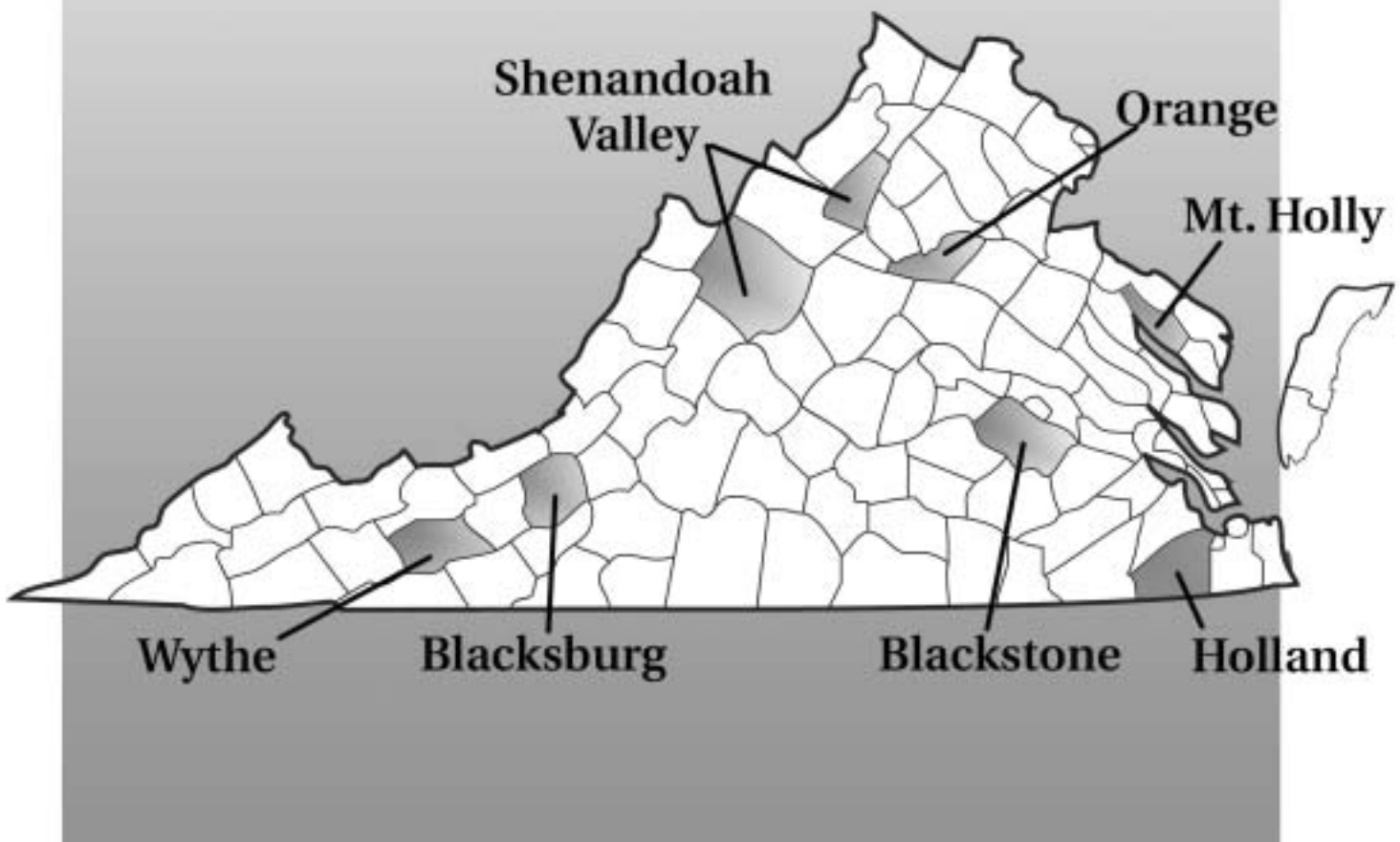


# Virginia Corn Hybrid & Management Trials 2002



VIRGINIA POLYTECHNIC INSTITUTE  
AND STATE UNIVERSITY

Virginia Cooperative Extension

*Knowledge for the Commonwealth*



VIRGINIA STATE UNIVERSITY

Publication 424-031  
Revised 2003

# INDEX TO VIRGINIA CORN HYBRID AND MANAGEMENT TRIALS 2002

## SECTION I. VIRGINIA CORN HYBRID TRIALS IN 2002.

Companies participating in the 2002 Corn Hybrid Trials	2
2002 Virginia Corn Hybrid Plot Information and Management Practices	3
Table 1. 2002 Relative Yield of hybrids entered in three or more locations.	4-5
Table 2. Two-Year Average Relative Yield of hybrids entered in the same three or more locations.	6
Table 3. Three-Year Average Relative Yield of hybrids entered in the same three or more locations.	7
Table 4. Yields at Holland, VA in 2002.	8-9
Table 5. Two-year average yields at Holland, VA in 2001 and 2002.	10
Table 6. Yields at Mt. Holly, VA in 2002.	11-12
Table 7. Two-year average yields at Mt. Holly, VA in 2001 and 2002.	13
Table 8. Three-year average yields at Mt. Holly, VA in 2000, 2001, and 2002.	14
Table 9. Yields at Mt. Holly, VA under irrigation in 2002.	15-16
Table 10. Two-year average yields at Mt. Holly, VA under irrigation in 2001 and 2002.	17
Table 11. Three-year average yields at Mt. Holly, VA under irrigation in 2000, 2001, and 2002.	18
Table 12. Yields at Blackstone, VA in 2001 (no yields reported for 2002.)	19
Table 13. Two-year average yields at Blackstone, VA in 2000 and 2001.	20
Table 14. Yields at Orange, VA in 2002.	21-22
Table 15. Two-year average yields at Orange, VA in 2001 and 2002.	23
Table 16. Three-year average yields at Orange, VA in 2000, 2001, and 2002.	24
Table 17. Yields at Shenandoah Valley, VA in 2002.	25-26
Table 18. Two-year average yields at Shenandoah Valley, VA in 2001 and 2002.	26-27
Table 19. Three-year average yields at Shenandoah Valley, VA in 2000, 2001, and 2002.	27
Table 20. Yields at Blacksburg, VA in 2002.	28
Table 21. Two-year average yields at Blacksburg, VA in 2001 and 2002.	29
Table 22. Three-year average yields at Blacksburg, VA in 2000, 2001, and 2002.	29
Table 23. Yields at Wythe, VA in 2002.	30
Table 24. Two-year average yields at Wythe, VA in 2001 and 2002.	31
Table 25. Three-year average yields at Wythe, VA in 2000, 2001, and 2002.	31

## SECTION II. VIRGINIA CORN SILAGE STUDIES IN 2002.

Table 26. Corn silage varieties at the Shenandoah Valley in VA in 2002.	33-34
Table 27. Two-year averages of corn silage varieties at the Shenandoah Valley in VA in 2001 and 2002.	35-36
Table 28. Three-year averages of corn silage varieties at the Shenandoah Valley in VA in 2000, 2001, and 2002.	36-37
Table 29. Corn silage varieties at Blackstone, VA in 2002.	38-39
Table 30. Two-year averages of corn silage varieties at Blackstone, VA in 2001 and 2002.	39-40
Table 31. Three-year averages of corn silage varieties at Blackstone, VA in 2000, 2001, and 2002.	40
Table 32. Corn silage varieties at Wythe County, VA in 2002.	41-42
Table 33. Two-year averages of corn silage varieties at Wythe County, VA in 2001 and 2002.	42-43
Table 34. Three-year averages of corn silage varieties at Wythe County, VA in 2000, 2001, and 2002.	43

## SECTION III. GRAY LEAF SPOT STUDIES IN 2002.

Table 32. Resistance and agronomic characters of corn hybrids under natural gray leaf spot disease pressure, Montgomery Co., VA, 2002.	44-45
Table 33. Resistance and agronomic characters of corn hybrids under natural gray leaf spot disease pressure, Wythe Co., VA., 2002.	46-47
Table 34. Evaluation of foliar fungicides for the control of gray leaf spot of corn in VA, 2002.	48-49

## SECTION I. VIRGINIA CORN HYBRID TRIALS IN 2002.

### Companies Participating in the 2002 Corn Hybrid Trials

Company	Brand	Address
AUGUSTA SEED CORPORATION	AUGUSTA	106 FAIRBURN RD MT SOLON VA 22843
BIO GENE	BIO GENE	5491 TRI COUNTY HWY SARDINIA OH 45171
DOEBLER'S PA. HYBRIDS INC.	DOEBLER'S	202 TIADAGHTON AVE JERSEY SHORE PA 17740
GARST SEED CO.	GARST	2369 330TH SLATER IA 50244
HYTEST SEEDS	HYTEST	PO BOX 3147 SHIREMANSTOWN PA 17011
MID-ATLANTIC SEEDS	MID-ATLANTIC	204 ST CHARLES WAY #163E YORK PA 17403
MONSANTO	DEKALB AND ASGROW	3100 SYCAMORE RD DEKALB IL 60115
PIONEER HI-BRED INT'L., INC.	PIONEER BRAND	800 TIFFANY BLVD SUITE 200 ROCKY MOUNT NC 27804
ROYSTER-CLARK, INC.	VIGORO BRAND	70 NORTH MARKET ST MT STERLING OH 43143
SOUTHERN STATES COOP., INC.	SOUTHERN STATES	PO BOX 26234 RICHMOND VA 23260
SYNGENTA SEEDS, INC.	NK BRAND	PO BOX 959 MINNEAPOLIS MN 55440
WILSON GENETICS, LLC	ZIMMERMAN	PO BOX 716 HARLAN IA 51537

### VIRGINIA CORN HYBRID TRIALS IN 2002

Coordinated by H. Behl, D. E. Brann, and E. G. Rucker  
Department of Crop and Soil Environmental Sciences  
Virginia Tech, Blacksburg, VA

Other contributors include: B. Ashburn; B. Beahm; T. Custis; W.B. Wilkinson; R.R. Wilmouth; D.E. Starner; D. Dixon; D. Danner; Scott Jerrell; A. Overbay; the Huffard family; J. Wooge; T. Stanley; C. Lawrence; the Jordan family.

Performance trials of commercial corn hybrids were conducted at seven locations in Virginia in 2002. One location consisted of an irrigated and a non-irrigated test. Test weights were taken with a GrainGauge manufactured by HarvestMaster and calibrated over six years of testing. A list of the companies participating in the trials is shown above. All hybrids entered in the Virginia trials were those submitted by commercial companies. The locations at which particular hybrids were entered were specified by the company. Companies entering hybrids were charged a fee for each hybrid per location to support the Corn Performance Trials.

All locations except Orange were planted with a Wintersteiger PlotKing 2600. Orange was planted by hand and thinned to the desired population. All locations except Orange were harvested with a Massey-Ferguson 8XP plot combine. Orange was hand-harvested and shelled to obtain grain weights. Yields have been adjusted to 15% moisture.

### Yield Differences

Experimental plots vary in yield and other measurements due to location in the field and other factors which cannot be controlled. Statistics given in the tables are intended to help the reader make valid comparisons between hybrids. The magnitude of differences which may have been due to uncontrollable variation has been computed for the data and listed at the bottom of columns as the LSD (.05) (least significant difference with 95% confidence). Differences less than the LSD are assumed not to be real differences with 95% confidence.

### Choice of Hybrids

When making hybrid selections it is important to realize that hybrids differ in their performance under different environments. Some hybrids are more adapted to a wide range of environments. Hybrid performance may vary with year and location variations in rainfall, temperature, pests and other environmental variables. In these experiments, many hybrids have essentially the same yield, and great care should be taken in interpreting the results of a single year's tests, especially at only one location. For these reasons it is important, whenever possible, to also look at a hybrid's average across locations when making hybrid selections. Multi-year averages give even greater confidence to hybrid performance decisions. The relative yield tables compare the yield of a hybrid to the average yield of all hybrids in the test. These tables are an excellent summary of yield potential compared to other hybrids.

*Appreciation is expressed to the Virginia Corn Check-Off Board for financial support of this research and the Virginia Extension corn program.*

**2002 VIRGINIA CORN HYBRID PLOT INFORMATION**  
(Rates are on a per acre basis.)

<b>Blacksburg</b>	<b>Whitethorne Farm</b>
<b>Land Prep:</b>	rip-plowed, moldboard-plowed, disked (2), finished/smoothed
<b>Planted:</b>	April 24, 2002
<b>Harvested:</b>	October 14, 2002
<b>Pesticide:</b>	4.4 lb Force 3G® at planting; 1.5 lb Atrazine + 1 lb Simtrotol 90® + 4.5 lb Partner® preplant incorporated April 24, 2002
<b>Fertilizer:</b>	40-60-60 preplant incorporated April 23, 2002 + 20 gal 15-15-0 + S + micronutrients at planting + 140 lb N using UAN sidedressed July 16, 2002
<b>Plot Size:</b>	2 rows 25' x 30" 4 replications
<b>Soil Type:</b>	Hayter
<b>Cooperator:</b>	J. Wooge

<b>Blackstone</b>	<b>Southern Piedmont Agricultural Research &amp; Extension Center</b>
<b>Planted:</b>	April 16, 2002
<b>Harvested:</b>	not harvested due to severe drought
<b>Pesticide:</b>	4.4 lb Force 3G® at planting + 1.5 qt Bladex 4L + 1 qt Dual II April 16, 2002
<b>Fertilizer:</b>	1 ton lime February 26, 2002 + 1000 lb 10-10-10 preplant incorporated April 8, 2002 + 20 gal 15-15-0 + S + micronutrients at planting + 80 lb N May 28, 2002
<b>Plot Size:</b>	2 rows 25' x 30" 4 replications
<b>Soil Type:</b>	Chesterfield-Mayodan-Bourne complex
<b>Cooperators:</b>	W. B. Wilkinson and R. R. Wilmouth

<b>Holland</b>	<b>Tidewater Agricultural Research &amp; Extension Center</b>
<b>Land Prep:</b>	rip-stripped (2) 18" March 28, 2002; disked April 11, 2002
<b>Planted:</b>	April 12, 2002
<b>Harvested:</b>	September 18, 2002
<b>Pesticide:</b>	3 qt Lariat® preplant incorporated April 11, 2002 + 4.4 lb Force 3G® at planting
<b>Fertilizer:</b>	300 lb 5-10-30 March 16, 2002 + 80 units N April 11, 2002 + 20 gal 15-15-0 + S + micronutrients at planting + 85 units N using UAN sidedressed May 22, 2002
<b>Irrigation:</b>	1" June 17, June 18, and July 2, 2002 (3" total)
<b>Plot Size:</b>	2 rows 35' x 30" 4 replications
<b>Soil Type:</b>	Eunola, Dragston, and Nansemond
<b>Cooperators:</b>	Bobby Ashburn

<b>Mt Holly (dry)</b>	<b>Virginia Crop Improvement Association Foundation Seed Farm</b>
<b>Land Prep:</b>	ripped, worked and planted conventionally
<b>Planted:</b>	April 17, 2002
<b>Harvested:</b>	September 3, 2002
<b>Pesticide:</b>	2 qt Bicep II Magnum® + 1 qt Princep® preplant incorporated + 4.4 lb Force 3G® at planting
<b>Fertilizer:</b>	50 lb N + 50 lb P + 70 lb K preplant incorporated + 20 gal 15-15-0 + S + micronutrients at planting + 80 lb N sidedressed May 21, 2002
<b>Plot Size:</b>	2 rows 25' x 30" 4 replications
<b>Soil Type:</b>	State fine sandy loam
<b>Cooperator:</b>	Bruce Beahm

<b>Mt Holly (irr)</b>	<b>Virginia Crop Improvement Association Foundation Seed Farm</b>
<b>Land Prep:</b>	ripped, worked and planted conventionally
<b>Planted:</b>	April 17, 2002
<b>Harvested:</b>	September 5, 2002
<b>Pesticide:</b>	2 qt Bicep II Magnum® + 1 qt Princep® preplant incorporated + 4.4 lb Force 3G® at planting
<b>Fertilizer:</b>	50 lb N + 50 lb P + 70 lb K preplant incorporated + 20 gal 15-15-0 + S + micronutrients at planting; 140 lb N May 25, 2002
<b>Irrigation:</b>	(8.6" total) 0.5" May 29 0.6" June 3 0.6" June 24

	1.0" July 3 1.0" July 8 1.0" July 13 1.0" July 16 1.0" July 23 0.7" July 31 0.7" August 6 0.5" August 15
<b>Plot Size:</b>	2 rows 25' x 30" 4 replications
<b>Soil Type:</b>	State fine sandy loam
<b>Cooperator:</b>	Bruce Beahm

<b>Orange</b>	<b>Northern Piedmont Agricultural Research &amp; Extension Center</b>
<b>Planted:</b>	May 8, 2002
<b>Harvested:</b>	October 10-15, 2002
<b>Pesticide:</b>	1.5 pt Frontier® + 2 qt Aatrex® 4L preplant incorporated May 7, 2002
<b>Fertilizer:</b>	1000 lb 10-10-10-6S May 7, 2002 + 100 lb N sidedressed June 13, 2002
<b>Plot Size:</b>	1 row 30' x 30" 4 replications
<b>Soil Type:</b>	Davidson silty clay loam
<b>Cooperators:</b>	D. E. Starnner and D. Dixon

<b>Wythe County</b>	<b>Huffard Farm</b>
<b>Planted:</b>	May 9, 2002
<b>Harvested:</b>	October 22, 2002
<b>Pesticide:</b>	2.2 qt Bicep II Magnum® + 1 qt Roundup Ultra Max® + 3 oz Warrior® May 2, 2002 + 4.4 lb Force 3G® at planting
<b>Fertilizer:</b>	68-96-206 from manure September 28, 2001 + 50 units UAN May 2, 2002 + 20 gal 15-15-0 + S + micronutrients at planting + 50 units urea May 11, 2002 + 60 units urea May 20, 2002
<b>Plot Size:</b>	2 rows 25' x 30" 4 replications
<b>Cooperators:</b>	David Danner, Scott Jerrell, Andy Overbay, and John Huffard

<b>Shenandoah Valley</b>	<b>Jordan Farm</b>
<b>Planted:</b>	May 5, 2002
<b>Harvested:</b>	October 15, 2002
<b>Pesticide:</b>	2.1 qt Bicep II Magnum® + 1.4 qt Princep® + 0.9 oz Python® + 5.8 oz Asana® + 1 pt gramoxone preplant incorporated + 4.4 lb Force 3G® at planting
<b>Fertilizer:</b>	20 lb N + 10 lb S preplant incorporated + 20 gal 15-15-0 + S + micronutrients at planting
<b>Plot Size:</b>	2 rows 25' x 30" 4 replications
<b>Cooperators:</b>	Tom Stanley, Chris Lawrence, and the Jordan farm

