

Table 4.3. Central Zone		RIR-TS-TAD		Centrewise	Yield, q/ha		2022-23
Irrigation	Genotypes	Bilaspur	Gwalior	Indore	Jabalpur	Udaipur	Zonal mean
Zero	DBW 359	19.43	28.47	27.20	35.10	33.65	28.77
	CG 1040	22.50	26.67	29.00	26.71	29.87	26.95
	MP 3288 (C)	21.82	29.37	25.13	25.98	18.85	24.23
	DBW 110 (C)	20.62	26.37	23.77	30.27	27.88	25.78
	HI 1655 (I) (C)	20.04	28.93	21.20	23.44	27.18	24.16
	CG 1036 (I) (C)	23.19	30.40	24.17	32.41	26.25	27.28
	Mean	21.27	28.37	25.08	28.99	27.28	26.20
One	DBW 359	25.16	38.90	35.20	41.33	40.50	36.22
	CG 1040	30.86	33.09	32.17	38.43	40.08	34.93
	MP 3288 (C)	29.47	40.05	31.30	41.12	42.97	36.98
	DBW 110 (C)	29.79	32.78	30.80	42.11	43.32	35.76
	HI 1655 (I) (C)	28.33	39.68	33.87	32.27	44.33	35.70
	CG 1036 (I) (C)	32.43	43.42	39.33	38.73	41.63	39.11
	Mean	29.34	37.99	33.78	39.00	42.14	36.45
Two	DBW 359	29.39	42.22	38.83	42.92	47.85	40.24
	CG 1040	36.31	41.07	38.50	38.55	45.47	39.98
	MP 3288 (C)	34.27	45.20	35.57	43.47	43.95	40.49
	DBW 110 (C)	33.10	40.24	36.27	43.05	52.48	41.03
	HI 1655 (I) (C)	32.70	43.29	37.97	36.87	56.68	41.50
	CG 1036 (I) (C)	37.56	50.52	42.60	40.95	44.65	43.25
	Mean	33.89	43.76	38.29	40.97	48.51	41.08
Mean	DBW 359	24.66	36.53	33.74	39.78	40.67	35.08
	CG 1040	29.89	33.61	33.22	34.56	38.47	33.95
	MP 3288 (C)	28.52	38.21	30.67	36.86	35.26	33.90
	DBW 110 (C)	27.84	33.13	30.28	38.48	41.23	34.19
	HI 1655 (I) (C)	27.02	37.30	31.01	30.86	42.73	33.79
	CG 1036 (I) (C)	31.06	41.44	35.37	37.36	37.51	36.55
	Mean	28.16	36.70	32.38	36.32	39.31	34.58
CD (0.05)	Irrigation (A)	1.68	34.16	2.69	1.36	3.99	
	Genotype (B)	1.67	18.70	2.05	1.56	3.03	
	B within A	2.89	32.38	3.56	2.71	5.25	
	A within B	2.92	38.80	3.80	2.67	5.62	
Date of Sowing :	30.10.2022	12.11.2022	4.11.2022	12.11.2022	8.11.2022		
Date of Harvesting :	28.02.2023	10.04.2023	15.3.2023		10.3.2023		

Table 4.4. Central Zone		RIR-TS-TAD					Pooled	2022-23
Genotype	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield, q/ha								
DBW 359	28.77	1	36.22	3	40.24	5	35.08	2
CG 1040	26.95	3	34.93	6	39.98	6	33.95	4
MP 3288 (C)	24.23	5	36.98	2	40.49	4	33.90	5
DBW 110 (C)	25.78	4	35.76	4	41.03	3	34.19	3
HI 1655 (I) (C)	24.16	6	35.70	5	41.50	2	33.79	6
CG 1036 (I) (C)	27.28	2	39.11	1	43.25	1	36.55	1
Mean	26.20		36.45		41.08		34.58	
	Irrigation (A)		Genotypes (B)		B within A		A within B	
CD (0.05)	0.77		0.81		NS		NS	
Earhead/sq.m.								
