

AGRONOMY UPDATE

**Agronomy Update No. 54
Revised December 2000**

2000 Maryland Corn Hybrid Performance Tests

Corn hybrid performance tests are conducted annually by the Maryland Agricultural Experiment Station and the Department of Natural Resource Sciences and Landscape Architecture. The results obtained from these evaluations provide corn producers with the latest agronomic information on corn hybrids. During 2000, the tests were conducted at four representative locations across Maryland: (1) Lower Eastern Shore Research and Education Center's (REC) Poplar Hill Facility in Wicomico County; (2) Wye REC in Queen Anne's County; (3) Central Maryland REC's Clarksville Facility in Howard County; and (4) Western Maryland Research and Education Center in Washington County.

Entries for the tests were solicited from the companies (Table 18) that sell hybrid corn seed in Maryland. The entries ranged from currently available hybrids to experimental hybrids that were still under evaluation. In 2000, 58 entries were tested in one of three maturity group tests: (1) early maturity (20 hybrids); (2) mid-maturity (30 hybrids); and (3) full maturity (8 hybrids). Each company designated the maturity for each hybrid and selected the maturity group in which it was tested.

2000 was a record corn production year for Maryland. Abundant and timely rainfall (Table 17) coupled with few excessively hot days during the growing season led to nearly ideal growing conditions. The average yield for the state was an estimated 160 bu/acre. The performance of the entries in the State Corn Hybrid Tests (SCHT) was also very good. Averaged over four locations, the mean yield for each of the three maturity groups was 187 bu/acre (early maturity group), 195 bu/acre (mid-maturity group), and 197.5 bu/acre (full-maturity group), respectively.

An important change in the tests during 2000 was the inclusion of representative check hybrids in each of the maturity group tests. The check hybrids were identified as being widely grown across the state based upon information obtained from Maryland Cooperative Extension County Agricultural Agents. To assist farmers to make the best comparisons possible, it is important to have benchmark hybrids. It is the goal of the Field Crops Program at the University of Maryland to use hybrids that are commonly and widely grown by farmers as those benchmarks. Therefore, four (early maturity group), five (mid-maturity group) and three (full maturity group) hybrids were used as the checks. Only the mean for each group of check

hybrids at each location is reported. The yield means for the checks across the four locations for each of the three maturity groups were: 189 bu/acre (early maturity group), 191 bu/acre (mid-maturity group) and 187.5 bu/ac (full-maturity group), respectively. A comparison of the check hybrids' mean with the mean yield for each of the maturity groups indicated that the overall yield performance for the checks was slightly greater for the early maturity group and less than the average yield performance for the entries in the other two maturity groups.

Basic production information for each location can be found in Table 16. The entries were planted with a Wintersteiger Plotking 2600 Precision Air Planter. The entries were grouped according to maturity, randomized within their appropriate maturity group block and replicated three times per location. Each planted plot was approximately 31 feet long and consisted of four rows that were spaced 30 inches apart. The plots were planted at a rate of 26,500 seeds/acre. Each plot was trimmed to a length of 25 feet (harvest length) prior to the onset of the reproductive growth stage. Harvest plant population counts and lodging scores were collected just prior to harvest. The center two rows of each plot were harvested to obtain a yield measurement using a Massey-Ferguson 8-XP plot combine equipped with a HarvestMaster weighing system that measured and recorded grain weight for each plot, grain moisture content and grain test weight.

The agronomic characteristics measured and reported in this update are yield in bushels/acre at 15.5% moisture content, harvest moisture content, lodging score reported as the percentage of plants either broken below the ear or leaning more than 45 degrees and harvest population in plants/acre. These data can be found in Tables 1-12. A least significant difference (LSD) value is reported for yield for each maturity group in every test where statistically significant differences for that trait were observed among hybrids. This number is a statistical test calculated at the 20 percent probability level. Readers of this report can use the LSD value to compare two hybrids within the same test. If the yield difference between two hybrids is greater than or equal to the LSD value, the reader can be 80% sure that the difference is real. The coefficient of variation (CV) that is reported is a relative measure of the amount of variation at a test site and is an indicator of the degree of precision for that particular test. In these corn hybrid tests, CV values below 15% are an indication that the precision of the test was good in distinguishing differences for yield among hybrids.

The selection of a hybrid based solely upon its performance at one location for one year is not recommended. Instead, it is better to select a hybrid based upon its performance over a number of locations and/or years. In order to compare the performance of each hybrid across the four locations for 2000, relative yield tables (Tables 13-15) are included. Relative yield is the ratio of the yield performance of a hybrid at a location to the mean yield of all the hybrids at that location expressed in percentage. A hybrid with a relative yield consistently greater than 100 was a hybrid that consistently yielded better than the mean yield of all the hybrids within the same maturity group in the tests.

