

Table 2.1. North Western Plains Zone		IR-TAS-DOS		Pooled		2018-19	
Variety	Date of sowing				Mean	Rk	
	Normal	Rk	Late	Rk			Very late
Yield,q/ha							
HD 3226 (I)	60.11	5	47.26	8	37.92	8	48.43
HD 3271	61.34	3	49.04	3	39.49	4	49.96
DBW 221	61.49	2	47.28	7	37.56	11	48.78
DBW 173 (c)	58.17	10	47.20	9	39.22	5	48.20
PBW 757 (I)	59.00	7	48.46	4	38.54	7	48.66
PBW 771	60.55	4	50.00	2	39.86	3	50.14
HD 3086 (c)	59.33	6	46.60	11	37.46	12	47.79
PBW 752 (I)	58.78	9	48.43	5	40.15	2	49.12
DBW 71 (c)	56.83	12	47.16	10	37.86	9	47.28
HD 3059 (c)	58.87	8	48.23	6	38.77	6	48.62
DBW 222	61.53	1	50.19	1	40.71	1	50.81
HI 1621	57.65	11	45.47	12	37.58	10	46.90
MEAN	59.47		47.94		38.76		48.72
CD (0.05)	Sowing (A)	Variety (B)		B within A		A within B	
	0.66	0.74		1.27		NS	
Earhead/sqm							
HD 3226 (I)	426	2	389	3	344	3	387
HD 3271	411	9	392	1	340	5	381
DBW 221	422	4	390	2	358	1	390
DBW 173 (c)	397	12	369	10	332	7	366
PBW 757 (I)	409	10	373	7	330	10	371
PBW 771	426	1	388	4	341	4	385
HD 3086 (c)	415	8	384	5	344	2	381
PBW 752 (I)	406	11	373	8	334	6	371
DBW 71 (c)	417	5	351	12	321	12	363
HD 3059 (c)	416	7	363	11	330	9	370
DBW 222	425	3	371	9	327	11	374
HI 1621	417	6	380	6	330	8	376
MEAN	416		377		336		376
CD (0.05)	Sowing (A)	Variety (B)		B within A		A within B	
	6.36	8.42		14.59		NS	
Grains/Earhead							
HD 3226 (I)	34.23	8	36.48	5	35.05	9	35.25
HD 3271	33.74	9	35.43	9	34.73	11	34.63
DBW 221	36.99	2	35.08	11	34.70	12	35.59
DBW 173 (c)	35.68	4	35.47	8	35.65	7	35.60
PBW 757 (I)	37.75	1	36.88	3	38.25	1	37.63
PBW 771	35.32	6	35.19	10	34.95	10	35.15
HD 3086 (c)	33.67	11	35.77	6	35.16	8	34.86
PBW 752 (I)	34.88	7	35.48	7	35.71	6	35.36
DBW 71 (c)	33.73	10	37.52	2	37.91	3	36.39
HD 3059 (c)	35.34	5	36.80	4	37.56	4	36.57
DBW 222	35.83	3	37.78	1	37.93	2	37.18
HI 1621	33.39	12	34.97	12	35.88	5	34.74
MEAN	35.05		36.07		36.12		35.75
CD (0.05)	Sowing (A)	Variety (B)		B within A		A within B	
	NS	1.34		NS		NS	
1000 Grains Weight, g							
HD 3226 (I)	42.89	6	36.41	12	32.75	9	37.35
HD 3271	45.83	1	38.64	4	35.28	2	39.92
DBW 221	41.26	11	36.64	10	31.87	12	36.59
DBW 173 (c)	42.79	7	37.68	6	34.38	5	38.28
PBW 757 (I)	39.94	12	36.70	9	32.15	11	36.26
PBW 771	43.83	3	38.81	2	34.93	3	39.19
HD 3086 (c)	45.29	2	36.49	11	32.41	10	38.07
PBW 752 (I)	43.68	4	39.10	1	35.70	1	39.49
DBW 71 (c)	42.13	8	37.41	7	32.90	8	37.48
HD 3059 (c)	41.49	10	38.76	3	33.53	7	37.93
DBW 222	41.82	9	38.13	5	34.71	4	38.22
HI 1621	43.56	5	36.97	8	33.84	6	38.13
MEAN	42.88		37.65		33.71		38.08
CD (0.05)	Sowing (A)	Variety (B)		B within A		A within B	
	0.50	0.95		1.64		NS	

Centres: Agra, Delhi, Durgapura, Gurdaspur, Hisar, Jammu, Karnal, Ludhiana, Pantnagar, Sriganaganagar

Table 2.1.1. North Western Plains Zone IR-TAS-DOS Agra 2018-19

Variety	Date of sowing				Mean	Rk
	Normal	Rk	Late	Rk		
Yield,q/ha						
HD 3226 (I)	52.00	11	40.77	10	27.55	11
HD 3271	58.68	1	48.82	2	34.96	2
DBW 221	57.83	4	47.57	3	33.52	3
DBW 173 (c)	56.16	7	42.84	8	29.97	8
PBW 757 (I)	49.49	12	37.54	12	26.40	12
PBW 771	56.08	8	43.52	7	31.80	6
HD 3086 (c)	54.78	9	42.52	9	27.77	9
PBW 752 (I)	57.57	5	45.10	6	31.40	7
DBW 71 (c)	57.21	6	45.75	5	32.81	5
HD 3059 (c)	58.27	3	46.42	4	32.82	4
DBW 222	58.54	2	49.99	1	36.42	1
HI 1621	54.53	10	39.65	11	27.57	10
MEAN	55.93		44.21		31.08	43.74
	F Test		SEm		CD	CV (%)
Date of sowing (A)	**		0.30		1.18	4.11
Variety (B)	**		0.65		1.83	4.44
B within A	NS		1.12		3.17	
A within B			1.11		3.27	
Earhead/sqm						
HD 3226 (I)	249	9	241	10	238	11
HD 3271	250	2	242	4	240	3
DBW 221	250	1	242	5	241	2
DBW 173 (c)	250	6	241	7	239	7
PBW 757 (I)	248	12	240	12	238	12
PBW 771	249	10	241	9	239	9
HD 3086 (c)	249	8	241	8	239	8
PBW 752 (I)	250	4	242	6	240	6
DBW 71 (c)	250	5	243	2	240	5
HD 3059 (c)	250	7	242	3	240	4
DBW 222	250	3	244	1	241	1
HI 1621	249	11	240	11	238	10
MEAN	249		242		239	243
	F Test		SEm		CD	CV (%)
Date of sowing (A)	**		0.07		0.27	0.17
Variety (B)	NS		0.66		1.87	0.82
B within A	NS		1.15		3.24	
A within B			1.10		3.23	
Grains/earhead						
HD 3226 (I)	51.88	6	45.10	8	39.18	6
HD 3271	50.83	10	47.28	2	40.09	4
DBW 221	50.70	11	44.58	10	38.54	9
DBW 173 (c)	52.78	3	44.82	9	37.02	12
PBW 757 (I)	51.81	7	44.40	11	42.80	2
PBW 771	53.19	2	46.46	3	39.83	5
HD 3086 (c)	52.57	5	45.48	5	38.06	10
PBW 752 (I)	52.71	4	47.74	1	37.65	11
DBW 71 (c)	51.73	8	46.43	4	38.75	7
HD 3059 (c)	51.69	9	45.30	6	38.67	8
DBW 222	50.18	12	42.90	12	40.25	3
HI 1621	55.65	1	45.14	7	43.18	1
MEAN	52.14		45.47		39.50	45.70
	F Test		SEm		CD	CV (%)
Date of sowing (A)	**		0.70		2.75	9.18
Variety (B)	NS		0.89		2.51	5.82
B within A	NS		1.54		4.34	
A within B			1.63		4.78	
1000 Grains Weight, g						
HD 3226 (I)	40.30	10	37.58	10	29.48	10
HD 3271	46.13	2	42.65	3	36.26	2
DBW 221	45.62	3	44.11	2	36.16	3
DBW 173 (c)	42.78	7	39.61	6	33.87	7
PBW 757 (I)	38.56	12	35.22	12	25.91	12
PBW 771	42.41	8	38.99	8	33.66	8
HD 3086 (c)	41.88	9	38.83	9	30.81	9
PBW 752 (I)	43.72	6	39.10	7	34.82	6
DBW 71 (c)	44.33	5	40.65	5	35.40	4
HD 3059 (c)	45.19	4	42.39	4	35.32	5
DBW 222	46.72	1	48.27	1	37.55	1
HI 1621	39.63	11	36.65	11	26.80	11
MEAN	43.11		40.34		33.00	38.82
	F Test		SEm		CD	CV (%)
Date of sowing (A)	**		0.41		1.63	6.41
Variety (B)	**		0.70		1.98	5.41
B within A	NS		1.21		3.42	
A within B			1.23		3.61	
Date of Sowing:	05.11.2018		10.12.2018		05.01.2019	
Date of Harvesting:	23.03.2019		05.04.2019		18.04.2019	

Table 2.1.2. North Western Plains Zone IR-TAS-DOS Delhi 2018-19

Variety	Date of sowing				Mean	Rk
	Normal	Rk	Late	Rk		
Yield,q/ha						
HD 3226 (I)	55.16	1	50.40	1	47.75	1
HD 3271	50.00	7	48.41	5	44.78	5
DBW 221	51.59	3	49.01	2	45.57	3
DBW 173 (c)	51.98	2	48.41	4	45.81	2
PBW 757 (I)	50.99	5	46.83	8	44.31	7
PBW 771	49.80	9	46.43	10	43.92	10
HD 3086 (c)	49.80	9	46.03	12	43.45	11
PBW 752 (I)	49.21	11	46.43	10	43.98	9
DBW 71 (c)	51.39	4	48.81	3	45.50	4
HD 3059 (c)	50.60	6	47.82	6	44.51	6
DBW 222	49.80	8	47.42	7	44.11	8
HI 1621	48.21	12	46.63	9	42.92	12
MEAN	50.71		47.72		44.72	
	F Test		SEm		CD	CV (%)
Date of sowing (A)	**		0.44		1.73	5.92
Variety (B)	**		0.41		1.15	2.73
B within A	NS		0.70		1.99	
A within B			0.81		2.36	
Earhead/sqm						
HD 3226 (I)	511	2	513	1	458	1
HD 3271	359	12	463	2	371	4
DBW 221	381	10	401	4	365	5
DBW 173 (c)	436	8	322	10	330	11
PBW 757 (I)	449	6	340	8	341	9
PBW 771	523	1	397	5	408	2
HD 3086 (c)	405	9	418	3	382	3
PBW 752 (I)	365	11	347	7	319	12
DBW 71 (c)	510	3	302	11	342	8
HD 3059 (c)	495	4	298	12	332	10
DBW 222	471	5	325	9	344	7
HI 1621	441	7	355	6	350	6
MEAN	446		373		362	
	F Test		SEm		CD	CV (%)
Date of sowing (A)	**		17.93		70.38	29.72
Variety (B)	**		18.33		51.79	15.19
B within A	**		31.74		89.70	
A within B			35.29		103.50	
Grains/earhead						
HD 3226 (I)	26.53	7	25.58	12	28.08	11
HD 3271	32.10	1	28.09	10	32.39	7
DBW 221	27.51	6	27.38	11	28.09	10
DBW 173 (c)	28.58	4	39.06	3	39.05	3
PBW 757 (I)	28.45	5	37.51	5	38.00	4
PBW 771	21.42	12	28.24	9	27.48	12
HD 3086 (c)	29.91	2	28.88	8	30.76	8
PBW 752 (I)	29.38	3	31.61	6	33.82	6
DBW 71 (c)	24.66	9	42.01	2	39.69	2
HD 3059 (c)	25.10	8	43.03	1	41.31	1
DBW 222	24.63	10	38.49	4	37.29	5
HI 1621	22.81	11	30.55	7	30.12	9
MEAN	26.76		33.37		33.84	
	F Test		SEm		CD	CV (%)
Date of sowing (A)	*		3.25		12.76	57.65
Variety (B)	**		2.11		5.96	18.71
B within A	*		3.66		10.33	
A within B			4.78		14.01	
1000 Grains Weight, g						
HD 3226 (I)	41.91	8	38.58	9	38.05	8
HD 3271	43.79	5	40.10	5	39.68	5
DBW 221	49.52	1	45.04	1	44.82	1
DBW 173 (c)	42.57	7	38.62	7	38.19	7
PBW 757 (I)	39.98	12	37.09	12	36.47	12
PBW 771	44.48	4	41.60	4	40.91	4
HD 3086 (c)	41.14	10	38.29	10	37.52	10
PBW 752 (I)	46.16	3	42.62	3	42.16	3
DBW 71 (c)	41.53	9	38.60	8	37.76	9
HD 3059 (c)	41.08	11	38.15	11	37.36	11
DBW 222	43.02	6	39.61	6	39.10	6
HI 1621	48.33	2	44.73	2	44.24	2
MEAN	43.63		40.25		39.69	
	F Test		SEm		CD	CV (%)
Date of sowing (A)	**		0.24		0.93	3.57
Variety (B)	**		0.20		0.55	1.48
B within A	NS		0.34		0.96	
A within B			0.40		1.18	
Date of Sowing:	11.11.2018		15.12.2018		04.01.2019	
Date of Harvesting	22.04.2019		26.04.2019		29.04.2019	

Table 2.1.3. North Western Plains Zone IR-TAS-DOS Durgapura 2018-19

Variety	Date of sowing		Rk	Very late	Rk	Mean	Rk
	Normal	Late					
Yield,q/ha							
HD 3226 (I)	57.04	44.68	1	25.88	7	42.53	1
HD 3271	54.60	40.83	2	26.96	6	40.80	3
DBW 221	51.72	40.74	6	24.50	9	38.99	6
DBW 173 (c)	48.01	39.45	10	23.95	10	37.14	10
PBW 757 (I)	51.95	40.69	5	27.19	5	39.94	4
PBW 771	48.17	38.89	9	24.64	8	37.23	9
HD 3086 (c)	48.76	36.83	8	27.28	4	37.62	8
PBW 752 (I)	44.63	34.97	12	23.10	12	34.23	12
DBW 71 (c)	47.65	39.62	11	23.67	11	36.98	11
HD 3059 (c)	51.99	39.17	4	27.37	2	39.51	5
DBW 222	49.54	38.78	7	27.33	3	38.55	7
HI 1621	52.86	40.61	3	30.32	1	41.27	2
MEAN	50.58	39.61		26.02		38.73	
	F Test	SEm		CD		CV (%)	
Date of sowing (A)	**	0.53		2.07		8.18	
Variety (B)	**	0.77		2.18		5.97	
B within A	*	1.34		3.77			
A within B		1.38		4.06			
Earhead/sqm							
HD 3226 (I)	402	216	12	170	7	263	5
HD 3271	380	269	1	178	3	276	1
DBW 221	365	264	4	168	9	266	4
DBW 173 (c)	320	255	5	163	11	246	9
PBW 757 (I)	365	265	3	183	2	271	3
PBW 771	310	249	7	168	10	242	11
HD 3086 (c)	328	235	10	188	1	250	8
PBW 752 (I)	290	219	11	169	8	226	12
DBW 71 (c)	324	245	9	160	12	243	10
HD 3059 (c)	364	247	8	173	6	261	6
DBW 222	352	252	6	178	4	260	7
HI 1621	371	269	2	178	5	272	2
MEAN	348	249		173		256	
	F Test	SEm		CD		CV (%)	
Date of sowing (A)	**	4.01		15.75		9.39	
Variety (B)	**	6.76		19.11		7.91	
B within A	**	11.71		33.09			
A within B		11.91		34.93			
Grains/earhead							
HD 3226 (I)	30.85	70.06	12	49.99	5	50.30	1
HD 3271	32.95	57.84	11	52.54	3	47.78	4
DBW 221	34.80	45.67	9	52.06	4	44.18	10
DBW 173 (c)	40.63	46.02	5	43.44	9	43.37	11
PBW 757 (I)	34.79	36.83	10	57.17	1	42.93	12
PBW 771	49.70	38.18	1	46.34	8	44.74	8
HD 3086 (c)	39.63	52.75	8	42.05	11	44.81	7
PBW 752 (I)	48.78	50.84	2	47.18	6	48.93	2
DBW 71 (c)	40.31	49.29	6	56.20	2	48.60	3
HD 3059 (c)	40.81	46.60	4	46.67	7	44.69	9
DBW 222	44.65	52.05	3	41.16	12	45.95	5
HI 1621	40.11	52.37	7	42.44	10	44.98	6
MEAN	39.83	49.88		48.10		45.94	
	F Test	SEm		CD		CV (%)	
Date of sowing (A)	*	1.41		5.54		18.44	
Variety (B)	NS	2.82		7.97		18.42	
B within A	**	4.89		13.81			
A within B		4.89		14.33			
1000 Grains Weight, g							
HD 3226 (I)	46.04	31.11	1	31.67	7	36.27	1
HD 3271	43.59	26.47	2	29.07	9	33.05	10
DBW 221	40.71	33.88	4	28.16	10	34.25	9
DBW 173 (c)	37.01	35.75	6	34.45	4	35.74	3
PBW 757 (I)	40.94	41.75	3	26.02	12	36.24	2
PBW 771	31.32	41.64	12	31.80	6	34.92	5
HD 3086 (c)	37.75	30.37	5	35.73	3	34.62	6
PBW 752 (I)	31.67	31.46	11	31.11	8	31.41	12
DBW 71 (c)	36.65	32.85	7	26.47	11	31.99	11
HD 3059 (c)	35.00	34.57	9	34.15	5	34.57	7
DBW 222	31.80	31.81	10	39.30	2	34.30	8
HI 1621	35.73	29.13	8	41.75	1	35.54	4
MEAN	37.35	33.40		32.47		34.41	
	F Test	SEm		CD		CV (%)	
Date of sowing (A)	*	0.68		2.65		11.79	
Variety (B)	NS	1.27		3.60		11.09	
B within A	**	2.20		6.23			
A within B		2.22		6.50			
Date of Sowing:	05.11.2018	15.12.2018		05.01.2019			
Date of Harvesting	15.03.2019	26.03.2019		03.04.2019			

Table 2.1.4. North Western Plains Zone IR-TAS-DOS Gurdaspur 2018-19

Variety	Date of sowing				Mean	Rk
	Normal	Rk	Late	Rk		
Yield,q/ha						
HD 3226 (I)	69.28	5	52.03	8	48.37	6
HD 3271	69.36	4	54.54	6	47.08	8
DBW 221	67.29	8	50.23	10	43.64	11
DBW 173 (c)	58.83	12	50.89	9	46.37	9
PBW 757 (I)	67.41	7	57.41	4	46.07	10
PBW 771	70.93	3	57.02	5	47.76	7
HD 3086 (c)	67.60	6	53.07	7	49.20	5
PBW 752 (I)	75.87	1	58.72	2	54.87	2
DBW 71 (c)	61.54	11	48.21	12	42.67	12
HD 3059 (c)	67.15	9	58.04	3	51.20	3
DBW 222	74.65	2	61.73	1	55.10	1
HI 1621	64.76	10	48.82	11	50.48	4
MEAN	67.89		54.23		48.57	
	F Test		SEm		CD	CV (%)
Date of sowing (A)	**		1.18		4.65	12.50
Variety (B)	**		1.01		2.85	5.32
B within A	*		1.75		4.94	
A within B			2.05		6.02	
Earhead/sqm						
HD 3226 (I)	474	2	466	2	367	10
HD 3271	447	8	408	11	370	8
DBW 221	423	10	435	8	424	1
DBW 173 (c)	417	11	423	9	401	2
PBW 757 (I)	397	12	441	6	385	5
PBW 771	424	9	390	12	346	12
HD 3086 (c)	466	4	435	7	397	3
PBW 752 (I)	475	1	447	4	371	7
DBW 71 (c)	453	7	474	1	368	9
HD 3059 (c)	469	3	448	3	365	11
DBW 222	464	5	446	5	376	6
HI 1621	462	6	423	10	389	4
MEAN	448		436		380	
	F Test		SEm		CD	CV (%)
Date of sowing (A)	**		3.12		12.25	4.44
Variety (B)	**		3.94		11.12	2.80
B within A	**		6.82		19.26	
A within B			7.23		21.22	
Grains/earhead						
HD 3226 (I)	36.70	6	33.17	9	45.14	3
HD 3271	34.46	9	35.16	6	38.63	8
DBW 221	43.06	2	37.14	5	38.34	10
DBW 173 (c)	35.05	7	35.11	7	37.31	11
PBW 757 (I)	46.52	1	37.35	4	38.39	9
PBW 771	38.94	3	39.62	1	41.71	6
HD 3086 (c)	33.65	11	34.90	8	42.53	4
PBW 752 (I)	34.45	10	32.77	10	40.62	7
DBW 71 (c)	34.96	8	27.39	12	37.12	12
HD 3059 (c)	37.21	5	38.46	3	45.21	1
DBW 222	38.62	4	39.14	2	45.18	2
HI 1621	31.57	12	32.47	11	41.94	5
MEAN	37.10		35.22		41.01	
	F Test		SEm		CD	CV (%)
Date of sowing (A)	*		1.01		3.96	16.04
Variety (B)	**		0.89		2.52	7.07
B within A	**		1.54		4.36	
A within B			1.79		5.25	
1000 Grains Weight, g						
HD 3226 (I)	39.89	8	33.69	11	29.34	10
HD 3271	45.03	2	38.09	2	32.89	3
DBW 221	37.04	11	31.13	12	27.00	12
DBW 173 (c)	40.28	7	34.25	9	31.02	8
PBW 757 (I)	36.58	12	34.88	8	31.16	7
PBW 771	43.04	5	36.99	4	33.12	2
HD 3086 (c)	43.13	4	34.93	7	29.17	11
PBW 752 (I)	46.34	1	40.26	1	36.46	1
DBW 71 (c)	38.85	9	37.15	3	31.36	5
HD 3059 (c)	38.57	10	33.70	10	31.16	6
DBW 222	41.68	6	35.56	6	32.49	4
HI 1621	44.39	3	35.70	5	31.00	9
MEAN	41.24		35.53		31.35	
	F Test		SEm		CD	CV (%)
Date of sowing (A)	**		0.27		1.06	4.48
Variety (B)	**		0.37		1.05	3.09
B within A	**		0.64		1.82	
A within B			0.67		1.97	
Date of Sowing:	06.11.2018		15.12.2018		02.01.2019	
Date of Harvesting	08.05.2019		10.05.2019		13.05.2019	

Table 2.1.5. North Western Plains Zone IR-TAS-DOS Hisar 2018-19

Variety	Date of sowing		Rk	Very late	Rk	Mean	Rk
	Normal	Late					
Yield,q/ha							
HD 3226 (I)	59.09	12	47.90	12	39.25	12	48.74
HD 3271	66.59	5	49.96	9	39.60	11	52.05
DBW 221	62.14	10	51.83	7	42.30	8	52.09
DBW 173 (c)	66.07	6	52.50	5	45.16	5	54.58
PBW 757 (I)	65.75	7	52.06	6	42.02	9	53.28
PBW 771	72.22	2	56.75	1	47.26	3	58.74
HD 3086 (c)	69.92	3	54.80	3	45.28	4	56.67
PBW 752 (I)	64.44	8	53.69	4	49.44	1	55.86
DBW 71 (c)	61.35	11	50.28	8	43.06	7	51.56
HD 3059 (c)	62.30	9	48.02	11	44.13	6	51.48
DBW 222	73.77	1	55.24	2	48.37	2	59.13
HI 1621	67.62	4	49.13	10	41.27	10	52.67
MEAN	65.94		51.85		43.93		53.90
	F Test		SEm		CD		CV (%)
Date of sowing (A)	**		0.68		2.69		7.62
Variety (B)	**		0.86		2.44		4.81
B within A	*		1.50		4.23		
A within B			1.59		4.66		
Earhead/sqm							
HD 3226 (I)	413	9	400	7	368	9	394
HD 3271	402	10	382	12	362	12	382
DBW 221	415	7	398	8	388	6	401
DBW 173 (c)	398	11	390	10	382	7	390
PBW 757 (I)	420	5	417	5	380	8	406
PBW 771	448	2	430	1	395	3	424
HD 3086 (c)	445	3	428	2	393	4	422
PBW 752 (I)	437	4	425	4	418	1	427
DBW 71 (c)	415	7	413	6	392	5	407
HD 3059 (c)	398	11	383	11	365	11	382
DBW 222	450	1	427	3	400	2	426
HI 1621	420	5	392	9	368	9	393
MEAN	422		407		384		404
	F Test		SEm		CD		CV (%)
Date of sowing (A)	*		4.95		19.44		7.35
Variety (B)	**		8.71		24.61		6.46
B within A	NS		15.09		42.63		
A within B			15.27		44.79		
Grains/earhead							
HD 3226 (I)	33.09	8	32.04	7	30.28	11	31.81
HD 3271	33.40	7	32.53	6	30.94	9	32.29
DBW 221	36.09	5	34.28	2	32.91	3	34.43
DBW 173 (c)	38.81	2	35.30	1	32.17	5	35.43
PBW 757 (I)	39.24	1	33.65	3	33.63	1	35.51
PBW 771	32.18	12	31.86	8	30.20	12	31.41
HD 3086 (c)	33.02	9	31.62	10	32.43	4	32.36
PBW 752 (I)	32.96	10	30.65	12	30.42	10	31.34
DBW 71 (c)	34.61	6	33.04	4	31.63	6	33.09
HD 3059 (c)	36.78	4	33.01	5	32.97	2	34.25
DBW 222	37.66	3	31.65	9	31.22	8	33.51
HI 1621	32.49	11	31.04	11	31.62	7	31.72
MEAN	35.03		32.56		31.70		33.09
	F Test		SEm		CD		CV (%)
Date of sowing (A)	*		0.68		2.66		12.28
Variety (B)	**		0.85		2.41		7.73
B within A	NS		1.48		4.17		
A within B			1.57		4.60		
1000 Grains Weight, g							
HD 3226 (I)	43.25	7	37.47	10	35.16	9	38.62
HD 3271	49.74	2	40.42	6	35.44	8	41.87
DBW 221	41.58	11	38.01	9	33.16	12	37.58
DBW 173 (c)	42.89	8	38.14	8	36.84	4	39.29
PBW 757 (I)	40.24	12	37.16	11	33.28	11	36.89
PBW 771	50.10	1	41.59	1	39.86	1	43.85
HD 3086 (c)	47.78	4	40.61	4	35.70	6	41.36
PBW 752 (I)	45.00	5	41.25	2	39.02	2	41.76
DBW 71 (c)	42.74	10	36.85	12	34.79	10	38.13
HD 3059 (c)	42.76	9	38.26	7	36.76	5	39.26
DBW 222	43.62	6	40.93	3	38.86	3	41.14
HI 1621	49.68	3	40.51	5	35.56	7	41.91
MEAN	44.95		39.27		36.20		40.14
	F Test		SEm		CD		CV (%)
Date of sowing (A)	**		0.29		1.13		4.31
Variety (B)	**		0.46		1.29		3.42
B within A	**		0.79		2.24		
A within B			0.81		2.38		
Date of Sowing:	06.11.2018		16.12.2018		07.01.2019		
Date of Harvesting	17.04.2019		22.04.2019		28.04.2019		

Table 2.1.6. North Western Plains Zone IR-TAS-DOS Jammu 2018-19

Variety	Date of sowing		Rk	Very late	Rk	Mean	Rk
	Normal	Late					
Yield,q/ha							
HD 3226 (I)	45.53	3	43.26	3	44.00	1	44.26
HD 3271	44.58	4	42.31	4	40.16	7	42.35
DBW 221	46.65	1	44.38	1	42.81	2	44.61
DBW 173 (c)	42.88	7	40.61	7	38.24	10	40.58
PBW 757 (I)	45.72	2	43.46	2	40.36	6	43.18
PBW 771	44.50	5	42.24	5	41.08	4	42.61
HD 3086 (c)	40.41	11	38.15	11	39.36	8	39.31
PBW 752 (I)	42.76	8	40.50	8	40.80	5	41.35
DBW 71 (c)	38.34	12	36.08	12	41.46	3	38.63
HD 3059 (c)	40.80	10	38.54	10	37.76	11	39.04
DBW 222	43.26	6	41.00	6	38.73	9	41.00
HI 1621	41.46	9	39.20	9	36.70	12	39.12
MEAN	43.07		40.81		40.12		41.34
	F Test		SEm		CD		CV (%)
Date of sowing (A)	**		0.34		1.34		4.96
Variety (B)	**		0.56		1.57		4.03
B within A	*		0.96		2.72		
A within B			0.98		2.88		
Earhead/sqm							
HD 3226 (I)	392	6	390	6	387	6	390
HD 3271	371	10	368	11	367	10	368
DBW 221	425	4	423	4	421	4	423
DBW 173 (c)	385	7	382	7	380	7	382
PBW 757 (I)	377	8	375	8	373	8	375
PBW 771	433	1	431	1	430	1	431
HD 3086 (c)	375	9	373	9	371	9	373
PBW 752 (I)	430	2	427	2	424	3	427
DBW 71 (c)	352	12	350	12	348	12	350
HD 3059 (c)	428	3	427	3	425	2	427
DBW 222	404	5	401	5	400	5	402
HI 1621	370	11	369	10	366	11	368
MEAN	395		393		391		393
	F Test		SEm		CD		CV (%)
Date of sowing (A)	NS		4.20		16.49		6.41
Variety (B)	**		6.59		18.63		5.03
B within A	NS		11.42		32.27		
A within B			11.71		34.35		
Grains/earhead							
HD 3226 (I)	29.90	4	28.59	5	29.68	4	29.39
HD 3271	32.36	2	30.83	2	29.69	3	30.96
DBW 221	28.78	8	27.46	8	26.91	9	27.72
DBW 173 (c)	29.89	5	29.05	4	27.89	7	28.94
PBW 757 (I)	32.88	1	32.01	1	30.32	2	31.74
PBW 771	27.80	10	27.03	9	26.70	10	27.18
HD 3086 (c)	28.23	9	26.82	10	28.38	6	27.81
PBW 752 (I)	26.48	11	25.38	11	26.11	11	25.99
DBW 71 (c)	28.91	7	28.13	7	32.96	1	30.00
HD 3059 (c)	26.33	12	24.76	12	24.66	12	25.25
DBW 222	29.38	6	28.14	6	26.98	8	28.17
HI 1621	31.00	3	30.06	3	28.80	5	29.95
MEAN	29.33		28.19		28.26		28.59
	F Test		SEm		CD		CV (%)
Date of sowing (A)	*		0.37		1.43		7.67
Variety (B)	**		0.74		2.08		7.73
B within A	NS		1.28		3.61		
A within B			1.28		3.74		
1000 Grains Weight, g							
HD 3226 (I)	39.08	1	38.90	1	38.43	1	38.80
HD 3271	37.27	7	37.43	4	36.96	4	37.22
DBW 221	38.15	3	38.25	3	37.78	3	38.06
DBW 173 (c)	37.28	6	36.62	7	36.14	7	36.68
PBW 757 (I)	36.93	9	36.23	11	35.76	11	36.31
PBW 771	36.95	8	36.27	10	35.79	10	36.34
HD 3086 (c)	38.72	2	38.55	2	38.08	2	38.45
PBW 752 (I)	37.63	5	37.35	5	36.88	5	37.29
DBW 71 (c)	38.00	4	36.85	6	36.38	6	37.08
HD 3059 (c)	36.29	11	36.57	8	36.10	8	36.32
DBW 222	36.44	10	36.40	9	35.93	9	36.26
HI 1621	36.23	12	35.33	12	34.86	12	35.48
MEAN	37.41		37.06		36.59		37.02
	F Test		SEm		CD		CV (%)
Date of sowing (A)	**		0.07		0.26		1.07
Variety (B)	**		0.49		1.40		4.01
B within A	NS		0.86		2.42		
A within B			0.82		2.41		
Date of Sowing:	08.11.2018		15.12.2018		05.01.2019		
Date of Harvesting	23.04.2019		03.05.2019		12.05.2019		

