

Table 2 Estimates of heterosis based on better parent (BP) and standard hybrid check, Arize 6444 (SV) for different characters in 48 rice hybrids

S. No.	Crosses	Days to 50 % flowering		Days to maturity		Plant height	
		Heterosis over		Heterosis over		Heterosis over	
		BP	SV	BP	SV	BP	SV
1	IR58025A×CR 2340-1	5.70	-18.98**	0.46	-37.20**	24.97**	-5.75
2	IR58025A×Type-3	11.40**	-4.14	25.57**	-25.70**	66.52**	25.58**
3	IR58025A×Basmati-370	21.75**	4.76	15.09**	-18.80**	38.93**	4.78
4	IR58025A×Pant Dhan-11	-0.02	-14.05**	-1.05	-33.38**	8.48	-18.19**
5	IR58025A×Pusa Sugandha-3	0.06	-13.90**	-2.43	-33.26**	32.71**	0.09
6	IR58025A×Krishna Hansa	2.78	-11.90**	-0.92	-31.71**	4.63	-21.10**
7	IR58025A×HUBR 2-1	5.66	-9.09**	4.08	-29.53**	12.56**	-15.12**
8	IR58025A×Narendra-359	24.27**	-4.52	17.27**	-25.99**	14.33**	-13.78**
9	IR58025A×HUR 3022	22.41**	5.33	16.34**	-18.35**	26.98**	-4.24
10	IR58025A×Taraori Basmati	20.64**	3.81	7.89*	-19.53**	64.46**	-4.07
11	IR58025A×M T U-7029	27.28**	9.52**	12.20**	-15.10**	-5.95	-29.07**
12	IR58025A×BPT 5204	21.86**	4.86	16.17**	-18.72**	13.72**	-16.53**
13	IR58025A×Sarju-52	7.36	-7.62*	14.31**	-28.39**	18.40**	-10.71**
14	IR58025A×Malviya-36	29.94**	11.81**	20.64**	-13.33**	38.00**	4.07
15	IR58025A×Badshahbhog	22.08**	5.05	14.89**	-18.57**	48.79**	12.21**
16	IR58025A×Pusa Sugandha-4	11.07**	-4.43	8.06*	-25.92**	32.60**	0.01
17	IR68897A×CR 2340-1	13.89**	-14.79**	9.96*	-33.95**	57.42**	-24.83**
18	IR68897A×Type-3	27.83**	-4.36	25.85**	-25.87**	158.65**	23.50**
19	IR68897A×Basmati-370	34.93**	0.95	25.44**	-21.75**	122.73**	6.35
20	IR68897A×Pant Dhan-11	19.34**	-10.71**	12.48**	-30.79**	73.94**	-16.94**
21	IR68897A×Pusa Sugandha-3	19.16**	-10.85**	13.36**	-30.89**	100.56**	-4.24
22	IR68897A×Krishna Hansa	3.24	-22.76**	1.67	-40.13**	71.95**	-17.89**
23	IR68897A×HUBR 2-1	32.82**	-0.63	23.96**	-22.97**	74.12**	-16.86**
24	IR68897A×Narendra-359	15.52**	-13.57**	9.54*	-33.01**	73.96**	-16.94**
25	IR68897A×HUR 3022	27.48**	-4.62	19.82**	-26.07**	100.38**	-4.32
26	IR68897A×Taraori Basmati	37.47**	2.86	25.80**	-20.27**	67.52**	-20.01**
27	IR68897A×M T U-7029	41.93**	6.19	29.07**	-17.69**	48.22**	-29.23**
28	IR68897A×BPT 5204	44.83**	8.36*	33.01**	-16.00**	48.60**	-29.04**
29	IR68897A×Sarju-52	27.29**	-4.76	18.89**	-26.18**	101.20**	-3.93
30	IR68897A×Malviya-36	41.04**	5.52	28.80**	-18.20**	119.85**	4.98