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Acknowledgments

The Field Crops Program would like to recognize the farm staff at each of the four locations (Table 16) for their assistance with land preparation, planting, plot management, harvesting, and equipment maintenance and repair. The contributions of Kevin Conover, Bryan Dillehay, Timothy Ellis, Mark Jabbar, George Jastram, David Justice, F. Ronald Mulford, Lori O'Connor, Cheo Rochelle, and Lewis Smith are recognized for being essential in the successful completion of these tests and are gratefully acknowledged.

Additional Information

The inclusion of entries in the Maryland Corn Hybrid Tests does not constitute an endorsement or recommendation of a specific entry by the University of Maryland. Advertising statements by an individual company about the performance of its entries can be made as long as they are accurate statements about the data as published, with no reference to other companies' hybrids. Statements similar to "See the official Maryland Corn Hybrid Tests Agronomy Update No. 54" or Endorsement or recommendation by the University of Maryland is not implied" must accompany any information that is reproduced. Update No. 54 can be downloaded from the Maryland Cropping Systems webpage: <http://www.agnr.umd.edu/users/nrs/crops>

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Proper citation for this document is: Kratochvil, R.J. and K.G. Grant. 2000 Maryland Corn Hybrid Performance Tests. Agronomy Update No. 54. University of Maryland, Department of Natural Resource Sciences and Landscape Architecture, Maryland Cooperative Extension.

Table 1. Performance of early maturity field corn hybrids grown at Wye Research and Education Center. (2000)

Brand	Hybrid	Yield ¹ Bu/Acre	Harvest Moisture (%)	Lodging ² Score	Harvest population (Plants/acre)
Augusta	4587	222	20	0	22128
Augusta	6462	198	21	0	24161
Augusta	9862	205	20	2	24161
Augusta	9873	198	16	1	22535
Augusta	9884	207	17	0	23348
Cargill	8112	227	21	0	24394
Cargill	7922Bt	212	20	0	24510
Chemgro	7294	201	19	1	22070
Chemgro	7311	221	20	0	25788
Clark Seeds	CL737	224	18	0	24394
DeKalb	DK567	211	16	0	23580
Doebler's	638XYG*	215	18	0	23464
Doebler's	642XP	206	19	1	23813
Garst Seed	8341	220	20	0	23813
Garst Seed	8362	210	18	0	23580
Garst Seed	8464	204	18	0	23348
Garst Seed	8342GLS/IT	197	19	10	25091
Garst Seed	8541IT	214	17	0	25207
Mid-Atlantic	MA9116	225	20	1	24742
Southern States	710	192	17	2	25091
	Mean	210	19	1	23961
	LSD (0.20)	14			
	CV (%)	6.15			
Mean of 4 Check Hybrids ³		200	18	1	24597

¹ All yields are reported at 15.5% moisture.

² % of plants with breakage below ear or > 45° lean.

³ The check hybrids are commonly available and widely grown hybrids of this maturity class. They were selected after polling County Extension Agents about widely grown hybrids. They are not necessarily hybrids that were submitted by the representative companies into this test.

Hybrids suggested for silage production by seed company

Table 2. Performance of mid-maturity field corn hybrids grown at Wye Research and Education Center. (2000)

Brand	Hybrid	Yield ¹ Bu/acre	Harvest Moisture(%)	Lodging ² Score	Harvest Population (Plants/acre)
Agway	AG6001	230	18	0	23580
Agway	AG6004	203	17	1	23000
Agway	AG6191	210	16	1	23000
Agway	AG657Bt	235	17	0	24394
Asgrow	RX708	224	16	0	26949
Asgrow	RX764	227	14	0	24858
Augusta	2062	220	20	1	24742
DeKalb	DK585	193	15	0	25439
DeKalb	DK611	209	16	0	24742
DeKalb	DKC61-24	221	16	0	24510
Doebler's	765XYG*	205	17	0	23929
Doebler's	851XY	218	18	2	23000
Garst Seed	8222IT	238	21	0	24277
Golden Harvest	H-2643	234	18	1	24626
Golden Harvest	H-9229	197	18	1	22419
Golden Harvest	H-9345	210	18	2	25323
NK	N58-D1*	222	21	0	24974
NK	N64-L5	202	16	0	25323
NK	NX7528	227	18	0	24161
Mid-Atlantic	MA9176	222	18	0	25904
Mid-Atlantic	MA9181	238	19	2	25439
Mycogen	2767	250	18	0	24974
Mycogen	2833	215	17	0	24161
Mycogen	2799IMI	197	17	0	24510
Southern States	729CL	214	18	0	24394
Southern States	EXP78351	210	16	0	25555
Southern States	EXP78406	248	19	1	25207
Southern States	EXP80000	217	19	0	24161
Vigoro	V5400	207	17	0	23813
Vigoro	V5510	253	19	0	24858
	Mean	220	18	0	24541
	LSD (0.20)	21			
	CV (%)	8.55			
Mean of 5 Check Hybrids ³		210	17	0	23929