Table 2.1.7. North Western Plains Zone IR-TAS-DOS Karnal 2018-19

Variety	Date of sowing		Rk	Very late	Rk	Mean	Rk
	Normal	Late					
Yield,q/ha							
HD 3226 (I)	64.35	7	59.34	10	51.74	8	58.47
HD 3271	70.46	2	59.79	7	55.88	5	62.05
DBW 221	67.64	4	57.53	11	48.64	11	57.94
DBW 173 (c)	65.46	6	59.56	8	59.90	1	61.64
PBW 757 (I)	65.48	5	65.12	3	57.23	3	62.61
PBW 771	71.65	1	65.33	2	51.61	9	62.86
HD 3086 (c)	61.32	11	59.44	9	47.39	12	56.05
PBW 752 (I)	62.94	10	61.78	6	52.14	7	58.95
DBW 71 (c)	63.54	9	61.89	5	56.05	4	60.49
HD 3059 (c)	64.11	8	62.08	4	57.62	2	61.27
DBW 222	68.28	3	66.63	1	54.76	6	63.22
HI 1621	58.87	12	53.45	12	51.12	10	54.48
MEAN	65.34		61.00		53.67		60.00
	F Test		SEm		CD		CV (%)
Date of sowing (A)	**		0.32		1.27		3.23
Variety (B)	**		0.93		2.64		4.67
B within A	**		1.62		4.57		
A within B			1.58		4.64		
Earhead/sqm							
HD 3226 (I)	440	9	498	7	460	9	466
HD 3271	493	1	524	3	481	5	499
DBW 221	473	3	508	5	469	6	483
DBW 173 (c)	418	12	478	10	464	7	453
PBW 757 (I)	429	10	498	6	448	12	458
PBW 771	450	6	522	4	453	11	475
HD 3086 (c)	422	11	538	2	498	2	486
PBW 752 (I)	449	7	493	8	512	1	485
DBW 71 (c)	492	2	470	11	486	3	483
HD 3059 (c)	462	4	463	12	462	8	462
DBW 222	445	8	488	9	454	10	462
HI 1621	462	4	553	1	486	3	500
MEAN	453		503		473		476
	F Test		SEm		CD		CV (%)
Date of sowing (A)	*		6.19		24.29		7.80
Variety (B)	*		9.36		26.45		5.90
B within A	*		16.21		45.81		
A within B			16.71		49.01		
Grains/earhead							
HD 3226 (I)	35.25	6	34.09	6	35.54	3	34.96
HD 3271	33.84	8	31.14	11	31.37	10	32.12
DBW 221	38.57	2	33.41	8	35.47	4	35.82
DBW 173 (c)	37.86	3	33.75	7	36.17	1	35.93
PBW 757 (I)	41.14	1	36.45	2	35.68	2	37.76
PBW 771	37.06	4	31.97	10	31.03	11	33.35
HD 3086 (c)	33.92	7	34.10	5	31.97	9	33.33
PBW 752 (I)	30.43	11	33.01	9	27.30	12	30.25
DBW 71 (c)	30.98	10	35.00	4	33.20	6	33.06
HD 3059 (c)	32.42	9	35.85	3	34.89	5	34.39
DBW 222	36.04	5	37.17	1	32.83	8	35.35
HI 1621	30.24	12	28.26	12	32.97	7	30.49
MEAN	34.81		33.68		33.20		33.90
	F Test		SEm		CD		CV (%)
Date of sowing (A)	NS		0.54		2.11		9.50
Variety (B)	**		0.88		2.48		7.77
B within A	*		1.52		4.30		
A within B			1.55		4.55		
1000 Grains Weight, g							
HD 3226 (I)	41.61	10	35.01	9	31.81	10	36.14
HD 3271	42.34	6	36.70	7	37.17	2	38.74
DBW 221	37.10	12	34.04	11	29.30	12	33.48
DBW 173 (c)	41.76	9	37.03	5	35.79	6	38.19
PBW 757 (I)	37.13	11	35.91	8	35.88	5	36.30
PBW 771	43.15	2	39.20	1	36.87	3	39.74
HD 3086 (c)	42.97	3	32.55	12	29.78	11	35.10
PBW 752 (I)	46.11	1	38.35	2	37.39	1	40.62
DBW 71 (c)	41.82	8	37.77	3	35.02	8	38.20
HD 3059 (c)	42.96	4	37.47	4	35.75	7	38.73
DBW 222	42.59	5	36.84	6	36.77	4	38.73
HI 1621	42.18	7	34.25	10	32.00	9	36.14
MEAN	41.81		36.26		34.46		37.51
	F Test		SEm		CD		CV (%)
Date of sowing (A)	**		0.23		0.92		3.74
Variety (B)	**		0.34		0.96		2.73
B within A	**		0.59		1.67		
A within B			0.61		1.79		
Date of Sowing:	13.11.2018		17.12.2018		07.01.2019		
Date of Harvesting	24.04.2019		28.04.2019		04.05.2019		

Table 2.1.8. North Western Plains Zone IR-TAS-DOS Ludhiana 2018-19

Variety	Date of sowing		Rk	Very late	Rk	Mean	Rk
	Normal	Late					
Yield,q/ha							
HD 3226 (I)	71.59	2	39.92	11	38.07	4	49.86
HD 3271	69.79	4	44.35	6	39.40	3	51.18
DBW 221	74.92	1	43.59	7	36.95	5	51.82
DBW 173 (c)	66.74	7	41.35	10	36.79	6	48.30
PBW 757 (I)	69.92	3	38.07	12	32.99	11	47.00
PBW 771	61.69	12	47.92	1	40.76	2	50.12
HD 3086 (c)	64.64	8	43.39	8	35.84	9	47.95
PBW 752 (I)	67.60	6	45.18	3	42.68	1	51.82
DBW 71 (c)	67.66	5	45.00	4	36.28	8	49.64
HD 3059 (c)	62.11	11	44.93	5	36.33	7	47.79
DBW 222	62.40	10	43.13	9	32.50	12	46.01
HI 1621	63.83	9	46.17	2	34.82	10	48.27
MEAN	66.91		43.58		36.95		49.15
	F Test		SEm		CD		CV (%)
Date of sowing (A)	**		1.25		4.91		15.28
Variety (B)	**		0.80		2.25		4.85
B within A	**		1.38		3.89		
A within B			1.82		5.33		
Earhead/sqm							
HD 3226 (I)	387	11	313	6	312	4	337
HD 3271	395	8	332	4	337	2	354
DBW 221	408	5	350	2	359	1	372
DBW 173 (c)	384	12	368	1	325	3	359
PBW 757 (I)	388	10	280	12	288	5	319
PBW 771	402	7	340	3	285	6	342
HD 3086 (c)	417	3	301	7	285	7	334
PBW 752 (I)	393	9	297	10	250	11	313
DBW 71 (c)	415	4	298	9	275	8	329
HD 3059 (c)	405	6	300	8	267	9	324
DBW 222	441	1	286	11	259	10	329
HI 1621	422	2	320	5	245	12	329
MEAN	405		315		291		337
	F Test		SEm		CD		CV (%)
Date of sowing (A)	**		6.13		24.07		10.92
Variety (B)	**		8.14		23.00		7.25
B within A	**		14.10		39.84		
A within B			14.83		43.49		
Grains/earhead							
HD 3226 (I)	36.40	4	34.84	8	36.69	8	35.98
HD 3271	29.28	10	33.87	10	30.04	12	31.06
DBW 221	41.07	1	34.61	9	35.45	9	37.05
DBW 173 (c)	32.37	6	28.11	12	31.88	11	30.79
PBW 757 (I)	38.95	2	39.70	3	33.26	10	37.30
PBW 771	27.28	11	35.71	7	42.96	4	35.31
HD 3086 (c)	23.70	12	36.75	6	41.08	7	33.84
PBW 752 (I)	36.67	3	36.75	5	50.41	1	41.28
DBW 71 (c)	31.19	8	39.99	2	42.72	5	37.97
HD 3059 (c)	31.87	7	29.99	11	41.40	6	34.42
DBW 222	33.01	5	40.68	1	44.59	3	39.43
HI 1621	29.70	9	37.14	4	44.97	2	37.27
MEAN	32.62		35.68		39.62		35.97
	F Test		SEm		CD		CV (%)
Date of sowing (A)	*		1.18		4.65		19.76
Variety (B)	*		2.07		5.84		17.22
B within A	*		3.58		10.11		
A within B			3.62		10.63		
1000 Grains Weight, g							
HD 3226 (I)	51.65	6	36.81	11	33.40	6	40.62
HD 3271	61.17	3	39.95	4	41.50	1	47.54
DBW 221	45.07	11	37.10	10	30.00	11	37.39
DBW 173 (c)	54.73	4	39.94	5	35.83	2	43.50
PBW 757 (I)	46.83	10	35.53	12	35.55	3	39.31
PBW 771	62.91	2	40.15	3	34.13	4	45.73
HD 3086 (c)	70.02	1	39.87	6	30.94	10	46.94
PBW 752 (I)	47.28	9	42.04	2	34.01	5	41.11
DBW 71 (c)	52.27	5	37.90	8	31.36	9	40.51
HD 3059 (c)	48.23	8	54.35	1	32.87	8	45.15
DBW 222	43.00	12	37.27	9	28.22	12	36.16
HI 1621	51.31	7	38.99	7	33.26	7	41.19
MEAN	52.87		39.99		33.42		42.10
	F Test		SEm		CD		CV (%)
Date of sowing (A)	**		1.25		4.90		17.78
Variety (B)	NS		2.75		7.76		19.57
B within A	NS		4.76		13.44		
A within B			4.72		13.85		
Date of Sowing:	05.11.2018		07.12.2018		05.01.2019		
Date of Harvesting	20.04.2019		24.04.2019		30.04.2019		

Table 2.1.9. North Western Plains Zone IR-TAS-DOS Pantnagar 2018-19

Variety	Date of sowing		Rk	Very late	Rk	Mean	Rk
	Normal	Late					
Yield,q/ha							
HD 3226 (I)	56.75	7	51.83	6	46.02	9	51.53
HD 3271	62.29	3	52.49	3	47.95	7	54.25
DBW 221	63.12	2	48.72	11	46.72	8	52.85
DBW 173 (c)	53.14	10	52.23	5	48.88	5	51.42
PBW 757 (I)	50.99	11	53.05	2	51.06	3	51.70
PBW 771	59.48	4	52.31	4	53.50	1	55.09
HD 3086 (c)	65.44	1	47.79	12	44.05	11	52.43
PBW 752 (I)	57.19	6	50.74	9	48.72	6	52.22
DBW 71 (c)	53.35	9	51.32	8	45.91	10	50.19
HD 3059 (c)	57.53	5	51.71	7	38.62	12	49.29
DBW 222	56.46	8	53.67	1	52.46	2	54.20
HI 1621	50.55	12	49.45	10	49.74	4	49.92
MEAN	57.19		51.28		47.80		52.09
	F Test		SEm		CD		CV (%)
Date of sowing (A)	**		1.07		4.20		12.34
Variety (B)	**		0.99		2.79		5.69
B within A	**		1.71		4.83		
A within B			1.96		5.74		
Earhead/sqm							
HD 3226 (I)	529	8	529	8	488	6	515
HD 3271	558	6	592	1	485	8	545
DBW 221	634	1	553	5	530	2	572
DBW 173 (c)	531	7	499	10	452	12	494
PBW 757 (I)	593	4	553	6	498	5	548
PBW 771	607	3	581	2	534	1	574
HD 3086 (c)	612	2	555	4	508	4	558
PBW 752 (I)	564	5	530	7	479	9	525
DBW 71 (c)	505	11	425	12	461	10	464
HD 3059 (c)	455	12	489	11	488	6	477
DBW 222	508	10	525	9	455	11	496
HI 1621	518	9	573	3	522	3	538
MEAN	551		534		492		525
	F Test		SEm		CD		CV (%)
Date of sowing (A)	**		5.04		19.80		5.76
Variety (B)	**		14.76		41.70		8.43
B within A	NS		25.56		72.23		
A within B			24.99		73.29		
Grains/earhead							
HD 3226 (I)	23.93	4	26.03	3	30.97	3	26.98
HD 3271	24.46	2	19.57	12	29.75	4	24.59
DBW 221	23.46	6	25.37	4	28.69	8	25.84
DBW 173 (c)	22.30	7	24.55	6	31.90	2	26.25
PBW 757 (I)	20.93	11	23.94	8	28.14	9	24.34
PBW 771	21.84	8	24.09	7	28.99	6	24.98
HD 3086 (c)	21.79	9	22.44	10	26.57	10	23.60
PBW 752 (I)	20.84	12	23.46	9	28.79	7	24.36
DBW 71 (c)	23.87	5	30.62	1	29.22	5	27.91
HD 3059 (c)	27.48	1	26.30	2	25.38	12	26.39
DBW 222	23.95	3	25.16	5	34.18	1	27.76
HI 1621	20.94	10	20.60	11	26.36	11	22.63
MEAN	22.98		24.34		29.08		25.47
	F Test		SEm		CD		CV (%)
Date of sowing (A)	*		0.86		3.37		20.21
Variety (B)	NS		1.16		3.29		13.70
B within A	NS		2.02		5.69		
A within B			2.11		6.19		
1000 Grains Weight, g							
HD 3226 (I)	45.00	9	38.07	10	31.86	10	38.31
HD 3271	45.67	6	45.86	1	33.73	8	41.75
DBW 221	42.77	11	34.96	12	30.82	12	36.18
DBW 173 (c)	45.17	7	42.73	2	34.07	7	40.66
PBW 757 (I)	41.71	12	40.26	7	36.71	2	39.56
PBW 771	45.05	8	37.52	11	34.68	4	39.08
HD 3086 (c)	49.28	1	39.35	9	32.67	9	40.43
PBW 752 (I)	48.63	2	41.27	5	35.38	3	41.76
DBW 71 (c)	44.68	10	39.74	8	34.65	5	39.69
HD 3059 (c)	46.05	5	41.14	6	31.39	11	39.53
DBW 222	47.09	3	41.41	4	34.15	6	40.89
HI 1621	46.87	4	42.10	3	37.11	1	42.03
MEAN	45.66		40.37		33.93		39.99
	F Test		SEm		CD		CV (%)
Date of sowing (A)	**		0.61		2.38		9.09
Variety (B)	**		0.82		2.33		6.18
B within A	*		1.43		4.03		
A within B			1.49		4.38		
Date of Sowing:	10.11.2018		13.12.2018		03.01.2019		
Date of Harvesting	24.04.2019		28.04.2019		30.04.2019		

Table 2.1.10. North Western Plains Zone IR-TAS-DOS Sriganaganagar 2018-19

Variety	Date of sowing				Mean	Rk		
	Normal	Rk	Late	Rk				
Yield,q/ha								
HD 3226 (I)	70.35	9	42.50	10	20.60	9	44.48	10
HD 3271	67.02	10	48.93	3	26.95	1	47.63	5
DBW 221	72.03	6	39.24	12	20.40	11	43.89	11
DBW 173 (c)	72.38	4	44.17	8	25.95	5	47.50	6
PBW 757 (I)	72.26	5	50.36	1	26.90	2	49.84	1
PBW 771	70.95	7	49.64	2	24.64	6	48.41	4
HD 3086 (c)	70.60	8	43.93	9	23.93	7	46.15	7
PBW 752 (I)	65.60	12	47.14	4	22.06	8	44.93	9
DBW 71 (c)	66.27	11	44.65	6	20.43	10	43.78	12
HD 3059 (c)	73.81	2	45.60	5	26.79	3	48.73	3
DBW 222	78.57	1	44.29	7	26.31	4	49.72	2
HI 1621	73.81	3	41.54	11	19.88	12	45.08	8
MEAN	71.14		45.17		23.74		46.68	
	F Test		SEm		CD		CV (%)	
Date of sowing (A)	**		0.08		0.30		0.98	
Variety (B)	**		1.14		3.22		7.33	
B within A	**		1.98		5.58			
A within B			1.89		5.55			
Earhead/sqm								
HD 3226 (I)	463	2	327	4	303	2	364	1
HD 3271	457	4	337	1	286	3	360	2
DBW 221	448	6	323	6	265	8	345	6
DBW 173 (c)	433	9	333	2	276	4	347	5
PBW 757 (I)	422	10	326	5	267	6	338	9
PBW 771	416	11	299	10	259	9	325	11
HD 3086 (c)	436	8	317	7	243	11	332	10
PBW 752 (I)	412	12	298	11	230	12	313	12
DBW 71 (c)	458	3	289	12	270	5	339	8
HD 3059 (c)	436	7	331	3	310	1	359	3
DBW 222	468	1	316	8	266	7	350	4
HI 1621	457	5	308	9	257	10	341	7
MEAN	442		317		269		343	
	F Test		SEm		CD		CV (%)	
Date of sowing (A)	**		2.17		8.54		3.80	
Variety (B)	**		5.90		16.67		5.16	
B within A	**		10.22		28.87			
A within B			10.02		29.39			
Grains/earhead								
HD 3226 (I)	37.78	9	35.34	12	20.84	12	31.32	12
HD 3271	33.69	12	38.01	11	27.29	10	32.99	11
DBW 221	45.85	1	40.86	9	29.22	6	38.64	6
DBW 173 (c)	38.59	8	38.91	10	29.15	7	35.55	9
PBW 757 (I)	42.81	4	46.96	2	35.07	1	41.61	1
PBW 771	43.81	2	48.69	1	29.00	8	40.50	2
HD 3086 (c)	40.26	5	43.94	4	35.02	2	39.74	3
PBW 752 (I)	36.06	11	42.63	6	28.16	9	35.62	8
DBW 71 (c)	36.07	10	43.28	5	24.91	11	34.75	10
HD 3059 (c)	43.74	3	44.68	3	29.98	4	39.47	4
DBW 222	40.13	6	42.41	7	34.14	3	38.89	5
HI 1621	39.37	7	42.06	8	29.48	5	36.97	7
MEAN	39.85		42.31		29.36		37.17	
	F Test		SEm		CD		CV (%)	
Date of sowing (A)	**		0.69		2.72		11.17	
Variety (B)	**		1.26		3.55		10.13	
B within A	NS		2.17		6.14			
A within B			2.19		6.44			
1000 Grains Weight, g								
HD 3226 (I)	40.20	9	36.86	3	32.71	4	36.59	4
HD 3271	43.53	2	38.73	1	34.65	1	38.97	1
DBW 221	35.08	12	29.87	12	26.41	12	30.45	12
DBW 173 (c)	43.41	3	34.07	6	32.41	5	36.63	3
PBW 757 (I)	40.51	6	32.95	8	28.90	9	34.12	8
PBW 771	38.92	10	34.16	5	32.77	3	35.28	6
HD 3086 (c)	40.26	8	31.57	10	28.10	10	33.31	10
PBW 752 (I)	44.24	1	37.29	2	34.23	2	38.59	2
DBW 71 (c)	40.44	7	35.76	4	30.40	6	35.53	5
HD 3059 (c)	38.78	11	31.00	11	28.90	8	32.89	11
DBW 222	42.28	4	33.24	7	29.16	7	34.90	7
HI 1621	41.29	5	32.32	9	26.42	11	33.34	9
MEAN	40.74		33.99		30.42		35.05	
	F Test		SEm		CD		CV (%)	
Date of sowing (A)	**		0.44		1.73		7.54	
Variety (B)	**		0.81		2.30		6.97	
B within A	NS		1.41		3.99			
A within B			1.42		4.17			
Date of Sowing:	11.11.2018		15.12.2018		07.01.2019			
Date of Harvesting	20.04.2019		25.04.2019		01.05.2019			

Variety	RIR-TS-TAS		Pooled		2018-19		
	Irrigation level				Mean	Rk	
	Zero	Rk	One	Rk	Two	Rk	
Yield,q/ha							
BRW 3806	41.85	2	49.06	2	54.39	1	48.43
WH 1080 (c)	39.06	7	46.66	7	50.82	6	45.51
HD 3043 (c)	37.32	9	44.01	9	49.25	7	43.53
HI 1620 (I)	41.05	3	49.08	1	53.37	2	47.83
HD 3237 (I)	39.97	6	47.98	4	51.33	5	46.43
WH 1142 (c)	40.46	5	48.20	3	52.10	3	46.92
PBW 644 (c)	38.72	8	45.81	8	49.09	8	44.54
HI 1628	40.51	4	46.98	6	49.02	9	45.50
NIAW 3170	42.16	1	47.50	5	51.35	4	47.00
MEAN	40.12		47.25		51.19		46.19
CD (0.05)	Sowing (A)		Variety (B)		B within A		A within B
	0.99		0.86		1.49		NS
Earhead/sqm							
BRW 3806	330	9	379	6	400	2	370
WH 1080 (c)	340	5	392	1	397	4	376
HD 3043 (c)	343	4	375	7	380	8	366
HI 1620 (I)	333	8	364	8	381	7	360
HD 3237 (I)	356	1	381	5	403	1	380
WH 1142 (c)	350	3	384	3	398	3	377
PBW 644 (c)	337	6	383	4	387	6	369
HI 1628	334	7	364	9	369	9	356
NIAW 3170	350	2	384	2	392	5	375
MEAN	341		379		390		370
CD (0.05)	Sowing (A)		Variety (B)		B within A		A within B
	9.08		7.80		13.50		NS
Grains/Earhead							
BRW 3806	31.70	2	32.24	2	32.80	5	32.25
WH 1080 (c)	30.46	8	30.38	8	32.74	6	31.19
HD 3043 (c)	31.09	5	31.27	6	36.34	1	32.90
HI 1620 (I)	30.82	6	31.62	4	33.21	3	31.88
HD 3237 (I)	30.08	9	32.07	3	31.91	8	31.35
WH 1142 (c)	31.74	1	33.74	1	34.95	2	33.48
PBW 644 (c)	31.17	4	31.20	7	32.90	4	31.76
HI 1628	31.24	3	31.52	5	32.25	7	31.67
NIAW 3170	30.51	7	29.96	9	31.86	9	30.78
MEAN	30.98		31.55		33.22		31.92
CD (0.05)	Sowing (A)		Variety (B)		B within A		A within B
	1.05		1.08		1.86		NS
1000 Grains Weight, g							
BRW 3806	41.26	2	41.76	4	43.46	2	42.16
WH 1080 (c)	39.07	6	40.83	6	41.28	6	40.40
HD 3043 (c)	35.98	9	38.73	8	37.67	9	37.46
HI 1620 (I)	41.27	1	43.81	1	43.90	1	42.99
HD 3237 (I)	39.49	5	40.98	5	41.71	5	40.73
WH 1142 (c)	36.77	8	37.97	9	39.02	8	37.92
PBW 644 (c)	38.41	7	39.92	7	40.72	7	39.69
HI 1628	40.56	4	42.10	2	43.24	4	41.97
NIAW 3170	41.16	3	41.88	3	43.35	3	42.13
MEAN	39.33		40.89		41.59		40.60
CD (0.05)	Sowing (A)		Variety (B)		B within A		A within B
	0.48		0.71		NS		NS

Centres: Agra, Delhi, Durgapura, Gurdaspur, Hisar, Jammu, Karnal, Ludhiana, Pantnagar, Sriganaganagar

Table 2.2.1. North Western Plains Zone

RIR-TS-TAS

Agra 2018-19

Variety	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield,q/ha								
BRW 3806	30.16	5	41.20	4	43.35	7	38.24	5
WH 1080 (c)	32.17	3	43.10	2	45.47	2	40.25	2
HD 3043 (c)	26.77	9	35.03	9	39.87	9	33.89	9
HI 1620 (I)	28.67	6	39.70	6	43.81	6	37.39	6
HD 3237 (I)	30.23	4	41.11	5	43.83	4	38.39	4
WH 1142 (c)	26.91	8	36.33	8	41.33	8	34.86	8
PBW 644 (c)	28.00	7	37.37	7	43.83	4	36.40	7
HI 1628	32.67	2	41.73	3	44.87	3	39.76	3
NIAW 3170	33.39	1	44.55	1	49.17	1	42.37	1
MEAN	29.89		40.01		43.95		37.95	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.31		1.22		4.26	
Variety (B)	**		0.76		2.18		6.05	
B within A	NS		1.32		3.77			
A within B			1.29		3.86			
Earhead/sqm								
BRW 3806	265	4	268	3	271	2	268	3
WH 1080 (c)	265	3	267	6	271	4	268	5
HD 3043 (c)	261	8	265	9	269	8	265	8
HI 1620 (I)	264	6	268	3	270	6	267	6
HD 3237 (I)	265	4	268	5	271	2	268	4
WH 1142 (c)	260	9	265	8	269	8	265	9
PBW 644 (c)	264	7	266	7	270	6	266	7
HI 1628	266	2	269	2	271	4	268	2
NIAW 3170	266	1	270	1	272	1	269	1
MEAN	264		267		270		267	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.64		2.50		1.24	
Variety (B)	**		0.83		2.36		0.93	
B within A	NS		1.44		4.08			
A within B			1.50		4.48			
Grains/Earhead								
BRW 3806	33.68	9	41.60	1	42.37	6	39.22	9
WH 1080 (c)	36.73	5	41.39	2	40.54	9	39.55	7
HD 3043 (c)	38.96	2	38.62	9	42.80	4	40.13	3
HI 1620 (I)	35.59	8	40.53	3	43.35	2	39.82	4
HD 3237 (I)	37.42	4	39.43	8	42.60	5	39.81	5
WH 1142 (c)	35.88	7	39.53	7	42.99	3	39.47	8
PBW 644 (c)	37.74	3	39.80	6	44.85	1	40.80	2
HI 1628	41.03	1	40.11	5	41.77	8	40.97	1
NIAW 3170	36.34	6	40.17	4	42.26	7	39.59	6
MEAN	37.04		40.13		42.62		39.93	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.29		1.13		3.76	
Variety (B)	NS		1.20		3.41		9.00	
B within A	NS		2.07		5.90			
A within B			1.98		5.93			
1000 Grains Weight, g								
BRW 3806	34.13	2	36.93	5	38.00	5	36.36	3
WH 1080 (c)	33.10	3	39.10	2	41.47	2	37.89	2
HD 3043 (c)	26.40	9	34.47	9	34.57	9	31.81	9
HI 1620 (I)	30.60	5	36.60	6	37.63	6	34.94	6
HD 3237 (I)	30.73	4	38.93	3	38.13	4	35.93	5
WH 1142 (c)	28.93	7	34.87	8	35.83	8	33.21	8
PBW 644 (c)	28.23	8	35.40	7	36.23	7	33.29	7
HI 1628	30.10	6	38.70	4	39.80	3	36.20	4
NIAW 3170	34.50	1	41.20	1	42.83	1	39.51	1
MEAN	30.75		37.36		38.28		35.46	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.44		1.72		6.41	
Variety (B)	**		0.69		1.97		5.86	
B within A	NS		1.20		3.41			
A within B			1.21		3.63			
Date of Sowing:			28.11.2018					
Date of Harvesting:			04.04.2019		08.04.2019		12.04.2019	

Table 2.2.2. North Western Plains Zone

RIR-TS-TAS

Delhi 2018-19

Variety	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield,q/ha								
BRW 3806	48.02	2	50.40	1	52.18	1	50.20	1
WH 1080 (c)	46.83	8	48.41	7	49.60	8	48.28	8
HD 3043 (c)	45.83	9	48.21	9	49.60	8	47.88	9
HI 1620 (I)	47.62	4	49.01	3	50.60	2	49.07	2
HD 3237 (I)	47.82	3	48.61	6	50.00	3	48.81	3
WH 1142 (c)	48.21	1	48.41	7	49.80	4	48.81	3
PBW 644 (c)	47.02	6	49.60	2	49.80	5	48.81	5
HI 1628	46.94	7	49.01	3	49.80	5	48.58	7
NIAW 3170	47.62	4	48.81	5	49.80	5	48.74	6
MEAN	47.32		48.94		50.13		48.80	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	*		0.38		1.50		4.08	
Variety (B)	**		0.36		1.01		2.19	
B within A	NS		0.62		1.76			
A within B			0.70		2.09			
Earhead/sqm								
BRW 3806	471	6	508	6	515	5	498	6
WH 1080 (c)	503	2	530	2	512	6	515	5
HD 3043 (c)	420	9	448	9	453	8	441	9
HI 1620 (I)	432	7	455	8	452	9	446	8
HD 3237 (I)	497	5	523	4	552	2	524	2
WH 1142 (c)	503	2	530	2	532	3	522	3
PBW 644 (c)	575	1	595	1	600	1	590	1
HI 1628	431	8	460	7	482	7	458	7
NIAW 3170	500	4	523	4	528	4	517	4
MEAN	481		508		514		501	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	*		6.69		26.26		6.94	
Variety (B)	**		13.78		39.19		8.25	
B within A	NS		23.87		67.88			
A within B			23.47		70.38			
Grains/Earhead								
BRW 3806	26.00	6	22.83	6	22.37	6	23.73	6
WH 1080 (c)	25.41	8	22.54	7	22.97	5	23.64	7
HD 3043 (c)	29.10	3	25.80	2	24.96	3	26.62	3
HI 1620 (I)	30.87	2	25.43	3	26.46	1	27.58	2
HD 3237 (I)	27.71	5	24.19	5	22.36	7	24.75	5
WH 1142 (c)	25.44	7	21.98	8	21.65	8	23.03	8
PBW 644 (c)	22.47	9	21.53	9	20.40	9	21.46	9
HI 1628	31.99	1	27.92	1	25.75	2	28.55	1
NIAW 3170	28.48	4	24.82	4	24.05	4	25.78	4
MEAN	27.50		24.12		23.44		25.02	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.35		1.36		7.17	
Variety (B)	**		0.82		2.34		9.86	
B within A	NS		1.42		4.05			
A within B			1.39		4.16			
1000 Grains Weight, g								
BRW 3806	39.22	1	43.53	1	45.49	1	42.75	1
WH 1080 (c)	36.67	4	40.66	5	42.85	4	40.06	5
HD 3043 (c)	37.49	3	41.85	3	43.96	2	41.10	2
HI 1620 (I)	36.25	6	42.72	2	42.44	5	40.47	4
HD 3237 (I)	35.76	7	39.66	6	41.33	6	38.92	6
WH 1142 (c)	37.87	2	41.71	4	43.53	3	41.04	3
PBW 644 (c)	36.49	5	38.78	7	40.71	7	38.66	7
HI 1628	34.34	8	38.39	8	40.24	8	37.66	8
NIAW 3170	33.61	9	37.62	9	39.39	9	36.88	9
MEAN	36.41		40.55		42.22		39.73	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.63		2.46		8.20	
Variety (B)	**		0.32		0.92		2.44	
B within A	NS		0.56		1.59			
A within B			0.82		2.46			
Date of Sowing:			17.11.2018					
Date of Harvesting:			13.04.2019		15.04.2019		17.04.2019	

Table 2.2.3. North Western Plains Zone

RIR-TS-TAS

Durgapura 2018-19

Variety	Irrigation level						Mean	Rk	
	Zero	Rk	One	Rk	Two	Rk			
Yield,q/ha									
BRW 3806	22.67	2	28.23	2	35.99	1	28.96	2	
WH 1080 (c)	23.57	1	30.34	1	35.50	2	29.80	1	
HD 3043 (c)	19.21	4	25.80	4	34.41	4	26.47	4	
HI 1620 (I)	18.63	5	24.24	7	33.13	6	25.33	6	
HD 3237 (I)	20.26	3	25.95	3	33.58	5	26.60	3	
WH 1142 (c)	16.51	6	25.35	5	34.60	3	25.49	5	
PBW 644 (c)	16.32	7	24.50	6	32.34	7	24.39	7	
HI 1628	15.38	8	22.39	8	29.36	8	22.38	8	
NIAW 3170	14.92	9	20.14	9	27.33	9	20.80	9	
MEAN	18.61		25.21		32.91		25.58		
	F Test		SEm		CD		CV (%)		
Irrigation (A)	**		0.44		1.71		8.87		
Variety (B)	**		0.60		1.71		7.04		
B within A	NS		1.04		2.96				
A within B			1.07		3.22				
Earhead/sqm									
BRW 3806	240	1	264	5	354	1	286	1	
WH 1080 (c)	218	2	297	1	310	5	275	2	
HD 3043 (c)	198	3	278	2	259	7	245	4	
HI 1620 (I)	174	6	215	9	316	4	235	6	
HD 3237 (I)	181	4	237	6	346	2	255	3	
WH 1142 (c)	158	7	221	8	338	3	239	5	
PBW 644 (c)	181	5	229	7	265	6	225	7	
HI 1628	144	8	273	4	213	8	210	8	
NIAW 3170	122	9	275	3	201	9	199	9	
MEAN	179		254		289		241		
	F Test		SEm		CD		CV (%)		
Irrigation (A)	**		5.59		21.94		12.05		
Variety (B)	**		8.48		24.13		10.56		
B within A	**		14.69		41.79				
A within B			14.94		44.79				
Grains/Earhead									
BRW 3806	28.11	9	32.85	5	25.31	8	28.76	9	
WH 1080 (c)	34.22	5	26.76	7	32.75	5	31.24	8	
HD 3043 (c)	30.74	7	24.26	9	45.95	1	33.65	4	
HI 1620 (I)	37.19	3	36.57	1	28.08	7	33.95	3	
HD 3237 (I)	39.75	2	34.17	3	23.20	9	32.37	7	
WH 1142 (c)	34.15	6	34.27	2	30.12	6	32.85	6	
PBW 644 (c)	30.59	8	33.93	4	34.10	4	32.87	5	
HI 1628	36.43	4	27.01	6	41.51	3	34.98	2	
NIAW 3170	42.51	1	25.00	8	42.84	2	36.78	1	
MEAN	34.86		30.53		33.76		33.05		
	F Test		SEm		CD		CV (%)		
Irrigation (A)	*		1.25		4.90		19.63		
Variety (B)	NS		1.79		5.08		16.22		
B within A	**		3.10		8.80				
A within B			3.17		9.52				
1000 Grains Weight, g									
BRW 3806	33.75	1	34.02	3	40.17	2	35.98	1	
WH 1080 (c)	31.91	2	39.37	2	35.04	5	35.44	2	
HD 3043 (c)	31.61	3	39.66	1	30.14	9	33.80	4	
HI 1620 (I)	28.83	8	31.39	7	39.08	3	33.10	5	
HD 3237 (I)	28.52	9	33.22	5	42.06	1	34.60	3	
WH 1142 (c)	30.92	4	33.82	4	34.25	6	33.00	6	
PBW 644 (c)	29.66	5	31.93	6	36.00	4	32.53	7	
HI 1628	29.51	6	30.70	8	34.00	7	31.40	8	
NIAW 3170	29.07	7	29.49	9	32.00	8	30.19	9	
MEAN	30.42		33.73		35.86		33.34		
	F Test		SEm		CD		CV (%)		
Irrigation (A)	**		0.64		2.51		9.98		
Variety (B)	**		0.99		2.82		8.92		
B within A	**		1.72		4.88				
A within B			1.74		5.22				
Date of Sowing:			08.11.2018						
Date of Harvesting:			15.03.2019		24.03.2019		29.03.2019		

