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### Supplementary data

**Table 1.** Plant type and seed colour of parental genotypes of sesame.

	Variety	Plant Type	Seed Colour
1	R-9	Dwarf, branched	Small grayish white
2	B – 14	Medium height &Branched	Black
3	B – 9	Medium height branching at Upper portion	Brown
4	B-67	Medium height, branched	Blackish brown
5	T-12	Tall sparsely branched	White
6	IDP-51	Tall sparsely branched	Blackish brown
7	IET – 2	Medium height	Light brown
8	HT - 1	Medium height	White

**Table 2.** The parentage of advance lines

Adv. line.	Parentallines	Parentage	Adv. line.	Parentallines	Parentage	Adv. line	Parentallines	Parentage
1.	3x5	B-9 x T-12	8.	3x7	B-9 x IET-2	15.	8x2	HT-1 x B-14
2.	2x8	B-14 x HT-1	9.	3x7	B-9 x IET-2	16.	7x3	IET-2 x B-9
3.	8x2	HT-1 x B-14	10.	5x1	T-12 x R-9	17.	3x8	B-9 x HT-1
4.	6x5	IDP-51 x T-12	11.	5x6	T-12 x IDP-51	18.	7x1	IET-2 x R-9
5.	5x3	T-12 x B-9	12.	2x6	B-14 x IDP-51	19.	8x3	HT-1 x B-9
6.	6x2	IDP-51 x B-14	13.	1x7	R-9 x IET-2	20.	1x5	R-9 x T-12
7.	2x3	B-14 x B-9	14.	1x8	R-9 x HT-1	21.	7x1	IET-2 x R-7

**Table 3.** Average performance of the genotypes for plant height at different growth stages

Parents & Adv. Lines	Plant height at 30 DAG (Cm)			Plant height at 60 DAG (Cm)			Plant height at 80 DAG (Cm)			Plant height at harvest (Cm)		
	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	Pooled	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	Pooled	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	Pooled	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	Pooled
P- 1 (R-9)	8.07	7.63	7.85	22.99	30.42	26.71	94.15	96.85	95.51	121.40	120.52	120.96
2 (B-14)	7.40	8.07	7.73	24.21	23.55	23.88	96.30	105.53	100.92	121.85	116.07	118.96
3 (B-9)	8.03	8.07	8.05	26.24	21.30	23.77	97.24	105.14	101.19	123.07	118.68	120.88
4 (B-67)	7.60	8.17	7.88	25.61	23.06	24.33	97.51	96.94	97.23	113.88	105.85	109.87
5 (T-12)	8.67	9.77	9.22	26.36	23.02	24.69	96.84	93.98	95.41	124.25	120.55	122.40
6 (IDP-51)	7.90	8.30	8.10	24.89	24.56	24.73	93.86	100.15	97.01	124.56	124.88	124.72
7 (IET-2)	7.77	9.93	8.85	26.71	22.97	24.84	94.59	95.24	94.92	123.33	123.52	123.43
8 (HT-1)	8.57	10.13	9.35	27.15	22.71	24.93	96.30	94.78	95.54	123.59	123.11	123.35
Adv. L-1	9.57	9.10	9.33	32.91	32.62	32.77	108.41	109.87	109.15	136.73	140.47	138.60
2	9.63	8.97	9.30	32.82	32.65	32.73	104.31	107.85	106.08	137.53	144.18	140.86
3	9.47	9.03	9.25	33.14	30.71	31.92	104.22	110.74	107.48	136.91	143.86	140.39
4	9.17	9.60	9.38	34.54	30.87	32.71	101.42	110.94	106.19	136.02	144.33	140.18
5	9.73	9.10	9.42	32.94	34.57	33.75	103.39	106.91	105.15	135.82	144.07	139.94
6	9.63	9.33	9.48	32.51	32.36	32.44	102.00	112.00	107.00	137.52	140.80	139.17
7	9.37	9.63	9.50	32.05	33.37	32.17	105.68	117.80	111.74	136.73	144.75	140.74
8	9.63	9.67	9.65	34.17	35.33	34.75	104.02	119.58	111.80	139.58	142.45	141.02
9	9.23	9.50	9.37	33.24	32.22	32.73	104.36	121.90	113.14	137.14	145.16	141.15
10	10.37	9.90	10.13	33.07	31.80	32.44	101.83	119.60	110.72	137.33	149.07	143.21
11	9.33	9.77	9.55	32.78	30.07	31.42	105.57	117.27	111.42	138.33	146.72	142.53
12	10.30	10.30	10.30	32.56	33.74	33.15	108.96	118.77	113.87	136.99	143.85	140.42
13	9.67	9.60	9.63	33.13	34.41	33.77	109.47	121.20	115.34	137.87	146.03	141.95
14	10.30	9.77	10.03	34.89	30.41	32.65	107.51	112.87	110.19	136.51	144.33	140.43
15	9.10	9.37	9.23	32.31	30.33	31.32	107.61	112.40	110.01	138.39	144.58	141.49
16	10.13	10.20	10.17	34.10	30.71	32.41	110.49	111.60	111.05	137.37	150.45	143.91