**Table 1. 2002 RELATIVE YIELD\* of corn hybrids entered in three or more locations.**

Very Early Maturity Brand	Hybrid	Holland	Mt Holly Dryland	Mt Holly Irrigated	Orange	Augusta	Blacks-burg	Wythe	Mean
PIONEER BRAND	34K77	102	128	115	---	---	---	---	115
NK BRAND	N65-M7	106	141	121	118	97	60	---	114
AUGUSTA	4495	96	139	95	---	---	---	---	110
AUGUSTA	9884Gaucho	101	112	114	---	---	---	---	109
AUGUSTA	3379	92	125	111	---	---	---	---	109
MID-ATLANTIC	MA9060YG	90	136	109	109	101	---	---	109
AUGUSTA	3395	91	128	101	---	---	---	---	106
AUGUSTA	3495	87	126	102	---	---	---	---	105
PIONEER BRAND	34B97	103	95	107	---	---	---	---	102
AUGUSTA	3364	92	104	105	---	---	---	---	100
PIONEER BRAND	34B23	---	92	115	97	96	87	---	98
AUGUSTA	4579	100	69	112	---	---	---	---	94
DOEBLERS	HC540	99	64	99	98	---	---	106	93
MID-ATLANTIC	MA9070RR	92	82	106	95	89	---	---	93

Early Maturity Brand	Hybrid	Holland	Mt Holly Dryland	Mt Holly Irrigated	Orange	Augusta	Blacks-burg	Wythe	Mean
VIGORO	V5110	109	134	109	---	---	127	121	120
DOEBLERS	649XY	106	153	112	106	93	---	114	115
AUGUSTA	3387Gaucho	104	121	114	---	---	---	---	113
AUGUSTA	3387	108	119	117	---	107	---	---	113
AUGUSTA	3121	100	130	106	---	---	---	---	112
AUGUSTA	3687Gaucho	103	136	92	---	---	---	---	110
ASGROW	RX664	---	115	112	99	---	---	---	109
PIONEER BRAND	32R25	106	107	110	112	---	---	---	109
AUGUSTA	3685Prescribe	---	102	107	---	---	116	---	108
ASGROW	RX708YG	---	106	104	112	---	---	---	108
MID-ATLANTIC	MA8011RR	108	117	107	99	106	---	---	108
DEKALB	DKC58-78(YG)	---	108	110	104	---	---	---	107
DEKALB	DKC60-19(RR/YG)	---	129	108	81	---	---	---	106
PIONEER BRAND	32W86	96	110	108	78	106	130	110	105
DEKALB	DKC60-08(YG)	---	113	97	102	---	---	---	104
PIONEER BRAND	33J57	---	---	---	103	116	70	114	103
AUGUSTA	4487	110	102	97	---	---	---	---	103
SOUTHERN STATES	692Bt	---	95	111	---	103	---	---	103
NK BRAND	N72-J5	98	130	113	78	101	96	---	103

AUGUSTA	285	---	96	106	---	---	104	---	102
AUGUSTA	4587	100	104	104	---	101	---	---	102
MID-ATLANTIC	MA9140YG	104	106	87	100	111	---	---	102
AUGUSTA	4487Gaucho	88	113	103	---	---	---	---	101
VIGORO	V54C29	93	114	95	---	---	---	---	101
AUGUSTA	4487Prescribe	94	103	105	---	---	---	---	101
AUGUSTA	3387Prescribe	113	90	98	---	---	---	---	100
SOUTHERN STATES	740	---	84	111	106	98	---	---	100
NK BRAND	N82-J6	---	82	103	101	---	112	---	100
PIONEER BRAND	32K64	---	---	---	---	105	98	94	99
AUGUSTA	3687Prescribe	101	97	99	---	---	---	---	99
AUGUSTA	4587Gaucho	106	81	112	---	---	---	---	99
DEKALB	DKC62-15	---	96	103	94	---	---	---	98

**Table 1. 2002 RELATIVE YIELD\* of corn hybrids entered in three or more locations, continued.**

Early Maturity, cont'd.									
Brand	Hybrid	Holland	Mt Holly Dryland	Mt Holly Irrigated	Orange	Augusta	Blacks-burg	Wythe	Mean
PIONEER BRAND	33G26	---	---	---	99	103	90	---	97
AUGUSTA	3187	86	95	110	---	---	---	---	97
VIGORO	V5520	96	92	103	---	---	---	---	97
DOEBLERS	749XYG	---	110	95	82	---	98	---	96
DEKALB	DKC64-11(RR/YG)	103	95	93	87	---	---	---	94
MID-ATLANTIC	MA9137	107	92	97	77	95	---	---	94
AUGUSTA	3185	91	90	95	---	---	---	---	92
AUGUSTA	3685	---	71	97	---	---	95	---	88
AUGUSTA	3685Gaucho	---	97	88	---	---	65	---	85

Medium Maturity									
Brand	Hybrid	Holland	Mt Holly Dryland	Mt Holly Irrigated	Orange	Augusta	Blacks-burg	Wythe	Mean
HYTEST	HT7761	107	141	106	105	107	---	---	114
GARST	8288	105	114	102	---	101	---	123	110
PIONEER BRAND	32D99	97	---	---	114	114	---	---	109
GARST	8348	99	117	108	---	---	---	107	108
NK BRAND	N83-Z8	97	---	---	---	109	112	---	106
AUGUSTA	2062	100	156	70	104	87	89	105	101
DOEBLERS	760DT	97	83	102	101	108	113	96	100
GARST	8230IT	106	69	86	---	96	---	125	96
DEKALB	DKC66-50	---	90	96	98	---	---	---	95
AUGUSTA	9552	---	70	96	103	---	107	---	94
DEKALB	DKC65-26(YG)	---	83	97	97	---	---	---	92
PIONEER BRAND	31G98	107	65	96	103	90	---	---	92

VIGORO	V5800	93	80	106	---	---	93	88	92
AUGUSTA	3562	---	79	87	102	100	90	90	91
SOUTHERN STATES	849CL	---	96	84	85	100	105	75	91
MID-ATLANTIC	MA9184YG	104	51	91	110	97	---	---	91
AUGUSTA	2062Gaucho	---	92	79	102	---	---	---	91
HYTEST	7806Bt	97	48	98	110	97	---	---	90
VIGORO	EX462009	100	67	99	---	---	93	91	90
AUGUSTA	3162	103	80	81	---	---	---	---	88
DOEBLERS	797RYG	85	74	91	---	97	91	---	87
AUGUSTA	2062Prescribe	---	71	85	105	---	---	---	87
VIGORO	V58C29	101	54	102	---	---	80	89	85
MID-ATLANTIC	MA8166RR	91	58	83	103	89	---	---	85
AUGUSTA	5635	---	75	76	92	---	90	89	84
SOUTHERN STATES	842RR	---	46	76	103	83	120	75	84
AUGUSTA	3152	---	74	79	---	88	---	---	80

Mid-Full Maturity Brand	Hybrid	Holland	Mt Holly Dryland	Mt Holly Irrigated	Orange	Augusta	Blacks-burg	Wythe	Mean
PIONEER BRAND	31R88	96	---	---	95	104	112	98	101

\* Relative yield is calculated by dividing the yield of a hybrid by the average yield of all hybrids of all maturities at that location. A hybrid with a relative yield of 105 was 5% above the average of all hybrids at that location. The value of 105 is not a yield but a value relative to all other yield values at that location. Relative yields are listed in order of descending mean values.

**Table 2. Two Year Average RELATIVE YIELD\* (2001-2002) of corn hybrids entered in three or more locations each year.\***

Very Early Maturity Brand	Hybrid	# Observations	Relative Yield
PIONEER BRAND	34K77	23	110
AUGUSTA	9884	27	106
DOEBLERS	HC540	52	99
PIONEER BRAND	34B23	36	98

Early Maturity Brand	Hybrid	# Observations	Relative Yield
VIGORO	V5110	35	112
AUGUSTA	3387	28	110
PIONEER BRAND	32R25	36	108
AUGUSTA	4587	31	107
AUGUSTA	3687	32	106
MID-ATLANTIC	MA8011RR	36	104
AUGUSTA	4487	27	103
MID-ATLANTIC	MA9140YG	36	103
PIONEER BRAND	33G26	23	101
SOUTHERN STATES	740	28	101
VIGORO	V54C29	24	101
PIONEER BRAND	33J57	35	100
AUGUSTA	3364	24	100
NK BRAND	N82-J6	36	100
AUGUSTA	285	23	100
MID-ATLANTIC	MA9137	36	99
AUGUSTA	3685	24	96
PIONEER BRAND	32K64	36	96

Medium Maturity Brand	Hybrid	# Observations	Relative Yield
NK BRAND	N83-Z8	23	105
AUGUSTA	2062	56	105
DOEBLERS	760DT	57	103
PIONEER BRAND	31G98	51	102
DEKALB	DKC66-50	37	101
MID-ATLANTIC	MA9184YG	36	100
AUGUSTA	3562	45	99
VIGORO	V5800	36	98
AUGUSTA	9552	39	97
AUGUSTA	5635	43	95
HYTEST	7806Bt	36	93
SOUTHERN STATES	842RR	40	90
AUGUSTA	3152	31	86

Mid-Full Maturity Brand	Hybrid	# Observations	Relative Yield
PIONEER BRAND	31R88	44	107

\* Relative yield is calculated by dividing the yield of a hybrid by the average yield of all hybrids of all maturities at that location. A hybrid with a relative yield of 105 was 5% above the average of all hybrids at that location. The value of 105 is not a yield but a value relative to all other yield values at that location. Relative yields are listed in order of descending mean values.

**Table 3. Three Year Average RELATIVE YIELD\* (2000, 2001, and 2002) of corn hybrids entered in three or more locations each year.\***



<b>Very Early Maturity Brand</b>	<b>Hybrid</b>	<b># Observations</b>	<b>Relative Yield</b>
PIONEER BRAND	34K77	39	105
AUGUSTA	9884	47	102

<b>Early Maturity Brand</b>	<b>Hybrid</b>	<b># Observations</b>	<b>Relative Yield</b>
AUGUSTA	3387	40	108
PIONEER BRAND	32R25	52	107
AUGUSTA	4587	43	106
AUGUSTA	4487	39	105
MID-ATLANTIC	MA8011RR	52	105
PIONEER BRAND	33G26	47	102
NK_BRAND	N82-J6	52	102
MID-ATLANTIC	MA9137	52	102
AUGUSTA	285	39	101
AUGUSTA	3685	36	98
PIONEER BRAND	32K64	56	98

<b>Medium Maturity Brand</b>	<b>Hybrid</b>	<b># Observations</b>	<b>Relative Yield</b>
PIONEER BRAND	31G98	79	106
AUGUSTA	2062	80	105
AUGUSTA	9552	55	99

<b>Mid-Full Maturity Brand</b>	<b>Hybrid</b>	<b># Observations</b>	<b>Relative Yield</b>
PIONEER BRAND	31R88	64	106

\* Relative yield is calculated by dividing the yield of a hybrid by the average yield of all hybrids of all maturities at that location. A hybrid with a relative yield of 105 was 5% above the average of all hybrids at that location. The value of 105 is not a yield but a value relative to all other yield values at that location. Relative yields are listed in order of descending mean values.

**Table 4. Corn Yields at the Tidewater AREC at HOLLAND, VIRGINIA in 2002 - Virginia Tech Trials.**

<b>Very Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
--	---------------	-------------------	----------------	----------------------

NK BRAND	N65-M7	162	15.1	55.8
PIONEER BRAND	34B97	156	15.4	56.8
PIONEER BRAND	34K77	156	15.9	57.2
AUGUSTA	9884Gaucho	153	15.8	57.7
AUGUSTA	4579	153	14.8	54.8
DOEBLERS	HC540	150	16.2	56.6
AUGUSTA	4495	147	15.9	56.7
AUGUSTA	3379	140	14.7	55.2
MID-ATLANTIC	MA9070RR	140	15.5	54.4
AUGUSTA	3364	139	15.1	56.2
AUGUSTA	3395	138	14.6	56.1
MID-ATLANTIC	MA9060YG	137	15.5	54.8
AUGUSTA	3495	133	14.7	56.0
Maturity Average		146	15.3	56.0
C.V.		8	4.3	1.3
L.S.D. (0.05)		17	1.0	1.1

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
AUGUSTA	3187	177	16.0	53.6
AUGUSTA	3387Prescribe	172	15.2	55.5
AUGUSTA	4487	167	15.8	55.3
VIGORO	V5110	166	15.7	55.1
MID-ATLANTIC	MA8011RR	165	15.3	55.2
AUGUSTA	3387	164	15.4	55.3
MID-ATLANTIC	MA9137	163	15.3	55.0
PIONEER BRAND	32R25	161	16.8	58.0
DOEBLERS	649XY	161	14.9	55.5
AUGUSTA	4587Gaucho	161	15.9	54.5
AUGUSTA	3387Gaucho	159	15.2	54.9
MID-ATLANTIC	MA9140YG	158	16.2	57.9
DEKALB	DKC64-11(RR/Y	157	16.1	56.8
AUGUSTA	3687Gaucho	157	17.3	55.5
AUGUSTA	3687Prescribe	153	17.2	55.4
AUGUSTA	3121	152	15.9	54.9
AUGUSTA	4587	152	16.4	55.5
NK BRAND	N72-J5	149	15.9	54.5
VIGORO	V5520	147	15.8	55.8
PIONEER BRAND	32W86	147	17.3	57.8
AUGUSTA	4487Prescribe	143	16.3	56.2
VIGORO	V54C29	142	15.9	57.0
AUGUSTA	3185	139	15.5	53.6
AUGUSTA	4487Gaucho	134	16.2	55.7
DEKALB	DKC60-09(RR/Y	128	16.0	54.9
Maturity Average		155	16.0	55.6
C.V.		13	3.9	1.5
L.S.D. (0.05)		30	0.9	1.2

**Table 4. Corn Yields at the Tidewater AREC at HOLLAND, VIRGINIA in 2002 - Virginia Tech Trials, continued.**

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DEKALB	DK697	170	18.3	57.2
PIONEER BRAND	31B13	167	17.9	57.5

PIONEER BRAND	31G98	163	16.1	57.9
HYTEST	HT7761	163	17.0	56.0
DEKALB	DKC69-70(YG)	162	19.7	56.5
GARST	8230IT	162	17.9	54.1
GARST	8288	160	17.6	56.4
MID-ATLANTIC	MA9184YG	158	17.9	57.6
AUGUSTA	3162	157	17.9	55.7
VIGORO	V58C29	153	17.5	53.2
AUGUSTA	2062	153	17.9	57.4
VIGORO	EX462009	152	17.4	56.8
GARST	8348	151	15.5	56.2
PIONEER BRAND	32D99	148	18.6	55.4
DOEBLERS	760DT	148	16.9	57.3
HYTEST	7806Bt	148	19.5	55.1
NK BRAND	N83-Z8	147	18.5	57.7
MONSANTO	TXP267-D(RR/Y	146	18.8	58.7
VIGORO	V5800	142	16.8	57.2
MID-ATLANTIC	MA8166RR	138	17.2	56.3
DOEBLERS	797RYG	129	17.0	55.6
Maturity Average		153	17.7	56.5
C.V.		11	2.9	1.7
L.S.D. (0.05)		23	0.7	1.3

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
VT	BORDER	153	16.5	58.3
PIONEER BRAND	31R88	146	19.0	56.5
Maturity Average		149	17.7	57.4
C.V.		7	2.0	2.5
L.S.D. (0.05)		24	0.8	3.2
Location Average		152	16.5	56.0

**Table 5. Two-year average corn yields at HOLLAND, VA in 2001 and 2002.**

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
AUGUSTA	9873	179	14.9	54.7
AUGUSTA	9884	173	17.3	57.1
DOEBLERS	HC540	172	16.2	56.7
PIONEER BRAND	34K77	170	16.3	57.4

Maturity Average	170	16.0	56.4
C.V.	8	6.4	1.2
L.S.D. (0.05)	16	1.2	0.8

<b>Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
PIONEER BRAND	32R25	187	18.1	56.7
VIGORO	V5110	185	16.4	55.2
AUGUSTA	4587	177	17.1	55.8
AUGUSTA	3687	176	18.0	55.3
VIGORO	V54C29	172	17.0	57.3
AUGUSTA	4487	171	17.2	55.2
AUGUSTA	3364	166	15.5	56.7

Maturity Average	179	17.2	56.0
C.V.	12	5.4	1.3
L.S.D. (0.05)	24	1.0	0.8

<b>Medium Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
PIONEER BRAND	31G98	189	17.0	57.4
NK BRAND	N83-Z8	171	19.3	57.1
AUGUSTA	2062	170	19.4	56.7
PIONEER BRAND	31B13	169	17.6	57.8
DOEBLERS	760DT	169	17.7	57.3
VIGORO	V5800	166	17.8	57.2
HYTEST	7806Bt	155	20.8	53.9

Maturity Average	170	18.5	56.7
C.V.	9	3.9	1.3
L.S.D. (0.05)	16	0.8	0.8

<b>Mid-Full Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
PIONEER BRAND	31R88	170	20.5	55.2

Location Average	173	17.6	56.3
------------------	-----	------	------

**Table 6. Corn Yields under DRYLAND conditions at the Virginia Crop Improvement Foundation Seed Farm at MT HOLLY, VIRGINIA in 2002 - Virginia Tech Trials.**

<b>Very Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>	<b>Lodging %</b>
NK BRAND	N65-M7	65	18.1	53.7	13
AUGUSTA	4495	64	14.2	52.6	5
MID-ATLANTIC	MA9060YG	62	17.9	53.6	18
PIONEER BRAND	34K77	59	16.4	55.4	21
AUGUSTA	3395	59	14.7	53.3	1
AUGUSTA	3495	58	14.5	51.6	1

AUGUSTA	3379	57	16.6	53.2	11
GARST	8590IT	53	15.8	53.5	3
SOUTHERN STATES	463Bt	52	17.2	53.0	23
AUGUSTA	9884Gaucho	51	17.5	56.1	18
AUGUSTA	3364	47	19.1	54.6	9
PIONEER BRAND	34B97	43	17.7	56.3	30
PIONEER BRAND	34B23	42	19.8	56.0	13
MID-ATLANTIC	MA9070RR	38	16.9	54.4	15
AUGUSTA	4579	31	17.6	55.0	9
DOEBLERS	HC540	29	16.1	52.5	29
Maturity Average		51	16.9	51.3	13
C.V.		27	9.8	22.3	87
L.S.D. (0.05)		20	2.4	21.3	17

