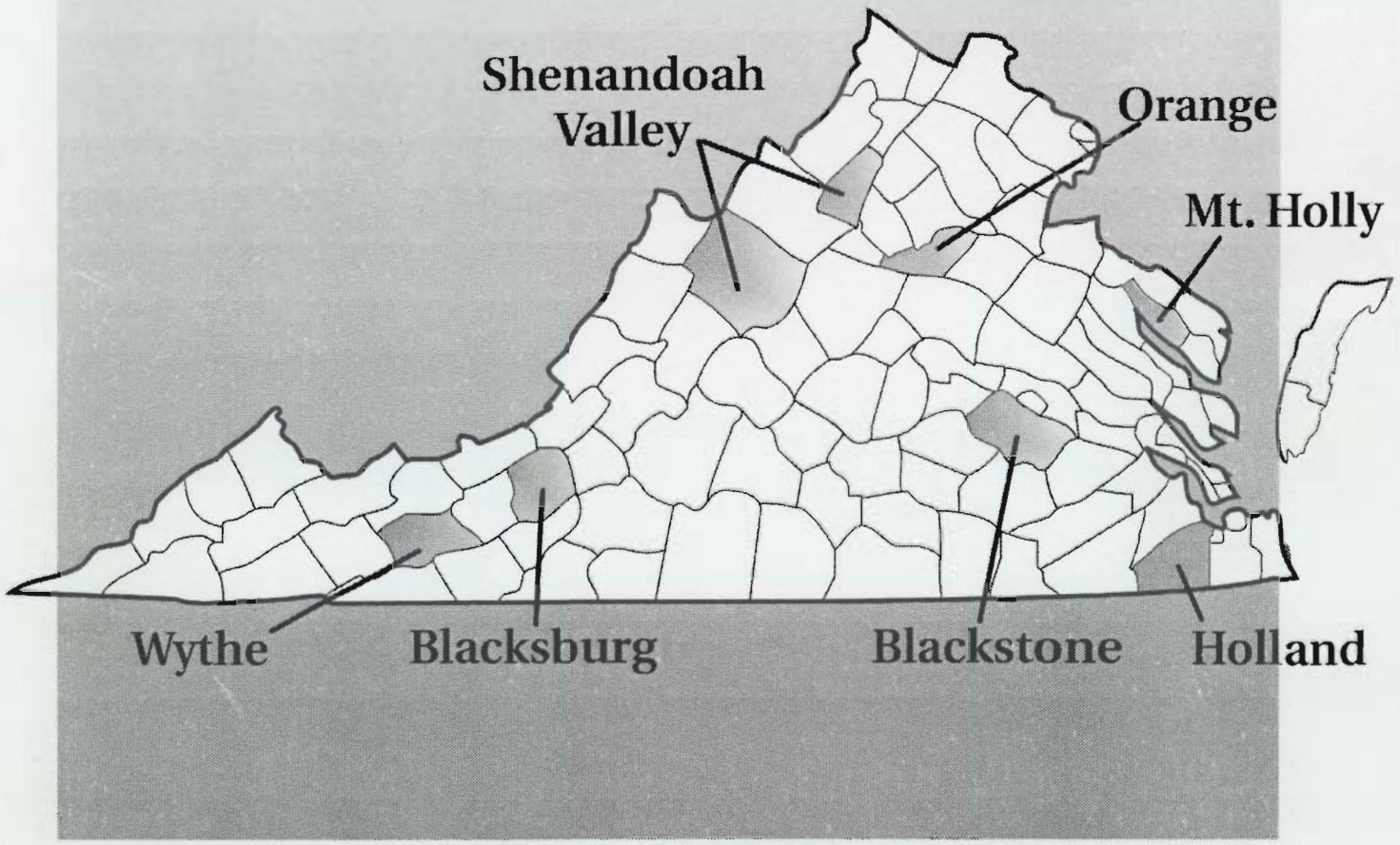
Virginia Corn Hybrid & Management Trials 2001



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INDEX TO VIRGINIA CORN HYBRID AND MANAGEMENT TRIALS 2001

SECTION I. VIRGINIA CORN HYBRID TRIALS IN 2001.