31	IR68897A×Badshahbhog	40.78**	5.33	27.83**	-18.35**	154.83**	21.68**
32	IR68897A×Pusa Sugandha-4	21.7**	-8.89**	15.94**	-29.37**	79.86**	-14.12**
33	Pusa6A×CR 2340-1	11.84**	-14.28**	3.32	-33.55**	27.86**	-16.57**
34	Pusa6A×Type-3	-8.82**	-4.19	23.62**	-25.73**	65.96**	8.29*
35	Pusa6A×Basmati-370	9.46**	10.76**	12.11**	-14.14**	36.46**	-10.96**
36	Pusa6A×Pant Dhan-11	10.78**	-4.76	4.05	-26.18**	41.29**	-7.81*
37	Pusa6A×Pusa Sugandha-3	21.70**	5.10	14.34**	-18.53**	40.66**	-8.22*
38	Pusa6A×Krishna Hansa	17.42**	0.65	10.80**	-21.98**	18.64**	-22.59**
39	Pusa6A×HUBR 2-1	12.94**	5.06	12.36**	-18.57**	27.29**	-16.94**
40	Pusa6A×Narendra-359	12.14**	-13.85**	9.40*	-33.22**	27.74**	-16.65**
41	Pusa6A×HUR 3022	4.99	-4.76	2.97	-26.18**	52.11**	-0.75
42	Pusa6A×Taraori Basmati	8.82**	16.49**	6.02	-9.71**	28.75**	-24.90**
43	Pusa6A×M T U-7029	-2.13	4.77	-1.84	-18.79**	5.02	-31.48**
44	Pusa6A×BPT 5204	7.36*	14.92**	5.73	-10.92**	9.47	-28.57**
45	Pusa6A×Sarju-52	7.34*	8.02*	7.59*	-16.27**	31.75**	-14.03**
46	Pusa6A×Malviya-36	-2.63	2.38	-3.11	-20.64**	62.77**	6.20
47	Pusa6A×Badshahbhog	7.22*	12.38**	3.46	-12.89**	78.40**	16.40**
48	Pusa6A×Pusa Sugandha-4	9.81**	7.14*	4.39	-16.95**	27.69**	-16.69**
	Mean	16.91	-1.34	12.61	-23.53**	51.58	-8.73
	S. E.	3.45	3.45	4.46	4.46	4.04	4.04
	Range	-8.82 to	-22.76 to	-3.11 to 33.01	-40.13 to -9.71	-5.95 to	-31.48 to
		44.83	16.49			158.65	25.58

Continuing table 2

S. No.	Crosses	Number of tillers/plant		Panicle length		Spikelets/panicle	
		Heterosis over		Heterosis over		Heterosis over	
		BP	SV	BP	SV	BP	SV
1	IR58025A×CR 2340-1	-33.01**	-1.15	9.02	-5.88	-9.48**	-7.74**
2	IR58025A×Type-3	-43.63**	-16.82**	-7.55	-12.33**	-38.91**	-37.74**
3	IR58025A×Basmati-370	-26.81**	8.00	0.29	-11.41**	-19.05**	-17.50**
4	IR58025A×Pant Dhan-11	-34.96**	-4.03	2.22	-17.30**	-48.34**	-47.35**
5	IR58025A×Pusa Sugandha-3	-47.97**	-23.22**	-7.12	-7.15	-10.22**	-8.49**
6	IR58025A×Krishna Hansa	-34.15**	-2.83	-0.49	-3.54	-30.90**	-29.57**
7	IR58025A×HUBR 2-1	-50.57**	-27.06**	2.21	-10.39*	-7.43**	-5.65*
8	IR58025A×Narendra-359	-40.38**	-12.02*	-0.36	-0.60	-13.27**	-11.61**
9	IR58025A×HUR 3022	-29.02**	4.75	18.50**	-0.43	-9.39**	-7.65**
10	IR58025A×Taraori Basmati	-38.46**	-9.20	27.80**	1.12	-20.62**	-19.10**
11	IR58025A×M T U-7029	-52.86**	-30.45**	24.94**	-6.38	-28.24**	-26.86**
