

Table 3 Per se performance of derived F<sub>1</sub> crosses for seed cotton yield and physiological parameters

Sl.No	Crosses	Seed cotton	Photosynthesis rate	Stomatal conductance	Transpiration rate
		yield (kg/ha)	( $\mu\text{mol CO}_2 \text{ m}^{-2} \cdot \text{s}^{-1}$ )	( $\mu\text{mol m}^{-2} \cdot \text{s}^{-1}$ )	( $\text{mmol H}_2\text{O m}^{-2} \cdot \text{s}^{-1}$ )
		1	13	14	15
1	[[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 44)]]	2029.82	13.01	0.30	2.26
2	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 62)]	1819.33	30.74	0.93	4.75
3	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 105)]	2606.56	27.38	0.70	5.85
4	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 26)]	1878.73	30.55	0.69	7.32
5	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 71)]	1894.36	25.15	0.47	6.09
6	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 30)]	1785.99	25.33	0.62	5.31
7	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 25)]	2152.77	23.18	0.62	4.69
8	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 49)]	2884.26	30.37	0.80	6.27
9	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 23)]	1855.28	24.17	0.47	5.56
10	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 36)]	1812.04	8.08	0.09	4.04
11	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 15)]	1902.69	14.67	0.29	4.03
12	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 1)]	1980.32	20.84	0.44	10.04
13	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 33)]	1642.19	32.01	1.06	7.35
14	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 24)]	1703.15	31.40	0.83	4.58
15	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 16)]	2384.62	32.53	1.03	8.40
16	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 52)]	2636.78	31.27	0.82	5.79
17	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 12)]	1861.53	26.87	0.67	5.15
18	[DH 98-27 x (DB 534 x DB 533 F <sub>4</sub> IPS 22)]	2800.90	6.40	0.25	5.57
19	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 14)]	1955.83	31.78	1.00	7.03
20	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 34)]	2074.62	25.72	0.64	5.80
21	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 55)]	2074.10	29.82	0.66	4.94
22	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 17)]	2433.59	32.13	0.81	6.36
23	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 32)]	1761.50	15.27	0.18	3.65
24	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 38)]	1859.97	17.37	0.32	5.54
25	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 48)]	2380.97	27.93	0.82	7.13
26	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 13)]	2009.50	30.97	1.02	7.33
27	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 6)]	1923.53	31.55	0.86	6.06
28	[DH 98-27 x (DB 533 x DB 534 F <sub>4</sub> IPS 8)]	1999.08	22.98	0.61	4.73
29	[ZCH 8 x (DB 533 x DB 534 F <sub>4</sub> IPS 44)]	1772.44	22.53	0.70	5.97
30	[ZCH 8 x (DB 533 x DB 534 F <sub>4</sub> IPS 62)]	1575.50	17.80	0.43	6.08
31	[ZCH 8 x (DB 533 x DB 534 F <sub>4</sub> IPS 105)]	2015.23	15.47	0.36	4.31
32	[ZCH 8 x (DB 533 x DB 534 F <sub>4</sub> IPS 26)]	1645.32	28.09	0.65	6.39
33	[ZCH 8 x (DB 533 x DB 534 F <sub>4</sub> IPS 71)]	1674.49	5.48	0.11	4.10
34	[ZCH 8 x (DB 533 x DB 534 F <sub>4</sub> IPS 30)]	1514.03	7.64	0.10	3.98
35	[ZCH 8 x (DB 533 x DB 534 F <sub>4</sub> IPS 25)]	1822.46	28.64	0.59	6.47
36	[ZCH 8 x (DB 533 x DB 534 F <sub>4</sub> IPS 49)]	2250.72	25.64	0.55	5.90
37	[ZCH 8 x (DB 533 x DB 534 F <sub>4</sub> IPS 23)]	1622.92	25.03	0.84	7.32
38	[ZCH 8 x (DB 533 x DB 534 F <sub>4</sub> IPS 36)]	1520.28	25.85	0.93	8.64
39	[ZCH 8 x (DB 533 x DB 534 F <sub>4</sub> IPS 15)]	1693.25	24.30	0.43	5.88
40	[ZCH 8 x (DB 533 x DB 534 F <sub>4</sub> IPS 1)]	1734.41	8.48	0.12	4.04
41	[ZCH 8 x (DB 533 x DB 534 F <sub>4</sub> IPS 33)]	1388.47	3.15	0.24	3.87
42	[ZCH 8 x (DB 533 x DB 534 F <sub>4</sub> IPS 24)]	1474.43	23.42	0.36	6.47
43	[ZCH 8 x (DB 533 x DB 534 F <sub>4</sub> IPS 16)]	1985.01	20.61	0.36	4.85
44	[ZCH 8 x (DB 533 x DB 534 F <sub>4</sub> IPS 52)]	2040.76	34.25	1.17	8.33
45	[ZCH 8 x (DB 533 x DB 534 F <sub>4</sub> IPS 12)]	1630.73	20.47	0.32	5.08
46	[ZCH 8 x (DB 534 x DB 533 F <sub>4</sub> IPS 22)]	2112.13	24.97	0.82	7.02
47	[ZCH 8 x (DB 533 x DB 534 F <sub>4</sub> IPS 14)]	1713.05	16.58	0.50	5.99
48	[ZCH 8 x (DB 533 x DB 534 F <sub>4</sub> IPS 34)]	1815.69	24.10	0.71	7.70
49	[ZCH 8 x (DB 533 x DB 534 F <sub>4</sub> IPS 55)]	1806.31	12.07	0.25	3.80