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu	Lodging %
DOEBLERS	649XY	70	15.7	53.7	10
AUGUSTA	3687Gaucho	63	19.4	52.7	14
VIGORO	V5110	61	18.3	55.4	23
NK BRAND	N72-J5	60	17.9	55.5	15
AUGUSTA	3121	60	16.8	53.6	17
DEKALB	DKC60-19(RR/Y	59	17.0	54.1	24
AUGUSTA	3387Prescribe	58	16.2	54.3	15
AUGUSTA	3387Gaucho	56	17.0	55.5	32
AUGUSTA	3387	55	18.0	54.5	23
MID-ATLANTIC	MA8011RR	54	16.8	55.4	14
ASGROW	RX664	53	17.3	54.4	9
VIGORO	V54C29	52	18.9	57.9	27
DEKALB	DKC60-08(YG)	52	15.5	54.9	31
AUGUSTA	4487Gaucho	52	18.3	55.0	30
DOEBLERS	749XYG	51	18.9	56.6	14
PIONEER BRAND	32W86	51	18.7	56.3	23
DEKALB	DKC58-78(YG)	50	16.7	51.3	39
PIONEER BRAND	32R25	49	21.9	57.1	30
ASGROW	RX708YG	49	17.7	54.3	16
SOUTHERN STATES	670Bt	49	19.6	54.1	33
MID-ATLANTIC	MA9140YG	48	21.6	55.0	27
AUGUSTA	4587	48	18.7	54.1	12
AUGUSTA	4487Prescribe	47	20.0	54.9	16
AUGUSTA	4487	47	18.5	55.3	17
AUGUSTA	3685Prescribe	47	18.0	54.6	25
AUGUSTA	3685Gaucho	45	18.7	53.1	18
AUGUSTA	3687Prescribe	44	20.2	54.7	24
AUGUSTA	285	44	15.7	53.2	11
DEKALB	DKC62-15	44	17.9	55.8	18

**Table 6. Corn Yields under DRYLAND conditions at the Virginia Crop Improvement Foundation Seed Farm at MT HOLLY, VIRGINIA in 2002 - Virginia Tech Trials, continued.**

Early Maturity, cont'd. Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu	Lodging %
DEKALB	DKC64-11(RR/Y	44	17.1	54.6	32
AUGUSTA	3187	44	18.5	53.0	26
SOUTHERN STATES	692Bt	43	18.0	54.3	26
VIGORO	V5520	42	17.8	55.8	25
MID-ATLANTIC	MA9137	42	21.1	56.7	20
AUGUSTA	3185	41	18.8	55.3	15
SOUTHERN STATES	740	39	21.0	56.1	21

NK BRAND	N82-J6	38	22.2	54.0	23
AUGUSTA	4587Gaucho	37	20.6	55.6	14
AUGUSTA	3685	33	18.0	54.4	12
Maturity Average		49	18.4	53.3	21
C.V.		28	5.9	16.4	62
L.S.D. (0.05)		20	1.5	16.8	18

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu	Lodging %
AUGUSTA	2062	72	18.8	54.1	23
HYTEST	HT7761	65	17.5	54.1	8
GARST	8348	54	18.9	53.9	31
GARST	8288	52	21.4	50.8	3
SOUTHERN STATES	849CL	44	23.0	49.3	27
AUGUSTA	2062Gaucho	42	20.5	53.6	30
DEKALB	DKC66-50	41	18.7	54.0	18
DEKALB	DKC65-26(YG)	38	19.9	56.0	21
DOEBLERS	760DT	38	20.0	53.1	29
AUGUSTA	3162	37	21.3	54.0	21
VIGORO	V5800	37	22.1	55.0	35
AUGUSTA	3562	36	22.9	53.3	30
AUGUSTA	5635	35	23.2	54.0	16
MID-ATLANTIC	MA9184YG	34	20.3	57.6	19
AUGUSTA	3152	34	20.8	49.1	16
DOEBLERS	797RYG	34	19.8	53.1	25
AUGUSTA	2062Prescribe	33	24.4	54.5	25
AUGUSTA	9552	32	20.1	56.3	27
GARST	8230IT	31	21.6	51.1	22
VIGORO	EX462009	31	23.4	55.6	16
PIONEER BRAND	31G98	30	17.8	57.3	14
MID-ATLANTIC	MA8166RR	27	23.7	54.3	8
VIGORO	V58C29	25	25.5	50.0	14
HYTEST	7806Bt	22	23.7	52.0	24
SOUTHERN STATES	842RR	21	24.4	53.2	8
Maturity Average		38	21.4	53.3	20
C.V.		40	6.1	2.3	64
L.S.D. (0.05)		21	1.8	2.7	18
Location Average		46	19	52.8	19

**Table 7. Two-year average corn yields under DRYLAND conditions at MT HOLLY, VA in 2001 and 2002.**

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
AUGUSTA	9873	118	17.5	56.9
PIONEER BRAND	34K77	102	17.3	56.8
AUGUSTA	9884	95	17.9	55.9
DOEBLERS	HC540	86	16.9	55.2
Maturity Average		94	17.6	56.1
C.V.		15	7.0	1.8
L.S.D. (0.05)		16	1.4	1.3

Early Maturity	Yield	Moist	Test Wt
----------------	-------	-------	---------

<b>Brand/Company</b>	<b>Hybrid</b>	<b>bu/A</b>	<b>%</b>	<b>lb/bu</b>
AUGUSTA	3687	123	22.2	50.5
SOUTHERN STATES	670Bt	118	19.7	54.4
AUGUSTA	4587	112	20.2	52.4
NK BRAND	N82-J6	104	22.2	53.3
AUGUSTA	4487	102	19.8	54.7
MID-ATLANTIC	MA9137	101	21.5	54.8
MID-ATLANTIC	MA9140YG	101	20.9	55.1
AUGUSTA	285	98	19.3	53.6
AUGUSTA	3685	95	19.6	53.9
VIGORO	V54C29	92	20.7	55.3
AUGUSTA	3387	92	19.0	53.7
PIONEER BRAND	32R25	92	21.6	52.9
MID-ATLANTIC	MA8011RR	90	18.2	54.6
AUGUSTA	3364	88	19.4	55.3
VIGORO	V5110	88	19.2	55.1
VIGORO	V5520	70	20.4	55.6
Maturity Average		99	20.3	54.1
C.V.		26	6.1	2.6
L.S.D. (0.05)		27	1.3	1.7

<b>Medium Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
AUGUSTA	2062	122	21.2	53.1
AUGUSTA	9552	98	21.5	51.5
AUGUSTA	5635	95	24.0	51.2
PIONEER BRAND	31G98	92	21.7	52.4
VIGORO	V5800	91	22.3	54.0
MID-ATLANTIC	MA9184YG	88	20.2	56.4
DOEBLERS	760DT	85	20.7	53.6
AUGUSTA	3152	83	22.1	48.7
AUGUSTA	3562	82	23.2	51.8
HYTEST	7806Bt	79	23.0	50.9
Maturity Average		92	22.0	52.4
C.V.		26	5.2	1.8
L.S.D. (0.05)		24	1.2	1.1

Location Average 96 20.4 53.9

**Table 8. Three-year average corn yields under DRYLAND conditions at MT HOLLY, VA in 2000, 2001, and 2002.**

<b>Very Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
AUGUSTA	9873	143	17.1	56.5
PIONEER BRAND	34K77	134	17.5	56.8
AUGUSTA	9884	132	17.8	55.9
Maturity Average		136	17.5	56.4
C.V.		11	6.9	1.7
L.S.D. (0.05)		13	1.0	0.8

<b>Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
SOUTHERN STATES	670Bt	155	19.1	54.4

NK BRAND	N82-J6	149	20.5	53.8
MID-ATLANTIC	MA9137	148	20.6	54.2
AUGUSTA	4587	147	20.1	52.9
AUGUSTA	4487	145	19.5	54.1
AUGUSTA	285	142	19.2	53.6
MID-ATLANTIC	MA8011RR	136	17.9	54.1
AUGUSTA	3387	136	18.6	53.9
AUGUSTA	3685	135	19.8	53.9
PIONEER BRAND	32R25	133	20.8	53.6
Maturity Average		143	19.6	53.9
C.V.		17	6.9	1.9
L.S.D. (0.05)		20	1.1	0.9

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
AUGUSTA	2062	155	20.5	53.9
PIONEER BRAND	31G98	142	21.0	53.6
Maturity Average		149	20.7	53.8
C.V.		16	6.9	2.2
L.S.D. (0.05)		22	1.3	1.3
Location Average		142	19.3	54.4

**Table 9. Corn Yields under IRRIGATION at the Virginia Crop Improvement Foundation Seed Farm at MT HOLLY, VIRGINIA in 2002 - Virginia Tech Trials.**

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu	Lodging %
NK BRAND	N65-M7	204	18.8	54.4	9
PIONEER BRAND	34K77	194	19.2	56.0	5
PIONEER BRAND	34B23	194	18.9	57.4	3
AUGUSTA	9884Gaucho	192	18.4	57.2	5
AUGUSTA	4579	190	17.2	55.0	7
AUGUSTA	3379	187	16.4	55.0	5
MID-ATLANTIC	MA9060YG	184	16.5	55.2	13
GARST	8590IT	183	16.7	55.3	3
PIONEER BRAND	34B97	181	18.2	58.5	5
MID-ATLANTIC	MA9070RR	179	16.3	55.7	7
AUGUSTA	3364	178	17.5	55.9	8
AUGUSTA	3495	173	17.2	56.4	5
AUGUSTA	3395	170	16.7	56.8	4
DOEBLERS	HC540	168	18.4	56.4	32



AUGUSTA	4495	160	17.7	57.2	2
SOUTHERN STATES	463Bt	160	16.0	56.2	8
Maturity Average		181	17.5	56.2	8
C.V.		10	3.4	0.9	114
L.S.D. (0.05)		26	0.9	0.8	12

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu	Lodging %
AUGUSTA	3387	198	18.8	55.0	9
AUGUSTA	3387Gaucho	192	18.0	54.5	14
NK BRAND	N72-J5	191	18.9	55.3	3
DOEBLERS	649XY	190	18.4	55.1	4
ASGROW	RX664	189	18.0	55.5	4
AUGUSTA	4587Gaucho	189	19.4	54.6	9
SOUTHERN STATES	692Bt	188	18.1	56.4	5
SOUTHERN STATES	740	187	20.6	55.5	11
AUGUSTA	3187	186	20.0	52.8	27
PIONEER BRAND	32R25	185	20.9	55.5	19
DEKALB	DKC58-78(YG)	185	16.6	54.8	7
VIGORO	V5110	184	17.9	55.3	8
DEKALB	DKC60-19(RR/Y	183	19.9	55.2	7
PIONEER BRAND	32W86	182	20.0	57.9	16
AUGUSTA	3685Prescribe	181	20.8	54.0	14
MID-ATLANTIC	MA8011RR	181	19.5	54.0	2
AUGUSTA	3121	179	19.7	54.5	9
AUGUSTA	285	178	19.0	54.4	10
AUGUSTA	4487Prescribe	177	19.1	55.1	6
ASGROW	RX708YG	176	18.6	56.0	3
AUGUSTA	4587	175	18.9	54.5	5
DEKALB	DKC62-15	175	19.7	55.2	11
AUGUSTA	4487Gaucho	174	20.0	54.4	14
NK BRAND	N82-J6	174	20.9	54.7	9
VIGORO	V5520	173	19.1	54.7	10
AUGUSTA	3687Prescribe	167	20.4	54.2	20
AUGUSTA	3387Prescribe	165	18.6	55.6	7
MID-ATLANTIC	MA9137	165	19.1	54.8	12
AUGUSTA	3685	165	20.5	54.4	25

**Table 9. Corn Yields under IRRIGATION at the Virginia Crop Improvement Foundation Seed Farm at MT HOLLY, VIRGINIA in 2002 - Virginia Tech Trials, continued.**

Early Maturity, cont'd. Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu	Lodging %
DEKALB	DKC60-08(YG)	163	17.7	56.4	8
AUGUSTA	4487	163	19.2	55.3	8
AUGUSTA	3185	161	19.1	53.2	17
VIGORO	V54C29	161	19.1	57.1	11
DOEBLERS	749XYG	160	20.3	55.5	12
DEKALB	DKC64-11(RR/Y	157	18.8	56.3	18
AUGUSTA	3687Gaucho	154	21.2	53.9	29
AUGUSTA	3685Gaucho	149	22.0	54.5	26
MID-ATLANTIC	MA9140YG	147	20.7	56.7	35
SOUTHERN STATES	670Bt	146	19.0	55.9	39
Maturity Average		174	19.4	55.1	13
C.V.		10	4.9	1.4	72
L.S.D. (0.05)		24	1.3	1.1	13

<b>Medium Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>	<b>Lodging %</b>
GARST	8348	183	19.8	55.3	14
HYTEST	HT7761	179	20.4	54.2	7
VIGORO	V5800	179	21.2	55.3	15
GARST	8288	172	23.3	53.0	3
DOEBLERS	760DT	172	21.3	55.1	17
VIGORO	V58C29	172	21.9	52.4	33
VIGORO	EX462009	166	21.6	55.9	16
HYTEST	7806Bt	166	22.6	53.2	19
DEKALB	DKC65-26(YG)	164	21.0	56.1	37
AUGUSTA	9552	162	23.4	55.9	37
DEKALB	DKC66-50	162	20.0	52.9	17
PIONEER BRAND	31G98	161	21.3	57.9	32
DOEBLERS	797RYG	153	22.2	54.0	27
MID-ATLANTIC	MA9184YG	153	21.6	56.2	25
AUGUSTA	3562	147	23.2	55.1	40
GARST	8230IT	145	22.2	53.1	43
AUGUSTA	2062Prescribe	143	23.1	55.9	45
SOUTHERN STATES	849CL	142	21.3	52.4	28
MID-ATLANTIC	MA8166RR	140	22.7	54.3	33
AUGUSTA	3162	137	22.4	55.0	40
AUGUSTA	3152	133	21.3	53.5	45
AUGUSTA	2062Gaucho	133	23.1	55.7	44
AUGUSTA	5635	128	21.4	53.9	48
SOUTHERN STATES	842RR	128	22.6	53.4	35
AUGUSTA	2062	118	23.1	55.6	37
Maturity Average		153	21.9	54.6	29
C.V.		13	4.6	2.0	64
L.S.D. (0.05)		29	1.4	1.5	26
Location Average		169	19.8	55.1	17

**Table 10. Two-year average corn yields under IRRIGATION at MT HOLLY, VA in 2001 and 2002.**

<b>Very Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
AUGUSTA	9873	252	16.1	55.3
AUGUSTA	9884	234	17.9	57.0
PIONEER BRAND	34K77	232	18.5	56.3
DOEBLERS	HC540	229	17.6	56.6
Maturity Average		232	17.5	56.2
C.V.		6	8.1	1.0
L.S.D. (0.05)		18	1.7	0.7

<b>Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
AUGUSTA	3387	233	18.6	55.0
AUGUSTA	3364	233	17.0	56.1
MID-ATLANTIC	MA8011RR	232	18.4	54.2
PIONEER BRAND	32R25	232	20.3	55.6
VIGORO	V5110	227	17.9	54.8
NK BRAND	N82-J6	223	20.3	55.3
VIGORO	V5520	221	18.8	54.4

AUGUSTA	4587	221	19.6	54.3
AUGUSTA	285	220	18.5	54.8
AUGUSTA	4487	218	18.7	54.4
MID-ATLANTIC	MA9137	217	19.1	54.5
AUGUSTA	3685	215	19.6	54.8
AUGUSTA	3687	213	21.0	53.1
SOUTHERN STATES	670Bt	211	18.3	55.4
VIGORO	V54C29	208	18.6	57.5
MID-ATLANTIC	MA9140YG	205	19.5	56.5
Maturity Average		222	19.0	55.0
C.V.		8	4.8	1.4
L.S.D. (0.05)		17	0.9	0.8

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	31G98	225	21.3	56.8
VIGORO	V5800	223	20.4	55.5
DOEBLERS	760DT	216	19.8	55.2
AUGUSTA	9552	214	22.3	54.9
HYTEST	7806Bt	208	21.6	53.6
MID-ATLANTIC	MA9184YG	206	19.8	56.7
AUGUSTA	5635	204	21.4	53.8
AUGUSTA	3152	200	20.9	53.2
AUGUSTA	3562	194	22.5	54.8
AUGUSTA	2062	185	22.2	55.6

Maturity Average		208	21.2	55.0
C.V.		8	4.0	1.8
L.S.D. (0.05)		17	0.9	1.0

Location Average		218	19.5	55.2
------------------	--	-----	------	------

**Table 11. Three-year average corn yields under IRRIGATION at MT HOLLY, VA in 2000, 2001, and 2002.**

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
AUGUSTA	9873	241	17.4	55.8
AUGUSTA	9884	239	18.8	57.0
PIONEER BRAND	34K77	236	18.8	56.5

Maturity Average		238	18.3	56.4
C.V.		6	8.7	1.3
L.S.D. (0.05)		12	1.4	0.6

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
MID-ATLANTIC	MA8011RR	245	18.7	53.8
PIONEER BRAND	32R25	245	20.0	55.1
AUGUSTA	4487	240	18.8	53.8
AUGUSTA	3387	237	19.2	54.8
NK BRAND	N82-J6	236	20.6	54.9
MID-ATLANTIC	MA9137	234	19.2	53.7
AUGUSTA	285	232	18.8	54.7
AUGUSTA	4587	231	19.4	53.9
AUGUSTA	3685	230	20.0	54.7

SOUTHERN STATES	670Bt	221	19.0	55.1
Maturity Average		235	19.4	54.4
C.V.		9	7.5	1.5
L.S.D. (0.05)		16	1.2	0.7

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	31G98	239	20.8	56.2
AUGUSTA	2062	205	21.8	55.8
Maturity Average		222	21.3	56.0
C.V.		9	3.4	1.7
L.S.D. (0.05)		18	0.7	0.9
Location Average		234	19.4	55.0

**Table 12. Corn Yields at BLACKSTONE, VA in 2001. Please note that yields are not being reported for 2002 because of crop failure due to drought.**

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DOEBLERS	HC540	218	18.08	56.03
ASGROW	RX708	217	17.23	55.40
DEKALB	DKC56-71	198	17.13	56.50
DEKALB	DKC58-78	184	16.13	53.93
DEKALB	DKC60-08	184	16.28	56.35
Maturity Average		200	16.97	55.64
LSD (0.05)		44	1.10	0.50