¹ All yields are reported at 15.5% moisture.

² % of plants with breakage below ear or > 45° lean.

³ The check hybrids are commonly available and widely grown hybrids of this maturity class. They were selected after polling County Extension Agents about widely grown hybrids. They are not necessarily hybrids that were submitted by the representative companies into this test.

* Hybrids suggested for silage production by seed company

Table 3. Performance of full-maturity field corn hybrids grown at Wye Research and Education Center. (2000)

Brand	Hybrid	Yield ¹ Bu/Acre	Harvest Moisture (%)	Lodging ² Score	Harvest Population (Plants/acre)
Agway	AG6297Bt	220	17	0	23232
Agway	AG6305	232	19	1	23697
Agway	AG6399Bt	200	17	0	24394
Clark Seeds	CL789	220	20	3	24742
Clark Seeds	CL797	228	21	1	23697
DeKalb	DKC65-25	215	18	0	24626
NK	82-J6*	212	20	0	25207
Vigoro	V5800	229	19	1	25904
	Mean	220	19	1	24437
	LSD (0.20)	32			
	CV (%)	13.69			
Mean of 3 Check Hybrids ³		217	20	1	24064

¹ All yields are reported at 15.5% moisture.

² % of plants with breakage below ear or > 45° lean.

³ The check hybrids are commonly available and widely grown hybrids of this maturity class. They were selected after polling County Extension Agents about widely grown hybrids. They are not necessarily hybrids that were submitted by the representative companies into this test.

* Hybrids suggested for silage production by seed company

Table 4. Performance of early maturity field corn hybrids grown at Lower Eastern Shore Research & Education Center-Poplar Hill Facility. (2000)

Brand	Hybrid	Yield ¹ Bu/Acre	Harvest Moisture (%)	Lodging ² Score	Harvest Population (Plants/acre)
Augusta	4587	203	23	1	23141
Augusta	6462	192	25	0	23192
Augusta	9862	217	24	1	25108
Augusta	9873	189	20	0	23998
Augusta	9884	203	21	1	22688
Cargill	8112	243	25	0	26318
Cargill	7922Bt	231	24	0	26923
Chemgro	7294	220	20	1	22788
Chemgro	7311	239	24	0	27023
Clark Seeds	CL737	220	21	0	26771
DeKalb	DK567	231	19	0	24301
Doebler's	638XYG*	249	23	0	25007
Doebler's	642XP	196	22	2	25108
Garst Seed	8341	196	23	0	24704
Garst Seed	8362	236	22	1	25713
Garst Seed	8464	240	22	1	24603
Garst Seed	8342GLS/IT	247	22	1	24049
Garst Seed	8541IT	198	21	2	24503
Mid-Atlantic	MA9116	235	24	0	26721
Southern States	710	234	21	1	26469
	Mean	217	22	1	24956
	LSD (0.20)	36			
	CV (%)	14.10			
Mean of 4 Check Hybrids ³		229	21	1	25511

¹ All yields are reported at 15.5% moisture.

² % of plants with breakage below ear or > 45° lean.

³ The check hybrids are commonly available and widely grown hybrids of this maturity class. They were selected after polling County Extension Agents about widely grown hybrids. They are not necessarily hybrids that were submitted by the representative companies into this test.

