

Table (2): Mean performance for grain yield and other traits of 24 yellow top crosses evaluated at Sakha (Sk) and Mallawy (Mal) and over locations, 2006 season.

Cross	Days to 50% silking			Plant height (cm)			Ear height (cm)			Grain yield (ard/fad)		
	Sk	Mal	Com	Sk	Mal	Com	Sk	Mal	Com	Sk	Mal	Com.
L1xGm-1001	62.25	58.25	60.25	196.75	221.00	200.87	113.75	110.75	112.25	12.51	24.06	18.28
L1xGm-1002	57.75	56.75	57.25	216.25	223.50	219.87	107.50	119.25	113.37	16.39	20.06	18.23
L1xGm-1004	62.00	61.25	61.62	211.75	217.00	214.37	127.75	105.75	116.75	20.71	21.66	21.18
L2xGm-1001	58.25	58.25	58.25	203.50	228.50	216.00	107.75	117.50	112.62	14.63	20.42	17.53
L2xGm-1002	58.25	61.75	60.00	223.50	207.75	215.62	112.25	107.75	110.00	18.32	19.04	18.68
L2xGm-1004	60.25	59.25	59.75	210.50	220.75	215.62	110.50	115.00	112.75	17.97	26.72	22.35
L3xGm-1001	58.00	57.75	57.87	210.00	224.00	217.00	117.25	116.25	116.75	19.27	25.61	22.44
L3xGm-1002	58.00	56.50	57.25	218.25	225.50	221.87	114.50	121.00	117.75	20.83	22.17	21.49
L3xGm-1004	60.75	57.50	59.12	206.50	222.00	214.25	119.00	122.25	120.62	16.18	23.36	19.77
L4xGm-1001	58.50	58.25	58.37	211.75	227.25	219.50	117.75	123.25	120.50	17.04	27.42	22.23
L4xGm-1002	59.00	61.75	60.37	214.25	224.00	219.12	111.25	118.75	115.00	15.75	19.27	17.51
L4xGm-1004	63.00	58.50	60.75	206.75	233.25	220.00	122.75	130.75	126.75	16.08	28.44	22.26
L5xGm-1001	58.00	61.50	59.75	201.25	221.25	211.25	117.25	116.00	116.62	16.39	24.19	20.29
L5xGm-1002	57.25	59.25	58.25	228.75	211.25	220.00	121.75	110.50	116.12	19.63	22.88	21.25
L5xGm-1004	59.50	55.50	57.50	228.50	214.25	221.37	130.75	110.00	120.37	23.27	24.31	23.79
L6xGm-1001	61.25	59.25	60.25	185.25	218.50	201.87	108.75	114.00	111.37	14.46	26.20	20.33
L6xGm-1002	60.00	56.75	58.37	237.25	212.00	224.62	117.50	110.50	114.00	17.88	27.28	22.58
L6xGm-1004	62.25	55.75	59.00	209.50	229.25	219.37	113.00	119.00	116.00	15.71	25.65	20.68
L7xGm-1001	62.50	56.75	59.62	206.25	213.00	206.62	115.50	110.75	113.12	18.23	21.59	19.91
L7xGm-1002	61.50	57.50	59.50	222.50	215.25	218.87	120.00	110.75	115.37	17.69	27.61	22.65
L7xGm-1004	58.50	56.75	57.62	239.25	225.75	232.50	130.25	118.75	124.50	18.91	30.69	24.80
L8xGm-1001	64.50	57.50	61.00	215.00	220.50	217.75	121.75	119.25	120.50	11.71	24.34	18.03
L8xGm-1002	61.25	57.50	59.37	237.75	213.75	225.75	130.25	110.25	120.37	20.49	25.35	22.93
L8xGm-1004	66.00	57.50	61.75	220.25	224.50	222.37	131.75	117.00	124.37	17.63	21.87	19.75
Check SC155	61.00	59.50	60.25	238.50	207.25	222.87	133.25	113.75	123.50	20.42	21.07	20.74
LSD.05	1.76	2.01	1.33	14.23	11.12	9.00	11.49	9.50	7.45	2.98	3.65	2.33

Table(3): Estimation of GCA effects of 8 inbreds and three testers for grain yield and other studied traits at Sakha (Sk) and Mallawy (Mal) and over locations, 2006 season.

Lines	Days to 50% silking			Plant height			Ear height			Grain yield (ard/fad)		
	Sk	Mal	Com	Sk	Mal	Com	Sk	Mal	Com	Sk	Mal	Com.
L-1	0.313	-0.073	0.120	-6.802*	-4.844*	-5.823*	-2.021	-3.573	-2.797	-0.867	0.476	-0.195
L-2	-1.438**	-1.656**	-1.547**	-2.552	-1.427	-1.990	-8.188**	-1.656	-4.922**	0.431	0.853	0.211
L-3	-1.438**	-0.823*	-1.130**	-3.469	0.990	-1.240	-1.438	1.177	-0.130	1.354*	3.559**	2.457**
L-4	-0.188	0.094	-0.047	-4.135	-4.344	-4.240*	-1.100	-1.323	-1.214	-1.114	-1.224	-1.169*
L-5	-2.1004**	-0.740	-1.422**	4.448	2.573	3.510	4.896*	1.427	3.162*	2.360**	-0.253	1.053*
L-6	0.813*	2.344**	1.576**	-4.385	-1.760	-3.073	-5.271*	-4.740*	-5.005**	-1.388*	-3.616**	-2.502**
L-7	0.479	-0.240	0.120	7.615*	3.906	5.760**	3.563	2.344	2.953	0.882	0.845	0.864
L-8	3.563**	1.094*	2.328**	9.281**	4.906*	7.094**	9.563**	6.344**	7.953**	-0.796	-0.641	-0.719
Gm-1001	0.052	0.177	0.115	-11.33**	-2.792	-7.063**	-3.385*	-1.979	-2.682*	-1.871**	1.256**	-0.308
Gm-1002	-1.229**	-0.823*	-1.026**	9.760**	4.802*	7.281**	-1.479	1.490	0.005	0.969*	1.014*	0.992**
Gm-1004	1.177**	0.646	0.912**	1.573	-2.010	-0.219	4.865**	0.490	2.677*	0.903*	-2.271**	-0.684*
SEgcaL	0.367	0.417	0.278	2.960	2.318	1.881	2.394	1.978	1.553	0.623	0.761	0.485
SEgcaT	0.224	0.255	0.170	1.816	1.419	1.152	1.466	1.211	0.951	0.381	0.466	0.297

