (3)	NWG	NVS	GJ Mean (2)
1	29685	JRH-133	5778(9)	4813	5206	5295	5756	6548(8)	6899(3)	6236(5)	6561(4)	5556(2)	5571	4638(8)
2	29686	CP R414	4272	5250(11)	5430	4761	5566	8249(3)	6969(2)	6510(1)	7242(1)	3449	6290(10)	4295
3	29687	RALLIS-20101	3221	4822	5535(9)	4022	4583	5962	5031	4758	5251	3277	4608	3397
4	29688	RALLIS-20102	4844	5102	5592(6)	4973	4595	4431	4488	4899	4606	3874	5566	4075
5	29689	HRI-214	7088(3)	5428(7)	5522(11)	6258(2)	6486(5)	8960(1)	5018	6250(3)	6743(2)	3617	6424(8)	4418
6	29690	UPLRH-180842	7080(4)	5419(8)	5421	6249(3)	6584(3)	7025(6)	7447(1)	5739(10)	6737(3)	5307(5)	6542(6)	5040(2)
7	29691	VNR-228	7635(2)	4345	5689(1)	5990(4)	6522(4)	5819	6187(6)	6148(6)	6051(9)	5423(4)	6233(11)	4925(5)
8	29692	UPLRH-162087	6103(7)	4630	5364	5367	6361(6)	6785(7)	5309(11)	6306(2)	6133(8)	5130(7)	5552	4486
9	29693	US-321	6675(5)	4456	5636(2)	5566(8)	5920	4008	4927	5920(7)	4952	5547(3)	5339	4519(10)
10	29694	UPLRH-181325	8135(1)	6078(1)	5632(3)	7107(1)	6794(1)	8349(2)	5135	5552	6345(5)	5901(1)	6872(2)	5403(1)
11	29695	KAVERI-7227	4839	5316(10)	5425	5078	5982(10)	5762	4484	5607(11)	5284	3883	6300(9)	4444
12	29696	PAN-2150	3734	5628(5)	4987	4681	6019(8)	6446(9)	6786(4)	5790(9)	6341(6)	4731(9)	6599(5)	4877(6)
13	29697	TNRH-297	4476	4532	5596(5)	4504	4585	5667	3993	3848	4503	3123	4391	3237
14	29698	NPH-X60	4481	5744(4)	5535(9)	5112	5680	5683	5405(10)	4833	5307	4320	6737(4)	4808(7)
15	29699	IIRRH-152	3696	3552	4904	3624	2856	2207	3206	3648	3020	1989	3840	2583
16	29700	JKRH-1004	5131	4563	5272	4847	5311	5497	5448(9)	4644	5197	5019(8)	5572	4459
17	29701	PHI-21101	5332	5771(3)	5320	5551(9)	6278(7)	5920	5978(7)	4508	5469	3627	6826(3)	4622(9)
18	29702	MEPH-162	4526	4782	5439	4654	4882	6295(10)	4814	4917	5342	3930	5069	3844
19	29703	PHI-21102	5615(11)	5963(2)	5588(7)	5789(5)	6608(2)	7840(4)	3050	5917(8)	5602(10)	3633	7470(1)	4946(4)
20	29704	IIRRH-150	5048	5205	5136	5126	5438	5784	4484	6244(4)	5504	3750	4928	3714
21	29705	MEPH-163	5290	4461	4855	4875	5549	5913	5539(8)	5182	5544	4065	4987	3849
22	29706	IIRRH-151	3200	5223	5092	4211	5407	5734	4922	4657	5105	4422(11)	5723	4335
23	29707	IIRRH-153	6429(6)	4920	4789	5674(7)	5489	5683	3376	4164	4407	3950	5015	3824
24	US-314 (NCH)		5982(8)	5397(9)	5539(8)	5690(6)	6007(9)	7108(5)	6525(5)	5265	6299(7)	5213(6)	6445(7)	4960(3)
25	CO-51 (NCV)		4556	4167	5618(4)	4361	4991	5812	3345	4361	4506	2750	3773	2803
26	Zonal Check Variety (ZCV)		5695(10)	5232	5430	5463(10)	4972	6004	3741	4797	4847	947	3892	2262
27	Local Check Variety (LCV)		3776	5463(6)	5211	4620	5081	6011(11)	4988	4412	5137	4699(10)	5130	4131
Exp. Mean			5283	5047	5361	5164.76	5567	6130	5092	5226	5483	4116	5618	4181
CD (0.05)			796.20	1060.88	617.59	771.45	499.35	1156.89	1002.2	674.26	563.06	954.18	1345.26	915.1
CV			9.23	12.87	7.05	9.15	5.49	11.56	12.05	7.90	6.29	11.28	14.66	13.4
F Value			**	**	ns	**	**	**	**	**	**	**	**	**
NHC+CD (0.05)							6506							
BVC+CD (0.05)							5580							
D/S			22.6.21	8.6.21	1.7.21			12.6.21	18.6.21	23.6.21		17.6.21	16.6.21	
D/P			15.7.21	19.7.21	2.8.21			4.7.21	5.8.21	22.7.21		26.7.21	3.7.21	
Gross Plot Size (Sq.m)			10.00	10.00	9.45			6.50	10.24	12.60		7.20	8.78	
Net Plot Size (Sq.m)			7.99	7.48	7.60			4.39	7.67	10.14		5.28	6.93	
Local Check Variety			Sakoli-6	Sindewahi-1	Sakoli-6			Karjat 7	Phule Radha	Phule Radha		Mahisagar	GR-7	

Note: @ Data of Ankur Seeds (ANK)not included in the analysis due to Non-Significant F Value. **-Highly Significant; *-significant; ns-not significant

(Contd...)

Appendix-1: Grain Yield (kg/ha) of hybrids in IHRT-Early, Kharif 2021

S. No.	IET No.	Name	(contd.) Zone VI	Zone VII											Overall Mean (31)
			Zone VI Mean (5)	MTU	BAY	AP Mean (2)	IIRR	WGL	TS Mean (2)	MND	@ CBT	ADT	TN Mean (1)	Zone VII Mean (6)	
1	29685	JRH-133	6162(4)		7561(3)	7561(1)	5984	5438	5711	9439	5859	7599(6)	7599(6)	7204(8)	6001
2	29686	CP R414	6293(3)		5173	5173	5731	4474	5102	12002(7)	6882(3)	5179	5179	6512	6065
3	29687	RALLIS-20101	4727	4003		4003	5493	4821	5157	5035	5849	6036	6036	5078	5082
4	29688	RALLIS-20102	4652	2560	7552(4)	5056	5385	3972	4679	5315	5981	8075(4)	8075(4)	5477	5158
5	29689	HRI-214	6054(7)	6963(4)	7103(9)	7033(4)	7508(1)	7790(2)	7649(1)	12863(3)	6762(5)	7063(11)	7063(11)	8215(1)	6553(4)
6	29690	UPLRH-180842	6412(1)	6467(7)	7088(10)	6777(6)	6815(5)	7868(1)	7342(2)	12422(4)	6829(4)	5881	5881	7757(4)	6687(2)
7	29691	VNR-228	5962(8)	6847(5)	5527	6187	7108(3)	6402(6)	6755(3)	11411(9)	6685(6)	5869	5869	7194(9)	6419(8)
8	29692	UPLRH-162087	5816	6650(6)	7653(2)	7152(3)	6159	6595(5)	6377(8)	11952(8)	6579(8)	5317	5317	7388(7)	6395(9)
9	29693	US-321	5148	7073(3)	6736	6905(5)	6653(8)	5284	5968	10120	5275	6528	6528	7066(10)	6092
10	29694	UPLRH-181325	6362(2)	5517(10)	7162(7)	6340(10)	6182	6209(7)	6196(10)	10731	6545(10)	9248(1)	9248(1)	7508(6)	6673(3)
11	29695	KAVERI-7227	5207	7330(1)	5931	6631(7)	7287(2)	5939(10)	6613(4)	12162(6)	6329	7044	7044	7616(5)	6521(5)
12	29696	PAN-2150	6071(6)	4673	8253(1)	6463(9)	6854(4)	6020(8)	6437(7)	12402(5)	7403(1)	8968(3)	8968(3)	7862(3)	6447(6)
13	29697	TNRH-297	4205	3037	6834	4935	4535	3864	4200	8739	6327	5437	5437	5407	5075
14	29698	NPH-X60	5395	6007(9)	6945(11)	6476(8)	5543	4011	4777	11101(10)	6628(7)	7036	7036	6774	5888
15	29699	IIRRH-152	2978	1597	4939	3268	2238	4474	3356	3243	5969	5397	5397	3648	3706
16	29700	JKRH-1004	5236	4140	5436	4788	4690	4512	4601	8909	5832	5476	5476	5527	5604
17	29701	PHI-21101	5372	3257	6856	5056	6539(9)	5025	5782	13323(2)	6571(9)	7242(9)	7242(9)	7040	6444(7)
18	29702	MEPH-162	5005	3020	5773	4397	4370	4474	4422	9830	6188	7758(5)	7758(5)	5871	5472
19	29703	PHI-21102	5582(10)	7313(2)	7306(5)	7310(2)	5869	5939(9)	5904	13654(1)	7163(2)	9187(2)	9187(2)	8211(2)	6743(1)
20	29704	IIRRH-150	5038	5147	7163(6)	6155	5413	5245	5329	11051(11)	6500(11)	7500(7)	7500(7)	6920	5723
21	29705	MEPH-163	5137	3407	5959	4683	6363(10)	5399	5881	9870	6003	7123(10)	7123(10)	6354	5546
22	29706	IIRRH-151	5092	3350	6109	4729	6682(7)	5824	6253(9)	10400	5897	5290	5290	6276	5427
23	29707	IIRRH-153	4437	4893	6571	5732	6300(11)	6684(4)	6491(6)	9369	6396	6706	6706	6754	5619
24	US-314 (NCH)		6111(5)	5147(11)	6736	5941	6726(6)	5284	6005	8539	6223	5851	5851	6380	6101(10)
25	CO-51 (NCV)		4008	3903	5063	4483	4819	5854(11)	5337	8659	6465	7401(8)	7401(8)	5950	5142
26	Zonal Check Variety (ZCV)		3876	5040	7104(8)	6072	5541	7598(3)	6569(5)	10240	5940	5694	5694	6870	4964
27	Local Check Variety (LCV)		5048	6300(8)	5147	5724	4480	5650	5065	6627	6292	5813	5813	5670	5359
Exp. Mean			5237	4946	6526	5741	5824	5580	5702	9978	6347	6730	6730	6612	5811
CD (0.05)			439.04	804.55	1124.93	795.62	939.09	720.60	508.4	1591.92	1110.25	741.28	741.28	388.26	170.86
CV			5.13	9.96	10.56	8.49	9.87	7.91	5.46	9.77	10.71	6.74	6.74	3.6	1.8
F Value			**	**	**	**	**	**	**	**	ns	**	**	**	**
NHC+CD (0.05)			6550											6768	6272
BVC+CD (0.05)			5487											7258	5530
D/S				13.7.21	22.6.21		22.6.21	1.7.21		17.7.21	20.7.21	4.9.21			
D/P				6.8.21	17.7.21		23.7.21	25.7.21		6.8.21	13.8.21	4.10.21			
Gross Plot Size (Sq.m)				12.60	10.00		6.73	9.69		3.33	10.13	10.80			
Net Plot Size (Sq.m)				9.90	10.00		5.20	8.64			8.19	8.40			
Local Check Variety				MTU 1156	RNR 15048		Rasi	KNM 118		Raksha		ADT 53			

Note: @ Data of Coimbatore (CBT) not included in the analysis due to Non-Significant F Value. **-Highly Significant; *-significant; ns-not significant

Appendix-2: Days to 50% Flowering (DFF) of hybrids in IHRT-Early, Kharif 2021

S. No.	IET No.	Name	Zone II						Zone III (contd.)					
			MLN	LDN	KUL	PNT	IAR	Zone II Mean (5)	MSD	NGN	JKA	UP Mean (3)	SYN	CHN
1	29685	JRH-133	94	87	90	96	95	93	95	105	91	97	72	93
2	29686	CP R414	100	92	92	91	90	93	95	104	92	97	79	93
3	29687	RALLIS-20101	88	78	78	79	84	81	85	89	80	85	67	79
4	29688	RALLIS-20102	90	78	80	80	79	81	84	92	81	86	79	80
5	29689	HRI-214	95	89	87	88	85	89	93	102	89	95	83	89
6	29690	UPLRH-180842	102	93	90	91	90	93	94	109	94	99	86	93
7	29691	VNR-228	95	84	86	87	84	87	89	98	88	92	84	87
8	29692	UPLRH-162087	99	85	87	88	87	89	93	100	89	94	79	89
9	29693	US-321	92	78	81	81	83	83	81	92	82	85	81	75
10	29694	UPLRH-181325	96	89	94	91	97	94	94	103	93	96	87	95
11	29695	KAVERI-7227	98	91	88	88	87	91	87	98	90	92	83	89
12	29696	PAN-2150	103	94	93	90	92	94	92	103	95	97	83	92
13	29697	TNRH-297	102	103	105	98	99	102	92	104	97	98		96
14	29698	NPH-X60	99	94	92	87	91	93	98	102	95	98	83	93
15	29699	IIRRH-152	94	87	93	89	92	91	97	102	92	97	85	90
16	29700	JKRH-1004	95	85	86	87	86	88	86	94	85	89	92	83
17	29701	PHI-21101	98	93	89	92	89	92	91	99	80	90	79	89
18	29702	MEPH-162	85	76	82	78	85	81	93	92	78	88	83	85
19	29703	PHI-21102	99	96	91	93	90	94	94	104	95	98	76	90
20	29704	IIRRH-150	95	88	93	92	95	93	99	105	92	99	86	90
21	29705	MEPH-163	92	79	83	82	87	85	83	95	82	87	80	81
22	29706	IIRRH-151	93	79	88	83	88	86	94	98	88	93	74	86
23	29707	IIRRH-153	95	83	89	86	92	89	93	101	89	94	79	87
24	US-314 (NCH)		90	88	87	87	87	88	99	103	89	97	86	89
25	CO-51 (NCV)		85	77	84	82	86	83	82	94	80	85	81	90
26	Zonal Check Variety (ZCV)		89	82	82	81	89	85	82	89	76	82	70	76
27	Local Check Variety (LCV)		98	85	89	77	91	88	81	109	92	94	84	88
Exp.Mean			96	87	89	88	89	90	92	100	89	93	81	88

(Contd...)

Appendix-2: Days to 50% Flowering (DFF)of hybrids in IHRT-Early, Kharif 2021

S. No.	IET No.	Name	(contd.) Zone III					Zone IV			Zone V (contd.)			
			HZB	RCI	JH Mean (2)	CTK	Zone III Mean (8)	ARD	TTB	Zone IV Mean (2)	JBP	RPR	VNR	CG Mean (2)
1	29685	JRH-133	96	91	94	85	91	68		68	90	89	78	84
2	29686	CP R414	96	93	94	87	92	67		67	96	93	82	88
3	29687	RALLIS-20101	83	80	82	75	80	64	64	64	79	84	68	76
4	29688	RALLIS-20102	81	81	81	75	82	62	71	66	79	83	68	76
5	29689	HRI-214	97	92	94	87	92	69		69	95	94	78	86
6	29690	UPLRH-180842	95	95	95	87	94	66	84	75	97	92	83	88
7	29691	VNR-228	90	89	90	83	89	66		66	91	92	74	83
8	29692	UPLRH-162087	92	91	92	83	90	66		66	92	89	76	83
9	29693	US-321	86	84	85	81	83	65	71	68	89	86	70	78
10	29694	UPLRH-181325	97	93	95	91	94	69	74	71	93	93	79	86
11	29695	KAVERI-7227	89	91	90	85	89	67		67	95	91	77	84
12	29696	PAN-2150	96	98	97	87	93	65	81	73	98	98	82	90
13	29697	TNRH-297	96	96	96	91	96	64	76	70	92	90	81	86
14	29698	NPH-X60	95	95	95	91	94	67		67	96	95	80	87
15	29699	IIRRH-152	91	91	91	87	92	71	74	73	91	88	75	82
16	29700	JKRH-1004	86	87	86	83	87	62	67	64	86	86	73	80
17	29701	PHI-21101	90	92	91	87	88	65		65	95	92	78	85
18	29702	MEPH-162	84	87	86	79	85	64	65	64	86	84	68	76
19	29703	PHI-21102	101	100	100	91	94	64	79	72	97	93	81	87
20	29704	IIRRH-150	93	92	93	85	93	66	77	72	91	90	77	84
21	29705	MEPH-163	91	86	89	79	85	64	67	66	88	87	74	81
22	29706	IIRRH-151	96	91	94	83	89	71	67	69	91	84	74	79
23	29707	IIRRH-153	92	86	89	85	89	68	72	70	92	85	75	80
24	US-314 (NCH)		91	88	90	83	91	67		67	86	88	76	82
25	CO-51 (NCV)		88	90	89	83	86	65	76	71	88	89	73	81
26	Zonal Check Variety (ZCV)		82	81	81	75	79	70	71	70	102	114	74	94
27	Local Check Variety (LCV)		87	91	89	83	89	67	71	69	88	83	75	79
Exp.Mean			92	90	91	85	90	66	73	68	91	89	76	83

(Contd...)