Table 2.2.4. North Western Plains Zone

RIR-TS-TAS

Gurdaspur 2018-19

Variety	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield,q/ha								
BRW 3806	68.51	4	67.18	3	74.41	2	70.03	4
WH 1080 (c)	61.17	8	63.53	6	68.61	5	64.44	5
HD 3043 (c)	59.85	9	61.03	9	68.61	5	63.16	8
HI 1620 (I)	74.03	2	76.01	1	77.31	1	75.78	1
HD 3237 (I)	63.61	6	65.87	5	63.73	7	64.40	6
WH 1142 (c)	74.46	1	75.51	2	73.43	3	74.47	2
PBW 644 (c)	62.57	7	63.41	7	63.70	8	63.23	7
HI 1628	64.03	5	62.79	8	61.34	9	62.72	9
NIAW 3170	73.44	3	67.07	4	70.08	4	70.20	3
MEAN	66.85		66.93		69.02		67.60	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	NS		1.50		5.88		11.52	
Variety (B)	**		1.44		4.11		6.41	
B within A	NS		2.50		7.12			
A within B			2.79		8.38			
Earhead/sqm								
BRW 3806	342	9	430	4	447	2	406	7
WH 1080 (c)	397	6	438	3	443	3	426	3
HD 3043 (c)	374	7	404	8	400	9	393	9
HI 1620 (I)	373	8	418	7	428	5	406	6
HD 3237 (I)	400	5	423	6	427	6	417	5
WH 1142 (c)	473	1	475	1	469	1	472	1
PBW 644 (c)	401	4	402	9	403	8	402	8
HI 1628	425	2	445	2	432	4	434	2
NIAW 3170	420	3	429	5	424	7	424	4
MEAN	400		429		430		420	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	*		8.39		32.94		10.38	
Variety (B)	**		6.85		19.47		4.89	
B within A	*		11.86		33.72			
A within B			13.98		41.91			
Grains/Earhead								
BRW 3806	42.82	1	34.49	7	35.03	7	37.45	5
WH 1080 (c)	39.14	5	36.98	4	38.22	3	38.11	4
HD 3043 (c)	42.03	3	41.24	2	46.28	1	43.18	1
HI 1620 (I)	42.31	2	38.77	3	38.15	4	39.74	3
HD 3237 (I)	36.17	8	36.23	6	34.61	8	35.67	8
WH 1142 (c)	41.02	4	41.75	1	40.92	2	41.23	2
PBW 644 (c)	36.74	7	36.76	5	36.98	5	36.83	6
HI 1628	32.32	9	32.39	9	31.13	9	31.95	9
NIAW 3170	38.69	6	33.75	8	36.15	6	36.20	7
MEAN	39.03		36.93		37.50		37.82	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	*		0.60		2.34		8.20	
Variety (B)	**		1.16		3.29		9.17	
B within A	NS		2.00		5.70			
A within B			1.98		5.94			
1000 Grains Weight, g								
BRW 3806	46.95	2	45.54	3	47.68	1	46.72	2
WH 1080 (c)	39.39	7	39.25	7	40.74	7	39.79	7
HD 3043 (c)	38.72	8	36.77	9	37.21	9	37.57	9
HI 1620 (I)	47.06	1	47.04	1	47.44	2	47.18	1
HD 3237 (I)	44.04	5	43.00	5	43.07	5	43.37	5
WH 1142 (c)	38.45	9	38.02	8	38.29	8	38.25	8
PBW 644 (c)	42.44	6	42.98	6	42.84	6	42.76	6
HI 1628	46.86	3	43.60	4	45.98	3	45.48	4
NIAW 3170	45.54	4	46.32	2	45.80	4	45.89	3
MEAN	43.27		42.50		43.23		43.00	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	*		0.25		0.99		3.05	
Variety (B)	**		0.44		1.25		3.07	
B within A	NS		0.76		2.17			
A within B			0.76		2.29			
Date of Sowing:			07.11.2018					
Date of Harvesting:			06.05.2019		07.05.2019			

Table 2.2.5. North Western Plains Zone

RIR-TS-TAS

Hisar 2018-19

Variety	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield,q/ha								
BRW 3806	43.25	2	54.48	4	60.08	3	52.61	3
WH 1080 (c)	40.32	6	52.18	6	55.60	6	49.37	6
HD 3043 (c)	39.17	8	49.80	8	54.40	7	47.79	7
HI 1620 (I)	42.02	4	56.59	2	60.63	2	53.08	2
HD 3237 (I)	39.37	7	53.02	5	55.79	5	49.39	5
WH 1142 (c)	45.99	1	56.67	1	61.90	1	54.85	1
PBW 644 (c)	35.87	9	51.27	7	53.13	8	46.76	9
HI 1628	41.87	5	49.44	9	52.06	9	47.79	7
NIAW 3170	43.17	3	54.68	3	59.25	4	52.37	4
MEAN	41.23		53.13		56.98		50.45	
F Test		SEm		CD		CV (%)		
Irrigation (A)	**	0.84		3.30		8.66		
Variety (B)	**	0.83		2.37		4.96		
B within A	NS	1.45		4.11				
A within B		1.60		4.80				
Earhead/sqm								
BRW 3806	358	3	412	5	422	5	397	5
WH 1080 (c)	347	6	403	7	420	6	390	6
HD 3043 (c)	362	1	425	2	435	1	407	1
HI 1620 (I)	338	7	428	1	428	3	398	4
HD 3237 (I)	355	4	422	4	427	4	401	3
WH 1142 (c)	360	2	423	3	430	2	404	2
PBW 644 (c)	307	9	375	8	408	8	363	9
HI 1628	337	8	368	9	392	9	366	8
NIAW 3170	352	5	405	6	410	7	389	7
MEAN	346		407		419		391	
F Test		SEm		CD		CV (%)		
Irrigation (A)	**	5.42		21.27		7.21		
Variety (B)	*	9.72		27.63		7.46		
B within A	NS	16.83		47.86				
A within B		16.77		50.27				
Grains/Earhead								
BRW 3806	25.29	3	27.64	5	28.89	4	27.27	5
WH 1080 (c)	24.60	4	29.55	4	27.82	7	27.32	4
HD 3043 (c)	26.83	2	30.13	3	32.21	2	29.72	2
HI 1620 (I)	23.71	7	25.93	7	27.91	6	25.85	7
HD 3237 (I)	22.57	9	25.72	9	26.72	8	25.00	8
WH 1142 (c)	31.25	1	31.98	1	34.14	1	32.46	1
PBW 644 (c)	24.13	6	31.31	2	29.23	3	28.22	3
HI 1628	23.03	8	25.78	8	25.33	9	24.71	9
NIAW 3170	24.24	5	26.63	6	28.38	5	26.42	6
MEAN	25.07		28.30		28.96		27.44	
F Test		SEm		CD		CV (%)		
Irrigation (A)	**	0.27		1.05		5.05		
Variety (B)	**	0.88		2.50		9.62		
B within A	NS	1.52		4.33				
A within B		1.46		4.38				
1000 Grains Weight, g								
BRW 3806	47.77	6	48.00	5	49.38	4	48.38	5
WH 1080 (c)	47.43	7	43.89	7	47.77	6	46.36	6
HD 3043 (c)	40.46	9	38.90	9	38.95	9	39.44	9
HI 1620 (I)	52.56	2	51.01	2	51.19	2	51.59	2
HD 3237 (I)	49.28	4	48.95	4	49.18	5	49.14	4
WH 1142 (c)	41.16	8	42.17	8	42.66	8	42.00	8
PBW 644 (c)	48.56	5	43.96	6	44.58	7	45.70	7
HI 1628	54.07	1	52.34	1	52.75	1	53.05	1
NIAW 3170	51.01	3	50.76	3	50.99	3	50.92	3
MEAN	48.03		46.66		47.49		47.40	
F Test		SEm		CD		CV (%)		
Irrigation (A)	*	0.30		1.17		3.27		
Variety (B)	**	0.47		1.33		2.96		
B within A	*	0.81		2.31				
A within B		0.82		2.46				
Date of Sowing:								
Date of Harvesting:			10.04.2019	14.04.2019				

Table 2.2.6. North Western Plains Zone

RIR-TS-TAS

Jammu 2018-19

Variety	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield,q/ha								
BRW 3806	41.05	1	40.67	1	40.20	2	40.64	1
WH 1080 (c)	39.45	2	38.23	4	38.00	6	38.56	3
HD 3043 (c)	37.82	6	37.68	6	40.23	1	38.58	2
HI 1620 (I)	36.57	7	37.94	5	39.20	4	37.90	6
HD 3237 (I)	36.48	8	38.32	3	36.77	8	37.19	8
WH 1142 (c)	36.40	9	36.74	8	39.46	3	37.53	7
PBW 644 (c)	38.26	4	36.44	9	36.53	9	37.08	9
HI 1628	38.82	3	39.49	2	36.81	7	38.37	4
NIAW 3170	37.95	5	37.48	7	38.49	5	37.97	5
MEAN	38.09		38.11		38.41		38.20	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	NS		0.44		1.72		5.97	
Variety (B)	**		0.52		1.49		4.12	
B within A	NS		0.91		2.59			
A within B			0.96		2.89			
Earhead/sqm								
BRW 3806	398	5	430	2	431	2	419	2
WH 1080 (c)	362	9	388	8	395	8	382	9
HD 3043 (c)	397	6	411	5	418	4	408	6
HI 1620 (I)	431	1	378	9	434	1	414	4
HD 3237 (I)	431	1	431	1	430	3	431	1
WH 1142 (c)	395	7	395	6	388	9	393	8
PBW 644 (c)	418	3	418	3	411	5	415	3
HI 1628	393	8	393	7	410	6	399	7
NIAW 3170	414	4	414	4	404	7	411	5
MEAN	404		406		413		408	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	*		2.16		8.49		2.75	
Variety (B)	**		7.15		20.32		5.25	
B within A	NS		12.38		35.20			
A within B			11.87		35.58			
Grains/Earhead								
BRW 3806	40.63	1	38.01	2	37.81	2	38.82	1
WH 1080 (c)	40.44	2	37.36	3	36.04	5	37.95	2
HD 3043 (c)	35.10	4	33.48	7	37.08	3	35.22	5
HI 1620 (I)	30.97	8	33.91	6	36.37	4	33.75	7
HD 3237 (I)	30.44	9	35.34	4	31.19	8	32.32	8
WH 1142 (c)	33.01	7	34.97	5	39.70	1	35.90	4
PBW 644 (c)	33.54	6	32.39	9	30.98	9	32.30	9
HI 1628	36.03	3	40.36	1	32.46	7	36.28	3
NIAW 3170	33.54	5	33.44	8	34.66	6	33.88	6
MEAN	34.86		35.47		35.14		35.16	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	NS		1.17		4.61		17.36	
Variety (B)	**		1.31		3.72		11.17	
B within A	NS		2.27		6.45			
A within B			2.44		7.32			
1000 Grains Weight, g								
BRW 3806	25.54	9	24.90	9	25.57	8	25.34	9
WH 1080 (c)	26.96	8	26.83	5	26.88	5	26.89	7
HD 3043 (c)	27.52	5	28.32	2	26.07	6	27.30	4
HI 1620 (I)	27.39	7	29.72	1	25.26	9	27.45	2
HD 3237 (I)	27.95	2	25.23	7	27.63	3	26.94	5
WH 1142 (c)	28.14	1	26.68	6	25.94	7	26.92	6
PBW 644 (c)	27.56	4	26.95	4	29.13	1	27.88	1
HI 1628	27.58	3	25.12	8	27.77	2	26.83	8
NIAW 3170	27.45	6	27.19	3	27.54	4	27.39	3
MEAN	27.34		26.77		26.86		26.99	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	NS		0.63		2.46		12.06	
Variety (B)	NS		0.95		2.70		10.55	
B within A	NS		1.64		4.67			
A within B			1.67		5.01			
Date of Sowing:			06.11.2018					
Date of Harvesting:			30.04.2019		02.05.2019		03.05.2019	

Table 2.2.7. North Western Plains Zone

RIR-TS-TAS

Karnal 2018-19

Variety	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield,q/ha								
BRW 3806	47.39	3	51.88	5	54.08	4	51.12	4
WH 1080 (c)	43.89	8	51.61	6	53.85	5	49.78	6
HD 3043 (c)	40.96	9	45.37	9	48.92	9	45.08	9
HI 1620 (I)	45.27	6	52.54	3	53.56	6	50.46	5
HD 3237 (I)	44.38	7	54.26	2	55.14	2	51.26	3
WH 1142 (c)	45.87	4	48.59	8	49.51	8	47.99	8
PBW 644 (c)	45.34	5	51.18	7	52.63	7	49.71	7
HI 1628	48.50	1	55.26	1	54.32	3	52.69	1
NIAW 3170	47.42	2	52.11	4	56.14	1	51.89	2
MEAN	45.44		51.42		53.13		50.00	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	*		2.01		7.90		20.91	
Variety (B)	**		1.34		3.82		8.06	
B within A	NS		2.33		6.62			
A within B			2.98		8.92			
Earhead/sqm								
BRW 3806	251	8	301	9	332	2	295	8
WH 1080 (c)	309	2	369	1	296	6	325	2
HD 3043 (c)	304	3	326	7	293	7	308	4
HI 1620 (I)	293	6	333	4	272	9	299	7
HD 3237 (I)	262	7	328	5	323	3	304	6
WH 1142 (c)	293	5	328	6	307	5	309	3
PBW 644 (c)	246	9	347	2	284	8	292	9
HI 1628	298	4	316	8	308	4	307	5
NIAW 3170	349	1	334	3	375	1	353	1
MEAN	290		331		310		310	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	NS		26.39		103.60		44.19	
Variety (B)	**		9.86		28.04		9.53	
B within A	*		17.08		48.57			
A within B			30.91		92.68			
Grains/Earhead								
BRW 3806	38.47	3	36.95	2	37.29	6	37.57	4
WH 1080 (c)	30.72	8	29.94	9	40.06	3	33.58	8
HD 3043 (c)	34.72	5	36.51	4	45.67	1	38.96	2
HI 1620 (I)	31.24	7	30.92	8	39.84	4	34.00	7
HD 3237 (I)	34.87	4	36.52	3	36.82	7	36.07	5
WH 1142 (c)	39.14	2	37.00	1	38.67	5	38.27	3
PBW 644 (c)	42.65	1	33.92	6	41.46	2	39.34	1
HI 1628	33.49	6	35.76	5	35.66	8	34.97	6
NIAW 3170	27.36	9	32.48	7	30.18	9	30.00	9
MEAN	34.74		34.44		38.41		35.86	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	NS		2.66		10.46		38.60	
Variety (B)	**		1.34		3.81		11.19	
B within A	*		2.32		6.59			
A within B			3.45		10.33			
1000 Grains Weight, g								
BRW 3806	49.19	3	46.95	4	48.29	4	48.14	4
WH 1080 (c)	46.18	6	46.90	5	47.16	5	46.75	6
HD 3043 (c)	38.74	9	38.58	9	37.59	9	38.31	9
HI 1620 (I)	50.45	1	51.27	1	50.63	1	50.78	1
HD 3237 (I)	48.21	5	45.52	6	47.06	6	46.93	5
WH 1142 (c)	39.83	8	40.23	8	42.77	8	40.94	8
PBW 644 (c)	43.15	7	43.87	7	45.49	7	44.17	7
HI 1628	48.85	4	49.65	2	50.14	3	49.55	2
NIAW 3170	49.76	2	48.21	3	50.62	2	49.53	3
MEAN	46.04		45.69		46.64		46.12	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	*		0.26		1.02		2.94	
Variety (B)	**		0.37		1.05		2.40	
B within A	*		0.64		1.81			
A within B			0.66		1.97			
Date of Sowing:			06.11.2018					
Date of Harvesting:			12.04.2019					

Table 2.2.8. North Western Plains Zone

RIR-TS-TAS

Ludhiana 2018-19

Variety	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield,q/ha								
BRW 3806	45.27	6	52.21	7	57.95	2	51.81	4
WH 1080 (c)	36.01	9	52.46	6	55.92	4	48.13	9
HD 3043 (c)	43.07	8	53.15	4	54.14	6	50.12	6
HI 1620 (I)	43.60	7	50.18	9	52.20	8	48.66	8
HD 3237 (I)	49.85	2	55.51	2	56.78	3	54.05	3
WH 1142 (c)	46.07	5	66.79	1	64.97	1	59.28	1
PBW 644 (c)	46.10	4	52.59	5	50.21	9	49.63	7
HI 1628	48.36	3	51.34	8	52.61	7	50.77	5
NIAW 3170	52.65	1	54.40	3	55.54	5	54.20	2
MEAN	45.66		54.29		55.59		51.85	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	*		1.74		6.82		17.42	
Variety (B)	**		0.97		2.75		5.59	
B within A	**		1.67		4.76			
A within B			2.35		7.04			
Earhead/sqm								
BRW 3806	287	8	325	6	325	7	312	9
WH 1080 (c)	281	9	336	4	337	2	318	6
HD 3043 (c)	313	4	313	9	332	4	319	5
HI 1620 (I)	303	5	325	5	324	8	318	7
HD 3237 (I)	316	3	314	8	330	5	320	4
WH 1142 (c)	334	2	366	1	319	9	339	2
PBW 644 (c)	293	7	336	3	335	3	321	3
HI 1628	300	6	323	7	326	6	316	8
NIAW 3170	342	1	342	2	360	1	348	1
MEAN	308		331		332		324	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	*		7.53		29.54		12.09	
Variety (B)	*		8.03		22.83		7.45	
B within A	NS		13.91		39.55			
A within B			15.12		45.32			
Grains/Earhead								
BRW 3806	32.67	3	31.02	4	33.17	2	32.29	3
WH 1080 (c)	27.46	9	28.88	6	30.90	5	29.08	8
HD 3043 (c)	32.44	5	31.64	3	31.09	4	31.72	4
HI 1620 (I)	30.02	7	27.64	9	28.11	7	28.59	9
HD 3237 (I)	32.56	4	32.81	2	32.71	3	32.69	2
WH 1142 (c)	28.57	8	35.96	1	35.82	1	33.45	1
PBW 644 (c)	33.92	2	28.38	8	27.02	9	29.77	6
HI 1628	35.73	1	28.56	7	28.67	6	30.98	5
NIAW 3170	30.36	6	30.38	5	27.81	8	29.52	7
MEAN	31.52		30.58		30.59		30.90	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	NS		1.38		5.42		23.20	
Variety (B)	NS		1.32		3.76		12.82	
B within A	NS		2.29		6.50			
A within B			2.56		7.68			
1000 Grains Weight, g								
BRW 3806	48.40	4	51.82	8	54.64	6	51.62	8
WH 1080 (c)	47.23	6	54.16	5	54.56	7	51.98	6
HD 3043 (c)	42.56	9	54.08	6	52.67	9	49.77	9
HI 1620 (I)	48.09	5	57.73	1	57.48	2	54.44	1
HD 3237 (I)	48.47	3	54.27	4	52.82	8	51.85	7
WH 1142 (c)	49.64	2	51.16	9	56.96	3	52.59	5
PBW 644 (c)	46.38	7	55.91	2	55.95	4	52.75	4
HI 1628	45.62	8	55.81	3	57.54	1	52.99	3
NIAW 3170	51.80	1	52.47	7	55.88	5	53.38	2
MEAN	47.58		54.16		55.39		52.37	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.64		2.53		6.39	
Variety (B)	NS		1.53		4.36		8.77	
B within A	NS		2.65		7.54			
A within B			2.58		7.74			
Date of Sowing:	29.10.2018							
Date of Harvesting:	22.04.2019							

Table 2.2.9. North Western Plains Zone

RIR-TS-TAS

Pantnagar 2018-19

Variety	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield,q/ha								
BRW 3806	37.76	1	46.98	1	55.91	1	46.88	1
WH 1080 (c)	34.20	7	39.55	7	49.23	4	40.99	7
HD 3043 (c)	35.40	4	37.38	9	46.04	8	39.61	8
HI 1620 (I)	37.22	2	46.70	2	54.08	2	46.00	2
HD 3237 (I)	34.51	6	44.81	3	52.33	3	43.88	3
WH 1142 (c)	29.90	9	39.05	8	46.68	6	38.54	9
PBW 644 (c)	33.11	8	41.56	6	48.46	5	41.04	6
HI 1628	35.53	3	44.34	5	46.48	7	42.12	4
NIAW 3170	35.05	5	44.68	4	45.72	9	41.82	5
MEAN	34.74		42.78		49.44		42.32	
	F Test		SEM		CD		CV (%)	
Irrigation (A)	**		1.13		4.43		13.84	
Variety (B)	**		0.96		2.73		6.80	
B within A	NS		1.66		4.72			
A within B			1.93		5.79			
Earhead/sqm								
BRW 3806	293	9	402	6	427	7	374	7
WH 1080 (c)	397	3	478	1	516	1	463	1
HD 3043 (c)	404	2	436	3	452	5	430	3
HI 1620 (I)	309	7	372	8	409	8	363	9
HD 3237 (I)	437	1	459	2	477	3	458	2
WH 1142 (c)	365	4	394	7	469	4	409	5
PBW 644 (c)	293	8	430	4	441	6	388	6
HI 1628	358	6	364	9	393	9	372	8
NIAW 3170	358	5	404	5	478	2	413	4
MEAN	357		415		451		408	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		6.39		25.08		8.14	
Variety (B)	**		11.81		33.60		8.69	
B within A	NS		20.46		58.19			
A within B			20.32		60.93			
Grains/Earhead								
BRW 3806	28.95	1	26.70	4	28.93	2	28.19	2
WH 1080 (c)	22.06	8	20.91	9	24.69	8	22.55	9
HD 3043 (c)	24.85	5	23.47	8	26.87	7	25.06	6
HI 1620 (I)	27.44	3	28.43	2	27.72	4	27.86	3
HD 3237 (I)	19.54	9	23.75	7	27.03	6	23.44	7
WH 1142 (c)	25.33	4	30.64	1	29.65	1	28.54	1
PBW 644 (c)	28.52	2	23.85	6	27.81	3	26.73	4
HI 1628	23.92	6	28.10	3	27.12	5	26.38	5
NIAW 3170	22.78	7	25.41	5	20.90	9	23.03	8
MEAN	24.82		25.69		26.75		25.75	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	NS		0.68		2.66		13.65	
Variety (B)	**		0.97		2.76		11.31	
B within A	NS		1.68		4.78			
A within B			1.72		5.17			
1000 Grains Weight, g								
BRW 3806	44.68	1	44.14	2	45.59	3	44.80	2
WH 1080 (c)	39.10	7	39.87	7	40.07	6	39.68	7
HD 3043 (c)	35.53	8	36.83	8	38.07	8	36.81	8
HI 1620 (I)	43.90	2	44.97	1	47.70	1	45.53	1
HD 3237 (I)	40.48	5	41.11	5	40.78	5	40.79	5
WH 1142 (c)	32.50	9	32.67	9	33.66	9	32.95	9
PBW 644 (c)	39.60	6	40.46	6	39.59	7	39.88	6
HI 1628	42.29	4	43.42	4	43.90	4	43.21	4
NIAW 3170	43.13	3	43.52	3	46.48	2	44.38	3
MEAN	40.13		40.78		41.76		40.89	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	NS		0.58		2.28		7.37	
Variety (B)	**		0.75		2.13		5.49	
B within A	NS		1.30		3.69			
A within B			1.35		4.06			
Date of Sowing:								
Date of Harvesting: 16.04.2019 20.04.2019 24.04.2019								

Table 2.2.10. North Western Plains Zone RIR-TS-TAS Sriganaganagar 2018-19

Variety	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield,q/ha								
BRW 3806	34.40	4	57.38	2	69.76	1	53.85	2
WH 1080 (c)	32.97	8	47.14	8	56.42	8	45.51	8
HD 3043 (c)	25.12	9	46.66	9	56.31	9	42.70	9
HI 1620 (I)	36.90	1	57.85	1	69.16	2	54.64	1
HD 3237 (I)	33.17	6	52.38	4	65.32	3	50.29	3
WH 1142 (c)	34.23	5	48.57	7	59.28	7	47.36	7
PBW 644 (c)	34.64	3	50.16	6	60.23	6	48.34	6
HI 1628	32.98	7	54.04	3	62.54	4	49.85	4
NIAW 3170	35.95	2	51.07	5	62.02	5	49.68	5
MEAN	33.37		51.70		62.34		49.14	
F Test		SEm		CD		CV (%)		
Irrigation (A)	**	0.36		1.42		3.82		
Variety (B)	**	1.37		3.90		8.37		
B within A	NS	2.37		6.75				
A within B		2.27		6.80				
Earhead/sqm								
BRW 3806	392	4	454	1	477	3	441	3
WH 1080 (c)	326	9	419	8	467	6	404	9
HD 3043 (c)	399	3	447	3	492	1	446	2
HI 1620 (I)	412	1	453	2	480	2	448	1
HD 3237 (I)	412	2	405	9	447	9	421	7
WH 1142 (c)	361	8	437	5	463	7	421	8
PBW 644 (c)	389	5	432	6	458	8	427	6
HI 1628	386	6	427	7	470	5	428	5
NIAW 3170	378	7	443	4	472	4	431	4
MEAN	384		435		470		430	
F Test		SEm		CD		CV (%)		
Irrigation (A)	**	5.86		23.01		7.09		
Variety (B)	**	5.95		16.92		4.16		
B within A	**	10.31		29.31				
A within B		11.35		34.02				
Grains/Earhead								
BRW 3806	20.42	5	30.32	2	36.83	2	29.19	4
WH 1080 (c)	23.78	1	29.47	4	33.38	6	28.88	5
HD 3043 (c)	16.11	9	27.55	8	30.47	9	24.71	9
HI 1620 (I)	18.85	7	28.04	7	36.14	3	27.68	6
HD 3237 (I)	19.75	6	32.53	1	41.85	1	31.37	1
WH 1142 (c)	23.60	2	29.31	5	35.86	5	29.59	2
PBW 644 (c)	21.39	3	30.17	3	36.12	4	29.23	3
HI 1628	18.45	8	29.23	6	33.09	7	26.92	7
NIAW 3170	20.82	4	27.48	9	31.37	8	26.56	8
MEAN	20.35		29.35		35.01		28.24	
F Test		SEm		CD		CV (%)		
Irrigation (A)	**	0.70		2.73		12.81		
Variety (B)	*	1.21		3.44		12.85		
B within A	NS	2.09		5.96				
A within B		2.09		6.28				
1000 Grains Weight, g								
BRW 3806	42.98	4	41.73	4	39.74	4	41.48	4
WH 1080 (c)	42.76	5	38.29	8	36.28	7	39.11	6
HD 3043 (c)	40.76	8	37.82	9	37.49	5	38.69	8
HI 1620 (I)	47.58	1	45.61	1	40.09	3	44.43	1
HD 3237 (I)	41.44	7	39.87	5	35.06	9	38.79	7
WH 1142 (c)	40.29	9	38.36	7	36.28	7	38.31	9
PBW 644 (c)	42.06	6	38.97	6	36.70	6	39.24	5
HI 1628	46.42	2	43.26	2	40.27	2	43.32	2
NIAW 3170	45.72	3	42.01	3	41.95	1	43.23	3
MEAN	43.33		40.66		38.21		40.73	
F Test		SEm		CD		CV (%)		
Irrigation (A)	*	0.67		2.64		8.58		
Variety (B)	**	0.75		2.15		5.56		
B within A	NS	1.31		3.72				
A within B		1.40		4.21				
Date of Sowing:			14.11.2018					
Date of Harvesting:			10.04.2019		15.04.2019		25.04.2019	

Table 2.3. North Western Plains Zone

Variety	IR-ES-HYT				Pooled		2018-19	
	Nutrient management							
	Rec.NPK	Rk	150% Rec. NPK	Rk	150% + FYM+GR	Rk	Mean	Rk
Yield,q/ha								
HD 3317	65.97	11	68.78	10	70.86	12	68.53	12
WH 1254	72.20	2	73.41	4	76.40	7	74.00	4
DBW 301	62.33	15	64.07	15	69.16	15	65.19	15
WH 1270	71.42	3	72.93	5	75.78	9	73.38	5
HD 2967 (C)	64.72	13	69.17	9	77.33	5	70.41	9
PBW 824	69.70	7	72.01	7	77.61	4	73.11	7
UP 3043	71.33	4	73.63	3	79.42	2	74.79	2
DBW 187	73.04	1	77.29	1	82.23	1	77.52	1
HD 3086 (C)	70.51	6	72.78	6	76.50	6	73.27	6
DBW 303	71.29	5	74.63	2	78.05	3	74.66	3
DBW 304	64.25	14	66.34	13	70.40	13	67.00	14
UP 3042	69.10	8	71.85	8	75.95	8	72.30	8
DBW 302	66.66	10	65.50	14	70.26	14	67.47	13
PBW 825	65.62	12	67.50	11	73.82	10	68.98	10
HD 3347	67.58	9	67.23	12	71.44	11	68.75	11
MEAN	68.38		70.47		75.01		71.29	
CD (0.05)								
	Nutrients (A)		Variety (B)		B within A		A within B	
	1.41		1.73		NS		NS	
Earhead/sqm								
HD 3317	369	13	386	13	413	12	389	13
WH 1254	424	3	442	1	467	1	444	1
DBW 301	426	1	435	2	455	2	439	2
WH 1270	425	2	416	5	441	6	427	4
HD 2967 (C)	395	7	409	7	430	9	411	8
PBW 824	381	10	389	12	410	13	393	12
UP 3043	347	14	356	15	380	15	361	15
DBW 187	394	8	410	6	450	3	418	6
HD 3086 (C)	416	4	430	3	448	5	431	3
DBW 303	380	11	403	8	432	8	405	9
DBW 304	398	6	396	10	448	4	414	7
UP 3042	374	12	395	11	417	11	395	11
DBW 302	403	5	421	4	441	7	422	5
PBW 825	343	15	364	14	396	14	367	14
HD 3347	385	9	398	9	421	10	401	10
MEAN	391		403		430		408	
CD (0.05)								
	Nutrients (A)		Variety (B)		B within A		A within B	
	4.84		13.31		NS		NS	
Grains/Earhead								
HD 3317	36.18	13	36.45	12	35.73	13	36.12	14
WH 1254	41.29	2	40.34	2	42.36	1	41.33	1
DBW 301	38.35	9	38.14	6	40.52	5	39.00	7
WH 1270	36.00	14	36.85	9	37.28	11	36.71	13
HD 2967 (C)	36.90	12	36.26	13	39.47	8	37.54	9
PBW 824	39.35	7	39.07	5	41.90	2	40.11	4
UP 3043	40.75	3	40.20	3	41.21	3	40.72	3
DBW 187	39.69	5	39.37	4	38.80	9	39.29	5
HD 3086 (C)	36.98	11	35.87	14	37.58	10	36.81	12
DBW 303	41.69	1	40.53	1	40.92	4	41.05	2
DBW 304	35.22	15	35.17	15	34.08	15	34.83	15
UP 3042	37.60	10	36.60	10	37.18	12	37.13	11
DBW 302	39.22	8	36.50	11	40.19	6	38.64	8
PBW 825	40.08	4	37.60	7	39.54	7	39.07	6
HD 3347	39.37	6	37.17	8	35.37	14	37.31	10
MEAN	38.58		37.74		38.81		38.38	
CD (0.05)								
	Nutrients (A)		Variety (B)		B within A		A within B	
	NS		1.61		NS		NS	

Table 2.3a. North Western Plains Zone			IR-ES-HYT		Pooled		2018-19	
Variety	Nutrient management							
	Rec.NPK	Rk	150% Rec. NPK	Rk	150% + FYM+GR	Rk	Mean	Rk
1000 Grains Weight, g								
HD 3317	50.40	2	49.50	4	48.64	4	49.51	3
WH 1254	42.12	14	42.14	14	40.24	14	41.50	14
DBW 301	39.11	15	39.64	15	39.74	15	39.50	15
WH 1270	47.47	6	48.28	6	47.09	7	47.61	6
HD 2967 (C)	44.52	12	47.30	10	46.51	9	46.11	12
PBW 824	47.09	7	48.13	8	45.88	12	47.03	8
UP 3043	50.78	1	52.04	1	51.59	1	51.47	1
DBW 187	47.60	5	49.07	5	48.15	6	48.27	5
HD 3086 (C)	46.50	10	48.03	9	46.23	11	46.92	9
DBW 303	46.67	9	47.01	11	46.40	10	46.70	10
DBW 304	46.78	8	48.22	7	46.85	8	47.28	7
UP 3042	49.99	3	50.56	2	49.44	2	50.00	2
DBW 302	43.65	13	43.34	13	41.13	13	42.71	13
PBW 825	48.53	4	50.07	3	49.21	3	49.27	4
HD 3347	45.01	11	46.16	12	48.61	5	46.59	11
MEAN	46.42		47.30		46.38		46.70	
	Nutrients (A)		Variety (B)		B within A		A within B	
CD (0.05)	0.71		0.82		1.43		NS	
Biomass, q/ha								
HD 3317	182	8	193	2	190	11	188	9
WH 1254	184	7	191	6	198	5	191	4
DBW 301	166	15	171	15	179	15	172	15
WH 1270	187	4	190	7	190	12	189	8
HD 2967 (C)	181	10	189	9	199	4	190	6
PBW 824	179	12	188	11	195	7	187	10
UP 3043	181	9	188	10	199	3	190	7
DBW 187	198	1	197	1	207	1	200	1
HD 3086 (C)	178	13	187	12	192	9	186	12
DBW 303	180	11	189	8	191	10	187	11
DBW 304	190	2	192	4	194	8	192	3
UP 3042	184	6	192	3	196	6	191	5
DBW 302	190	3	191	5	203	2	195	2
PBW 825	172	14	175	14	185	14	177	14
HD 3347	185	5	184	13	188	13	185	13
MEAN	183		188		194		188	
	Nutrients (A)		Variety (B)		B within A		A within B	
CD (0.05)	4.58		3.91		6.77		NS	
Plant height, cm								
HD 3317	109.31	1	111.47	1	99.18	1	106.65	1
WH 1254	100.49	11	102.76	11	92.59	9	98.62	11
DBW 301	92.77	15	93.86	15	89.04	14	91.89	15
WH 1270	97.34	14	99.35	14	90.48	12	95.72	14
HD 2967 (C)	104.50	6	106.57	3	95.11	7	102.06	5
PBW 824	103.64	7	106.71	2	97.29	4	102.55	4
UP 3043	105.25	3	106.16	6	97.79	3	103.07	3
DBW 187	105.36	2	106.19	5	92.01	10	101.19	9
HD 3086 (C)	98.81	13	102.45	12	87.30	15	96.19	13
DBW 303	105.15	5	105.45	8	93.80	8	101.47	7
DBW 304	99.41	12	100.94	13	90.85	11	97.07	12
UP 3042	103.36	8	105.60	7	96.62	6	101.86	6
DBW 302	105.17	4	106.29	4	98.87	2	103.44	2
PBW 825	102.79	9	104.47	10	97.07	5	101.44	8
HD 3347	101.47	10	104.62	9	90.28	13	98.79	10
MEAN	102.32		104.19		93.88		100.13	
	Nutrients (A)		Variety (B)		B within A		A within B	
CD (0.05)	0.91		1.31		2.28		NS	

