

Supplementary Table 1 Estimates for specific combining ability effects for different hybrids

Traits		Days to 50% flowering	Days to first harvest	Number of fruits/plant	Number of fruits/cluster	Fruit yield/plant (kg)	Average fruit weight (g)	Fruit shape index	Pericarp Thickness (mm)	Number of locules/fruit	Plant height (cm)	Harvest Duration (days)	TSS (°Brix)	Ascorbic acid (mg/100 g)
Hybrids														
Solan Lalima × Arka Meghali	0.543	1.906	0.808	-0.123	-0.004	-3.152 *	0.188 *	0.161 *	-0.033	15.471 *	1.906	0.445 *	-2.448 *	
Solan Lalima × Arka Abha	-0.882	-3.726 *	-2.697	-0.205	-0.308 *	-4.606 *	0.036 *	0.252 *	0.430 *	2.078	-3.726 *	-0.036	0.458	
Solan Lalima × H-7998	-0.819	2.681	0.166	-0.437 *	-0.242	-6.676 *	0.120 *	-0.697 *	-0.236 *	-21.398 *	2.681	-0.08	1.772 *	
Solan Lalima × BT-21	2.722	-0.502	-0.548	-0.273	-0.007	0.273	0.083 *	-0.13	-0.079	4.079 *	-0.502	0.190 *	-2.058 *	
Solan Lalima × BajT-1	0.006	-2.067	1.775	-0.05	0.135	-1.025	0.001	1.006 *	-0.309 *	-37.792 *	-2.067	-0.168 *	-0.939	
Solan Lalima × BajT-4	1.51	-3.592 *	1.89	-0.14	0.569 *	8.045 *	0.003	-0.536 *	0.373 *	10.622 *	-3.592 *	-0.106	-2.807 *	
Solan Lalima × BajT-10	-1.192	-4.406 *	1.438	-0.309	0.285 *	3.846 *	-0.036 *	-0.273 *	0.312 *	17.780 *	-4.406 *	-0.169 *	2.903 *	
Solan Lalima × BajT-11	-0.614	1.994	-3.603 *	-0.296	-0.138	3.413 *	-0.134 *	-0.436 *	0.045	-2.232	1.994	-0.304 *	7.895 *	
Arka Meghali × Arka Abha	2.234	-2.343	1.683	0.049	0.197	1.984	-0.049 *	-0.048	0.048	27.093 *	-2.343	0.034	-0.146	
Arka Meghali × H-7998	2.137	1.064	1.099	0.024	0.117	1.577	0.025 *	0.436 *	-0.385 *	-43.796 *	1.064	0.193 *	1.158 *	
Arka Meghali × BT-21	-2.129	0.215	-1.612	-0.169	-0.261 *	-4.480 *	-0.069 *	0.303 *	0.106	8.775 *	0.215	0.293 *	-1.966 *	
Arka Meghali × BajT-1	-2.891 *	-1.054	-7.239 *	0.127	-0.459 *	1.065	-0.071 *	0.806 *	-0.424 *	5.850 *	-1.054	-0.558 *	1.957 *	
Arka Meghali × BajT-4	-0.881	7.678 *	-0.631	-0.196	-0.008	0.709	0.002	-0.403 *	-0.276 *	-7.543 *	7.678 *	0.650 *	1.439 *	
Arka Meghali × BajT-10	-2	1.11	-0.692	-0.149	0.451 *	13.810 *	-0.007	-0.473 *	-0.570 *	-8.005 *	1.11	-0.356 *	-0.215	
Arka Meghali × BajT-11	-1.338	-0.489	1.816	-0.133	0.324 *	5.083 *	0.141 *	0.03	0.364 *	-7.697 *	-0.489	-0.464 *	1.371 *	
Arka Abha × H-7998	-5.404 *	4.688 *	5.164 *	-0.642 *	0.219	-0.734	0.043 *	-0.139	-0.421 *	-2.155	4.688 *	-0.014	-2.436 *	
Arka Abha × BT-21	4.100 *	4.546 *	4.310 *	-0.112	0.304 *	2.269	-0.064 *	0.194 *	0.203 *	-4.618 *	4.546 *	-0.270 *	-2.676 *	
Arka Abha × BajT-1	-1.969	1.797	-4.500 *	-0.088	-0.334 *	-1.826	0.081 *	-0.003	-0.127 *	-21.090 *	1.797	-0.542 *	0.249	

Contd.