Companies Participating in the 2001 Corn Hybrid Trials

Company	Brand	Address
AUGUSTA SEED CORPORTATION	AUGUSTA	106 FAIRBURN RD MT SOLON VA 22843
BIO GENE	BIO GENE	5491 TRI COUNTY HWY SARDINIA OH 45171
DOEBLER'S P.A. HYBRIDS INC.	DOEBLER'S	RR 1 BOX 424 JERSEY SHORE PA 17740
GARST SEED CO.	GARST	2369 330TH SLATER IA 50244
HOFFMAN SEEDS, INC.	NK BRAND	144 MAIN ST LANDISVILLE PA 17538
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

VIRGINIA CORN HYBRID TRIALS IN 2001

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R.R. Wilmouth; D.E. Starner; D. Dixon; D. Danner; Scott Jerrell; the Huffard family; J. Wooge; T. Stanley; Bobby Clark; the Foltz family;

Performance trials of commercial corn hybrids were conducted at seven locations in Virginia in 2001. Test weights were taken with a GrainGauge manufactured by HarvestMaster and calibrated over five years of testing. A list of the companies participating in the trials is shown in the above table. 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.

2001 VIRGINIA CORN HYBRID PLOT INFORMATION

(Rates are on a per acre basis.)

Blacksburg — **Whitethorne Farm**

Land Prep: plowed, disked, finished/smoothed
Planted: May 2, 2001
Harvested: October 5, 2001
Pesticide: 4.4 lb Force 3G® at planting; 1.9 qt Bicep II Mag® + 1 lb Simtrol® + 0.8 oz Python® preplant incorporated April 27, 2001
Fertilizer: 30-60-60 preplant incorporated April 26, 2001 + 20 gal 15-15-0 + S + micronutrients at planting + 140 lb N using UAN sidedressed June 15, 2001
Plot Size: 2 rows 25' x 30" 4 replications
Soil Type: Hayter
Cooperator: J. Wooge

Blackstone — **Southern Piedmont Agricultural Research & Extension Center**

Planted: April 20, 2001
Harvested: September 13, 2001
Pesticide: 4.4 lb Force 3G® at planting + 1.5 qt Bladex 4L + 1 qt Dual II + 1 qt Basogran® May 24, 2001 for nutsedge control
Fertilizer: 1000 lb 10-10-10 preplant incorporated + 20 gal 15-15-0 + S + micronutrients at planting + 80 lb N May 23, 2001
Plot Size: 2 rows 25' x 30" 4 replications
Soil Type: Wedowee
Cooperators: W. B. Wilkinson and R. R. Wilmouth

Holland — **Tidewater Agricultural Research & Extension Center**

Land Prep: ripped, stripped, and tilled every 18" March 20, 2001; disked and land conditioned April 16, 2001
Planted: April 16, 2001
Harvested: September 14, 2001
Pesticide: 2.5 qt Lasso® + 1 qt atrazine preplant incorporated April 16, 2001 + 4.4 lb Force 3G® at planting
Fertilizer: 300 lb 5-10-30 March 19, 2001 + 60 units N April 16, 2001 + 20 gal 15-15-0 + S + micronutrients at planting + 120 units N using UAN sidedressed June 5, 2001
Irrigation: 1" July 11 and July 13, 2001
Plot Size: 2 rows 35' x 30" 4 replications
Soil Type: Eunola, Dragston, Weston, and Rains
Cooperators: Bobby Ashburn and Gene Whitley

Mt Holly (dry) — **Virginia Crop Improvement Association Farm**

Land Prep: ripped, worked and planted conventionally
Planted: April 24, 2001
Harvested: September 18, 2001
Pesticide: 2 qt Bicep II Magnum® + 1 qt Princep® preplant incorporated + 4.4 lb Force 3G® at planting
Fertilizer: 50 lb N + 1 ton lime + 20 lb P + 60 lb K preplant incorporated + 10 gal 10-34-0 at planting + 75 lb N sidedressed May 16, 2001
Plot Size: 2 rows 25' x 30" 4 replications
Soil Type: State fine sandy loam
Cooperator: Bruce Beahm

Mt Holly (irr) — **Virginia Crop Improvement Association Farm**

Land Prep: ripped, worked and planted conventionally
Planted: April 23, 2001
Harvested: September 19, 2001
Pesticide: 2 qt Bicep II Magnum® + 1 qt Princep® preplant incorporated + 4.4 lb Force 3G® at planting
Fertilizer: 50 lb N + 30 lb P + 70 lb K preplant incorporated + 20 gal 15-15-0 + S + micronutrients at planting; 75 lb N + 9 lb S June 6, 2001; 65 lb N + 8 lb S June 12, 2001
Irrigation: 0.7" June 24
0.9" June 25
0.9" July 6
1.0" July 13
1.2" July 24
Plot Size: 2 rows 25' x 30" 4 replications
Soil Type: State fine sandy loam
Cooperator: Bruce Beahm