Appendix-2: Days to 50% Flowering (DFF)of hybrids in IHRT-Early, Kharif 2021

S. No.	IET No.	Name	(contd.) Zone V					Zone VI (contd.)						
			SKL	SND	@ ANK	MH Mean (2)	Zone V Mean (5)	KJT	RDN	VDG	MH Mean (3)	NWG	NVS	GJ Mean (2)
1	29685	JRH-133	86	102	96	94	89	77	103	90	90	92	82	87
2	29686	CP R414	84	102	96	93	91	78	104	93	91	95	87	91
3	29687	RALLIS-20101	76	90	80	83	79	73	97	77	82	97	76	86
4	29688	RALLIS-20102	75	110	82	93	83	74	97	75	82	76	71	74
5	29689	HRI-214	78	99	95	88	89	75	98	93	89	92	86	89
6	29690	UPLRH-180842	85	101	97	93	92	79	100	98	92	96	84	90
7	29691	VNR-228	82	99	88	90	88	75	99	91	89	82	81	82
8	29692	UPLRH-162087	78	98	89	88	87	79	104	93	92	85	79	82
9	29693	US-321	78	90	85	84	83	73	98	86	86	84	76	80
10	29694	UPLRH-181325	82	101	95	92	90	79	102	89	90	101	84	92
11	29695	KAVERI-7227	82	99	90	90	89	77	101	93	90	86	81	84
12	29696	PAN-2150	87	90	96	89	91	83	103	97	95	92	86	89
13	29697	TNRH-297	86	101	96	94	90	78	100	89	89	102	85	93
14	29698	NPH-X60	84	101	95	92	91	81	101	97	93	103	83	93
15	29699	IIRRH-152	79	95	90	87	85	79	103	87	90	98	81	89
16	29700	JKRH-1004	77	92	84	85	83	74	103	83	87	87	80	84
17	29701	PHI-21101	82	102	97	92	90	77	99	94	90	90	83	87
18	29702	MEPH-162	72	89	84	80	80	75	97	81	84	85	70	78
19	29703	PHI-21102	88	102	96	95	93	80	102	97	93	94	87	91
20	29704	IIRRH-150	83	97	95	90	88	77	102	89	89	95	82	89
21	29705	MEPH-163	76	94	86	85	84	74	102	87	88	90	74	82
22	29706	IIRRH-151	78	98	92	88	85	77	102	88	89	96	80	88
23	29707	IIRRH-153	78	99	89	88	86	76	98	87	87	101	77	89
24	US-314 (NCH)		80	98	88	89	86	73	100	86	86	95	80	87
25	CO-51 (NCV)		75	94	88	85	84	73	102	86	87	84	76	80
26	Zonal Check Variety (ZCV)		79	99	88	89	94	81	108	89	93	75	98	86
27	Local Check Variety (LCV)		75	102	87	89	85	80	104	93	92	95	81	88
Exp.Mean			81	98	91	89	87	77	101	89	89	92	81	86

Note: @ Data of Ankur Seeds (ANK) not included in the analysis.

(Contd...)

Appendix-2: Days to 50% Flowering (DFF)of hybrids in IHRT-Early, Kharif 2021

S. No.	IET No.	Name	(contd.) Zone VI	Zone VII											Overall Mean (31)
			Zone VI Mean (5)	MTU	BAY	AP Mean (2)	IIRR	WGL	TS Mean (2)	MND	@ CBT	ADT	TN Mean (1)	Zone VII Mean (6)	
1	29685	JRH-133	89		90	90	97	89	93	81	83	76	76	86	89
2	29686	CP R414	91		86	86	100	86	93	93	95	79	79	89	91
3	29687	RALLIS-20101	84	67	76	72	81	74	78	74	75	75	75	75	79
4	29688	RALLIS-20102	79	68	79	74	81	71	76	75	77	75	75	75	79
5	29689	HRI-214	89	77	85	81	96	85	90	92	94	74	74	85	88
6	29690	UPLRH-180842	91	82	85	84	100	87	94	98	96	80	80	89	91
7	29691	VNR-228	86	76	83	79	93	83	88	91	89	79	79	84	86
8	29692	UPLRH-162087	88	73	84	78	93	82	88	92	92	81	81	84	87
9	29693	US-321	83	72	79	76	84	77	81	84	89	80	80	79	81
10	29694	UPLRH-181325	91	80	90	85	96	92	94	84	87	75	75	86	90
11	29695	KAVERI-7227	88	76	84	80	95	83	89	91	95	78	78	85	87
12	29696	PAN-2150	92	82	85	84	99	89	94	95	96	83	83	89	91
13	29697	TNRH-297	91	82	90	86	98	91	95	84	87	81	81	88	92
14	29698	NPH-X60	93	77	87	82	101	86	94	93	91	73	73	86	91
15	29699	IIRRH-152	90	76	84	80	94	87	91	79	81	82	82	84	88
16	29700	JKRH-1004	85	72	76	74	85	78	82	79	79	78	78	78	83
17	29701	PHI-21101	89	76	86	81	98	85	91	93	92	85	85	87	88
18	29702	MEPH-162	82	68	80	74	85	78	82	79	76	80	80	78	80
19	29703	PHI-21102	92	78	88	83	100	87	94	95	96	83	83	89	91
20	29704	IIRRH-150	89	76	85	80	95	89	92	83	83	81	81	85	88
21	29705	MEPH-163	85	72	81	76	82	78	80	82	81	85	85	80	83
22	29706	IIRRH-151	89	72	82	77	91	85	88	86	84	82	82	83	85
23	29707	IIRRH-153	88	73	82	78	90	87	89	81	83	75	75	81	86
24	US-314 (NCH)		87	76	83	80	93	85	89	83	82	77	77	83	87
25	CO-51 (NCV)		84	72	81	77	83	83	83	80	84	81	81	80	83
26	Zonal Check Variety (ZCV)		90	77	89	83	100	89	95	83	84	80	80	86	85
27	Local Check Variety (LCV)		90	87	80	83	82	90	86	77	78	85	85	84	86
Exp.Mean			88	75	84	80	93	84	88	86	87	79	79	83	86

Note: @ Data of Coimbatore (CBT) not included in the analysis.

Appendix-3: Quality characteristics of IHRT-Early Kharif 2021

S. No.	IET No.	Name	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1	29685	JRH-133	82.1	74.8	68.5	6.65	2.07	3.21	LS	VOC	5.5	19.27	56
2	29686	CP R414	81.9	73.1	68.3	6.70	1.98	3.38	LS	A	5.8	14.34	94
3	29687	RALLIS-20101	82.4	71.4	62.1	6.63	2.20	3.01	LS	OC	4.0	22.36	56
4	29688	RALLIS-20102	80.3	72.5	71.4	6.00	2.24	2.67	LB	VOC	4.0	22.58	51
5	29689	HRI-214	83.7	72.4	66.7	6.37	2.18	2.92	LB	VOC	4.5	23.58	61
6	29690	UPLRH-180842	80.6	72.4	69.3	6.37	2.39	2.66	LB	VOC	4.0	22.20	65
7	29691	VNR-228	79.8	73.6	71.0	5.95	2.48	2.39	SB	VOC	7.0	20.82	22
8	29692	UPLRH-162087	80.5	72.2	67.1	7.44	2.37	3.13	LS	VOC	6.1	23.08	38
9	29693	US-321	80.5	70.6	66.4	6.63	2.16	3.06	LS	VOC	4.0	26.28	25
10	29694	UPLRH-181325	80.9	72.8	72.1	6.69	2.12	3.15	LS	A	4.7	22.17	66
11	29695	KAVERI-7227	81.3	70.5	65.3	6.56	2.41	2.72	LB	VOC	5.0	14.63	97
12	29696	PAN-2150	80.2	72.2	68.6	6.90	2.29	3.01	LS	VOC	7.0	25.40	22
13	29697	TNRH-297	82.7	72.6	68.5	6.22	1.91	3.25	LS	VOC	4.8	23.52	53
14	29698	NPH-X60	81.3	73.7	71.8	5.84	2.32	2.51	MS	VOC	7.0	23.87	22
15	29699	IIRRH-152	79.4	70.5	62.7	5.75	2.20	2.61	MS	VOC	4.5	23.96	22
16	29700	JKRH-1004	81.5	71.5	65.2	6.56	2.14	3.06	LS	VOC	4.0	18.92	54
17	29701	PHI-21101	81.5	72.8	67.8	6.54	2.38	2.74	LB	VOC	4.0	22.32	46
18	29702	MEPH-162	80.2	71.1	67.5	6.34	2.10	3.01	LS	VOC	5.5	23.43	22
19	29703	PHI-21102	82.0	69.3	58.2	6.75	2.09	3.22	LS	A	3.0	15.31	100
20	29704	IIRRH-150	82.5	74.1	72.3	6.34	2.08	3.04	LS	VOC	5.0	21.94	36
21	29705	MEPH-163	79.4	71.0	65.3	6.46	2.14	3.01	LS	VOC	7.0	25.10	37
22	29706	IIRRH-151	80.9	70.6	67.1	6.78	2.04	3.32	LS	A	5.8	24.93	42
23	29707	IIRRH-153	79.2	69.8	64.5	5.99	2.20	2.72	MS	A	5.6	25.72	40
24	US-314 (NCH)		81.1	73.0	69.7	5.74	2.08	2.75	MS	VOC	5.6	23.76	60
25	CO-51 (NCV)		78.9	69.6	68.1	5.85	2.08	2.81	MS	A	4.0	25.40	66
26	MTU-1153 (RCV)		81.7	72.8	71.5	6.46	2.25	2.87	LB	VOC	3.0	22.76	60
27	Rasi (LCV)		78.7	69.9	67.8	5.49	2.34	2.34	SB	VOC	7.0	25.63	24

Hull: Hulling %; Mill: Milling %; HRR: Head rice recovery; KL: Kernel length; KB: Kernel breadth; L/B: L/B ratio; ASV: Alkali spreading value; AC: Amylose content; GC: Gel consistency

Appendix-4: Grain Yield (kg/ha) of hybrids in IHRT-Mid Early, Kharif 2021

S. No.	IET No.	Name	Zone II					Zone III (contd.)						
			PNT	LDN	KUL	IAR	Zone II Mean(4)	MSD	NGN	Rasi	JKA	UP Mean (4)	DNG	SYN
1	29708	MALI-348	5663	7418(6)	9033(1)	9361(3)	7868(1)	5621	5056	7920	7238(9)	6595	6391(6)	6780
2	29709	JRH-134	6301	4506	6867	8520	6549	6413	4047	6499	5917	6123	4882	7379(10)
3	29710	CP R444	4833	4974	7367	7830	6251	5903	5503(8)	7683	6236	6609	5091	7136
4	29711	IRH-128		5540		6810	5540	4698	4585	6518		5596	5141	6558
5	29712	Indam 300-021	6811 (5)	4918	7400	7494	6656	6475	3162	7496	6822	6237	4697	8313(1)
6	29713	IRH-129		5540		8872(8)	7206(10)	3848	5219(9)	6658		5656	4141	7193
7	29714	Indam 200-053	6649 (9)	5170	8867(2)	9030(7)	7429(6)	6699(9)	4264	8289(9)	5899	6436	5939	7988(2)
8	29715	IRH-130		7707(4)		7392	7707(2)	5580	3104	6695		5590	3754	6317
9	29716	RALLIS-20308	5957	6883(8)	6633	9095(6)	7142	4657	4251	6555	5750	5732	6121(9)	7186
10	29717	RRX-271	5760	5262	7233	8553	6702	7108(4)	4439	10206(1)	6973	7316	5923	7197
11	29718	UPLRH-180839	5647	8061(2)	7967(6)	8628(10)	7576(4)	6413	4860	7335	5949	6191	5983	7283
12	29719	NPH-X5+	6860 (4)	5694	7167	9935(2)	7414(7)	5658	4005	6891	6667	6498	6485(3)	6137
13	29720	UPLRH-169054	6315	5015	8233(5)	6329	6473	6062	4314	6664	6629	6388	6401(5)	7638(6)
14	29721	UPLRH-189001	5813	5715	6967	5519	6003	6740(8)	3617	7372	6999	6464	5811	6924
15	29722	RNRH-15	5217	4115	6967	7795	6023	5184	3488	5790	6598	5590	5003	6991
16	29723	SPH-43	5491	3652	7267	7608	6005	6495	7117(1)	6486	6012	6852	4751	7885(4)
17	29724	PAN-2140	5820	6908(7)	8300(4)	7795	7206	6209	3997	9491(2)	6621	6908	3481	7256
18	29725	NPH-X49	5732	7850(3)	6967	6841	6847	6577	5874(5)	8137(9)	6184	7074	3525	7002
19	29726	PHI-21103	7004 (3)	5391	6133	8703(9)	6808	6438	4368	8359(6)	7707(5)	7060	6205(7)	7366
20	29727	PRSH-2009	5608	5741	6800	6191	6085	6025	5177(10)	7897	5817	6653	5195	7515(7)
21	29728	US-346	6328	5828	5500	8211	6467	6985(5)	4084	4115	7143(10)	6018	5657	6957
22	29729	ARRH-23316	5815	4352	7467(9)	5862	5874	7271(2)	4155	7859	7890(4)	6863	6539(1)	7791(5)
23	29730	US-355	5580	3812	4533	8549	5619	6863(2)	3413	6563	7631(6)	6572	5478	7943(3)
24	29731	RNC-0334	6799 (7)	6466(10)	8433(3)	6458	7039	4514	4589	8415(5)	7936(2)	6745	6138(8)	7066
25	29732	KPHDF8PX	6803 (6)	5499	7833(7)	9313(4)	7362(8)	6377	4856	5599	7085	6435	6458(4)	7320
26	29733	JKRH-1038	5367	4491	6233	7737	5957	6904(6)	4151	8872(3)	8200(1)	7003	5808	6795
27	29734	PHI-21104	7015 (2)	5303	6733	8132	6796	5359	6675(2)	8171	7374(8)	6970	5781	7229
28	29735	MEPH-164	6796 (8)	6567	8412	7258(9)	6307	3963	8539(4)	6190	6556	4684	6754	
29	29736	PHI-21105	7371 (1)	5782	7200	10251(1)	7651(3)	6642(10)	5657(6)	7314	5612	6711	6508(2)	6953
30	29737	IIRRH-148	5559	3529	5733	7037	5465	6250	5119	6816	5405	6332	5323	6784
31	29738	RNC-0457	6208	6852(9)	7600(8)	9195(5)	7464(5)	6536	5607(7)	7248	6439	6768	6013(10)	6619
32	29739	MEPH-165	5868	4362	5933	7737	5975	6046	6462(4)	8089(10)	6441	6826	5606	6610
33	29740	IIRRH-149	5128	2778	5900	7579	5346	7802(1)	4743	6781	6121	6606	5397	7475(9)
34	US-312 (NCH)		6258	4815	6867	6746	6171	7149(3)	4447	6350	7623(7)	6373	4869	7488(8)
35	Gontra Bidhan-3 (NCV)		6343 (10)	4563	6700	8083	6422	5004	6546(3)	7074	6394	6585	4906	6362
36	Zonal Check Variety (ZCV)		4282	7665(5)	5100	6473	5880	4841	3020	4583	5712	4889	5024	7708
37	Local Check Variety (LCV)		4829	9316(1)	7400(10)	5532	6769	6025	4322	6409	7927(3)	6305	4431	6434
Exp. Mean			5995	5597	6997	7571	6622	6099	4656	7058	6681	6435.8	5393	6815
CD (0.05)			1090	1001	834	1856	456.98	495	489	2304	685	263.96	584	1992
CV			11.25	11.06	7.37	15.16	4.27	5.02	6.5	16.15	6.34	2.54	6.69	18.08
F Value			**	**	**	**	**	**	**	**	**	**	**	**
NHC+CD (0.05)							6628							
BVC+CD (0.05)							7226							
D/S			11.6.21	8.6.21	9.6.21	9.6.21		15.6.21	28.6.21	22.6.21	16.6.21		21.6.21	2.7.21
D/P			8.7.21	8.7.21	12.7.21	5.7.21		15.7.21	23.7.21	13.7.21	10.7.21		18.7.21	27.7.21
Gross Plot Size (Sq.m)			10.13	8.1	10	10		10	10	10.1	10		10	10
Net Plot Size (Sq.m)			10.13	6.48	10	10		8.16	7.99		10		9.9	10
Local Check Variety			Pant Dhan 12	PR 124	HKR-47	Pusa 44		NDR 2065	NDR 359	Surju 52	MTU 1010		R Bhagwathi	Gangotri

**-Highly Significant;*-significant; ns-not significant

(Contd...)