Centres: Gurdaspur, Hisar, Karnal, Ludhiana, Pantnagar

Table 2.3.1. North Western Plains Z IR-ES-HYT Gurdaspur 2018-19

Variety	Nutrient management						Mean	Rk
	Rec.NPK	Rk	150% Rec. NPK	Rk	150% + FYM+GR	Rk		
Yield,q/ha								
HD 3317	81.28	10	88.35	5	90.33	11	86.65	9
WH 1254	84.57	4	86.05	8	90.46	10	87.03	8
DBW 301	72.21	14	73.74	14	75.88	15	73.94	14
WH 1270	90.77	1	91.15	2	93.47	7	91.80	3
HD 2967 (C)	83.08	7	88.01	6	93.71	6	88.27	5
PBW 824	83.04	8	84.44	9	96.68	3	88.06	6
UP 3043	89.17	2	91.08	3	98.42	2	92.89	1
DBW 187	83.92	6	93.16	1	100.50	1	92.53	2
HD 3086 (C)	84.15	5	87.47	7	92.12	8	87.92	7
DBW 303	82.98	9	90.64	4	95.01	4	89.54	4
DBW 304	65.26	15	67.34	15	76.58	14	69.73	15
UP 3042	77.79	13	79.25	11	91.83	9	82.96	12
DBW 302	79.96	12	74.50	13	85.24	13	79.90	13
PBW 825	80.78	11	82.73	10	94.81	5	86.11	10
HD 3347	86.18	3	77.96	12	86.12	12	83.42	11
MEAN	81.68		83.73		90.74		85.38	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	*		1.33		5.21		10.43	
Variety (B)	**		1.88		5.28		6.59	
B within A	NS		3.25		9.15			
A within B			3.41		9.87			
Earhead/sqm								
HD 3317	416	5	455	3	478	6	450	4
WH 1254	412	6	438	5	462	10	437	7
DBW 301	438	3	462	2	482	5	460	2
WH 1270	454	2	440	4	464	9	452	3
HD 2967 (C)	464	1	471	1	476	7	470	1
PBW 824	423	4	435	7	445	14	434	8
UP 3043	384	13	394	14	437	15	405	14
DBW 187	389	11	400	13	489	2	426	10
HD 3086 (C)	401	8	427	8	485	4	438	6
DBW 303	411	7	425	9	492	1	443	5
DBW 304	390	10	413	11	488	3	430	9
UP 3042	387	12	436	6	452	12	425	11
DBW 302	373	14	418	10	451	13	414	13
PBW 825	343	15	394	15	455	11	397	15
HD 3347	397	9	411	12	465	8	424	12
MEAN	405		428		468		434	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	**		2.45		9.62		3.79	
Variety (B)	**		4.27		12.03		2.95	
B within A	**		7.40		20.84			
A within B			7.55		21.88			
Grains/Earhead								
HD 3317	39.58	13	39.44	13	40.04	14	39.69	14
WH 1254	51.09	3	50.71	1	55.18	1	52.33	1
DBW 301	46.10	7	45.39	6	46.20	6	45.90	7
WH 1270	42.79	11	44.44	8	45.81	8	44.35	9
HD 2967 (C)	37.67	14	40.53	12	46.04	7	41.41	12
PBW 824	42.91	10	43.89	10	51.94	3	46.25	6
UP 3043	46.85	5	47.17	5	47.35	5	47.12	4
DBW 187	44.02	9	47.97	3	44.97	10	45.65	8
HD 3086 (C)	45.36	8	44.43	9	43.18	12	44.32	10
DBW 303	46.47	6	49.13	2	45.39	9	47.00	5
DBW 304	35.86	15	35.11	15	34.67	15	35.21	15
UP 3042	40.66	12	37.22	14	43.93	11	40.60	13
DBW 302	52.51	2	44.66	7	55.06	2	50.74	2
PBW 825	53.06	1	47.18	4	50.28	4	50.17	3
HD 3347	46.96	4	41.41	11	41.23	13	43.20	11
MEAN	44.79		43.91		46.08		44.93	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	NS		0.83		3.25		12.35	
Variety (B)	**		1.36		3.83		9.08	
B within A	NS		2.36		6.64			
A within B			2.42		7.01			

Table 2.3.1a. North Western Plains IR-ES-HYT Gurdaspur 2018-19

Variety	Nutrient management						Mean	Rk
	Rec.NPK	Rk	150% Rec. NPK	Rk	150% + FYM+GR	Rk		
1000 Grains Weight, g								
HD 3317	49.48	2	49.28	1	47.26	2	48.67	2
WH 1254	40.33	14	38.84	14	35.50	13	38.22	14
DBW 301	35.75	15	35.21	15	34.08	15	35.01	15
WH 1270	46.71	7	46.64	5	43.99	8	45.78	6
HD 2967 (C)	47.45	5	46.17	8	42.85	9	45.49	9
PBW 824	45.79	10	44.64	10	42.19	11	44.21	10
UP 3043	49.51	1	48.94	2	47.82	1	48.76	1
DBW 187	49.06	4	48.57	4	46.04	4	47.89	4
HD 3086 (C)	46.39	8	46.20	7	44.14	7	45.58	8
DBW 303	43.90	12	43.38	12	42.60	10	43.29	12
DBW 304	46.74	6	46.40	6	45.20	5	46.11	5
UP 3042	49.44	3	48.92	3	46.33	3	48.23	3
DBW 302	40.89	13	39.97	13	34.56	14	38.47	13
PBW 825	44.67	11	44.61	11	41.45	12	43.58	11
HD 3347	46.31	9	45.90	9	45.05	6	45.75	7
MEAN	45.50		44.91		42.60		44.34	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	**		0.35		1.38		5.31	
Variety (B)	**		0.55		1.54		3.69	
B within A	NS		0.95		2.66			
A within B			0.98		2.83			
Biomass, q/ha								
HD 3317	228.87	7	246.48	4	237.68	7	237.68	4
WH 1254	220.07	11	234.74	9	233.27	10	229.36	12
DBW 301	184.86	15	205.40	15	202.46	15	197.57	15
WH 1270	225.94	8	243.54	6	234.74	8	234.74	8
HD 2967 (C)	231.81	6	237.68	7	243.54	4	237.68	4
PBW 824	218.60	13	245.01	5	240.61	6	234.74	8
UP 3043	231.81	5	237.68	8	264.08	1	244.52	3
DBW 187	239.14	4	249.41	2	247.95	3	245.50	2
HD 3086 (C)	211.27	14	223.00	13	230.34	12	221.54	13
DBW 303	219.48	12	249.41	2	243.54	4	237.48	6
DBW 304	250.88	1	252.35	1	255.28	2	252.84	1
UP 3042	223.00	9	234.74	9	234.74	8	230.83	11
DBW 302	240.61	2	234.74	9	233.27	10	236.21	7
PBW 825	221.54	10	211.27	14	228.87	13	220.56	14
HD 3347	240.61	2	230.34	12	223.00	14	231.32	10
MEAN	225.90		235.72		236.89		232.84	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	NS		5.34		20.97		15.39	
Variety (B)	**		3.83		10.80		4.94	
B within A	NS		6.64		18.71			
A within B			8.35		24.18			
Plant Height, cm								
HD 3317	98.33	1	100.67	1	93.47	1	97.49	1
WH 1254	91.60	11	95.80	8	83.67	10	90.36	11
DBW 301	87.33	15	86.53	15	80.93	12	84.93	15
WH 1270	91.40	12	94.67	13	80.20	13	88.76	12
HD 2967 (C)	93.07	8	95.67	9	83.93	9	90.89	9
PBW 824	93.07	8	98.27	2	87.53	5	92.96	4
UP 3043	95.87	2	97.33	3	89.47	3	94.22	2
DBW 187	92.93	10	96.47	5	85.87	8	91.76	8
HD 3086 (C)	87.67	14	94.93	12	77.40	14	86.67	14
DBW 303	94.07	5	97.33	3	86.87	6	92.76	6
DBW 304	93.87	7	96.07	7	81.27	11	90.40	10
UP 3042	95.53	3	96.07	6	86.67	7	92.76	5
DBW 302	94.60	4	95.20	11	87.93	4	92.58	7
PBW 825	93.93	6	95.47	10	91.27	2	93.56	3
HD 3347	91.27	13	92.80	14	77.07	15	87.04	13
MEAN	92.97		95.55		84.90		91.14	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	**		0.41		1.61		3.01	
Variety (B)	**		1.03		2.91		3.40	
B within A	NS		1.79		5.04			
A within B			1.78		5.14			
Date of Sowing:	30.10.2018			Date of Harvesting:	24.04.2019			

Table 2.3.2. North Western Plains Z IR-ES-HYT Hisar 2018-19

Variety	Nutrient management						Mean	Rk
	Rec.NPK	Rk	150% Rec. NPK Rk		150% + FYM+GR Rk			
Yield,q/ha								
HD 3317	57.38	15	62.50	15	65.44	15	61.77	15
WH 1254	70.63	2	72.78	2	75.87	1	73.10	2
DBW 301	65.67	10	68.02	10	71.27	9	68.32	10
WH 1270	69.52	3	70.87	5	72.18	7	70.86	4
HD 2967 (C)	65.44	11	69.44	8	71.47	8	68.78	8
PBW 824	68.37	6	70.60	6	72.38	5	70.45	6
UP 3043	71.63	1	73.65	1	75.08	2	73.45	1
DBW 187	68.65	4	72.18	3	73.85	3	71.56	3
HD 3086 (C)	68.41	5	70.91	4	72.86	4	70.73	5
DBW 303	66.19	7	69.76	7	72.38	5	69.44	7
DBW 304	65.75	9	67.42	11	68.89	11	67.35	11
UP 3042	65.95	8	68.97	9	70.36	10	68.43	9
DBW 302	61.59	14	65.91	13	68.69	13	65.40	13
PBW 825	65.08	12	66.03	12	68.89	11	66.67	12
HD 3347	62.42	13	63.33	14	67.70	14	64.48	14
MEAN	66.18		68.83		71.15		68.72	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	*		0.93		3.66		9.11	
Variety (B)	**		0.95		2.68		4.15	
B within A	NS		1.65		4.64			
A within B			1.84		5.34			
Earhead/sqm								
HD 3317	357	15	372	15	375	15	368	15
WH 1254	452	1	443	1	433	1	443	1
DBW 301	390	11	400	10	407	9	399	10
WH 1270	405	5	405	7	407	9	406	6
HD 2967 (C)	393	10	403	9	412	5	403	9
PBW 824	402	6	407	5	412	5	407	5
UP 3043	410	3	418	4	427	3	418	4
DBW 187	407	4	435	2	432	2	424	2
HD 3086 (C)	418	2	420	3	418	4	419	3
DBW 303	397	7	405	7	408	8	403	8
DBW 304	388	12	397	11	405	11	397	11
UP 3042	397	7	407	5	412	5	405	7
DBW 302	383	13	397	11	395	12	392	12
PBW 825	395	9	382	13	378	14	385	13
HD 3347	372	14	375	14	383	13	377	14
MEAN	398		404		407		403	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	NS		3.74		14.67		6.22	
Variety (B)	**		7.25		20.43		5.40	
B within A	NS		12.56		35.39			
A within B			12.70		36.78			
Grains/Earhead								
HD 3317	30.46	15	32.00	14	32.97	15	31.81	15
WH 1254	38.18	2	39.62	2	43.98	1	40.59	2
DBW 301	42.60	1	42.20	1	42.79	2	42.53	1
WH 1270	33.75	11	33.82	12	36.94	9	34.84	9
HD 2967 (C)	37.40	3	36.34	7	37.33	7	37.02	7
PBW 824	36.67	6	36.62	6	38.88	6	37.39	6
UP 3043	34.86	9	34.37	9	34.99	12	34.74	10
DBW 187	33.44	12	31.82	15	34.01	13	33.09	13
HD 3086 (C)	32.58	13	34.17	10	37.23	8	34.66	11
DBW 303	37.26	4	39.10	3	40.11	5	38.82	3
DBW 304	34.23	10	33.99	11	35.50	11	34.57	12
UP 3042	31.51	14	32.79	13	33.74	14	32.68	14
DBW 302	37.25	5	37.99	4	40.40	4	38.55	4
PBW 825	35.91	7	37.10	5	40.93	3	37.98	5
HD 3347	35.64	8	34.54	8	36.85	10	35.68	8
MEAN	35.45		35.76		37.78		36.33	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	*		0.44		1.72		8.07	
Variety (B)	**		0.81		2.28		6.69	
B within A	NS		1.40		3.95			
A within B			1.42		4.12			

Table 2.3.2a. North Western Plains IR-ES-HYT Hisar 2018-19

Variety	Nutrient management						Mean	Rk
	Rec.NPK	Rk	150% Rec. NPK	Rk	150% + FYM+GR	Rk		
1000 Grains Weight, g								
HD 3317	53.08	1	52.67	1	52.94	1	52.90	1
WH 1254	41.07	14	41.55	14	39.83	15	40.82	14
DBW 301	39.61	15	40.34	15	41.00	14	40.32	15
WH 1270	51.02	3	51.87	3	48.12	5	50.34	5
HD 2967 (C)	44.67	12	47.45	9	46.62	9	46.25	10
PBW 824	46.47	9	47.41	10	45.26	10	46.38	9
UP 3043	50.25	5	51.29	5	50.55	3	50.70	4
DBW 187	50.62	4	52.24	2	50.33	4	51.06	3
HD 3086 (C)	50.24	6	49.55	7	46.86	8	48.88	7
DBW 303	44.85	11	44.15	12	44.21	12	44.40	12
DBW 304	49.68	7	50.06	6	47.99	7	49.24	6
UP 3042	52.92	2	51.78	4	50.77	2	51.82	2
DBW 302	43.24	13	43.79	13	43.08	13	43.37	13
PBW 825	45.85	10	46.66	11	44.75	11	45.75	11
HD 3347	47.39	8	49.03	8	48.05	6	48.16	8
MEAN	47.40		47.99		46.69		47.36	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	**		0.12		0.48		1.73	
Variety (B)	**		0.41		1.15		2.59	
B within A	NS		0.71		1.99			
A within B			0.69		2.01			
Biomass, q/ha								
HD 3317	166.27	15	178.57	12	176.59	13	173.81	13
WH 1254	186.11	3	191.27	2	197.22	1	191.53	1
DBW 301	172.62	13	168.65	15	176.98	12	172.75	14
WH 1270	183.33	5	184.52	8	179.76	10	182.54	9
HD 2967 (C)	182.94	6	191.27	3	186.90	6	187.04	5
PBW 824	182.94	6	182.94	10	180.95	9	182.28	10
UP 3043	187.30	1	194.44	1	191.27	3	191.01	2
DBW 187	186.51	2	190.48	4	191.67	2	189.55	3
HD 3086 (C)	180.16	9	183.73	9	185.71	7	183.20	7
DBW 303	173.41	12	179.76	11	181.75	8	178.31	11
DBW 304	181.75	8	189.68	6	177.78	11	183.07	8
UP 3042	183.73	4	190.08	5	188.49	4	187.43	4
DBW 302	177.78	10	186.90	7	188.49	5	184.39	6
PBW 825	172.62	13	173.81	14	171.03	15	172.49	15
HD 3347	176.98	11	178.57	12	175.79	14	177.12	12
MEAN	179.63		184.31		183.36		182.43	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	NS		1.95		7.67		7.19	
Variety (B)	**		2.42		6.81		3.98	
B within A	NS		4.19		11.80			
A within B			4.49		13.02			
Plant Height, cm								
HD 3317	129.00	1	131.00	1	111.33	1	123.78	1
WH 1254	112.67	12	115.67	13	106.33	7	111.56	10
DBW 301	103.33	15	105.00	15	100.33	11	102.89	15
WH 1270	110.67	14	112.67	14	97.33	13	106.89	14
HD 2967 (C)	123.00	5	123.67	3	105.00	8	117.22	3
PBW 824	123.67	3	126.33	2	108.67	2	119.56	2
UP 3043	122.00	6	118.67	8	108.33	3	116.33	5
DBW 187	125.00	2	122.33	5	101.33	9	116.22	6
HD 3086 (C)	114.00	10	116.33	11	93.00	15	107.78	13
DBW 303	123.33	4	123.67	3	101.33	9	116.11	7
DBW 304	112.33	13	116.00	12	98.67	12	109.00	12
UP 3042	119.33	8	120.00	7	108.00	4	115.78	8
DBW 302	121.67	7	120.33	6	107.67	5	116.56	4
PBW 825	115.00	9	118.00	9	106.67	6	113.22	9
HD 3347	113.33	11	117.67	10	97.33	13	109.44	11
MEAN	117.89		119.16		103.42		113.49	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	**		0.77		3.03		4.57	
Variety (B)	**		0.92		2.59		2.43	
B within A	**		1.59		4.49			
A within B			1.72		4.99			
Date of Sowing:	25.10.2018			Date of Harvesting:	10.04.2019			

Table 2.3.3. North Western Plains Z IR-ES-HYT Karnal 2018-19

Variety	Nutrient management						Mean	Rk
	Rec.NPK	Rk	150% Rec. NPK		150% + FYM+GR			
Yield,q/ha								
HD 3317	64.98	6	66.39	10	69.27	11	66.88	9
WH 1254	69.16	3	70.11	4	70.32	9	69.86	5
DBW 301	64.94	7	66.83	9	67.61	14	66.46	10
WH 1270	69.80	2	71.30	3	73.82	4	71.64	3
HD 2967 (C)	64.68	9	68.45	6	72.82	5	68.65	6
PBW 824	64.36	10	67.84	7	72.43	6	68.21	7
UP 3043	64.69	8	67.83	8	71.53	7	68.01	8
DBW 187	68.22	4	73.27	1	78.76	1	73.42	2
HD 3086 (C)	65.86	5	69.45	5	74.65	3	69.99	4
DBW 303	70.37	1	72.82	2	78.16	2	73.78	1
DBW 304	58.59	15	62.42	15	66.06	15	62.36	15
UP 3042	62.98	12	65.63	11	70.52	8	66.37	11
DBW 302	61.74	13	63.24	13	68.63	12	64.53	13
PBW 825	60.68	14	63.16	14	69.64	10	64.49	14
HD 3347	63.88	11	65.32	12	68.06	13	65.75	12
MEAN	64.99		67.60		71.49		68.03	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	*		0.81		3.17		7.96	
Variety (B)	**		0.64		1.81		2.84	
B within A	NS		1.11		3.14			
A within B			1.34		3.90			
Earhead/sqm								
HD 3317	424	7	431	7	423	10	426	10
WH 1254	474	1	491	1	496	1	487	1
DBW 301	473	2	441	5	494	2	469	3
WH 1270	470	3	404	8	409	12	428	9
HD 2967 (C)	407	9	445	4	484	6	445	5
PBW 824	358	12	389	10	444	9	397	11
UP 3043	327	15	336	14	378	14	347	14
DBW 187	404	10	403	9	490	5	433	7
HD 3086 (C)	444	5	459	3	460	7	454	4
DBW 303	343	13	383	12	385	13	370	13
DBW 304	438	6	358	13	493	3	430	8
UP 3042	363	11	387	11	410	11	387	12
DBW 302	459	4	477	2	493	3	476	2
PBW 825	333	14	334	15	365	15	344	15
HD 3347	422	8	432	6	449	8	434	6
MEAN	409		411		445		422	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	**		4.06		15.92		6.45	
Variety (B)	**		16.72		47.09		11.89	
B within A	NS		28.95		81.56			
A within B			28.26		81.86			
Grains/Earhead								
HD 3317	29.94	13	29.82	15	34.09	11	31.28	14
WH 1254	39.68	2	36.21	8	39.07	4	38.32	5
DBW 301	37.10	6	40.79	2	39.17	3	39.02	3
WH 1270	29.91	14	35.62	9	36.84	6	34.12	8
HD 2967 (C)	34.67	7	33.19	10	33.26	14	33.71	10
PBW 824	38.41	5	36.79	5	36.34	7	37.18	6
UP 3043	38.58	4	39.13	3	37.91	5	38.54	4
DBW 187	33.40	10	36.23	7	34.39	10	34.67	7
HD 3086 (C)	32.19	12	32.59	13	35.90	8	33.56	12
DBW 303	47.18	1	43.59	1	47.42	1	46.06	1
DBW 304	27.78	15	36.32	6	28.46	15	30.85	15
UP 3042	33.99	8	33.07	11	33.70	13	33.59	11
DBW 302	33.57	9	32.02	14	35.68	9	33.76	9
PBW 825	38.58	3	38.73	4	44.49	2	40.60	2
HD 3347	33.29	11	32.80	12	33.72	12	33.27	13
MEAN	35.22		35.79		36.70		35.90	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	*		0.39		1.55		7.36	
Variety (B)	**		1.34		3.78		11.22	
B within A	NS		2.33		6.55			
A within B			2.28		6.61			

Table 2.3.3a. North Western Plains IR-ES-HYT Karnal 2018-19

Variety	Nutrient management						Mean	Rk
	Rec.NPK	Rk	150% Rec. NPK	Rk	150% + FYM+GR	Rk		
1000 Grains Weight, g								
HD 3317	51.65	2	51.79	2	48.31	4	50.58	3
WH 1254	37.31	14	39.46	14	36.77	14	37.84	14
DBW 301	37.21	15	37.44	15	36.34	15	37.00	15
WH 1270	49.97	5	50.20	5	49.49	3	49.89	5
HD 2967 (C)	46.43	9	47.20	9	45.24	9	46.29	9
PBW 824	47.13	8	47.41	8	45.60	7	46.72	7
UP 3043	51.33	4	51.64	4	50.06	2	51.01	2
DBW 187	51.41	3	51.69	3	47.33	5	50.15	4
HD 3086 (C)	46.13	10	46.47	10	45.24	8	45.95	10
DBW 303	43.73	12	43.86	12	42.89	12	43.49	12
DBW 304	48.42	6	48.85	6	47.33	6	48.20	6
UP 3042	53.16	1	53.34	1	51.05	1	52.52	1
DBW 302	41.43	13	41.44	13	39.11	13	40.66	13
PBW 825	47.35	7	48.81	7	43.30	11	46.49	8
HD 3347	45.60	11	46.20	11	44.97	10	45.59	11
MEAN	46.55		47.05		44.87		46.16	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	**		0.18		0.72		2.67	
Variety (B)	**		0.24		0.68		1.56	
B within A	**		0.42		1.17			
A within B			0.44		1.28			
Biomass, q/ha								
HD 3317	180.56	9	199.54	1	184.72	12	188.27	6
WH 1254	193.98	3	189.35	4	196.76	3	193.36	2
DBW 301	183.33	7	188.43	6	187.50	10	186.42	10
WH 1270	197.69	1	187.50	8	189.81	8	191.67	4
HD 2967 (C)	178.70	10	188.89	5	197.22	2	188.27	6
PBW 824	168.98	14	176.85	14	193.52	5	179.78	12
UP 3043	171.30	13	179.17	12	182.87	14	177.78	14
DBW 187	195.37	2	186.57	10	196.30	4	192.75	3
HD 3086 (C)	173.61	12	182.87	11	188.89	9	181.79	11
DBW 303	186.57	5	187.50	8	191.67	6	188.58	5
DBW 304	186.11	6	192.13	3	185.19	11	187.81	8
UP 3042	181.94	8	187.96	7	190.74	7	186.88	9
DBW 302	192.13	4	196.30	2	224.54	1	204.32	1
PBW 825	160.65	15	172.22	15	175.93	15	169.60	15
HD 3347	174.07	11	178.24	13	183.33	13	178.55	13
MEAN	181.67		186.23		191.27		186.39	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	*		2.29		9.01		8.26	
Variety (B)	**		2.67		7.51		4.29	
B within A	**		4.62		13.01			
A within B			5.02		14.53			
Plant Height, cm								
HD 3317	119.46	1	120.05	1	104.24	3	114.58	1
WH 1254	111.03	8	111.35	11	98.94	8	107.11	10
DBW 301	99.86	15	100.80	15	94.02	13	98.23	15
WH 1270	102.84	14	102.79	14	98.89	9	101.51	13
HD 2967 (C)	112.45	4	114.09	4	103.37	5	109.97	3
PBW 824	110.62	9	114.99	3	103.81	4	109.81	4
UP 3043	111.72	6	113.30	6	103.13	6	109.38	6
DBW 187	115.95	2	115.65	2	97.36	10	109.65	5
HD 3086 (C)	108.00	12	109.53	12	90.37	15	102.63	12
DBW 303	115.33	3	112.97	7	96.92	11	108.41	8
DBW 304	106.18	13	106.29	13	91.54	14	101.34	14
UP 3042	109.12	11	112.39	9	102.65	7	108.05	9
DBW 302	112.02	5	113.81	5	107.95	1	111.26	2
PBW 825	110.59	10	111.67	10	104.29	2	108.85	7
HD 3347	111.10	7	112.91	8	95.39	12	106.46	11
MEAN	110.42		111.50		99.52		107.15	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	**		0.91		3.58		5.72	
Variety (B)	**		1.10		3.10		3.08	
B within A	**		1.91		5.38			
A within B			2.06		5.96			
Date of Sowing:	25.10.2018			Date of Harvesting:	15.04.2019			

Table 2.3.4. North Western Plains Z IR-ES-HYT Ludhiana 2018-19

Variety	Nutrient management						Mean	Rk
	Rec.NPK	Rk	150% Rec. NPK	Rk	150% + FYM+GR	Rk		
Yield,q/ha								
HD 3317	69.01	12	69.53	11	70.24	13	69.59	11
WH 1254	71.31	10	70.52	10	73.57	11	71.80	10
DBW 301	55.67	14	56.08	15	72.46	12	61.40	15
WH 1270	71.98	8	74.17	4	80.36	4	75.50	3
HD 2967 (C)	51.98	15	61.03	14	80.87	2	64.63	13
PBW 824	72.98	3	74.76	3	80.52	3	76.08	2
UP 3043	70.83	11	72.06	8	78.93	5	73.94	6
DBW 187	81.90	1	82.05	1	86.03	1	83.33	1
HD 3086 (C)	72.89	4	71.47	9	75.20	8	73.19	8
DBW 303	72.70	6	72.34	7	73.87	10	72.97	9
DBW 304	72.34	7	73.97	5	77.86	6	74.72	5
UP 3042	72.86	5	76.98	2	76.31	7	75.38	4
DBW 302	75.60	2	63.85	12	66.75	15	68.73	12
PBW 825	60.20	13	62.42	13	67.30	14	63.31	14
HD 3347	71.59	9	73.69	6	74.33	9	73.20	7
MEAN	69.59		70.33		75.64		71.85	
F Test		SEm		CD		CV (%)		
Nutrients (A)	*	1.48		5.81		13.81		
Variety (B)	**	2.00		5.63		8.35		
B within A	*	3.46		9.76				
A within B		3.66		10.60				
Earhead/sqm								
HD 3317	318	13	323	14	336	14	326	14
WH 1254	342	5	346	7	368	5	352	6
DBW 301	380	1	389	1	378	3	382	1
WH 1270	338	7	351	5	383	1	357	4
HD 2967 (C)	327	11	330	12	365	7	340	11
PBW 824	333	8	325	13	351	13	336	12
UP 3043	301	14	307	15	325	15	311	15
DBW 187	346	4	344	8	354	11	348	7
HD 3086 (C)	354	2	348	6	355	10	352	5
DBW 303	321	12	354	4	353	12	343	10
DBW 304	340	6	360	2	374	4	358	3
UP 3042	331	9	343	10	363	8	345	8
DBW 302	353	3	360	3	380	2	364	2
PBW 825	295	15	344	9	367	6	335	13
HD 3347	327	10	343	10	361	9	343	9
MEAN	334		344		361		346	
F Test		SEm		CD		CV (%)		
Nutrients (A)	*	5.00		19.61		9.68		
Variety (B)	**	7.27		20.48		6.30		
B within A	NS	12.59		35.47				
A within B		13.15		38.08				
Grains/Earhead								
HD 3317	39.05	15	42.17	10	41.54	11	40.92	12
WH 1254	42.16	10	44.00	6	46.19	7	44.12	5
DBW 301	39.81	13	36.86	14	51.15	1	42.61	9
WH 1270	41.97	11	42.66	8	38.03	13	40.89	13
HD 2967 (C)	41.58	12	42.52	9	47.96	4	44.02	6
PBW 824	42.53	8	44.74	3	47.93	5	45.07	4
UP 3043	45.99	4	44.41	4	47.98	3	46.13	3
DBW 187	50.72	2	47.50	1	46.42	6	48.21	2
HD 3086 (C)	42.35	9	37.35	13	41.95	10	40.55	14
DBW 303	50.79	1	45.22	2	48.66	2	48.22	1
DBW 304	45.50	5	39.06	12	42.31	9	42.29	11
UP 3042	44.24	7	43.17	7	40.58	12	42.67	8
DBW 302	45.22	6	39.41	11	42.38	8	42.34	10
PBW 825	39.32	14	34.74	15	37.18	15	37.08	15
HD 3347	47.09	3	44.00	5	37.19	14	42.76	7
MEAN	43.89		41.85		43.83		43.19	
F Test		SEm		CD		CV (%)		
Nutrients (A)	NS	1.28		5.04		19.94		
Variety (B)	**	1.62		4.55		11.22		
B within A	NS	2.80		7.88				
A within B		2.99		8.67				

Table 2.3.4a. North Western Plains IR-ES-HYT Ludhiana 2018-19

Variety	Nutrient management						Mean	Rk
	Rec.NPK	Rk	150% Rec. NPK	Rk	150% + FYM+GR	Rk		
1000 Grains Weight, g								
HD 3317	55.78	1	51.39	7	50.90	5	52.69	1
WH 1254	49.67	7	46.41	11	43.42	12	46.50	11
DBW 301	37.02	15	39.13	15	38.22	15	38.12	15
WH 1270	51.30	4	49.64	10	55.77	1	52.24	2
HD 2967 (C)	38.33	14	43.68	14	46.39	11	42.80	14
PBW 824	51.91	2	52.07	6	47.84	10	50.61	8
UP 3043	51.29	5	53.11	2	50.85	6	51.75	3
DBW 187	46.75	11	50.28	8	52.59	3	49.87	9
HD 3086 (C)	48.62	8	55.11	1	50.82	7	51.51	4
DBW 303	44.88	13	44.83	13	43.16	13	44.29	13
DBW 304	47.05	10	52.79	3	49.43	9	49.76	10
UP 3042	49.69	6	52.28	5	52.42	4	51.46	5
DBW 302	47.59	9	44.98	12	41.79	14	44.79	12
PBW 825	51.87	3	52.74	4	49.46	8	51.36	6
HD 3347	46.67	12	49.78	9	55.62	2	50.69	7
MEAN	47.89		49.21		48.58		48.56	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	NS		0.83		3.27		11.49	
Variety (B)	**		0.82		2.31		5.07	
B within A	**		1.42		4.01			
A within B			1.61		4.65			
Biomass, q/ha								
HD 3317	170.71	10	172.90	11	158.73	15	167.45	13
WH 1254	174.01	9	180.28	4	171.03	13	175.11	11
DBW 301	147.22	15	147.22	15	162.06	14	152.17	15
WH 1270	183.53	3	184.65	2	189.21	7	185.80	2
HD 2967 (C)	160.71	13	165.48	13	197.58	2	174.59	12
PBW 824	179.76	5	175.97	8	193.25	3	182.99	4
UP 3043	165.63	12	176.90	7	184.80	9	175.78	10
DBW 187	206.43	1	187.22	1	215.16	1	202.94	1
HD 3086 (C)	175.56	8	180.95	3	184.33	10	180.28	6
DBW 303	176.23	7	177.18	6	182.74	12	178.72	9
DBW 304	185.71	2	175.71	9	191.83	4	184.42	3
UP 3042	170.48	11	180.24	5	189.92	5	180.21	7
DBW 302	177.03	6	171.94	12	187.83	8	178.93	8
PBW 825	157.34	14	160.32	14	183.21	11	166.96	14
HD 3347	181.87	4	174.17	10	189.44	6	181.83	5
MEAN	174.15		174.08		185.41		177.88	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	NS		4.44		17.42		16.73	
Variety (B)	**		3.38		9.52		5.70	
B within A	*		5.85		16.49			
A within B			7.19		20.82			
Plant Height, cm								
HD 3317	95.20	5	100.13	2	90.87	5	95.40	3
WH 1254	93.00	9	95.13	8	88.33	10	92.16	10
DBW 301	85.20	15	88.47	15	84.33	15	86.00	15
WH 1270	88.00	14	89.40	14	86.33	13	87.91	14
HD 2967 (C)	94.43	6	95.47	7	88.67	9	92.86	7
PBW 824	90.73	10	92.47	11	87.67	12	90.29	11
UP 3043	96.93	2	97.40	5	93.40	2	95.91	2
DBW 187	93.47	8	94.73	9	90.27	6	92.82	8
HD 3086 (C)	90.07	12	91.47	12	86.07	14	89.20	13
DBW 303	94.07	7	93.27	10	91.07	4	92.80	9
DBW 304	89.67	13	90.60	13	88.00	11	89.42	12
UP 3042	95.40	4	97.73	4	91.20	3	94.78	4
DBW 302	99.33	1	101.93	1	96.80	1	99.36	1
PBW 825	95.93	3	96.33	6	89.87	8	94.04	5
HD 3347	90.67	11	98.40	3	90.13	7	93.07	6
MEAN	92.81		94.86		89.53		92.40	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	**		0.42		1.66		3.08	
Variety (B)	**		1.03		2.89		3.33	
B within A	NS		1.78		5.01			
A within B			1.77		5.13			
Date of Sowing:	27.10.2018			Date of Harvesting:	03.05.2019			

