Table2. Mean performance of days to 50% silking, plant height and ear height, data combined over locations 2009 season.

Lines	Days to 50%silking			Plant height (cm)			Ear height (cm)		
	Gm1002	Gm1021	SC166	Gm1002	Gm1021	SC166	Gm1002	Gm1021	SC166
L1	58.75	59.00	61.12	258.62	276.00	265.50	137.75	157.37	145.37
L2	58.87	59.37	61.12	228.50	245.87	234.50	118.50	139.37	133.37
L3	59.00	59.62	60.75	251.75	267.50	255.50	138.62	153.37	147.25
L4	57.00	58.62	58.50	251.00	265.37	248.25	136.00	148.87	143.62
L5	56.75	57.25	57.75	247.50	263.62	244.12	139.37	150.50	142.12
L6	57.25	57.12	58.62	241.87	248.00	251.75	133.12	141.87	142.25
L7	57.00	59.75	61.37	240.00	243.62	253.12	136.87	135.50	145.62
L8	57.87	58.62	59.87	254.00	266.62	242.50	147.00	154.87	141.75
L9	58.75	59.87	61.50	286.62	278.37	273.37	159.00	162.87	156.75
Mean	57.91	58.80	60.06	251.09	261.66	252.06	138.47	149.40	144.23
Checks SC162 SC166 TWC352	63.75 61.50 60.67			267.00 257.75 248.00			165.25 157.12 152.75		
LSD 0.05	1.32			11.80			8.75		

Table 3. Mean performance of ear length, ear diameter and number of rows ear -1 data combined over locations 2009season.

Lines	Ear length (cm)			Ear diameter (cm)			Number of rows ear^{-1}		
	Gm1002	Gm1021	SC166	Gm1002	Gm1021	SC166	Gm1002	Gm1021	SC166
L1	21.04	21.62	21.92	5.03	4.99	5.10	14.78	13.65	14.28
L2	20.37	21.04	21.53	4.98	4.9	4.9	14.20	14.32	14.12
L3	20.20	21.07	21.67	5.13	5.20	4.95	15.05	15.08	15.27
L4	18.80	19.87	20.97	5.00	4.92	5.12	15.77	15.48	15.6
L5	18.82	19.77	20.43	4.90	5.03	5.00	14.48	15.05	14.65
L6	19.75	20.67	22.02	5.02	5.08	5.12	14.83	14.63	14.52
L7	19.73	19.69	22.44	4.92	5.14	4.97	15.00	15.45	14.50
L8	19.45	20.78	21.97	5.06	4.98	5.11	14.37	14.32	14.85
L9	21.57	20.57	23.03	4.92	5.00	4.98	14.59	14.54	14.00
Mean	19.97	20.56	21.77	4.99	5.02	5.02	14.79	14.72	14.64
Checks SC162 SC166 TWC352	21.82 21.22 17.80			4.67 4.83 4.92			12.37 13.87 14.2		
LSD 0.05	0.81			0.12			0.67		

Table 4. Mean performance of number of kernels row^{-1}, number of ears 100 plants^{-1} and grain yield (ard fed^{-1}) data combined over locations 2009 season.

Lines	Number of kernels row-1			Number of ears 100 plants-1			Grain yield (ard fed-1)		
	Gm1002	Gm1021	SC166	Gm1002	Gm1021	SC166	Gm1002	Gm1021	SC166
L1	41.57	40.07	39.27	104.27	118.25	106.02	36.67	35.30	37.74
L2	38.67	39.53	40.17	88.59	108.70	101.35	22.09	32.39	30.65
L3	39.49	39.82	40.80	107.74	107.17	109.65	26.99	32.94	33.76
L4	37.00	39.32	40.82	102.32	102.36	99.29	30.24	29.50	34.51
L5	34.46	39.47	39.22	100.41	99.96	97.46	28.57	35.03	30.42
L6	35.19	38.62	40.27	101.97	98.25	102.67	31.49	31.18	34.69
L7	37.51	38.24	42.26	98.44	101.04	99.19	31.02	34.72	28.73
L8	37.72	39.34	40.27	96.57	109.00	103.02	31.64	33.37	37.95
L9	40.29	40.20	43.07	101.69	99.96	99.04	32.45	33.42	37.05
Mean	37.99	39.40	40.68	100.22	104.97	101.97	30.12	33.09	33.95
Checks SC162 SC166 TWC352	45.12 43.67 38.21			111.72 113.83 97.37			33.59 40.95 25.57		
LSD 0.05	2.09			8.20			3.73		