Appendix-4: Grain Yield (kg/ha) of hybrids in IHRT-Mid Early, Kharif 2021

S. No.	IET No.	Name	(contd.) Zone III							Zone IV		Zone V (contd.)				
			BR Mean (2)	CHN	CTK	CHP	OD Mean (2)	RCI	Zone III Mean (10)	TTB	JBP	RPR	Rasi	NZV	VNR	CG Mean (4)
1	29708	MALI-348	6586	5679	5477	5513	5495	7598(9)	6401	6004	6466	7516(6)	4607	7140	8996	7040
2	29709	JRH-134	6130	5902	4073	3683	3878	5246	5616	5703	6028	6287	3755	7740	8577	6206
3	29710	CP R444	6113	5754	4460	5489	4975	7372	6213	5279	6854(5)	6989	4751	7720	8856	6865
4	29711	IRH-128	5850	5568	4266	4385	4326	1673	4998	6593	882891)	6781	4288	6585	5266	5445
5	29712	Indam 300-021	6505	6682(10)	5099	4640	4870	7146	6160	7156(6)	5841	6540	4936	7230	10353(1)	7276
6	29713	IRH-129	5668	6050	4973	6328(3)	5650	2081	5339	7176(5)	6688(8)	6720	5833(3)	6900	8338	6963
7	29714	Indam 200-053	6964	6199	5544	5318	5431	6468	6331	5570	6208	7030(10)	5378(10)	7030	8831	7080
8	29715	IRH-130	5036	7164(3)	5035	5034	5034	1266	5093	6491	5248	5502	4085	6980	6059	5216
9	29716	RALLIS-20308	6654	7053(4)	6206(9)	6010(6)	6108	6061	6118	7093(9)	6496(10)	6405	3665	7445	8042	6037
10	29717	RRX-271	6560	6570	5211	6873(1)	6042	7282	6876(3)	6181	6792(7)	6119	8628(1)	7855	8142	7630
11	29718	UPLRH-180839	6633	6050	7088(4)	4626	5857	6875	6260	6944	6003	6932	5077	6400	9572(5)	7194
12	29719	NPH-X5+	6311	5605	4677	3726	4202	6061	5925	7033(10)	5607	6736	5006	9270(1)	9202	6982
13	29720	UPLRH-169054	7019	6496	6455(6)	4844	5650	6920	6427(10)	7404(1)	5924	6793	5392(8)	8270(7)	8384	6856
14	29721	UPLRH-189001	6368	6459	5779	5849(10)	5814	7327	6406	6656	5474	7676(3)	5015	7590	8863	7184
15	29722	RNRH-15	5997	6347	5066	3560	4313	5608	5502	4075	5261	6609	5041	6890	8978	6876
16	29723	SPH-43	6318	7350(1)	4566	3768	4167	7689(7)	6388	5887	6195	6536	5444(7)	8150	6850	6277
17	29724	PAN-2140	5369	5754	4988	5958(8)	5473	7191	6288	5583	6220	6736	5978(2)	8220(10)	9211(10)	7309
18	29725	NPH-X49	5264	5865	3704	4996	4350	5473	5994	4484	5770	5192	3609	8600(2)	7919	5573
19	29726	PHI-21103	6786	7201(2)	6477(5)	5641	6059	8548(2)	6976(1)	7125(8)	5749	6483	4187	8430(3)	9712(3)	6794
20	29727	PRSH-2009	6355	5791	4320	4754	4537	4342	5926	7296(3)	4539	6601	4881	8350(5)	8813	6765
21	29728	US-346	6307	5939	4511	6513(2)	5512	8141(4)	6164	6552	5732	6328	4608	7760	7972	6303
22	29729	ARRH-23316	7165	6644	8168(1)	6096(4)	7132	6422	6907(2)	7346(2)	5302	8346(1)	4528	7140	9129	7334
23	29730	US-355	6711	7016(5)	5088	5067	5078	6739	6381	6181	4785	6511	5641(6)	8390(4)	9408(8)	7187
24	29731	RNC-0334	6602	5828	6455(6)	5641	6048	7644(8)	6590(7)	6112	5136	7569(5)	5722(5)	8270(7)	9439(6)	7577
25	29732	KPHDF8PX	6889	6756(8)	5999	5906(9)	5953	8367(3)	6635(6)	7251(4)	5503	7443(7)	5386(9)	8260(9)	9418(7)	7416
26	29733	JKRH-1038	6302	5568	4522	4171	4347	7825(6)	6337	4493	5628	5494	4355	6890	7903	5917
27	29734	PHI-21104	6505	6422	5611	6020(5)	5815	9408(1)	6847(4)	6900	7050(3)	7418(8)	5737(4)	7270	9719(2)	7625
28	29735	MEPH-164	5719	6978(6)	5055	4228	4642	7417	6172	5858	4718	6389	4816	7780	9174	6793
29	29736	PHI-21105	6731	6756(9)	8077(2)	4285	6181	7553(10)	6699(5)	6875	5453	7684(2)	4850	8330(6)	9635(4)	7389
30	29737	IIRRH-148	6054	6533	6210(8)	5370	5790	7237	6283	4458	6191	6585	4933	8070	8902	6807
31	29738	RNC-0457	6316	5754	5755	5726	5740	7553	6478(9)	7156(6)	6329	7647(4)	5233	8010	9065	7315
32	29739	MEPH-165	6108	6013	6115(10)	5987(7)	6051	7508	6543(8)	6273	6550	6593	5339	7090	9190	7041
33	29740	IIRRH-149	6436	6830(7)	6073	4062	5067	6829	6336	6057	6863	6830	4417	7580	8749	6665
34	US-312 (NCH)		6178	6459	5044	5299	5172	6875	6172	6818	6366	6548	5088	6295	7559	6398
35	Gontra Bidhan-3 (NCV)		5634	6533	7244(3)	3427	5335	7870(5)	6297	6295	7276(2)	7190(9)	4998	7905	9316(9)	7168
36	Zonal Check Variety (ZCV)		6366	5642	4657	4825	4742	6015	5302	5225	5741	5666	4196	6290	5607	5156
37	Local Check Variety (LCV)		5433	5531	5384	4626	5005	6151	5825	4408	6842(6)	5057	3808	6840	6155	5007
Exp. Mean			6268.59	6320	5498	5088	5292.97	6589	6195	6280	6045	6689	4952	7593	8522	6720.68
CD (0.05)			427.04	676	1266	758	765.3	1297	243.47	502	683	13666	1221	1148	925	645.96
CV			4.21	6.65	14.24	9.22	8.94	12.18	2.43	4.99	6.99	12.63	12.21	7.48	6.72	5.95
F Value			**	**	**	**	**	**	**	**	**	**	**	**	**	**
NHC+CD (0.05)									6415							
BVC+CD (0.05)									6540							
D/S				25.6.21			16.7.21	26.6.21		16.7.21	19.6.21	21.6.21	16.6.21	17.6.21	25.6.21	
D/P				26.7.21			19.8.21	3.8.21		10.8.21	11.7.21	20.7.21	11.7.21	15.7.21	14.7.21	
Gross Plot Size (Sq.m)				10.86			9.45	10.6		10	10	11.2		12.48	625	
Net Plot Size (Sq.m)				8.98			7.03	7.4		10	7.99	8.16	10.3	10	5.47	
Local Check Variety				Khitish		MTU 1156		IR 64 drt-1		Chilarai	JR 206	Chandrasasini	MTU 1010		MTU 1010	

**-Highly Significant;*-significant;ns-not significant

(Contd...)

Appendix-4: Grain Yield (kg/ha) of hybrids in IHRT-Mid Early, Kharif 2021

S. No.	IET No.	Name	(contd.) Zone V				Zone VI						
			SND	ANK	MH Mean (2)	Zone V Mean (7)	KJT	RDN	MH Mean (2)	NWG	NVS	GJ Mean (2)	Zone VI Mean (4)
1	29708	MALI-348	5446(10)	5874	5660	6484	5395	4389	4892	4272	6670(7)	5471	5182
2	29709	JRH-134	5455(9)	6147	5801	6041	6763(10)	5622(10)	6193	4134	5210	4672	5433
3	29710	CP R444	4862	6428	5645	6457	5590	5498	5544	3412	6451(10)	4932	5238
4	29711	IRH-128	4545	6518(9)	5531	6038				3693		3693	3693
5	29712	Indam 300-021	5954(4)	6435	6195	6676(4)	6928	5570	6249	4320	7126(2)	5723	5986(5)
6	29713	IRH-129	4430	6444	5437	6408		3425	3425	4601	4470	4535	4165
7	29714	Indam 200-053	5107	6265	5686	6470	6634	4265	5450	5805(5)	4956	5380	5415
8	29715	IRH-130	4171	6577(6)	5374	5274		4534	4534		3390	3390	3962
9	29716	RALLIS-20308	5187	6554(8)	5871	6058	5570	6394(2)	5982	3335	7273(1)	5304	5643
10	29717	RRX-271	4376	6255	5316	6719(3)	5844	6088(5)	5966	4451	5328	4889	5428
11	29718	UPLRH-180839	6056(2)	5914	5985	6592(10)	7269(7)	4379	5824	3755	6454(9)	5104	5464
12	29719	NPH-X5+	4439	6396	5418	6231	7921(2)	5565	6744	5996(4)	6824(6)	6410	6577(1)
13	29720	UPLRH-169054	6127(1)	6678(2)	6403	6550	4255	5292	4773	4988(10)	5330	5159	4966
14	29721	UPLRH-189001	5196	6566(7)	5881	6465	7303(5)	5776(8)	6539	3982	5282	4632	5586
15	29722	RNRH-15	5472(8)	5962	5717	6221	4697	6341(3)	5519	2634	4608	3621	4570
16	29723	SPH-43	5009	6340	5675	6062	5904	3506	4705	3305	4913	4109	4407
17	29724	PAN-2140	4857	6436	5647	6573	5901	4119	5010	5303(7)	5597	5450	5230
18	29725	NPH-X49	5241	6250	5745	5663	5915	6188(4)	6052	1847	4907	3377	4714
19	29726	PHI-21103	5526(7)	5912	5719	6262	6618	5667(9)	6143	5327(6)	6361	5844	5993(4)
20	29727	PRSH-2009	4898	6061	5479	5966	6654	5445	6050	2356	6436	4396	5223
21	29728	US-346	4207	6434	5321	5880	6058	5938(6)	5998	3355	5630	4493	5246
22	29729	ARRH-23316	5873(6)	7294(1)	6584	6745(2)	5920	4234	5077	4092	5844	4968	5022
23	29730	US-355	5045	6577(5)	5811	6328	5380	4819	5100	2517	5737	4127	4614
24	29731	RNC-0334	5406	6610(3)	6008	6647(7)	7307(4)	4060	5683	6259(3)	5506	5883	5783(7)
25	29732	KPHDF8PX	5922(5)	6338	6131	6668(5)	5622	5102	5362	4830	7056(4)	5943	5653
26	29733	JKRH-1038	4528	6509(10)	5518	5736	7272(6)	3726	5499	2279	3926	3103	4301
27	29734	PHI-21104	5018	6607(4)	5813	6925(1)	7116(8)	5563	6339	4110	6003	5057	5698(10)
28	29735	MEPH-164	4853	6382	5617	6055	6476	4533	5505	5028(9)	7085(3)	6057	5781(8)
29	29736	PHI-21105	5976(3)	6150	6063	6625(9)	6007	4123	5065	3693	7022(5)	5358	5211
30	29737	IIRRH-148	4639	6210	5425	6243	5588	6866(1)	6227	3993	4666	4330	5278
31	29738	RNC-0457	5334	6217	5776	6638(8)	4863	5391	5127	6819(1)	6643(8)	6731	5929(6)
32	29739	MEPH-165	5330	6454	5892	6576	7871(3)	5854(7)	6863	4830	6249	5539	6201(3)
33	29740	IIRRH-149	5053	6463	5758	6396	4719	5094	4907	2796	5027	3912	4409
34	US-312 (NCH)		5076	6325	5701	6160	9153(1)	5613	7383	4081	6221	5151	6267(2)
35	Gontra Bidhan-3 (NCV)		5120	6075	5597	6662(6)	6265	4319	5292	6586(2)	5842	6214	5753(9)
36	Zonal Check Variety (ZCV)		5408	6392	5900	5501	5730	5013	5372	1714	4635	3175	4273
37	Local Check Variety (LCV)		5423	4886	5155	5362	6091	3361	4726	5133(8)	4005	4569	4647
Exp. Mean			5150	6323	5736.5	6280	6253	5046	5435.57	4156	5686	4883.78	5215
CD (0.05)			850	767	582.52	454.69	1279	917	818.48	1180	1302	688.26	565.36
CV			10.21	7.5	6.28	4.48	12.65	11.25	9.31	14.05	14.16	8.72	6.71
F Value			**	**	**	**	**	**	**	**	**	**	**
NHC+CD (0.05)						6615							6832
BVC+CD (0.05)						7117							6318
D/S			8.6.21	1.7.21			12.6.21	18.6.21		17.6.21	16.6.21		
D/P			20.7.21	3.8.21			3.7.21	4.8.21		26.7.21	3.7.21		
Gross Plot Size (Sq.m)			10	9.45			6.48	9.45		7.2	8.55		
Net Plot Size (Sq.m)			7.48	7.6			4.41	7.07		5.28	6.89		
Local Check Variety			SYE-1	MTU 1010			Karjat-5	Phule Samrudhi		Mahi Sagar	NAUR-1		

**-Highly Significant;*-significant ;ns-not significant

(Contd...)