Orange — **Northern Piedmont Agricultural Research & Extension Center**

Planted: May 1, 2001
Harvested: October 23-25, 2001
Pesticide: 1 qt Dual® + 2 qt Aatrex® 4L preplant incorporated April 30, 2001
Fertilizer: 2000 lb 5-10-10 April 26, 2001 + 200 lb N sidedressed June 20, 2001
Plot Size: 1 row 30' x 30" 4 replications
Soil Type: Davidson silty clay loam
Cooperators: D. E. Starner and D. Dixon

Wythe County

Planted: May 4, 2001
Harvested: October 26, 2001
Pesticide: 4.4 lb Force 3G® at planting + 2.4 qt Bicep II Magnum® + 0.75 pt Banvel + 2 pt 2,4-D + 9 oz Asana XL® May 5, 2001
Fertilizer: 90 lb N + 99 lb P + 198 lb K from manure preplant April 24, 2001+ 20 gal 15-15-0 + S + micronutrients at planting + 60 lb N from urea
Plot Size: 2 rows 25' x 30" 4 replications
Cooperators: David Danner, Scott Jerrell, and John Huffard

Shenandoah Valley

Planted: April 30, 2001
Harvested: October 19, 2001
Pesticide: Bicep II Magnum® + simazine + 2,4-D + Python® at recommended rates + 4.4 lb Force 3G® at planting
Fertilizer: 3 tons broiler litter + 5 tons barnyard manure preplant incorporated + 20 gal 15-15-0 + S + micronutrients at planting
Plot Size: 2 rows 25' x 30" 4 replications
Cooperators: Tom Stanley, Bobby Clark, and the Foltz farm

Table 1. 2001 RELATIVE YIELD* of hybrids entered in three or more locations.

Very Early Maturity Brand	Hybrid	Holland	Mt Holly Dryland	Mt Holly Irrigated	Black-stone	Orange	Augusta	Blacks-burg	Wythe	Mean
PIONEER BRAND	34K77	103	106	103	—	—	—	—	—	104
DOEBLERS	HC540	104	105	111	109	104	92	80	120	103
AUGUSTA	9884	103	101	105	—	102	—	—	—	103
ASGROW	RX708	—	95	101	109	102	114	88	106	102
NK BRAND	N63-G7	105	—	—	—	—	—	92	111	102
DEKALB	DKC56-71	—	88	106	99	96	124	83	—	100
DEKALB	DKC58-78	—	100	105	92	99	125	76	—	100
DEKALB	DKC60-08	—	104	104	92	100	102	85	107	99
PIONEER BRAND	34B23	—	—	—	—	106	97	94	98	99
AUGUSTA	4473	99	89	99	—	—	—	—	—	96
AUGUSTA	9873	97	86	96	—	—	—	—	—	93
AUGUSTA	9813	94	86	99	—	—	—	—	—	93
AUGUSTA	2067	77	98	87	—	—	—	—	—	87
AUGUSTA	3667	82	91	85	—	—	—	—	—	86
AUGUSTA	6467	86	80	85	—	—	—	—	—	84

Early Maturity Brand	Hybrid	Holland	Mt Holly Dryland	Mt Holly Irrigated	Black-stone	Orange	Augusta	Blacks-burg	Wythe	Mean
AUGUSTA	4587	109	144	102	—	100	—	—	—	112
PIONEER BRAND	32R25	115	98	107	108	106	—	—	—	107
MID-ATLANTIC	MA9137	—	118	103	—	99	103	—	—	106
AUGUSTA	3387	—	95	103	—	—	122	—	—	106
PIONEER BRAND	33G26	105	113	96	—	—	—	—	—	105
PIONEER BRAND	33K81	102	—	—	—	96	118	—	—	105
MID-ATLANTIC	MA9140YG	—	112	101	—	96	107	—	—	104
AUGUSTA	3685	—	114	101	—	—	96	—	—	104
DEKALB	DKC61-25	—	109	106	110	106	105	93	95	103
AUGUSTA	4487	96	115	105	—	96	—	—	—	103
AUGUSTA	3687	106	134	104	—	85	85	—	—	103
DEKALB	DKC64-10	—	106	95	102	86	131	103	91	102
VIGORO	V5110	110	90	103	103	—	—	—	—	102
SOUTHERN STATES	740	—	—	—	—	95	112	100	—	102
DEKALB	DKC63-03	—	94	95	93	90	118	116	107	101
AUGUSTA	3364	103	94	105	—	—	—	—	—	101
AUGUSTA	3673	97	111	95	—	—	—	—	—	101
VIGORO	V54C29	105	97	98	—	—	—	—	—	100
MID-ATLANTIC	MA8011RR	—	91	109	—	98	101	—	—	100
NK BRAND	N79-L3	101	118	98	—	96	—	88	99	100
NK BRAND	N82-J6	—	124	104	—	101	71	101	—	100
NK BRAND	N65-Y3	—	92	92	—	92	123	—	—	100
GARST	8484Bt	—	86	97	—	90	126	—	—	99
DEKALB	DK647BtY	—	89	99	93	95	96	118	101	99
PIONEER BRAND	3394	96	94	105	—	104	94	—	—	99
SOUTHERN STATES	781CL	—	—	—	—	92	106	99	—	99
PIONEER BRAND	33J57	—	—	—	97	113	79	98	100	98
PIONEER BRAND	32H58	112	86	108	—	97	89	89	102	97
AUGUSTA	285	—	101	100	—	—	88	—	—	97