* Hybrids suggested for silage production by seed company

Table 5. Performance of mid-maturity field corn hybrids grown at Lower Eastern Shore Research & Education Center-Poplar Hill Facility. (2000)

Brand	Hybrid	Yield ¹ Bu/Acre	Harvest Moisture (%)	Lodging ² Score	Harvest Population (Plants/acre)
Agway	AG6001	250	21	1	26116
Agway	AG6004	204	21	0	23696
Agway	AG6191	221	20	0	24805
Agway	AG657Bt	175	22	1	22587
Asgrow	RX708	239	20	0	26015
Asgrow	RX764	241	21	0	27225
Augusta	2062	234	25	1	25511
DeKalb	DK585	244	18	1	26519
DeKalb	DK611	233	21	0	26015
DeKalb	DKC61-24	234	21	4	25007
Doebler's	765XYG*	239	22	0	26217
Doebler's	851XY	218	23	0	24503
Garst Seed	8222IT	243	24	4	25914
Golden Harvest	H-2643	237	25	1	25713
Golden Harvest	H-9229	232	21	2	24402
Golden Harvest	H-9345	209	22	2	24805
NK	N58-D1*	234	19	0	25914
NK	N64-L5	232	20	0	25511
NK	NX7528	228	23	1	24906
Mid-Atlantic	MA9176	221	21	2	26116
Mid-Atlantic	MA9181	234	24	0	26116
Mycogen	2767	232	21	1	26217
Mycogen	2833	248	22	0	25914
Mycogen	2799IMI	212	22	1	25410
Southern States	729CL	240	22	0	25713
Southern States	EXP78351	217	21	1	23797
Southern States	EXP78406	238	22	0	25914
Southern States	EXP80000	232	24	0	24200
Vigoro	V5400	227	21	0	24805
Vigoro	V5510	243	22	0	25309
	Mean	230	22	1	25363
	LSD (0.20)	18			
	CV (%)	7.16			
Mean of 5 Check Hybrids ³		225	22	0	25168

¹ All yields are reported at 15.5% moisture.

² % of plants with breakage below ear or > 45° lean.

³ The check hybrids are commonly available and widely grown hybrids of this maturity class. They were selected after polling County Extension Agents about widely grown hybrids. They are not necessarily hybrids that were submitted by the representative companies into this test.

* Hybrids suggested for silage production by seed company

Table 6. Performance of full-maturity field corn hybrids grown at Lower Eastern Shore Research & Education Center - Poplar Hill Facility. (2000)

Brand	Hybrid	Yield ¹ Bu/acre	Harvest Moisture (%)	Lodging ² Score	Harvest Population (Plants/acre)
Agway	AG6297Bt	225	23	0	24200
Agway	AG6305	240	22	0	25612
Agway	AG6399Bt	240	21	0	25612
Clark Seeds	CL789	245	23	2	26217
Clark Seeds	CL797	252	24	2	25713
DeKalb	DKC65-25	208	20	2	26217
NK	82-J6*	235	24	1	26116
Vigoro	V5800	235	24	1	25813
	Mean	235	23	1	25687
	LSD (0.20)	26.5			
	CV (%)	10.64			
Mean of 3 Check Hybrids ³		221	23	1	25108

¹ All yields are reported at 15.5% moisture.

² % of plants with breakage below ear or > 45° lean.

³ The check hybrids are commonly available and widely grown hybrids of this maturity class. They were selected after polling County Extension Agents about widely grown hybrids. They are not necessarily hybrids that were submitted by the representative companies into this test.

* Hybrids suggested for silage production by seed company

Table 7. Performance of early maturity field corn hybrids grown at Western Maryland Research and Education Center near Keedysville, Maryland. (2000)

Brand	Hybrid	Yield ¹ Bu/Acre	Harvest Moisture (%)	Lodging ² Score	Harvest Population (Plants/Acre)
Augusta	4587	159	18	5	21083
Augusta	6462	147	25	5	23580
Augusta	9862	143	25	11	23232
Augusta	9873	160	19	4	22767
Augusta	9884	160	21	5	24510
Cargill	8112	145	24	4	23580
Cargill	7922Bt	163	26	1	25091
Chemgro	7294	145	22	2	20444
Chemgro	7311	153	23	14	25207
Clark Seeds	CL737	176	21	3	24510
DeKalb	DK567	151	18	4	23000
Doebler's	638XYG*	155	22	1	22884
Doebler's	642XP	158	20	5	22767
Garst Seed	8341	119	21	8	22070
Garst Seed	8362	144	23	2	23697
Garst Seed	8464	155	21	4	22419
Garst Seed	8342GLS/IT	140	20	2	23464
Garst Seed	8541IT	140	18	4	23116
Mid-Atlantic	MA9116	166	21	11	23929
Southern States	710	160	20	3	24626
	Mean	152	21	5	23299
	LSD (0.20)	13			
	CV(%)	7.32			
Mean of 4 Check Hybrids ³		156	21	3	24219

¹ All yields are reported at 15.5% moisture.

² % of plants with breakage below ear or > 45° lean.