Appendix-4: Grain Yield (kg/ha) of hybrids in IHRT-Mid Early, Kharif 2021

S. No.	IET No.	Name	Zone VII												Over all Mean (34)
			MTU	RGL	BAY	AP Mean (3)	IIRR	WGL	TS Mean (2)	MND	CBT	ADT	TN Mean (2)	Zone VII Mean (8)	
1	29708	MALI-348	5579	7283(1)	7499(3)	6787	7465	5010	6238	10689	7897(9)	7063(7)	7480	7311	6647(9)
2	29709	JRH-134	7449	4581	5595	5875	6464	4916	5690	9535	6209	5198	5704	6243	5930
3	29710	CP R444	8452	5738	6698	6963	7176	4443	5810	11426(9)	7680	4821	6251	7054	6316
4	29711	IRH-128		4523	6630	5577		4774	4774	7147		7067(6)	7068	6028	5507
5	29712	Indam 300-021	5893	5890	5508	5763	7306	5010	6158	7700	4603	4444	4524	5794	6232
6	29713	IRH-129		5457	5141	5299		4254	4254	7556	5011	6230	6230	5728	5725
7	29714	Indam 200-053	7579	5447	6624	6550	6506	4821	5664	10064	6067	7226(5)	6646	6792	6463
8	29715	IRH-130		5333	4006	4670		3923	3923	7476		4647	4647	5077	5203
9	29716	RALLIS-20308	4866	6748(6)	6780	6132	7072	7043(4)	7058	10833	8175(4)	7381(3)	7778	7362	6493
10	29717	RRX-271	4563	5103	6570	5412	6056	6050	6053	10978	8769(1)	7659(2)	8214	6969	6659(8)
11	29718	UPLRH-180839	6189	6416(10)	6420	6342	7891(5)	4396	6143	10913	7513	4484	5999	6778	6522
12	29719	NPH-X5+	8559	5352	5233	6381	7568	5105	6336	10296	6728	4286	5507	6641	6432
13	29720	UPLRH-169054	8726(9)	4678	6803	6735	7925(4)	7657(1)	7791	9784	6347	6905	6626	7353	6529
14	29721	UPLRH-189001	9679(3)	5939	7032(6)	7550	6977	4916	5946	11538(8)	6812	6587	6700	7435(9)	6522
15	29722	RNRH-15	4443	4483	5139	4689	6794	4632	5713	10144	6987	7024(10)	7006	6206	5704
16	29723	SPH-43	5773	4033	6654	5487	6189	3687	4938	9615	6549	5357	5953	5982	5942
17	29724	PAN-2140	9726(2)	5057	5859	6880	7591(10)	6239(10)	6915	9671	7778	5119	6449	7130	6499
18	29725	NPH-X49	7676	6652(8)	4079	6136	6956	6665(7)	6811	9896	7121	4246	5684	6661	5998
19	29726	PHI-21103	9616(4)	6169	7025(8)	7603	9619(1)	7090(3)	8354	14030(1)	7969(8)	5675	6822	8399(2)	7054(1)
20	29727	PRSH-2009	6366	5603	5259	5743	5453	6806(5)	6130	10409	6820	5516	6168	6529	6051
21	29728	US-346	7689	5900	7329(5)	6973	5567	4868	5218	11210	8172(5)	8968(1)	8570	7463(7)	6359
22	29729	ARRH-23316	6053	5356	6960(9)	6123	7635(7)	6617(8)	7126	11675(7)	5234	5317	5276	6856	6536(10)
23	29730	US-355	5299	5307	6316	5641	7061	4727	5894	12620(5)	8513(2)	5794	7153	6955	6203
24	29731	RNC-0334	9306(6)	6907(4)	7334(4)	7849	6882	5956	6419	11362(10)	8236(3)	3492	5864	7434(10)	6743(5)
25	29732	KPHDF8PX	6443	6808(5)	6368	6539	7842(6)	4821	6331	11314	7272	4841	6057	6964	6706(6)
26	29733	JKRH-1038	7249	5499	6586	6445	6689	5199	5944	10689	8061(6)	5952	7007	6991	6046
27	29734	PHI-21104	7999	6746(7)	7583(2)	7443	7453	5152	6303	13301(4)	7846	5198	6522	7660(3)	6912(3)
28	29735	MEPH-164	7513	7008(3)	6812(10)	7111	7630(8)	4821	6226	13782(2)	7522	5000	6261	7511(5)	6517
29	29736	PHI-21105	9799(1)	5623	7029(7)	7484	9236(2)	7326(2)	8281	13742(3)	7859(10)	7063(7)	7461	8460(1)	7042(2)
30	29737	IIRRH-148	5319	5110	6285	5571	6382	5861	6122	8830	6891	5238	6064	6240	5998
31	29738	RNC-0457	9299(7)	7063(2)	6785	7716	7599(9)	5577	6588	11250	7859	4048	5954	7435(8)	6803(4)
32	29739	MEPH-165	8722(10)	6467	5816	7002	8724(3)	6806(5)	7765	10345	7013	7262(4)	7138	7645	6693(7)
33	29740	IIRRH-149	9292(8)	4407	5832	6510	6342	6192	6267	9671	6864	5238	6051	6730	6088
34	US-312 (NCH)		9452(5)	6251	7643(1)	7782	7276	4490	5883	9663	8043(7)	7063(7)	7554	7485(4)	6509
35	Gontra Bidhan-3 (NCV)		4806	5997	6459	5754	6911	6476(9)	6693	12091(6)	6880	5079	5979	6837	6439
36	Zonal Check Variety (ZCV)		4386	4533	4604	4508	5679	4774	5226	7179	5576	5040	5308	5221	5263
37	Local Check Variety (LCV)		7533	6208	6506	6749	5103	6145	5624	10465	6308	5675	5991	6743	5890
Exp. Mean			7273	5721	6007	6372.17	7089	5493	6178.59	10511	7072	5768	6423.26	6868	6302
CD (0.05)			1273	491	1700	611.53	1498	1060	837.64	2113	1507	787	778.16	529.08	195.41
CV			10.83	5.31	17.5	5.94	13.07	11.93	8.39	12.43	13.18	8.45	7.49	4.77	1.92
F Value			**	**	**	**	**	**	**	**	**	**	**	**	**
NHC+CD (0.05)														8014	6704
BVC+CD (0.05)														7366	6634
D/S			13.7.21	9.7.31	22.6.21		20.6.21	27.6.21		17.7.21	28.6.21	8.9.21			
D/P			6.8.21	8.8.21	19.7.21		23.7.21	31.7.21		6.8.21	26.7.21	10.10.21			
Gross Plot Size (Sq.m)			12.6	11.34	10		6.73	8.64		4.16	9.45	10.8			
Net Plot Size (Sq.m)			9.9	8.4	10		5.2	7.05			7.61	8.4			
Local Check Variety			MTU 1121	MTU 1121			Varadhan	RNR 15048		IR 64	ADT 39	ADT 39			

**-Highly Significant;*-significant; ns-not significant

Appendix-5: Days to 50% Flowering (DFF) of hybrids in IHRT-Mid Early, Kharif 2021

S. No.	IET No.	Name	Zone II					Zone III (contd.)							
			PNT	LDN	KUL	IAR	Zone II Mean (4)	MSD	NGN	Rasi	JKA	UP Mean (4)	DNG	SYN	BR Mean (2)
1	29708	MALI-348	93	88	96	89	92	97	107	85	93	95	91	88	89
2	29709	JRH-134	88	85	92	87	88	87	98	81	89	89	83	87	85
3	29710	CP R444	101	104	100	104	102	101	113	88	97	100	89	89	89
4	29711	IRH-128		102		88	95	119	103	81		101	91	88	90
5	29712	Indam 300-021	94	97	96	101	97	94	105	84	91	93	83	81	82
6	29713	IRH-129		96		89	92	111	104	82		99	83	89	86
7	29714	Indam 200-053	100	108	100	105	103	105	113	92	95	101	91	91	91
8	29715	IRH-130		94		87	91	118	106	82		102	84	86	85
9	29716	RALLIS-20308	99	101	96	102	99	98	107	87	93	96	88	90	89
10	29717	RRX-271	95	99	96	104	98	99	109	86	91	96	87	89	88
11	29718	UPLRH-180839	93	87	94	90	91	93	108	84	94	95	91	90	90
12	29719	NPH-X5+	95	86	93	99	93	86	118	86	93	96	86	88	87
13	29720	UPLRH-169054	102	103	101	106	103	102	112	88	97	100	91	89	90
14	29721	UPLRH-189001	106	106	101	107	105	103	114	93	98	102	94	92	93
15	29722	RNRH-15	88	83	90	84	86	87	104	81	90	91	83	86	85
16	29723	SPH-43	91	87	93	93	91	86	105	83	91	91	83	89	86
17	29724	PAN-2140	102	105	102	105	104	104	114	94	95	102	91	93	92
18	29725	NPH-X49	85	77	86	84	83	86	97	80	88	88	84	86	85
19	29726	PHI-21103	92	88	93	96	92	98	105	88	95	96	92	90	91
20	29727	PRSH-2009	86	80	86	79	83	87	120	82	89	94	85	86	85
21	29728	US-346	96	98	99	102	99	100	110	85	94	97	90	87	88
22	29729	ARRH-23316	101	103	101	107	103	98	113	92	97	100	88	90	89
23	29730	US-355	101	102	102	103	102	101	114	89	96	100	92	92	92
24	29731	RNC-0334	99	103	98	105	101	89	107	88	95	95	90	90	90
25	29732	KPHDF8PX	92	88	93	89	91	96	119	85	91	98	91	90	90
26	29733	JKRH-1038	101	112	103	107	106	104	115	86	97	100	94	91	93
27	29734	PHI-21104	100	106	101	105	103	102	108	88	96	98	89	89	89
28	29735	MEPH-164	92		94	89	92	91	106	85	94	94	91	92	91
29	29736	PHI-21105	92	85	91	86	89	90	105	86	94	94	91	90	91
30	29737	IIRRH-148	96	98	96	105	99	99	111	84	97	98	91	90	91
31	29738	RNC-0457	94	91	96	100	95	94	106	87	96	96	89	92	91
32	29739	MEPH-165	98	103	99	105	101	100	104	85	95	96	89	95	92
33	29740	IIRRH-149	94	102	94	100	98	93	107	86	92	94	85	88	87
34	US-312 (NCH)		95	101	97	101	99	95	107	87	96	96	91	89	90
35	Gontra Bidhan-3 (NCV)		94	84	93	99	92	94	103	83	94	93	89	87	88
36	Zonal Check Variety (ZCV)		102	102	105	103	103	109	120	96	107	108	96	95	96
37	Local Check Variety (LCV)		92	105	99	110	101	105	109	83	96	98	91	86	89
Exp. Mean			96	96	96	97	96	97	109	86	94	97	88	89	89

(Contd...)

Appendix-5: Days to 50% Flowering (DFF) of hybrids in IHRT-Mid Early, Kharif 2021

S. No.	IET No.	Name	(contd.) Zone III						Zone IV	Zone V (contd.)					
			CHN	CTK	CHP	OD Mean (2)	RCI	Zone III Mean (10)	TTB (1)	JBP	RPR	Rasi	NZV	VNR	CG Mean (4)
1	29708	MALI-348	92	93	106	99	104	96	89	96	94	91	96	85	91
2	29709	JRH-134	91	83	105	94	101	91	79	91	87	86	100	78	88
3	29710	CP R444	96	93	105	99	107	98	91	97	96	95	100	86	94
4	29711	IRH-128	92	93	106	99	105	98	80	89	87	86	100	79	88
5	29712	Indam 300-021	94	85	106	96	101	92	82	90	91	92	100	79	90
6	29713	IRH-129	87	87	106	97	104	95	79	91	87	86	98	78	87
7	29714	Indam 200-053	85	97	112	105	104	99	92	97	97	98	100	86	95
8	29715	IRH-130	95	95	134	114	105	100	83	91	87	90	95	78	88
9	29716	RALLIS-20308	93	88	105	97	105	95	91	98	94	95	97	85	93
10	29717	RRX-271	92	90	106	98	105	95	91	95	92	94	101	84	93
11	29718	UPLRH-180839	96	90	107	99	103	96	88	92	94	88	99	81	91
12	29719	NPH-X5+	92	97	107	102	100	95	79	102	90	87	93	81	88
13	29720	UPLRH-169054	94	95	105	100	108	98	91	99	96	96	97	84	93
14	29721	UPLRH-189001	96	89	107	98	109	100	90	99	99	98	99	90	96
15	29722	RNRH-15	91	73	106	90	99	90	79	93	89	87	96	75	87
16	29723	SPH-43	92	79	105	92	100	91	85	93	93	91	97	78	90
17	29724	PAN-2140	101	91	107	99	109	100	91	98	97	97	98	89	95
18	29725	NPH-X49	88	83	107	95	98	90	77	93	89	85	99	74	87
19	29726	PHI-21103	95	93	106	100	102	96	88	97	95	94	99	85	93
20	29727	PRSH-2009	92	91	106	99	97	93	80	96	90	84	98	78	88
21	29728	US-346	95	97	106	102	105	97	89	101	97	95	97	85	93
22	29729	ARRH-23316	95	93	106	100	108	98	91	100	95	95	98	85	93
23	29730	US-355	97	87	107	97	106	98	88	101	98	97	99	87	95
24	29731	RNC-0334	96	97	110	103	106	97	88	101	94	96	100	84	93
25	29732	KPHDF8PX	93	91	108	100	101	96	86	96	92	89	97	80	90
26	29733	JKRH-1038	104	91	118	105	108	101	96	100	98	100	98	90	96
27	29734	PHI-21104	95	91	112	102	105	97	91	97	96	96	98	86	94
28	29735	MEPH-164	95	97	106	102	99	96	85	97	96	90	99	83	92
29	29736	PHI-21105	93	93	106	100	100	95	85	96	91	88	99	82	90
30	29737	IIRRH-148	96	87	107	97	105	97	90	100	93	96	98	87	93
31	29738	RNC-0457	97	93	106	100	106	97	91	103	96	93	97	87	93
32	29739	MEPH-165	95	87	106	97	103	96	86	93	91	94	99	81	91
33	29740	IIRRH-149	93	93	112	103	104	95	91	97	92	96	97	81	91
34	US-312 (NCH)		97	97	106	102	109	97	89	97	94	96	97	84	93
35	Gontra Bidhan-3 (NCV)		95	92	118	105	101	95	84	96	94	90	97	83	91
36	Zonal Check Variety (ZCV)		96	85	107	96	107	102	100	93	90	84	98	81	88
37	Local Check Variety (LCV)		93	93	107	100	103	97	90	93	94	84	98	78	88
Exp. Mean			94	90	108	99	104	96	87	96	93	92	98	83	91

(Contd...)

Appendix-5: Days to 50% Flowering (DFF) of hybrids in IHRT-Mid Early, Kharif 2021

S. No.	IET No.	Name	(contd.) Zone V				Zone VI						
			SND	ANK	MH Mean (2)	Zone V Mean (7)	KJT	RDN	MH Mean (2)	NWG	NVS	GJ Mean (2)	Zone VI Mean (4)
1	29708	MALI-348	106	95	101	95	82	101	92	95	85	90	91
2	29709	JRH-134	99	89	94	90	78	98	88	85	75	80	84
3	29710	CP R444	104	96	100	96	85	106	96	101	90	95	96
4	29711	IRH-128	94	86	90	89				103		103	103
5	29712	Indam 300-021	102	93	97	92	82	100	91	98	84	91	91
6	29713	IRH-129	94	85	90	88		96	96	96	84	90	92
7	29714	Indam 200-053	111	96	104	98	93	105	99	110	89	100	99
8	29715	IRH-130	94	87	90	89		100	100		84	84	92
9	29716	RALLIS-20308	104	96	100	96	89	104	97	107	82	95	96
10	29717	RXX-271	104	93	99	95	85	102	94	98	88	93	93
11	29718	UPLRH-180839	104	94	99	93	78	104	91	92	84	88	89
12	29719	NPH-X5+	101	89	95	92	85	99	92	91	85	88	90
13	29720	UPLRH-169054	106	95	101	96	83	106	95	103	92	97	96
14	29721	UPLRH-189001	106	97	102	98	85	102	94	107	92	99	96
15	29722	RNRH-15	98	88	93	89	76	105	91	90	83	86	88
16	29723	SPH-43	99	92	96	92	79	99	89	96	83	89	89
17	29724	PAN-2140	109	98	103	98	90	106	98	116	91	103	101
18	29725	NPH-X49	95	86	91	89	76	102	89	87	82	85	87
19	29726	PHI-21103	103	94	98	95	89	102	95	93	88	90	93
20	29727	PRSH-2009	99	88	93	90	79	100	89	84	80	82	86
21	29728	US-346	111	93	102	97	76	103	90	104	87	95	93
22	29729	ARRH-23316	104	92	98	96	93	105	99	109	90	99	99
23	29730	US-355	107	94	101	97	85	105	95	107	92	100	97
24	29731	RNC-0334	105	94	99	96	91	105	98	102	89	96	97
25	29732	KPHDF8PX	91	95	93	91	82	99	91	93	86	90	90
26	29733	JKRH-1038	110	99	105	99	92	108	100	113	89	101	100
27	29734	PHI-21104	106	96	101	96	89	102	96	107	87	97	96
28	29735	MEPH-164	101	95	98	94	84	105	95	97	86	92	93
29	29736	PHI-21105	102	92	97	93	81	102	92	91	88	90	91
30	29737	IIRRH-148	105	97	101	97	78	99	89	105	87	96	92
31	29738	RNC-0457	106	98	102	97	81	109	95	98	85	91	93
32	29739	MEPH-165	104	94	99	94	93	94	94	101	84	92	93
33	29740	IIRRH-149	103	95	99	94	89	100	95	103	91	97	96
34	US-312 (NCH)		102	94	98	95	78	108	93	102	87	94	93
35	Gontra Bidhan-3 (NCV)		101	91	96	93	82	100	91	90	83	87	89
36	Zonal Check Variety (ZCV)		97	85	91	90	77	97	87	86	88	87	87
37	Local Check Variety (LCV)		99	89	94	91	91	96	94	95	82	89	91
Exp. Mean			103	93	98	94	84	102	94	99	86	93	93

(Contd...)