17	9.17	9.87	9.52	32.28	30.65	31.47	101.81	113.73	107.78	137.31	152.37	144.84
18	10.73	11.00	10.87	32.80	30.73	31.77	104.20	109.13	106.67	137.65	152.83	145.24
19	11.00	10.33	10.67	32.69	32.40	32.55	106.36	112.33	109.35	136.73	151.94	144.34
20	12.17	10.13	11.15	32.31	35.35	33.83	101.26	115.80	108.53	136.61	145.90	141.26
21	10.63	9.90	10.27	34.97	33.62	34.30	102.01	111.70	106.85	138.76	151.06	144.91
Mean	9.3908	9.4529	9.4218	31.046 4	30.016 6	30.5346	102.4716	109.7454	106.1112	133.0953	138.7032	135.9005
CV (%)	9.7636	8.3508	7.1168	5.1913	2.5417	3.0330	1.4102	1.7251	1.1337	1.5908	2.4013	1.4419
S Em	0.7486	0.6445	0.5475	1.3159	0.6229	0.7562	1.1798	1.5458	0.9822	1.7287	2.7195	1.6000
CD <sub>0.05</sub>	2.0750	1.7865	1.5175	3.6475	1.7266	2.0961	3.2702	4.2847	2.7225	4.7917	7.5381	4.4349
CD <sub>0.01</sub>	2.727	2.3479	1.9946	4.7938	2.2692	2.7548	4.2980	5.6314	3.5782	6.2976	9.9072	5.8288

**Table 4.** Average performance of the genotypes for root length and vegetative dry weight at 30 & 60 DAG and Leaf area index

Parents & Adv. Lines	Root length at 30 DAG (Cm)			Root length at 60 DAG (Cm)			Root length at 30 DAG (Cm)			Root length at 60 DAG (Cm)			Leaf Area Index		
	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	Pooled	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	Pooled	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	Pooled	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	Pooled	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	Pooled
P- 1 (R-9)	2.63	2.87	2.75	10.94	12.03	11.49	5.02	5.05	5.03	10.83	10.90	10.86	2.70	2.74	2.72
2 (B-14)	2.93	3.27	3.10	10.81	9.25	10.03	5.12	5.17	5.15	10.97	11.03	11.00	2.73	2.81	2.77
3 (B-9)	3.23	3.20	3.22	10.65	10.44	10.55	5.08	5.04	5.07	11.10	11.01	11.06	2.77	2.82	2.80
4 (B-67)	3.33	3.37	3.35	11.18	11.70	11.44	5.10	5.04	5.07	10.83	11.09	10.96	2.74	2.85	2.80
5 (T-12)	4.13	4.50	4.32	10.79	10.34	10.57	5.03	5.02	5.03	10.95	10.97	10.96	2.70	2.72	2.72
6 (IDP-51)	3.73	3.90	3.82	11.26	10.23	10.75	5.05	5.90	5.48	10.85	10.42	10.64	2.79	2.82	2.81
7 (IET-2)	3.57	4.57	4.07	10.18	11.04	10.61	5.06	5.14	5.10	11.01	11.06	11.04	2.76	2.79	2.77
8 (HT-1)	3.73	4.47	4.10	11.04	11.20	11.12	5.09	5.01	5.05	10.98	10.57	10.78	2.71	2.69	2.70
Adv. L-1	4.07	3.43	3.75	14.58	14.23	14.41	5.83	5.12	5.48	11.06	11.23	11.15	2.83	2.85	2.84
2	4.03	3.20	3.62	15.46	13.48	14.47	5.92	6.07	6.00	11.19	11.17	11.18	2.84	2.85	2.85
3	3.83	3.13	3.48	14.00	14.18	14.09	6.08	5.32	5.70	10.97	11.21	11.09	2.84	2.84	2.84
4	3.90	3.67	3.78	16.11	13.65	14.88	5.77	6.10	5.94	10.83	11.18	11.01	2.82	2.83	2.83
5	4.10	3.33	3.72	15.07	13.99	14.53	5.88	5.62	5.76	11.04	11.14	11.10	2.86	2.84	2.85