³ The check hybrids are commonly available and widely grown hybrids of this maturity class. They were selected after polling County Extension Agents about widely grown hybrids. They are not necessarily hybrids that were submitted by the representative companies into this test.

* Hybrids suggested for silage production by seed company

Table 8. Performance of mid-maturity field corn hybrids grown at Western Maryland Research and Education Center near Keedysville, Maryland. (2000)

Brand	Hybrid	Yield ¹ Bu/Acre	Harvest Moisture (%)	Lodging ² Score	Harvest Population (Plants/acre)
Agway	AG6001	167	20	5	23697
Agway	AG6004	155	22	5	21838
Agway	AG6191	152	22	2	21838
Agway	AG657Bt	174	21	0	23464
Asgrow	RX708	165	20	2	23232
Asgrow	RX764	160	21	3	23580
Augusta	2062	153	28	8	22070
DeKalb	DK585	159	19	2	22419
DeKalb	DK611	152	19	2	22767
DeKalb	DKC61-24	154	21	12	22884
Doebler's	765XYG*	155	26	0	21606
Doebler's	851XY	154	23	3	21722
Garst Seed	8222IT	142	27	11	24045
Golden Harvest	H-2643	159	27	10	24394
Golden Harvest	H-9229	162	21	5	23000
Golden Harvest	H-9345	143	20	14	23871
Mid-Atlantic	MA9176	178	24	7	24510
Mid-Atlantic	MA9181	151	21	8	25904
Mycogen	2767	174	21	1	24161
Mycogen	2833	188	24	4	24858
Mycogen	2799IMI	179	24	1	24161
NK	N64-L5	164	20	2	21838
NK	NX7528	169	25	0	23929
NK	N58-D1*	173	21	0	24626
Southern States	729CL	152	23	5	23697
Southern States	EXP78351	171	24	3	24045
Southern States	EXP78406	164	25	9	24510
Southern States	EXP80000	157	24	7	21490
Vigoro	V5400	164	21	10	24161
Vigoro	V5510	164	22	4	22419
	Mean	162	22	5	23358
	LSD (0.20)	16			
	CV (%)	8.84			
Mean of 5 Check Hybrids ³		164	22	2	23790

¹ All yields are reported at 15.5% moisture.

² % of plants with breakage below ear or > 45° lean.

³ The check hybrids are commonly available and widely grown hybrids of this maturity class. They were selected after polling County Extension Agents about widely grown hybrids. They are not necessarily hybrids that were submitted by the representative companies into this test.

* Hybrids suggested for silage production by seed company

Table 9. Performance of full maturity field corn hybrids grown at Western Maryland Research and Education Center near Keedysville, Maryland. (2000)

Brand	Hybrid	Yield ¹ Bu/acre	Harvest Moisture (%)	Lodging ² Score	Harvest Population (Plants/acre)
Agway	AG6297Bt	158	23	1	21606
Agway	AG6305	162	23	3	23929
Agway	AG6399Bt	173	23	0	22825
Clark Seeds	CL789	151	23	6	23697
Clark Seeds	CL797	150	22	6	23697
DeKalb	DKC65-25	160	23	3	23000
NK	82-J6*	184	27	1	24626
Vigoro	V5800	163	24	8	24858
	Mean	163	24	4	23530
	LSD (0.20)	22			
	CV (%)	11.90			
Mean of 3 Check Hybrids ³		146	24	3	23426

¹ All yields are reported at 15.5% moisture.

² % of plants with breakage below ear or > 45° lean.

³ The check hybrids are commonly available and widely grown hybrids of this maturity class. They were selected after polling County Extension Agents about widely grown hybrids. They are not necessarily hybrids that were submitted by the representative companies into this test.

* Hybrids suggested for silage production by seed company

Table 10. Performance of early maturity field corn hybrids grown at Central Maryland Research and Education Center - Clarksville Facility. (2000)

Brand	Hybrid	Yield ¹ Bu/Acre	Harvest Moisture (%)	Lodging ² Score	Harvest Population (Plants/acre)
Augusta	4587	161	23	6	19747
Augusta	6462	158	25	5	23464
Augusta	9862	166	25	6	22884
Augusta	9873	177	20	1	23000
Augusta	9884	166	22	9	21838
Cargill	8112	176	24	5	23232
Cargill	7922Bt	186	26	1	23697
Chemgro	7294	150	23	3	19515
Chemgro	7311	177	23	10	25323
Clark Seeds	CL737	176	21	4	23232
DeKalb	DK567	166	19	5	24394
Doebler's	638XYG*	186	24	1	21722
Doebler's	642XP	156	21	4	20909
Garst Seed	8341	164	23	6	22535
Garst Seed	8362	169	24	5	23116
Garst Seed	8464	156	23	4	20096
Garst Seed	8342GLS/IT	167	22	5	23929
Garst Seed	8541IT	154	20	4	21490
Mid-Atlantic	MA9116	152	24	7	23348
Southern States	710	189	20	2	24858
	Mean	168	23	5	22616
	LSD (0.20)	13			
	CV (%)	7.32			
Mean of 4 Check Hybrids ³		170	22	4	22985

¹ All yields are reported at 15.5% moisture.