DBW 359	240	5	276	5	304	5	273	6
CG 1040	248	2	303	1	308	4	286	3
MP 3288 (C)	243	3	294	4	323	2	287	2
DBW 110 (C)	234	6	295	3	301	6	276	4
HI 1655 (I) (C)	240	4	271	6	310	3	274	5
CG 1036 (I) (C)	261	1	298	2	343	1	300	1
Mean	244		289		315		283	
	Irrigation (A)		Genotypes (B)		B within A		A within B	
CD (0.05)	6.38		5.94		NS		NS	
Grains /earhead								
DBW 359	31.75	1	33.01	3	31.01	3	31.92	1
CG 1040	28.05	4	27.66	6	30.60	4	28.77	5
MP 3288 (C)	30.07	2	33.67	2	30.51	5	31.42	3
DBW 110 (C)	28.05	5	29.22	5	32.03	1	29.76	4
HI 1655 (I) (C)	28.96	3	33.75	1	31.95	2	31.56	2
CG 1036 (I) (C)	26.89	6	31.26	4	27.75	6	28.63	6
Mean	28.96		31.43		30.64		30.34	
	Irrigation (A)		Genotypes (B)		B within A		A within B	
CD (0.05)	0.73		1.04		NS		NS	
1000 Grains Weight, g								
DBW 359	40.07	4	41.84	4	44.14	4	42.02	4
CG 1040	41.27	2	42.55	3	44.18	2	42.67	2
MP 3288 (C)	38.61	6	39.99	6	42.45	6	40.35	6
DBW 110 (C)	41.08	3	42.79	2	43.51	5	42.46	3
HI 1655 (I) (C)	39.84	5	41.59	5	44.17	3	41.87	5
CG 1036 (I) (C)	41.67	1	44.42	1	47.16	1	44.42	1
Mean	40.42		42.20		44.27		42.30	
	Irrigation (A)		Genotypes (B)		B within A		A within B	
CD (0.05)	0.35		0.38		NS		NS	

Centres: Bilaspur, Gwalior, Indore, Jabalpur, Udaipur

Genotype	Irrigation level						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield, q/ha								
DBW 359	19.43	6	25.16	6	29.39	6	24.66	6
CG 1040	22.50	2	30.86	2	36.31	2	29.89	2
MP 3288 (C)	21.82	3	29.47	4	34.27	3	28.52	3
DBW 110 (C)	20.62	4	29.79	3	33.10	4	27.84	4
HI 1655 (I) (C)	20.04	5	28.33	5	32.70	5	27.02	5
CG 1036 (I) (C)	23.19	1	32.43	1	37.56	1	31.06	1
Mean	21.27		29.34		33.89		28.16	
	F. Test	SEm	CD (0.05)	CV (%)				
Irrigation (A)	**	0.43	1.68	6.45				
Genotype (B)	**	0.58	1.67	6.16				
B within A	N.S.	1.00	2.89					
A within B		1.01	2.92					
Earhead/sq.m.								