6	4.27	3.37	3.82	15.17	14.19	14.68	5.83	5.07	5.45	11.16	11.22	11.19	2.84	2.86	2.85
7	4.13	3.53	3.83	15.47	13.97	14.72	5.46	5.10	5.28	10.99	11.14	11.07	2.87	2.85	2.86
8	4.43	4.17	4.30	15.27	13.18	14.23	5.48	5.94	5.71	11.04	11.01	11.03	2.85	2.81	2.83
9	4.30	4.13	4.22	16.18	13.91	15.04	5.54	6.16	5.85	10.87	11.20	11.04	2.85	2.84	2.85
10	4.60	4.13	4.37	15.46	13.86	14.66	5.73	6.08	5.90	11.20	10.91	11.06	2.86	2.85	2.86
11	4.17	4.30	4.23	16.62	13.71	15.17	5.37	6.11	5.74	11.05	11.10	11.08	2.84	2.83	2.84
12	4.57	4.57	4.57	15.37	13.64	14.51	5.80	6.11	5.96	10.98	11.94	11.46	2.86	2.83	2.84
13	4.10	4.27	4.18	15.58	13.36	14.47	5.97	6.10	6.04	11.20	11.12	11.16	2.85	2.85	2.85
14	4.67	4.30	4.48	14.94	14.20	14.57	5.96	5.96	5.96	10.82	11.09	10.96	2.83	2.66	2.75
15	4.40	3.80	4.10	16.55	14.97	15.76	5.47	6.16	5.82	11.03	10.99	11.01	2.86	2.83	2.85
16	4.37	4.40	4.38	16.29	14.28	15.29	5.83	5.93	5.88	11.20	11.10	11.15	2.87	2.85	2.86
17	4.30	3.87	4.08	15.54	14.63	15.09	5.71	6.02	5.87	11.01	11.10	11.06	2.85	2.86	2.86
18	4.83	4.50	4.67	16.18	14.04	15.11	5.97	6.07	6.03	10.84	10.94	10.90	2.87	2.85	2.86
19	4.90	4.53	4.72	15.79	14.58	15.19	5.70	5.77	5.73	11.05	11.08	11.07	2.84	2.80	2.82
20	5.13	3.87	4.50	16.67	14.78	15.72	5.59	6.08	5.84	11.16	10.88	11.03	2.86	2.83	2.85
21	4.80	4.50	4.65	16.27	15.12	15.70	6.07	5.63	5.85	11.02	11.07	11.05	2.87	2.86	2.87
Mean	4.1103	3.9011	4.0057	14.324 4	13.179 3	13.754 3	5.5693	5.6511	5.6129	11.0084	11.0644	11.039	2.8191	2.8174	2.8207
CV (%)	12.333	11.732 5	9.5324	4.5586	2.6314	2.5833	2.4893	1.4386	1.4732	0.6804	0.4555	0.3986	0.3214	0.9303	0.5260
S Em	70.4139	0.3746	0.3117	0.5332	0.2832	0.2901	0.1132	0.0664	0.0675	0.0612	0.0412	0.0359	0.0074	0.0214	0.0121
CD <sub>0.05</sub>	1.1473	1.0383	0.8639	1.4779	0.7849	0.8041	0.3137	0.1841	0.1871	0.1696	0.1142	0.0995	0.0205	0.0593	0.0335
CD <sub>0.01</sub>	1.5078	1.364	1.135	1.942	1.031	1.056	0.412	0.241	0.245	0.222	0.150	0.130	0.026	0.077	0.044