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DEKALB	DKC61-25	219	19.78	54.88
PIONEER BRAND	32R25	215	20.50	41.70
VIGORO	V5110	205	20.35	53.85
DEKALB	DKC64-10	204	18.70	55.20
DOEBLERS	638XYG	196	19.65	54.53
PIONEER BRAND	33J57	193	18.35	55.58
DEKALB	DK647BtY	186	21.23	53.78
DEKALB	DKC63-03	185	19.33	56.55
Maturity Average		200	19.73	54.97

LSD (0.05) 40 0.80 0.91

<b>Medium Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
VIGORO	V5800	214	20.30	55.50
PIONEER BRAND	31G98	214	21.18	55.33
DOEBLERS	760DT	193	20.65	55.10
SOUTHERN STATES	882CL	188	24.13	53.33
DEKALB	DKC66-50	181	20.08	53.33
Maturity Average		198	21.27	54.52
LSD (0.05)		32	1.13	0.80

<b>Mid-Full Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
PIONEER BRAND	31R88	209	23.25	53.28
DOEBLERS	859XY	196	23.98	53.60
Maturity Average		203	23.61	53.44
LSD (0.05)		60	1.20	1.35
Location Average		200	19.81	54.19

**Table 13. Two-year average corn yields at BLACKSTONE, VA in 2000 and 2001. Please note that yields are not being reported for 2002 because of crop failure due to drought.**

<b>Very Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
ASGROW	RX708	185	18.11	55.54

<b>Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
PIONEER BRAND	32R25	193	20.46	49.00
DEKALB	DK647BtY	172	21.13	54.50
Maturity Average		183	20.79	55.23
LSD (0.05)		37	0.94	0.78

<b>Medium Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
PIONEER BRAND	31G98	194	21.74	55.99

<b>Mid-Full Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
PIONEER BRAND	31R88	183	24.58	53.56
Location Average		186	21.45	54.97

**Table 14. Corn Yields at the Northern Piedmont AREC in ORANGE, VIRGINIA in 2002 - Virginia Tech Trials.**

<b>Very Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Days To Silk</b>	<b>Ear Ht inches</b>
NK BRAND	N65-M7	117	14.0	65	41
MID-ATLANTIC	MA9060YG	107	14.4	65	46
DOEBLERS	HC540	97	14.6	68	45
PIONEER BRAND	34B23	96	14.8	65	44
MID-ATLANTIC	MA9070RR	94	14.3	64	42
Maturity Average		102	14.4	65	44
C.V.		14	3.1	2	5
L.S.D. (0.05)		22	0.7	2	3

<b>Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Days To Silk</b>	<b>Ear Ht inches</b>
ASGROW	RX708YG	110	14.1	65	45
PIONEER BRAND	32R25	110	14.6	70	52
SOUTHERN STATES	740	105	13.8	68	45
DOEBLERS	649XY	105	14.2	66	42
DEKALB	DKC58-78(YG)	102	14.2	65	42
PIONEER BRAND	33J57	102	13.9	68	46
DEKALB	DKC60-08(YG)	100	14.7	65	44
NK BRAND	N82-J6	100	14.1	69	46
MID-ATLANTIC	MA9140YG	99	14.4	68	47
BIO GENE	1130	98	13.8	67	46
ASGROW	RX664	98	14.0	65	42
MID-ATLANTIC	MA8011RR	98	14.3	66	40
PIONEER BRAND	33G26	97	14.1	69	45
DEKALB	DKC62-15	93	13.7	68	44

BIO GENE	1140	91	13.7	69	49
DEKALB	DKC64-11(RR/Y	85	14.0	68	45
DOEBLERS	749XYG	81	14.0	69	44
DEKALB	DKC60-19(RR/Y	80	14.6	66	39
PIONEER BRAND	32W86	77	13.9	69	46
NK BRAND	N72-J5	77	14.5	68	41
MID-ATLANTIC	MA9137	75	14.2	68	42
Maturity Average		94	14.1	67	44
C.V.		9	3.3	2	3
L.S.D. (0.05)		12	0.7	2	2

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Days To Silk	Ear Ht inches
PIONEER BRAND	31B13	129	15.1	69	51
PIONEER BRAND	32D99	112	14.8	69	47
MID-ATLANTIC	MA9184YG	109	15.5	69	49
HYTEST	7806Bt	109	15.4	68	45
BIO GENE	4220	106	14.6	69	51
AUGUSTA	2062Prescribe	104	14.4	69	49
HYTEST	HT7761	104	14.7	67	44

**Table 14. Corn Yields at the Northern Piedmont AREC in ORANGE, VIRGINIA in 2002 - Virginia Tech Trials, continued.**

Medium Maturity, cont. Brand/Company	Hybrid	Yield bu/A	Moist %	Days To Silk	Ear Ht inches
AUGUSTA	2062	102	14.2	69	49
MID-ATLANTIC	MA8166RR	102	14.3	70	50
AUGUSTA	9552	102	14.3	70	47
SOUTHERN STATES	842RR	101	14.5	69	45
PIONEER BRAND	31G98	101	14.7	70	47
BIO GENE	1152	101	14.6	69	43
AUGUSTA	3562	100	14.5	70	49
AUGUSTA	2062Gaucho	100	14.3	70	49
DOEBLERS	760DT	99	14.4	68	46
DEKALB	DKC66-50	97	14.6	68	45
DEKALB	DKC65-26(YG)	95	14.5	69	43
AUGUSTA	5635	91	14.4	71	49
SOUTHERN STATES	849CL	84	14.5	69	44
Maturity Average		102	14.6	69	47
C.V.		8	5.0	2	3
L.S.D. (0.05)		11	1.0	2	2

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Days To Silk	Ear Ht inches
PIONEER BRAND	31R88	94	15.4	70	48
Location Average		99	14.4	68	45

**Table 15. Two-year average corn yields at ORANGE, VA in 2001 and 2002.**

<b>Very Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Days To Silk</b>	<b>Ear Ht inches</b>
PIONEER BRAND	34B23	155	14.8	71	47
DOEBLERS	HC540	153	14.6	74	50
Maturity Average		154	14.7	72	49
C.V.		8	3.1	1	2
L.S.D. (0.05)		16	0.6	1	1

<b>Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Days To Silk</b>	<b>Ear Ht inches</b>
PIONEER BRAND	33J57	165	14.2	74	51
PIONEER BRAND	32R25	162	15.5	77	57
NK BRAND	N82-J6	152	15.6	75	50
SOUTHERN STATES	740	148	14.7	74	48
MID-ATLANTIC	MA8011RR	148	14.6	72	44
MID-ATLANTIC	MA9140YG	146	14.8	74	51
BIO GENE	1130	146	14.8	73	49
MID-ATLANTIC	MA9137	137	14.9	73	46
Maturity Average		151	14.9	74	49
C.V.		10	3.2	2	4
L.S.D. (0.05)		16	0.5	1	2

<b>Medium Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Days To Silk</b>	<b>Ear Ht inches</b>
PIONEER BRAND	31B13	180	15.0	74	55
AUGUSTA	9552	170	15.4	77	56
AUGUSTA	3562	169	15.6	75	55
BIO GENE	4220	168	15.5	74	56
AUGUSTA	2062	167	15.5	74	54
PIONEER BRAND	31G98	167	15.2	76	54



MID-ATLANTIC	MA9184YG	163	15.6	74	53
AUGUSTA	5635	160	15.5	77	57
HYTEST	7806Bt	157	16.5	73	50
DOEBLERS	760DT	155	15.5	74	49
SOUTHERN STATES	842RR	145	16.3	75	51
Maturity Average		164	15.6	75	54
C.V.		7	5.2	1	4
L.S.D. (0.05)		12	0.8	1	2

<b>Mid-Full Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Days To Silk</b>	<b>Ear Ht inches</b>
PIONEER BRAND	31R88	154	16.7	76	56
Location Average		158	15.3	74	52

**Table 16. Three-year average corn yields at ORANGE, VA in 2000, 2001, and 2002.**

<b>Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Days To Silk</b>	<b>Ear Ht inches</b>
PIONEER BRAND	32R25	177	16.9	75	57
NK BRAND	N82-J6	169	17.5	73	50
MID-ATLANTIC	MA8011RR	159	16.0	69	45
MID-ATLANTIC	MA9137	155	16.4	72	47
Maturity Average		165	16.7	72	50
C.V.		9	3.5	2	5
L.S.D. (0.05)		12	0.5	1	2

<b>Medium Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Days To Silk</b>	<b>Ear Ht inches</b>
PIONEER BRAND	31B13	192	16.8	73	55
PIONEER BRAND	31G98	182	17.2	74	54
AUGUSTA	9552	182	17.9	76	56
BIO GENE	4220	179	17.6	73	55
AUGUSTA	2062	178	17.6	73	54
Maturity Average		185	17.4	74	55
C.V.		5	4.3	1	4
L.S.D. (0.05)		8	0.6	1	2

<b>Mid-Full Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Days To Silk</b>	<b>Ear Ht inches</b>
PIONEER BRAND	31R88	173	18.4	74	56
Location Average		175	17.2	73	53

**Table 17. Corn Yields at the Jordan Farm in Rockingham County, Virginia (SHENANDOAH VALLEY) in 2002 - Virginia Tech Trials.**

<b>Very Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
MID-ATLANTIC	MA9060YG	141	16.3	54.2
NK BRAND	N65-M7	135	16.8	55.5
PIONEER BRAND	34B23	133	17.8	58.2
MID-ATLANTIC	MA9070RR	124	16.2	55.2
Maturity Average		133	16.8	55.8
C.V.		9	4.5	1.3
L.S.D. (0.05)		19	1.2	1.2

<b>Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
DOEBLERS	638XYG	162	17.8	55.6
PIONEER BRAND	33J57	162	17.4	57.0
MID-ATLANTIC	MA9140YG	154	16.8	56.4
AUGUSTA	3387	149	17.1	55.9
PIONEER BRAND	32W86	148	18.4	53.3
MID-ATLANTIC	MA8011RR	147	16.6	54.9
PIONEER BRAND	32K64	146	17.0	58.8
PIONEER BRAND	33G26	144	17.6	58.8
SOUTHERN STATES	692Bt	143	19.3	56.6
AUGUSTA	4587	140	15.4	55.4
NK BRAND	N72-J5	140	17.0	55.3
BIO GENE	1130	138	17.8	56.8
SOUTHERN STATES	740	137	17.8	57.3
MID-ATLANTIC	MA9137	132	16.7	55.8
DOEBLERS	649XY	129	16.4	55.7
BIO GENE	1140	116	17.0	55.6
Maturity Average		144	17.2	56.3
C.V.		10	4.4	3.2
L.S.D. (0.05)		22	1.2	2.8

<b>Medium Maturity</b>		<b>Yield</b>	<b>Moist</b>	<b>Test Wt</b>
------------------------	--	--------------	--------------	----------------

Brand/Company	Hybrid	bu/A	%	lb/bu
PIONEER BRAND	32D99	159	18.7	56.4
BIO GENE	1152	156	19.3	54.9
NK BRAND	N83-Z8	151	20.0	56.9
DOEBLERS	760DT	150	18.0	56.9
HYTEST	HT7761	149	17.9	56.4
GARST	8288	141	17.8	56.1
SOUTHERN STATES	849CL	139	18.1	52.0
AUGUSTA	3562	139	17.6	54.9
DOEBLERS	797RYG	135	18.2	54.8
MID-ATLANTIC	MA9184YG	135	18.6	56.3
HYTEST	7806Bt	135	19.0	55.3
GARST	8230IT	133	16.8	52.0
BIO GENE	4220	133	18.7	56.4
PIONEER BRAND	31G98	125	15.5	56.4
MID-ATLANTIC	MA8166RR	124	18.4	54.3

**Table 17. Corn Yields at the Jordan Farm in Rockingham County, Virginia (SHENANDOAH VALLEY) in 2002 - Virginia Tech Trials, continued.**

Medium Maturity, cont.				
Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
AUGUSTA	3152	122	15.9	53.2
AUGUSTA	2062	121	18.6	55.7
SOUTHERN STATES	842RR	115	16.5	52.3
Maturity Average		136	17.9	55.0
C.V.		10	4.7	1.0
L.S.D. (0.05)		20	1.3	0.8

Mid-Full Maturity				
Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	31R88	145	20.4	55.5
VT	BORDER	140	17.7	57.9
Maturity Average		142	19.1	56.7
C.V.		9	3.9	0.7
L.S.D. (0.05)		28	1.7	0.9
Location Average		139	17.6	55.7

**Table 18. Two-year average corn yields at SHENANDOAH VALLEY, VA in 2001 and 2002.**

Very Early Maturity				
Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	34B23	116	17.4	58.5

Early Maturity				
Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DOEBLERS	638XYG	142	18.8	55.9
AUGUSTA	3387	137	17.6	56.7
MID-ATLANTIC	MA9140YG	132	19.3	56.6
PIONEER BRAND	33J57	127	18.3	56.9
SOUTHERN STATES	740	125	18.6	57.7
MID-ATLANTIC	MA8011RR	125	17.7	56.4
MID-ATLANTIC	MA9137	119	17.8	57.1
PIONEER BRAND	32K64	116	18.1	58.6
Maturity Average		128	18.2	57.0
C.V.		17	5.1	1.3
L.S.D. (0.05)		23	1.0	0.8

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DOEBLERS	760DT	129	18.9	57.8
MID-ATLANTIC	MA9184YG	128	20.0	57.3
AUGUSTA	3562	126	20.0	54.3
AUGUSTA	2062	114	20.2	55.0
PIONEER BRAND	31G98	108	19.2	56.8
AUGUSTA	3152	106	18.5	53.9
SOUTHERN STATES	842RR	100	21.1	52.9
Maturity Average		116	19.7	55.5
C.V.		19	7.0	2.3
L.S.D. (0.05)		23	1.5	1.4

**Table 18. Two-year average corn yields at SHENANDOAH VALLEY, VA in 2001 and 2002, continued.**

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	31R88	120	21.9	54.1
Location Average		122	19	56.3

**Table 19. Three-year average corn yields at SHENANDOAH VALLEY, VA in 2000, 2001, and 2002.**

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DOEBLERS	638XYG	177	19.9	55.4
MID-ATLANTIC	MA8011RR	169	19.3	55.4
MID-ATLANTIC	MA9137	165	18.8	55.6
PIONEER BRAND	32K64	148	18.6	57.2
Maturity Average		164	19.1	55.9
C.V.		13	8.6	2.6
L.S.D. (0.05)		18	1.4	1.2

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	31G98	164	20.1	55.3
AUGUSTA	2062	153	21.4	54.7
Maturity Average		159	20.7	55.0
C.V.		13	7.0	1.9
L.S.D. (0.05)		20	1.3	1.0

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	31R88	154	23.0	52.8
Location Average		161	20.1	55.2

**Table 20. Corn Yields at Kentland Farm in BLACKSBURG, VIRGINIA in 2002 - Virginia Tech Trials.**

<b>Very Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
PIONEER BRAND	34B23	63	16.0	56.6
NK BRAND	N65-M7	43	16.4	55.8
Maturity Average		58	16.1	56.4
<b>Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
PIONEER BRAND	32W86	94	17.8	57.1
VIGORO	V5110	92	16.0	54.4
AUGUSTA	3685Prescribe	84	17.7	54.4
NK BRAND	N82-J6	81	18.8	54.8
AUGUSTA	285	75	15.6	53.1
DOEBLERS	749XYG	71	16.9	55.0
PIONEER BRAND	32K64	70	17.5	57.2
NK BRAND	N72-J5	69	17.5	55.5
AUGUSTA	3685	68	18.5	53.3
PIONEER BRAND	33G26	65	16.1	56.2
DOEBLERS	638XYG	59	15.8	53.2
PIONEER BRAND	33J57	51	18.5	57.0
AUGUSTA	3685Gaucho	47	16.2	53.1
Maturity Average		71	17.1	54.9
C.V.		23	5.9	1.9
L.S.D. (0.05)		25	1.5	1.6
<b>Medium Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
SOUTHERN STATES	842RR	86	18.4	51.8
DOEBLERS	760DT	81	17.3	54.7
NK BRAND	N83-Z8	81	19.2	55.0
AUGUSTA	9552	77	18.2	54.5
ZIMMERMAN	WX8272	76	21.0	54.5
SOUTHERN STATES	849CL	76	17.8	50.8
ZIMMERMAN	1851W	76	20.7	53.8
VIGORO	V5800	67	18.1	56.2
VIGORO	EX462009	67	18.1	55.1
DOEBLERS	797RYG	65	18.8	53.5
AUGUSTA	3562	65	18.8	53.7
AUGUSTA	5635	65	18.1	52.2
AUGUSTA	2062	64	19.0	54.8
VIGORO	V58C29	58	19.7	51.0
Maturity Average		72	18.8	53.7
C.V.		26	4.8	1.6
L.S.D. (0.05)		27	1.3	1.3

<b>Mid-Full Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
VIGORO	V61R36	91	20.7	57.2
PIONEER BRAND	31R88	81	21.4	54.4
Maturity Average		86	21.1	55.8
C.V.		21	2.9	0.6
L.S.D. (0.05)		40	1.4	0.8
Location Average		72	18.2	54.4

**Table 21. Two-year average corn yields at BLACKSBURG, VA in 2001 and 2002.**

<b>Very Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
PIONEER BRAND	34B23	106	16.5	54.1

<b>Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
NK BRAND	N82-J6	115	19.1	53.0
PIONEER BRAND	32K64	109	17.1	54.8
PIONEER BRAND	33J57	104	17.4	52.2
DOEBLERS	638XYG	96	16.1	52.2
Maturity Average		106	17.5	53.1
C.V.		15	7.8	3.5
L.S.D. (0.05)		18	1.5	2.1

<b>Medium Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
SOUTHERN STATES	842RR	125	21.6	49.4
AUGUSTA	3562	116	20.8	51.3
AUGUSTA	9552	116	19.1	52.9
DOEBLERS	760DT	114	18.1	54.1
AUGUSTA	2062	112	19.9	53.6
NK BRAND	N83-Z8	111	20.0	53.9
AUGUSTA	5635	110	20.5	50.8
Maturity Average		115	20.0	52.3
C.V.		14	4.4	2.1
L.S.D. (0.05)		17	0.9	1.1

<b>Mid-Full Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
PIONEER BRAND	31R88	129	22.9	51.8
Location Average		113	19.2	52.6