² % of plants with breakage below ear or > 45° lean.

³ The check hybrids are commonly available and widely grown hybrids of this maturity class. They were selected after polling County Extension Agents about widely grown hybrids. They are not necessarily hybrids that were submitted by the representative companies into this test.

* Hybrids suggested for silage production by seed company

Table 11. Performance of mid-maturity field corn hybrids grown at Central Maryland Research and Education Center - Clarksville Facility. (2000)

Brand	Hybrid	Yield ¹ Bu/Acre	Harvest Moisture (%)	Lodging ² Score	Harvest Population (Plants/Acre)
Agway	AG6001	166	23	5	21838
Agway	AG6004	163	20	8	21257
Agway	AG6191	158	20	5	22535
Agway	AG657Bt	169	22	0	21141
Asgrow	RX708	152	19	5	23697
Asgrow	RX764	152	22	10	21257
Augusta	2062	170	27	4	22535
DeKalb	DK585	172	20	6	22303
DeKalb	DK611	169	18	8	23116
DeKalb	DKC61-24	171	20	2	23464
Doebler's	765XYG*	172	27	0	22651
Doebler's	851XY	166	24	6	20560
Garst Seed	8222IT	161	27	8	23000
Golden Harvest	H-2643	179	28	4	20909
Golden Harvest	H-9229	173	20	4	20560
Golden Harvest	H-9345	164	22	2	22419
Mid-Atlantic	MA9176	169	21	6	23580
Mid-Atlantic	MA9181	166	25	4	24510
Mycogen	2767	179	23	0	23232
Mycogen	2833	196	22	3	23232
Mycogen	2799IMI	173	23	0	21780
NK	N64-L5	179	20	3	24394
NK	N58-D1*	182	22	0	22884
NK	NX7528	182	26	0	22419
Southern States	729CL	156	26	3	22767
Southern States	EXP78351	172	22	7	22825
Southern States	EXP78406	163	27	15	22419
Southern States	EXP80000	157	24	7	21954
Vigoro	V5400	172	21	3	22419
Vigoro	V5510	170	24	7	24858
	Mean	169	23	4	22551
	LSD (0.20)	16			
	CV (%)	8.84			
Mean of 5 Check Hybrids ³		166	23	6	22140

¹ All yields are reported at 15.5% moisture.

² % of plants with breakage below ear or > 45° lean.

³ The check hybrids are commonly available and widely grown hybrids of this maturity class. They were selected after polling County Extension Agents about widely grown hybrids. They are not necessarily hybrids that were submitted by the representative companies into this test.

* Hybrids suggested for silage production by seed company

Table 12. Performance of full-maturity field corn hybrids grown at Central Maryland Research and Education Center - Clarksville Facility. (2000)

Brand	Hybrid	Yield ¹ Bu/Acre	Harvest Moisture (%)	Lodging ² Score	Harvest Population (Plants/Acre)
Agway	AG6297Bt	180	23	0	21490
Agway	AG6305	161	23	11	24510
Agway	AG6399Bt	189	23	0	22303
Clark Seeds	CL789	144	27	4	21490
Clark Seeds	CL797	160	25	9	24277
DeKalb	DKC65-25	170	22	8	22651
NK	82-J6*	204	27	0	25555
Vigoro	V5800	166	22	9	24394
	Mean	172	24	5	23334
	LSD (0.20)	22			
	CV (%)	11.9			
Mean of 3 Check Hybrids ³		166	24	6	23232

¹ All yields are reported at 15.5% moisture.

² % of plants with breakage below ear or > 45° lean.

³ The check hybrids are commonly available and widely grown hybrids of this maturity class. They were selected after polling County Extension Agents about widely grown hybrids. They are not necessarily hybrids that were submitted by the representative companies into this test.

* Hybrids suggested for silage production by seed company

Table 13. Relative yield (%)¹ of corn hybrids compared to the mean yield of all entries in the early maturity group at each location in Maryland in 2000.