**Table 5.** Average performance of the genotypes for days to 50% flowering, no. of branches/plant, no. of capsules/plant, capsule length

Parents & Adv. Lines	Days to 50% flowering			No. of branches/plants			No. of capsules/plant			Capsule length (cm)		
	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	Pooled	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	Pooled	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	Pooled	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	Pooled
P- 1 (R-9)	50.33	51.00	50.67	3.30	3.23	3.27	61.89	43.47	52.68	2.37	2.40	2.38
2 (B-14)	49.67	49.67	49.67	4.23	3.93	4.08	112.93	119.80	116.37	2.57	2.60	2.58

3 (B-9)	50.67	52.33	51.50	5.10	4.20	4.65	178.70	119.73	149.22	2.53	2.53	2.53
4 (B-67)	50.67	50.67	50.67	5.67	4.73	5.20	118.03	106.33	112.18	2.53	2.67	2.60
5 (T-12)	50.33	50.33	50.33	3.53	2.73	3.13	61.10	47.37	54.23	2.27	2.33	2.30
6 (IDP-51)	49.67	50.00	49.83	5.60	5.20	5.40	113.77	107.37	110.57	2.57	2.63	2.60
7 (IET-2)	50.33	51.33	50.83	4.53	5.20	4.87	104.50	104.00	104.25	2.67	2.67	2.67
8 (HT-1)	50.33	51.00	50.67	4.20	3.27	3.73	61.60	48.99	55.30	2.37	2.43	2.40
Adv. L-1	50.33	52.00	51.17	9.10	6.07	7.58	168.58	165.13	166.86	2.73	2.73	2.73
2	50.33	51.33	50.83	8.20	5.70	6.95	182.45	175.07	178.76	2.77	2.77	2.77
3	51.33	51.67	51.50	7.70	8.07	7.88	223.87	194.90	209.39	2.63	2.60	2.62
4	50.33	52.00	51.17	8.80	8.30	8.55	186.75	188.21	187.48	2.37	2.40	2.38
5	51.00	52.33	51.67	8.53	8.63	8.58	241.01	240.40	240.71	2.77	2.83	2.80
6	50.33	51.33	50.83	7.47	7.17	7.32	117.23	185.76	181.49	2.83	2.83	2.83
7	50.67	52.67	51.67	5.63	5.90	5.77	152.20	151.43	151.82	2.83	2.80	2.82
8	50.33	51.33	50.83	6.90	7.23	7.07	193.98	186.47	190.23	2.73	2.83	2.78
9	50.33	52.33	51.33	9.63	8.97	9.30	206.23	199.43	202.83	2.73	2.87	2.80
10	50.33	53.33	51.83	8.47	8.23	8.35	113.03	122.23	117.63	2.97	2.93	2.95
11	50.67	51.67	51.17	8.33	8.10	8.22	152.73	160.77	156.75	2.83	2.90	2.87
12	51.67	51.00	51.33	6.97	6.93	6.95	176.10	180.63	178.37	2.63	2.63	2.63
13	50.67	53.67	52.17	6.10	6.37	6.23	138.89	150.67	144.78	2.87	2.93	2.90
14	51.33	52.33	51.83	3.87	4.40	4.13	83.57	67.37	75.47	2.23	2.43	2.33
15	50.67	52.33	51.50	6.77	7.27	7.02	169.52	163.83	166.68	2.67	2.73	2.70
16	50.67	52.00	51.33	5.97	6.57	6.27	163.76	164.57	164.16	2.83	2.90	2.87
17	50.33	51.00	50.67	5.77	6.33	6.05	156.02	156.20	156.11	2.53	2.37	2.45
18	50.67	54.00	52.33	8.77	7.80	8.23	136.34	139.33	137.84	2.77	2.73	2.75
19	52.33	52.00	52.17	8.80	8.30	8.55	175.90	177.67	176.78	2.63	2.53	2.58
20	51.33	52.00	51.67	9.27	8.77	9.02	128.10	129.73	128.92	2.63	2.80	2.72
21	52.33	53.00	52.67	6.97	7.00	6.98	121.73	122.40	122.07	2.63	2.63	2.63