**Table 22. Three-year average corn yields at BLACKSBURG, VA in 2000, 2001, and 2002.**

<b>Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
PIONEER BRAND	32K64	140	19.0	57.0

<b>Medium Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
BIO GENE	4220	190	23.0	59.1
AUGUSTA	9552	141	19.4	54.4
AUGUSTA	2062	141	20.6	55.4
NK BRAND	N83-Z8	141	21.8	55.5
Maturity Average		146	20.8	55.5

C.V.	12	3.9	1.9
L.S.D. (0.05)	19	0.9	1.1

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	31R88	158	23.0	53.3

Location Average	147	20.9	55.4
------------------	-----	------	------

**Table 23. Corn Yields on the Huffard Farm in WYTHE COUNTY, VIRGINIA in 2002 - Virginia Tech Trials.**

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DOEBLERS	HC540	117	27.5	49.2

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
VIGORO	V5110	134	29.5	48.4
PIONEER BRAND	33J57	127	25.8	49.8
DOEBLERS	649XY	127	27.0	49.3
PIONEER BRAND	32W86	122	29.7	51.4
PIONEER BRAND	32K64	104	29.2	48.7

Maturity Average	122	28.3	49.5
C.V.	9	6.1	3.6
L.S.D. (0.05)	16	2.7	2.7

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
GARST	8230IT	138	29.4	49.6
GARST	8288	136	28.0	51.1
GARST	8348	119	30.2	49.2
AUGUSTA	2062	116	27.7	51.4
DOEBLERS	760DT	106	30.8	47.8
VIGORO	EX462009	100	27.2	50.7
AUGUSTA	3562	100	28.6	50.7
VIGORO	V58C29	99	30.4	50.9
AUGUSTA	5635	98	28.3	49.0
VIGORO	V5800	98	28.9	50.1
SOUTHERN STATES	849CL	83	30.3	47.5
SOUTHERN STATES	842RR	83	29.3	49.5
Maturity Average		106	29.1	49.8
C.V.		8	7.3	3.1
L.S.D. (0.05)		12	3.0	2.2

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	31R88	108	28.6	48.5
VIGORO	V61R36	101	30.8	48.6

Maturity Average	104	29.7	48.5
C.V.	10	5.6	2.8
L.S.D. (0.05)	25	3.8	3.1

Location Average	111	28.8	49.6
------------------	-----	------	------

**Table 24. Two-year average corn yields at WYTHE COUNTY, VA in 2001 and 2002.**

<b>Very Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
DOEBLERS	HC540	134	20.2	52.6

<b>Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
PIONEER BRAND	33J57	126	20.0	52.7
PIONEER BRAND	32K64	106	22.5	53.9

Maturity Average	116	21.2	53.3
C.V.	13	6.1	2.3
L.S.D. (0.05)	19	1.6	1.5

<b>Medium Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
DOEBLERS	760DT	133	22.6	52.3
AUGUSTA	2062	126	23.6	54.5
AUGUSTA	3562	121	24.0	52.8
AUGUSTA	5635	118	22.9	51.6
SOUTHERN STATES	842RR	108	24.6	50.0

Maturity Average	121	23.6	52.2
C.V.	15	8.6	2.6
L.S.D. (0.05)	19	2.1	1.4

<b>Mid-Full Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
PIONEER BRAND	31R88	140	25.7	52.6

Location Average	123	22.9	52.6
------------------	-----	------	------

**Table 25. Three-year average corn yields at WYTHE COUNTY, VA in 2000, 2001, and 2002.**

<b>Early Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
PIONEER BRAND	32K64	143	23.2	54.8

<b>Medium Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
AUGUSTA	2062	154	24.8	54.0

<b>Mid-Full Maturity Brand/Company</b>	<b>Hybrid</b>	<b>Yield bu/A</b>	<b>Moist %</b>	<b>Test Wt lb/bu</b>
PIONEER BRAND	31R88	163	26.7	53.0

Location Average	153	24.9	54.0
------------------	-----	------	------



## SECTION II. VIRGINIA CORN SILAGE TRIALS IN 2002.

### Companies Participating in the 2002 Corn Silage Trials

Company	Brand	Address
AUGUSTA SEED CORPORATION	AUGUSTA	106 FAIRBURN RD MT SOLON VA 22843
CHEMGRO SEEDS	CHEMGRO	PO BOX 218 EAST PETERSBURG PA 17520
DOEBLER'S PA. HYBRIDS INC.	DOEBLER'S	202 TIADAGHTON AVE JERSEY SHORE PA 17740
HYTEST SEEDS	HYTEST	PO BOX 3147 SHIREMANSTOWN PA 17011
LAND O LAKES	CROPLAN	PO BOX 3147 SHIREMANSTOWN PA 17011
MID-ATLANTIC SEEDS	MID-ATLANTIC	204 ST CHARLES WAY #163E YORK PA 17403
MONSANTO	DEKALB AND ASGROW	3100 SYCAMORE RD DEKALB IL 60115
MYCOGEN SEEDS	CARGILL	6429 OLD WILLIAM PENN HWY EXPORT PA 15632
PIONEER HI-BRED INT'L., INC.	PIONEER BRAND	800 TIFFANY BLVD SUITE 200 ROCKY MOUNT NC 27804
RENAISSANCE NUTRITION, INC.	WOLF RIVER VALLEY SEEDS	PO BOX 229 ROARING SPRINGS PA 16673
SOUTHERN STATES COOP., INC.	SOUTHERN STATES	PO BOX 26234 RICHMOND VA 23260
SYNGENTA SEEDS, INC.	NK BRAND	PO BOX 959 MINNEAPOLIS MN 55440
WILSON GENETICS	ZIMMERMAN	PO BOX 716 HARLAN IA 51537

Corn silage trials were conducted at four locations in Virginia in 2002. All hybrids entered in the Corn Silage Variety Trials were those submitted by commercial companies. Companies entering hybrids were charged a fee for each hybrid to support the Corn Silage Variety Testing Program. Company representatives selected the maturity groups into which hybrids were entered. Guidelines are as follows:

VE	Very Early	<105 days	M	Medium	115-120 days
E	Early	105-114 days	L	Mid/Full Season	120+ days.

Plot information is as follows (rates are on a per acre basis):

#### Shenandoah Valley (Thanks to the Jordan farm in Rockingham County)

**Planted:** May 15, 2002  
**Harvested:** September 5, 2002  
**Pesticide:** 2.1 qt Bicep II Magnum® + 1.4 qt Princep® + 0.9 oz Python® + 5.8 oz Asana® + 1 pt gramoxone May 5, 2002 + 4.4 lb Force 3G® at planting  
**Fertilizer:** 20 lb N + 10 lb S preplant incorporated May 5, 2002 + 20 gal 15-15-0 + S + micronutrients at planting  
**Plot Size:** 2 rows 35' x 30" 4 replications  
**Cooperators:** Tom Stanley, Chris Lawrence, and the Jordan family

#### Blackstone (Thanks to the Southern Piedmont Agricultural Research & Extension Center)

**Planted:** April 16, 2002  
**Harvested:** not harvested due to severe drought  
**Pesticide:** 4.4 lb Force 3G® at planting + 1.5 qt Bladex 4L + 1 qt Dual II April 16, 2002  
**Fertilizer:** 1 ton lime February 26, 2002 + 1000 lb 10-10-10 preplant incorporated April 8, 2002 + 20 gal 15-15-0 + S + micronutrients at planting + 80 lb N May 28, 2002  
**Plot Size:** 2 rows 25' x 30" 4 replications  
**Soil Type:** Chesterfield-Mayodan-Bourne complex

**Cooperators:** C Teutsch, W. B. Wilkinson and R. Wilmouth

#### Wythe County (Thanks to the Huffard Farm and the Fowlkes Equipment Company)

**Planted:** May 9, 2002  
**Harvested:** September 9, 2002  
**Pesticide:** 2.2 qt Bicep II Magnum® + 1 qt Roundup Ultra Max® + 3 oz Warrior® May 2, 2002 + 4.4 lb Force 3G® at planting  
**Fertilizer:** 68-96-206 using manure September 28, 2001 + 50 units UAN May 2, 2002 + 20 gal 15-15-0 + S + micronutrients at planting + 50 units urea May 11, 2002 + 60 units urea May 20, 2002  
**Plot Size:** 2 rows 35' x 30" 4 replications  
**Cooperators:** David Danner, Scott Jerrell, Andy Overbay, and John Huffard

#### Fauquier County (Thanks to O.B. Messick and Sons, Inc.)

**Planted:** May 7, 2002  
**Harvested:** August 22, 2002  
**Pesticide:** 1 qt Bicep II Magnum® + 1 oz Python® preplant incorporated + 4.4 lb Force 3G® at planting  
**Fertilizer:** 8000 gal dairy manure + 60 lb N preplant + 20 gal 15-15-0 + S + micronutrients at planting  
**Plot Size:** 2 rows 35' x 30" 4 replications  
**Cooperators:** Keith Dickinson and the Messick Family

Yields are reported as harvested (at the dry matters indicated) and as adjusted to 35% dry matter. Adjusted yields are better for making hybrid comparisons. Hybrids have been ordered by descending yields adjusted to 65% moisture. The least significant differences (LSDs) are an indicator of the amount of variation that was observed across the samples within maturity groups. For each characteristic, we can be 95% sure that two varieties are truly different only if they differ by the amount of the LSD or more. It is recommended that in selecting corn varieties for silage, select first those with good yield potential from the relative maturity group you need and then rank those high-yielding varieties for fiber digestibility. For corn silage, whole plant moisture is our best indicator of maturity at harvest and can have a dramatic impact on fiber quality. In comparing digestibilities, consider the dry matter % at harvest as well.

#### Abbreviation Key

TDN	Total Digestible Nutrients	G	Gain	L	Lactation
NE	Net Energy	ADF	Acid Detergent Fiber	NDF	Neutral Detergent Fiber

**Table 26. Corn silage varieties at the Shenandoah Valley in VA in 2002 (thanks to the Jordan Farm of Rockingham County, VA).**

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
VE	Augusta	2959Gaucho	24.58	52.3	16.60	6.8	69.3	0.69	0.46	21.5	36.6	77.5	39.1
VE	Augusta	508	23.04	49.2	16.54	6.2	69.0	0.69	0.46	23.1	40.3	77.8	45.1
VE	Mycogen	5481FQ	22.06	47.7	16.31	7.9	69.3	0.69	0.46	22.7	42.9	77.2	47.0
Maturity Average			23.22	49.80	16.48	7.0	69.2	0.69	0.46	22.4	39.9	77.5	43.7
L.S.D. (0.10)			2.07	1.77	1.23	1.9	0.8	0.01	0.01	2.7	12.9	8.5	3.1

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
E	Mid-Atlantic	MA9140YG	24.67	43.0	20.22	8.0	69.2	0.69	0.46	21.4	41.3	76.4	43.0
E	Pioneer Brand	32W86	24.32	50.2	16.98	7.3	68.9	0.69	0.46	24.0	42.7	76.7	45.6
E	Augusta	4487	24.29	48.5	17.52	7.0	68.9	0.69	0.46	23.9	43.5	77.2	47.2
E	Pioneer Brand	33J57	23.70	46.1	18.03	6.9	68.9	0.69	0.46	23.8	44.4	77.0	48.0
E	Doebblers	638XYG	23.54	46.3	17.83	7.2	69.5	0.70	0.46	22.1	40.5	78.8	47.7
E	Augusta	3885	23.49	46.8	17.66	7.0	69.7	0.70	0.47	21.7	40.5	76.7	43.2
E	Mycogen	7512	23.28	44.8	18.19	7.7	68.8	0.69	0.46	23.9	39.4	78.2	46.0
E	Virginia Tech	BMR101	20.98	40.6	18.08	7.2	69.6	0.70	0.47	22.3	42.1	80.4	53.3
Maturity Average			23.53	45.8	18.07	7.3	69.2	0.69	0.46	22.9	41.8	77.7	46.7
L.S.D. (0.10)			2.21	2.6	1.55	1.0	2.0	0.03	0.03	5.7	7.0	6.9	11.4

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
M	Dekalb	DKC66-50	26.23	54.4	16.91	5.7	70.0	0.70	0.47	20.7	38.2	79.0	45.5
M	Dekalb	DKC64-10(RR)	25.51	47.5	18.79	6.4	69.0	0.69	0.46	23.6	42.7	78.0	48.3
M	Zimmerman	1851W	25.49	46.8	19.13	6.1	69.3	0.69	0.46	23.2	43.4	77.4	47.9
M	Pioneer Brand	31R88	25.01	45.1	19.65	6.3	68.0	0.68	0.44	24.8	42.5	77.7	47.8
M	Augusta	3152	24.98	43.9	19.90	5.6	68.2	0.68	0.45	25.3	44.1	76.9	47.3
M	Pioneer Brand	31G98	24.32	48.8	17.44	7.3	68.0	0.68	0.44	25.9	41.5	77.4	45.0
M	Dekalb	DKC68-70(YG)	24.26	41.2	20.60	5.2	68.7	0.68	0.45	24.4	42.0	77.2	46.1
M	Dekalb	DK647BtY	24.09	51.4	16.42	6.4	69.6	0.69	0.46	22.5	39.2	76.0	38.9
M	Doebblers	760DT	23.52	49.4	16.69	7.1	68.8	0.69	0.46	24.2	42.1	78.5	49.2
M	Mid-Atlantic	MA9185RR	23.48	47.8	17.18	6.3	69.3	0.69	0.46	23.1	41.7	79.2	50.1
M	Wolf River	2118	23.35	41.8	19.56	6.6	68.6	0.68	0.45	24.5	45.9	74.7	44.9
M	Augusta	3847	23.21	48.8	16.65	6.0	68.4	0.68	0.45	24.9	45.2	78.2	51.9

**Table 26, continued. Corn silage varieties at the Shenandoah Valley in VA in 2002 (thanks to the Jordan Farm of Rockingham County, VA).**

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
M	Southern States	842RR	23.17	46.5	17.52	7.1	69.0	0.69	0.46	23.6	46.1	79.8	56.0
M	Augusta	5635	23.17	42.1	19.30	5.7	66.8	0.66	0.43	28.2	48.6	75.3	49.2
M	Dekalb	DKC69-70(YG)	23.08	45.1	17.90	6.4	67.4	0.67	0.44	27.0	45.6	74.6	43.8
M	Chemgro	7227	22.79	49.1	16.27	6.1	69.8	0.70	0.47	21.6	39.3	79.1	46.9
M	Augusta	2062	22.50	45.6	17.28	6.3	67.7	0.67	0.44	26.4	42.4	76.0	42.8
M	Hyttest	HT7806Bt	22.37	46.3	16.88	6.3	68.8	0.69	0.46	23.8	40.2	76.8	41.9
M	Augusta	3556	22.34	44.3	17.7	5.4	67.4	0.67	0.44	27.0	45.8	74.0	42.6

M	Chemgro	7311	21.91	47.0	16.33	6.8	68.7	0.69	0.46	24.3	43.1	76.6	45.9
M	Pioneer Brand	32D99	21.84	41.1	18.62	5.3	65.8	0.65	0.42	30.4	52.4	68.2	39.2
M	Dekalb	DKC65-00(RR)	21.75	43.0	17.69	5.8	68.0	0.68	0.45	25.7	44.5	76.2	46.3
M	Wolf River	2116L	21.69	41.1	18.46	6.0	67.5	0.67	0.44	26.9	48.5	76.8	51.9
M	Southern States	849CL	21.04	43.8	16.84	7.1	67.0	0.67	0.43	27.9	47.2	76.0	50.0
M	NK Brand	N82-J6	19.98	41.5	16.91	6.1	67.7	0.67	0.44	26.5	46.9	78.4	54.3
M	Dekalb	DKC66-00(RR)	18.90	44.8	14.75	6.0	68.0	0.68	0.45	25.8	43.9	77.3	48.2
Maturity Average			23.08	45.7	17.75	6.2	68.3	0.68	0.45	25.1	44.0	76.7	47.0
L.S.D. (0.10)			2.89	2.5	2.37	1.5	2.1	0.02	0.03	4.7	7.1	4.7	8.9

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
L	Hyttest	TNT118	24.91	45.8	19.00	7.6	68.8	0.69	0.45	24.2	45.8	77.9	51.6
L	Mid-Atlantic	MA8200ARR	24.53	50.0	17.21	8.1	70.0	0.70	0.47	19.3	40.9	80.5	52.5
L	Croplan	DS822RR	23.94	47.2	17.75	7.6	69.3	0.69	0.46	23.2	42.7	78.6	49.9
L	Hyttest	HT7924	22.64	46.6	17.01	7.5	69.4	0.69	0.46	21.8	40.7	79.3	49.1
L	Doebler's	S807Q	21.88	43.7	17.55	7.8	69.0	0.69	0.46	23.6	40.8	77.9	46.4
L	Mid-Atlantic	MA9200	20.97	44.5	16.51	7.8	69.9	0.70	0.47	21.4	43.6	78.8	51.4
L	Mid-Atlantic	MA9226	20.94	41.2	17.80	7.5	70.0	0.70	0.47	21.3	38.6	79.7	47.4
L	NK Brand	N91-R9	20.53	34.8	20.64	6.3	64.4	0.64	0.40	33.3	57.2	69.5	45.9
L	Augusta	3869	20.04	34.5	20.34	7.4	67.8	0.68	0.44	26.2	49.0	75.8	50.6
Maturity Average			22.26	43.2	18.20	7.5	68.7	0.68	0.45	23.8	44.4	77.5	49.4
L.S.D. (0.10)			1.98	1.5	1.60	0.6	1.1	0.01	0.02	2.5	5.6	3.4	2.5

**Table 27. Two-year averages of corn silage varieties at the Shenandoah Valley in VA in 2001 and 2002.**

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
VE	Augusta	508	20.83	40.6	18.47	7.3	69.3	0.69	0.46	22.7	41.9	78.5	48.5
VE	Mycogen	5481FQ	20.76	37.2	20.90	8.5	69.0	0.69	0.46	23.4	44.4	77.6	49.5
	Maturity Average		20.80	38.9	19.69	7.9	69.2	0.69	0.46	23.1	43.1	78.0	49.0
	L.S.D. (0.10)		1.64	0.7	1.50	1.5	0.5	0.01	0.01	1.3	4.3	3.1	4.2

