

Roy B, Pal AK. Selection criteria of some advance lines of sesame by the study of correlation and path coefficient analysis. *Plant Science Today* 2019; 6(3):356-359. <https://doi.org/10.14719/pst.2019.6.3.565>

Supplementary Table 1. Genotypic path coefficient analysis showing direct (diagonal values) and indirect effects of different growth and yield attributes on seed yield/plant (residual effect = -0.6355)

	Plant height at 30 DAG	Plant height at 60 DAG	Plant height at 80 DAG	Plant height at harvest	Root length at 30 DAG	Root length At 60 DAG	Days to 50% flowering	Vegetative dry weight at 30 DAG	Vegetative dry weight at 60 DAG	Leaf area index	No. of branches / plant	No. of capsules/ plant	Capsule length	No. of seeds/capsule	100 Seed weight	Harvest index
Plant height at 30 DAG	2.093	-57.544	-9.027	2.412	-5.616	199.453	7.502	15.151	-10.116	105.036	-70.213	28.656	3.049	18.790	0.856	-20.213
Plant height at 60 DAG	1.805	-66.727	-11.284	2.528	-3.798	219.749	6.604	16.469	-13.097	143.682	-78.154	66.945	4.512	35.709	-0.839	-36.174
Plant height at 80 DAG	1.477	-58.872	-12.790	2.306	-3.506	197.642	6.138	15.416	-14.912	143.786	-69.636	65.953	5.222	47.321	-1.572	-35.814
Plant height at harvest	1.885	-62.982	11.011	2.678	-4.401	218.192	6.856	17.082	-11.011	144.891	-76.971	61.858	4.229	34.757	-0.281	-34.927
Root length at 30	1.859	40.075	-7.790	2.864	-6.324	146.287	5.702	12.590	-5.430	-70.933	-17.463	6.570	2.014	8.555	1.247	-9.372
Root length at 60	1.816	63.777	-10.995	2.542	-4.024	229.913	6.905	16.504	-11.475	150.368	-81.361	62.373	4.279	32.905	0.979	-34.256
Days to 50% Flowering	2.575	72.269	-12.875	3.012	-5.914	260.285	6.097	19.245	-13.651	172.441	-89.132	48.974	4.389	44.835	0.732	-23.494
Vegetative dry weight at 30 DAG	1.644	56.954	-10.219	2.371	-4.126	196.653	6.081	19.295	-9.501	136.828	-73.811	56.895	3.585	36.007	-0.852	-29.765
Vegetative dry weight at 60 DAG	0.896	36.997	-8.074	1.248	-1.454	11.693	3.524	7.761	-23.622	100.414	-39.744	61.282	3.681	56.204	-1.978	-33.409
Leaf area index	1.165	50.798	-9.744	2.056	-2.377	182.531	5.571	13.988	-12.576	188.739	-85.380	82.591	6.650	97.059	-2.680	-38.554
No. of branch/ plant	1.416	50.261	-8.584	1.987	-2.893	180.284	5.238	13.726	-9.048	184.471	185.701	82.371	5.343	81.265	-1.529	-39.520
Capsule/Plant	0.563	41.895	-7.911	1.554	-0.390	134.494	2.801	10.296	13.576	146.197	-80.157	106.625	4.764	82.683	-2.851	-49.817
Capsule length	0.729	34.387	-7.627	1.294	-1.454	112.338	23.056	7.899	-9.929	143.335	-63.305	58.011	8.757	99.207	-2.080	-28.601
No of seed/ capsule	0.302	18.293	4.647	0.715	-0.415	58.082	2.099	5.334	-11.193	140.642	-64.736	67.684	6.669	130.252	-2.927	-25.584
100 Seed weight	0.419	13.083	-4.699	0.514	1.843	52.597	-1.044	3.843	-10.924	118.26	-37.085	71.077	4.257	89.139	-4.278	-32.720
Harvest index	0.810	46.216	-8.770	1.791	-1.135	150.799	2.743	10.996	-15.110	139.322	-78.510	101.702	4.795	71.284	-2.680	-52.229

Supplementary Table 2. Genotypic and phenotypic correlation coefficients (r) of different growth and yield attributes