50	[ZCH 8 x (DB 533 x DB 534 F4 IPS 17)]	2001.68	23.55	0.52	5.81
51	[ZCH 8 x (DB 533 x DB 534 F4 IPS 32)]	1481.72	31.73	1.07	6.69
52	[ZCH 8 x (DB 533 x DB 534 F4 IPS 38)]	1625.52	30.76	0.70	7.00
53	[ZCH 8 x (DB 533 x DB 534 F4 IPS 48)]	1908.42	26.02	0.48	5.63
54	[ZCH 8 x (DB 533 x DB 534 F4 IPS 13)]	1758.90	32.85	1.16	8.14
55	[ZCH 8 x (DB 533 x DB 534 F4 IPS 6)]	1706.28	26.13	0.50	6.04
56	[ZCH 8 x (DB 533 x DB 534 F4 IPS 8)]	1750.04	22.95	0.74	5.42
57	[178-24 x (DB 533 x DB 534 F4 IPS 44)]	1878.73	31.82	0.53	7.00
58	[178-24 x (DB 533 x DB 534 F4 IPS 62)]	1565.08	29.17	0.58	7.25
59	[178-24 x (DB 533 x DB 534 F4 IPS 105)]	2026.17	21.48	0.48	4.33
60	[178-24 x (DB 533 x DB 534 F4 IPS 26)]	1651.57	23.50	0.41	6.10
61	[178-24 x (DB 533 x DB 534 F4 IPS 71)]	1701.59	26.09	0.77	8.59
62	[178-24 x (DB 533 x DB 534 F4 IPS 30)]	1486.41	24.05	0.59	4.89
63	[178-24 x (DB 533 x DB 534 F4 IPS 25)]	1930.83	26.13	0.52	6.17
64	[178-24 x (DB 533 x DB 534 F4 IPS 49)]	2207.48	27.95	0.94	8.59
65	[178-24 x (DB 533 x DB 534 F4 IPS 23)]	1565.08	21.90	0.34	4.38
66	[178-24 x (DB 533 x DB 534 F4 IPS 36)]	1512.98	30.51	0.65	6.14
67	[178-24 x (DB 533 x DB 534 F4 IPS 15)]	1768.27	8.12	0.09	3.67
68	[178-24 x (DB 533 x DB 534 F4 IPS 1)]	1828.71	23.25	0.65	7.78
69	[178-24 x (DB 533 x DB 534 F4 IPS 33)]	1146.20	22.56	0.84	6.18
70	[178-24 x (DB 533 x DB 534 F4 IPS 24)]	1298.85	27.02	0.57	6.97
71	[178-24 x (DB 533 x DB 534 F4 IPS 16)]	1983.45	8.67	0.10	3.34
72	[178-24 x (DB 533 x DB 534 F4 IPS 52)]	2027.73	25.25	0.95	8.16
73	[178-24 x (DB 533 x DB 534 F4 IPS 12)]	1580.71	25.74	0.39	4.95
74	[178-24 x (DB 534 x DB 533 F4 IPS 22)]	2099.11	21.08	0.88	8.31
75	[178-24 x (DB 533 x DB 534 F4 IPS 14)]	1815.16	14.83	0.58	7.56
76	[178-24 x (DB 533 x DB 534 F4 IPS 34)]	1902.69	25.02	0.80	7.31
77	[178-24 x (DB 533 x DB 534 F4 IPS 55)]	1899.05	20.01	0.36	5.46
78	[178-24 x (DB 533 x DB 534 F4 IPS 17)]	2025.13	22.79	0.70	7.58
79	[178-24 x (DB 533 x DB 534 F4 IPS 32)]	1391.07	17.66	0.23	2.07
80	[178-24 x (DB 533 x DB 534 F4 IPS 38)]	1568.73	24.28	0.91	8.78
81	[178-24 x (DB 533 x DB 534 F4 IPS 48)]	1980.84	28.75	0.91	8.77
82	[178-24 x (DB 533 x DB 534 F4 IPS 13)]	1859.97	24.72	0.77	8.65
83	[178-24 x (DB 533 x DB 534 F4 IPS 6)]	1814.64	22.35	0.78	6.96
84	[178-24 x (DB 533 x DB 534 F4 IPS 8)]	1840.69	23.92	0.74	8.15
85	[DH 18-31 x (DB 533 x DB 534 F4 IPS 44)]	2322.62	28.93	0.68	6.31
86	[DH 18-31 x (DB 533 x DB 534 F4 IPS 62)]	2024.61	29.45	0.96	6.71
87	[DH 18-31 x (DB 533 x DB 534 F4 IPS 105)]	2024.61	29.45	0.96	6.71
88	[DH 18-31 x (DB 533 x DB 534 F4 IPS 26)]	2255.93	29.98	0.64	5.87
89	[DH 18-31 x (DB 533 x DB 534 F4 IPS 71)]	2259.58	29.35	0.69	6.45
90	[DH 18-31 x (DB 533 x DB 534 F4 IPS 30)]	2003.25	19.42	0.53	4.53
91	[DH 18-31 x (DB 533 x DB 534 F4 IPS 25)]	2342.42	30.18	0.58	5.69
92	[DH 18-31 x (DB 533 x DB 534 F4 IPS 49)]	2515.91	29.90	0.66	6.26
93	[DH 18-31 x (DB 533 x DB 534 F4 IPS 23)]	2111.61	27.77	1.04	7.31
94	[DH 18-31 x (DB 533 x DB 534 F4 IPS 36)]	2007.93	30.39	0.60	6.90
95	[DH 18-31 x (DB 533 x DB 534 F4 IPS 15)]	2271.56	20.69	0.66	4.83
96	[DH 18-31 x (DB 533 x DB 534 F4 IPS 1)]	2297.61	25.35	0.51	4.42
97	[DH 18-31 x (DB 533 x DB 534 F4 IPS 33)]	1899.57	25.98	0.72	7.49
98	[DH 18-31 x (DB 533 x DB 534 F4 IPS 24)]	1928.22	28.73	0.59	6.56
99	[DH 18-31 x (DB 533 x DB 534 F4 IPS 16)]	2424.73	25.40	0.51	6.00
100	[DH 18-31 x (DB 533 x DB 534 F4 IPS 52)]	2490.38	32.00	0.68	6.92
101	[DH 18-31 x (DB 533 x DB 534 F4 IPS 12)]	2120.47	28.52	0.64	6.05
102	[DH 18-31 x (DB 534 x DB 533 F4 IPS 22)]	2502.36	28.67	0.63	6.96