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
E	Doebblers	638XYG	22.17	38.2	20.96	8.2	69.3	0.69	0.46	22.8	42.0	78.8	49.3
E	Pioneer Brand	33J57	21.69	37.4	20.93	8.3	68.3	0.68	0.45	25.2	46.8	76.2	49.1
E	Augusta	3885	20.31	38.5	18.73	8.1	69.1	0.69	0.46	23.3	43.9	77.6	48.8
E	Mycogen	7512	20.19	35.8	20.29	8.8	68.6	0.68	0.45	24.4	43.3	77.7	48.7
	Maturity Average		21.09	37.5	20.23	8.3	68.8	0.69	0.45	23.9	44.0	77.6	49.0
	L.S.D. (0.10)		2.11	0.8	2.24	0.8	1.4	0.02	0.02	3.5	3.3	3.7	5.5

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
M	Pioneer Brand	31G98	24.53	38.6	23.98	7.8	67.9	0.68	0.44	26.0	43.2	77.0	46.4
M	Pioneer Brand	31R88	24.40	36.9	24.32	7.0	68.0	0.68	0.44	25.3	45.4	76.0	47.3
M	Dekalb	DKC68-70(YG)	24.29	34.7	25.37	7.0	68.9	0.69	0.46	23.9	43.1	78.5	50.1
M	Dekalb	DKC69-70(YG)	23.73	36.5	24.26	7.6	67.6	0.67	0.44	26.6	49.2	75.1	48.8
M	Augusta	5635	23.41	36.7	22.85	7.2	67.3	0.67	0.44	27.3	48.6	76.2	50.9
M	Mid-Atlantic	MA9185RR	22.85	38.8	21.66	7.6	68.9	0.68	0.45	23.9	43.8	79.1	52.1
M	Augusta	3556	22.24	37.2	21.75	6.9	68.0	0.68	0.44	25.7	45.7	76.7	48.6
M	Augusta	2062	22.09	36.6	22.41	7.4	68.0	0.68	0.44	25.9	43.2	75.9	43.8
M	NK Brand	N82-J6	21.84	35.5	22.56	7.3	68.2	0.68	0.45	25.4	46.7	78.4	53.9
M	Dekalb	DKC66-50	21.75	42.1	18.56	7.1	69.4	0.69	0.46	22.5	41.7	77.2	45.5
M	Doebblers	760DT	21.37	41.2	18.55	8.0	68.8	0.69	0.46	24.0	44.0	76.7	47.4
M	Southern States	842RR	21.37	38.8	19.73	7.7	68.8	0.69	0.45	24.1	45.7	77.3	50.3
M	Dekalb	DK647BtY	20.73	39.7	19.07	7.8	69.1	0.69	0.46	23.6	42.6	76.7	44.8

**Table 27, continued. Two-year averages of corn silage varieties at the Shenandoah Valley in VA in 2001 and 2002.**

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
M	Southern States	849CL	20.48	37.7	19.45	7.7	68.0	0.68	0.44	25.8	44.6	77.5	50.2
M	Dekalb	DKC64-10(RR)	20.44	37.7	19.02	7.6	68.2	0.68	0.45	25.4	45.5	76.7	48.8
	Maturity Average		22.37	37.9	21.57	7.4	68.3	0.68	0.45	25.0	44.9	77.0	48.6
	L.S.D. (0.10)		1.81	1.7	1.51	0.9	1.2	0.01	0.02	2.7	4.1	3.1	5.9

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
L	Hyttest	TNT118	24.48	37.3	24.12	8.1	68.1	0.68	0.44	25.6	47.9	76.9	51.7
L	NK Brand	N91-R9	22.92	31.1	26.51	7.2	66.1	0.66	0.42	29.7	54.5	72.3	49.1
L	Hyttest	HT7924	22.22	39.3	20.40	7.8	69.2	0.69	0.46	22.8	42.2	78.7	49.7
L	Doebblers	S807Q	21.78	37.1	21.20	8.0	68.4	0.68	0.45	24.9	47.1	76.0	49.1
L	Mid-Atlantic	MA9200	19.91	36.9	19.56	8.3	69.7	0.70	0.47	22.1	43.9	78.2	50.5
	Maturity Average		22.26	36.3	22.36	7.9	68.3	0.68	0.45	25.0	47.1	76.4	50.0
	L.S.D. (0.10)		1.26	0.8	1.32	0.5	0.5	0.01	0.01	1.2	3.2	2.1	2.2

**Table 28. Three-year averages of corn silage varieties at the Shenandoah Valley in VA in 2000, 2001, and 2002.**

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
E	Doebblers	638XYG	23.59	35.9	25.58	8.1	68.3	0.7	0.5	24.9	44.2	76.0	45.9
E	Cargill	7512	22.85	33.6	26.62	8.7	69.0	0.7	0.5	23.4	41.3	78.5	48.1
	Maturity Average		23.22	34.8	26.10	8.4	68.7	0.68	0.45	24.2	42.7	77.2	47.0
	L.S.D. (0.10)		0.90	0.3	1.06	1.3	2.2	0.02	0.03	4.5	7.1	5.2	6.0

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
M	Pioneer Brand	31G98	28.71	37.0	30.19	7.4	68.5	0.7	0.5	24.6	41.1	76.7	42.8
M	Augusta	5635	28.38	36.3	28.07	7.1	67.7	0.7	0.4	26.4	44.9	75.7	45.2

**Table 28, continued. Three-year averages of corn silage varieties at the Shenandoah Valley in VA in 2000, 2001, and 2002.**

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
M	Pioneer Brand	31R88	27.36	35.0	30.43	7.2	67.9	0.7	0.4	25.7	44.0	75.3	43.7
M	Augusta	2062	26.15	35.9	27.01	7.3	68.3	0.7	0.5	24.8	42.8	75.1	41.4
M	NK_BRAND	N82-J6	25.29	35.0	26.35	7.2	68.8	0.7	0.5	24.1	44.5	79.0	52.8
M	Augusta	3556	24.73	35.9	25.83	6.8	68.1	0.7	0.4	25.7	45.6	75.2	45.2
M	Southern States	849CL	23.20	36.0	24.29	7.8	67.7	0.7	0.4	26.4	45.3	75.9	46.8
	Maturity Average		26.26	35.9	27.45	7.3	68.1	0.68	0.44	25.4	44.0	76.1	45.4
	L.S.D. (0.10)		1.89	2.1	1.69	0.7	1.2	0.01	0.02	2.7	3.5	3.6	6.3

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
L	NK Brand	N91-R9	25.57	30.5	30.51	6.8	65.7	0.65	0.41	30.5	54.5	71.8	48.5
L	Mid-Atlantic	MA9200	24.37	36.0	24.97	8.0	69.6	0.69	0.47	22.3	43.2	78.2	49.6
	Maturity Average		24.97	33.3	27.74	7.4	67.7	0.67	0.44	26.4	48.8	75.0	49.1
	L.S.D. (0.10)		1.39	1.9	1.70	0.7	0.9	0.01	0.01	1.7	1.9	1.8	2.4

**Table 29. Corn silage varieties at Blackstone, VA in 2002 (thanks to the Southern Piedmont AREC).**

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
E	Mid-Atlantic	MA9140YG	8.39	34.2	8.62	10.6	67.3	0.67	0.43	27.3	60.5	74.6	58.5
E	Doebler's	638XYG	7.46	35.2	7.46	10.9	66.4	0.66	0.42	29.1	60.6	74.1	57.9
E	Pioneer Brand	33J57	7.21	32.3	7.81	11.7	67.0	0.67	0.43	28.0	60.5	74.3	58.0
E	Pioneer Brand	32W86	6.65	38.1	6.09	11.8	66.5	0.66	0.43	29.0	62.8	73.0	57.6
E	Augusta	4487	6.62	38.4	6.05	11.7	66.0	0.66	0.42	29.9	64.0	70.8	55.0
E	Virginia Tech	BMR101	6.23	28.9	7.54	12.2	64.9	0.64	0.40	32.2	66.2	80.4	71.4
Maturity Average			7.09	34.5	7.26	11.5	66.4	0.66	0.42	29.2	62.4	74.5	59.7
L.S.D. (0.10)			1.24	3.6	0.96	1.6	1.5	0.02	0.02	3.1	4.5	2.2	3.7

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
M	Dekalb	DKC68-70(YG)	9.72	30.2	11.17	10.5	68.0	0.68	0.45	25.9	57.8	77.4	60.6
M	Zimmerman	1851W	8.55	33.3	9.02	10.0	66.1	0.66	0.42	29.7	62.9	75.1	61.4
M	Pioneer Brand	31G98	8.25	34.7	8.28	10.4	67.5	0.67	0.44	26.9	55.8	77.6	60.5
M	Dekalb	DKC66-00(RR)	7.96	40.1	6.89	10.0	68.7	0.69	0.45	23.6	51.3	77.0	56.0
M	Mid-Atlantic	MA9185RR	7.91	30.0	9.16	10.4	65.8	0.66	0.41	30.4	61.1	75.5	59.5
M	NK Brand	N82-J6	7.90	33.7	8.19	11.4	67.0	0.67	0.43	27.9	61.7	74.6	58.7
M	Dekalb	DKC69-70(YG)	7.79	30.1	8.98	9.7	66.8	0.67	0.43	28.2	62.0	76.3	62.8
M	Pioneer Brand	31R88	7.79	35.9	7.70	9.1	65.7	0.65	0.42	30.6	60.3	72.5	55.0
M	Augusta	3847	7.58	35.7	7.39	9.9	66.8	0.67	0.43	28.2	62.1	72.0	54.9
M	Augusta	5635	7.54	31.6	8.39	10.8	66.5	0.66	0.42	28.9	60.8	76.2	61.9
M	Dekalb	DKC64-10(RR)	7.45	37.7	6.90	10.7	65.7	0.65	0.41	30.6	63.5	73.6	58.2
M	Dekalb	DKC65-00(RR)	7.34	37.7	6.74	11.1	67.4	0.67	0.44	27.1	60.1	72.2	53.6
M	Augusta	3562	7.25	31.6	8.07	10.4	66.8	0.67	0.43	28.3	58.8	75.2	57.8
M	Doebler's	82XP	6.97	29.7	8.19	11.9	65.7	0.66	0.42	30.7	62.6	72.9	57.6
M	Dekalb	DK647BtY	6.91	34.4	7.03	11.0	65.7	0.66	0.42	30.5	61.7	72.4	55.2
M	Pioneer Brand	32D99	6.87	36.0	6.70	10.4	67.1	0.67	0.44	27.7	58.9	73.4	54.7
M	Augusta	3556	6.73	29.5	7.88	10.3	66.3	0.66	0.42	29.4	60.5	72.9	55.1
M	Dekalb	DKC66-50	6.09	35.5	5.97	11.6	68.0	0.68	0.45	25.8	58.2	73.5	55.1
Maturity Average			7.59	33.7	7.93	10.5	66.7	0.66	0.43	28.4	60.0	74.5	57.7
L.S.D. (0.10)			1.44	3.7	1.20	1.5	2.2	0.03	0.03	4.8	9.3	4.8	7.4

**Table 29, continued. Corn silage varieties at Blackstone, VA in 2002 (thanks to the Southern Piedmont AREC).**

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
L	NK Brand	N91-R9	8.49	31.3	9.63	9.9	66.0	0.66	0.42	29.9	62.4	71.1	55.0
L	Mid-Atlantic	MA8200ARR	7.66	32.2	8.30	10.5	66.8	0.66	0.43	28.3	61.2	74.1	59.0
L	Augusta	3869	7.37	29.8	8.77	11.2	65.6	0.65	0.41	30.8	64.9	75.7	63.3
L	Mid-Atlantic	MA9200	7.18	34.5	7.29	11.8	67.6	0.67	0.44	26.6	60.8	72.9	55.6
L	Mid-Atlantic	MA9226	7.01	32.8	7.53	10.6	66.8	0.67	0.43	28.3	56.9	77.8	62.1
L	Doebblers	S807Q	6.88	29.4	8.24	12.5	65.8	0.66	0.42	30.3	64.8	75.4	62.7
Maturity Average			7.43	31.7	8.29	11.1	66.5	0.66	0.42	29.0	61.8	74.5	59.6
L.S.D. (0.10)			1.08	3.6	0.84	1.9	2.6	0.03	0.03	5.3	10.7	5.3	4.4

**Table 30. Two-year averages of corn silage varieties at Blackstone, VA in 2001 and 2002 (thanks to the Southern Piedmont AREC).**

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
E	Pioneer Brand	3394	23.54	42.8	19.29	5.2	66.0	0.66	0.42	29.9	52.6	72.6	48.0
E	Pioneer Brand	33J57	16.01	38.0	13.87	8.9	68.3	0.68	0.44	25.3	51.1	76.4	53.3
Maturity Average			19.77	40.4	16.58	7.1	67.1	0.67	0.43	27.6	51.8	74.5	50.6
L.S.D. (0.10)			0.74	3.0	1.17	0.7	2.6	0.03	0.04	5.4	10.1	6.5	3.4

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
M	Dekalb	DKC68-70(YG)	18.34	36.0	16.85	8.0	66.8	0.66	0.43	28.2	58.3	74.9	56.8
M	Augusta	3562	17.29	38.4	14.64	8.0	66.5	0.66	0.42	29.0	53.4	74.1	50.5
M	Augusta	5635	16.88	38.2	14.47	8.4	66.6	0.66	0.42	28.7	54.7	75.9	55.9
M	Doebblers	82XP	16.36	36.5	14.52	9.1	66.8	0.67	0.43	28.4	53.8	75.1	53.5
M	Dekalb	DK647BtY	15.97	37.8	14.12	8.1	65.6	0.65	0.41	30.7	57.1	72.0	50.6
M	Pioneer Brand	31R88	15.84	39.2	13.72	7.2	65.9	0.65	0.42	30.2	57.6	71.4	50.4
M	Augusta	3556	15.73	36.6	13.86	8.0	65.8	0.65	0.42	30.3	56.1	72.2	50.0
M	Dekalb	DKC64-10(RR)	15.42	40.1	13.11	8.3	66.2	0.66	0.42	29.6	56.8	73.5	52.5
M	Dekalb	DKC69-70(YG)	15.08	38.1	12.99	7.2	65.6	0.65	0.41	30.8	60.1	72.3	53.4
M	Dekalb	DKC66-50	14.51	39.5	12.28	8.9	67.9	0.68	0.44	26.1	52.4	74.8	51.7
Maturity Average			16.14	38.0	14.06	8.1	66.4	0.66	0.42	29.2	56.0	73.6	52.5
L.S.D. (0.10)			1.71	2.2	1.31	0.9	1.7	0.02	0.02	3.6	8.5	3.6	4.9

**Table 30, continued. Two-year averages of corn silage varieties at Blackstone, VA in 2001 and 2002 (thanks to the Southern Piedmont AREC).**

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
L	NK Brand	N91-R9	17.59	35.6	16.53	7.4	65.9	0.65	0.42	30.2	58.7	71.0	51.1
L	Doebblers	S807Q	16.08	35.8	14.63	8.7	65.3	0.65	0.41	31.4	60.5	72.9	55.2
L	Mid-Atlantic	MA9200	14.73	38.1	12.98	9.3	67.3	0.67	0.44	27.3	55.9	73.2	51.7
Maturity Average			16.13	36.5	14.71	8.5	66.1	0.66	0.42	29.6	58.4	72.4	52.7
L.S.D. (0.10)			1.71	1.9	1.42	1.1	3.5	0.03	0.04	7.2	11.6	6.7	2.6

**Table 31. Three-year averages of corn silage varieties at Blackstone, VA in 2000, 2001, and 2002 (thanks to the Southern Piedmont AREC).**



Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
M	Pioneer Brand	31R88	20.01	38.8	18.28	6.9	66.5	0.66	0.43	28.8	54.0	71.5	46.4
M	Augusta	5635	19.93	37.4	18.13	7.8	66.6	0.66	0.42	28.8	52.9	74.3	50.9
M	Augusta	3562	19.85	38.1	17.95	7.7	66.4	0.66	0.42	29.1	53.1	73.2	48.5
M	Augusta	3556	18.95	36.8	17.41	7.5	66.0	0.65	0.42	30.0	53.4	73.7	51.0
	Maturity Average		19.69	37.8	17.94	7.5	66.4	0.66	0.42	29.2	53.3	73.2	49.2
	L.S.D. (0.10)		1.30	1.8	1.04	0.5	1.3	0.01	0.02	2.8	6.4	2.8	4.2

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
L	NK Brand	N91-R9	20.79	35.1	20.79	7.0	65.6	0.65	0.41	30.9	56.8	70.7	48.8
L	Mid-Atlantic	MA9200	17.48	37.3	16.74	8.8	67.9	0.67	0.44	26.0	52.0	74.4	50.4
	Maturity Average		19.13	36.2	18.77	7.9	66.7	0.66	0.43	28.5	54.4	72.5	49.6
	L.S.D. (0.10)		1.35	1.0	1.20	1.2	2.4	0.02	0.03	4.9	10.4	5.9	2.6

**Table 32. Corn silage varieties at Wythe County, VA in 2002 (thanks to the Huffard Family).**

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
E	Mid-Atlantic	MA9140YG	17.86	42.0	14.93	7.2	68.6	0.69	0.45	24.5	41.9	76.4	43.8
E	Virginia Tech	BMR101	17.72	36.0	17.22	6.1	68.6	0.68	0.45	24.5	44.8	80.7	57.0
E	Doebler	HC540	17.29	44.6	13.59	6.3	67.5	0.68	0.44	26.8	48.2	73.8	45.3
E	Pioneer Brand	33J57	17.28	37.7	16.04	6.1	69.3	0.69	0.46	23.2	40.9	77.9	46.5
E	Pioneer Brand	32W86	16.88	40.8	14.50	6.5	68.1	0.68	0.45	25.7	42.3	75.0	41.0
E	Augusta	4487	14.81	38.4	13.50	6.2	69.1	0.69	0.46	23.4	41.6	75.5	41.5
Maturity Average			16.97	39.9	14.97	6.4	68.5	0.68	0.45	24.7	43.3	76.5	45.8
L.S.D. (0.10)			1.73	2.5	1.36	1.4	2.1	0.02	0.02	4.3	7.3	3.9	5.4