Table 1, continued. 2001 RELATIVE YIELD* of hybrids entered in three or more locations.

Early Maturity Brand	Hybrid	Holland	Mt Holly Dryland	Mt Holly Irrigated	Black-stone	Orange	Augusta	Blacks-burg	Wythe	Mean
GARST	8362IT	—	92	95	—	94	103	—	—	96
PIONEER BRAND	33G30	110	94	95	—	94	95	—	87	96
DOEBLERS	638XYG	98	81	96	98	85	126	99	81	96
VIGORO	V55Y21	103	80	102	—	—	—	—	—	95
PIONEER BRAND	32K64	96	95	101	—	—	85	100	86	94
AUGUSTA	4454	94	85	98	—	—	—	—	—	92
AUGUSTA	4485	—	99	100	—	—	69	—	—	91
AUGUSTA	3885	—	91	101	—	—	80	—	—	91
AUGUSTA	6462	88	91	91	—	—	—	—	—	90
AUGUSTA	4585	—	78	95	—	—	94	—	—	89

Medium Maturity Brand	Hybrid	Holland	Mt Holly Dryland	Mt Holly Irrigated	Black-stone	Orange	Augusta	Blacks-burg	Wythe	Mean
AUGUSTA	2062	102	126	96	—	115	105	109	109	109
PIONEER BRAND	31G98	120	112	111	107	115	89	96	118	108
AUGUSTA	3562	—	105	98	—	118	106	105	113	108
DOEBLERS	760DT	107	108	99	97	104	98	100	128	105
MID-ATLANTIC	MA9184YG	—	94	99	—	107	119	—	—	105
NK BRAND	N83-Z8	110	—	—	—	—	—	96	111	105
DEKALB	DKC66-50	—	111	97	91	100	101	107	118	104
VIGORO	V5800	103	106	102	107	—	—	—	—	104
AUGUSTA	5635	—	113	107	—	113	64	106	111	104
HYTEST	HT7712	104	117	96	—	100	94	—	—	102
SOUTHERN STATES	882CL	—	—	—	95	97	103	113	101	102
NK BRAND	N83-N5	100	—	—	—	—	—	104	98	101
SOUTHERN STATES	842RR	—	—	—	—	94	87	112	106	100
AUGUSTA	9552	—	120	101	—	118	65	105	78	99
DOEBLERS	818XYG	103	94	100	—	91	—	98	—	97
HYTEST	7747RR	100	97	89	—	98	—	—	—	96
AUGUSTA	3152	—	96	102	—	—	84	106	63	90
NK BRAND	N72-V7	—	98	89	—	90	85	73	—	87
AUGUSTA	3184	—	96	103	—	—	—	89	67	87

Mid-Full Maturity Brand	Hybrid	Holland	Mt Holly Dryland	Mt Holly Irrigated	Black-stone	Orange	Augusta	Blacks-burg	Wythe	Mean
PIONEER BRAND	31R88	105	—	—	105	106	94	121	137	111
HYTEST	7806	88	100	96	—	102	—	—	—	96
DOEBLERS	859XY	101	105	97	98	94	89	98	77	95

* 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* (2000-2001) of hybrids entered in three or more locations each year.*

