

Table (2): Mean No. of spikes/plant, No. of kernels/spike, 1000-kernel weight and grain yield/plant over all selected families in the C₁ and C₂ of pedigree selection.

Item	Pop. I				Pop. II			
	No. of spikes/plant	No. of kernels/spike	1000-kernel weight	grain yield/ plant	No. of spikes/plant	No. of kernels/spike	1000-kernel weight	grain yield/ plant
C ₁	9.7	70.6	43.9	23.19	11.2	67.4	50.1	25.2
Bulk	9.3	68.0	40.4	16.2	9.0	68.7	43.4	20.9
Parent 1 (P ₁)	9.5	67.7	38.1	18.0	8.3	65.3	40.2	16.6
Parent (P ₂)	8.0	66.7	39.0	13.3	8.9	60.7	42.7	17.5
LSD 5%	2.75	7.34	5.0	4.8	2.25	6.2	3.8	2.99
C ₂	10.2	73.9	45.9	24.3	11.2	71.6	50.1	26.6
Bulk	9.0	66.2	41.0	20.7	9.4	68.6	44.0	19.5
Parent 1 (P ₁)	8.7	65.7	35.3	19.6	8.5	67.2	41.0	15.3
Parent (P ₂)	8.5	62.3	42.7	15.5	9.1	62.7	43.0	17.3
LSD 5%	4.9	4.35	7.05	2.82	4.41	10.73	6.78	2.67

Table (3): Direct and correlated gains from pedigree selection for the studied selection criteria in the two cycles of selection in population I in percentages from the bulk sample and the check cultivar.

Selection criterion	Item		Heading date	Plant height	No. of spikes/ plant	No. of kernels/ spike	1000-kw	Grain yield/ plant	Biological yield/ plant
No. of spikes/ plant	C ₁	Bulk	-4.64	-8.77	4.3	1.62	5.94	25.82	37.16
		check	-6.65	2.6	8.99	13.84	0.23	30.36	57.93
	C ₂	Bulk	-1.56	-2.13	13.33	5.29	4.88	12.08	19.45
		check	-3.71	5.09	12.09	11.16	0.00	34.1	50.0
No. of kernels/ spike	C ₁	Bulk	-4.42	-11.45	-3.23	3.82	1.73	8.79	20.67
		check	-6.44	-0.42	1.12	16.31	-3.75	13.14	38.94
	C ₂	Bulk	-1.0	-6.1	1.11	11.63	-0.68	-4.35	5.45
		check	-3.16	3.83	0.0	17.86	-7.21	-14.45	32.42
1000-kernel weight	C ₁	Bulk	-4.53	-10.34	-2.15	-0.88	8.66	9.34	21.09
		check	-6.55	0.83	2.25	11.04	2.81	13.71	39.42
	C ₂	Bulk	-1.56	-4.16	2.22	3.32	11.95	1.45	8.00
		check	-3.71	2.91	1.1	9.09	6.74	21.39	35.62
Grain yield/ plant	C ₁	Bulk	-4.5	-8.4	4.3	2.35	7.43	27.47	38.0
		Check (Sohag 3)	-6.55	3.1	8.99	14.66	1.64	32.57	58.89
	C ₂	Bulk	-1.78	-3.68	8.89	6.65	6.1	17.39	26.36
		Check (Sohag 3)	-3.93	3.43	7.69	12.6	1.16	40.46	58.68

Table (4): Direct and correlated gains from pedigree selection for the studied selection criteria in the two cycles of selection in population II in percentages from the bulk sample and the check cultivar.

Selection criterion	Item		Heading date	Plant height	No. of spikes/ plant	No. of kernels/ spike	1000-kw	Grain yield/ plant	Biological yield/ plant
No. of spikes/ plant	C ₁	Bulk	-1.9	-2.8	24.44	0.73	9.45	6.7	8.29
		check	-7.07	0.93	25.84	14.0	11.24	27.43	56.97
	C ₂	Bulk	0.56	-2.11	19.15	2.92	8.41	23.59	18.80
		check	-2.94	1.04	23.08	12.6	10.93	39.31	58.68
No. of kernels/ spike	C ₁	Bulk	-2.79	-4.6	8.89	-1.89	7.14	-7.18	-5.47
		check	-7.92	-0.93	10.11	11.04	8.9	10.86	37.02
	C ₂	Bulk	-0.56	-2.52	13.83	4.37	7.5	4.62	2.91
		check	-4.03	0.62	17.58	14.19	10.0	17.92	37.44
1000-kernel weight	C ₁	Bulk	-2.56	-4.20	8.89	-0.44	15.44	-5.56	-5.47
		check	-7.71	-0.52	10.11	12.69	17.33	13.14	37.02
	C ₂	Bulk	-1.02	-3.42	14.89	0.15	13.86	1.03	-3.76
		check	-4.47	-0.31	18.68	9.57	16.51	13.87	28.54
Grain yield/ plant	C ₁	Bulk	-1.45	-3.1	21.11	2.77	9.45	20.57	23.38
		Check (Sohag 3)	-6.65	0.6	22.47	16.3	11.24	44.0	78.85
	C ₂	Bulk	-0.56	-2.52	18.09	3.64	8.64	36.41	27.52
		Check (Sohag 3)	-4.03	0.62	21.98	13.4	11.16	53.76	70.32