Table 2.3.5. North Western Plains Z IR-ES-HYT Pantnagar 2018-19

Variety	Nutrient management						Mean	Rk
	Rec.NPK	Rk	150% Rec. NPK	Rk	150% + FYM+GR	Rk		
Yield,q/ha								
HD 3317	57.19	11	57.11	13	59.01	14	57.77	12
WH 1254	65.32	2	67.60	2	71.74	3	68.22	2
DBW 301	53.16	15	55.68	15	58.59	15	55.81	15
WH 1270	55.04	12	57.18	12	59.05	13	57.09	13
HD 2967 (C)	58.43	10	58.88	11	67.81	7	61.71	9
PBW 824	59.77	8	62.41	8	66.04	9	62.74	8
UP 3043	60.34	7	63.50	6	73.16	1	65.67	5
DBW 187	62.49	4	65.77	4	72.02	2	66.76	4
HD 3086 (C)	61.25	6	64.62	5	67.68	8	64.51	6
DBW 303	64.23	3	67.59	3	70.82	4	67.55	3
DBW 304	59.30	9	60.56	9	62.61	10	60.82	10
UP 3042	65.92	1	68.44	1	70.72	5	68.36	1
DBW 302	54.41	13	59.99	10	61.99	11	58.80	11
PBW 825	61.35	5	63.15	7	68.44	6	64.31	7
HD 3347	53.84	14	55.85	14	61.02	12	56.90	14
MEAN	59.47		61.89		66.05		62.47	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	**		0.50		1.95		5.33	
Variety (B)	**		0.97		2.74		4.68	
B within A	NS		1.69		4.75			
A within B			1.70		4.93			
Earhead/sqm								
HD 3317	330	14	350	14	451	9	377	13
WH 1254	441	5	490	2	577	1	503	1
DBW 301	448	3	486	3	513	5	483	4
WH 1270	461	2	480	4	542	2	494	2
HD 2967 (C)	386	12	397	11	413	12	398	11
PBW 824	388	11	390	12	398	14	392	12
UP 3043	313	15	323	15	333	15	323	15
DBW 187	424	8	465	5	487	6	459	7
HD 3086 (C)	462	1	495	1	523	4	493	3
DBW 303	429	7	449	8	524	3	467	5
DBW 304	435	6	451	7	482	8	456	8
UP 3042	394	10	403	10	449	10	415	10
DBW 302	448	3	454	6	483	7	462	6
PBW 825	348	13	364	13	413	12	375	14
HD 3347	408	9	429	9	445	11	427	9
MEAN	407		428		469		435	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	**		2.44		9.56		3.76	
Variety (B)	**		13.17		37.09		9.08	
B within A	NS		22.80		64.24			
A within B			22.17		64.20			
Grains/Earhead								
HD 3317	41.89	1	38.83	1	30.02	6	36.91	2
WH 1254	35.32	6	31.15	8	27.38	12	31.28	8
DBW 301	26.12	15	25.43	15	23.31	14	24.95	15
WH 1270	31.58	12	27.73	13	28.75	9	29.35	12
HD 2967 (C)	33.18	9	28.74	11	32.78	5	31.57	7
PBW 824	36.24	5	33.30	5	34.42	2	34.65	5
UP 3043	37.48	3	35.91	3	37.84	1	37.08	1
DBW 187	36.89	4	33.34	4	34.22	3	34.82	4
HD 3086 (C)	32.43	11	30.80	9	29.61	7	30.95	10
DBW 303	26.75	14	25.61	14	23.01	15	25.13	14
DBW 304	32.75	10	31.40	7	29.46	8	31.20	9
UP 3042	37.60	2	36.77	2	33.93	4	36.10	3
DBW 302	27.55	13	28.45	12	27.45	11	27.81	13
PBW 825	33.55	8	30.25	10	24.81	13	29.54	11
HD 3347	33.89	7	33.13	6	27.86	10	31.63	6
MEAN	33.55		31.39		29.66		31.53	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	*		0.47		1.85		10.03	
Variety (B)	**		1.25		3.52		11.89	
B within A	NS		2.17		6.10			
A within B			2.14		6.21			

Table 2.3.5a. North Western Plains IR-ES-HYT Pantnagar 2018-19

Variety	Nutrient management						Mean	Rk
	Rec.NPK	Rk	150% Rec. NPK	Rk	150% + FYM+GR	Rk		
1000 Grains Weight, g								
HD 3317	42.03	10	42.33	14	43.77	14	42.71	12
WH 1254	42.23	9	44.43	9	45.67	10	44.11	9
DBW 301	45.97	4	46.10	8	49.06	6	47.04	6
WH 1270	38.33	15	43.03	10	38.06	15	39.81	15
HD 2967 (C)	45.73	5	52.00	4	51.43	4	49.72	4
PBW 824	44.13	8	49.10	5	48.50	7	47.24	5
UP 3043	51.50	3	55.22	3	58.67	3	55.13	3
DBW 187	40.13	13	42.57	13	44.43	11	42.38	14
HD 3086 (C)	41.10	12	42.83	12	44.07	13	42.67	13
DBW 303	56.00	1	58.83	1	59.17	2	58.00	2
DBW 304	42.00	11	43.00	11	44.33	12	43.11	10
UP 3042	44.77	7	46.50	6	46.63	9	45.97	8
DBW 302	45.13	6	46.50	6	47.13	8	46.26	7
PBW 825	52.90	2	57.50	2	67.07	1	59.16	1
HD 3347	39.10	14	39.91	15	49.34	5	42.78	11
MEAN	44.74		47.32		49.15		47.07	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	*		0.77		3.04		11.04	
Variety (B)	**		1.01		2.83		6.41	
B within A	*		1.74		4.90			
A within B			1.85		5.36			
Biomass, q/ha								
HD 3317	163.25	1	169.66	2	191.00	2	174.64	1
WH 1254	146.47	10	158.12	8	191.29	1	165.29	5
DBW 301	140.79	15	146.73	15	166.49	11	151.34	13
WH 1270	144.76	14	148.33	13	154.62	15	149.24	15
HD 2967 (C)	152.14	5	161.42	6	170.72	7	161.43	7
PBW 824	146.15	12	157.26	9	166.67	10	156.69	10
UP 3043	151.28	6	150.55	12	174.36	6	158.73	8
DBW 187	161.72	3	171.79	1	181.66	4	171.72	2
HD 3086 (C)	148.72	9	165.79	4	170.38	8	161.63	6
DBW 303	146.29	11	151.90	11	156.24	14	151.48	12
DBW 304	145.20	13	147.86	14	158.97	13	150.68	14
UP 3042	163.25	1	167.44	3	176.07	5	168.92	4
DBW 302	161.54	4	164.03	5	182.12	3	169.23	3
PBW 825	149.66	8	156.19	10	163.84	12	156.56	11
HD 3347	150.43	7	158.33	7	167.01	9	158.59	9
MEAN	151.44		158.36		171.43		160.41	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	**		1.76		6.89		7.34	
Variety (B)	**		3.25		9.16		6.08	
B within A	NS		5.63		15.87			
A within B			5.72		16.56			
Plant Height, cm								
HD 3317	104.53	1	105.50	1	96.00	2	102.01	1
WH 1254	94.13	13	95.87	13	85.70	13	91.90	14
DBW 301	88.13	15	88.50	15	85.60	14	87.41	15
WH 1270	93.80	14	97.20	12	89.63	12	93.54	13
HD 2967 (C)	99.53	5	103.97	3	94.57	5	99.36	4
PBW 824	100.10	3	101.50	6	98.77	1	100.12	2
UP 3043	99.73	4	104.10	2	94.63	4	99.49	3
DBW 187	99.47	6	101.77	5	85.20	15	95.48	10
HD 3086 (C)	94.30	12	100.00	11	89.67	11	94.66	12
DBW 303	98.93	7	100.03	10	92.80	9	97.26	9
DBW 304	95.00	11	95.77	14	94.77	3	95.18	11
UP 3042	97.40	10	101.83	4	94.57	5	97.93	5
DBW 302	98.23	9	100.17	9	94.00	7	97.47	8
PBW 825	98.50	8	100.87	8	93.23	8	97.53	7
HD 3347	101.00	2	101.33	7	91.47	10	97.93	6
MEAN	97.52		99.89		92.04		96.48	
	F Test		SEm		CD		CV (%)	
Nutrients (A)	**		0.77		3.04		5.38	
Variety (B)	**		1.20		3.38		3.73	
B within A	NS		2.08		5.85			
A within B			2.15		6.23			
Date of Sowing:	27.10.2018			Date of Harvesting:	03.05.2019			

Table 3.1. North Eastern Plains Zone

Genotype	IR-TAS-DOS				Pooled		2018-19	
	Sowing time		Yield, q/ha					
	Normal	Rk	Late	Rk	V. Late	Rk	Mean	Rk
HD 2733 (c)	48.90	3	41.38	5	31.19	2	40.49	3
PBW 757 (I)	45.21	8	39.91	9	30.99	4	38.70	9
DBW 71 (c)	46.59	6	41.12	6	30.91	6	39.54	6
HD 3249	49.66	2	45.02	1	32.78	1	42.49	1
DBW 39 ©	48.42	5	41.82	3	30.90	7	40.38	4
DBW 187 (I)	48.51	4	43.20	2	31.11	3	40.94	2
HD 2967 (c)	50.00	1	40.69	8	27.99	9	39.56	5
HI 1621	45.08	9	41.43	4	30.94	5	39.15	8
HD 3271	46.31	7	40.77	7	30.83	8	39.31	7
MEAN	47.63		41.71		30.85		40.06	
	Sowing (A)		Variety (B)		B within A		A within B	
CD (0.05)	0.83		0.82		1.41		1.57	
	Earheads/sqm							
HD 2733 (c)	347	1	344	1	289	2	327	1
PBW 757 (I)	321	9	308	9	279	4	303	9
DBW 71 (c)	327	7	324	5	285	3	312	5
HD 3249	333	4	330	3	275	8	313	4
DBW 39 ©	328	6	313	8	267	9	303	8
DBW 187 (I)	342	3	317	7	277	7	312	6
HD 2967 (c)	344	2	335	2	277	5	319	2
HI 1621	324	8	328	4	290	1	314	3
HD 3271	333	5	322	6	277	6	311	7
MEAN	333		325		280		312	
	Sowing (A)		Variety (B)		B within A		A within B	
CD (0.05)	6.43		7.48		12.96		13.78	
	Grains/Earhead							
HD 2733 (c)	33.37	8	30.96	9	30.41	9	31.58	9
PBW 757 (I)	35.49	4	35.01	1	32.29	5	34.26	2
DBW 71 (c)	36.31	2	34.40	5	31.80	6	34.17	4
HD 3249	35.06	5	34.61	4	33.08	1	34.25	3
DBW 39 ©	35.87	3	34.86	2	32.73	2	34.48	1
DBW 187 (I)	32.67	9	34.73	3	32.43	3	33.28	6
HD 2967 (c)	37.53	1	33.88	6	30.82	8	34.08	5
HI 1621	34.06	6	33.25	7	31.04	7	32.79	7
HD 3271	33.46	7	32.55	8	32.34	4	32.79	8
MEAN	34.87		33.81		31.88		33.52	
	Sowing (A)		Variety (B)		B within A		A within B	
CD (0.05)	0.87		1.19		2.07		2.13	
	1000 Grains Weight, g							
HD 2733 (c)	43.92	3	40.86	2	36.54	2	40.44	2
PBW 757 (I)	41.44	7	38.34	7	35.92	4	38.57	7
DBW 71 (c)	40.77	8	38.26	8	35.84	6	38.29	8
HD 3249	44.32	2	41.19	1	36.96	1	40.82	1
DBW 39 ©	42.96	6	39.99	5	36.19	3	39.71	4
DBW 187 (I)	44.57	1	40.39	3	35.89	5	40.28	3
HD 2967 (c)	40.68	9	37.86	9	33.80	9	37.45	9
HI 1621	43.02	5	39.70	6	35.45	7	39.39	6
HD 3271	43.06	4	40.19	4	34.94	8	39.39	5
MEAN	42.75		39.64		35.73		39.37	
	Sowing (A)		Variety (B)		B within A		A within B	
CD (0.05)	0.43		0.65		1.12		1.14	

Centres: Burdwan, Coochbehar, Faizabad, IARI Pusa, Kalyani, Kanpur, Ranchi, CAU Pusa, Sabour, Shillongani, Varanasi

Table 3.1.1. North Eastern Plains Zone			IR-TAS-DOS		Burdwan		2018-19	
Genotype	Sowing time				V. Late	Rk	Mean	Rk
	Normal	Rk	Late	Rk				
Yield, q/ha								
HD 2733 (c)	44.24	4	35.00	9	27.76	5	35.67	7
PBW 757 (I)	28.80	9	38.18	7	29.61	3	32.20	9
DBW 71 (c)	35.65	8	43.52	2	29.56	4	36.24	5
HD 3249	43.62	5	42.60	4	25.44	7	37.22	4
DBW 39 (c)	45.18	2	38.64	6	30.75	1	38.19	2
DBW 187 (I)	44.82	3	42.81	3	30.52	2	39.38	1
HD 2967 (c)	43.07	6	35.81	8	22.08	9	33.65	8
HI 1621	47.11	1	39.69	5	25.31	8	37.37	3
HD 3271	37.16	7	44.32	1	25.65	6	35.71	6
MEAN	41.07		40.06		27.41		36.18	
	F Test		S.E.m		CD		CV (%)	
Date of sowing (A)	**		0.26		1.04		3.80	
Variety (B)	**		0.76		2.15		6.27	
B within A	**		1.31		3.72			
A within B			1.26		3.79			
Earheads/sqm								
HD 2733 (c)	307	1	322	2	272	4	300	1
PBW 757 (I)	253	7	263	9	275	1	264	8
DBW 71 (c)	272	6	327	1	273	3	291	4
HD 3249	240	9	282	8	243	9	255	9
DBW 39 (c)	253	7	320	3	260	8	278	6
DBW 187 (I)	273	5	297	7	262	7	277	7
HD 2967 (c)	298	3	303	6	268	6	290	5
HI 1621	300	2	313	5	270	5	294	2
HD 3271	285	4	315	4	275	1	292	3
MEAN	276		305		266		282	
	F Test		S.E.m		CD		CV (%)	
Sowing (A)	**		2.52		9.90		4.64	
Genotype (B)	**		5.56		15.82		5.91	
B within A	*		9.64		27.41			
A within B			9.43		28.27			
Grains/Earhead								
HD 2733 (c)	30.07	7	24.12	9	26.41	9	26.87	9
PBW 757 (I)	25.18	9	36.91	1	30.50	5	30.86	8
DBW 71 (c)	30.39	6	35.49	3	33.12	2	33.00	4
HD 3249	39.78	1	36.52	2	30.13	6	35.48	1
DBW 39 (c)	39.62	2	31.04	8	34.97	1	35.21	2
DBW 187 (I)	34.35	4	34.58	4	31.12	3	33.35	3
HD 2967 (c)	34.87	3	31.81	7	27.62	8	31.43	5
HI 1621	31.72	5	33.15	5	27.85	7	30.91	7
HD 3271	29.54	8	32.97	6	31.03	4	31.18	6
MEAN	32.84		32.95		30.31		32.03	
	F Test		S.E.m		CD		CV (%)	
Sowing (A)	**		0.31		1.21		5.01	
Genotype (B)	**		0.64		1.83		6.04	
B within A	**		1.12		3.18			
A within B			1.10		3.29			
1000 Grains Weight, g								
HD 2733 (c)	48.05	2	45.11	1	38.80	1	43.99	1
PBW 757 (I)	45.28	5	39.30	5	35.55	3	40.05	5
DBW 71 (c)	43.27	8	37.59	8	32.79	7	37.88	8
HD 3249	45.74	4	41.52	4	34.67	4	40.65	3
DBW 39 (c)	45.09	6	38.88	6	33.79	5	39.25	6
DBW 187 (I)	47.80	3	41.73	3	37.47	2	42.34	2
HD 2967 (c)	41.44	9	37.04	9	29.85	9	36.11	9
HI 1621	49.66	1	38.32	7	33.67	6	40.55	4
HD 3271	44.21	7	42.68	2	30.12	8	39.00	7
MEAN	45.62		40.24		34.08		39.98	
	F Test		S.E.m		CD		CV (%)	
Sowing (A)	**		0.29		1.15		3.80	
Genotype (B)	**		0.45		1.27		3.35	
B within A	**		0.77		2.20			
A within B			0.79		2.36			
Date of Sowing:			05.11.2018		14.12.2018		04.01.2019	
Date of Harvesting:			20.02.19-15.03.19		20.03.19-28.03.19		01.04.19-08.04.19	

Table 3.1.2. North Eastern Plains Zone			IR-TAS-DOS		Coochbehar		2018-19	
Genotype	Sowing time				V. Late	Rk	Mean	Rk
	Normal	Rk	Late	Rk				
Yield, q/ha								
HD 2733 (c)	51.20	2	35.30	3	16.43	3	34.31	2
PBW 757 (I)	44.77	7	29.03	8	16.23	4	30.01	6
DBW 71 (c)	48.10	4	34.23	4	16.67	2	33.00	4
HD 3249	47.57	5	34.10	5	14.70	6	32.12	5
DBW 39 (c)	48.70	3	36.37	1	14.50	7	33.19	3
DBW 187 (I)	41.80	8	30.43	7	15.80	5	29.34	8
HD 2967 (c)	56.20	1	36.33	2	19.13	1	37.22	1
HI 1621	44.93	6	30.63	6	14.13	8	29.90	7
HD 3271	33.77	9	24.93	9	12.07	9	23.59	9
MEAN	46.34		32.37		15.52		31.41	
	F Test		SEm		CD (0.05)		CV (%)	
Date of sowing (A)	**		0.57		2.24		9.45	
Variety (B)	**		0.82		2.33		7.84	
B within A	**		1.42		4.04			
A within B			1.46		4.37			
Earheads/sqm								
HD 2733 (c)	290	2	232	3	155	3	226	3
PBW 757 (I)	217	8	169	9	136	8	174	8
DBW 71 (c)	284	3	235	2	159	1	226	2
HD 3249	271	4	223	6	137	7	210	6
DBW 39 (c)	271	4	227	4	138	6	212	4
DBW 187 (I)	267	6	225	5	140	5	211	5
HD 2967 (c)	309	1	237	1	159	2	235	1
HI 1621	264	7	210	7	145	4	206	7
HD 3271	204	9	178	8	129	9	170	9
MEAN	264		215		144		208	
	F Test		SEm		CD (0.05)		CV (%)	
Sowing (A)	**		6.09		23.91		15.23	
Genotype (B)	**		9.99		28.42		14.43	
B within A	NS		17.31		49.23			
A within B			17.42		52.23			
Grains/Earhead								
HD 2733 (c)	46.74	3	40.57	2	31.33	4	39.54	3
PBW 757 (I)	48.20	1	40.36	4	32.61	2	40.39	2
DBW 71 (c)	44.25	5	38.29	5	28.40	6	36.98	6
HD 3249	42.71	6	37.27	6	28.16	8	36.04	7
DBW 39 (c)	45.71	4	40.45	3	29.27	5	38.48	4
DBW 187 (I)	42.32	7	37.02	7	32.07	3	37.13	5
HD 2967 (c)	46.86	2	42.96	1	34.32	1	41.38	1
HI 1621	40.73	8	35.24	9	28.17	7	34.71	8
HD 3271	40.31	9	35.29	8	26.50	9	34.03	9
MEAN	44.20		38.60		30.09		37.63	
	F Test		SEm		CD (0.05)		CV (%)	
Sowing (A)	**		0.78		3.05		10.74	
Genotype (B)	NS		2.12		6.02		16.87	
B within A	NS		3.67		10.43			
A within B			3.54		10.62			
1000 Grains Weight, g								
HD 2733 (c)	38.40	9	37.80	7	34.03	9	36.74	9
PBW 757 (I)	43.20	1	42.63	1	37.53	2	41.12	1
DBW 71 (c)	38.53	7	38.07	6	37.53	2	38.04	6
HD 3249	41.47	3	41.27	3	38.30	1	40.34	2
DBW 39 (c)	39.97	5	39.90	4	36.50	4	38.79	5
DBW 187 (I)	38.43	8	37.10	9	36.03	5	37.19	8
HD 2967 (c)	39.13	6	37.17	8	35.73	6	37.34	7
HI 1621	42.97	2	41.57	2	34.93	8	39.82	3
HD 3271	41.13	4	39.83	5	35.43	7	38.80	4
MEAN	40.36		39.48		36.23		38.69	
	F Test		SEm		CD (0.05)		CV (%)	
Sowing (A)	**		0.19		0.73		2.49	
Genotype (B)	**		0.30		0.86		2.34	
B within A	**		0.52		1.49			
A within B			0.53		1.58			
Date of Sowing:			08.11.2018		13.12.2018		03.01.2019	
Date of Harvesting:			14.03.2019		03.04.2019		10.04.2019	

Table 3.1.3. North Eastern Plains Zone

Genotype	Sowing time				Faizabad		2018-19	
	Normal	Rk	Late	Rk	V. Late	Rk	Mean	Rk
Yield, q/ha								
HD 2733 (c)	58.73	2	48.51	6	28.77	5	45.34	4
PBW 757 (I)	57.34	3	47.92	8	28.67	6	44.64	5
DBW 71 (c)	53.97	8	47.13	9	29.96	3	43.69	8
HD 3249	56.05	4	50.32	4	26.98	8	44.45	6
DBW 39 (c)	54.76	6	48.02	7	25.10	9	42.63	9
DBW 187 (I)	55.46	5	49.80	5	31.75	2	45.67	2
HD 2967 (c)	53.37	9	51.41	2	27.28	7	44.02	7
HI 1621	59.33	1	50.99	3	32.34	1	47.55	1
HD 3271	54.37	7	52.58	1	29.17	4	45.37	3
MEAN	55.93		49.63		28.89		44.82	
	F Test		SEm		CD (0.05)		CV (%)	
Date of sowing (A)	**		0.18		0.69		2.04	
Variety (B)	**		0.44		1.24		2.92	
B within A	**		0.76		2.15			
A within B			0.73		2.20			
Earheads/sqm								
HD 2733 (c)	461	3	477	3	421	2	453	2
PBW 757 (I)	436	8	436	7	389	8	420	8
DBW 71 (c)	455	4	433	8	400	5	429	6
HD 3249	467	2	455	5	391	7	438	5
DBW 39 (c)	425	9	431	9	375	9	410	9
DBW 187 (I)	441	7	441	6	394	6	425	7
HD 2967 (c)	447	6	481	1	411	4	447	4
HI 1621	452	5	466	4	427	1	448	3
HD 3271	475	1	477	2	415	3	456	1
MEAN	451		455		403		436	
	F Test		SEm		CD (0.05)		CV (%)	
Sowing (A)	**		0.47		1.86		0.56	
Genotype (B)	**		1.98		5.63		1.36	
B within A	**		3.43		9.75			
A within B			3.27		9.79			
Grains/Earhead								
HD 2733 (c)	31.48	4	27.15	8	28.55	4	29.06	6
PBW 757 (I)	40.07	1	35.85	1	30.39	3	35.44	1
DBW 71 (c)	32.27	2	31.77	3	25.55	7	29.86	5
HD 3249	28.93	8	30.42	5	25.98	6	28.44	7
DBW 39 (c)	30.11	5	27.28	7	24.43	8	27.27	8
DBW 187 (I)	28.82	9	29.31	6	31.83	1	29.99	4
HD 2967 (c)	31.66	3	33.21	2	28.22	5	31.03	2
HI 1621	29.07	7	25.11	9	24.40	9	26.19	9
HD 3271	29.70	6	30.81	4	30.69	2	30.40	3
MEAN	31.35		30.10		27.78		29.74	
	F Test		SEm		CD (0.05)		CV (%)	
Sowing (A)	**		0.21		0.83		3.68	
Genotype (B)	**		0.79		2.24		7.96	
B within A	**		1.37		3.89			
A within B			1.31		3.91			
1000 Grains Weight, g								
HD 2733 (c)	40.53	5	37.50	4	24.00	7	34.01	5
PBW 757 (I)	32.90	9	30.70	9	24.30	6	29.30	9
DBW 71 (c)	36.80	8	34.30	7	29.40	2	33.50	6
HD 3249	41.50	4	36.40	5	27.13	4	35.01	4
DBW 39 (c)	42.80	3	40.90	2	27.40	3	37.03	2
DBW 187 (I)	43.70	2	38.60	3	25.50	5	35.93	3
HD 2967 (c)	37.70	7	32.20	8	23.77	8	31.22	8
HI 1621	45.20	1	43.70	1	31.37	1	40.09	1
HD 3271	38.60	6	35.80	6	23.10	9	32.50	7
MEAN	39.97		36.68		26.22		34.29	
	F Test		SEm		CD (0.05)		CV (%)	
Sowing (A)	**		0.18		0.72		2.77	
Genotype (B)	**		0.65		1.85		5.70	
B within A	**		1.13		3.21			
A within B			1.08		3.24			
Date of Sowing:			11.11.2018		16.12.2018		07.01.2019	
Date of Harvesting:			25.04.2019		05.05.2019		10.05.2019	

Table 3.1.4. North Eastern Plains Zone

Genotype	Sowing time				IR-TAS-DOS		IARI PUSA		2018-19	
	Normal	Rk	Late	Rk	V. Late	Rk	Mean	Rk		
Yield, q/ha										
HD 2733 (c)	61.46	2	56.57	2	42.91	3	53.65	2		
PBW 757 (I)	46.37	7	50.03	6	41.46	6	45.95	6		
DBW 71 (c)	41.75	9	52.07	4	34.44	9	42.76	9		
HD 3249	61.85	1	57.29	1	42.37	4	53.84	1		
DBW 39 (c)	52.73	5	50.35	5	43.58	1	48.88	3		
DBW 187 (I)	51.61	6	54.93	3	38.52	7	48.35	5		
HD 2967 (c)	56.07	3	42.28	9	37.96	8	45.44	7		
HI 1621	43.92	8	48.93	8	42.31	5	45.05	8		
HD 3271	53.14	4	49.48	7	43.00	2	48.54	4		
MEAN	52.10		51.33		40.73		48.05			
	F Test		SEm		CD (0.05)		CV (%)			
Date of sowing (A)	*		2.62		10.30		28.36			
Variety (B)	**		1.64		4.66		10.22			
B within A	**		2.84		8.06					
A within B			3.74		11.23					
Earheads/sqm										
HD 2733 (c)	447	1	501	1	394	1	447	1		
PBW 757 (I)	368	5	369	8	322	6	353	7		
DBW 71 (c)	362	6	402	5	355	3	373	4		
HD 3249	352	8	418	3	300	7	357	6		
DBW 39 (c)	326	9	370	7	284	8	326	9		
DBW 187 (I)	371	4	347	9	282	9	333	8		
HD 2967 (c)	441	2	410	4	340	5	397	3		
HI 1621	353	7	395	6	365	2	371	5		
HD 3271	436	3	430	2	341	4	402	2		
MEAN	384		405		331		373			
	F Test		SEm		CD (0.05)		CV (%)			
Sowing (A)	*		14.83		58.23		20.64			
Genotype (B)	**		13.76		39.12		11.05			
B within A	NS		23.83		67.76					
A within B			26.92		80.71					
Grains/Earhead										
HD 2733 (c)	27.77	8	25.89	7	27.81	8	27.15	8		
PBW 757 (I)	28.24	7	33.72	2	32.64	4	31.54	4		
DBW 71 (c)	28.72	5	31.29	4	24.33	9	28.11	7		
HD 3249	33.38	2	28.30	6	33.02	3	31.57	3		
DBW 39 (c)	33.80	1	32.20	3	35.23	2	33.74	1		
DBW 187 (I)	28.46	6	34.88	1	36.46	1	33.27	2		
HD 2967 (c)	31.11	3	25.72	8	30.63	6	29.15	6		
HI 1621	28.81	4	29.77	5	30.16	7	29.58	5		
HD 3271	23.89	9	25.29	9	31.55	5	26.91	9		
MEAN	29.35		29.67		31.31		30.11			
	F Test		SEm		CD (0.05)		CV (%)			
Sowing (A)	NS		1.53		6.02		26.47			
Genotype (B)	*		1.50		4.26		14.91			
B within A	NS		2.59		7.37					
A within B			2.89		8.65					
1000 Grains Weight, g										
HD 2733 (c)	50.77	3	44.03	4	40.40	3	45.07	3		
PBW 757 (I)	44.13	6	40.37	8	39.53	6	41.34	7		
DBW 71 (c)	42.60	8	41.37	7	40.30	4	41.42	6		
HD 3249	52.87	1	48.63	1	43.47	2	48.32	1		
DBW 39 (c)	47.27	5	42.80	5	44.17	1	44.74	4		
DBW 187 (I)	48.67	4	45.87	3	38.40	8	44.31	5		
HD 2967 (c)	41.87	9	40.17	9	36.57	9	39.53	9		
HI 1621	43.23	7	41.70	6	38.43	7	41.12	8		
HD 3271	51.47	2	46.17	2	40.20	5	45.94	2		
MEAN	46.99		43.46		40.16		43.53			
	F Test		SEm		CD (0.05)		CV (%)			
Sowing (A)	**		0.47		1.83		5.55			
Genotype (B)	**		0.85		2.42		5.87			
B within A	NS		1.48		4.20					
A within B			1.47		4.40					
Date of Sowing:			08.11.2018		12.12.2018		01.01.2019			
Date of Harvesting:			30.03.2109		05.04.2019		11.04.2019			

Table 3.1.5. North Eastern Plains Zone			IR-TAS-DOS		Kalyani		2018-19	
Genotype	Sowing time				V. Late	Rk	Mean	Rk
	Normal	Rk	Late	Rk				
Yield, q/ha								
HD 2733 (c)	42.50	4	39.12	6	36.30	3	39.31	2
PBW 757 (I)	40.50	6	39.35	5	34.97	4	38.27	4
DBW 71 (c)	46.15	1	32.29	9	30.17	7	36.20	8
HD 3249	45.18	2	43.74	1	39.94	1	42.96	1
DBW 39 (c)	37.75	7	42.03	3	37.72	2	39.17	3
DBW 187 (I)	37.56	8	42.04	2	32.48	6	37.36	6
HD 2967 (c)	42.53	3	39.36	4	29.85	8	37.24	7
HI 1621	37.06	9	37.77	8	27.47	9	34.10	9
HD 3271	41.26	5	38.23	7	33.53	5	37.67	5
MEAN	41.16		39.32		33.60		38.03	
	F Test		SEm		CD (0.05)		CV (%)	
Date of sowing (A)	**		0.82		3.22		11.20	
Variety (B)	*		1.63		4.63		12.85	
B within A	NS		2.82		8.03			
A within B			2.78		8.35			
Earheads/sqm								
HD 2733 (c)	351	5	350	2	300	7	334	5
PBW 757 (I)	347	6	338	7	327	4	338	4
DBW 71 (c)	331	7	343	6	353	2	343	3
HD 3249	352	4	348	3	296	8	332	6
DBW 39 (c)	356	3	322	8	314	5	331	7
DBW 187 (I)	356	2	346	4	365	1	356	1
HD 2967 (c)	317	9	355	1	287	9	320	8
HI 1621	364	1	345	5	348	3	352	2
HD 3271	328	8	320	9	307	6	318	9
MEAN	345		341		322		336	
	F Test		SEm		CD (0.05)		CV (%)	
Sowing (A)	NS		9.91		38.92		15.34	
Genotype (B)	NS		11.23		31.94		10.03	
B within A	NS		19.45		55.32			
A within B			20.85		62.50			
Grains/Earhead								
HD 2733 (c)	28.60	5	27.21	8	31.45	3	29.09	6
PBW 757 (I)	28.36	6	32.08	3	27.25	6	29.23	5
DBW 71 (c)	35.46	2	25.28	9	23.80	8	28.18	8
HD 3249	31.33	4	29.55	6	37.97	1	32.95	2
DBW 39 (c)	25.45	9	37.81	1	34.33	2	32.53	3
DBW 187 (I)	27.52	7	32.92	2	25.06	7	28.50	7
HD 2967 (c)	39.45	1	29.74	5	29.79	4	32.99	1
HI 1621	25.94	8	28.00	7	22.26	9	25.40	9
HD 3271	32.98	3	31.71	4	29.60	5	31.43	4
MEAN	30.56		30.48		29.06		30.03	
	F Test		SEm		CD (0.05)		CV (%)	
Sowing (A)	NS		1.14		4.47		19.71	
Genotype (B)	NS		1.94		5.52		19.40	
B within A	NS		3.36		9.56			
A within B			3.37		10.10			
1000 Grains Weight, g								
HD 2733 (c)	43.17	1	42.17	2	38.67	2	41.33	1
PBW 757 (I)	42.00	3	36.50	8	39.80	1	39.43	3
DBW 71 (c)	40.00	7	37.83	5	36.50	5	38.11	7
HD 3249	41.00	5	42.83	1	36.83	4	40.22	2
DBW 39 (c)	42.33	2	35.67	9	35.50	9	37.83	8
DBW 187 (I)	41.67	4	37.00	7	36.00	6	38.22	6
HD 2967 (c)	36.33	9	37.67	6	35.83	7	36.61	9
HI 1621	39.67	8	40.00	3	35.67	8	38.44	5
HD 3271	40.17	6	38.17	4	37.17	3	38.50	4
MEAN	40.70		38.65		36.89		38.75	
	F Test		SEm		CD (0.05)		CV (%)	
Sowing (A)	*		0.54		2.14		7.31	
Genotype (B)	NS		1.58		4.50		12.26	
B within A	NS		2.74		7.80			
A within B			2.64		7.92			
Date of Sowing:			10.11.2018		14.12.2018		04.01.2019	
Date of Harvesting:			12.03.2019		25.03.2019		15.04.2019	