12	IR58025A×BPT 5204	-27.37**	7.20	22.10**	-3.67	6.52*	8.57**
13	IR58025A×Sarju-52	-29.49**	4.08	23.33**	0.89	5.83*	7.87**
14	IR58025A×Malviya-36	-51.92**	-29.06**	-2.94	-12.99**	-8.33**	5.69*
15	IR58025A×Badshahbhog	-43.09**	-16.02**	-8.96	-31.79**	-7.14**	-0.08
16	IR58025A×Pusa Sugandha-4	-43.07**	-16.00**	10.10*	-0.35	7.47**	9.53**
17	IR68897A×CR 2340-1	16.91**	-3.23	9.20*	-5.72	7.25*	-2.73
18	IR68897A×Type-3	36.71**	14.37**	11.98**	6.19	12.63**	-13.30**
19	IR68897A×Basmati-370	5.54	-4.03	-2.30	-13.70**	-0.62	-19.60**
20	IR68897A×Pant Dhan-11	-2.42	-16.02**	3.45	-16.31**	-34.85**	-49.84**
21	IR68897A×Pusa Sugandha-3	-6.81	-28.82**	-6.26	-6.29	-8.66**	-19.26**
22	IR68897A×Krishna Hansa	9.90	-8.58	-13.65**	-16.30**	-8.44*	-29.52**
23	IR68897A×HUBR 2-1	26.18**	-3.63	13.76**	-0.26	15.59**	5.73*
24	IR68897A×Narendra-359	5.65	-19.30**	-1.64	-1.86	-2.04	-15.30**
25	IR68897A×HUR 3022	27.75**	-2.43	11.46*	-6.35	32.39**	1.91
26	IR68897A×Taraori Basmati	22.41**	-6.50	21.66**	-3.74	9.49**	-15.71**
27	IR68897A×M T U-7029	-20.42**	-39.22**	6.36	-22.59**	-18.60**	-34.58**
28	IR68897A×BPT 5204	30.92**	0.01	29.10**	1.85	10.60**	10.81**
29	IR68897A×Sarju-52	5.24	-19.60**	10.39*	-9.69*	-2.31	-24.80**
30	IR68897A×Malviya-36	-2.62	-25.62**	8.49	-2.75	5.37*	21.48**
31	IR68897A×Badshahbhog	31.67**	20.05**	-0.78	-32.32**	1.93	9.69**
32	IR68897A×Pusa Sugandha-4	5.24	-19.62**	9.69*	-0.73	9.12**	10.42**
33	Pusa6A×CR 2340-1	-36.22**	-26.02**	0.61	-13.13**	6.25*	-3.63
34	Pusa6A×Type-3	1.72	18.00**	2.21	-3.08	-7.62*	-20.23**
35	Pusa6A×Basmati-370	-17.19**	-3.95	-9.34*	-19.91**	-17.56**	-28.82**
36	Pusa6A×Pant Dhan-11	1.15	17.33**	2.26	-17.27**	-41.04**	-49.09**
37	Pusa6A×Pusa Sugandha-3	-32.02**	-21.14**	-9.24*	-9.26*	-6.32*	-17.19**
38	Pusa6A×Krishna Hansa	6.32	23.33**	4.08	0.89	-2.84	-16.10**
39	Pusa6A×HUBR 2-1	-30.98**	-19.94**	2.26	-10.34*	-7.81*	-15.67**
40	Pusa6A×Narendra-359	-13.81**	-0.03	-6.17	-6.38	-7.78*	-20.25**
41	Pusa6A×HUR 3022	-15.05**	-1.47	11.46*	-6.35	27.97**	10.49**
42	Pusa6A×Taraori Basmati	-20.68**	-8.00	1.64	-19.57**	8.34*	-6.46*
43	Pusa6A×M T U-7029	-58.63**	-52.01**	2.11	-25.69**	-37.02**	-45.62**
44	Pusa6A×BPT 5204	-14.50**	-0.83	26.62**	-0.10	17.23**	17.45**
45	Pusa6A×Sarju-52	-10.30*	4.05	-0.92	-18.94**	-6.39*	-19.17**
46	Pusa6A×Malviya-36	-51.02**	-43.19**	-0.33	-10.65**	-1.25	13.85**