103	[DH 18-31 x (DB 533 x DB 534 F <sub>4</sub> IPS 14)]	2275.73	30.15	0.63	6.63
104	[DH 18-31 x (DB 533 x DB 534 F <sub>4</sub> IPS 34)]	2340.33	27.18	0.58	5.70
105	[DH 18-31 x (DB 533 x DB 534 F <sub>4</sub> IPS 55)]	2326.79	30.93	0.61	6.60
106	[DH 18-31 x (DB 533 x DB 534 F <sub>4</sub> IPS 17)]	2455.99	26.62	0.67	6.20
107	[DH 18-31 x (DB 533 x DB 534 F <sub>4</sub> IPS 32)]	1975.11	24.65	0.62	6.28
108	[DH 18-31 x (DB 533 x DB 534 F <sub>4</sub> IPS 38)]	2118.39	27.83	0.56	5.94
109	[DH 18-31 x (DB 533 x DB 534 F <sub>4</sub> IPS 48)]	2384.10	27.35	1.03	7.17
110	[DH 18-31 x (DB 533 x DB 534 F <sub>4</sub> IPS 13)]	2321.06	30.67	0.69	6.08
111	[DH 18-31 x (DB 533 x DB 534 F <sub>4</sub> IPS 6)]	2273.64	27.62	0.65	6.27
112	[DH 18-31 x (DB 533 x DB 534 F <sub>4</sub> IPS 8)]	2314.80	26.53	0.92	7.42
	MRC6918 <i>Bt</i> check	2060.56	28.78	0.76	6.47
	DCH32	1998.67	24.15	0.35	5.18
	Mean	1957.45	24.47	0.62	6.14
	Max	2884.26	34.25	1.17	10.04
	Min	1146.20	3.15	0.09	2.07
	CV %	19.70	9.50	11.04	12.69
	S.E	273.03	1.64	0.05	0.55
	CD@ 5%	765.14	4.60	0.14	1.55
	C.D. 1%	1011.98	6.09	0.18	2.05

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