Appendix-5: Days to 50% Flowering (DFF) of hybrids in IHRT-Mid Early, Kharif 2021

S. No.	IET No.	Name	Zone VII												Over all Mean (34)
			MTU	RGL	BAY	AP Mean (3)	IIRR	WGL	TS Mean (2)	MND	CBT	ADT	TN Mean (2)	Zone VII Mean (8)	
1	29708	MALI-348	85	85	89	86	104	95	99	97	95	95	95	93	94
2	29709	JRH-134	73	81	83	79	90	90	90	84	86	95	90	85	88
3	29710	CP R444	85	90	91	89	104	98	101	95	98	98	98	95	97
4	29711	IRH-128		88	84	86		97	97	89	91	97	94	91	93
5	29712	Indam 300-021	77	85	86	82	98	96	97	92	86	92	89	89	92
6	29713	IRH-129		85	85	85		91	91	90	88	96	92	89	91
7	29714	Indam 200-053	83	90	92	88	105	103	104	85	94	97	95	94	98
8	29715	IRH-130		88	86	87		91	91	89	86	98	92	90	93
9	29716	RALLIS-20308	82	87	90	87	103	100	102	89	95	92	94	92	95
10	29717	RRX-271	85	87	91	88	104	99	101	92	95	95	95	93	95
11	29718	UPLRH-180839	81	87	89	86	103	96	99	98	98	92	95	93	93
12	29719	NPH-X5+	77	83	82	80	96	91	94	89	88	98	93	88	91
13	29720	UPLRH-169054	84	88	91	88	103	102	102	87	92	98	95	93	97
14	29721	UPLRH-189001	86	91	92	90	106	102	104	94	99	97	98	96	98
15	29722	RNRH-15	74	84	82	80	97	94	95	89	90	99	95	88	89
16	29723	SPH-43	77	87	85	83	98	97	98	89	90	98	94	90	91
17	29724	PAN-2140	86	90	95	90	107	105	106	94	98	100	99	97	99
18	29725	NPH-X49	73	80	79	77	94	89	92	85	87	93	90	85	87
19	29726	PHI-21103	84	87	88	86	102	95	99	97	96	96	96	93	94
20	29727	PRSH-2009	74	81	81	79	93	86	89	92	92	98	95	87	89
21	29728	US-346	84	87	88	87	102	98	100	92	98	99	99	94	96
22	29729	ARRH-23316	86	91	91	89	102	98	100	93	96	95	95	94	97
23	29730	US-355	86	87	91	88	104	98	101	95	98	96	97	94	97
24	29731	RNC-0334	85	87	90	87	103	101	102	95	99	96	98	95	96
25	29732	KPHDF8PX	79	87	86	84	101	97	99	92	96	94	95	91	93
26	29733	JKRH-1038	86	93	93	91	109	99	104	97	99	94	97	96	100
27	29734	PHI-21104	81	90	91	87	105	100	103	91	95	98	97	94	97
28	29735	MEPH-164	80	87	88	85	98	93	96	93	94	99	96	92	93
29	29736	PHI-21105	84	87	88	86	101	93	97	94	95	93	94	92	92
30	29737	IIRRH-148	85	90	89	88	103	101	102	94	95	94	94	94	95
31	29738	RNC-0457	83	91	90	88	104	99	102	98	98	94	96	95	96
32	29739	MEPH-165	79	85	89	84	100	97	98	82	88	91	89	89	94
33	29740	IIRRH-149	79	86	90	85	104	99	102	90	92	95	94	92	95
34	US-312 (NCH)		79	87	90	85	102	99	100	91	94	98	96	93	95
35	Gontra Bidhan-3 (NCV)		81	85	85	84	103	97	100	93	95	94	95	92	93
36	Zonal Check Variety (ZCV)		75	81	84	80	96	97	96	83	86	95	91	87	94
37	Local Check Variety (LCV)		101	100	91	98	102	103	103	85	103	96	100	98	95
Exp. Mean			81	87	88	86	101	97	99	92	94	96	95	92	94

Appendix-6: Quality characteristics of IHRT-Mid-Early Kharif 2021

S. No.	IET No.	Name	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1	29708	MALI-348	81.5	72.4	69.0	6.49	2.14	3.03	LS	VOC	4.9	22.99	52
2	29709	JRH-134	81.2	73.4	69.1	6.71	2.22	3.02	LS	OC	5.2	21.38	22
3	29710	CP R444	82.3	71.8	68.0	6.76	2.06	3.28	LS	A	6.5	17.92	95
4	29711	IRH-128											
5	29712	Indam 300-021	80.4	72.3	71.6	6.21	2.31	2.68	LB	VOC	5.5	24.25	22
6	29713	IRH-129											
7	29714	Indam 200-053	82.0	72.6	69.7	6.90	2.02	3.41	LS	VOC	6.5	23.93	22
8	29715	IRH-130											
9	29716	RALLIS-20308	83.0	74.1	68.6	6.88	2.02	3.40	LS	VOC	3.4	22.00	53
10	29717	RRX-271	81.5	73.0	68.1	6.66	2.04	3.26	LS	VOC	3.5	21.88	46
11	29718	UPLRH-180839	81.5	71.9	68.0	6.14	2.32	2.64	LB	VOC	5.1	23.29	40
12	29719	NPH-X5+	79.3	68.8	63.8	5.52	2.35	2.34	SB	VOC	5.1	14.52	67
13	29720	UPLRH-169054	80.7	72.8	71.3	6.53	2.20	2.96	LB	VOC	7.0	24.66	22
14	29721	UPLRH-189001	83.1	72.2	64.7	6.81	2.26	3.01	LS	VOC	7.0	24.49	50
15	29722	RNRH-15	81.0	73.0	71.4	6.86	2.01	3.41	LS	VOC	4.0	26.04	22
16	29723	SPH-43	81.2	73.9	71.9	7.56	2.00	3.78	LS	VOC	4.3	23.26	24
17	29724	PAN-2140	81.9	73.3	70.0	6.69	2.15	3.11	LS	VOC	4.0	26.54	58
18	29725	NPH-X49	80.9	71.5	69.2	6.05	2.41	2.51	LB	VOC	4.6	26.63	22
19	29726	PHI-21103	82.0	74.2	69.5	7.34	2.22	3.30	LS	VOC	4.3	25.66	22
20	29727	PRSH-2009	81.1	72.8	67.0	6.35	2.61	2.50	LB	VOC	4.4	21.17	22
21	29728	US-346	80.4	70.8	67.3	5.80	2.27	2.55	MS	VOC	5.5	20.38	60
22	29729	ARRH-23316	81.5	72.3	65.4	6.85	2.38	2.87	LB	A	4.3	23.81	44
23	29730	US-355	81.8	73.6	70.5	5.89	2.34	2.51	MS	VOC	4.4	17.39	74
24	29731	RNC-0334	80.6	72.5	68.6	6.50	2.27	2.86	LB	VOC	5.5	25.02	22
25	29732	KPHDF8PX	80.9	70.8	65.9	7.11	2.26	3.14	LS	OC	7.0	26.28	22
26	29733	JKRH-1038	81.6	70.8	66.4	7.04	2.08	3.38	LS	A	4.3	18.97	83
27	29734	PHI-21104	81.5	74.5	70.5	6.53	2.21	2.70	LB	VOC	4.0	24.46	22
28	29735	MEPH-164	79.7	71.4	67.7	6.50	2.22	2.92	LB	VOC	5.5	25.96	22
29	29736	PHI-21105	81.9	72.8	66.7	7.14	2.12	3.34	LS	VOC	3.5	23.94	50
30	29737	IIRRH-148	77.2	68.2	66.6	6.65	1.99	3.34	LS	VOC	7.0	24.52	22
31	29738	RNC-0457	79.4	72.4	69.6	6.83	2.22	3.07	LS	VOC	6.2	22.73	44
32	29739	MEPH-165	82.0	73.0	70.5	6.16	2.41	2.55	LB	OC	5.0	26.84	22
33	29740	IIRRH-149	81.3	73.5	71.5	6.25	2.20	2.84	LB	VOC	5.6	23.61	22
34	US-312 (NCH)		80.2	70.8	68.9	5.71	2.06	2.77	MS	VOC	4.8	23.58	41
35	Gontra Bidhan-3 (NCV)		80.7	70.6	69.0	5.51	2.33	2.36	SB	VOC	4.4	25.87	40
36	MTU-1010 (RCV)		79.5	72.5	70.0	6.76	2.05	3.29	LS	A	7.0	24.05	62
37	Varadhan (LCV)		80.1	72.0	69.2	5.52	2.31	2.38	SB	VOC	4.5	25.22	66

Hull: Hulling %; Mill: Milling %; HRR: Head rice recovery; KL: Kernel length; KB: Kernel breadth; L/B: L/B ratio; ASV: Alkali spreading value; AC: Amylose content; GC: Gel consistency

Appendix-7: Grain Yield (kg/ha) of hybrids in IHRT-Medium, Kharif 2021

S. No.	IET No.	Name	Zone II				Zone III (contd.)								
			PNT	LDN	KUL	Zone II (3)	MSD	VRN	NGN	Rasi	UP Mean (4)	DNG	SYN	BR Mean (2)	CHN
1	29741	HRI-209	5759(6)	7744(6)	8067(5)	7190(5)	5964	7276	5845(5)	4822(6)	5977(9)	7162(1)	7193(10)	7177(4)	6657
2	29742	RRX-338	5772(5)	7778(5)	6900(8)	6817(6)	7190(6)	8643(3)	4672	9593(1)	7525(2)	6724(6)	7819(4)	7271(3)	6909(7)
3	29743	HRI-211	6050(4)	8748(1)	9633(1)	8143(1)	7557(4)	8241(7)	5323(10)	4793(7)	6479(5)	6559(9)	6740	6649(10)	6203
4	29744	RRX-438	5466(10)	6209	6267	5980	7026(7)	7854	6963(1)	8473(2)	7579(1)	6764(5)	6543	6654(9)	6909(6)
5	29745	PAN-2435	4979			4979	5474	7088	4456	5601(4)	5655	6966(2)	8651(1)	7809(1)	6757910)
6	29746	RNE-0219	5608(7)	6701	7033(7)	6447(8)	7618(3)	8367(5)	5486(8)	7048(3)	7130(3)	6209	6143	6176	5900
7	28999	Marshal-135 Pro (Repeat)	5487(9)	6979	6467	6311	6185	7871(10)	4802	3878	5684	6441(10)	6696	6568	6404
8	29747	RNE-03337	6216(2)	7700(7)	8367(4)	7427(4)	7292(5)	8823(2)	5690(6)	4422	6557(4)	6882(3)	6788	6835(8)	5900
9	29748	US-384	5445	6915	7667(6)	6676(7)	6495(10)	7755	5327(9)	3545	5781	6559(8)	7345(9)	6952(7)	7716(2)
10	29749	VNR-230	6087(3)	8577(2)	8567(3)	7744(3)	6393	7857	4180	3769	5550	6128	6733	6430	6253
11	29750	PHI-21106	6738(1)	8421(3)	9267(2)	8142(2)	5596	8286(6)	4368	5270(5)	5880	6879(4)	6404	6641	7615(3)
12	29751	PHI-21107	5375	7300(10)	6233	6303	6675(9)	9262(1)	3037	3783	5689	6401	7830(3)	7115(5)	6556
13	29752	CRHR-156	5032		2367	3700	3431	8037(9)	6633(2)	2804	5226	6104	6512	6308	7968(1)
14	29753	PHI-20108	5445	7563(8)	6100	6369(9)	6373	8044(8)	6229(4)	3727	6093(7)	6253	7779(6)	7016(6)	6959(5)
15	29754	IIRRH-154	5351	6296	6267	5971	5637	7327	6375(3)	3352	5673	4832	7752(7)	6292	6808(8)
16	28P67 (OBCH-1)		5533(8)	6545	6133	6071	7761(1)	7374	5544(7)	3855	6134(6)	6246	8376(2)	7311(2)	6606
17	Bio-799 (OBCH-2)		4492	7510(9)	6733(10)	6245	6005	7184	3738	4628	5389	5805	7354(8)	6579	6253
18	HRI-174 (NCH)		5339	6847	5967	6051	6740(8)	8466(4)	5131	3725	6015(8)	5384	5898	5641	6808(8)
19	NDR-359 (NCV)		4210	6038	5400	5216	5658	7054	4243	3685	5160	5215	5751	5483	6354
20	Zonal Check Variety (ZCV)		4375	5989	4333	4899	7639(2)	3248	4568	2772	4557	4259	7814(5)	6037	7161(4)
21	Local Check Variety (LCV)		3645	8134(4)	6900(8)	6226	5678	6670	4656	4141	5286	6586(7)	6082	6334	6152
Exp. Mean			5353	7263	6733	6329	6399	7654	5108	4652	5953	6207	7057	6632	6707
CD (0.05)			852.95	816.23	744.27	481.89	459.91	965.79	400.57	781.88	289.48	594.63	769.59	497.8	1058.73
CV			9.7	6.8	6.7	4.61	4.4	7.7	4.8	8.1	2.95	5.8	6.6	4.55	9.6
F Value			**	**	**	**	**	**	**	**	**	**	**	**	*
NHC + CD (0.05)						6533									
BVC + CD (0.05)						6708									
D/S			12.6.21	8.6.21	8.6.21		15.6.21	15.6.21	26.6.21	21.6.21		21.6.21	2.7.21		25.6.21
D/P			9.7.21	4.7.21	9.7.21		15.7.21	5.7.21	21.7.21	11.7.21		20.7.21	28.7.21		22.7.21
Gross Plot Size (Sq.m)			10.13	8.50	10.00		10.00	10.00	10.00			10.00	10.00		8.28
Net Plot Size (Sq.m)			10.13	6.84	10.00		8.16	9.80	7.99	10.10		9.90	10.00		6.61
Zonal Check Variety			PR 121	PR 121	PR 121		CR Dhan 300	CR Dhan 300	CR Dhan 300	CR Dhan 300		CR Dhan 300	CR Dhan 300		Pratikshya
Local Check Variety			Pant Dhan 4	PR 121	HKR-128		NDR 2064	HUR-105		Surju 52		Sabour Shree	Magdha		

**-Highly Significant;*-significant; ns-not significant

(Contd...)

Appendix-7: Grain Yield (kg/ha) of hybrids in IHRT-Medium, Kharif 2021

S. No.	IET No.	Name	(contd.) Zone III			Zone IV			Zone V (contd.)						
			RCI	CTK	Zone III Mean (9)	ARD	TTB	Zone IV Mean (2)	JBP	WRS	MP Mean (2)	RPR	Rasi	VNR	CG Mean (3)
1	29741	HRI-209	6911(5)	9148(1)	6775(3)	7190(1)	6841(9)	7016(1)	6903(3)	6197(1)	6550(1)	6663(3)	6415(4)	9432(4)	7503(3)
2	29742	RRX-338	7227(3)	6404	7242(1)	4819	6580	5699	6443(4)	4710	5576(7)	6325(6)	8485(1)	8605	7805(1)
3	29743	HRI-211	7272(2)	7437(10)	6681(5)	5554	6929(5)	6241(5)	5853	5905(2)	5879(3)	7214(1)	6574(3)	9516(2)	7768(2)
4	29744	RRX-438	6414(9)	7537(8)	7165(2)	5814(6)	3981	4898	5580	5409(4)	5495(10)	4743	8183(2)	8815(9)	7247(6)
5	29745	PAN-2435	6188	7448(9)	6515	5635(9)	6237	5936	5857	4340	5098	6183(8)	5552	7074	6270
6	29746	RNE-0219	6098	7315	6687(4)	4951	6922(7)	5936(10)	5097	3478	4287	6259(7)	6310(5)	9457(3)	7342(5)
7	28999	Marshal-135 Pro (Repeat)	6865(6)	5526	6074	4152	7226(3)	5689	5940(10)	5024(9)	5482	6013	5612	7778	6468
8	29747	RNE-03337	6775(7)	7426	6667(8)	5561(10)	6786(10)	6174(8)	5960(8)	5416(3)	5688(5)	5892	6039(9)	9285(5)	7072(8)
9	29748	US-384	6640(8)	7637(7)	6558(9)	5724(7)	4371	5048	5957(9)	4369	5163	5630	5514	8729(10)	6624
10	29749	VNR-230	7091(4)	7193	6178	5446	6919(8)	6183(7)	6214(7)	5183(7)	5699(4)	5767	5499	8837(8)	6701
11	29750	PHI-21106	6459(10)	9148(1)	6670(6)	6980(2)	7029(4)	7005(2)	7523(1)	5309(6)	6416(2)	6700(2)	5704(10)	9879(1)	7428(4)
12	29751	PHI-21107	5917	7848(5)	6368	6476(3)	6398	6437(4)	5047	5409(4)	5228	6426(4)	6210(6)	8091	6909(9)
13	29752	CRHR-156	6233	7837(6)	6173	4786	7663(1)	6225(6)	3047	4957(10)	4002	5849	6083(8)	7107	6346
14	29753	PHI-20108	4743	8759(3)	6541(10)	6351(4)	6925(6)	6638(3)	6317(5)	4824	5570(8)	5723	5639	9216(6)	6860(10)
15	29754	IIRRH-154	4336	6715	5904	4031	5655	4843	6940(2)	4314	5627(6)	6010	5664	6615	6096
16	28P67	(OBCH-1)	5691	8570(4)	6669(7)	5656(8)	6443	6050(9)	5397	5109(8)	5253	6180(9)	5413	7498	6364
17	Bio-799	(OBCH-2)	4336	6737	5782	4174	7355(2)	5765	5413	4684	5049	5929	5486	8497	6638
18	HRI-174	(NCH)	7453(1)	6737	6260	5847(5)	5664	5755	6293(6)	4706	5500(9)	6362(5)	6086(7)	8940(7)	7129(7)
19	NDR-359	(NCV)	6278	6082	5591	3806	6117	4962	4363	4232	4298	5454	3597	5212	4754
20	Zonal Check Variety	(ZCV)	5149	5171	5309	4291	4693	4492	4457	3063	3760	3238	3843	5414	4165
21	Local Check Variety	(LCV)	3613	6744	5591	4834	4714	4774	4683	4362	4523	6081(10)	5615	6669	6375
Exp. Mean			6081	7306	6352	5337	6260	5798	5680	4809	5245	5935	5895	8127	6660
CD (0.05)			1179.02	1786.33	297.89	453.28	451.27	317.92	747.79	934.36	544.06	1017.04	988.15	868.43	455.23
CV			11.8	14.8	2.84	5.2	4.4	3.32	8.0	11.8	6.29	10.4	8.0	6.5	4.14
F Value			**	**	**	**	**	**	**	**	**	**	**	**	**
NHC + CD (0.05)					6558			6073							
BVC + CD (0.05)					5889			5280							
D/S			26.6.21	29.6.21		19.7.21	14.7.21		19.6.21	19.6.21		23.6.21	16.6.21	25.6.21	
D/P			24.7.21	27.7.21		19.8.21	6.8.21		11.7.21	10.7.21		10.7.21	11.7.21	15.7.21	
Gross Plot Size (Sq.m)			10.32	9.00		19.50	10.00		10.00	10.00		15.36		8.19	
Net Plot Size (Sq.m)			7.38	6.72		17.64	10.00		7.99	9.01		12.48	10.30	6.25	
Local Check Variety			IR 64 drt-1	Tapaswini			Shraboni		IR 64	JR 206		Rajeshwari		Mahamaya	

**-Highly Significant;*-significant; ns-not significant

(Contd...)