DBW 359	213	6	239	6	258	6	237	6
CG 1040	250	2	281	2	311	2	281	2
MP 3288 (C)	241	3	276	3	302	3	273	3
DBW 110 (C)	232	4	271	4	297	4	267	4
HI 1655 (I) (C)	228	5	267	5	291	5	262	5
CG 1036 (I) (C)	255	1	296	1	328	1	293	1
Mean	236		272		298		269	
	F. Test	SEm	CD (0.05)	CV (%)				
Irrigation (A)	**	1.04	4.09	1.64				
Genotype (B)	**	1.35	3.90	1.51				
B within A	**	2.34	6.76					
A within B		2.38	6.87					
Grains/earhead								
DBW 359	26.30	1	28.55	2	30.68	1	28.51	1
CG 1040	23.75	5	28.20	3	28.81	3	26.92	5
MP 3288 (C)	24.62	4	27.72	5	28.47	4	26.94	4
DBW 110 (C)	24.82	3	29.00	1	27.92	5	27.25	3
HI 1655 (I) (C)	25.18	2	28.19	4	28.93	2	27.43	2
CG 1036 (I) (C)	23.52	6	27.00	6	27.37	6	25.96	6
Mean	24.70		28.11		28.70		27.17	
	F. Test	SEm	CD (0.05)	CV (%)				
Irrigation (A)	**	0.41	1.62	6.43				
Genotype (B)	N.S.	0.66	1.91	7.32				
B within A	N.S.	1.15	3.32					
A within B		1.13	3.25					
1000 grain wt, g								
DBW 359	34.69	6	36.98	6	37.22	6	36.30	6
CG 1040	37.99	2	38.99	2	40.62	2	39.20	2
MP 3288 (C)	36.93	3	38.51	3	39.89	4	38.45	3
DBW 110 (C)	35.87	4	37.90	4	39.94	3	37.91	4
HI 1655 (I) (C)	35.02	5	37.61	5	38.95	5	37.19	5
CG 1036 (I) (C)	38.77	1	40.62	1	41.85	1	40.41	1
Mean	36.55		38.44		39.75		38.24	
	F. Test	SEm	CD (0.05)	CV (%)				
Irrigation (A)	**	0.15	0.60	1.70				
Genotype (B)	**	0.41	1.19	3.24				
B within A	N.S.	0.72	2.07					
A within B		0.67	1.94					
Date of Sowing:	30.10.2022							
Date of Harvesting:	28.02.2023							

Table 4.4.2. Central Zone		RIR-TS-TAD				Gwalior	2022-23	
Genotype	Irrigations						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield, q/ha								
DBW 359	28.47	4	38.90	4	42.22	4	36.53	4
CG 1040	26.67	5	33.09	5	41.07	5	33.61	5
MP 3288 (C)	29.37	2	40.05	2	45.20	2	38.21	2
DBW 110 (C)	26.37	6	32.78	6	40.24	6	33.13	6
HI 1655 (I) (C)	28.93	3	39.68	3	43.29	3	37.30	3
CG 1036 (I) (C)	30.40	1	43.42	1	50.52	1	41.44	1
Mean	28.37		37.99		43.76		36.70	
	F. Test	SEm	CD (0.05)	CV (%)				
Irrigation (A)	**	0.84	3.31	9.75				
Genotype (B)	**	0.85	2.46	6.96				
B within A	N.S.	1.47	4.26					
A within B		1.59	4.59					
Earhead/sq.m.								
DBW 359	343	5	419	3	434	4	399	4
CG 1040	343	4	408	6	429	5	393	5
MP 3288 (C)	359	2	425	2	465	2	416	2
DBW 110 (C)	305	6	411	5	407	6	374	6
HI 1655 (I) (C)	354	3	419	4	446	3	406	3
CG 1036 (I) (C)	360	1	440	1	491	1	430	1
Mean	344		420		446		403	
	F. Test	SEm	CD (0.05)	CV (%)				
Irrigation (A)	**	8.70	34.16	9.15				
Genotype (B)	**	6.47	18.70	4.82				