Table 3.1.6. North Eastern Plains Zone			IR-TAS-DOS		Kanpur		2018-19	
Genotype	Sowing time						Mean	Rk
	Normal	Rk	Late	Rk	V. Late	Rk		
Yield, q/ha								
HD 2733 (c)	49.79	8	34.99	9	27.14	7	37.31	9
PBW 757 (I)	53.68	4	42.12	5	31.22	4	42.34	3
DBW 71 (c)	53.17	5	40.81	6	20.40	9	38.13	8
HD 3249	52.73	6	51.53	2	44.89	1	49.72	1
DBW 39 (c)	57.18	2	42.45	4	26.53	8	42.05	5
DBW 187 (I)	55.40	3	51.53	1	32.65	2	46.53	2
HD 2967 (c)	52.04	7	36.02	7	30.91	5	39.66	7
HI 1621	48.42	9	43.60	3	30.20	6	40.74	6
HD 3271	59.20	1	35.20	8	32.24	3	42.21	4
MEAN	53.51		42.03		30.69		42.08	
	F Test		SEm		CD (0.05)		CV (%)	
Date of sowing (A)	**		0.63		2.48		7.79	
Variety (B)	**		0.84		2.40		6.02	
B within A	**		1.46		4.16			
A within B			1.52		4.55			
Earheads/sqm								
HD 2733 (c)	384	5	392	1	313	2	363	2
PBW 757 (I)	415	3	366	7	282	7	354	5
DBW 71 (c)	398	4	377	5	296	5	357	3
HD 3249	376	7	372	6	307	4	351	6
DBW 39 (c)	427	2	324	9	262	9	338	8
DBW 187 (I)	458	1	381	4	318	1	386	1
HD 2967 (c)	365	9	386	2	279	8	343	7
HI 1621	376	6	385	3	308	3	356	4
HD 3271	375	8	335	8	287	6	333	9
MEAN	397		369		295		353	
	F Test		SEm		CD (0.05)		CV (%)	
Sowing (A)	**		5.26		20.66		7.74	
Genotype (B)	*		10.30		29.31		8.75	
B within A	NS		17.85		50.76			
A within B			17.63		52.86			
Grains/Earhead								
HD 2733 (c)	33.52	5	23.09	8	23.09	8	26.57	9
PBW 757 (I)	31.17	8	31.27	4	33.32	2	31.92	2
DBW 71 (c)	33.61	4	27.99	6	18.40	9	26.67	8
HD 3249	35.60	2	36.01	1	39.18	1	36.93	1
DBW 39 (c)	31.25	7	33.86	3	27.95	6	31.02	4
DBW 187 (I)	17.74	9	34.13	2	28.83	5	26.90	7
HD 2967 (c)	35.36	3	22.93	9	29.88	4	29.39	5
HI 1621	31.81	6	28.03	5	26.08	7	28.64	6
HD 3271	39.21	1	26.58	7	29.91	3	31.90	3
MEAN	32.14		29.32		28.51		29.99	
	F Test		SEm		CD (0.05)		CV (%)	
Sowing (A)	*		0.62		2.42		10.66	
Genotype (B)	**		1.81		5.15		18.12	
B within A	**		3.14		8.92			
A within B			3.02		9.06			
1000 Grains Weight, g								
HD 2733 (c)	39.23	9	38.67	8	37.68	2	38.53	9
PBW 757 (I)	41.62	3	37.07	9	37.10	8	38.60	7
DBW 71 (c)	39.83	7	38.86	7	37.50	4	38.73	6
HD 3249	39.43	8	38.93	5	37.33	6	38.56	8
DBW 39 (c)	42.83	2	38.90	6	37.50	4	39.74	2
DBW 187 (I)	44.44	1	39.92	3	35.90	9	40.09	1
HD 2967 (c)	40.43	6	40.90	1	37.16	7	39.50	4
HI 1621	40.67	4	40.43	2	37.60	3	39.57	3
HD 3271	40.63	5	39.60	4	37.91	1	39.38	5
MEAN	41.01		39.25		37.30		39.19	
	F Test		SEm		CD (0.05)		CV (%)	
Sowing (A)	**		0.39		1.52		5.15	
Genotype (B)	NS		0.87		2.46		6.62	
B within A	NS		1.50		4.26			
A within B			1.47		4.39			
Date of Sowing:			27.11.2018		12.12.2018		19.01.2019	
Date of Harvesting:			25.04.2019		28.04.2019		30.04.2019	

Table 3.1.7. North Eastern Plains Zone			IR-TAS-DOS		Ranchi		2018-19	
Genotype	Sowing time				V. Late	Rk	Mean	Rk
	Normal	Rk	Late	Rk				
Yield, q/ha								
HD 2733 (c)	46.13	6	37.07	6	22.40	6	35.20	7
PBW 757 (I)	50.40	3	42.47	3	25.67	3	39.51	2
DBW 71 (c)	41.90	8	38.67	4	25.27	4	35.28	6
HD 3249	52.00	2	44.07	1	25.90	2	40.66	1
DBW 39 (c)	46.60	4	37.87	5	21.67	7	35.38	5
DBW 187 (I)	53.20	1	36.07	9	24.47	5	37.91	4
HD 2967 (c)	46.33	5	36.27	8	20.93	8	34.51	8
HI 1621	42.80	7	43.07	2	30.57	1	38.81	3
HD 3271	41.80	9	36.47	7	19.13	9	32.47	9
MEAN	46.80		39.11		24.00		36.64	
	F Test		SEm		CD (0.05)		CV (%)	
Date of sowing (A)	**		1.00		3.93		14.19	
Variety (B)	**		1.22		3.47		9.98	
B within A	*		2.11		6.00			
A within B			2.23		6.68			
Earheads/sqm								
HD 2733 (c)	380	7	332	8	280	7	331	7
PBW 757 (I)	400	3	372	3	293	4	355	3
DBW 71 (c)	362	8	347	6	287	5	332	6
HD 3249	448	1	415	1	300	2	388	1
DBW 39 (c)	398	4	355	4	295	3	349	5
DBW 187 (I)	448	1	333	7	282	6	354	4
HD 2967 (c)	388	5	328	9	273	8	330	8
HI 1621	382	6	382	2	315	1	359	2
HD 3271	357	9	348	5	267	9	324	9
MEAN	396		357		288		347	
	F Test		SEm		CD (0.05)		CV (%)	
Sowing (A)	**		12.07		47.39		18.08	
Genotype (B)	*		13.40		38.10		11.59	
B within A	NS		23.21		66.00			
A within B			24.99		74.92			
Grains/Earhead								
HD 2733 (c)	28.36	4	27.61	7	20.95	7	25.64	8
PBW 757 (I)	29.19	2	31.03	3	26.20	2	28.80	1
DBW 71 (c)	27.64	6	31.89	1	24.04	4	27.86	3
HD 3249	25.37	9	26.84	9	23.05	5	25.09	9
DBW 39 (c)	30.26	1	26.88	8	19.85	8	25.66	7
DBW 187 (I)	27.10	7	27.72	6	24.85	3	26.55	5
HD 2967 (c)	29.12	3	30.96	4	19.77	9	26.61	4
HI 1621	25.43	8	31.08	2	29.41	1	28.64	2
HD 3271	27.80	5	29.11	5	21.48	6	26.13	6
MEAN	27.81		29.23		23.29		26.78	
	F Test		SEm		CD (0.05)		CV (%)	
Sowing (A)	*		1.52		5.97		29.52	
Genotype (B)	NS		1.45		4.12		16.24	
B within A	NS		2.51		7.14			
A within B			2.81		8.44			
1000 Grains Weight, g								
HD 2733 (c)	43.07	5	40.87	2	38.80	1	40.91	2
PBW 757 (I)	43.47	4	36.93	5	34.40	7	38.27	7
DBW 71 (c)	42.07	7	35.93	9	37.00	5	38.33	6
HD 3249	46.20	1	40.47	3	37.43	4	41.37	1
DBW 39 (c)	39.60	9	41.13	1	37.60	3	39.44	4
DBW 187 (I)	43.90	3	39.73	4	35.37	6	39.67	3
HD 2967 (c)	41.07	8	36.80	6	38.80	1	38.89	5
HI 1621	44.80	2	36.53	7	33.47	9	38.27	7
HD 3271	42.13	6	36.07	8	33.50	8	37.23	9
MEAN	42.92		38.27		36.26		39.15	
	F Test		SEm		CD (0.05)		CV (%)	
Sowing (A)	**		0.40		1.56		5.26	
Genotype (B)	**		0.56		1.59		4.28	
B within A	**		0.97		2.75			
A within B			0.99		2.98			
Date of Sowing:			10.11.2018		10.12.2018		01.01.2019	
Date of Harvesting:			28.03.2019		04.04.2019		15.04.2019	

Table 3.1.8. North Eastern Plains Zone

Genotype	Sowing time				CAU Pusa		2018-19	
	Normal	Rk	Late	Rk	V. Late	Rk	Mean	Rk
Yield, q/ha								
HD 2733 (c)	45.89	5	38.45	3	38.85	3	41.06	4
PBW 757 (I)	44.19	9	33.58	9	37.44	6	38.40	8
DBW 71 (c)	44.82	7	34.89	7	36.64	8	38.78	7
HD 3249	50.25	1	36.89	4	40.33	1	42.49	1
DBW 39 (c)	47.22	3	36.32	5	38.33	5	40.62	5
DBW 187 (I)	48.64	2	35.64	6	39.02	2	41.10	3
HD 2967 (c)	46.12	4	40.46	1	38.67	4	41.75	2
HI 1621	44.66	8	34.05	8	35.33	9	38.01	9
HD 3271	45.36	6	39.37	2	37.12	7	40.62	6
MEAN	46.35		36.63		37.97		40.32	
	F Test		SEm		CD (0.05)		CV (%)	
Date of sowing (A)	**		0.42		1.64		5.37	
Variety (B)	**		0.47		1.33		3.47	
B within A	**		0.81		2.30			
A within B			0.87		2.61			
Earheads/sqm								
HD 2733 (c)	339	5	321	3	291	3	317	3
PBW 757 (I)	323	9	304	9	296	1	308	8
DBW 71 (c)	329	7	310	7	285	6	308	7
HD 3249	363	1	318	4	293	2	325	1
DBW 39 (c)	345	3	317	5	287	5	316	5
DBW 187 (I)	352	2	314	6	289	4	318	2
HD 2967 (c)	341	4	327	1	283	7	317	3
HI 1621	326	8	307	8	282	8	305	9
HD 3271	332	6	322	2	280	9	311	6
MEAN	339		316		287		314	
	F Test		SEm		CD (0.05)		CV (%)	
Sowing (A)	**		0.30		1.19		0.50	
Genotype (B)	**		0.80		2.28		0.76	
B within A	**		1.39		3.94			
A within B			1.34		4.02			
Grains/Earhead								
HD 2733 (c)	31.42	5	29.93	3	35.87	8	32.41	7
PBW 757 (I)	33.64	1	29.82	4	33.26	9	32.24	8
DBW 71 (c)	32.97	3	29.59	5	35.94	7	32.83	4
HD 3249	30.90	9	29.15	9	36.45	5	32.17	9
DBW 39 (c)	31.35	7	29.16	8	36.82	3	32.44	6
DBW 187 (I)	31.37	6	29.28	7	36.72	4	32.46	5
HD 2967 (c)	31.16	8	30.33	1	39.01	1	33.50	2
HI 1621	33.39	2	29.41	6	36.06	6	32.95	3
HD 3271	31.95	4	30.30	2	38.92	2	33.72	1
MEAN	32.02		29.66		36.56		32.75	
	F Test		SEm		CD (0.05)		CV (%)	
Sowing (A)	**		0.40		1.56		6.32	
Genotype (B)	NS		0.68		1.93		6.23	
B within A	NS		1.18		3.35			
A within B			1.18		3.54			
1000 Grains Weight, g								
HD 2733 (c)	43.08	5	40.03	3	37.22	3	40.11	2
PBW 757 (I)	40.74	9	37.07	9	38.05	1	38.62	7
DBW 71 (c)	41.38	7	38.14	7	35.84	6	38.45	8
HD 3249	44.89	1	39.79	4	37.82	2	40.83	1
DBW 39 (c)	43.75	3	39.33	5	36.31	5	39.80	4
DBW 187 (I)	44.08	2	38.81	6	36.95	4	39.95	3
HD 2967 (c)	43.41	4	40.79	1	35.07	7	39.76	5
HI 1621	41.04	8	37.75	8	34.81	8	37.87	9
HD 3271	42.77	6	40.35	2	34.11	9	39.08	6
MEAN	42.79		39.12		36.24		39.38	
	F Test		SEm		CD (0.05)		CV (%)	
Sowing (A)	**		0.22		0.88		2.95	
Genotype (B)	**		0.49		1.39		3.73	
B within A	*		0.85		2.41			
A within B			0.83		2.49			
Date of Sowing:			11.11.2018		10.12.2019		01.01.2019	
Date of Harvesting:			08.04.2019		14.04.2019		19.04.2019	

Genotype	Sowing time				IR-TAS-DOS		Sabour		2018-19	
	Normal	Rk	Late	Rk	V. Late	Rk	Mean	Rk		
Yield, q/ha										
HD 2733 (c)	37.74	9	37.18	6	33.00	4	35.97	8		
PBW 757 (I)	40.59	5	36.89	8	27.93	9	35.14	9		
DBW 71 (c)	40.11	7	37.02	7	34.20	2	37.11	4		
HD 3249	41.31	4	41.01	1	36.54	1	39.62	1		
DBW 39 (c)	39.96	8	36.28	9	34.04	3	36.76	6		
DBW 187 (I)	41.94	3	40.50	2	32.11	5	38.18	2		
HD 2967 (c)	42.81	2	38.79	3	29.17	8	36.92	5		
HI 1621	40.47	6	37.24	5	30.31	7	36.01	7		
HD 3271	44.34	1	37.56	4	31.76	6	37.89	3		
MEAN	41.03		38.05		32.12		37.07			
	F Test		SEm		CD (0.05)		CV (%)			
Date of sowing (A)	**		0.47		1.86		6.65			
Variety (B)	*		0.91		2.59		7.37			
B within A	NS		1.58		4.48					
A within B			1.56		4.68					
Earheads/sqm										
HD 2733 (c)	232	9	225	9	214	8	224	9		
PBW 757 (I)	265	3	239	5	223	1	242	3		
DBW 71 (c)	254	6	237	6	217	5	236	5		
HD 3249	252	7	237	7	216	7	235	7		
DBW 39 (c)	260	4	245	3	220	2	242	4		
DBW 187 (I)	250	8	237	7	218	4	235	8		
HD 2967 (c)	269	2	254	1	217	6	247	2		
HI 1621	256	5	243	4	207	9	235	6		
HD 3271	300	1	253	2	218	3	257	1		
MEAN	260		241		217		239			
	F Test		SEm		CD (0.05)		CV (%)			
Sowing (A)	**		3.56		13.99		7.74			
Genotype (B)	**		4.81		13.68		6.03			
B within A	NS		8.33		23.70					
A within B			8.63		25.86					
Grains/Earhead										
HD 2733 (c)	38.42	6	41.27	3	39.42	6	39.70	4		
PBW 757 (I)	37.03	8	39.24	6	34.85	9	37.04	9		
DBW 71 (c)	38.66	4	40.41	4	42.48	2	40.51	2		
HD 3249	41.12	1	43.79	1	44.58	1	43.16	1		
DBW 39 (c)	37.74	7	36.32	9	40.76	3	38.28	6		
DBW 187 (I)	39.40	2	41.64	2	40.09	4	40.38	3		
HD 2967 (c)	39.24	3	38.27	7	36.56	8	38.02	7		
HI 1621	38.63	5	39.34	5	39.50	5	39.15	5		
HD 3271	36.48	9	36.88	8	38.30	7	37.22	8		
MEAN	38.52		39.68		39.62		39.28			
	F Test		SEm		CD (0.05)		CV (%)			
Sowing (A)	NS		0.60		2.34		7.88			
Genotype (B)	*		1.14		3.23		8.68			
B within A	NS		1.97		5.60					
A within B			1.95		5.84					
1000 Grains Weight, g										
HD 2733 (c)	42.33	2	40.00	4	39.00	1	40.44	1		
PBW 757 (I)	41.67	3	40.00	4	36.00	9	39.22	6		
DBW 71 (c)	41.00	6	39.00	8	37.00	5	39.00	9		
HD 3249	40.00	9	39.67	7	38.00	2	39.22	6		
DBW 39 (c)	41.00	6	41.00	1	38.00	2	40.00	3		
DBW 187 (I)	42.67	1	41.00	1	37.00	5	40.22	2		
HD 2967 (c)	41.33	5	40.00	4	37.00	5	39.44	5		
HI 1621	41.67	3	39.00	8	37.00	5	39.22	6		
HD 3271	40.67	8	40.33	3	38.00	2	39.67	4		
MEAN	41.37		40.00		37.44		39.60			
	F Test		SEm		CD (0.05)		CV (%)			
Sowing (A)	**		0.19		0.74		2.47			
Genotype (B)	NS		0.51		1.46		3.89			
B within A	NS		0.89		2.53					
A within B			0.86		2.58					
Date of Sowing:			01.12.2018		24.12.2018		07.01.2019			
Date of Harvesting:			22.04.2019		26.04.2019		30.04.2019			

Table 3.1.10. North Eastern Plains Zone			IR-TAS-DOS		Shillongani		2018-19	
Genotype	Sowing time						Mean	Rk
	Normal	Rk	Late	Rk	V. Late	Rk		
Yield, q/ha								
HD 2733 (c)	42.79	4	38.44	8	25.14	8	35.45	8
PBW 757 (I)	35.46	9	33.07	9	32.23	3	33.59	9
DBW 71 (c)	46.45	2	44.39	1	38.05	1	42.96	1
HD 3249	42.35	6	41.91	5	30.66	5	38.31	4
DBW 39 (c)	44.26	3	43.52	3	28.45	6	38.74	3
DBW 187 (I)	42.75	5	42.18	4	25.39	7	36.77	7
HD 2967 (c)	58.75	1	43.55	2	21.58	9	41.29	2
HI 1621	40.59	7	39.89	6	31.44	4	37.31	5
HD 3271	39.67	8	38.59	7	32.88	2	37.05	6
MEAN	43.67		40.61		29.54		37.94	
	F Test		SEm		CD (0.05)		CV (%)	
Date of sowing (A)	**		0.68		2.68		9.36	
Variety (B)	**		0.51		1.46		4.06	
B within A	**		0.89		2.53			
A within B			1.08		3.24			
Earheads/sqm								
HD 2733 (c)	226	1	219	2	214	3	220	2
PBW 757 (I)	208	7	206	7	205	6	206	6
DBW 71 (c)	223	2	220	1	219	1	220	1
HD 3249	209	6	208	5	207	5	208	5
DBW 39 (c)	202	8	202	8	201	7	202	8
DBW 187 (I)	199	9	198	9	193	9	197	9
HD 2967 (c)	222	3	216	3	215	2	218	3
HI 1621	209	5	208	5	199	8	205	7
HD 3271	214	4	212	4	211	4	212	4
MEAN	212		210		207		210	
	F Test		SEm		CD (0.05)		CV (%)	
Sowing (A)	*		0.96		3.75		2.37	
Genotype (B)	**		2.35		6.67		3.35	
B within A	NS		4.06		11.55			
A within B			3.95		11.83			
Grains/Earhead								
HD 2733 (c)	36.93	9	38.30	8	31.36	8	35.53	9
PBW 757 (I)	39.43	8	37.59	9	41.48	2	39.50	8
DBW 71 (c)	49.22	2	50.51	2	48.69	1	49.47	1
HD 3249	41.01	6	45.07	4	35.32	6	40.47	6
DBW 39 (c)	46.21	3	47.71	3	36.78	5	43.57	3
DBW 187 (I)	44.33	4	44.85	6	32.25	7	40.48	5
HD 2967 (c)	59.02	1	51.02	1	30.12	9	46.72	2
HI 1621	41.83	5	45.00	5	41.16	3	42.67	4
HD 3271	39.64	7	40.16	7	39.53	4	39.78	7
MEAN	44.18		44.47		37.41		42.02	
	F Test		SEm		CD (0.05)		CV (%)	
Sowing (A)	*		1.33		5.24		16.49	
Genotype (B)	**		0.88		2.51		6.31	
B within A	**		1.53		4.35			
A within B			1.97		5.89			
1000 Grains Weight, g								
HD 2733 (c)	51.50	1	45.86	2	37.53	7	44.96	3
PBW 757 (I)	43.23	8	42.77	7	37.94	6	41.32	7
DBW 71 (c)	42.43	9	39.95	8	36.21	8	39.53	8
HD 3249	49.51	2	44.98	5	42.12	1	45.54	2
DBW 39 (c)	47.35	4	45.13	4	38.60	4	43.69	5
DBW 187 (I)	48.39	3	47.51	1	41.10	2	45.67	1
HD 2967 (c)	45.06	7	39.55	9	33.28	9	39.30	9
HI 1621	46.48	6	42.87	6	38.45	5	42.60	6
HD 3271	46.78	5	45.36	3	39.55	3	43.90	4
MEAN	46.75		43.78		38.31		42.95	
	F Test		SEm		CD (0.05)		CV (%)	
Sowing (A)	*		1.04		4.07		12.53	
Genotype (B)	**		0.66		1.87		4.59	
B within A	NS		1.14		3.24			
A within B			1.49		4.47			
Date of Sowing:			08.11.2018		11.12.2018		02.01.2019	
Date of Harvesting:			16.03.19 to 03.04.19		28.03.19 to 13.04.19		11.04.19 to 25.04.19	

Table 3.2. North Eastern Plains Zone

RIR-TS-TAS

Pooled

2018-19

Genotype	Sowing time						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield, q/ha								
HD 3171 (c)	31.08	4	39.08	1	42.23	4	37.46	4
HI 1612 (c)	31.97	1	39.03	2	42.54	3	37.85	2
HD 2888 (c)	28.64	5	32.96	5	35.80	6	32.47	5
K 8027 (c)	27.91	6	31.76	6	36.28	5	31.98	6
DBW 252	31.25	3	38.40	4	43.42	2	37.69	3
K 1317 (c)	31.70	2	38.63	3	45.15	1	38.50	1
MEAN	30.42		36.64		40.90		35.99	
	Sowing (A)		Variety (B)		B within A		A within B	
CD (0.05)	0.90		0.88		1.52		1.65	
Earheads/sqm								
HD 3171 (c)	283	4	319	2	337	3	313	3
HI 1612 (c)	285	3	327	1	337	2	316	1
HD 2888 (c)	287	2	314	5	333	4	311	4
K 8027 (c)	271	6	306	6	321	6	299	6
DBW 252	274	5	317	3	331	5	307	5
K 1317 (c)	288	1	316	4	343	1	316	2
Mean	281		316		334		310	
	Sowing (A)		Variety (B)		B within A		A within B	
CD (0.05)	5.32		9.98		NS		NS	
Grains/Earhead								
HD 3171 (c)	28.12	3	30.43	3	30.49	4	29.68	3
HI 1612 (c)	29.31	2	30.64	1	31.42	2	30.45	2
HD 2888 (c)	26.23	6	27.24	5	27.50	5	26.99	5
K 8027 (c)	26.52	5	25.98	6	27.07	6	26.53	6
DBW 252	29.64	1	30.54	2	32.23	1	30.80	1
K 1317 (c)	27.26	4	29.39	4	31.25	3	29.30	4
Mean	27.84		29.04		29.99		28.96	
	Sowing (A)		Variety (B)		B within A		A within B	
CD (0.05)	0.87		1.00		NS		NS	
1000 Grains Weight, g								
HD 3171 (c)	40.30	4	41.27	4	42.72	3	41.43	4
HI 1612 (c)	39.90	5	40.81	6	41.85	5	40.85	5
HD 2888 (c)	39.68	6	40.93	5	41.68	6	40.77	6
K 8027 (c)	40.76	2	42.37	2	44.00	2	42.38	2
DBW 252	40.63	3	41.37	3	42.35	4	41.45	3
K 1317 (c)	42.08	1	43.00	1	44.23	1	43.10	1
Mean	40.56		41.62		42.81		41.66	
	Sowing (A)		Variety (B)		B within A		A within B	
CD (0.05)	0.46		0.58		NS		NS	

Centres: Burdwan, Coochbehar, Faizabad, IARI Pusa, Kalyani, Kanpur, Ranchi, CAU Pusa, Sabour, Shillongani, Varanasi

Table 3.2.1. North Eastern Plains Zone

RIR-TS-TAS

Burdwan 2018-19

Genotype	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield, q/ha								
HD 3171 (c)	19.45	6	29.74	6	32.92	6	27.37	6
HI 1612 (c)	25.96	2	36.64	2	41.72	3	34.77	2
HD 2888 (c)	23.80	4	31.33	5	38.07	5	31.07	5
K 8027 (c)	22.06	5	32.76	4	39.66	4	31.49	4
DBW 252	24.90	3	35.60	3	42.66	2	34.38	3
K 1317 (c)	26.59	1	37.16	1	44.22	1	35.99	1
MEAN	23.79		33.87		39.87		32.51	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		0.47		1.83		6.09	
Genotype (B)	**		0.40		1.17		3.73	
B within A	*		0.70		2.02			
A within B			0.79		2.29			
Earheads/sqm								
HD 3171 (c)	237	2	275	5	272	5	261	4
HI 1612 (c)	223	5	277	4	283	4	261	4
HD 2888 (c)	248	1	303	1	303	1	285	1
K 8027 (c)	232	3	292	2	295	2	273	2
DBW 252	218	6	262	6	267	6	249	6
K 1317 (c)	228	4	292	2	290	3	270	3
MEAN	231		283		285		266	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		5.06		19.85		8.05	
Genotype (B)	**		5.43		15.67		6.11	
B within A	NS		9.40		27.14			
A within B			9.96		28.76			
Grains/Earhead								
HD 3171 (c)	19.2	6	24.6	5	26.2	6	23.3	6
HI 1612 (c)	28.3	1	31.6	1	33.7	2	31.2	1
HD 2888 (c)	22.7	4	24.4	6	29.1	4	25.4	4
K 8027 (c)	21.5	5	25.0	4	27.4	5	24.6	5
DBW 252	26.3	3	30.2	2	33.7	1	30.1	2
K 1317 (c)	26.5	2	28.0	3	30.4	3	28.3	3
MEAN	24.10		27.30		30.09		27.16	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		0.68		2.67		10.62	
Genotype (B)	**		0.73		2.09		8.01	
B within A	NS		1.26		3.63			
A within B			1.33		3.85			
1000 Grains Weight, g								
HD 3171 (c)	42.72	4	43.90	4	46.41	4	44.35	4
HI 1612 (c)	41.13	6	42.21	6	43.67	5	42.34	6
HD 2888 (c)	42.16	5	42.52	5	43.26	6	42.64	5
K 8027 (c)	44.85	1	44.99	3	49.13	2	46.32	2
DBW 252	43.71	3	45.31	2	47.49	3	45.50	3
K 1317 (c)	44.23	2	45.75	1	50.24	1	46.74	1
MEAN	43.14		44.11		46.70		44.65	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		0.16		0.62		1.49	
Genotype (B)	**		0.36		1.04		2.43	
B within A	*		0.63		1.81			
A within B			0.59		1.71			
Date of Sowing:			08.11.2018					
Date of Harvesting:			04.03.2019		08.03.2019			

Table 3.2.2 North Eastern Plains Zone

RIR-TS-TAS

Coochbehar

2018-19

Genotype	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield, q/ha								
HD 3171 (c)	19.80	4	22.40	4	28.30	4	23.50	4
HI 1612 (c)	24.27	3	31.77	3	32.47	3	29.50	3
HD 2888 (c)	12.47	6	18.20	6	24.47	6	18.38	6
K 8027 (c)	14.50	5	19.43	5	25.33	5	19.76	5
DBW 252	24.83	1	33.90	1	39.60	2	32.78	1
K 1317 (c)	24.33	2	32.60	2	40.97	1	32.63	2
MEAN	20.03		26.38		31.86		26.09	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		0.42		1.63		6.76	
Genotype (B)	**		0.63		1.82		7.23	
B within A	**		1.09		3.14			
A within B			1.08		3.11			
Earheads/sqm								
HD 3171 (c)	167	4	182	4	194	4	181	4
HI 1612 (c)	173	3	201	2	203	3	192	3
HD 2888 (c)	112	6	138	6	163	5	138	6
K 8027 (c)	118	5	139	5	159	6	139	5
DBW 252	179	2	201	3	221	2	200	2
K 1317 (c)	180	1	209	1	231	1	207	1
MEAN	155		178		195		176	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		2.36		9.26		5.68	
Genotype (B)	**		3.49		10.09		5.95	
B within A	NS		6.05		17.47			
A within B			6.01		17.34			
Grains/Earhead								
HD 3171 (c)	37.8	4	37.0	6	40.9	5	38.6	5
HI 1612 (c)	41.6	2	45.0	2	43.7	3	43.4	3
HD 2888 (c)	35.7	6	39.8	5	40.1	6	38.5	6
K 8027 (c)	37.2	5	40.0	4	42.5	4	39.9	4
DBW 252	42.6	1	46.8	1	47.1	1	45.5	1
K 1317 (c)	40.5	3	44.2	3	46.6	2	43.7	2
MEAN	39.22		42.14		43.46		41.61	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	*		0.60		2.38		6.17	
Genotype (B)	**		1.53		4.43		11.06	
B within A	NS		2.66		7.67			
A within B			2.50		7.22			
1000 Grains Weight, g								
HD 3171 (c)	31.57	6	33.37	6	35.77	6	33.57	6
HI 1612 (c)	33.93	1	35.20	3	36.87	5	35.33	3
HD 2888 (c)	31.60	5	33.47	5	37.60	3	34.22	5
K 8027 (c)	33.03	3	35.03	4	37.50	4	35.19	4
DBW 252	32.60	4	36.17	1	38.07	1	35.61	1
K 1317 (c)	33.37	2	35.40	2	37.97	2	35.58	2
MEAN	32.68		34.77		37.29		34.92	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		0.21		0.84		2.59	
Genotype (B)	*		0.48		1.38		4.11	
B within A	NS		0.83		2.39			
A within B			0.78		2.27			
Date of Sowing:	11.11.2018							
Date of Harvesting:	15.03.2019		20.03.2019		29.03.2019			

Table 3.2.3 North Eastern Plains Zone

RIR-TS-TAS

Faizabad 2018-19

Genotype	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield, q/ha								
HD 3171 (c)	30.85	3	44.35	3	46.53	5	40.58	3
HI 1612 (c)	33.39	1	44.84	2	49.21	2	42.48	1
HD 2888 (c)	32.90	2	40.58	6	45.34	6	39.60	6
K 8027 (c)	29.07	6	45.04	1	50.60	1	41.57	2
DBW 252	30.06	4	43.95	4	47.72	4	40.58	4
K 1317 (c)	29.26	5	43.16	5	48.61	3	40.34	5
MEAN	30.92		43.65		48.00		40.86	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		0.24		0.95		2.52	
Genotype (B)	**		0.47		1.37		3.48	
B within A	**		0.82		2.37			
A within B			0.79		2.27			
Earheads/sqm								
HD 3171 (c)	317	2	351	4	429	1	366	4
HI 1612 (c)	315	3	391	3	419	3	375	2
HD 2888 (c)	361	1	402	2	416	4	393	1
K 8027 (c)	287	6	408	1	411	5	369	3
DBW 252	295	5	325	6	336	6	319	6
K 1317 (c)	310	4	349	5	425	2	361	5
MEAN	314		371		406		364	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		1.04		4.09		1.22	
Genotype (B)	**		3.02		8.73		2.49	
B within A	**		5.24		15.12			
A within B			4.89		14.13			
Grains/Earhead								
HD 3171 (c)	24.5	2	32.7	2	27.8	3	28.3	2
HI 1612 (c)	26.8	1	28.9	3	28.2	2	28.0	3
HD 2888 (c)	21.9	6	22.7	6	23.8	6	22.8	6
K 8027 (c)	23.4	4	23.1	5	26.7	4	24.4	5
DBW 252	23.5	3	33.8	1	35.2	1	30.8	1
K 1317 (c)	22.1	5	28.4	4	25.9	5	25.5	4
MEAN	23.70		28.28		27.94		26.64	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		0.12		0.49		1.99	
Genotype (B)	**		0.65		1.88		7.33	
B within A	**		1.13		3.26			
A within B			1.04		2.99			
1000 Grains Weight, g								
HD 3171 (c)	39.80	5	38.80	6	39.20	6	39.27	6
HI 1612 (c)	39.70	6	39.70	5	41.70	4	40.37	5
HD 2888 (c)	41.60	4	44.50	2	45.80	2	43.97	2
K 8027 (c)	43.30	2	47.90	1	46.30	1	45.83	1
DBW 252	43.50	1	40.00	4	40.40	5	41.30	4
K 1317 (c)	42.90	3	43.60	3	44.10	3	43.53	3
MEAN	41.80		42.42		42.92		42.38	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		0.09		0.37		0.93	
Genotype (B)	**		0.65		1.87		4.59	
B within A	*		1.12		3.24			
A within B			1.03		2.97			
Date of Sowing:								
Date of Harvesting:			17.03.2019	20.03.2019	24.03.2019			