Appendix-7: Grain Yield (kg/ha) of hybrids in IHRT-Medium, Kharif 2021

S. No.	IET No.	Name	(contd.) Zone V				Zone VI							
			SND	@ ANK	MH Mean (1)	Zone V Mean (6)	KIT	SHR	PDG	MH Mean (3)	NWG	NVS	GJ Mean (2)	Zone VI Mean (5)
1	29741	HRI-209	5151(8)	6588(7)	5151(8)	6764(2)	7098	3239	5723(7)	5353	7491(2)	5186	6339(4)	5748
2	29742	RRX-338	5414(4)	6539	5414(4)	6646(4)	6698	5333(10)	5866(6)	5966(8)	3870	5109	4490	5375
3	29743	HRI-211	6038(1)	6298	6038(1)	6771(1)	8165(2)	6828(3)	7085(1)	7359(1)	5830(8)	5495(7)	5662(9)	6681(1)
4	29744	RRX-438	4978	6618(4)	4978	6332(5)	7265	7212(2)	6325(5)	6934(3)	5114	4928	5021	6169(5)
5	29745	PAN-2435	5232(6)	6259	5232(6)	5785	6364	5778(8)	5613(9)	5918	4844	4676	4760	5455
6	29746	RNE-0219	4929	6522	4929	6007	8036(3)	3219	5431	5562	5966(7)	6779(1)	6373(3)	5886(9)
7	28999	Marshal-135 Pro (Repeat)	5094	6544	5094	6001	8492(1)	4505	4782	5926	6223(5)	5757(6)	5990(6)	5952(7)
8	29747	RNE-03337	5013	6561(8)	5013	6310(6)	7552	6310(5)	5191	6351(6)	7576(1)	6199(2)	6887(1)	6566(3)
9	29748	US-384	5036	6127	5036	5909	6279	4485	6692(3)	5818	5534(9)	5814(4)	5674(8)	5761(10)
10	29749	VNR-230	4964	6535	4964	6143(10)	7777(4)	6707(4)	6760(2)	7081(2)	4965	4330	4648	6108(6)
11	29750	PHI-21106	5187(7)	6461	5187(7)	6680(3)	6539	7764(1)	5441	6581(4)	7346(3)	5784(5)	6565(2)	6575(2)
12	29751	PHI-21107	5655(2)	6645(3)	5655(2)	6212(8)	6990	4747	5094	5611	3021	4594	3808	4889
13	29752	CRHR-156	4853	6605(5)	4853	5500	7637(5)	3596	3914	5049	2964	4366	3665	4495
14	29753	PHI-20108	5321(5)	6592(6)	5321(5)	6233(7)	7192(10)	6141(6)	5646(8)	6327(7)	7045(4)	4885	5965(7)	6182(4)
15	29754	IIRRH-154	5031	6544(10)	5031	5874	5962	4047	5211	5073	4282	5230(9)	4756	4947
16	28P67 (OBCH-1)		5143(10)	6697(1)	5143(10)	5920	6532	5428(9)	4447	5469	6042(6)	6062(3)	6052(5)	5702
17	Bio-799 (OBCH-2)		5147(9)	6654(2)	5147(9)	5973	6577	3933	5316	5275	5404(10)	5230(10)	5317(10)	5292
18	HRI-174 (NCH)		4764	6272	4764	6203(9)	7402(7)	5838(70)	6340(4)	6527(5)	4716	5356(8)	5036	5931(8)
19	NDR-359 (NCV)		4283	6399	4283	4791	6538	5212	4653	5467	3778	4249	4014	4886
20	Zonal Check Variety (ZCV)		3440	6553(9)	3440	4287	7265(8)	4976	4822	5688	5389	5135	5262	5518
21	Local Check Variety (LCV)		5521(3)	5360	5521(3)	5446	6667	4451	4299	5139	4485	4178	4332	4816
Exp.Mean			5057	6446	5057	5990	7097	5226	5460	5928	5328	5207	5267	5663
CD (0.05)			992.19	879.27	992.19	307.85	1202.35	853.68	853.15	589.35	1609.86	1045.09	633.39	467.22
CV			11.9	8.3	11.9	3.11	10.3	9.9	9.5	6.03	14.5	12.2	7.29	5
F Value			*	ns	*	**	**	**	**	**	**	**	**	**
NHC + CD (0.05)						6511								6398
BVC + CD (0.05)						5754								5985
D/S			8.6.21	1.7.21			12.6.21	17.6.21	21.6.21		17.6.21	14.6.21		
D/P			20.7.21	2.8.21			3.7.21	23.7.21	15.7.21		26.7.21	8.7.21		
Gross Plot Size (Sq.m)			10.00	9.45			5.27	7.02	10.20		7.20	12.15		
Net Plot Size (Sq.m)			7.48	7.60			3.47	4.95	7.70		5.28	9.95		
Local Check Variety			SYE-2001	IR 64			Karjat 9	Ratnagiri 4	Karjat 9		Mahisagar	GNR-3		

Note: @Data of ANK (Ankur Seeds) not included in the analysis due to Non-Significant F Value. **-Highly Significant;*-significant;ns-not significant

(Contd...)

Appendix-7: Grain Yield (kg/ha) of hybrids in IHRT-Medium, Kharif 2021

S. No.	IET No.	Name	Zone VII													Over all Mean (32)
			MTU	RGL	BAY	AP Mean(3)	IIRR	WGL	TS Mean (2)	MND	@ SRS	KA Mean (1)	CBT	@ KRK	Zone VII Mean (7)	
1	29741	HRI-209	7106	6216(10)	6094	6472	6305(5)	9101(3)	7703(2)	8236	2893	8236	7384	5106	6943	6712(4)
2	29742	RRX-338	6999	5177	6351(7)	6176	6604(3)	6462	6533	10036(8)	2886	10036(8)	6479	4911	6627	6572(8)
3	29743	HRI-211	9932(1)	5305	6190	7143(6)	6705(2)	7210	6957(7)	10164(7)	3172(7)	10164(7)	8119(7)	6108	7467(8)	6987(2)
4	29744	RRX-438	8742(8)	4561	5671	6325	5720	5201	5461	11120(3)	2743	11120(3)	9096(3)	5247	6920	6551(9)
5	29745	PAN-2435	7486	5543	5656	6228	5780	7250	6515	5538	1800	5538	5262	5768	6035	5985
6	29746	RNE-0219	9412(5)	6362(8)	5774	7183(5)	5818(9)	7998(8)	6908(8)	11222(1)	3579(2)	11222(1)	8488(5)	6408	7685(5)	6599(7)
7	28999	Marshal-135 Pro (Repeat)	6839	6650(2)		6744	6117(6)	8550(6)	7333(5)	10009(10)	3372(5)	10009(10)	7295	5928	7341(9)	6307
8	29747	RNE-03337	7129	6621(3)	5548	6433	6113(7)	7486	6799(9)	10916(4)	2936	10916(4)	9164(2)	7197(6)	7522(6)	6818(3)
9	29748	US-384	6189	6548(4)	6200	6313	5813(10)	6383	6098	9933	3264(6)	9933	8237(6)	6216	6940	6318
10	29749	VNR-230	9292(7)	5774	6882(1)	7316(3)	6007(8)	7210	6609	10893(5)	2772	10893(5)	8842(4)	7498(2)	7800(3)	6680(6)
11	29750	PHI-21106	9656(3)	6864(1)	6230(10)	7583(1)	6928(1)	10008(1)	8468(1)	9493	2729	9493	6860	6558	7825(2)	7079(1)
12	29751	PHI-21107	9376(6)	6375(7)	6688(2)	7479(2)	5460	8116(7)	6788(10)	10422(6)	3486(3)	10422(6)	9410(1)	7167(7)	7877	6472(10)
13	29752	CRHR-156		5206	6443(4)	5825	5728	6462	6095	7684	3450(4)	7684	8051(8)	7526(1)	6729	5734
14	29753	PHI-20108	7473	6453(6)	6427(5)	6784(9)	6315(4)	8826(4)	7570(3)	11151(2)	3075(8)	11151(2)	7810(10)	7394(3)	7731(4)	6695(5)
15	29754	IIRRH-154	7569	6479(5)	624999)	6766(10)	4910	6816	5863	7751	3036(9)	7751	5588	6450	6477	5835
16	28P67 (OBCH-1)		9439(4)	6273(9)	6115	7276(4)	5811	6462	6137	8400	2514	8400	7423	7299(5)	7153(10)	6397
17	Bio-799 (OBCH-2)		7293	5528	6378(6)	6400	5259	9574(2)	7417(4)	8969	2625	8969	6236	6757(9)	6999	6076
18	HRI-174 (NCH)		8179(90)	5867	6316(80)	6787(8)	5670	8707(5)	7189(6)	10009(9)	4300(1)	10009(9)	7949(9)	7303(4)	7500(7)	6444
19	NDR-359 (NCV)		9922(2)	5962	5368	7084(7)	4536	5910	5223	8916	2568	8916	7494	6676(10)	6848	5548
20	Zonal Check Variety (ZCV)		7326	5053	4128	5502	5548	7919(9)	6733	8236	2600	8236	6667	6200	6384	5298
21	Local Check Variety (LCV)		6773	5835	6614(3)	6407	4061	7447	5754	9356	3000(10)	9356	7502	6800(8)	6798	5748
Exp.Mean			8106	5936	6066	6677	5772	7576	6674	9450	2990	9450	7588	6501	7124	6327
CD (0.05)			1328.46	586.08	1071.42	613.41	1128.37	989.73	760.7	1599.64	458.49	1599.64	1238.60	2102.88	446.2	159.28
CV			9.9	6.0	10.7	5.57	11.9	7.9	6.91	10.3	7.4	10.3	9.9	19.6	3.8	1.53
F Value			**	**	**	**	**	**	**	**	**	**	**	ns	**	**
NHC + CD (0.05)															7946	6603
BVC + CD (0.05)															7294	5907
D/S			13.7.21	9.7.21	22.6.21		28.6.21	22.6.21		13.7.21	17.6.21		6.8.21	24.8.21		
D/P			6.8.21	8.8.21	18.7.21		31.7.21	20.7.21		4.8.21	7.7.21		4.9.21	27.9.21		
Gross Plot Size (Sq.m)			12.60	10.92	10.00		6.43	10.08		7.50	7.00		10.33	4.80		
Net Plot Size (Sq.m)			9.90	8.58	10.00		4.95	8.46			4.65		8.44	4.80		
Local Check Variety			MTU 1239	MTU 1210	MTU 1121		DRR Dhan 38	WGL 347		Thanu				TKM 11		

Note: @Data of SRS (Sirsi) not included in the analysis due to low experimental Grain Yield (Kg/ha), @Data of KRK (Karaikal) not included in the analysis due to Non-Significant F Value.

**-Highly Significant; *-significant; ns-not significant

Appendix-8: Days to 50% Flowering (DFF) of hybrids in IHRT- Medium, Kharif 2021

S. No.	IET No.	Name	Zone II				Zone III (contd.)									
			PNT	LDN	KUL	Zone II Mean (3)	MSD	VRN	NGN	Rasi	UP Mean (4)	DNG	SYN	BR Mean (2)	CHN	RCI
1	29741	HRI-209	99	105	102	102	100	88	110	95	98	90	88	89	102	101
2	29742	RRX-338	99	102	106	102	108	98	109	100	104	100	91	96	104	102
3	29743	HRI-211	102	110	103	105	105	97	113	98	103	95	92	94	102	103
4	29744	RRX-438	104	108	103	105	107	93	110	97	102	95	90	92	102	103
5	29745	PAN-2435	120			120	113	103	119	109	111	103	93	98	103	106
6	29746	RNE-0219	101	110	104	105	101	101	113	99	104	95	90	93	101	106
7	28999	Marshal-135 Pro (Repeat)	105	108	103	106	104	94	109	100	102	93	91	92	103	104
8	29747	RNE-03337	103	111	103	106	104	91	116	100	103	95	93	94	102	106
9	29748	US-384	101	107	102	103	105	94	107	96	101	93	89	91	99	101
10	29749	VNR-230	104	107	102	104	107	93	114	99	103	102	89	96	102	103
11	29750	PHI-21106	100	109	100	103	102	90	107	96	99	95	90	93	98	101
12	29751	PHI-21107	103	107	109	106	107	100	106	100	103	95	96	95	102	106
13	29752	CRHR-156	120		114	117	102	105	121	111	110	107	92	100	109	112
14	29753	PHI-20108	103	100	103	102	104	92	108	97	100	94	90	92	101	102
15	29754	IIRRH-154	106	113	107	109	100	98	118	100	104	98	88	93	103	100
16	28P67 (OBCH-1)		98	105	106	103	98	87	109	102	99	97	90	94	96	105
17	Bio-799 (OBCH-2)		106	101	107	105	103	95	117	99	103	94	90	92	105	101
18	HRI-174 (NCH)		102	107	106	105	108	93	112	100	103	95	89	92	102	103
19	NDR-359 (NCV)		101	106	103	103	106	99	107	97	102	95	88	91	96	97
20	Zonal Check Variety (ZCV)		102	111	110	108	107	104	125	116	113	86	101	94	108	113
21	Local Check Variety (LCV)		96	110	100	102	107	101	115	84	102	104	89	97	109	96
Exp. Mean			104	107	105	106	104	95	112	100	103	97	91	94	102	104

(Contd...)

Appendix-8: Days to 50% Flowering (DFF) of hybrids in IHRT- Medium, Kharif 2021

S. No.	IET No.	Name	(contd.) Zone III		Zone IV			Zone V (contd.)							
			CTK	Zone III Mean (9)	ARD	TTB	Zone IV Mean (2)	JBP	WRS	MP Mean (2)	RPR	Rasi	VNR	CG Mean (3)	SND
1	29741	HRI-209	95	97	93	92	93	97	93	95	99	95	84	93	109
2	29742	RRX-338	91	100	95	98	96	98	96	97	101	99	90	97	115
3	29743	HRI-211	99	101	93	97	95	105	95	100	102	100	90	97	115
4	29744	RRX-438	97	99	90	95	92	102	93	98	102	98	88	96	111
5	29745	PAN-2435	97	105	90	91	90	96	107	102	104	96	99	100	118
6	29746	RNE-0219	97	100	90	93	92	101	94	98	102	97	88	96	113
7	28999	Marshal-135 Pro (Repeat)	101	100	90	96	93	102	98	100	103	97	90	97	113
8	29747	RNE-03337	93	100	92	94	93	99	97	98	108	97	86	97	102
9	29748	US-384	99	98	88	93	90	100	96	98	100	94	84	93	110
10	29749	VNR-230	102	101	92	95	94	102	94	98	102	98	89	96	111
11	29750	PHI-21106	101	98	93	93	93	97	90	94	101	97	85	94	108
12	29751	PHI-21107	97	101	93	98	96	103	95	99	102	99	88	96	111
13	29752	CRHR-156	104	107	93	104	98	105	108	107	109	97	102	103	131
14	29753	PHI-20108	103	99	92	94	93	101	94	97	100	96	87	94	110
15	29754	IIRRH-154	105	101	91	96	94	97	88	93	102	101	87	96	108
16	28P67 (OBCH-1)		91	97	93	89	91	98	90	94	96	97	81	91	104
17	Bio-799 (OBCH-2)		93	100	92	95	94	101	95	98	100	98	90	96	109
18	HRI-174 (NCH)		97	100	94	97	96	102	94	98	101	99	90	97	100
19	NDR-359 (NCV)		103	99	87	93	90	102	96	99	103	94	88	95	111
20	Zonal Check Variety (ZCV)		115	109	115	104	110	90	96	93	96	85	73	84	100
21	Local Check Variety (LCV)		101	101	89	103	96	92	83	87	95		84	89	110
Exp. Mean			98	100	92	95	93	100	95	98	102	97	89	96	112

(Contd...)