47	Pusa6A×Badshahbhog	4.87	21.65**	-6.88	-33.31**	-9.64**	-2.77
48	Pusa6A×Pusa Sugandha-4	-24.16**	-12.02*	-5.79	-14.73**	13.94**	15.30**
	Mean	-15.53	-8.96	4.48	-9.60	-5.71	-11.25
	S. E.	0.61	0.61	1.20	1.20	7.19	7.19
	Range	-58.63~	-52.01~	-13.65~	-33.31~	-48.34~	-49.84~
		36.71	23.33	29.10	6.19	32.39	21.48

Continuing table 2

S. No.	Crosses	Number of grains/panicle		1000 grain weight		Grain yield/plant		Hulling recovery (%)	
		Heterosis over		Heterosis over		Heterosis over		Heterosis over	
		BP	SV	BP	SV	BP	SV	BP	SV
1	IR58025A×CR 2340-1	-8.15**	-11.94**	-20.66**	0.24	-11.40*	-24.74**	-2.48	1.91
2	IR58025A×Type-3	-43.68**	-46.00**	-20.48**	0.46	-35.19**	-44.95**	-4.50	-0.20
3	IR58025A×Basmati-370	-21.56**	-24.79**	-27.70**	-8.66*	-19.17**	-31.34**	3.26	7.91
4	IR58025A×Pant Dhan-11	-50.02**	-52.08**	-33.60**	-16.12**	-38.35**	-47.63**	-2.66	1.72
5	IR58025A×Pusa Sugandha-3	-12.43**	-16.04**	-26.18**	-6.74	-7.65	-21.55**	-2.62	3.00
6	IR58025A×Krishna Hansa	-30.29**	-33.17**	-27.56**	-8.48*	-22.09**	-33.82**	-1.23	3.21
7	IR58025A×HUBR 2-1	-8.87**	-12.62**	-18.73**	2.68	20.15**	2.06	-5.11	-0.84
8	IR58025A×Narendra-359	-17.78**	-21.17**	-14.13**	8.48*	17.74**	0.01	-2.91	1.46
9	IR58025A×HUR 3022	-6.35*	-10.21**	-7.07*	17.41**	-3.98	-18.44**	-2.66	1.72
10	IR58025A×Taraori Basmati	-23.82**	-26.96**	-17.67	4.02	10.85*	-5.84	-3.89	0.44
11	IR58025A×M T U-7029	-28.08**	-31.04**	-20.78**	0.09	-9.36	-23.01**	-6.15	-1.93
12	IR58025A×BPT 5204	8.90**	4.42	-20.49**	0.45	31.70**	11.87**	-7.80	-3.65
13	IR58025A×Sarju-52	15.21**	10.46**	-24.20**	-4.24	41.97**	20.60**	-0.28	4.21
14	IR58025A×Malviya-36	-4.00	-4.00	-18.55**	2.90	-9.44*	-23.08**	-2.66	1.72
15	IR58025A×Badshahbhog	-16.67**	-16.67**	-39.93**	-24.11**	-5.28	-12.02**	-12.95*	-9.03
16	IR58025A×Pusa Sugandha-4	8.65**	4.17	-3.11	22.41**	6.80	-9.28*	2.97	7.60
17	IR68897A×CR 2340-1	6.25*	-8.58**	-10.44**	4.91	-5.98	-33.20**	0.16	2.99
18	IR68897A×Type-3	6.62	-24.88**	-4.34	12.05**	16.37**	-17.33**	-6.17	-4.68
19	IR68897A×Basmati-370	-2.75	-24.96**	-21.15**	-7.63*	5.08	-25.35**	-0.12	1.46
20	IR68897A×Pant Dhan-11	-40.33**	-57.96**	-29.84**	-17.81**	-10.68	-36.54**	-1.13	0.44
21	IR68897A×Pusa Sugandha-3	-7.48*	-24.83**	-25.69**	-12.95**	3.42	-26.52**	-3.89	1.65
22	IR68897A×Krishna Hansa	-11.09**	-37.35**	-23.32**	-10.18**	25.39**	-10.91**	-6.66	-4.47