B within A	N.S.	11.21	32.38					
A within B		13.43	38.80					
Grains /earhead								
DBW 359	23.51	2	25.52	1	23.86	6	24.29	2
CG 1040	22.74	3	23.33	5	26.08	1	24.05	3
MP 3288 (C)	22.55	4	25.14	3	23.98	4	23.89	5
DBW 110 (C)	25.11	1	22.40	6	25.95	2	24.49	1
HI 1655 (I) (C)	22.40	5	25.16	2	23.95	5	23.84	6
CG 1036 (I) (C)	22.34	6	24.90	4	24.76	3	24.00	4
Mean	23.11		24.41		24.76		24.09	
	F. Test	SEm	CD (0.05)	CV (%)				
Irrigation (A)	N.S.	0.83	3.24	14.53				
Genotype (B)	N.S.	0.78	2.26	9.73				
B within A	N.S.	1.35	3.91					
A within B		1.49	4.29					
1000 grain wt, g								
DBW 359	35.46	4	36.49	4	40.85	2	37.60	4
CG 1040	34.15	6	34.97	6	36.81	6	35.31	6
MP 3288 (C)	36.48	3	37.75	2	40.57	4	38.26	3
DBW 110 (C)	34.47	5	35.70	5	38.27	5	36.14	5
HI 1655 (I) (C)	36.63	2	37.70	3	40.75	3	38.36	2
CG 1036 (I) (C)	37.86	1	39.62	1	41.63	1	39.70	1
Mean	35.84		37.04		39.81		37.56	
	F. Test	SEm	CD (0.05)	CV (%)				
Irrigation (A)	**	0.36	1.43	4.10				
Genotype (B)	**	0.37	1.07	2.96				
B within A	N.S.	0.64	1.85					
A within B		0.69	1.99					
Date of Sowing:	12.11.2022							
Date of Harvesting:	10.04.2023							

Table 4.4.3. Central Zone		RIR-TS-TAD					Indore	2022-23
Genotype	Irrigations						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield, q/ha								
DBW 359	27.20	2	35.20	2	38.83	2	33.74	2
CG 1040	29.00	1	32.17	4	38.50	3	33.22	3
MP 3288 (C)	25.13	3	31.30	5	35.57	6	30.67	5
DBW 110 (C)	23.77	5	30.80	6	36.27	5	30.28	6
HI 1655 (I) (C)	21.20	6	33.87	3	37.97	4	31.01	4
CG 1036 (I) (C)	24.17	4	39.33	1	42.60	1	35.37	1
Mean	25.08		33.78		38.29		32.38	
	F. Test	SEm	CD (0.05)	CV (%)				
Irrigation (A)	**	0.69	2.69	8.99				
Genotype (B)	**	0.71	2.05	6.59				
B within A	**	1.23	3.56					
A within B		1.32	3.80					
Earhead/sq.m.								
DBW 359	228	3	230	5	241	4	233	4
CG 1040	222	5	243	3	258	3	241	3
MP 3288 (C)	229	2	298	1	271	2	266	2
DBW 110 (C)	207	6	225	6	236	5	223	6
HI 1655 (I) (C)	225	4	230	4	225	6	227	5
CG 1036 (I) (C)	254	1	276	2	301	1	277	1
Mean	228		250		255		244	
	F. Test	SEm	CD (0.05)	CV (%)				
Irrigation (A)	*	5.08	19.93	8.81				
Genotype (B)	**	6.56	18.96	8.06				
B within A	N.S.	11.37	32.83					
A within B		11.55	33.37					
Grains /earhead								
DBW 359	26.17	3	35.70	1	32.80	3	31.56	1
CG 1040	27.83	1	29.03	5	32.80	3	29.89	2
MP 3288 (C)	26.40	2	26.77	6	30.67	5	27.94	5
DBW 110 (C)	24.57	4	30.17	3	33.03	2	29.26	3
HI 1655 (I) (C)	20.13	5	31.33	2	35.60	1	29.02	4