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

Table(4): SCA estimates for grain yield and other traits of 24 yellow top crosses evaluated at Sakha (Sk) and Mallawy (Mal) and over locations

Cross	Days to 50% silking			Plant height			Ear height			Grain yield (ard/fad)		
	Sk	Mal	Com	Sk	Mal	Com	Sk	Mal	Com	Sk	Mal	Com.
L1xGm-1001	1.531*	1.073	1.302*	-0.167	-0.625	-0.396	0.802	0.979	0.891	-2.155*	-2.841*	-2.498**
L1xGm-1002	-1.688**	-1.677*	-1.682**	-1.760	-5.219	-3.490	-7.354	-2.990	-5.172	1.112	-1.165	-1.139
L1xGm-1004	0.156	0.604	0.380	1.927	5.844	3.885	6.552	2.010-	4.281	3.268**	4.006**	3.637**
L2xGm-1001	-0.719	0.156	-0.281	2.333	-3.292	-0.479	0.969	0.094	0.016	-0.469	1.180	0.355
L2xGm-1002	0.563	0.156	0.359	1.240	6.365	3.802	3.563	4.094	3.828	0.374	-0.204	0.085
L2xGm-1004	0.156	-0.313	-0.078	-3.573	-3.073	3.323	-4.531	-3.156	-3.844	0.094	-0.976	-0.441
L3xGm-1001	-0.969	0.073	-0.448	9.75	-2.458	3.646	3.719	-3.521	0.099	2.380*	-1.194	0.593
L3xGm-1002	0.313	0.323	0.318	-3.094	0.448	-1.323	-0.938	1.010	0.036	1.102	2.129	1.615
L3xGm-1004	0.656	0.396	0.130	-6.656	2.010	-2.323	-2.781	2.510	-0.135	-3.482**	-0.935	-2.209**
L4xGm-1001	-1.719**	-0.844	-1.281*	12.167*	1.375	6.771	3.885	-1.271	1.307	2.616	1.332	1.974*
L4xGm-1002	0.063	0.156	0.109	-6.427	4.531	-0.948	4.521	1.760	1.380	-1.510	-1.910	-1.710*
L4xGm-1004	1.656**	0.688	1.172*	-5.740	-5.906	-5.823	0.635	-0.490	0.073	-1.106	0.578	-0.264
L5xGm-1001	-0.302	0.510	-0.406	-6.917	2.458	-2.229	-2.615	4.979	1.182	1.496	2.103	0.304
L5xGm-1002	0.229	1.740*	0.984*	-0.510	-5.885	-3.198	-0.021	-7.240*	-3.630	-1.105	-0.693	-0.899
L5xGm-1004	0.073	-1.230	-0.578	7.427	3.427	5.427	2.635	2.260	2.448	2.601*	-1.410	0.596
L6xGm-1001	0.031	0.656	0.344	-14.083*	2.042	-6.021	-0.948	-2.604	-1.776	0.314	0.034	0.174
L6xGm-1002	0.063	-1.344	-0.641	16.832**	5.948	11.385**	5.896	5.677	5.786*	0.894	-0.973	-0.039
L6xGm-1004	-0.094	0.688	0.297	-2.740	-7.990*	-5.365	-4.948	-3.073	-4.010	-1.208	0.939	-0.135
L7xGm-1001	1.615*	1.240	1.427**	-5.083	0.125	-2.479	-3.031	-0.438	-1.734	1.841	0.633	1.237
L7xGm-1002	1.896*	0.740	1.318*	-9.927	-4.219	-7.073	-0.438	-2.656	-1.547	-1.560	0.236	-0.898
L7xGm-1004	-3.510**	-1.979*	-2.745**	15.010**	4.094	9.552**	3.469	3.094	3.281	-0.280	-0.396	-0.338
L8xGm-1001	0.531	-1.844*	-0.656	2.000	0.375	1.188	-2.781	2.813	0.016	-3.032**	-1.247	-2.139*
L8xGm-1002	-1.438*	-0.094	-0.766	3.656	-1.969	0.844	3.813	0.344	2.078	2.917**	3.054*	2.985**
L8xGm-1004	0.906	1.938*	1.422**	-5.656	1.594	-2.031	-1.031	-3.156	2.094	0.114	-1.806	-0.846
SE (sij)	0.636	0.723	0.481	5.137	4.015	3.259	4.147	3.427	2.690	1.078	1.318	0.841

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