Brand	Hybrid	Wye	Poplar Hill	Clarksville	Keedysville
Augusta	4587	105*	93	96	105*
Augusta	6462	94	88	94	97
Augusta	9862	98	100*	99	94
Augusta	9873	94	87	105*	105*
Augusta	9884	98	93	99	105*
Cargill	8112	108*	112*	105*	96
Cargill	7922Bt	101	106*	111*	107*
Chemgro	7294	96	101*	89	95
Chemgro	7311	105*	110*	106*	101
Clark Seeds	CL737	106*	102*	105*	116*
DeKalb	DK567	100	115*	99	99
Doebler's	638XYG	102*	116*	111*	102*
Doebler's	642XP	98	90	93	104*
Garst Seed	8341	105*	91	98	78
Garst Seed	8362	100	110*	100	95
Garst Seed	8464	97	114*	93	102*
Garst Seed	8342GLS/IT	94	91	100	92
Garst Seed	8541IT	102*	91	92	92
Mid-Atlantic	MA9116	107*	106*	91	109*
Southern States	710	91	108*	113*	106*
Mean (bu/a)		210	217	168	152

¹ Relative yield= (hybrid mean/grand mean) x 100.

*Indicates that the relative yield of an entry was not significantly different (LSD 0.20) from the highest yielding entry at that location.

Table 14. Relative yield (%)¹ of corn hybrids compared to the mean yield of all entries in the mid-maturity group at each location in Maryland in 2000.

Brand	Hybrid	Wye	Poplar Hill	Clarksville	Keedysville
Agway	AG6001	105	109*	98	104
Agway	AG6004	92	89	96	96
Agway	AG6191	96	96	94	94
Agway	AG657Bt	107*	76	100	108
Asgrow	RX708	102	104*	90	102
Asgrow	RX764	103	105*	90	99
Augusta	2062	100	102*	101	94
DeKalb	DK585	88	106*	102	98
DeKalb	DK611	95	101*	100	94
DeKalb	DKC61-24	100	102*	101	95
Doebler's	765XYG	93	104*	102	96
Doebler's	851XY	99	95	98	95
Garst Seed	8222IT	108*	106*	95	87
Golden Harvest	H-2643	106*	103*	106	99
Golden Harvest	H-9229	89	101	102	100
Golden Harvest	H-9345	95	91	97	88
Mid-Atlantic	MA9176	101	96	100	110
Mid-Atlantic	MA9181	108*	102*	98	93
Mycogen	2767	114*	101	106	108
Mycogen	2833	98	108*	116*	116
Mycogen	2799IMI	90	92	102	110
NK	N64-L5	101	102*	106	101
NK	NX7528	92	101	107*	104
NK	N58-D1	103	99	108*	107
Southern States	729CL	94	104*	93	94
Southern States	EXP78351	115*	94	101	106
Southern States	EXP78406	97	104*	96	102
Southern States	EXP80000	95	95	93	97
Vigoro	V5400	113*	99	102	101
Vigoro	V5510	99	106*	101	102
Mean (bu/a)		220	230	169	162

¹ Relative yield= (hybrid mean/grand mean) x 100.

*Indicates that the relative yield of an entry was not significantly different (LSD 0.20) from the highest yielding entry at that location.

Table 15. Relative yield (%)¹ of corn hybrids compared to the mean yield of all entries in the full maturity group at each location in Maryland in 2000.

Brand	Hybrid	Wye	Poplar Hill	Clarksville	Keedysville
Agway	AG6297Bt	100*	96*	105	97
Agway	AG6305	106*	102*	94	100
Agway	AG6399Bt	91*	102*	110*	106*
Clark Seeds	CL789	100*	104*	84	93
Clark Seeds	CL797	104*	107*	93	92
DeKalb	DKC65-25	97*	88	99	99
NK	82-J6	98*	100*	119*	113*
Vigoro	V5800	104*	100*	96	100
Mean (bu/a)		220	235	172	163

¹ Relative yield= (hybrid mean/grand mean) x 100.

*Indicates that the relative yield of an entry was not significantly different (LSD 0.20) from the highest yielding entry at that location.

Table 16. Corn Hybrid trial plot information

Wye Research and Education Center, Queenstown, Maryland.