Table6. Specific combining ability effects (ŝij) for days to 50%silking, plant and ear height, data combined over locations 2009 season.,

Lines	Days to 50%silking			Plant height (cm)			Ear height (cm)		
	Gm1002	Gm1021	SC166	Gm1002	Gm1021	SC166	Gm1002	Gm1021	SC166
L1	0.139	-0.500	0.361	-4.236	2.569	1.667	-3.518	5.176	-1.657
L2	0.097	-0.291	0.194	-3.944	2.861	1.083	-6.352*	3.592	2.759
L3	0.222	-0.042	-0.181	-2.652	2.528	0.125	-2.227	1.593	0.634
L4	-0.028	0.708	-0.681	-0.028	3.777	-3.750	-1.268	0.676	0.592
L5	0.514	0.125	-0.639	-0.403	5.153	-4.750	0.939	1.134	-2.074
L6	0.597	-0.417	-0.181	-1.486	-5.930	7.416	-0.393	-2.574	2.967
L7	-1.361**	0.500	0.861	-1.736	-8.680*	10.416*	3.106	-9.199*	6.092*
L8	0.097	-0.042	-0.055	3.472	5.527	-9.000*	4.689	1.634	-6.324*
L9	-0.278	-0.042	0.319	11.014**	-7.806	-3.208	5.023	-2.032	-2.991
SE sij	0.450			4.214			3.097		
SE sij-sik	0.636			5.959			4.381		

Table 7. Specific combining ability effects (ŝij) for ear length, ear diameter and number of rows ear^{-1}, data combined over locations 2009 season,

Lines	Ear length (cm)			Ear diameter (cm)			Number of rows ear^{-1}		
	Gm1002	Gm1021	SC166	Gm1002	Gm1021	SC166	Gm1002	Gm1021	SC166
L1	0.314	0.302	-0.616*	0.015	-0.058	0.042	0.476*	-0.596*	0.120
L2	0.186	0.266	-0.452	0.071	-0.035	-0.036	-0.079	0.098	-0.019
L3	0.019	0.291	-0.311	0.059	0.095*	-0.154**	-0.151	-0.057	0.208
L4	-0.280	0.199	0.081	0.009	-0.105**	0.095*	0.082	-0.140	0.058
L5	-0.049	0.297	-0.247	-0.057	0.045	0.012	-0.312	0.315	0.003
L6	-0.261	0.061	0.200	-0.032	-0.005	0.037	0.104	-0.035	0.069
L7	-0.088	-0.726*	0.814**	-0.067	0.117**	-0.049	-0.047	0.47*	-0.400
L8	-0.483	0.255	0.228	0.029	-0.077	0.048	-0.212	-0.201	0.413
L9	0.642*	-0.945**	0.303	-0.029	0.023	0.006	0.146	0.157	-0.303
SE sij	0.330			0.046			0.240		
SE sij-sik	0.469			0.065			0.340		

***, ** Significant at 0.05 and 0.01 level of probability, respectively.**

Table 8. Specific combining ability effects (ŝij) for number of kernels row^{-1}, number of ears 100 plants^{-1}, and grain yield (ard fed^{-1}), data combined over locations 2009 season

Lines	Number of kernels row^{-1}			Number of ears 100 plants^{-1}			Grain yield (ard fad^{-1})		
	Gm1002	Gm1021	SC166	Gm1002	Gm1021	SC166	Gm1002	Gm1021	SC166
L1	2.635**	-0.276	-2.358**	-3.079	6.152*	-3.072	2.357	-1.973	-0.385
L2	0.585	0.032	-0.617	-8.796**	6.573*	2.223	-4.028**	3.311**	0.717
L3	0.824	-0.262	-0.564	1.712	-3.593	1.881	-1.980	1.006	0.974
L4	-0.682	0.263	0.449	3.162	-1.543	-1.618	1.084	-2.624*	1.540
L5	-1.890*	1.707*	0.183	3.295	-1.897	-1.397	-0.509	2.982*	-2.473
L6	-1.465	0.549	0.916	3.170	-5.297	2.127	1.301	-1.979	0.678
L7	-0.459	-1.137	1.597*	1.045	-1.097	0.052	1.795	2.534*	-4.329**
L8	-0.018	0.188	-0.170	-4.129	3.552	0.577	-0.422	-1.655	2.077
L9	0.471	-1.032	0.561	3.620	-2.847	-0.772	0.402	-1.591	1.189
SE sij	0.756			2.958			1.295		
SE sij-sik	1.070			4.184			1.832		

*, ** Significant at 0.05 and 0.01 level of probability, respectively.