

Table 4. Heterosis over mid parent and commercial checks for lint index, seed cotton yield, photosynthesis rate, stomatal conductance and transpiration rate in derived F₁ crosses

Sl. No.	Crosses	Seed cotton yield (kg/ha)			Photosynthetic rate ($\mu\text{mol CO}_2 \text{ m}^{-2} \cdot \text{s}^{-1}$)			Stomatal conductance ($\mu\text{mol m}^{-2} \cdot \text{s}^{-1}$)			Transpiration rate ($\text{mmol H}_2\text{O m}^{-2} \cdot \text{s}^{-1}$)		
		H mp	H cc1	Hcc2	H mp	H cc1	Hcc2	H mp	H cc1	Hcc2	H mp	H cc1	Hcc2
		1	2	3	7	8	9	10	11	12	13	14	15
1	[[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 44)]]	19.49	-1.49	1.56	-42.14**	-54.79**	-46.10**	-70**	-60.53**	-14.29	-77.06**	-65.15 **	-56.47*
2	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 62)]	11.53	-11.71	-8.97	40.65**	6.77	27.29**	0.54	22.37	165.71**	-53.05**	-26.51*	-8.2
3	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 105)]	88.58**	26.50	30.41	7.44	-4.88	13.4	-38.05**	-7.89	100.00**	-45.17**	-9.58	12.93
4	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 26)]	26.62	-8.82	-6.00	43.56**	6.11	26.51**	-24.38*	-9.21	97.14**	-27.25**	13.14	41.31
5	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 71)]	18.36	-8.07	-5.22	3.94	-12.63	4.16	-50.27**	-38.82**	32.86	-38**	-5.87	17.57
6	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 30)]	16.50	-13.33	-10.64	7.54	-12.00	4.91	-27.91**	-18.42	77.14*	-47.53**	-17.93	2.51
7	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 25)]	67.66**	4.48	7.71	-14.72	-19.45*	-3.98	-41.31**	-17.76	78.57**	-56.01**	-27.51	-9.46
8	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 49)]	108.16**	39.97*	44.31*	32.18**	5.52	25.80**	-5.60	5.26	128.57**	-37.64**	-3.09	21.04
9	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 23)]	4.34	-9.96	-7.17	6.17	-16.05	0.08	-44.64**	-38.82**	32.86	-58.45**	-14.14	7.24
10	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 36)]	5.92	-12.06	-9.34	-63.49**	-71.95**	-66.56**	-87.58**	-87.50**	-72.86*	-70.48**	-37.64*	-22.1
11	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 15)]	30.17	-7.66	-4.80	-43.03**	-49.04**	-39.24**	-69.59**	-61.18**	-15.71	-71.64**	-37.71*	-22.2
12	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 1)]	26.68	-3.89	-0.92	-3.24	-27.58**	-13.67	-42.19**	-42.76**	24.29	-26.15**	55.26**	93.92**
13	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 33)]	0.41	-20.30	-17.84	33.14**	11.20	32.57**	25.07*	39.47**	202.86**	-23.54*	13.6	41.89
14	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 24)]	8.62	-17.35	-14.79	34.19**	9.08	30.05**	7.44	9.21	137.14**	-53.78**	-29.21	-11.58
15	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 16)]	80.8**	15.73	19.31	20.34*	13.01	34.73**	4.86	34.87*	192.86**	-19.68*	29.75	62.07**
16	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 52)]	85.62**	27.96	31.93	36.98**	8.62	29.49**	8.55	8.55	135.71**	-41.19**	-10.51	11.78
17	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 12)]	13.27	-9.66	-6.86	27.08**	-6.64	11.31	-12.99	-11.84	91.43**	-43.05**	-20.4	-0.58
18	[DH 98-27 x (DB 534 x DB 533 F ₄ IPS 22)]	77.72**	35.93*	40.14*	-68.81**	-77.78**	-73.51**	-64.03**	-67.11**	-28.57	-40.36**	-13.91	7.53
19	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 14)]	47.39	-5.08	-2.14	31.66**	10.40	31.62**	10.56	30.92*	184.29**	-28.86**	8.66	35.71
20	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 34)]	45.22*	0.68	3.80	29.038**	-10.67	6.5	-6.23	-15.79	82.86**	-37.52**	-10.43	11.87
21	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 55)]	30.72	0.66	3.77	24.19**	3.58	23.48*	-19.27	-13.16	88.57**	-47.22**	-23.72	-4.73
22	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 17)]	60.18**	18.10	21.76	37.53**	11.64	33.09**	8.42	5.92	130.00**	-34.08**	-1.7	22.78
23	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 32)]	38.68	-14.51	-11.87	-43.44**	-46.95**	-36.76**	-81**	-76.32**	-48.57	-64.18**	-43.59*	-29.54
24	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 38)]	35.59	-9.73	-6.94	-23.8*	-39.67**	-28.08**	-55.48**	-57.24**	-7.14	-42.19**	-14.37	6.95
25	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 48)]	37.48*	15.55	19.13	16.98	-2.97	15.68	-1.20	7.89	134.29**	-27.8**	10.28	37.74
26	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 13)]	20.74	-2.48	0.54	33.28**	7.57	28.25**	34.44**	33.55*	190.00**	-28**	13.29	41.51
27	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 6)]	35.91	-6.65	-3.76	17.44*	9.61	30.67**	-10.94	12.5	144.29**	-43.48**	-6.34	16.99
28	[DH 98-27 x (DB 533 x DB 534 F ₄ IPS 8)]	31.79	-2.98	0.02	1.40	-20.18*	-4.85	-17.17	-19.08	75.71*	-53.24**	-26.89	-8.69
29	[ZCH 8 x (DB 533 x DB 534 F ₄ IPS 44)]	-8.45	-13.98	-11.32	-10.66	-21.73*	-6.69	-23.63*	-8.55	98.57**	-39.53**	-7.81	15.15