Mean	50.6897	51.7816	51.2356	6.6954	6.3655	6.5305	146.9144	142.0434	144.4795	2.6379	2.6713	2.6546
CV (%)	1.6333	3.0999	1.8961	7.9862	8.2710	5.9821	2.3670	4.2658	2.4961	2.6249	3.8649	2.1368
S Em	0.6759	1.3106	0.7932	0.4365	0.4298	0.3189	2.8394	4.9474	2.9445	0.0565	0.0843	0.04631
CD <sub>0.05</sub>	1.8735	3.6327	2.1986	1.2099	1.1913	0.8839	7.8704	13.7135	8.1617	0.1566	0.2336	0.1283
CD <sub>0.01</sub>	2.4623	4.7745	2.8896	1.5902	1.5659	1.1617	10.3439	18.0234	10.7268	0.2058	0.3071	0.1686

**Table 6.** Average performance of the genotypes for number of seeds/capsule, 100 seed weight, seed yield/plant and harvest index

Parents & Adv. Lines	No. of seeds/capsule			100 seed weight			Seed yield/plant			Harvest Index		
	1 <sup>st</sup> year	2 <sup>nd</sup> year	Pooled	1 <sup>st</sup> year	2 <sup>nd</sup> year	Pooled	1 <sup>st</sup> year	2 <sup>nd</sup> year	Pooled	1 <sup>st</sup> year	2 <sup>nd</sup> year	Pooled
P- 1 (R-9)	59	59.67	59.66	0.25	0.24	0.25	90	60.22	70.62	18.7	20	19.35
2(B-14)	68.67	66.67	67.67	0.3	0.31	0.31	23.52	24.48	24	23.97	24.99	24.48
3 (B-9)	68.67	68	68.33	0.29	0.29	0.29	34.76	23.34	29.05	25.18	25.12	25.15
4(B-67)	68.33	67.67	68	0.28	0.28	0.28	22.58	20.14	21.36	21.49	20.44	20.97
(T-12)	57.33	57.33	57.33	0.22	0.22	0.22	70.94	50.04	60.5	20.02	19.95	19.99
6(IDP-51)	69.33	68.67	69	0.28	0.28	0.28	22.08	20.91	21.5	21.97	21	21.49
7(IET-2)	70.33	70	70.17	0.27	0.27	0.27	19.17	19.54	19.36	22.01	22.47	22.24
8(HT-1)	55.33	54.33	54.83	0.22	0.22	0.22	70.61	50.94	60.78	20.08	20.02	20.05
Adv. L-1	66.33	66	66.17	0.27	0.27	0.27	30.19	29.77	29.98	27.99	28.19	28.09
2	66.33	67	66.67	0.3	0.3	0.3	36.71	35.17	35.94	32.38	33.11	32.75
3	70.33	69	69.67	0.29	0.29	0.29	45.13	38.9	42.02	33.03	33.88	33.46
4	62.67	62	62.33	0.27	0.27	0.27	31.06	31.47	31.54	31.39	30.32	30.86
5	71.33	69.33	70.33	0.28	0.29	0.29	48.69	47.77	48.23	36.85	37.98	37.42
6	71.33	70	70.67	0.29	0.29	0.29	36.66	37.24	36.95	33.18	32.86	33.03
7	67.33	67.67	67.5	0.3	0.3	0.3	31.08	31.06	31.07	30.27	29.65	29.96
8	68	67	67.5	0.28	0.28	0.28	36.48	34.94	35.71	33.75	32.41	33.08