CG 1036 (I) (C)	19.80	6	29.77	4	27.13	6	25.57	6
Mean	24.15		30.46		32.01		28.87	
	F. Test	SEm	CD (0.05)	CV (%)				
Irrigation (A)	**	0.59	2.33	8.72				
Genotype (B)	**	1.03	2.98	10.71				
B within A	*	1.79	5.16					
A within B		1.73	5.01					
1000 grain wt, g								
DBW 359	45.87	4	43.53	5	49.20	2	46.20	5
CG 1040	47.60	2	45.53	4	45.90	5	46.34	4
MP 3288 (C)	41.70	6	39.63	6	42.97	6	41.43	6
DBW 110 (C)	47.03	3	45.53	3	46.53	4	46.37	3
HI 1655 (I) (C)	45.47	5	47.00	2	47.43	3	46.63	2
CG 1036 (I) (C)	48.37	1	48.00	1	52.10	1	49.49	1
Mean	46.01		44.87		47.36		46.08	
	F. Test	SEm	CD (0.05)	CV (%)				
Irrigation (A)	*	0.40	1.56	3.66				
Genotype (B)	**	0.32	0.93	2.09				
B within A	**	0.55	1.60					
A within B		0.64	1.86					
Date of Sowing:	4.11.2022							
Date of Harvesting:	15.3.2023							

Genotype	Irrigations						Mean	Rk
	Zero	Rk	One	Rk	Two	Rk		
Yield, q/ha								
DBW 359	35.10	1	41.33	2	42.92	3	39.78	1
CG 1040	26.71	4	38.43	5	38.55	5	34.56	5
MP 3288 (C)	25.98	5	41.12	3	43.47	1	36.86	4
DBW 110 (C)	30.27	3	42.11	1	43.05	2	38.48	2
HI 1655 (I) (C)	23.44	6	32.27	6	36.87	6	30.86	6
CG 1036 (I) (C)	32.41	2	38.73	4	40.95	4	37.36	3
Mean	28.99		39.00		40.97		36.32	
	F. Test	SEm	CD (0.05)	CV (%)				
Irrigation (A)	**	0.35	1.36	4.06				
Genotype (B)	**	0.54	1.56	4.47				
B within A	**	0.94	2.71					
A within B		0.92	2.67					
Earhead/sq.m.								
DBW 359	172	2	213	3	263	3	216	3
CG 1040	157	4	281	1	231	5	223	2
MP 3288 (C)	123	5	207	4	277	1	203	5
DBW 110 (C)	173	1	267	2	268	2	236	1
HI 1655 (I) (C)	118	6	174	6	219	6	170	6
CG 1036 (I) (C)	169	3	198	5	257	4	208	4
Mean	152		224		253		209	
	F. Test	SEm	CD (0.05)	CV (%)				
Irrigation (A)	**	4.21	16.54	8.53				
Genotype (B)	**	2.91	8.42	4.17				
B within A	**	5.05	14.58					
A within B		6.24	18.03					
Grains /earhead								
DBW 359	51.01	3	46.29	3	38.67	3	45.32	3
CG 1040	38.79	6	29.74	6	37.17	5	35.23	6
MP 3288 (C)	60.15	1	52.67	1	40.11	2	50.98	1
DBW 110 (C)	40.99	5	36.36	5	37.68	4	38.35	5
HI 1655 (I) (C)	55.95	2	49.24	2	43.19	1	49.46	2
CG 1036 (I) (C)	43.45	4	44.55	4	35.13	6	41.05	4
Mean	48.39		43.14		38.66		43.40	
	F. Test	SEm	CD (0.05)	CV (%)				
Irrigation (A)	**	0.68	2.68	6.67				
Genotype (B)	**	0.88	2.55	6.11				
B within A	**	1.53	4.42					
A within B		1.56	4.49					
1000 grain wt, g								
DBW 359	40.08	4	41.85	4	42.17	4	41.37	4
CG 1040	43.78	2	46.01	1	44.83	2	44.87	1
MP 3288 (C)	35.08	6	37.66	6	39.05	5	37.26	6
DBW 110 (C)	43.10	3	43.43	3	42.64	3	43.06	3