Soil type:	Mattapeake silt loam
Previous crop:	Soybeans
Fertilizer:	Broadcast 200 lbs./acre 16-8-8 N-P ₂ O ₅ -K ₂ O on May 03, 2000 Sidedress with 133 lbs./acre N as 30% UAN on June 8, 2000
Herbicides:	Pre-emergent--2 qt./acre Harness Xtra 0.8 lb./acre Aatrex 90
Insecticides:	2.0 oz./acre Warrior
Tillage:	Conventional
Planted:	May 03, 2000
Harvested:	October 4-5, 2000
Farm Crew:	Lew Smith Mark Sultenfuss Reese Stafford

Table 16, continued.

Lower Eastern Shore Research and Education Center Poplar Hill Facility,
Quantico, Maryland.

Soil Type:	Mattapex silt loam
Previous Crop:	Wheat/double-cropped no-till soybeans
Fertilizer:	30-20-45-24 lb. N-P ₂ O ₅ -K ₂ O-S/acre Sidedressed w/120 lbs./acre N approximately 3 weeks after planting. 2000 lbs./acre Hi-calcium Lime Fall 1999.
Herbicides:	Pre-emergence--1.4 lb./acre Atrazine 1.0 lb./acre Princep 1.0 qt./acre Dual. Post-emergence--Stinger @0.6 pt./acre (approximately 6" tall)
Insecticides:	None
Tillage:	Minimum
Planted:	May 05, 2000
Harvested:	September 30, 2000
Farm Crew:	Ron Mulford Andy Anderson Craig Anderson Dover Dickerson

Table 16 continued.

Central Maryland Research and Education Center, Clarksville Facility
Clarksville, Maryland.

Soil type:	Delanco silt loam
Previous crop:	Soybeans
Fertilizer:	160 lb. N/acre as 30% UAN applied with herbicide at planting.
Herbicides:	Pre-emergent-- 2 qt./acre Bicep II magnum + 1 pt./acre Activator (surfactant); 1 pt./acre Gramoxone Extra. Post-emergent (June 9, 2000): 2 pt./acre Marksman
Insecticides:	None
Tillage:	Minimum
Planted:	May 12, 2000
Harvested:	October 14, 2000
Farm Crew:	David Justice Tim Ridgley

Table 16 continued.

Western Maryland Research and Education Center, Keedysville, Maryland.

Soil type: Hagerstown silt loam

Previous crop: Soybeans

Fertilizer: 120 lb. N/acre applied as urea on April 10,2000.

Herbicides: Pre-emergent (May 16, 2000)--2.4 qt./acre Bicep Max
Post emergent (June 14, 2000)--2.3 oz./acre Permit
0.5 pt./acre Banvel

Insecticides: None

Tillage: Conventional

Planted: May 13, 2000

Harvested: October 23, 2000

Farm Crew: Tim Ellis
David Wyand, Jr.

Table 17. Growing Season Rainfall (inches)

	Wye	Poplar Hill	Clarksville	Keedysville
April	3.79	3.56	4.29	2.88
May	3.99	2.15	2.94	2.30
June	3.82	5.90	3.22	4.06
July	6.81	5.02	3.89	6.67
August	2.85	3.88	2.63	2.90
September	4.72	3.41	6.13	5.36
Total	25.98	23.92	23.11	24.17

Table 18. Participating companies in the 2000 Maryland field corn hybrid trials.

Brand	Address
Agway	Agway Farm Seeds, 6835 Tully-Truxton Rd Tully, NY 13159
Asgrow	Monsanto, 3100 Sycamore Rd., DeKalb, IL 60115
Augusta	Augusta Seed, 106 Fairburn Rd., Mt. Solon, VA 22843
Cargill	Cargill Hybrid Seeds, PO Box 5645 Minneapolis, MN 55440
Chemgro	Chemgro Seeds, 1550 State Street East Petersburg, PA 17520-0218
Clark's	Clark Seeds, Inc., PO Box 219, Kenton, DE 19955
DeKalb	Monsanto, 3100 Sycamore Rd., DeKalb, IL 60115
Doebler's	Doebler's Hybrids, Inc., RR1 Box 424 Jersey Shore, PA 17740
Garst	Garst Seed Company, PO Box 414 Providence Forge, VA 23140
Golden Harvest	Agriculver, 3900 McIntyre Rd., Trumansburg, NY 14886
Mid-Atlantic	Mid-Atlantic Seed 2083 Springwood Rd., #163 York, PA 17403
Mycogen	Mycogen Seeds, 1340 Corporate Center Curve Eagan, MN 55121
NK	Hoffman Seeds, Inc. 144 Main St., Landisville, PA 17538
Southern States	Southern States, PO Box 26234, Richmond, VA 23260
Vigoro	Royster-Clark, Inc. 70 N. Market St. Mt. Sterling, OH 43143