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
M	Pioneer Brand	31R88	19.78	37.0	18.69	5.9	68.9	0.69	0.46	24.0	42.3	77.9	47.7
M	Dekalb	DKC69-70(YG)	19.08	35.2	18.99	5.3	68.2	0.68	0.45	25.5	49.8	75.2	50.5
M	Zimmerman	1851W	18.85	35.6	18.48	7.2	68.0	0.68	0.45	25.8	46.4	72.7	40.9
M	Dekalb	DKC68-70(YG)	18.59	34.2	19.06	6.3	68.3	0.68	0.45	25.1	47.9	76.0	50.5
M	Dekalb	DKC65-00(RR)	18.53	34.5	18.83	6.6	69.3	0.69	0.46	23.1	42.0	78.0	47.5
M	Mid-Atlantic	MA9185RR	18.25	35.2	18.20	5.8	67.6	0.68	0.44	26.6	47.2	76.2	49.6
M	Augusta	2062	18.18	36.9	17.22	6.3	69.5	0.70	0.46	22.0	41.0	79.1	49.2
M	Augusta	3847	17.70	34.5	17.86	6.5	68.8	0.68	0.45	24.2	47.6	76.4	50.9
M	Pioneer Brand	32D99	17.37	35.7	17.14	5.6	68.6	0.68	0.45	24.7	45.2	76.7	48.8
M	Southern States	842RR	17.11	31.1	19.22	6.6	68.2	0.68	0.45	25.4	50.2	75.6	51.8
M	Dekalb	DKC64-10(RR)	17.11	36.4	16.41	6.6	68.5	0.68	0.45	24.6	45.8	74.2	43.6
M	Pioneer Brand	31G98	17.04	32.1	18.72	6.3	68.4	0.68	0.45	25.1	45.7	75.2	45.7
M	Augusta	5635	16.69	30.7	19.18	6.8	67.2	0.67	0.43	27.5	46.6	72.7	41.6
M	Dekalb	DK647BtY	16.40	38.9	14.96	6.7	69.7	0.70	0.47	20.8	38.2	78.7	43.9
M	Doebler	760DT	15.95	39.2	14.34	6.9	69.3	0.69	0.46	23.2	43.1	77.9	48.5
M	NK Brand	N82-J6	15.01	33.2	15.83	6.7	69.8	0.70	0.47	21.0	45.4	80.5	57.3
M	Augusta	3556	14.74	31.7	16.29	6.5	65.8	0.65	0.42	30.5	52.3	73.0	49.7
M	Dekalb	DKC66-50	14.33	39.9	12.59	6.3	69.8	0.70	0.47	21.4	43.9	78.0	50.6
M	Southern States	849CL	13.74	32.1	15.09	6.3	68.4	0.68	0.45	24.9	45.6	78.7	53.8
M	Dekalb	DKC66-00(RR)	12.84	39.7	11.51	7.1	69.1	0.69	0.46	22.5	39.8	78.8	46.8
Maturity Average			16.86	35.2	16.93	6.4	68.5	0.68	0.45	24.4	45.3	76.6	48.4
L.S.D. (0.10)			2.65	2.0	2.59	1.7	2.3	0.03	0.03	5.1	8.1	5.8	7.4

**Table 32, continued. Corn silage varieties at Wythe County, VA in 2002 (thanks to the Huffard Family).**

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
L	Mid-Atlantic	MA9200	17.70	36.3	17.07	7.4	68.9	0.69	0.46	24.0	43.1	80.4	54.4
L	Doebler	S807Q	17.47	37.5	16.32	7.7	69.8	0.70	0.47	22.1	39.7	76.5	41.5
L	NK Brand	N91-R9	16.57	30.7	18.95	7.1	67.6	0.67	0.44	26.7	47.7	75.5	48.7
L	Mid-Atlantic	MA8200ARR	16.53	33.3	17.39	7.8	67.9	0.68	0.44	26.1	50.8	76.3	52.6
L	Augusta	3869	16.11	30.1	18.73	7.0	68.1	0.68	0.45	25.7	45.4	78.5	52.8
L	Mid-Atlantic	MA9226	14.63	32.1	15.92	6.7	67.8	0.68	0.45	26.3	41.8	79.7	51.5
Maturity Average			16.50	33.3	17.40	7.3	68.3	0.68	0.45	25.2	44.7	77.8	50.3
L.S.D. (0.10)			2.75	2.1	2.90	1.0	1.4	0.01	0.02	2.9	3.1	2.9	6.4

**Table 33. Two-year averages of corn silage varieties at Wythe County, VA in 2001 and 2002 (thanks to the Huffard Family).**

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
E	Pioneer Brand	33J57	21.40	37.5	19.97	6.4	67.6	0.67	0.44	26.6	46.1	73.0	41.5
E	Doeblers	HC540	20.67	39.7	18.92	6.3	66.5	0.66	0.42	28.9	50.4	73.0	46.7
	Maturity Average		21.04	38.6	19.45	6.4	67.0	0.67	0.43	27.8	48.3	73.0	44.1
	L.S.D. (0.10)		0.81	1.1	0.62	0.5	0.5	0.01	0.01	1.1	3.7	3.5	7.7

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
M	Mid-Atlantic	MA9185RR	23.21	36.6	22.11	5.9	67.5	0.67	0.44	26.9	46.8	76.8	50.6
M	Pioneer Brand	31G98	23.11	31.6	25.76	6.8	66.9	0.67	0.43	28.2	49.5	72.5	44.6
M	Dekalb	DKC69-70(YG)	23.08	33.7	24.23	6.4	66.7	0.66	0.43	28.5	52.0	72.2	46.9
M	Pioneer Brand	31R88	21.92	32.8	24.11	6.4	67.6	0.67	0.44	26.5	45.2	76.3	47.4
M	NK Brand	N82-J6	21.82	33.2	22.95	7.1	68.7	0.69	0.45	24.0	45.5	78.5	53.2
M	Augusta	5635	21.43	31.9	23.42	6.8	66.7	0.66	0.43	28.5	48.4	74.2	46.7
M	Augusta	2062	21.04	35.2	21.10	6.6	68.2	0.68	0.44	25.1	48.3	77.8	53.6
M	Doeblers	760DT	20.13	36.1	20.09	7.3	67.7	0.67	0.44	26.4	46.0	75.8	47.4
M	Dekalb	DKC68-70(YG)	20.03	29.4	24.81	7.2	66.6	0.66	0.43	28.8	50.0	73.0	46.5
M	Dekalb	DK647BtY	20.02	34.9	20.88	7.1	68.4	0.68	0.45	24.4	41.9	75.7	42.0

**Table 33, continued. Two-year averages of corn silage varieties at Wythe County, VA in 2001 and 2002 (thanks to the Huffard Family).**

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
M	Dekalb	DKC64-10(RR)	19.87	34.9	20.04	6.7	68.1	0.68	0.45	25.4	45.5	75.3	45.8
M	Southern States	842RR	18.30	29.1	22.19	7.3	67.3	0.67	0.43	27.3	55.9	73.7	52.6
M	Southern States	849CL	17.01	32.2	18.52	6.8	67.9	0.68	0.44	25.9	44.7	77.6	49.9
M	Dekalb	DKC66-50	16.79	35.8	16.97	7.1	67.5	0.67	0.44	26.4	48.8	74.6	48.4
M	Augusta	3556	15.99	30.1	18.73	7.2	65.7	0.65	0.42	30.6	52.8	72.6	48.7
	Maturity Average		20.25	33.2	21.73	6.8	67.4	0.67	0.44	26.9	48.1	75.1	48.3
	L.S.D. (0.10)		2.01	1.3	2.04	1.1	1.7	0.02	0.02	3.6	5.9	4.2	6.0

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
L	NK Brand	N91-R9	23.21	29.2	28.35	7.2	66.5	0.66	0.43	28.9	50.6	73.5	47.8
L	Mid-Atlantic	MA9200	20.29	32.8	22.24	7.7	68.0	0.68	0.45	25.9	45.2	77.9	51.4
L	Doeblers	S807Q	19.52	36.1	19.05	7.7	68.6	0.68	0.45	24.6	42.7	76.1	44.1
	Maturity Average		21.01	32.7	23.21	7.5	67.7	0.67	0.44	26.5	46.2	75.8	47.8
	L.S.D. (0.10)		1.89	1.2	2.00	0.7	1.9	0.02	0.03	3.9	6.0	5.1	4.5

**Table 34. Three-year averages of corn silage varieties at Wythe County, VA in 2000, 2001, and 2002 (thanks to the Huffard Family).**

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
M	Pioneer Brand	31G98	26.17	31.2	29.89	6.6	67.3	0.67	0.43	27.3	47.0	73.6	43.7
M	Augusta	2062	23.98	34.7	24.73	6.6	68.5	0.68	0.45	24.3	45.4	78.0	51.2
M	Pioneer Brand	31R88	23.24	31.5	27.48	6.4	67.6	0.67	0.44	26.7	45.1	76.5	48.3

M	Augusta	5635	22.22	31.2	25.46	6.8	67.1	0.67	0.43	27.7	47.1	75.6	48.6
M	Augusta	3556	20.82	30.6	23.42	7.2	67.0	0.66	0.43	27.8	47.9	75.6	49.8
M	Southern States	849CL	19.22	31.7	21.83	6.8	68.3	0.68	0.45	24.9	44.3	78.4	52.0
Maturity Average			22.61	31.8	25.47	6.8	67.6	0.67	0.44	26.4	46.1	76.3	48.9
L.S.D. (0.10)			1.38	1.4	1.59	0.9	1.6	0.02	0.02	3.4	5.1	3.7	4.5

Maturity Group	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
L	NK Brand	N91-R9	23.43	28.5	29.77	7.1	66.2	0.66	0.42	29.6	50.3	72.9	46.0
L	Mid-Atlantic	MA9200	22.25	32.3	24.93	7.6	68.1	0.68	0.45	25.4	44.3	78.2	50.6
Maturity Average			22.84	30.4	27.35	7.3	67.1	0.67	0.43	27.5	47.3	75.6	48.3
L.S.D. (0.10)			1.67	1.3	2.09	0.8	2.0	0.02	0.03	4.4	5.7	4.9	4.3

**Table 1. Corn silage varieties at Fauquier County, VA in 2002.**

Maturity Group*	Brand	Hybrid	Yield 35% dry matter tons/acre	Dry Matter at Harvest %	Yield as harvested tons/acre	Crude Protein %	TDN %	NE(L) Mcal/lb	NE(G) Mcal/lb	ADF %	NDF %	Whole Plant Digestibility %	NDF Digestibility %
VE	NK BRAND	N48-V8	10.68	49.97	7.46	8.58	63.72	0.63	0.39	34.67	59.78	73.43	55.11
M	DOEBLERS	760DT	7.69	48.31	5.55	10.03	66.12	0.66	0.42	29.69	55.90	75.26	52.87
E	PIONEER BRAND	32W86	7.06	46.81	5.28	10.81	66.03	0.66	0.42	29.88	51.87	74.23	54.35
M	SOUTHERN STATES	849CL	8.15	44.06	6.48	11.01	68.09	0.68	0.45	25.59	49.00	78.97	58.46
L	MID-ATLANTIC	MA8200ARR	9.69	43.54	7.79	10.50	65.20	0.65	0.41	31.60	57.14	72.79	50.39
M	PIONEER BRAND	31G98	7.95	43.08	6.43	10.18	66.19	0.66	0.42	29.55	50.76	75.43	51.22
E	PIONEER BRAND	33J57	8.22	42.47	6.70	10.65	64.58	0.64	0.40	32.89	57.48	72.57	47.90
L	MID-ATLANTIC	MA9200	6.80	42.28	5.55	10.38	66.80	0.67	0.43	28.28	54.64	74.16	56.42
E	AUGUSTA	4487	6.63	42.04	5.50	10.29	65.82	0.65	0.41	30.32	54.15	76.61	61.16
M	DEKALB	DKC66-00(RR)	8.10	42.02	6.75	9.35	66.42	0.66	0.42	29.07	48.38	78.18	58.57
M	DEKALB	DKC64-10(RR)	7.55	42.00	6.26	9.36	66.10	0.66	0.42	29.74	49.39	75.69	55.02
E	MID-ATLANTIC	MA9140YG	11.21	40.68	9.58	11.01	66.08	0.66	0.42	29.77	53.07	76.02	59.07
M	DEKALB	DKC65-00(RR)	7.20	39.90	6.32	9.90	66.56	0.66	0.43	28.79	51.02	76.24	53.88
M	DEKALB	DKC66-50	6.62	39.59	5.94	10.38	66.66	0.66	0.42	28.57	50.80	77.72	56.82
M	PIONEER BRAND	32D99	7.59	39.27	6.70	10.33	66.51	0.66	0.42	28.88	53.58	75.73	54.95
M	NK BRAND	N82-J6	9.48	38.60	8.49	9.18	67.65	0.67	0.44	26.51	47.42	78.56	60.01
M	SOUTHERN STATES	842RR	7.17	38.55	6.59	11.80	64.81	0.64	0.40	32.42	58.05	72.97	51.09
L	DOEBLERS	S807Q	6.69	38.06	6.15	10.73	65.60	0.65	0.41	30.77	57.10	74.68	59.95
M	DEKALB	DK647BtY	8.59	38.02	8.11	11.83	65.15	0.65	0.41	31.71	54.13	71.80	47.72
M	PIONEER BRAND	31R88	8.86	37.91	8.17	10.11	64.47	0.64	0.40	33.14	56.46	72.77	45.14
L	MID-ATLANTIC	MA9226	7.50	36.20	7.24	10.67	65.57	0.65	0.41	30.84	52.96	75.97	58.86
M	DEKALB	DKC68-70(YG)	9.99	36.17	9.64	10.02	67.86	0.68	0.44	26.09	50.29	74.65	49.81
M	AUGUSTA	5635	7.42	34.92	7.41	10.26	65.74	0.65	0.42	30.48	55.70	72.15	50.57
M	AUGUSTA	3847	4.89	34.35	5.01	10.20	64.80	0.64	0.40	32.43	60.11	71.86	48.72
E	DOEBLERS	638XYG	7.60	33.64	8.06	11.73	67.34	0.67	0.43	27.16	47.39	76.39	55.10
L	NK BRAND	N91-R9	8.88	32.16	9.69	10.18	65.63	0.65	0.42	30.72	57.48	72.71	50.82
M	MID-ATLANTIC	MA9185RR	7.17	31.65	7.95	12.11	65.24	0.65	0.41	31.51	61.08	73.85	53.84
M	DEKALB	DKC69-70(YG)	8.49	31.32	9.42	10.54	64.44	0.64	0.40	33.20	59.14	69.70	47.23
E	VATECH	BMR101	6.29	31.20	7.08	11.68	65.03	0.65	0.41	31.95	58.02	81.04	72.42
L	AUGUSTA	3869	6.42	30.38	7.41	11.06	65.50	0.65	0.41	30.99	60.18	71.67	56.99
	Location Average		7.88	38.98	7.16	10.49	65.85	0.65	0.41	30.24	54.41	74.79	54.48
	C.V.		20.87	6.84	20.04	7.59	1.82	2.09	3.82	8.26	7.29	3.70	13.70
	L.S.D. (0.10)		1.94	3.14	1.77	1.40	2.11	0.02	0.03	4.38	6.97	4.86	13.10

\* As designated by the entering company. Hybrids are ordered by dry matter at harvest in descending order.

CORN(*Zea mays*)  
Gray leaf spot; *Cercospora zae-maydis*

E. L. Stromberg and L. E. Flinchum, Department of  
Plant Pathology, Physiology & Weed Science,  
Virginia Polytechnic Institute and State University,  
Blacksburg, VA 24061-0331

RESISTANCE AND AGRONOMIC CHARACTERS OF CORN HYBRIDS UNDER NATURAL GRAY LEAF SPOT DISEASE PRESSURE, MONTGOMERY CO., VA, 2002: Gray leaf spot disease ratings, grain harvest moisture, bushel weights, and grain yields were obtained for 34 corn hybrids and a known high-yielding susceptible check hybrid, Pioneer Brand 3394 (highlighted in gray in the table below), grown under high gray leaf spot disease pressure on VPI&SU's Whitethorne-Kentland Experimental Farm, Montgomery Co., VA. Prior to planting on a Hayter silt loam, pH 6.7, a fertilizer containing 200 lb/A N, 45 lb/A P and 25 lb/A K was broadcast. The experimental design was a randomized complete block replicated four times with plots consisting of four 25-ft rows spaced 30 in. apart and seeded at a rate of 25,000 seeds/A. The plots were no-tillage planted on 5 May into a field continuously cropped to corn since 1986 and abundantly covered with corn debris naturally infested with *Cercospora zae-maydis*, the causal agent of gray leaf spot. Leaf blighting or gray leaf spot (GLS) reaction was assessed four times and is reported as a GLS Severity Index (0-5) read in 0.1 units. Ratings were made on plants from the middle two rows of plots, excluding plants adjacent to end of plots. Hybrids were also rated for percentage stalks lodged just prior to harvest, grain moisture at harvest, bushel weight, and grain yield adjusted to 15.5% moisture. Grain was mechanically harvested on 18 Oct with a Massey Ferguson 8XP plot combine.

Moisture in the soil profile at planting and weather for thirty days after planting provided conditions favorable for vigorous stand establishment. GLS lesions were first observed on the lower leaves of susceptible hybrids by early July. From late June through September temperatures were mild to warm with little to no rainfall. These conditions were moderately favorable for disease development. GLS lesions had moved to the ear leaf and above on the more susceptible hybrids by 24 Jul and to the top of these hybrids by 14 Aug. Significant differences in GLS ratings among hybrids were apparent at all rating periods. At harvest, statistically significant differences among hybrids occurred in grain yield, grain moisture at harvest, and bushel weights. Generally those hybrids that blighted least had the higher yields. The susceptible check hybrid, Pioneer Brand 3394, the most heavily blighted, ranked 34<sup>th</sup> for grain yield of the 35 hybrids evaluated and yielded 62.5 bushels less than the highest yielding hybrid in the test.