Table 3.2.4 North Eastern Plains Zone

RIR-TS-TAS

IARI Pusa

2018-19

Genotype	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield, q/ha								
HD 3171 (c)	40.32	2	49.19	2	45.19	2	44.90	2
HI 1612 (c)	39.20	3	43.30	4	44.47	4	42.32	3
HD 2888 (c)	30.68	6	21.83	6	24.56	6	25.69	6
K 8027 (c)	32.04	4	29.49	5	29.87	5	30.47	5
DBW 252	31.90	5	44.95	3	44.68	3	40.51	4
K 1317 (c)	46.34	1	53.40	1	56.67	1	52.14	1
MEAN	36.75		40.36		40.91		39.34	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	NS		2.34		9.18		25.23	
Genotype (B)	**		1.92		5.55		14.66	
B within A	NS		3.33		9.61			
A within B			3.83		11.07			
Earheads/sqm								
HD 3171 (c)	369	4	452	3	418	6	413	4
HI 1612 (c)	379	3	465	1	444	2	429	2
HD 2888 (c)	388	2	418	5	452	1	419	3
K 8027 (c)	361	5	409	6	419	5	397	6
DBW 252	318	6	453	2	427	4	399	5
K 1317 (c)	423	1	428	4	443	3	432	1
MEAN	373		438		434		415	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		5.90		23.15		6.03	
Genotype (B)	NS		9.34		26.96		6.75	
B within A	*		16.17		46.69			
A within B			15.89		45.90			
Grains/Earhead								
HD 3171 (c)	23.2	1	24.2	2	21.6	4	23.0	3
HI 1612 (c)	22.9	2	21.9	4	23.6	3	22.8	4
HD 2888 (c)	18.0	6	11.8	6	12.9	6	14.2	6
K 8027 (c)	18.4	5	14.4	5	14.3	5	15.7	5
DBW 252	22.6	3	22.5	3	25.5	2	23.5	2
K 1317 (c)	21.4	4	25.6	1	25.6	1	24.2	1
MEAN	21.08		20.07		20.58		20.58	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	NS		1.53		6.01		31.58	
Genotype (B)	**		1.37		3.97		20.05	
B within A	NS		2.38		6.88			
A within B			2.66		7.68			
1000 Grains Weight, g								
HD 3171 (c)	48.67	2	46.77	3	50.13	2	48.52	3
HI 1612 (c)	44.90	4	43.13	6	43.10	4	43.71	4
HD 2888 (c)	44.00	6	44.30	4	42.43	6	43.58	6
K 8027 (c)	48.23	3	49.97	1	49.83	3	49.34	2
DBW 252	44.20	5	44.10	5	42.50	5	43.60	5
K 1317 (c)	50.77	1	48.70	2	50.77	1	50.08	1
MEAN	46.79		46.16		46.46		46.47	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	NS		0.89		3.49		8.11	
Genotype (B)	**		0.86		2.48		5.55	
B within A	NS		1.49		4.30			
A within B			1.62		4.69			

Date of Sowing:

Date of Harvesting:

06.04.2019

Table 3.2.5 North Eastern Plains Zone

RIR-TS-TAS

Kalyani 2018-19

Genotype	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield, q/ha								
HD 3171 (c)	27.34	1	27.06	2	28.38	3	27.59	2
HI 1612 (c)	24.48	3	28.37	1	31.97	1	28.28	1
HD 2888 (c)	22.11	6	25.28	5	30.76	2	26.05	3
K 8027 (c)	22.91	4	20.08	6	24.31	6	22.43	6
DBW 252	25.76	2	25.30	4	26.28	5	25.78	4
K 1317 (c)	22.65	5	25.47	3	26.30	4	24.81	5
MEAN	24.21		25.26		28.00		25.82	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	NS		1.33		5.22		21.86	
Genotype (B)	*		1.24		3.57		14.38	
B within A	NS		2.14		6.19			
A within B			2.37		6.83			
Earheads/sqm								
HD 3171 (c)	236	1	257	4	293	5	262	2
HI 1612 (c)	208	3	248	6	290	6	249	6
HD 2888 (c)	200	6	270	1	311	2	260	3
K 8027 (c)	214	2	250	5	323	1	262	1
DBW 252	202	5	260	3	304	3	255	5
K 1317 (c)	208	4	263	2	302	4	258	4
MEAN	211		258		304		258	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		7.56		29.69		12.45	
Genotype (B)	NS		8.38		24.19		9.75	
B within A	NS		14.51		41.90			
A within B			15.25		44.05			
Grains/Earhead								
HD 3171 (c)	31.2	3	27.4	2	23.9	3	27.5	2
HI 1612 (c)	35.3	1	29.8	1	26.0	2	30.3	1
HD 2888 (c)	30.3	4	24.0	4	26.4	1	26.9	3
K 8027 (c)	28.5	6	19.8	6	17.0	6	21.8	6
DBW 252	34.3	2	24.9	3	21.0	4	26.7	4
K 1317 (c)	28.8	5	22.7	5	20.8	5	24.1	5
MEAN	31.41		24.77		22.51		26.23	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	*		1.51		5.92		24.37	
Genotype (B)	NS		1.89		5.45		21.60	
B within A	NS		3.27		9.45			
A within B			3.34		9.66			
1000 Grains Weight, g								
HD 3171 (c)	37.17	4	39.50	4	40.50	5	39.06	4
HI 1612 (c)	34.50	6	38.50	6	42.67	2	38.56	5
HD 2888 (c)	37.00	5	39.67	3	38.17	6	38.28	6
K 8027 (c)	38.17	2	41.00	2	44.17	1	41.11	2
DBW 252	38.50	1	39.50	4	41.40	4	39.80	3
K 1317 (c)	38.17	2	43.00	1	42.67	2	41.28	1
MEAN	37.25		40.19		41.59		39.68	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	*		1.18		4.62		12.59	
Genotype (B)	NS		1.13		3.25		8.52	
B within A	NS		1.95		5.64			
A within B			2.14		6.17			
Date of Sowing:			12.11.18					
Date of Harvesting:			10.03.19		12.03.19		15.03.19	

Table 3.2.6 North Eastern Plains Zone

RIR-TS-TAS

Kanpur 2018-19

Genotype	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield, q/ha								
HD 3171 (c)	28.17	6	43.50	1	49.08	4	40.25	2
HI 1612 (c)	30.16	4	40.30	2	52.28	1	40.91	1
HD 2888 (c)	31.50	2	37.40	5	46.10	6	38.33	5
K 8027 (c)	29.12	5	38.70	3	47.10	5	38.31	6
DBW 252	30.50	3	38.50	4	50.38	3	39.79	4
K 1317 (c)	32.40	1	36.43	6	51.30	2	40.04	3
MEAN	30.31		39.14		49.37		39.61	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		0.64		2.52		6.87	
Genotype (B)	**		0.54		1.57		4.11	
B within A	**		0.94		2.71			
A within B			1.07		3.09			
Earheads/sqm								
HD 3171 (c)	300	6	359	1	361	1	340	6
HI 1612 (c)	321	5	353	2	359	2	344	1
HD 2888 (c)	338	2	344	5	348	5	343	3
K 8027 (c)	325	4	349	3	358	3	344	2
DBW 252	326	3	347	4	357	4	343	3
K 1317 (c)	344	1	339	6	343	6	342	5
MEAN	326		349		354		343	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		1.70		6.69		2.11	
Genotype (B)	NS		2.28		6.59		2.00	
B within A	**		3.95		11.42			
A within B			3.99		11.53			
Grains/Earhead								
HD 3171 (c)	25.3	2	29.7	1	33.0	4	29.3	1
HI 1612 (c)	24.8	3	28.4	3	34.2	2	29.1	3
HD 2888 (c)	24.1	6	27.6	5	32.4	5	28.0	6
K 8027 (c)	26.2	1	28.3	4	31.6	6	28.7	5
DBW 252	24.4	4	28.7	2	33.3	3	28.8	4
K 1317 (c)	24.2	5	27.5	6	36.1	1	29.2	2
MEAN	24.82		28.36		33.44		28.88	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		0.60		2.36		8.85	
Genotype (B)	NS		0.58		1.67		5.99	
B within A	NS		1.00		2.89			
A within B			1.09		3.16			
1000 Grains Weight, g								
HD 3171 (c)	37.13	5	40.76	1	41.26	5	39.72	4
HI 1612 (c)	37.90	4	40.23	2	42.53	1	40.22	1
HD 2888 (c)	38.76	2	39.43	3	40.80	6	39.66	5
K 8027 (c)	34.42	6	39.20	4	41.73	3	38.45	6
DBW 252	38.36	3	38.76	6	42.46	2	39.86	3
K 1317 (c)	39.03	1	39.12	5	41.50	4	39.88	2
MEAN	37.60		39.58		41.71		39.63	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		0.27		1.07		2.91	
Genotype (B)	NS		0.46		1.31		3.45	
B within A	*		0.79		2.28			
A within B			0.77		2.22			
Date of Sowing:								
Date of Harvesting: 20.04.2019 22.04.2019 24.04.2019								

Table 3.2.7 North Eastern Plains Zone

RIR-TS-TAS

Ranchi 2018-19

Genotype	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield, q/ha								
02.05.2018								
HD 3171 (c)	39.40	1	43.47	1	45.33	2	42.73	1
HI 1612 (c)	34.07	4	39.40	3	36.93	4	36.80	3
HD 2888 (c)	22.40	6	35.93	4	20.33	6	26.22	6
K 8027 (c)	25.93	5	28.73	6	29.07	5	27.91	5
DBW 252	35.60	3	31.53	5	42.27	3	36.47	4
K 1317 (c)	38.73	2	39.93	2	49.20	1	42.62	2
MEAN	32.69		36.50		37.19		35.46	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	*		1.33		5.20		15.86	
Genotype (B)	**		1.09		3.15		9.23	
B within A	**		1.89		5.45			
A within B			2.17		6.28			
Earheads/sqm								
HD 3171 (c)	375	1	377	1	433	2	395	2
HI 1612 (c)	333	4	347	3	390	4	357	4
HD 2888 (c)	330	5	310	5	317	5	319	5
K 8027 (c)	323	6	300	6	307	6	310	6
DBW 252	340	3	347	3	417	3	368	3
K 1317 (c)	363	2	370	2	457	1	397	1
MEAN	344		342		387		358	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	*		14.93		58.59		17.71	
Genotype (B)	**		14.68		42.38		12.32	
B within A	NS		25.42		73.41			
A within B			27.59		79.68			
Grains/Earhead								
HD 3171 (c)	23.6	2	26.0	2	22.8	2	24.1	1
HI 1612 (c)	22.8	4	25.6	3	22.4	4	23.6	2
HD 2888 (c)	16.6	6	27.7	1	14.4	6	19.6	6
K 8027 (c)	19.4	5	22.3	5	21.4	5	21.0	5
DBW 252	23.3	3	20.0	6	22.6	3	21.9	4
K 1317 (c)	24.0	1	23.4	4	22.9	1	23.4	3
MEAN	21.60		24.14		21.07		22.27	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	NS		1.42		5.59		27.14	
Genotype (B)	NS		1.32		3.81		17.77	
B within A	NS		2.29		6.60			
A within B			2.53		7.30			
1000 Grains Weight, g								
HD 3171 (c)	44.73	4	44.67	4	46.23	2	45.21	3
HI 1612 (c)	45.17	2	45.00	3	43.23	6	44.47	4
HD 2888 (c)	41.07	6	42.13	6	44.80	5	42.67	6
K 8027 (c)	42.87	5	44.47	5	45.60	3	44.31	5
DBW 252	45.17	2	46.03	2	45.13	4	45.44	2
K 1317 (c)	45.80	1	46.53	1	48.83	1	47.06	1
MEAN	44.13		44.81		45.64		44.86	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	*		0.25		0.97		2.33	
Genotype (B)	**		0.31		0.90		2.07	
B within A	**		0.54		1.55			
A within B			0.55		1.58			
Date of Sowing:			28.10.2018					
Date of Harvesting:			30.03.2019		02.04.2019		4.04.2019	

Table 3.2.8 North Eastern Plains Zone

RIR-TS-TAS

CAU Pusa

2018-19

Genotype	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield, q/ha								
HD 3171 (c)	33.85	2	38.56	1	42.78	1	38.40	1
HI 1612 (c)	34.65	1	37.65	3	40.35	5	37.55	2
HD 2888 (c)	31.85	5	36.05	5	39.73	6	35.88	5
K 8027 (c)	31.05	6	35.28	6	41.21	4	35.85	6
DBW 252	32.74	3	38.02	2	41.85	3	37.54	3
K 1317 (c)	32.21	4	36.71	4	42.05	2	36.99	4
MEAN	32.73		37.05		41.33		37.03	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		0.21		0.83		2.41	
Genotype (B)	*		0.60		1.72		4.82	
B within A	NS		1.03		2.98			
A within B			0.96		2.78			
Earheads/sqm								
HD 3171 (c)	303	2	328	1	346	1	326	1
HI 1612 (c)	305	1	323	3	338	5	322	3
HD 2888 (c)	298	6	318	5	336	6	317	6
K 8027 (c)	300	5	315	6	339	4	318	5
DBW 252	302	3	325	2	341	3	323	2
K 1317 (c)	301	4	320	4	344	2	322	4
MEAN	302		322		341		321	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		0.53		2.06		0.69	
Genotype (B)	**		0.91		2.64		0.85	
B within A	*		1.58		4.57			
A within B			1.54		4.44			
Grains/Earhead								
HD 3171 (c)	29.6	3	30.0	5	30.3	6	30.0	6
HI 1612 (c)	29.7	2	30.1	4	30.6	3	30.1	3
HD 2888 (c)	30.9	1	30.2	2	30.5	5	30.5	1
K 8027 (c)	29.1	6	30.3	1	31.1	1	30.2	2
DBW 252	29.3	5	30.0	6	30.9	2	30.1	4
K 1317 (c)	29.6	4	30.1	3	30.5	4	30.1	5
MEAN	29.71		30.12		30.67		30.17	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	*		0.17		0.67		2.41	
Genotype (B)	NS		0.77		2.22		7.64	
B within A	NS		1.33		3.84			
A within B			1.23		3.54			
1000 Grains Weight, g								
HD 3171 (c)	37.69	2	39.25	1	40.82	1	39.25	1
HI 1612 (c)	38.28	1	38.78	3	39.05	5	38.70	2
HD 2888 (c)	34.71	6	37.63	5	38.89	6	37.08	6
K 8027 (c)	35.62	5	37.08	6	39.14	4	37.28	5
DBW 252	37.05	3	39.01	2	39.75	3	38.60	3
K 1317 (c)	36.18	4	38.12	4	40.21	2	38.17	4
MEAN	36.59		38.31		39.64		38.18	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		0.24		0.93		2.63	
Genotype (B)	NS		0.62		1.80		4.91	
B within A	NS		1.08		3.13			
A within B			1.02		2.93			
Date of Sowing:			26.11.2018					
Date of Harvesting:			08.04.2019		11.04.2019		14.04.2019	

Table 3.2.9 North Eastern Plains Zone

RIR-TS-TAS

Sabour 2018-19

Genotype	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield, q/ha								
HD 3171 (c)	28.79	4	37.33	4	43.68	4	36.60	4
HI 1612 (c)	29.36	3	37.81	3	44.84	3	37.34	3
HD 2888 (c)	27.38	6	36.82	5	42.23	5	35.47	5
K 8027 (c)	31.90	2	39.03	2	45.63	2	38.85	2
DBW 252	32.71	1	42.39	1	48.72	1	41.27	1
K 1317 (c)	27.40	5	36.23	6	41.93	6	35.19	6
MEAN	29.59		38.27		44.51		37.45	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		0.97		3.81		10.98	
Genotype (B)	**		1.04		3.01		8.35	
B within A	NS		1.81		5.22			
A within B			1.91		5.52			
Earheads/sqm								
HD 3171 (c)	282	4	315	4	343	4	313	4
HI 1612 (c)	290	3	326	3	347	3	321	3
HD 2888 (c)	271	5	300	5	339	5	303	5
K 8027 (c)	300	2	334	2	352	2	329	2
DBW 252	306	1	340	1	359	1	335	1
K 1317 (c)	268	6	295	6	324	6	296	6
MEAN	286		318		344		316	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		2.84		11.14		3.81	
Genotype (B)	**		5.51		15.92		5.23	
B within A	NS		9.55		27.58			
A within B			9.17		26.48			
Grains/Earhead								
HD 3171 (c)	28.9	4	33.2	4	35.6	2	32.6	3
HI 1612 (c)	28.2	6	31.5	6	34.8	4	31.5	6
HD 2888 (c)	28.8	5	33.4	3	33.5	6	31.9	5
K 8027 (c)	30.8	1	31.7	5	33.8	5	32.1	4
DBW 252	29.0	3	34.1	2	35.3	3	32.8	2
K 1317 (c)	29.9	2	34.5	1	36.6	1	33.7	1
MEAN	29.27		33.07		34.93		32.43	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	*		1.39		5.46		18.21	
Genotype (B)	NS		1.47		4.25		13.63	
B within A	NS		2.55		7.37			
A within B			2.71		7.84			
1000 Grains Weight, g								
HD 3171 (c)	35.38	4	35.80	6	36.69	5	35.95	5
HI 1612 (c)	35.97	2	36.80	3	37.04	4	36.60	3
HD 2888 (c)	35.64	3	36.93	2	37.21	3	36.59	4
K 8027 (c)	35.00	5	37.20	1	38.40	2	36.87	2
DBW 252	37.06	1	36.67	4	38.71	1	37.48	1
K 1317 (c)	34.47	6	35.88	5	35.79	6	35.38	6
MEAN	35.59		36.55		37.31		36.48	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	NS		0.69		2.70		8.01	
Genotype (B)	NS		0.86		2.47		7.05	
B within A	NS		1.48		4.29			
A within B			1.52		4.39			
Date of Sowing:								
Date of Harvesting:			06.04.2019		13.04.2019		14.04.2019	

Table 3.2.10 North Eastern Plains Zone

RIR-TS-TAS

Shillongani

2018-19

Genotype	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield, q/ha								
HD 3171 (c)	32.30	4	43.07	3	47.07	2	40.81	3
HI 1612 (c)	35.44	1	45.48	1	47.83	1	42.92	1
HD 2888 (c)	33.85	2	44.15	2	46.58	3	41.53	2
K 8027 (c)	30.41	5	35.55	6	38.79	6	34.91	6
DBW 252	33.67	3	41.65	4	44.99	4	40.10	4
K 1317 (c)	25.40	6	37.57	5	43.34	5	35.44	5
MEAN	31.85		41.24		44.77		39.28	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		0.37		1.45		4.00	
Genotype (B)	**		0.65		1.87		4.95	
B within A	*		1.12		3.24			
A within B			1.09		3.14			
Earheads/sqm								
HD 3171 (c)	194	5	237	4	237	5	223	4
HI 1612 (c)	223	2	242	3	241	4	235	2
HD 2888 (c)	232	1	244	1	244	2	240	1
K 8027 (c)	212	3	228	6	250	1	230	3
DBW 252	177	6	244	1	244	3	222	5
K 1317 (c)	199	4	230	5	233	6	221	6
MEAN	206		237		242		228	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		0.85		3.35		1.59	
Genotype (B)	**		2.62		7.56		3.44	
B within A	**		4.54		13.10			
A within B			4.23		12.21			
Grains/Earhead								
HD 3171 (c)	36.3	2	36.3	3	39.2	2	37.2	2
HI 1612 (c)	32.8	3	38.7	1	39.9	1	37.1	3
HD 2888 (c)	29.8	5	37.4	2	39.2	3	35.5	4
K 8027 (c)	29.9	4	32.5	5	31.8	6	31.4	5
DBW 252	40.1	1	35.3	4	37.9	4	37.8	1
K 1317 (c)	23.8	6	30.4	6	36.9	5	30.4	6
MEAN	32.12		35.09		37.46		34.89	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		0.33		1.28		3.97	
Genotype (B)	**		0.91		2.64		7.86	
B within A	**		1.58		4.57			
A within B			1.48		4.28			
1000 Grains Weight, g								
HD 3171 (c)	45.95	6	50.16	2	50.65	1	48.92	3
HI 1612 (c)	48.45	3	48.65	3	49.73	3	48.94	2
HD 2888 (c)	48.96	2	48.51	4	48.84	4	48.77	4
K 8027 (c)	48.16	4	47.95	6	48.78	5	48.29	6
DBW 252	47.77	5	48.45	5	48.73	6	48.32	5
K 1317 (c)	53.55	1	54.07	1	50.60	2	52.74	1
MEAN	48.81		49.63		49.55		49.33	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	NS		0.29		1.13		2.47	
Genotype (B)	**		0.66		1.91		4.02	
B within A	NS		1.14		3.30			
A within B			1.08		3.13			
Date of Sowing:								
Date of Harvesting: 05.03.19 to 20.03.19 05.03.19 to 20.03.19 05.03.19 to 23.03.19								

Table 3.2.11 North Eastern Plains Zone

RIR-TS-TAS

Varanasi 2018-19

Genotype	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield, q/ha								
HD 3171 (c)	41.61	3	51.23	1	55.30	1	49.38	1
HI 1612 (c)	40.66	5	43.75	4	45.88	4	43.43	4
HD 2888 (c)	46.11	1	35.05	5	35.59	5	38.92	5
K 8027 (c)	37.98	6	25.23	6	27.47	6	30.23	6
DBW 252	41.05	4	46.65	2	48.49	3	45.40	3
K 1317 (c)	43.43	2	46.28	3	52.05	2	47.25	2
MEAN	41.80		41.37		44.13		42.43	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	NS		1.04		4.09		10.41	
Genotype (B)	**		1.68		4.84		11.85	
B within A	**		2.90		8.38			
A within B			2.85		8.22			
Earheads/sqm								
HD 3171 (c)	332	5	372	5	383	3	362	5
HI 1612 (c)	366	2	422	1	397	2	395	2
HD 2888 (c)	381	1	409	2	431	1	407	1
K 8027 (c)	310	6	337	6	315	6	321	6
DBW 252	349	3	389	3	368	5	369	3
K 1317 (c)	341	4	382	4	380	4	368	4
MEAN	347		385		379		370	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	*		7.95		31.21		9.11	
Genotype (B)	**		9.85		28.46		7.98	
B within A	NS		17.07		49.29			
A within B			17.49		50.51			
Grains/Earhead								
HD 3171 (c)	29.8	2	33.7	1	34.2	1	32.6	1
HI 1612 (c)	29.2	4	25.5	4	28.4	4	27.7	4
HD 2888 (c)	29.5	3	20.8	5	20.3	5	23.5	5
K 8027 (c)	27.3	6	18.3	6	20.2	6	21.9	6
DBW 252	30.7	1	29.5	2	32.0	2	30.8	2
K 1317 (c)	29.0	5	28.6	3	31.4	3	29.6	3
MEAN	29.26		26.07		27.76		27.69	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	NS		1.21		4.74		18.50	
Genotype (B)	**		1.11		3.20		12.00	
B within A	*		1.92		5.54			
A within B			2.13		6.14			
1000 Grains Weight, g								
HD 3171 (c)	42.52	3	40.99	5	42.31	3	41.94	3
HI 1612 (c)	38.98	6	40.69	6	40.73	5	40.13	6
HD 2888 (c)	41.03	4	41.13	3	40.72	6	40.96	4
K 8027 (c)	44.74	1	41.25	2	43.43	2	43.14	2
DBW 252	39.02	5	41.13	4	41.23	4	40.46	5
K 1317 (c)	44.41	2	42.83	1	43.82	1	43.68	1
MEAN	41.78		41.33		42.04		41.72	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	NS		0.38		1.51		3.91	
Genotype (B)	**		0.75		2.17		5.41	
B within A	NS		1.30		3.76			
A within B			1.25		3.61			
Date of Sowing:								
Date of Harvesting:			15.04.2019		18.04.2019		23.04.2019	

Table 4.1. Central Zone

	RIR-TS-TAD				Pooled		2018-19	
Variety	Irrigation Levels							
	No	Rk	One	Rk	Two	Rk	Mean	Rk
Yield, q/ha								
DDW 47 (d)	23.13	4	34.53	4	41.25	4	32.97	4
DBW 110 (c)	24.76	3	35.26	1	42.90	1	34.31	1
HI 8627 (dc)	24.98	2	34.89	3	42.76	2	34.21	2
MP 3288 (c)	25.30	1	35.10	2	41.31	3	33.90	3
UAS 466 (d)	20.67	5	30.48	5	35.93	5	29.03	5
MEAN	23.77		34.05		40.83		32.88	
	Irrigation (A)		Variety (B)		B within A		A within B	
CD (0.05)	1.66		1.20		NS		NS	
Earhead/sqm								
DDW 47 (d)	241	5	296	3	335	2	291	3
DBW 110 (c)	255	2	301	2	323	3	293	2
HI 8627 (dc)	251	3	282	5	310	4	281	4
MP 3288 (c)	266	1	305	1	353	1	308	1
UAS 466 (d)	244	4	284	4	308	5	278	5
MEAN	251		293		326		290	
	Irrigation (A)		Variety (B)		B within A		A within B	
CD (0.05)	4.33		7.51		13.01		12.39	
Grains/earhead								
DDW 47 (d)	22.99	5	26.61	5	26.14	5	25.25	5
DBW 110 (c)	24.75	2	29.34	2	33.44	1	29.18	1
HI 8627 (dc)	24.48	3	28.76	4	30.15	2	27.80	3
MP 3288 (c)	26.46	1	31.22	1	28.97	4	28.88	2
UAS 466 (d)	22.99	4	29.13	3	29.91	3	27.34	4
MEAN	24.33		29.01		29.72		27.69	
	Irrigation (A)		Variety (B)		B within A		A within B	
CD (0.05)	1.69		1.07		1.85		2.36	
1000 grains weight, g								
DDW 47 (d)	43.61	1	45.28	1	48.81	1	45.90	1
DBW 110 (c)	39.62	3	41.14	3	40.84	4	40.53	3
HI 8627 (dc)	42.01	2	44.43	2	47.46	2	44.63	2
MP 3288 (c)	36.63	5	38.06	5	41.02	3	38.57	5
UAS 466 (d)	38.23	4	38.25	4	40.73	5	39.07	4
MEAN	40.02		41.43		43.77		41.74	
	Irrigation (A)		Variety (B)		B within A		A within B	
CD (0.05)	0.74		0.54		0.93		1.11	

Centres: Bilaspur, Gwalior, Indore, Powarkheda, Udaipur

Table 4.1.1. Central Zone		RIR-TS-TAD		Bilaspur		2018-19		
Variety	Irrigation Levels						Mean	Rk
	No	Rk	One	Rk	Two	Rk		
Yield, q/ha								
DDW 47 (d)	28.79	4	30.24	4	32.84	4	30.62	4
DBW 110 (c)	34.32	1	34.39	1	38.39	1	35.70	1
HI 8627 (dc)	29.58	3	31.95	3	34.01	3	31.85	3
MP 3288 (c)	32.87	2	32.69	2	36.75	2	34.10	2
UAS 466 (d)	23.83	5	28.43	5	28.50	5	26.92	5
MEAN	29.88		31.54		34.10		31.84	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.38		1.48		4.59	
Variety (B)	**		0.53		1.54		4.96	
B within A	NS		0.91		2.66			
A within B			0.90		2.62			
Earhead/sqm								
DDW 47 (d)	247	4	262	3	288	4	265	3
DBW 110 (c)	281	1	290	1	323	1	298	1
HI 8627 (dc)	255	3	249	4	290	3	265	4
MP 3288 (c)	255	2	268	2	296	2	273	2
UAS 466 (d)	239	5	243	5	278	5	253	5
MEAN	255		262		295		271	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		1.85		7.26		2.65	
Variety (B)	**		2.08		6.07		2.30	
B within A	NS		3.60		10.51			
A within B			3.71		10.84			
Grains/earhead								
DDW 47 (d)	32.97	2	29.44	4	29.84	1	30.75	2
DBW 110 (c)	28.53	4	27.20	5	26.76	5	27.50	5
HI 8627 (dc)	30.27	3	31.83	1	26.86	4	29.65	3
MP 3288 (c)	33.80	1	31.35	2	28.15	3	31.10	1
UAS 466 (d)	26.04	5	30.35	3	28.72	2	28.37	4
MEAN	30.32		30.03		28.07		29.47	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	NS		1.14		4.47		14.97	
Variety (B)	**		0.56		1.65		5.74	
B within A	**		0.98		2.85			
A within B			1.44		4.19			
1000 Grains Weight, g								
DDW 47 (d)	35.50	5	39.19	3	38.23	4	37.64	4
DBW 110 (c)	42.82	1	43.47	1	44.51	1	43.60	1
HI 8627 (dc)	38.59	2	40.44	2	43.59	3	40.87	2
MP 3288 (c)	38.18	4	38.79	4	44.15	2	40.37	3
UAS 466 (d)	38.59	2	38.63	5	35.63	5	37.61	5
MEAN	38.74		40.10		41.22		40.02	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	NS		0.96		3.78		9.32	
Variety (B)	**		0.60		1.75		4.50	
B within A	**		1.04		3.03			
A within B			1.34		3.91			
Date of Sowing:			28.10.2018					
Date of Harvesting:			03.03.2019		05.03.2019		06.03.2019	

Table 4.1.2. Central Zone		RIR-TS-TAD		Gwalior		2018-19		
Variety	Irrigation Levels						Mean	Rk
	No	Rk	One	Rk	Two	Rk		
Yield, q/ha								
DDW 47 (d)	22.27	3	35.07	1	38.10	2	31.81	2
DBW 110 (c)	17.83	5	30.57	5	33.30	5	27.23	5
HI 8627 (dc)	22.43	2	32.33	3	36.33	3	30.37	3
MP 3288 (c)	24.77	1	33.87	2	40.30	1	32.98	1
UAS 466 (d)	20.59	4	32.13	4	34.10	4	28.94	4
MEAN	21.58		32.79		36.43		30.27	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.17		0.65		2.13	
Variety (B)	**		0.23		0.68		2.32	
B within A	**		0.41		1.18			
A within B			0.40		1.16			
Earhead/sqm								
DDW 47 (d)	225	4	286	1	334	2	282	2
DBW 110 (c)	221	5	263	3	282	5	256	5
HI 8627 (dc)	228	3	260	4	293	3	260	3
MP 3288 (c)	261	1	277	2	352	1	297	1
UAS 466 (d)	229	2	257	5	287	4	258	4
MEAN	233		269		310		270	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		1.68		6.61		2.41	
Variety (B)	**		3.17		9.27		3.52	
B within A	**		5.50		16.05			
A within B			5.20		15.17			
Grains/earhead								
DDW 47 (d)	21.64	3	28.55	5	24.11	5	24.77	5
DBW 110 (c)	19.17	5	30.47	3	30.83	2	26.82	4
HI 8627 (dc)	23.94	2	29.51	4	28.98	4	27.48	3
MP 3288 (c)	24.28	1	38.26	1	29.69	3	30.74	1
UAS 466 (d)	20.69	4	35.44	2	30.96	1	29.03	2
MEAN	21.94		32.45		28.91		27.77	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.28		1.10		3.92	
Variety (B)	**		0.39		1.15		4.27	
B within A	**		0.68		2.00			
A within B			0.67		1.97			
1000 Grains Weight, g								
DDW 47 (d)	45.79	1	42.91	1	47.37	1	45.36	1
DBW 110 (c)	42.07	3	38.15	3	38.31	5	39.51	3
HI 8627 (dc)	41.12	4	42.21	2	42.84	2	42.06	2
MP 3288 (c)	39.15	5	32.01	5	38.60	3	36.58	5
UAS 466 (d)	43.71	2	35.28	4	38.33	4	39.11	4
MEAN	42.37		38.11		41.09		40.52	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.33		1.30		3.16	
Variety (B)	**		0.35		1.02		2.58	
B within A	**		0.60		1.76			
A within B			0.63		1.85			
Date of Sowing:			13.11.2018					
Date of Harvesting:			30.03.2019		05.04.2019		08.04.2019	