Very Early Maturity Brand	Hybrid	# Observations	Relative Yield
ASGROW	RX708	48	100
PIONEER BRAND	34K77	27	100
AUGUSTA	9884	35	100
AUGUSTA	9873	40	92

Early Maturity Brand	Hybrid	# Observations	Relative Yield
AUGUSTA	4587	27	108
PIONEER BRAND	32R25	36	107
MID-ATLANTIC	MA9137	32	107
AUGUSTA	4487	27	106
AUGUSTA	3387	24	105
PIONEER BRAND	33G26	35	104
AUGUSTA	3685	24	104
MID-ATLANTIC	MA8011RR	32	103
NK BRAND	N82-J6	36	103
DEKALB	DK647BtY	48	102
PIONEER BRAND	33K81	35	100
PIONEER BRAND	33G30	44	100
AUGUSTA	285	27	100
NK BRAND	N79-L3	47	99
AUGUSTA	4485	23	99
PIONEER BRAND	3394	87	98
PIONEER BRAND	32K64	44	98
AUGUSTA	4585	24	97
GARST	8362IT	40	96

Medium Maturity Brand	Hybrid	# Observations	Relative Yield
PIONEER BRAND	31G98	59	110
AUGUSTA	2062	52	106
AUGUSTA	9552	39	101

Mid-Full Maturity Brand	Hybrid	# Observations	Relative Yield
PIONEER BRAND	31R88	44	109
DOEBLERS	859XY	47	95

* 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* (1998-2000) of hybrids entered in three or more locations each year.*

Very Early Maturity Brand	Hybrid	# Observations	Relative Yield
AUGUSTA	9884	51	104
AUGUSTA	9873	52	97
PIONEER BRAND	34K77	59	96

Early Maturity Brand	Hybrid	# Observations	Relative Yield
PIONEER BRAND	32R25	56	110
AUGUSTA	285	47	103
PIONEER BRAND	33G26	67	102
PIONEER BRAND	33G30	76	101
PIONEER BRAND	3394	107	100
PIONEER BRAND	33K81	75	100
NK BRAND	N79-L3	71	100
PIONEER BRAND	32K64	76	99

Medium Maturity Brand	Hybrid	# Observations	Relative Yield
AUGUSTA	2062	72	106

Mid-Full Maturity Brand	Hybrid	# Observations	Relative Yield
DOEBLERS	859XY	75	97

* 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. Yields at HOLLAND, VA in 2001.

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
NK BRAND	N63-G7	194	17.40	55.68
DOEBLERS	HC540	193	16.25	56.73
AUGUSTA	9884	192	18.73	56.60
PIONEER BRAND	34K77	190	16.80	57.67
AUGUSTA	4473	183	14.45	54.68
AUGUSTA	9873	179	14.94	54.71
AUGUSTA	9813	174	17.88	55.83
AUGUSTA	6467	158	14.20	57.05
AUGUSTA	3667	152	16.73	57.00
AUGUSTA	2067	143	15.83	57.25
Maturity Average		175	16.12	56.13
LSD (0.05)		22	2.04	0.86

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	32R25	213	19.35	55.38
PIONEER BRAND	32H58	208	18.90	58.45
VIGORO	V5110	204	17.18	55.30
PIONEER BRAND	33G30	204	17.98	59.10
AUGUSTA	4587	201	17.80	56.15
AUGUSTA	3687	196	18.75	55.15
VIGORO	V54C29	194	17.78	57.60
PIONEER BRAND	33G26	194	18.80	58.47
AUGUSTA	3364	192	15.83	57.23
VIGORO	V55Y21	190	17.83	54.78
PIONEER BRAND	33K81	188	18.43	58.13
NK BRAND	N79-L3	187	20.53	59.43
PIONEER BRAND	33V08	184	18.00	56.78
DOEBLERS	638XYG	182	17.43	55.50
PIONEER BRAND	3394	179	17.68	56.36
AUGUSTA	3673	179	15.38	54.73
PIONEER BRAND	32K64	177	18.43	59.30
AUGUSTA	4487	177	19.20	54.97
AUGUSTA	4454	174	18.15	54.75
AUGUSTA	6462	162	21.15	57.75
Maturity Average		187	18.12	56.69
LSD (0.05)		33	1.65	1.29

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	31G98	223	18.27	56.77
NK BRAND	N83-Z8	203	20.33	56.37
DOEBLERS	760DT	198	18.77	57.27
HYTEST	HT7712	191	19.15	57.03
VIGORO	V5800	190	18.75	57.18

Table 4, continued. Yields at HOLLAND, VA in 2001.