23	IR68897A×HUBR 2-1	27.08**	-6.54*	-2.97	13.66**	38.28**	-1.76	-1.34	0.23
24	IR68897A×Narendra-359	-14.71**	-30.21**	0.84	18.30**	14.68*	-18.52**	-3.43	-1.15
25	IR68897A×HUR 3022	6.73*	-4.09	-3.57	12.96**	11.93*	-20.48**	-1.37	0.19
26	IR68897A×Taraori Basmati	7.98*	-23.92**	-14.25**	0.45	29.63**	-7.90*	-3.57	-0.84
27	IR68897A×M T U-7029	-17.44**	-38.54**	-27.21**	-14.73**	-7.32	-26.89**	1.22	2.83
28	IR68897A×BPT 5204	24.72**	10.98**	-16.92**	-2.68	44.11**	7.91	-2.39	-0.84
29	IR68897A×Sarju-52	-2.73**	-31.32**	-10.63**	4.69	23.34**	-12.37**	0.23	1.93
30	IR68897A×Malviya-36	14.58**	14.58**	-7.39*	8.48*	5.37	-25.14**	-5.11	-3.60
31	IR68897A×Badshahbhog	-19.08**	-19.08**	-33.30**	-21.86**	-7.72	-14.29**	-0.96	0.61
32	IR68897A×Pusa Sugandha-4	15.59**	2.71	-0.53	16.52**	22.75**	-12.79**	0.88	2.48
33	Pusa6A×CR 2340-1	-2.91	-16.46**	-5.50	0.01	13.81*	-32.99**	-3.31	4.04
34	Pusa6A×Type-3	-0.71	-25.29**	1.76	12.07**	31.31**	-22.68**	-7.72	-0.70
35	Pusa6A×Basmati-370	-21.60**	-39.50**	-8.58**	-3.26	25.52**	-24.95**	-5.47	1.71
36	Pusa6A×Pant Dhan-11	-39.00**	-54.10**	-19.55**	-14.87**	19.93**	-29.38**	-9.51	-2.64
37	Pusa6A×Pusa Sugandha-3	-14.30**	-30.37**	-15.58**	-10.67**	32.67**	-21.88**	-2.49	4.93
38	Pusa6A×Krishna Hansa	2.60	-22.79**	-11.19**	-6.03	66.35**	3.30	-8.06	-1.07
39	Pusa6A×HUBR 2-1	-5.59	-28.96**	-3.43	2.19	35.01**	-20.50**	-4.28	3.00
40	Pusa6A×Narendra-359	-13.79**	-29.46**	-0.68	16.52**	44.08**	-12.37**	-5.39	1.80
41	Pusa6A×HUR 3022	16.06**	4.30	-5.08	0.45	44.75**	-14.77**	-4.28	2.99
42	Pusa6A×Taraori Basmati	10.89**	-16.56**	-7.55*	-2.19	50.91**	-11.13**	-5.47	1.72
43	Pusa6A×M T U-7029	-40.45**	-55.19**	-19.42**	-14.73**	-9.38	-28.52**	-11.76*	-5.05
44	Pusa6A×BPT 5204	17.11**	4.21	-13.50**	-8.47*	38.68**	3.61	-4.86	2.37
45	Pusa6A×Sarju-52	-4.76	-28.33**	-6.30	-0.85	35.14**	-4.54	-5.76	1.40
46	Pusa6A×Malviya-36	2.29	2.29	-0.56	5.22	17.82*	-30.62**	-4.75	2.49
47	Pusa6A×Badshahbhog	-15.37**	-15.37**	-24.02**	-19.60**	-14.14**	-20.25**	-11.89*	-5.19
48	Pusa6A×Pusa Sugandha-4	25.44**	11.46**	0.04	11.65**	41.81**	-16.50**	-6.90	0.18
	Mean	-6.86	-19.41**	-14.81	-0.78	13.55	-17.24	-3.90	0.63
	S. E.	6.47	6.47*	0.76	0.76	1.95	1.95	4.24	4.24
	Range	-50.02~	-57.96~	-39.93~	-24.11~	-38.35~	-47.63~	-12.95	-9.03~
		27.08	14.58	1.76	22.41	66.35	20.60	~3.26	7.91

Note: * Significant at 5% level; ** Significant at 1% level