9	70	68.33	67.17	0.28	0.28	0.28	40.42	38.14	39.28	36.41	35.53	36.17
10	71	70	70.5	0.27	0.27	0.27	21.4	22.82	22.11	25.37	25.91	25.65
11	68.67	68.67	68.67	0.29	0.29	0.29	30.06	31.67	30.86	31.26	30.65	30.96
12	70.33	70.33	70.33	0.3	0.3	0.3	37.56	38.12	37.84	34.27	33.67	33.97
13	70	69	69.5	0.26	0.27	0.27	25.59	27.71	26.65	28.68	25.99	27.34
14	55.67	53.33	54.5	0.23	0.23	0.23	10.85	8.26	9.56	19.98	20.01	20
15	64.67	63.67	64.17	0.31	0.3	0.31	33.6	31.62	32.61	31.48	30.53	31.01
16	66.67	65.67	66.17	0.26	0.27	0.27	28.75	28.85	28.8	30.61	29.99	30.3
17	65.67	65.33	65.5	0.29	0.3	0.3	30.04	30.26	30.16	30.52	30.46	30.5
18	68.67	70.33	69.5	0.26	0.26	0.26	24.34	25.48	24.91	27.21	26.01	26.61
19	69	69.33	69.17	0.27	0.27	0.27	32.84	32.83	32.84	32.1	31.57	31.84
20	69.33	69	69.17	0.026	0.26	0.26	22.89	23.26	23.08	27.09	25.03	26.06
21	67	67	67	0.26	0.27	0.27	21.47	21.86	21.67	25.82	24	24.91
Mean	66.7816	66.2299	66.5057	0.2739	0.2743	0.2753	27.6902	26.6487	27.1721	28.050	27.6462	27.8509
CV (%)	1.1997	2.8812	1.5548	1.8234	1.8177	1.7492	2.9245	4.7145	3.0596	0.2147	0.1016	0.1122
SEm	0.6542	1.558	0.8443	0.0041	0.0041	0.0039	0.6612	1.0258	0.6787	0.0492	0.0229	0.0255
CD <sub>0.05</sub>	1.8133	4.3186	2.3403	0.0114	0.0114	0.0108	1.8327	2.8433	1.8813	0.1364	0.0635	0.0706
CD <sub>0.01</sub>	2.3852	5.6758	3.0757	0.0149	0.0149	0.0142	2.4087	3.737	2.4725	0.1792	0.0834	0.0928

**Table 7.** Genetic parameters for different plant characters

Plant Characters	GCV			PCV			GA			GA (%) over mean			Heritability		
	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	Pooled	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	Pooled	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	Pooled	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	Pooled	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	Pooled
Pl. ht. 30D	10.34	6.81	8.33	14.22	10.77	10.96	1.45	0.84	1.23	15.44	8.886	13.054	0.529	0.399	0.578
Pl. ht. 60D	11.26	14.27	12.17	12.40	14.49	12.54	6.54	8.68	7.43	21.065	28.917	24.33	0.825	0.969	0.941