Hybrid <sup>1</sup>	GLS Severity Index (0-5) <sup>2</sup>				Grain <sup>3</sup> (%H <sub>2</sub> O) 18 Oct	Bu wt <sup>4</sup> (lb) 18 Oct	Yield <sup>5</sup> (bu/A) 18 Oct	
	24 Jul	14 Aug	27 Aug	2 Sep				
SYNGENTA N68-K7	1.15	2.10	2.30	2.50	21.3	54.2	167.3 <sup>6</sup>	
SOUTHERN STATES SS691	1.50	2.15	2.30	2.50	23.3	55.3	165.8	
SYNGENTA NX6931	1.43	2.18	2.48	2.73	21.7	54.3	164.1	
SYNGENTA NX6900	1.28	2.20	2.40	2.70	22.5	53.1	157.5	
SYNGENTA N65-M7	1.25	2.13	2.38	2.58	20.7	53.7	157.1	
PIONEER BRAND 31R88	1.33	2.18	2.38	2.63	25.5	54.1	155.1	
SYNGENTA N68-P1	1.63	2.40	2.70	3.30	21.9	55.8	153.9	
DEKALB DKC58-78	1.50	2.20	2.40	2.65	20.5	53.6	153.7	
DEKALB DKC62-15	1.43	2.30	2.53	2.88	22.7	54.5	152.1	
SYNGENTA NX7630	1.35	2.13	2.33	2.63	21.8	55.1	151.9	
PIONEER BRAND 32W86	1.48	2.35	2.70	3.00	22.4	57.4	151.6	
PIONEER BRAND 34B23	1.63	2.35	2.75	3.50	21.5	57.2	151.3	
SYNGENTA N65-Y3	1.53	2.50	2.83	3.33	21.8	56.0	150.4	
SYNGENTA N60-B6	1.58	2.30	2.53	2.88	21.0	52.8	149.4	
ASGROW RX664	1.68	2.18	2.45	2.80	21.3	55.0	147.8	
SYNGENTA NX6801	1.50	2.38	2.73	3.30	22.8	56.3	147.3	
DOEBLER'S 760DT	1.40	2.15	2.28	2.45	22.5	55.9	146.6	
DEKALB DKC60-08	1.60	2.20	2.53	2.75	21.1	56.0	144.1	
DEKALB DKC66-50	1.43	2.15	2.33	2.45	22.1	53.4	144.1	
DOEBLER'S 877VRR	1.15	1.93	2.13	2.23	23.5	51.8	143.9	
SYNGENTA N60-N2	1.60	2.30	2.53	2.80	21.2	53.7	143.3	
ASGROW RX708YG	1.45	2.25	2.73	3.35	21.3	55.4	143.3	
DOEBLER'S EX32163	1.45	2.10	2.25	2.35	23.4	55.3	143.1	
SOUTHERN STATES SS943	0.90	2.00	2.10	2.20	24.5	50.5	141.6	
SYNGENTA NX7651	1.43	2.23	2.60	3.03	23.0	55.3	141.6	
SOUTHERN STATES SS849CL	1.28	2.05	2.23	2.45	23.5	50.6	140.4	
DEKALB DKC65-26	1.45	2.40	2.60	2.88	22.5	54.8	139.2	
PIONEER BRAND 33J56	1.70	2.50	2.98	3.58	21.2	56.0	139.1	
SYNGENTA N72-V7	1.60	2.28	2.73	3.53	20.9	51.8	133.9	
SYNGENTA N70-A2	1.45	2.48	2.88	3.43	20.8	55.7	128.7	
SYNGENTA N75-K6	1.43	2.15	2.43	2.70	23.8	55.9	127.7	
PIONEER BRAND 31G98	1.70	2.63	3.13	4.00	20.1	54.8	120.1	
PIONEER BRAND 3394	2.05	3.08	3.88	4.55	19.7	55.2	104.8	
SYNGENTA N64-L5	1.48	2.28	2.53	2.83	21.9	54.2	101.2	
LSD ( $P \leq 0.05$ )	=	0.15	0.15	0.21	0.19	1.1	0.9	13.5
Standard Deviation	=	0.108	0.108	0.151	0.138	0.758	0.654	9.642
Coefficient of Variation	=	7.39	4.77	5.89	4.74	3.44	1.20	6.69

<sup>1</sup>Hybrid entry planted in four 25-ft rows spaced 2.5 ft apart and replicated four times.

<sup>2</sup>GLS Disease Severity Index: 0 = no gray leaf spot lesions; 1 = trace of lesions below ear, none above; 2 = many lesions below ear, trace above; 3 = severe lesion development below ear, all leaves above with lesions; 4 = all leaves with severe lesion development, but green tissue still visible; 5 = all leaves dry and dead.

<sup>3</sup>Grain moisture at harvest expressed in percent.

<sup>4</sup>Bushel weight expressed in lb at a standard 15.5% grain moisture.

<sup>5</sup>Yield expressed in bu/A at a standard 15.5% grain moisture.

<sup>6</sup>Means differ significantly ( $P \leq 0.05$ ) by Fischer's LSD.

CORN (*Zea mays*)  
Gray leaf spot; *Cercospora zea-maydis*

E. L. Stromberg and L. E. Flinchum, Department of Plant Pathology,  
Physiology & Weed Science, Virginia Polytechnic Institute and State  
University, Blacksburg, VA 24061-0331

RESISTANCE AND AGRONOMIC CHARACTERS OF CORN HYBRIDS UNDER NATURAL GRAY LEAF SPOT DISEASE PRESSURE, WYTHE CO., VA, 2002: Gray leaf spot (GLS) ratings, yield, harvest grain moisture, and lodging ratings were obtained for 34 corn hybrids and one known high-yielding, susceptible check hybrid, Pioneer Brand 3394 (highlighted in gray in the table below) grown under moderately heavy gray leaf spot disease pressure on a farmer cooperator's field in Wythe Co., VA. Prior to planting on a clay silt loam, pH 6.8, a fertilizer containing 170 lb/A N, 40 lb/A P, and 25 lb/A K was broadcast. The experimental design was a randomized complete block replicated four times with plots consisting of four 25-ft rows spaced 30 in. apart and seeded at a rate of 25,000 seeds/A. The plots were no-tillage planted with an Almaco two-row cone planter on 3 May into a field that has been no-tillage planted every year to corn since 1965 and abundantly covered with corn debris naturally infested with *C. zea-maydis*. Leaf blighting or gray leaf spot (GLS) reaction was assessed two times and is reported as a GLS Severity Index (0-5) read in 0.1 units. Ratings were made on plants from the middle two rows of plots, excluding plants adjacent to end of plots. Hybrids were also rated for percentage stalks lodged just prior to harvest, grain moisture at harvest, bushel weight, and grain yield in bu/A adjusted to 15.5% moisture. Grain was harvested on 22 Oct with a Massey-Ferguson 8XP plot combine.

Growing conditions early in the season were good with moderate temperatures and moisture. From June through early September moderate temperatures and timely rainfall events characterized the weather. These conditions were favorable for the early development of disease. GLS lesions had moved to the top of the susceptible hybrid by 15 Aug. Significant differences in GLS ratings among hybrids were apparent at both rating periods. Statistically significant ( $P \leq 0.05$ ) differences among hybrids occurred for bushel weight, grain yield, grain moisture, and blighting. The susceptible check hybrid, Pioneer Brand 3394, the most heavily blighted, ranked 35<sup>th</sup> for grain yield of the 35 hybrids evaluated and yielded 91 bushels less than the highest yielding hybrid in the test.



Hybrid <sup>1</sup> 20 Oct	GLS Severity Index (0-5) <sup>2</sup>		Grain <sup>3</sup> (%H <sub>2</sub> O)	Bu wt <sup>4</sup> (lb)	Yield <sup>5</sup> (bu/A)
	15 Aug	10 Sep	22 Oct	22 Oct	22 Oct
DEKALB DKC66-50	2.18	3.08	28.1	50.2	164.9
SOUTHERN STATES 691	2.10	3.10	29.8	52.4	153.2
SYNGENTA N60-B6	2.20	3.63	28.0	50.1	148.7
PIONEER BRAND 31R88	2.18	2.60	31.7	51.5	147.5
DOEBLER'S EX32163	2.15	2.98	28.5	52.3	147.5
SOUTHERN STATES SS943	1.95	2.25	30.5	47.5	141.8
SYNGENTA N60-N2	2.23	3.43	26.5	50.3	140.1
DOEBLER'S 877VRR	2.10	2.38	29.9	48.2	139.5
DEKALB DKC58-78	2.25	3.13	26.0	51.6	139.0
SYNGENTA N65-M7	2.18	3.60	25.8	50.7	138.7
SYNGENTA N68-K7	2.10	3.98	26.8	50.7	138.4
SYNGENTA NX6900	2.23	4.20	28.0	49.3	135.6
SOUTHERN STATES SS849CL	2.13	2.75	29.7	46.9	135.8
SYNGENTA NX7630	2.18	3.48	28.3	50.5	135.2
DEKALB DKC60-08	2.25	4.00	27.3	53.8	133.0
PIONEER BRAND 34B23	2.35	4.70	26.4	54.3	131.3
PIONEER BRAND 32W86	2.43	4.48	28.0	54.5	131.0
SYNGENTA NX6801	2.28	4.13	26.9	52.8	129.9
DOEBLER'S 760DT	2.15	3.53	26.7	53.0	126.3
SYNGENTA NX6931	2.13	3.55	27.7	51.8	126.1
SYNGENTA N68-P1	2.18	3.88	28.2	52.5	125.5
SYNGENTA N75-K6	2.25	3.45	28.2	52.6	120.2
SYNGENTA N65-Y3	2.33	4.73	27.5	52.8	120.2
SYNGENTA N72-V7	2.23	4.15	25.9	48.6	119.9
DEKALB DKC65-26	2.23	3.65	29.4	51.2	118.0
PIONEER BRAND 31G98	2.45	4.50	27.4	51.8	117.9
DEKALB DKC62-15	2.33	4.18	28.4	51.3	116.4
ASGROW RX664	2.20	4.10	25.5	52.5	116.2
ASGROW RX708YG	2.28	4.55	26.0	51.9	115.5
SYNGENTA NX7651	2.35	4.05	26.2	52.2	110.5
PIONEER BRAND 33J56	2.65	4.70	25.2	53.0	103.3
SYNGENTA N70-A2	2.45	4.05	26.2	52.5	98.4
SYNGENTA N64-L5	2.28	3.45	26.6	51.1	96.1
PIONEER BRAND 3394	3.13	4.95	24.5	51.5	73.9
Least Significant Difference ( $P \leq 0.05$ ) =	0.10	0.35	2.1	1.2	21.4
Standard Deviation =	0.070	0.247	1.519	0.859	15.280
Coefficient of Variation =	3.08	6.60	5.52	1.67	11.98

<sup>1</sup>Hybrid entry planted in four 25-ft rows spaced 2.5 ft apart and replicated four times.

<sup>2</sup>GLS Disease Severity Index: 0 = no gray leaf spot lesions; 1 = trace of lesions below ear, none above; 2 = many lesions below ear, trace above; 3 = severe lesion development below ear, all leaves above with lesions; 4 = all leaves with severe lesion development, but green tissue still visible; 5 = all leaves dry and dead.

<sup>3</sup>Grain moisture at harvest expressed in percent.

<sup>4</sup>Bushel weight expressed in lb at a standard 15.5% grain moisture.

<sup>5</sup>Yield expressed in bu/A at a standard 15.5% grain moisture.

<sup>6</sup>Means differ significantly ( $P \leq 0.05$ ) by Fischer's LSD.

CORN (*Zea mays*)  
Gray leaf spot; *Cercospora zae-maydis*

E. L. Stromberg and L. E. Flinchum, Department of  
Plant Pathology, Physiology & Weed Science,  
Virginia Polytechnic Institute and State University,  
Blacksburg, VA 24061-0331

**EVALUATION OF FOLIAR FUNGICIDES FOR THE CONTROL OF GRAY LEAF SPOT OF CORN IN VIRGINIA, 2002:** Gray leaf spot (GLS) ratings, yield, harvest grain moisture, and lodging ratings were obtained for 19 fungicide treatments and a non-treated control on a known high yielding, susceptible hybrid, Pioneer Brand 3394, grown under heavy gray leaf spot disease pressure on the University's Whitethorne-Kentland Experimental Farm, Montgomery Co., VA. Prior to planting on a Hayter silt loam, pH 6.8, a fertilizer containing 200 lb N, 45 lb P, and 25 lb K per acre was broadcast. The experimental design was a randomized complete block replicated four times with plots consisting of four 25-ft rows spaced 30 in. apart and seeded at a rate of 25,000 seeds/A. The plots were no-tillage planted with an Almaco two-row cone planter on 6 May into a field continuously cropped to corn since 1986 and abundantly covered with corn debris naturally infested with *Cercospora zae-maydis*, the causal agent of gray leaf spot. On 13 Jul the first applications of fungicides were made when lesions had developed from the base of plants to half way to the ear leaf. At this time 5% of plants were silking. Spray solutions were applied in a volume of 27 gal/A with a single Tee Jet@ 8004 flat fan nozzle at 40 psi. Second applications of some of the fungicides were made on 27Jul, depending on protocol. Leaf blighting or GLS reaction was assessed five times and is reported as a disease severity index (0-5) read in 0.1 units. Plots were also rated for percentage stalks lodged just prior to harvest, grain moisture at harvest, bushel weight, and grain yield in bu/A adjusted to 15.5% moisture. Grain was harvested on 18 Oct with a Massey Ferguson 8XP-plot combine.

Moisture in the soil profile at planting and weather conditions for thirty days after planting provided conditions favorable for vigorous stand establishment. GLS lesions were first observed on the lower leaves of susceptible hybrids by mid-June. From late June through September temperatures were mild to warm with little to no rainfall. These conditions were moderately favorable for disease development. Despite this, GLS lesions had moved to the ear leaf and above on the non-treated control by 23 Jul and to the top of the plants by 14 Aug. Significant differences in GLS ratings among treatments were apparent at all rating periods. At harvest, statistically significant differences among treatments occurred in grain yield, grain moisture at harvest, but not bushel weights. All fungicide treatments except single applications of BAS 500 00F 250EC 2.4, Tilt 3.6E 4.0, and AMS 21619 3.56 fl. oz. product/A, provided statistically ( $P \leq 0.05$ ) greater grain yields (16.5-44.4 bu/A) than the non-treated control. All fungicide applications, either single or multiple, provided statistically significant ( $P \leq 0.05$ ) reduction in blighting at all rating dates. No phytotoxicity was observed for any fungicide treatment.

Treatment in fl. oz. product/A and timing <sup>1</sup>	GLS Severity Index (0-5) <sup>2</sup>					Grain <sup>3</sup>	Bu wt <sup>4</sup>	1000 K <sup>5</sup>	Yield <sup>6</sup>	
	23 Jul	2 Aug	14 Aug	26 Aug	9 Sep	(%H <sub>2</sub> O) 18 Oct	(in lb) 18 Oct	(in g) 8 Nov	Bu/A 18 Oct	
Non-treated	---	2.03	2.40	3.03	4.07	4.55	19.9	55.1	244.6	111.9
BAS 500 00F 250EC 1.6 ...	1	1.20	1.60	2.23	2.55	3.00	21.5	55.9	282.7	145.9
BAS 500 00F 250EC 1.6 ...	2	1.05	1.48	1.75	2.10	2.17	23.1	56.6	304.8	151.2
BAS 500 00F 250EC 2.4 ...	1	1.05	1.42	2.22	2.72	3.15	21.5	56.6	272.7	126.7
BAS 500 00F 250EC 2.4 ...	2	1.15	1.38	1.52	2.13	2.22	23.3	56.5	309.8	149.1
BAS 500 00F 250EC 3.2 ...	1	1.08	1.28	2.15	2.65	2.88	21.8	56.1	280.6	129.2
BAS 500 00F 250EC 3.2 ...	2	1.03	1.15	1.30	1.82	1.92	23.2	56.9	295.9	136.7
Tilt 3.6E 4.0	1	1.17	1.45	2.45	3.53	4.03	19.5	55.4	253.9	124.4
Tilt 3.6E 4.0	2	1.10	1.42	2.13	2.30	2.45	21.9	56.0	281.0	133.6
Quadris 2.08SC 9.2	1	1.13	1.23	1.40	2.42	2.78	21.4	56.3	284.8	135.2
Quadris 2.08SC 9.2	2	1.05	1.15	1.27	1.50	1.50	23.4	56.4	308.3	142.0
Quadris 2.08SC 6.0	1	1.08	1.33	2.10	2.38	2.65	22.1	56.3	272.7	132.6
+ Tilt 3.6E 2.0										
Quadris 2.08SC 6.0	2	1.05	1.23	1.50	1.52	1.95	23.4	56.6	309.8	156.3
+ Tilt 3.6E 2.0										
Stratego 250E 10.0	1	1.00	1.63	2.30	2.78	2.97	21.5	55.5	283.5	128.4
Stratego 250E 10.0	2	1.10	1.60	1.92	2.07	2.13	23.4	56.0	318.6	148.3
Folicur 3.6F 4.0	2	1.15	1.60	2.10	2.25	2.55	21.1	55.7	276.6	132.0
+ Induce 0.125% V/V										
AMS 21619 3.56	1	1.10	1.45	2.25	2.97	3.32	20.4	55.2	269.3	123.4
+ Folicur 3.6F 4.0										
+ Induce 0.125% V/V										
AMS 21619 3.56	2	1.13	1.27	1.48	2.10	2.22	22.6	56.3	302.4	131.4
+ Folicur 3.6F 4.0										
+ Induce 0.125% V/V										
USF 2004 2.88	1	1.05	1.55	2.22	2.63	2.95	21.1	55.7	282.7	130.7
+ Folicur 3.6F 2.50										
+ Induce 0.125% V/V										
USF 2004 2.88	2	1.10	1.65	1.97	2.10	2.17	23.1	56.3	291.3	135.0
+ Folicur 3.6F 2.50										
+ Induce 0.125% V/V										
LSD (P <sub>≤</sub> 0.05)	=	0.17	0.30	0.16	0.21	0.18	0.76	0.81	19.3	15.6
Standard Deviation	=	0.118	0.212	0.116	0.1148	0.124	0.539	0.570	13.618	11.064
Coefficient of Variation	=	10.38	14.52	5.90	6.08	4.63	2.46	1.02	4.76	8.18

<sup>1</sup>Treatment and timing: Fungicide(s) applied in fl. oz. product/A. Timing of applications was as follows: 1 = a single application (12 Jul) at 5% silking; and 2 = an application at 5% silking (12 Jul) followed by a second application 14 days later (26 Jul).

<sup>2</sup>GLS Disease Severity Index: 0 = no gray leaf spot lesions; 1 = trace of lesions below ear, none above; 2 = many lesions below ear, trace above; 3 = severe lesion development below ear, all leaves above with lesions; 4 = all leaves with severe lesion development, but green tissue still visible; 5 = all leaves dry and dead.

<sup>3</sup>Grain moisture at harvest expressed in percentage.

<sup>4</sup>Bushel weight in pounds at a standard 15.5% grain moisture.

<sup>5</sup>1000 Kernel weight in grams.

<sup>6</sup>Yield in bushels per acre at a standard 15.5% grain moisture.

<sup>7</sup>Means with letters in common do not differ statistically (P<sub>≤</sub>0.05) by Duncan's Multiple Range Test.

---

Virginia Cooperative Extension programs and employment are open to all, regardless of race, color, religion, sex, age, veteran status, national origin, disability, or political affiliation. An equal opportunity/affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. J. David Barrett, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; Lorenza W. Lyons, Administrator, 1890 Extension Program, Virginia State, Petersburg.