HI 1655 (I) (C)	35.49	5	37.73	5	39.00	6	37.41	5
CG 1036 (I) (C)	44.15	1	43.85	2	45.40	1	44.47	2
Mean	40.28		41.76		42.18		41.41	
	F. Test	SEm	CD (0.05)	CV (%)				
Irrigation (A)	**	0.02	0.09	0.23				
Genotype (B)	**	0.03	0.10	0.25				
B within A	**	0.06	0.17					
A within B		0.06	0.17					
Date of Sowing:	12.11.2022							
Date of Harvesting:								

Table 4.4.5. Central Zone	RIR-TS-TAD						Udaipur	2022-23
	Irrigations							
	Zero	Rk	One	Rk	Two	Rk		
Yield, q/ha								
DBW 359	33.65	1	40.50	5	47.85	3	40.67	3
CG 1040	29.87	2	40.08	6	45.47	4	38.47	4
MP 3288 (C)	18.85	6	42.97	3	43.95	6	35.26	6
DBW 110 (C)	27.88	3	43.32	2	52.48	2	41.23	2
HI 1655 (I) (C)	27.18	4	44.33	1	56.68	1	42.73	1
CG 1036 (I) (C)	26.25	5	41.63	4	44.65	5	37.51	5
Mean	27.28		42.14		48.51		39.31	
	F. Test	SEm	CD (0.05)	CV (%)				
Irrigation (A)	**	1.02	3.99	10.96				
Genotype (B)	**	1.05	3.03	8.01				
B within A	**	1.82	5.25					
A within B		1.94	5.62					
Earhead/sq.m.								
DBW 359	243	6	279	3	322	3	281	5
CG 1040	268	2	304	1	309	4	294	2
MP 3288 (C)	263	4	265	5	303	5	277	6
DBW 110 (C)	252	5	299	2	296	6	282	4
HI 1655 (I) (C)	276	1	265	5	368	1	303	1
CG 1036 (I) (C)	266	3	278	4	335	2	293	3
Mean	261		282		322		288	
	F. Test	SEm	CD (0.05)	CV (%)				
Irrigation (A)	**	7.13	27.98	10.49				
Genotype (B)	N.S.	8.08	23.33	8.41				
B within A	N.S.	13.99	40.41					
A within B		14.63	42.25					
Grains /earhead								
DBW 359	31.78	1	28.98	4	29.06	3	29.94	1
CG 1040	27.12	2	27.98	6	28.16	4	27.75	4
MP 3288 (C)	16.64	6	36.06	1	29.31	2	27.34	5
DBW 110 (C)	24.74	4	28.15	5	35.55	1	29.48	2
HI 1655 (I) (C)	21.15	5	34.84	2	28.11	5	28.03	3
CG 1036 (I) (C)	25.32	3	30.10	3	24.37	6	26.60	6
Mean	24.46		31.02		29.09		28.19	
	F. Test	SEm	CD (0.05)	CV (%)				
Irrigation (A)	**	0.77	3.03	11.61				
Genotype (B)	N.S.	1.43	4.12	15.17				
B within A	**	2.47	7.13					
A within B		2.38	6.88					
1000 grain wt, g								
DBW 359	44.25	3	50.35	2	51.27	4	48.62	3
CG 1040	42.85	5	47.23	5	52.75	3	47.61	5
MP 3288 (C)	42.87	4	46.40	6	49.75	6	46.34	6
DBW 110 (C)	44.95	2	51.42	1	50.15	5	48.84	2
HI 1655 (I) (C)	46.62	1	47.90	4	54.72	2	49.74	1
CG 1036 (I) (C)	39.18	6	50.03	3	54.80	1	48.01	4
Mean	43.45		48.89		52.24		48.19	
	F. Test	SEm	CD (0.05)	CV (%)				
Irrigation (A)	**	0.45	1.76	3.96				
Genotype (B)	**	0.49	1.43	3.08				
B within A	**	0.86	2.48					
A within B		0.90	2.61					
Date of Sowing:	8.11.2022							
Date of Harvesting:	10.3.2023							