Supplementary Table 1 (Concluded)

Hybrids	Traits	Days to 50% flowering	Days to first harvest	Number of fruits/plant	Number of fruits/cluster	Fruit yield/plant (kg)	Average fruit weight (g)	Fruit shape index	Pericarp Thickness (mm)	Number of locules/fruit	Plant height (cm)	Harvest Duration (days)	TSS (°Brix)	Ascorbic acid (mg/100 g)
Arka Abha × BajT-4		1.651	-0.854	2.028	0.212	0.243	2.911 *	-0.070 *	0.421 *	-0.179 *	-20.936 *	-0.854	-0.193 *	1.035
Arka Abha × BajT-10		-0.251	1.895	1.033	-0.328	-0.024	-2.405	0.101 *	-0.015	-0.039	-7.004 *	1.895	0.004	5.711 *
Arka Abha × BajT-11		-0.886	-2.718	-5.122 *	0.168	-0.528 *	-6.551 *	0.102 *	0.055	-0.206 *	-0.77	-2.718	0.262 *	5.534 *
H-7998 × BT-21		-1.077	-3.650 *	-1.35	0.024	0.001	1.672	-0.067 *	0.045	0.336 *	-9.467 *	-3.650 *	0.122	0.618
H-7998 × BajT-1		-0.183	1.948	1.466	0.037	0.362 *	7.184 *	-0.046 *	0.048	0.439 *	32.481 *	1.948	0.404 *	-0.223
H-7998 × BajT-4		-0.013	1.29	-0.743	-0.2	0.413 *	12.504 *	0.060 *	1.306 *	0.055	1.308	1.29	0.009	1.446 *
H-7998 × BajT-10		-0.132	-0.292	0.229	-0.106	-0.078	-2.741	-0.032 *	-0.264 *	0.127 *	26.247 *	-0.292	0.213 *	3.525 *
H-7998 × BajT-11		-1.47	5.485 *	-2.03	-0.173	-0.151	-1.058	-0.037 *	-0.227 *	-0.006	-11.545 *	5.485 *	-0.386 *	0.911
BT-21 × BajT-1		1.808	2.908 *	1.449	0.440 *	-0.172	-6.740 *	0.004	0.048	-0.403 *	39.332 *	2.908 *	0.637 *	2.987 *
BT-21 × BajT-4		0.818	-1.179	-0.52	-0.163	-0.531 *	-11.677 *	0.053 *	-0.161 *	0.312 *	-21.475 *	-1.179	-0.531 *	3.619 *
BT-21 × BajT-10		1.576	0.483	2.195	0.361	0.368 *	6.018 *	-0.013	-0.430 *	-0.082	5.157 *	0.483	-0.401 *	1.665 *
BT-21 × BajT-11		-1.479	6.303 *	-3.996 *	-0.09	-0.319 *	-3.162 *	0.006	-0.294 *	-0.315 *	19.012 *	6.303 *	-0.619 *	-0.656
BajT-1 × BajT-4		-0.511	-0.292	-0.964	-0.413 *	-0.386 *	-7.588 *	-0.159 *	-0.091	0.682 *	13.701 *	-0.292	-0.346 *	0.201
BajT-1 × BajT-10		1.754	2.004	-1.112	-0.616 *	-0.031	2.273	-0.081 *	-0.394 *	0.988 *	2.232	2.004	0.001	-2.753 *
BajT-1 × BajT-11		1.915	-1.263	-3.877 *	-0.613 *	-0.374 *	-1.517	0.067 *	-0.124	0.221 *	-14.393 *	-1.263	0.159 *	-1.057
BajT-4 × BajT-10		1.481	-0.187	-1.04	-0.065	-0.250 *	-3.844 *	-0.009	-0.236 *	0.136 *	3.233 *	-0.187	0.256 *	-3.430 *
BajT-4 × BajT-11		0.832	-5.454 *	-4.389 *	-0.213	-0.433 *	-1.984	-0.021 *	-0.300 *	-0.03	15.394 *	-5.454 *	0.055	-3.221 *
BajT-10 × BajT-11		0.486	-5.268 *	-0.454	0.448 *	0.133	6.781 *	-0.120 *	-0.303 *	0.909 *	12.392 *	-5.268 *	-0.048	-3.558 *
CD														
Sij <> 0 at 95%		2.757	2.801	3.245	0.363	0.246	2.845	0.013	0.14	0.125	2.874	2.801	0.144	1.148
Sij--Sik at 95%		4.066	4.13	4.785	0.535	0.363	4.195	0.019	0.206	0.184	4.238	4.13	0.213	1.692
Sij--Skl at 95%		3.857	3.918	4.54	0.508	0.345	3.98	0.018	0.196	0.174	4.02	3.918	0.202	1.605

*Significant at 5% level of significance. Sij – Sik, Difference between the specific combining ability (SCA) effects of two crosses having one parent in common; Sij – Skl, Difference between the specific combining ability (SCA) effects of two crosses/combinations, as represented by the respective cross combinations.