Characters		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		Plant height at 30 DAG	Plant height at 60 DAG	Plant height at 80 DAG	Plant height at harvest	Root length at 30 DAG	Root length at 60 DAG	Days to 50% flowering	Vegetative dry weight at 30 DAG	Vegetative dry weight at 60 DAG	Leaf area index	No. of Branches / plant	No. of Capsules/ plant	Capsule length	No. of seeds/ capsule	100 seed weight	Seed yield	Harvest Index
1. Plant height at 30 DAG	G	1.000	0.862	0.706	0.900	0.888	0.868	1.230	0.785	0.428	0.557	0.677	0.269	0.348	0.144	-0.200	0.197	0.387
	P	1.000	0.620**	0.537**	0.682**	0.840**	0.651**	0.440**	0.597**	0.266**	0.413**	0.485**	0.216*	0.243*	0.109 ^{NS}	-0.176 ^{NS}	0.158 ^{NS}	0.294**
2. Plant height at 60 DAG	G		1.000	0.882	0.944	0.601	0.956	1.083	0.854	0.554	0.761	0.753	0.628	0.515	0.274	0.196	0.566	0.693
	P		1.000	0.841**	0.904**	0.409**	0.915**	0.440**	0.799**	0.509**	0.715**	0.717**	0.600**	0.461**	0.266*	0.188 ^{NS}	0.542**	0.672**
3. Plant height at 80 DAG	G			1.000	0.861	0.554	0.860	1.007	0.799	0.631	0.762	0.671	0.619	0.596	0.363	0.367	0.587	0.686
	P			1.000	0.833**	0.418**	0.831**	0.376**	0.772**	0.596**	0.718**	0.633**	0.604**	0.556**	0.347**	0.353**	0.574**	0.673**
4. Plant height at harvest	G				1.000	0.696	0.649	1.125	0.885	0.466	0.768	0.742	0.580	0.483	0.267	0.192	0.522	0.669
	P				1.000	0.539**	0.912**	0.410**	0.846**	0.436**	0.717**	0.706**	0.567**	0.449**	0.256*	0.186 ^{NS}	0.511**	0.656**
5. Root length at 30 DAG	G					1.000	0.636	0.935	0.652	0.230	0.376	0.457	0.062	0.230	0.066	-0.291	0.000	0.179
	P					1.000	0.469**	.351**	0.499**	0.130 ^{NS}	0.254**	0.322**	0.056 ^{NS}	0.184 ^{NS}	0.035 ^{NS}	-0.225*	0.007 ^{NS}	0.136 ^{NS}
6. Root length at 60 DAG	G						1.000	1.132	0.855	0.486	0.794	0.784	0.585	0.489	0.253	0.229	0.524	0.656
	P						1.000	0.462	0.822**	0.438**	0.747**	0.750**	0.568*	0.445**	0.252*	0.215	0.510**	0.645**
7. Days to 50% flowering	G							1.000	0.997	0.578	0.914	0.859	0.459	0.501	0.344	-0.171	0.368	0.450
	P							1.000	0.355**	0.195*	0.310**	0.346**	0.190 ^{NS}	0.258*	0.150 ND	-0.060 ^{NS}	0.151 ^{NS}	0.177 ^{NS}
8. Vegetative dry weight at 30 DAG	G								1.000	0.402	0.725	0.711	0.534	0.409	0.276	-0.199	0.475	0.570
	P								1.000	0.369**	0.668**	0.684**	0.518**	0.379**	0.250*	0.196 ^{NS}	0.460**	0.550**
9. Vegetative dry weight at 60 DAG	G									1.000	0.532	0.383	0.575	0.420	0.432	0.462	0.597	0.640
	P									1.000	0.482**	0.361**	0.549**	0.409**	0.398**	0.419**	0.569**	0.610**
10. Leaf area index	G										1.000	0.823	0.775	0.759	0.745	0.627	0.772	0.738
	P										1.000	0.711**	0.736**	0.685**	0.701**	0.592**	0.734**	0.703**
11. No. of Branches / plant	G											1.000	0.733	.610	0.624	0.357	0.729	0.757
	P											1.000	0.751**	0.573**	0.583**	0.353**	0.710**	0.739**
12. No. of capsules / plant	G												1.000	0.544	0.635	0.667	0.986	0.954
	P												1.000	0.518**	0.617**	0.650**	0.984	0.951**
13. Capsule length	G													1.000	0.762	0.486	0.579	0.548
	P													1.000	0.711**	0.455**	0.553**	0.521**
14. No. of seeds / capsule	G														1.000	0.684	0.700	0.547
	P														1.000	0.645**	0.688**	0.533**
15. 100 seed weight	G															1.000	0.758	0.626
	P															1.000	0.742**	0.613**
16. Seed yield	G																1.000	0.948
	P																1.000	0.944**

* Significant level at 5% level, ** Significant level at 1% level, NS = Not significant