Appendix-8: Days to 50% Flowering (DFF) of hybrids in IHRT- Medium, Kharif 2021

S. No.	IET No.	Name	(contd.) Zone V			Zone VI							
			@ ANK	MH Mean (1)	Zone V Mean (6)	KJT	SHR	PDG	MH Mean (3)	NWG	NVS	GJ Mean (2)	Zone VI Mean (5)
1	29741	HRI-209	101	109	96	100	99	106	102	106	89	98	100
2	29742	RRX-338	103	115	100	82	105	102	96	105	88	96	96
3	29743	HRI-211	103	115	101	99	101	106	102	107	94	100	101
4	29744	RRX-438	100	111	99	100	101	102	101	105	86	96	99
5	29745	PAN-2435	94	118	104	102	104	102	102	115	108	111	106
6	29746	RNE-0219	102	113	99	100	106	106	104	108	95	102	103
7	28999	Marshal-135 Pro (Repeat)	104	113	100	97	103	106	102	105	89	97	100
8	29747	RNE-03337	101	102	98	99	107	108	105	110	91	101	103
9	29748	US-384	99	110	97	107	100	102	103	105	90	98	101
10	29749	VNR-230	104	111	99	100	101	107	103	106	89	98	101
11	29750	PHI-21106	98	108	96	101	99	106	102	110	88	99	101
12	29751	PHI-21107	101	111	100	92	105	108	102	107	91	99	101
13	29752	CRHR-156	106	131	109	102	113	110	108	115	94	105	107
14	29753	PHI-20108	99	110	98	92	97	106	98	107	88	98	98
15	29754	IIRRH-154	98	108	97	91	99	102	97	107	92	100	98
16	28P67 (OBCH-1)		98	104	94	81	96	102	93	113	85	99	96
17	Bio-799 (OBCH-2)		98	109	99	95	98	106	100	108	86	97	99
18	HRI-174 (NCH)		101	100	98	99	101	106	102	110	90	100	101
19	NDR-359 (NCV)		99	111	99	97	99	106	101	112	91	102	101
20	Zonal Check Variety (ZCV)		91	100	90	100	100	107	102	110	96	103	103
21	Local Check Variety (LCV)		98	110	93	99	100	109	103	104	82	93	99
Exp. Mean			100	112	99	96	102	105	101	108	91	100	101

Note: @ Data of ANKUR Seeds (ANK) not included in the analysis

(Contd...)

Appendix-8: Days to 50% Flowering (DFF) of hybrids in IHRT- Medium, Kharif 2021

S. No.	IET No.	Name	Zone VII													Over All Mean (32)
			MTU	RGL	BAY	AP Mean (3)	IIRR	WGL	TS Mean (2)	MND	@ SRS	KA Mean (1)	CBT	@ KRK	Zone VII Mean (7)	
1	29741	HRI-209	85	88	93	89	103	101	102	95	109	95	94	102	94	97
2	29742	RRX-338	78	92	94	88	103	100	102	97	106	97	95	102	94	98
3	29743	HRI-211	87	91	94	91	106	105	105	98	115	98	96	104	97	100
4	29744	RRX-438	86	92	95	91	104	100	102	98	112	98	96	102	96	98
5	29745	PAN-2435	82	86	95	88	96	102	99	86	106	86	82	102	90	101
6	29746	RNE-0219	88	92	96	92	107	104	106	99	113	99	99	103	98	100
7	28999	Marshal-135 Pro (Repeat)	88	94	95	92	104	104	104	98	113	98	95	103	97	99
8	29747	RNE-03337	87	90	95	91	105	103	104	98	112	98	97	101	96	99
9	29748	US-384	87	90	92	90	102	100	101	97	112	97	97	100	95	98
10	29749	VNR-230	87	93	94	91	104	104	104	96	110	96	92	101	96	99
11	29750	PHI-21106	85	88	92	88	100	98	99	92	106	92	94	94	93	97
12	29751	PHI-21107	89	96	94	93	106	103	104	97	113	97	100	101	98	100
13	29752	CRHR-156		96	105	101	112	110	111	103	117	103	97	101	104	107
14	29753	PHI-20108	83	88	91	88	101	99	100	96	112	96	94	96	93	97
15	29754	IIRRH-154	81	90	94	88	98	99	99	89	108	89	87	90	91	98
16	28P67 (OBCH-1)		78	92	89	86	100	98	99	92	102	92	103	96	93	96
17	Bio-799 (OBCH-2)		81	91	89	87	99	102	101	90	108	90	87	93	91	98
18	HRI-174 (NCH)		87	93	94	91	104	100	102	99	112	99	93	102	96	99
19	NDR-359 (NCV)		86	90	91	89	104	100	102	99	113	99	93	94	95	98
20	Zonal Check Variety (ZCV)		85	88	89	88	102	95	99	101	113	101	100	94	94	101
21	Local Check Variety (LCV)		98	100	102	100	102	107	105	96	122	96	99	100	101	99
Exp. Mean			84	91	94	90	103	102	102	95	110	95	94	100	95	99

Note: @Data of SRS (Sirsi) not included in the analysis. Note: @Data of KRK (Karaikal) not included in the analysis.

Appendix-9: Quality characteristics of IHRT-Medium Kharif 2021

S. No.	IET No.	Name	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1	29741	HRI-209	81.9	73.1	71.8	5.74	2.20	2.60	MS	VOC	4.8	23.17	41
2	29742	RRX-338	81.6	72.8	67.6	6.25	2.30	2.71	LB	VOC	4.0	23.90	39
3	29743	HRI-211	80.0	71.5	69.7	6.65	2.28	2.47	LB	VOC	6.1	24.69	36
4	29744	RRX-438	80.6	72.1	66.2	6.66	2.18	3.05	LS	VOC	4.5	23.08	72
5	29745	PAN-2435	79.6	73.0	69.8	6.17	2.45	2.51	LB	OC	4.0	22.55	22
6	29746	RNE-0219	81.3	73.4	71.9	5.83	2.39	2.43	SB	VOC	7.0	26.69	22
7	28999	Marshal-135 Pro (Repeat)	82.1	73.8	71.3	6.10	2.28	2.67	LB	VOC	5.0	23.64	47
8	29747	RNE-03337	81.2	74.6	72.8	5.65	2.39	2.36	SB	VOC	7.0	25.78	22
9	29748	US-384	80.4	72.2	69.6	6.23	2.18	2.85	LB	VOC	5.6	25.10	25
10	29749	VNR-230	80.4	72.0	69.4	6.24	2.16	2.88	LB	VOC	4.8	23.61	46
11	29750	PHI-21106	81.8	71.1	62.6	6.15	2.28	2.69	LB	VOC	4.0	26.22	22
12	29751	PHI-21107	81.5	71.7	65.7	6.29	2.21	2.84	LB	VOC	4.0	26.66	47
13	29752	CRHR-156	81.6	71.3	67.7	6.75	2.16	3.12	LS	VOC	4.7	27.25	48
14	29753	PHI-20108	79.7	69.7	65.3	6.30	2.29	2.75	LB	VOC	4.0	24.55	58
15	29754	IIRRH-154	79.4	70.4	68.1	6.16	2.12	2.90	LB	A	4.0	24.20	25
16	HRI-174 (NCH)		81.1	72.9	69.9	6.11	2.21	2.76	LB	VOC	4.0	25.66	50
17	28P67 (OBCH-1)		79.9	72.4	69.7	6.44	2.21	2.91	LB	VOC	3.0	20.26	68
18	Bio-799 (OBCH-2)		81.0	72.9	69.9	6.64	2.18	3.04	LS	VOC	5.0	25.43	48
19	NDR-359 (NCV)		78.5	71.1	67.8	6.47	2.46	2.63	LB	VOC	4.0	24.49	22
20	Jaya (RCV)		79.5	71.8	70.3	5.57	2.48	2.24	SB	OC	7.0	24.55	22
21	DRR Dhan-38 (LCV)		80.9	72.9	71.1	5.47	2.34	2.33	SB	VOC	4.7	26.89	47

Hull: Hulling %; Mill: Milling %; HRR: Head rice recovery; KL: Kernel length; KB: Kernel breadth; L/B: L/B ratio; ASV: Alkali spreading value; AC: Amylose content; GC: Gel consistency

Appendix-10: Grain Yield (kg/ha) of hybrids in IHRT-Medium Slender, Kharif 2021

S. No	IET No.	Name	Zone III										Zone IV	Zone V (contd.)
			MSD	DNG	SYN	BR Mean (2)	CHN	RCI	TMT	JH Mean (2)	CTK	Zone IIIMean (7)	TTB	JBP
1	29755	KRH-8	6618	5259	6175	5717	5605	6698(5)	6951	6698(6)	6288(4)	6107	5623(10)	5860(4)
2	29756	US-301	6475	4663	6385	5524	5828	5457	6403	5457	5035	5640	5905(7)	5673(6)
3	29757	VNR-229	6904(3)	5822	7724(3)	6773(7)	7424(1)	6408	7182	6408	6115(6)	6733(3)	7520(1)	5190(7)
4	29758	KRH-11	6663(8)	6165(7)	6070	6118	5865	6160	7600(4)	6160	6222(5)	6191(10)	4532	5927(3)
5	29759	MEPH-166	6842(5)	5024	6221	5623	6644(8)	6615(8)	7009	6615(8)	5231	6096	5818(9)	6033(2)
6	29760	TMRH-5766	6740(6)	5842	8968(1)	7405(1)	5976	6822(4)	8431(1)	6822(4)	4304	6442(5)	6431(3)	5713(5)
7	29761	CRHR-153	6658(9)	6256(5)	5094	5675	6756(7)	6698(5)	6687	6698(5)	5351(10)	6135	6085(5)	3577
8	29762	SRH-5402	6658(10)	6135(8)	7800(2)	6967(5)	6830(6)	5209	7288(6)	5209	5455(8)	6348(8)	6479(2)	6743(1)
9	29763	CRHR-154	7312(1)	6963(3)	7365(6)	7164(3)	7238(2)	7979(2)	7636(3)	7979(2)	6550(2)	7235(1)	5902(8)	4447
10	29764	CRHR-155	4943	7034(2)	7507(4)	7270(2)	6867(5)	8021(1)	8076(2)	8021(1)	6559(1)	6822(2)	5390	4027
11	JKRH-3333 (NCH-1)		6904(3)	5589	6932(7)	6261		5995	7394(5)	5995		6355(7)		4397
12	27P63 (NCH-2)		4208	5926	4711	5319	6570(9)	7814(3)	7237(7)	7814(3)	5788(8)	5836	6407(4)	3337
13	WGL-14 (NCV-1)		6475	6414(4)	7492(5)	6953(6)	5271	6656(7)	6867	6657(7)	6099(7)	6401(6)		2983
14	BPT-5204 (NCV-2)		6699(7)	7444(1)	6862(9)	7153(4)	7016(3)	5540	6876	5540	6377(3)	6657(4)	4885	4127
15	Zonal Check Variety (ZCV)		7149(2)	6202(6)	6866(8)	6534(8)	6978(4)	4755	6578	4754	5388(9)	6223(9)	5921(6)	2610
Exp.Mean			6483	6049	6811	6430	6491	6455	7214	6455	5769	6348	5915	4710
CD (0.05)			535.07	517.88	580.90	382.13	1112.34	1014.90	854.84	1014.91	1095.96	303.87	457.21	843.98
CV			4.94	5.12	5.10	3.55	10.21	9.40	7.09	9.4	11.32	2.86	4.59	10.72
F Value			**	**	**	**	**	**	**	**	**	**	**	**
NHC + CD (0.05)												6659		
BVC + CD (0.05)												6961		
D/S			15.6.21	21.6.21	2.7.21		25.6.21	26.6.21			29.6.21		12.7.21	19.6.21
D/P			15.7.21	18.7.21	28.7.21		26.7.21	24.7.21			27.7.21		6.8.21	11.7.21
Gross Plot Size (Sq.m)			10	10	10		10.86	10.3			8.4		10	10
Net Plot Size (Sq.m)			8.16	9.9	10		8.98	8.1			6.9		10	7.99

**-Highly Significant;*-significant ;ns-not significant

(Contd...)

Appendix-10: Grain Yield (kg/ha) of hybrids in IHRT-Medium Slender, Kharif 2021

			(contd.) Zone V										Zone VI (contd.)		
S. No	IET No.	Name	WRS	MP Mean(2)	RPR	@ VNR	CG Mean (1)	SKL	SND	@ ANK	MH Mean (2)	Zone V Mean (5)	KJT	SHR	PDG
1	29755	KRH-8	5486(4)	5673(3)	5511	7756(4)	5511	5799(6)	5276(7)	6149(1)	5742(5)	5977(5)	6408	6952(2)	5821(7)
2	29756	US-301	4765	5219(6)	5612(7)	6744	5612(7)	7885(1)	5517(5)	5830	6411(2)	6004(4)	6667(8)	4658	5512(8)
3	29757	VNR-229	4739	4965(8)	5916(6)	7805(2)	5916(6)	5298(8)	5740(2)	5809	5616(7)	5785(9)	8198(1)	4545	6774(1)
4	29758	KRH-11	6371(1)	6149(1)	6677(2)	7206	6677(2)	5799(6)	5682(3)	6035(5)	5839(4)	6242(1)	8164(2)	4970	4299
5	29759	MEPH-166	5120(7)	5577(4)	5440	7573(6)	5440	6341(4)	4541	5895	5592(8)	5849(6)	7492(3)	4909	6156(4)
6	29760	TMRH-5766	5427(5)	5570(5)	5546(10)	7840(1)	5546(10)	4735	5254(8)	6069(4)	5353	5798(8)	6618(9)	6597(4)	6455(3)
7	29761	CRHR-153	4654	4115	5926(5)	7096	5926(5)	6258(5)	4969	5920	5716(6)	5486	5644	4459	4212
8	29762	SRH-5402	4761	5752(2)	6369(3)	7423(7)	6369(3)	4088	5561(4)	5850	5167	5828(7)	6801(7)	7749(1)	4537
9	29763	CRHR-154	5572(2)	5009(7)	5086	7653(5)	5086	4151	4920	5972(7)	5014	5400	7466(4)	4165	5987(6)
10	29764	CRHR-155	5398(6)	4712	5599(8)	7406(8)	5599(8)	3421	4924	6135(2)	4827	5273	6093	5403	5382(9)
11	JKRH-3333 (NCH-1)			4397	6362(4)	7034	6362(4)	7217(3)	5147	6020(6)	6128(3)	6030(3)	6517(10)	5550(6)	6007(5)
12	27P63 (NCH-2)		4954(8)	4145	6772(1)	7783(3)	6772(1)	7593(2)	6083(1)	6128(3)	6601(1)	6093(2)	7293(5)	6442(5)	6500(2)
13	WGL-14 (NCV-1)		4684	3834	5582(9)	7193	5582(9)	2879	5472(6)	5935	4762	4961	7155(6)	6762(3)	4536
14	BPT-5204 (NCV-2)		5527(3)	4827	4449	7345	4449	4255	4394	5859	4836	5137	6157	5290	4529
15	Zonal Check Variety (ZCV)		4876(9)	3743	4458	6733	4458	2190	4871	5873	4311	4516	4205	4026	3999
Exp. Mean			5167	4912.47	5687	7373	5687	5194	5223	5965	5461	5625	6725	5498	5380
CD (0.05)			748.49	553.06	892.03	1129.13	892.03	804.49	906.27	834.34	440.12	262.85	1337.72	1402.78	689.30
CV			8.63	6.73	9.38	9.16	9.38	9.26	10.38	8.36	4.82	2.79	11.90	15.26	7.66
F Value			**	**	**	ns	**	**	*	ns	**	**	**	**	**
NHC + CD (0.05)												6356			
BVC + CD (0.05)												5400			
D/S			19.6.21		21.6.21	25.6.21		22.6.21	8.6.21				14.6.21	17.6.21	
D/P			10.7.21		19.7.21	15.7.21		15.7.21	19.7.21				4.7.21	13.7.21	
Gross Plot Size (Sq.m)			10		14.6	11.25		10	10				5.74	5.69	
Net Plot Size (Sq.m)			9.01		10.08	6.25		7.99	7.48				3.8	3.85	

Note: @ Data of VNR Seeds (VNR) and Ankur Seeds (ANK) not included in the analysis due to Non-Significant F Values.

**-Highly Significant;*-significant;ns-not significant

(Contd...)