Table 4.1.3. Central Zone		RIR-TS-TAD		Indore		2018-19		
Variety	Irrigation Levels						Mean	Rk
	No	Rk	One	Rk	Two	Rk		
Yield, q/ha								
DDW 47 (d)	15.13	5	23.10	4	31.97	5	23.40	4
DBW 110 (c)	19.40	3	27.53	3	36.53	3	27.82	3
HI 8627 (dc)	20.03	1	28.67	2	38.33	2	29.01	2
MP 3288 (c)	19.63	2	31.33	1	41.70	1	30.89	1
UAS 466 (d)	15.30	4	20.07	5	33.00	4	22.79	5
MEAN	17.90		26.14		36.31		26.78	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.46		1.79		6.61	
Variety (B)	**		0.68		1.99		7.62	
B within A	NS		1.18		3.44			
A within B			1.15		3.35			
Earhead/sqm								
DDW 47 (d)	164	5	203	5	223	5	197	5
DBW 110 (c)	192	2	229	4	241	4	221	4
HI 8627 (dc)	187	3	242	3	261	2	230	2
MP 3288 (c)	209	1	261	1	306	1	258	1
UAS 466 (d)	177	4	244	2	258	3	226	3
MEAN	186		236		258		226	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		3.10		12.17		5.30	
Variety (B)	**		4.58		13.38		6.08	
B within A	NS		7.94		23.18			
A within B			7.75		22.62			
Grains/earhead								
DDW 47 (d)	16.34	5	21.02	4	22.71	5	20.02	5
DBW 110 (c)	22.06	2	26.51	2	33.30	1	27.29	1
HI 8627 (dc)	20.85	3	23.12	3	26.05	4	23.34	3
MP 3288 (c)	22.45	1	27.12	1	30.42	2	26.66	2
UAS 466 (d)	19.20	4	17.86	5	26.14	3	21.07	4
MEAN	20.18		23.12		27.73		23.68	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.15		0.58		2.42	
Variety (B)	**		0.30		0.89		3.86	
B within A	**		0.53		1.54			
A within B			0.49		1.44			
1000 Grains Weight, g								
DDW 47 (d)	56.90	1	54.33	1	63.33	1	58.19	1
DBW 110 (c)	45.80	3	45.40	4	45.50	4	45.57	4
HI 8627 (dc)	51.40	2	51.23	2	56.40	2	53.01	2
MP 3288 (c)	41.83	5	44.33	5	44.80	5	43.66	5
UAS 466 (d)	44.87	4	46.03	3	49.03	3	46.64	3
MEAN	48.16		48.27		51.81		49.41	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.27		1.05		2.09	
Variety (B)	**		0.26		0.77		1.59	
B within A	**		0.45		1.33			
A within B			0.49		1.42			
Date of Sowing:			05.11.2018					
Date of Harvesting:			15.03.2019		24.03.2019		24.03.2019	

Table 4.1.4. Central Zone			RIR-TS-TAD		Powarkheda		2018-19	
Variety	Irrigation Levels						Mean	Rk
	No	Rk	One	Rk	Two	Rk		
Yield, q/ha								
DDW 47 (d)	21.36	5	47.42	3	59.52	3	42.77	3
DBW 110 (c)	23.94	2	48.61	1	63.69	1	45.41	2
HI 8627 (dc)	27.31	1	47.62	2	62.50	2	45.81	1
MP 3288 (c)	23.14	3	46.63	4	53.77	4	41.18	4
UAS 466 (d)	23.14	3	41.86	5	53.67	5	39.56	5
MEAN	23.78		46.43		58.63		42.95	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		2.67		10.47		24.04	
Variety (B)	NS		1.82		5.32		12.73	
B within A	NS		3.16		9.22			
A within B			3.88		11.34			
Earhead/sqm								
DDW 47 (d)	244	5	306	3	365	2	305	2
DBW 110 (c)	261	4	309	2	329	3	300	3
HI 8627 (dc)	270	3	278	5	283	5	277	5
MP 3288 (c)	290	1	335	1	408	1	344	1
UAS 466 (d)	277	2	297	4	308	4	294	4
MEAN	268		305		338		304	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		3.96		15.55		5.05	
Variety (B)	**		6.52		19.04		6.44	
B within A	**		11.30		32.98			
A within B			10.85		31.68			
Grains/earhead								
DDW 47 (d)	23.03	5	34.73	5	34.13	5	30.63	5
DBW 110 (c)	29.68	1	41.62	1	50.12	1	40.47	1
HI 8627 (dc)	28.15	4	39.62	3	47.63	2	38.47	2
MP 3288 (c)	28.56	3	38.78	4	35.44	4	34.26	4
UAS 466 (d)	29.07	2	39.63	2	46.23	3	38.31	3
MEAN	27.70		38.87		42.71		36.43	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	*		2.57		10.09		27.33	
Variety (B)	**		1.57		4.57		12.89	
B within A	NS		2.71		7.92			
A within B			3.53		10.32			
1000 Grains Weight, g								
DDW 47 (d)	38.33	1	44.60	1	47.87	1	43.60	1
DBW 110 (c)	30.80	3	37.80	3	38.80	3	35.80	3
HI 8627 (dc)	36.27	2	43.27	2	46.67	2	42.07	2
MP 3288 (c)	27.93	5	35.93	4	37.40	5	33.76	5
UAS 466 (d)	28.87	4	35.80	5	38.00	4	34.22	4
MEAN	32.44		39.48		41.75		37.89	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.65		2.56		6.65	
Variety (B)	**		0.54		1.56		4.24	
B within A	NS		0.93		2.71			
A within B			1.05		3.08			
Date of Sowing:			05.11.2018					
Date of Harvesting:			05.03.2019		12.03.2019		23.03.2019	

Table 4.1.5. Central Zone		RIR-TS-TAD		Udaipur		2018-19		
Variety	Irrigation Levels						Mean	Rk
	No	Rk	One	Rk	Two	Rk		
Yield, q/ha								
DDW 47 (d)	28.12	2	36.82	1	43.83	1	36.26	1
DBW 110 (c)	28.32	1	35.19	2	42.57	3	35.36	2
HI 8627 (dc)	25.57	4	33.86	3	42.64	2	34.02	3
MP 3288 (c)	26.08	3	30.97	4	34.03	4	30.36	4
UAS 466 (d)	20.50	5	29.89	5	30.40	5	26.93	5
MEAN	25.72		33.35		38.69		32.59	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.67		2.64		7.99	
Variety (B)	**		0.67		1.95		6.16	
B within A	**		1.16		3.39			
A within B			1.24		3.61			
Earhead/sqm								
DDW 47 (d)	325	1	423	1	468	1	405	1
DBW 110 (c)	320	2	413	2	438	2	391	2
HI 8627 (dc)	313	4	382	4	423	3	373	3
MP 3288 (c)	315	3	383	3	403	5	367	4
UAS 466 (d)	295	5	378	5	408	4	360	5
MEAN	314		396		428		379	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		4.73		18.57		4.83	
Variety (B)	*		10.10		29.47		7.99	
B within A	NS		17.49		51.04			
A within B			16.34		47.69			
Grains/earhead								
DDW 47 (d)	20.96	3	19.31	5	19.89	4	20.05	3
DBW 110 (c)	24.32	1	20.91	2	26.21	1	23.81	1
HI 8627 (dc)	19.17	5	19.73	4	21.25	2	20.05	4
MP 3288 (c)	23.21	2	20.62	3	21.13	3	21.66	2
UAS 466 (d)	19.94	4	22.36	1	17.50	5	19.93	5
MEAN	21.52		20.59		21.20		21.10	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	NS		0.46		1.81		8.49	
Variety (B)	**		0.80		2.33		11.33	
B within A	NS		1.38		4.03			
A within B			1.32		3.85			
1000 Grains Weight, g								
DDW 47 (d)	41.52	2	45.39	1	47.24	2	44.72	2
DBW 110 (c)	36.59	3	40.86	3	37.11	5	38.19	4
HI 8627 (dc)	42.65	1	45.02	2	47.81	1	45.16	1
MP 3288 (c)	36.05	4	39.25	4	40.15	4	38.48	3
UAS 466 (d)	35.13	5	35.53	5	42.64	3	37.77	5
MEAN	38.39		41.21		42.99		40.86	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.19		0.75		1.82	
Variety (B)	**		0.28		0.83		2.08	
B within A	**		0.49		1.43			
A within B			0.48		1.40			
Date of Sowing:			11.11.2018					
Date of Harvesting:			22.03.2019		30.03.2019		05.04.2019	

Table 4.1.6. Central Zone RIR-TS-TAD Jabalpur 2018-19

Variety	Irrigation Levels		One		Two		Mean	Rk
	No	Rk	One	Rk	Two	Rk		
Yield, q/ha								
DDW 47 (d)	32.61	1	32.45	4	34.52	4	33.19	2
DBW 110 (c)	26.55	3	35.13	1	37.83	2	33.17	3
HI 8627 (dc)	29.50	2	34.92	2	35.53	3	33.32	1
MP 3288 (c)	25.52	4	33.43	3	39.31	1	32.75	4
UAS 466 (d)	25.34	5	31.54	5	32.06	5	29.65	5
MEAN	27.90		33.49		35.85		32.42	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.39		1.53		4.67	
Variety (B)	**		0.38		1.12		3.54	
B within A	**		0.66		1.93			
A within B			0.71		2.07			
Earhead/sqm								
DDW 47 (d)	297	1	298	1	299	1	298	1
DBW 110 (c)	292	2	293	2	293	2	293	2
HI 8627 (dc)	288	5	289	5	289	5	289	5
MP 3288 (c)	289	4	290	4	290	4	290	4
UAS 466 (d)	292	2	293	2	293	2	293	2
MEAN	291		292		293		292	
	F Test		SEm		CD		CV (%)	
Irrigation (A)			0.00		0.00		0.00	
Variety (B)	**		0.34		1.00		0.35	
B within A	NS		0.60		1.74			
A within B			0.53		1.56			
Grains/earhead								
DDW 47 (d)	28.06	1	27.12	4	28.63	4	27.94	2
DBW 110 (c)	23.59	3	30.60	1	31.57	2	28.59	1
HI 8627 (dc)	24.68	2	29.75	2	29.04	3	27.82	3
MP 3288 (c)	22.15	5	28.98	3	32.02	1	27.72	4
UAS 466 (d)	23.25	4	26.66	5	27.37	5	25.76	5
MEAN	24.35		28.62		29.73		27.57	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.21		0.84		3.02	
Variety (B)	**		0.41		1.20		4.49	
B within A	**		0.71		2.09			
A within B			0.67		1.97			
1000 Grains Weight, g								
DDW 47 (d)	39.14	3	40.14	3	40.44	4	39.91	3
DBW 110 (c)	38.58	4	39.22	5	40.85	3	39.55	4
HI 8627 (dc)	41.55	1	40.67	1	42.30	2	41.51	1
MP 3288 (c)	39.88	2	39.84	4	42.32	1	40.68	2
UAS 466 (d)	37.40	5	40.44	2	39.99	5	39.28	5
MEAN	39.31		40.06		41.18		40.18	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.18		0.69		1.69	
Variety (B)	**		0.33		0.97		2.48	
B within A	NS		0.58		1.68			
A within B			0.54		1.59			
Date of Sowing:			05.11.2018					
Date of Harvesting:			28.03.2019		02.04.2019		05.04.2019	

Table 4.1.7. Central Zone RIR-TS-TAD Junagarh 2018-19

Variety	Irrigation Levels				Two	Rk	Mean	Rk
	No	Rk	One	Rk				
Yield, q/ha								
DDW 47 (d)	7.48	4	13.54	3	21.94	3	14.32	3
DBW 110 (c)	11.36	2	15.00	2	23.61	2	16.65	2
HI 8627 (dc)	4.52	5	8.33	5	13.71	5	8.85	5
MP 3288 (c)	18.23	1	19.62	1	29.45	1	22.43	1
UAS 466 (d)	9.97	3	13.10	4	17.99	4	13.69	4
MEAN	10.31		13.92		21.34		15.19	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.31		1.23		8.01	
Variety (B)	**		0.25		0.72		4.89	
B within A	**		0.43		1.25			
A within B			0.50		1.45			
Earhead/sqm								
DDW 47 (d)	249	4	269	4	291	3	270	4
DBW 110 (c)	264	2	280	3	289	4	278	3
HI 8627 (dc)	237	5	255	5	278	5	257	5
MP 3288 (c)	259	3	283	2	318	2	286	2
UAS 466 (d)	277	1	309	1	326	1	304	1
MEAN	257		279		300		279	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.48		1.88		0.66	
Variety (B)	**		1.22		3.56		1.31	
B within A	**		2.12		6.17			
A within B			1.95		5.70			
Grains/earhead								
DDW 47 (d)	9.43	4	12.65	3	17.90	3	13.33	3
DBW 110 (c)	12.60	2	14.29	2	19.93	2	15.61	2
HI 8627 (dc)	5.76	5	8.16	5	11.94	5	8.62	5
MP 3288 (c)	19.02	1	17.18	1	21.74	1	19.31	1
UAS 466 (d)	11.20	3	12.45	4	15.65	4	13.10	4
MEAN	11.60		12.95		17.43		13.99	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.31		1.23		8.70	
Variety (B)	**		0.29		0.84		6.17	
B within A	**		0.50		1.46			
A within B			0.55		1.59			
1000 Grains Weight, g								
DDW 47 (d)	31.87	5	39.73	3	42.27	2	37.96	3
DBW 110 (c)	34.27	2	37.47	4	40.93	4	37.56	4
HI 8627 (dc)	33.07	3	40.00	2	41.33	3	38.13	2
MP 3288 (c)	37.07	1	40.40	1	42.67	1	40.04	1
UAS 466 (d)	32.13	4	34.00	5	35.27	5	33.80	5
MEAN	33.68		38.32		40.49		37.50	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.09		0.35		0.92	
Variety (B)	**		0.34		1.01		2.76	
B within A	**		0.60		1.74			
A within B			0.54		1.58			
Date of Sowing:	21.11.2018							
Date of Harvesting:	07.03.2019							

Table 4.1.8. Central Zone		RIR-TS-TAD		Vijapur		2018-19		
Variety	Irrigation Levels						Mean	Rk
	No	Rk	One	Rk	Two	Rk		
Yield, q/ha								
DDW 47 (d)	4.43	5	10.10	5	22.33	3	12.29	3
DBW 110 (c)	10.00	1	15.42	2	24.33	1	16.58	2
HI 8627 (dc)	5.28	4	11.43	4	15.67	5	10.79	5
MP 3288 (c)	9.65	2	16.70	1	23.95	2	16.77	1
UAS 466 (d)	6.53	3	11.45	3	15.87	4	11.28	4
Mean	7.18		13.02		20.43		13.54	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.71		2.79		20.33	
Variety (B)	**		0.49		1.42		10.77	
B within A	**		0.84		2.46			
A within B			1.04		3.02			
Earhead/sqm								
DDW 47 (d)	61	5	98	5	166	4	108	4
DBW 110 (c)	94	2	145	2	197	2	145	2
HI 8627 (dc)	65	4	112	4	133	5	104	5
MP 3288 (c)	96	1	165	1	234	1	165	1
UAS 466 (d)	81	3	121	3	178	3	127	3
Mean	79		128		181		130	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	**		0.91		3.58		2.72	
Variety (B)	**		3.91		11.41		9.04	
B within A	**		6.77		19.77			
A within B			6.13		17.88			
Grains/earhead								
DDW 47 (d)	14.45	5	20.75	4	25.24	3	20.15	4
DBW 110 (c)	25.89	2	29.70	1	33.57	1	29.72	1
HI 8627 (dc)	15.79	4	19.97	5	23.43	4	19.73	5
MP 3288 (c)	26.19	1	28.24	2	28.10	2	27.51	2
UAS 466 (d)	16.91	3	22.74	3	21.77	5	20.48	3
Mean	19.85		24.28		26.42		23.52	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	*		1.12		4.41		18.48	
Variety (B)	**		1.17		3.41		14.90	
B within A	NS		2.02		5.91			
A within B			2.13		6.21			
1000 Grains Weight, g								
DDW 47 (d)	51.14	2	51.32	1	53.81	1	52.09	1
DBW 110 (c)	40.87	4	35.92	5	37.42	4	38.07	4
HI 8627 (dc)	51.24	1	50.77	2	50.35	2	50.79	2
MP 3288 (c)	38.58	5	36.00	4	36.68	5	37.08	5
UAS 466 (d)	48.25	3	42.56	3	41.14	3	43.98	3
Mean	46.02		43.31		43.88		44.40	
	F Test		SEm		CD		CV (%)	
Irrigation (A)	NS		0.74		2.90		6.45	
Variety (B)	**		1.20		3.51		8.12	
B within A	NS		2.08		6.08			
A within B			2.00		5.85			
Date of Sowing:			17.11.2018					
Date of Harvesting:			20.03.2019		20.03.2019		20.03.2019	

Genotype	RIR-TS-TAS				Pooled		2018-19	
	Irrigation level							
	Zero	Rk	One	Rk	Two	Rk	Mean	Rk
Yield, q/ha								
HI 8805 (d)	25.20	6	30.10	5	36.81	5	30.71	5
HI 8802 (d)	23.01	8	25.41	10	35.79	8	28.07	8
MACS 4058 (d)	25.95	5	27.38	7	36.65	7	29.99	6
NIAW 3170	27.01	4	32.91	3	39.16	4	33.02	3
MACS 6696	27.82	2	34.22	2	41.01	2	34.35	2
UAS 446 (dc)	22.93	9	26.00	9	34.60	10	27.85	10
GW 1346 (d)	22.90	10	23.90	11	33.34	11	26.72	11
AKDW 2997-16 (dc)	22.82	11	26.43	8	34.69	9	27.98	9
MACS 6695	29.43	1	34.79	1	41.49	1	35.24	1
DBW 93 (c)	23.47	7	29.22	6	36.74	6	29.81	7
HI 1605 (c)	27.49	3	30.59	4	39.40	3	32.49	4
MEAN	25.27		29.18		37.24		30.56	
CD (0.05)	Irrigation (A)		Genotype (B)		B within A		A within B	
	1.09		1.51		NS		NS	
Grains/Earhead								
HI 8805 (d)	22.45	9	29.70	5	29.60	9	27.25	9
HI 8802 (d)	22.10	11	27.14	8	35.09	1	28.11	6
MACS 4058 (d)	28.05	4	26.75	10	33.09	4	29.30	5
NIAW 3170	25.55	6	27.52	7	30.19	8	27.75	8
MACS 6696	31.19	1	28.59	6	32.04	5	30.61	3
UAS 446 (dc)	25.74	5	26.80	9	28.98	11	27.18	10
GW 1346 (d)	22.28	10	25.37	11	31.05	6	26.24	11
AKDW 2997-16 (dc)	24.11	8	29.74	4	29.53	10	27.79	7
MACS 6695	29.15	2	31.40	2	30.54	7	30.37	4
DBW 93 (c)	25.42	7	34.60	1	34.09	3	31.37	2
HI 1605 (c)	28.88	3	30.61	3	34.62	2	31.37	1
MEAN	25.90		28.93		31.71		28.85	
CD (0.05)	Irrigation (A)		Genotype (B)		B within A		A within B	
	0.88		1.84		3.18		3.15	
Earheads/sqm								
HI 8805 (d)	255	2	231	9	263	8	250	6
HI 8802 (d)	241	5	223	11	233	11	232	10
MACS 4058 (d)	209	11	234	7	235	10	226	11
NIAW 3170	255	3	288	2	290	3	277	3
MACS 6696	231	8	307	1	300	2	279	2
UAS 446 (dc)	225	10	250	5	287	4	254	5
GW 1346 (d)	250	4	232	8	257	9	246	7
AKDW 2997-16 (dc)	236	7	226	10	274	5	246	8
MACS 6695	260	1	285	3	328	1	291	1
DBW 93 (c)	230	9	235	6	266	7	244	9
HI 1605 (c)	237	6	261	4	274	6	257	4
MEAN	239		252		273		255	
CD (0.05)	Irrigation (A)		Genotype (B)		B within A		A within B	
	5.98		8.11		14.04		14.55	
1000 Grains Weight, g								
HI 8805 (d)	43.43	2	43.41	2	46.48	2	44.44	2
HI 8802 (d)	42.47	3	42.08	3	43.39	4	42.65	3
MACS 4058 (d)	44.25	1	43.93	1	46.69	1	44.96	1
NIAW 3170	41.45	4	41.56	4	44.61	3	42.54	4
MACS 6696	39.04	10	39.40	7	42.49	6	40.31	7
UAS 446 (dc)	39.15	9	38.85	9	41.33	10	39.77	10
GW 1346 (d)	40.77	5	40.91	5	41.59	8	41.09	5
AKDW 2997-16 (dc)	40.15	8	39.49	6	42.71	5	40.78	6
MACS 6695	39.01	11	39.23	8	42.43	7	40.22	8
DBW 93 (c)	40.46	6	37.08	11	40.43	11	39.32	11
HI 1605 (c)	40.28	7	38.59	10	41.41	9	40.09	9
MEAN	40.95		40.41		43.05		41.47	
CD (0.05)	Irrigation (A)		Genotype (B)		B within A		A within B	
	1.04		1.08		NS		NS	

Centres: Dharwad, Pune

Table 5.2.1. Peninsular Zone

RIR-TS-TAS

Dharwad

2018-19

Genotype	Irrigation level				Mean	Rk
	Zero	Rk	One	Rk		
	Yield, q/ha					
HI 8805 (d)	19.73	8	24.12	8	27.84	8
HI 8802 (d)	17.52	10	23.67	10	26.95	10
MACS 4058 (d)	21.94	6	24.95	6	28.75	6
NIAW 3170	22.75	4	26.12	4	30.57	4
MACS 6696	23.12	3	26.75	3	30.81	3
UAS 446 (dc)	16.32	11	22.34	11	26.52	11
GW 1346 (d)	18.65	9	23.98	9	27.38	9
AKDW 2997-16 (dc)	20.87	7	24.35	7	28.18	7
MACS 6695	24.48	1	28.12	1	32.86	1
DBW 93 (c)	22.34	5	25.48	5	29.64	5
HI 1605 (c)	23.95	2	27.45	2	31.75	2
MEAN	21.06		25.21		29.20	25.16
	F Test		SEm		CD (0.05)	CV (%)
Irrigation (A)	**		0.11		0.45	2.60
Genotype (B)	**		0.79		2.24	9.46
B within A	NS		1.37		3.89	
A within B			1.31		3.88	
	Grains/Earhead					
HI 8805 (d)	21.91	8	26.09	9	28.68	9
HI 8802 (d)	20.80	10	25.96	10	28.04	11
MACS 4058 (d)	24.26	6	26.84	6	29.27	6
NIAW 3170	25.63	3	27.40	4	30.73	3
MACS 6696	25.47	4	27.85	3	30.55	4
UAS 446 (dc)	19.92	11	24.64	11	28.05	10
GW 1346 (d)	21.21	9	26.36	7	28.70	8
AKDW 2997-16 (dc)	23.09	7	26.25	8	29.10	7
MACS 6695	26.23	1	28.96	1	32.59	1
DBW 93 (c)	24.78	5	27.35	5	30.25	5
HI 1605 (c)	26.07	2	28.49	2	32.08	2
MEAN	23.58		26.93		29.82	26.78
	F Test		SEm		CD (0.05)	CV (%)
Irrigation (A)	**		0.10		0.40	2.21
Genotype (B)	**		1.00		2.84	11.24
B within A	NS		1.74		4.91	
A within B			1.66		4.90	
	Earheads/sqm					
HI 8805 (d)	220	7	225	8	231	7
HI 8802 (d)	215	10	224	10	230	9
MACS 4058 (d)	220	7	226	5	232	5
NIAW 3170	221	5	229	4	234	4
MACS 6696	224	3	230	2	235	2
UAS 446 (dc)	213	11	223	11	229	11
GW 1346 (d)	219	9	225	8	230	9
AKDW 2997-16 (dc)	221	5	226	5	231	7
MACS 6695	226	1	232	1	236	1
DBW 93 (c)	222	4	226	5	232	5
HI 1605 (c)	225	2	230	2	235	2
MEAN	221		227		232	227
	F Test		SEm		CD (0.05)	CV (%)
Irrigation (A)	**		0.87		3.40	2.20
Genotype (B)	NS		3.42		9.67	4.53
B within A	NS		5.92		16.75	
A within B			5.71		16.85	
	1000 Grains Weight, g					
HI 8805 (d)	40.86	6	41.16	7	41.96	8
HI 8802 (d)	39.27	10	40.83	9	41.78	9
MACS 4058 (d)	41.16	2	41.53	5	42.38	4
NIAW 3170	40.23	8	41.79	4	42.56	3
MACS 6696	40.74	7	41.80	3	42.98	1
UAS 446 (dc)	38.63	11	40.69	10	41.32	11
GW 1346 (d)	40.20	9	40.48	11	41.52	10
AKDW 2997-16 (dc)	40.96	3	41.32	6	42.08	7
MACS 6695	41.35	1	42.13	1	42.85	2
DBW 93 (c)	40.92	4	41.15	8	42.19	5
HI 1605 (c)	40.89	5	41.84	2	42.16	6
MEAN	40.47		41.34		42.16	41.32
	F Test		SEm		CD (0.05)	CV (%)
Irrigation (A)	**		0.10		0.38	1.35
Genotype (B)	NS		0.44		1.24	3.19
B within A	NS		0.76		2.15	
A within B			0.73		2.16	
Date of Sowing:			03.11.2018			
Date of Harvesting:			15.02.2019		28.02.2019 03.03.2019	

Table 5.2.2. Peninsular Zone

Genotype	RIR-TS-TAS				Pune		2018-19	
	Irrigation level				Two	Rk	Mean	Rk
	Zero	Rk	One	Rk				
Yield, q/ha								
HI 8805 (d)	30.68	5	36.08	4	45.78	5	37.51	4
HI 8802 (d)	28.49	8	27.15	10	44.63	6	33.42	9
MACS 4058 (d)	29.96	6	29.82	7	44.54	7	34.77	6
NIAW 3170	31.27	3	39.69	3	47.74	3	39.57	3
MACS 6696	32.51	2	41.69	1	51.21	1	41.80	2
UAS 446 (dc)	29.54	7	29.67	8	42.68	9	33.96	7
GW 1346 (d)	27.15	9	23.83	11	39.30	11	30.09	11
AKDW 2997-16 (dc)	24.76	10	28.51	9	41.19	10	31.49	10
MACS 6695	34.37	1	41.47	2	50.13	2	41.99	1
DBW 93 (c)	24.60	11	32.95	6	43.83	8	33.79	8
HI 1605 (c)	31.02	4	33.72	5	47.05	4	37.26	5
MEAN	29.49		33.14		45.28		35.97	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		0.66		2.58		10.48	
Genotype (B)	**		0.73		2.06		6.09	
B within A	**		1.26		3.58			
A within B			1.37		4.05			
Grains/Earhead								
HI 8805 (d)	23.00	11	33.31	3	30.52	7	28.94	9
HI 8802 (d)	23.41	9	28.32	8	42.13	1	31.29	6
MACS 4058 (d)	31.83	3	26.67	10	36.90	4	31.80	4
NIAW 3170	25.47	7	27.63	9	29.65	10	27.58	10
MACS 6696	36.92	1	29.33	6	33.53	5	33.26	3
UAS 446 (dc)	31.57	5	28.97	7	29.91	9	30.15	7
GW 1346 (d)	23.36	10	24.39	11	33.40	6	27.05	11
AKDW 2997-16 (dc)	25.13	8	33.23	4	29.96	8	29.44	8
MACS 6695	32.07	2	33.85	2	28.49	11	31.47	5
DBW 93 (c)	26.06	6	41.84	1	37.92	2	35.27	1
HI 1605 (c)	31.69	4	32.73	5	37.16	3	33.86	2
MEAN	28.23		30.93		33.60		30.92	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		0.53		2.09		9.87	
Genotype (B)	**		0.85		2.39		8.21	
B within A	**		1.46		4.14			
A within B			1.49		4.41			
Earheads/sqm								
HI 8805 (d)	291	2	237	9	295	8	274	6
HI 8802 (d)	267	5	221	11	236	11	241	10
MACS 4058 (d)	199	11	241	7	237	10	226	11
NIAW 3170	288	3	347	2	345	3	327	3
MACS 6696	237	8	384	1	364	2	328	2
UAS 446 (dc)	236	10	277	5	345	3	286	4
GW 1346 (d)	281	4	239	8	283	9	268	7
AKDW 2997-16 (dc)	251	6	227	10	317	5	265	8
MACS 6695	293	1	337	3	419	1	350	1
DBW 93 (c)	237	8	244	6	300	7	260	9
HI 1605 (c)	248	7	292	4	313	6	284	5
MEAN	257		277		314		283	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	**		3.57		14.00		7.24	
Genotype (B)	**		4.67		13.22		4.96	
B within A	**		8.09		22.89			
A within B			8.50		25.08			
1000 Grains Weight, g								
HI 8805 (d)	46.00	2	45.67	2	51.00	1	47.56	2
HI 8802 (d)	45.67	3	43.33	3	45.00	4	44.67	3
MACS 4058 (d)	47.33	1	46.33	1	51.00	1	48.22	1
NIAW 3170	42.67	4	41.33	4	46.67	3	43.56	4
MACS 6696	37.33	10	37.00	7	42.00	6	38.78	8
UAS 446 (dc)	39.67	7	37.00	7	41.33	9	39.33	7
GW 1346 (d)	41.33	5	41.33	4	41.67	8	41.44	5
AKDW 2997-16 (dc)	39.33	9	37.67	6	43.33	5	40.11	6
MACS 6695	36.67	11	36.33	9	42.00	6	38.33	10
DBW 93 (c)	40.00	6	33.00	11	38.67	11	37.22	11
HI 1605 (c)	39.67	7	35.33	10	40.67	10	38.56	9
MEAN	41.42		39.48		43.94		41.62	
	F Test		SEm		CD (0.05)		CV (%)	
Irrigation (A)	*		0.63		2.47		8.68	
Genotype (B)	**		0.63		1.79		4.56	
B within A	*		1.10		3.10			
A within B			1.22		3.60			
Date of Sowing:			01.11.2018					
Date of Harvesting:			20.02.2019		23.02.2019		26.02.2019	

Table 5.2.3. Peninsular Zone

RIR-TS-TAS

Niphad

2018-19

Genotype	Irrigation level				Mean	Rk
	Zero	Rk	One	Rk		
	Yield, q/ha					
HI 8805 (d)	14.25	7	16.81	9	21.59	8
HI 8802 (d)	15.39	4	19.44	6	20.39	9
MACS 4058 (d)	12.74	9	18.51	8	20.22	10
NIAW 3170	19.50	1	24.09	1	28.15	1
MACS 6696	12.04	11	20.62	3	22.40	6
UAS 446 (dc)	15.81	2	19.25	7	21.70	7
GW 1346 (d)	13.16	8	20.31	5	23.76	3
AKDW 2997-16 (dc)	15.53	3	21.94	2	25.78	2
MACS 6695	14.64	5	16.51	10	22.73	5
DBW 93 (c)	14.52	6	20.35	4	22.79	4
HI 1605 (c)	12.69	10	15.50	11	19.43	11
MEAN	14.57		19.39		22.63	
	F Test		SEm		CD (0.05)	CV (%)
Irrigation (A)	*		0.97		3.82	29.61
Genotype (B)	**		1.09		3.07	17.28
B within A	NS		1.88		5.32	
A within B			2.04		6.02	
	Grains/Earhead					
HI 8805 (d)	20.27	9	15.17	5	16.89	2
HI 8802 (d)	24.16	4	17.17	3	13.47	9
MACS 4058 (d)	21.73	8	14.92	6	14.49	5
NIAW 3170	27.39	2	16.27	4	15.64	4
MACS 6696	22.00	7	18.75	2	12.61	10
UAS 446 (dc)	25.45	3	13.24	10	11.86	11
GW 1346 (d)	22.64	6	14.46	7	14.05	6
AKDW 2997-16 (dc)	27.48	1	21.10	1	19.13	1
MACS 6695	19.30	10	14.09	8	13.71	8
DBW 93 (c)	23.79	5	14.02	9	16.12	3
HI 1605 (c)	17.64	11	11.09	11	13.75	7
MEAN	22.90		15.48		14.70	
	F Test		SEm		CD (0.05)	CV (%)
Irrigation (A)	**		0.88		3.46	28.61
Genotype (B)	*		1.33		3.77	22.61
B within A	NS		2.31		6.53	
A within B			2.37		7.00	
	Earheads/sqm					
HI 8805 (d)	195	3	293	9	341	10
HI 8802 (d)	175	6	291	10	372	7
MACS 4058 (d)	170	8	322	6	353	9
NIAW 3170	183	4	368	4	422	4
MACS 6696	173	7	294	8	452	2
UAS 446 (dc)	165	9	378	2	470	1
GW 1346 (d)	157	10	359	5	426	3
AKDW 2997-16 (dc)	157	11	261	11	329	11
MACS 6695	196	2	313	7	422	5
DBW 93 (c)	176	5	379	1	358	8
HI 1605 (c)	198	1	375	3	377	6
MEAN	177		330		393	
	F Test		SEm		CD (0.05)	CV (%)
Irrigation (A)	**		3.23		12.68	6.18
Genotype (B)	**		9.19		25.99	9.19
B within A	**		15.92		45.02	
A within B			15.52		45.78	
	1000 Grains Weight, g					
HI 8805 (d)	36.29	8	38.02	10	37.70	10
HI 8802 (d)	36.72	5	39.00	5	40.70	3
MACS 4058 (d)	35.44	9	38.94	6	39.41	7
NIAW 3170	39.26	1	40.13	1	42.60	1
MACS 6696	33.73	11	39.08	4	39.67	4
UAS 446 (dc)	37.70	3	38.53	9	38.97	9
GW 1346 (d)	37.21	4	39.51	3	39.60	5
AKDW 2997-16 (dc)	36.54	7	39.60	2	40.93	2
MACS 6695	38.78	2	38.68	7	39.35	8
DBW 93 (c)	35.26	10	38.56	8	39.50	6
HI 1605 (c)	36.60	6	37.28	11	37.37	11
MEAN	36.68		38.85		39.62	
	F Test		SEm		CD (0.05)	CV (%)
Irrigation (A)	*		0.47		1.84	7.00
Genotype (B)	*		0.67		1.90	5.25
B within A	NS		1.16		3.29	
A within B			1.20		3.55	
Date of Sowing:			02.11.2018			
Date of Harvesting:			12.02.2019		21.02.2019	28.02.2019