Pl. ht. 80D	4.68	7.48	5.80	4.89	7.68	5.91	9.45	16.49	12.44	9.22	15.025	11.72	0.917	0.950	0.963
Pl. ht. 100D	5.35	9.29	7.35	5.58	9.60	7.49	14.06	25.71	20.18	10.563	18.535	14.848	0.919	0.937	0.963
Root leng. 30D	12.19	11.82	11.13	17.34	16.68	14.66	0.73	0.67	0.70	17.76	17.17	17.47	0.494	0.503	0.577
Root leng. 60D	15.58	12.29	13.77	16.23	12.56	14.01	4.41	3.26	3.83	30.786	24.735	27.845	0.921	0.956	0.966
VGDRWt. 30D	6.33	8.15	6.13	6.80	8.28	6.48	0.68	0.93	0.71	12.209	16.45	12.649	0.866	0.97	0.948
VGDRWt. 60D	1.04	2.19	1.27	1.24	2.24	1.33	0.20	0.49	0.28	1.8167	4.428	2.536	0.700	0.959	0.911
Days to 50% flow	0.83	0.83	0.82	1.83	3.21	2.06	0.39	0.23	0.34	0.769	0.444	0.6636	0.204	0.066	0.156
LAI	1.93	1.74	1.65	1.96	1.97	1.73	0.11	0.09	0.09	3.901	3.914	3.1906	0.973	0.777	0.908
No. of branches/pl	28.08	28.20	27.57	29.19	29.38	28.21	3.72	3.55	3.62	55.56	55.76	55.432	0.925	0.921	0.955
Capsule/PL	31.86	34.25	32.72	31.95	34.52	32.82	96.17	99.46	97.10	65.459	70.02	67.206	0.995	0.985	0.994
Capsule length	6.84	6.46	6.66	7.33	7.53	6.99	0.35	0.30	0.35	13.268	11.23	13.184	0.872	0.736	0.907
No. of seeds/caps	6.76	6.80	6.81	6.87	7.39	6.98	9.16	8.55	9.09	13.716	12.90	13.60	0.970	0.848	0.950
100 seed wt.	8.21	8.21	8.24	8.41	8.41	8.42	0.05	0.05	0.05	18.254	18.228	18.315	0.953	0.953	0.957
Seed yield/pl.	37.91	39.49	38.39	38.02	39.77	38.51	21.56	21.53	21.42	77.86	80.79	78.83	0.994	0.986	0.994
HI	19.04	19.10	18.99	19.02	19.10	18.99	11.00	10.88	10.89	39.214	39.35	39.10	1.000	1.000	1.000

**Table 8.** Clustering pattern, size and constituents involving 29 genotypes for plant characters

Cluster No	No. of Constituent genotype (s)	Genotypes
I	19	Advance line 1, Advance line 16, Advance line 11, Advance line 19, 6, 8, 4, 15, 13, 7, 17, 20, 2, 3, 18, 9, 21, 12, 10
II	4	T-12, HT-1, R-9, IET-2
III	4	B-67, B-4, B-9, IDP-51
IV	1	Advance line 5
V	1	Advance line 14



**Table 9.** Average intra- (diagonal) and inter-cluster distances (D values) on the basis of 16 plant characters

	I	II	III	IV	V
I	18.622 (4.3153)				
II	58.944 (7.6775)	21.169 (4.6009)			
III	41.409 (6.4350)	29.510 (5.4323)	14.454 (3.80)		
IV	31.243 (5.5895)	80.549 (8.9749)	61.132 (7.8186)	0.000 (0)	
V	42.508 (6.5198)	30.011 (5.478)	32.433 (5.694)	65.051 (8.0654)	0.0000 (0)

**Table 10.** Cluster means for sixteen plant characters

Characters	Clusters				
	I	II	III	IV	V
1. Pl. ht. 30 DAG	9.8287	8.8175	7.94	9.42	10.03
2. Pl. ht. 60 DAG	32.6942	25.2925	24.1775	33.75	32.65
3. Pl. ht. 80 DAG	109.6931	95.5950	99.0875	105.15	110.19
4. Pl. ht. at Harvest	141.9058	122.5350	118.6075	139.94	140.43
5. Root length 30 DAG	4.1710	3.8100	3.3725	3.72	4.48
6. Root length 60 DAG	14.9047	10.9475	10.6925	14.53	14.57
7. Veg Drywt. 30 DAG	51.5353	50.6250	50.4175	51.67	51.83

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8.	Veg Drywt. 60 DAG	5.7931	5.0525	5.1925	5.76	5.96
9.	LAI	11.0942	10.91	10.915	11.10	10.96
10.	Days to 50% fl.	2.8479	2.7275	2.8150	2.85	2.75
11.	No. of Br. / Pl.	7.4916	3.7500	4.8325	8.58	4.13
12.	No. of caps. / pl.	164.1553	66.6150	122.0825	240.71	75.47
13.	Capsule length	2.7253	2.4345	2.5775	2.80	2.33
14.	No. of seeds / caps	67.8610	60.3725	68.2500	70.3300	54.5000
15.	100 seed wt.	0.281	0.240	0.290	0.290	0.230
16.	Seed yield / pl.	31.2642	10.0655	23.9775	48.23	9.56