Appendix-10: Grain Yield (kg/ha) of hybrids in IHRT-Medium Slender, Kharif 2021

S. No	IET No.	Name	(contd.) Zone VI				Zone VII (contd.)							
			MH Mean (3)	@ NWG	NVS	Zone VI Mean (4)	MTU	BPT	RGL	BAY	AP Mean (4)	IIRR	WGL	TS Mean (2)
1	29755	KRH-8	6394(4)	3222(6)	5482	6166(5)	5759(7)	4201(8)	5508	6667(3)	5534(6)	5190(10)	4976	4977
2	29756	US-301	5612	2377	5681(9)	5629	3373	3722	6589(1)	6402(6)	5021	5746(5)	6045(5)	6045(5)
3	29757	VNR-229	6506(3)	4384(1)	6178(3)	6424(2)	6623(4)	4748(3)	6144(3)	5516	5758(5)	6182(3)	5779	5779
4	29758	KRH-11	5811	3377(5)	4864	5574	5953(6)	3912	5445	6403(5)	5428	5428(7)	4466	4466
5	29759	MEPH-166	6186(6)	4184(3)	6044(5)	6151(6)	4536	3760	5789(7)	7314(1)	5350	6641(1)	5891(6)	5891(6)
6	29760	TMRH-5766	6557(2)	3068(9)	5635(10)	6326(3)	9502(1)	3648	6466(2)	6357(7)	6494(1)	6294(2)	6933(3)	6933(3)
7	29761	CRHR-153	4771	939	6853(1)	5292	6536(5)	5355(1)	5567	6212(8)	5917(2)	4818	5471	5471
8	29762	SRH-5402	6362(5)	4199(2)	6011(7)	6275(4)	3350	4478(5)	6028(5)	6154(9)	5003	5379(8)	7135(1)	7135(1)
9	29763	CRHR-154	5872(9)	2688(10)	6175(4)	5948	5206(9)	5169(2)	5411	5868	5414	5108	5008	5008
10	29764	CRHR-155	5626	2652	5804(8)	5670	3370	4333(6)	5489	5770	4741	5503(6)	5870(7)	5870(7)
11		JKRH-3333 (NCH-1)	6024(8)	2653	5612	5921(8)			5278	5082	5278		5290	5290
12		27P63 (NCH-2)	6745(1)	3763(4)	6275(2)	6627(1)	3030	3534	5644	7096(2)	4826	5860(4)	5333	5333
13		WGL-14 (NCV-1)	6151(7)	3115(7)	4835	5822	7879(2)	3834	5840(6)	6068(10)	5905(3)	5324(9)	6960(2)	6959(2)
14		BPT-5204 (NCV-2)	5325	1763	6017(6)	5498	5256(8)	4730(4)	5259	6599(4)	5461	4146	6795(4)	6795(4)
15		Zonal Check Variety (ZCV)	4077	966	4440	4167	7496(3)	4203(7)	6111(4)	5505	5829(4)	3963	5232	5232
Exp. Mean			5868	3109	5727	5833	5421	4259	5771	5975	5464	5399	5812	5812
CD (0.05)			749.11	640.42	1053.01	552.9	1115.16	739.99	716.87	1342.74	474.11	1155.49	1099.23	1099.23
CV			7.63	10.33	11.00	5.67	11.94	10.35	7.43	13.43	5.19	12.75	11.31	11.31
F Value			**	**	**	**	**	**	**	**	**	**	**	**
NHC + CD (0.05)						7180								
BVC + CD (0.05)						6375								
D/S				17.6.21	14.6.21		13.7.21	30.7.21	9.7.21	22.6.21		9.7.21	24.6.21	
D/P				26.7.21	8.7.21		6.8.21		8.8.21	17.7.21		8.8.21	21.7.21	
Gross Plot Size (Sq.m)				7.2	12.15		12.6	7.8	12.87	10.00		12.87	7.2	
Net Plot Size (Sq.m)				5.28	9.95		9.9	9.95	9.99	10.00		9.99	6.27	

Note: @ Data of Nawagam (NWG) not included in the analysis due to Low Grain Yield (Kg/Ha).

**-Highly Significant;*-significant;ns-not significant

(Contd...)

Appendix-10: Grain Yield (kg/ha) of hybrids in IHRT-Medium Slender, Kharif 2021

			(contd.) Zone VII									Overall Mean (27)
S. No	IET No.	Name	@ MND	MLG	@ SRS	KA Mean (1)	CBT	ADT	TN Mean (2)	KRK	Zone VII Mean (10)	
1	29755	KRH-8	8849(5)	5300(3)	2660(3)	5300(3)	4857	5853	5355	4439	5558	5894
2	29756	US-301	6244	4970(4)	2040	4970(4)	6704(1)	5694	6199(9)	4725	5555	5739
3	29757	VNR-229	10173(1)	5400(2)	3100(2)	5400(2)	5930(7)	6667(6)	6299(8)	4663	5986(8)	6253(2)
4	29758	KRH-11	9520(3)	4120(7)	2485(5)	4120(7)	4768	5357	5063	5098(8)	5401	5838
5	29759	MEPH-166	9182(4)	4140(6)	2330(8)	4140(6)	4822	9425(1)	7123(1)	5789(5)	6100(5)	6086(4)
6	29760	TMRH-5766	7169	4500(6)	2430(6)	4500(6)	6489(3)	6131	6310(6)	5922(3)	6588(1)	6379(1)
7	29761	CRHR-153	5929	2700	1760	2700	5784(8)	8016(2)	6900(3)	5216(6)	6139(3)	5835
8	29762	SRH-5402	8218(7)	3580	1610	3580	4672	4742	4707	5125(7)	5456	5939(7)
9	29763	CRHR-154	8129(8)	3690	2560(4)	3690	5689	7063(5)	6376(5)	7498(1)	6063(6)	6145(3)
10	29764	CRHR-155	8480(6)	3700	2040	3700	6289(5)	6329	6309(7)	4282	5460	5815
11	JKRH-3333 (NCH-1)		7924(9)	3040	1390	3040	5748	4405	5077		5551	6022(5)
12	27P63 (NCH-2)		9556(2)	5420(1)	3560(1)	5420(1)	5493	7480(3)	6487(4)	4631	5558	5990(6)
13	WGL-14 (NCV-1)		7329(10)	3360	1980	3360	6124(6)	5556	5840	5076(9)	6059(7)	5826
14	BPT-5204 (NCV-2)		7160	3750	1620	3750	6388(4)	5972	6180(10)	7221(2)	6174(2)	5840
15	Zonal Check Variety (ZCV)		5640	2620	2420(7)	2620	6604(2)	7460(4)	7032(2)	5881(4)	6136(4)	5424
Exp.Mean			8189	4019	2266	4019	5757	6410	6084	5397	5852	5935
CD (0.05)			1129.13		748.79		1066.47	592.21	605.1	1416.14	340.75	179.04
CV			9.16		15.41		11.08	5.52	5.95	15.63	3.48	1.8
F Value			ns	**	**	**	**	**	**	**	**	**
NHC + CD (0.05)											5899	6201
BVC + CD (0.05)											6515	6019
D/S			13.7.21		17.6.21		6.8.21	4.9.21		24.8.21		
D/P			4.8.21		8.7.21		3.9.21	4.10.21		28.9.21		
Gross Plot Size (Sq.m)			7.5		5		10.3	10.8		6		
Net Plot Size (Sq.m)					2.79		8.4	10.4		6		

Note: @ Data of Sirsi (SRS) not included in the analysis due to Low Grain Yield (Kg/Ha) and Data of Mandya (MND) not included in the analysis due to Non-Significant F value.

**-Highly Significant;*-significant;ns-not significant

Appendix-11: Days to 50% Flowering (DFF) of hybrids in IHRT- Medium Slender, Kharif 2021

S. No	IET No.	Name	Zone III										Zone IV	Zone V (contd.)
			MSD	DNG	SYN	BR Mean (2)	CHN	RCI	TMT	JH Mean (2)	CTK	Zone III Mean (7)	TTB	JBP
1	29755	KRH-8	108	93	89	91	103	100	94	97	97	98	94	103
2	29756	US-301	106	93	89	91	105	99	91	95	85	96	98	100
3	29757	VNR-229	92	95	87	91	97	100	89	95	97	94	89	96
4	29758	KRH-11	103	93	87	90	101	100	92	96	102	97	94	98
5	29759	MEPH-166	103	93	85	89	100	100	93	96	95	96	95	96
6	29760	TMRH-5766	108	94	90	92	94	99	101	100	92	97	90	90
7	29761	CRHR-153	110	104	97	100	109	107	96	102	107	104	102	108
8	29762	SRH-5402	102	90	89	90	98	100	93	96	99	96	93	97
9	29763	CRHR-154	103	106	95	100	109	106	99	102	107	103	102	109
10	29764	CRHR-155	102	104	102	103	107	107	98	102	107	104	95	109
11	JKRH-3333 (NCH-1)		88	93	88	91		100	90	95		92		102
12	27P63 (NCH-2)		118	95	91	93	106	103	95	99	99	101	99	102
13	WGL-14 (NCV-1)		108	104	99	102	109	104	96	100	97	103		106
14	BPT-5204 (NCV-2)		110	105	109	107	111	103	102	103	111	107	88	109
15	Zonal Check Variety (ZCV)		86	103	113	108	113	104	95	100	111	104	99	108
Exp.Mean			104	96	91	94	102	102	95	98	99	98	95	101

(Contd...)

Appendix-11: Days to 50% Flowering (DFF) of hybrids in IHRT- Medium Slender, Kharif 2021

S. No	IET No.	Name	(contd.) Zone V										Zone VI (contd.)	
			WRS	MP Mean (2)	RPR	@ VNR	CG Mean (1)	SKL	SND	@ ANK	MH Mean (2)	Zone V Mean (5)	KJT	SHR
1	29755	KRH-8	96	99	105	92	105	93	113	98	103	102	90	94
2	29756	US-301	90	95	107	90	107	90	114	100	102	100	90	93
3	29757	VNR-229	90	93	99	86	99	90	103	95	96	96	87	92
4	29758	KRH-11	95	96	105	89	105	91	107	97	99	99	90	93
5	29759	MEPH-166	95	96	103	87	103	90	103	97	96	98	80	94
6	29760	TMRH-5766	81	86	94	91	94	77	100	95	89	88	80	85
7	29761	CRHR-153	102	105	112	101	112	104	124	105	114	110	91	102
8	29762	SRH-5402	89	93	104	88	104	88	106	95	97	97	86	91
9	29763	CRHR-154	101	105	111	99	111	101	109	106	105	106	96	100
10	29764	CRHR-155	99	104	112	98	112	101	122	104	112	109	93	100
11	JKRH-3333 (NCH-1)			102	105	90	105	92	106	93	99	101	80	89
12	27P63 (NCH-2)		96	99	106	94	106	97	118	104	108	104	88	98
13	WGL-14 (NCV-1)		101	104	111	98	111	97	121	102	109	107	80	100
14	BPT-5204 (NCV-2)		98	103	107	96	107	96	118	97	107	105	94	99
15	Zonal Check Variety (ZCV)		100	104	114	101	114	103	118	105	110	109	86	91
Exp.Mean			94	97	105	92	105	92	110	99	101	100	88	94

Note: @ Data of VNR Seeds (VNR) and Ankur Seeds (ANK) not included in the analysis

(Contd...)

Appendix-11: Days to 50% Flowering (DFF) of hybrids in IHRT- Medium Slender, Kharif 2021

S. No	IET No.	Name	(contd.) Zone VI					Zone VII (contd.)						
			PDG	MH Mean (3)	@ NWG	NVS	Zone VI Mean (4)	MTU	BPT	RGL	BAY	AP Mean (4)	IIRR	WGL
1	29755	KRH-8	106	97	111	99	97	88	92	90	98	92	103	101
2	29756	US-301	102	95	108	98	96	85	104	92	96	94	104	98
3	29757	VNR-229	99	93	94	85	91	82	95	87	88	88	103	96
4	29758	KRH-11	102	95	114	95	95	87	95	90	95	92	102	101
5	29759	MEPH-166	101	92	111	92	92	84	96	90	93	91	96	99
6	29760	TMRH-5766	95	87	117	82	86	105	95	87	91	94	95	92
7	29761	CRHR-153	108	100	115	94	99	96	102	98	90	96	108	104
8	29762	SRH-5402	99	92	114	89	91	81	95	90	92	90	93	96
9	29763	CRHR-154	108	101	107	101	101	98	99	98	101	99	107	105
10	29764	CRHR-155	108	100	120	98	100	96	99	98	102	99		113
11	JKRH-3333 (NCH-1)		102	90	104	85	89			86	87	87		100
12	27P63 (NCH-2)		106	97	110	97	97	89	92	92	97	93	106	100
13	WGL-14 (NCV-1)		108	96	115	97	96	94	101	94	99	97	107	102
14	BPT-5204 (NCV-2)		110	101	120	96	100	96	104	100	105	101	105	104
15	Zonal Check Variety (ZCV)		110	96	105	90	94	95	99	94	99	97	107	92
Exp.Mean			103	95	111	94	95	90	97	92	95	93	101	101

Note: @ Data of Nawagam (NWG) not included in the analysis

(Contd...)

Appendix-11: Days to 50% Flowering (DFF) of hybrids in IHRT- Medium Slender, Kharif 2021

S. No	IET No.	Name	(contd.) Zone VII										Overall Mean (27)
			TS Mean (2)	@ MND	MLG	@ SRS	KA Mean (1)	CBT	ADT	TN Mean (2)	KRK	Zone VII Mean (10)	
1	29755	KRH-8	102	97	102	113	102	94	101	97	95	96	98
2	29756	US-301	101	94	96	109	96	94	101	97	100	97	97
3	29757	VNR-229	100	95	101	108	101	95	103	99	93	94	94
4	29758	KRH-11	102	104	101	109	101	95	105	100	96	97	97
5	29759	MEPH-166	98	96	100	108	100	95	104	100	110	97	96
6	29760	TMRH-5766	94	89	89	97	89	87	105	96	109	96	93
7	29761	CRHR-153	106	102	109	111	109	98	110	104	103	102	103
8	29762	SRH-5402	95	89	100	109	100	87	100	94	87	92	94
9	29763	CRHR-154	106	102	110	115	110	102	106	104	100	103	103
10	29764	CRHR-155	113	98	112	115	112	102	104	103	101	103	103
11	JKRH-3333 (NCH-1)		100	96	102	112	102	87	109	98		95	94
12	27P63 (NCH-2)		103	98	103	111	103	98	102	100	101	98	100
13	WGL-14 (NCV-1)		105	102	105	115	105	98	109	103	101	101	102
14	BPT-5204 (NCV-2)		104	103	110	106	110	98	110	104	99	103	104
15	Zonal Check Variety (ZCV)		100	100	108	114	108	95	109	102	101	100	102
Exp.Mean			102	96	102	109	102	95	104	99	99	98	98

Note: @ Data of Mandya (MND) and Sirsi (SRS) not included in the analysis

Appendix-12: Quality characteristics of IHRT-Medium Slender Kharif 2021

S. No.	IET No.	Name	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1	29755	KRH-8	79.4	69.2	66.1	5.25	2.07	2.53	MS	A	5.2	23.23	22
2	29756	US-301	80.3	72.0	70.5	5.41	2.01	2.61	MS	VOC	4.0	21.70	22
3	29757	VNR-229	79.5	70.4	66.9	6.33	2.18	2.90	LB	VOC	4.0	22.88	43
4	29758	KRH-11	81.2	72.1	70.9	5.27	2.00	2.63	MS	VOC	4.0	23.96	22
5	29759	MEPH-166	80.1	71.5	69.4	5.39	1.95	2.76	MS	VOC	5.0	24.90	22
6	29760	TMRH-5766	80.7	71.5	68.7	6.40	2.08	3.07	LS	VOC	5.0	22.85	25
7	29761	CRHR-153	79.4	70.1	68.1	5.44	1.93	2.81	MS	A	5.8	26.10	40
8	29762	SRH-5402	79.9	71.5	68.0	5.29	2.00	2.54	MS	VOC	4.0	22.67	35
9	29763	CRHR-154	81.3	73.2	71.3	5.65	1.85	3.05	SS	VOC	5.7	24.90	22
10	29764	CRHR-155	79.4	71.6	69.3	5.46	1.85	2.95	MS	A	5.7	25.13	22
11	JKRH-3333 (NCH-1)												
12	27P63 (NCH-2)		82.0	70.6	68.6	5.23	1.93	2.70	MS	A	4.0	24.72	22
13	WGL-14 (NCV-1)		79.9	70.8	68.2	5.22	1.89	2.76	MS	A	4.0	23.26	22
14	BPT-5204 (NCV-2)		80.2	70.8	69.4	5.20	1.91	2.72	MS	A	4.0	24.28	32
15	ADT-49 (RCV)		77.1	70.3	67.4	5.01	1.82	2.75	MS	A	7.0	23.34	30

Hull: Hulling %; Mill: Milling %; HRR: Head rice recovery; KL: Kernel length; KB: Kernel breadth; L/B: L/B ratio; ASV: Alkali spreading value; AC: Amylose content; GC: Gel consistency