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
VIGORO	V5720	189	18.55	55.63
DOEBLERS	818XYG	189	19.38	55.10
AUGUSTA	2062	188	20.98	56.00
NK BRAND	N83-N5	186	20.73	56.25
HYTEST	7747RR	185	17.68	57.98
VIGORO	V5620	180	19.73	56.78
PIONEER BRAND	31B13	172	17.30	58.10
Maturity Average		190	19.13	56.70
LSD (0.05)		24	1.53	1.14

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	31R88	194	22.08	53.93
DOEBLERS	859XY	187	22.48	55.10
HYTEST	7722	184	22.38	55.50
HYTEST	7806	163	22.03	52.65
Maturity Average		182	22.24	54.29
LSD (0.05)		33	1.18	0.80
Location Average		185	18.26	56.37

Table 5. Two-year average yields at HOLLAND, VA in 1999 and 2001. Please note that yields are not being reported for 2000 because of high variability in plots due to micronutrient deficiency.

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
AUGUSTA	9884	187	19.19	56.30
AUGUSTA	9873	179	14.94	54.71
PIONEER BRAND	34K77	165	18.50	56.70
Maturity Average		177	17.42	55.85
LSD (0.05)		15	1.31	0.89

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	32R25	202	19.78	55.71
NK BRAND	N79-L3	189	21.05	59.60
PIONEER BRAND	33G30	186	19.36	57.68
PIONEER BRAND	33V08	182	18.74	57.14
PIONEER BRAND	33G26	178	19.57	56.30
PIONEER BRAND	3394	177	17.97	56.46
PIONEER BRAND	32K64	172	19.08	58.71
PIONEER BRAND	33K81	166	19.87	58.19
Maturity Average		181	19.14	57.28
LSD (0.05)		20	0.88	0.71

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
NK BRAND	NX8318	199	20.17	57.13
NK BRAND	N83-N5	190	20.90	56.86
PIONEER BRAND	31B13	188	19.16	57.65
HYTEST	HT7712	176	19.59	56.94
Maturity Average		188	19.95	57.15
LSD (0.05)		24	0.87	1.05

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DOEBLERS	859XY	191	21.18	56.51
Location Average		182	19.16	56.98

Table 6. Yields at MT HOLLY, VA in 2001.

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	34K77	145	18.25	57.78
DEKALB	DKC60-08	143	16.23	55.98
DOEBLERS	HC540	143	17.63	55.93
MID-ATLANTIC	MA9093YG	141	19.33	56.45
AUGUSTA	9884	138	18.20	55.70
DEKALB	DKC58-78	137	16.83	54.45
AUGUSTA	2067	134	15.83	56.78
ASGROW	RX708	130	20.18	54.80
MID-ATLANTIC	MA9094	128	19.25	54.15
AUGUSTA	3667	124	17.58	57.03
AUGUSTA	4473	122	17.88	57.60
DEKALB	DKC56-71	121	18.50	56.07
AUGUSTA	9873	118	17.46	56.86
AUGUSTA	9813	118	19.60	55.90
AUGUSTA	6467	110	16.23	56.70
Maturity Average		130	17.86	56.20
LSD (0.05)		23	1.57	1.27

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
AUGUSTA	4587	198	22.23	51.37
SOUTHERN STATES	670Bt	187	19.90	54.60
AUGUSTA	3687	184	25.08	49.40
NK BRAND	N82-J6	170	22.25	52.73
NK BRAND	N79-L3	162	21.85	57.10
MID-ATLANTIC	MA9137	161	21.93	53.78
AUGUSTA	3685	157	21.23	53.83
AUGUSTA	4487	157	21.00	54.35
PIONEER BRAND	33G26	155	19.63	58.20
MID-ATLANTIC	MA9140YG	154	20.30	55.15
AUGUSTA	3673	152	19.73	55.80
DEKALB	DKC61-25	150	19.23	54.85
DEKALB	DKC64-10	145	20.73	53.28
AUGUSTA	285	138	21.93	53.83
AUGUSTA	4485	135	18.73	55.13
PIONEER BRAND	32R25	134	21.20	50.78
SOUTHERN STATES	702	134	20.70	52.28
VIGORO	V54C29	132	22.48	54.05
PIONEER BRAND	32K64	130	18.93	57.65
DEKALB	DKC63-03	129	18.55	56.58
PIONEER BRAND	3394	129	18.86	56.24
AUGUSTA	3364	129	19.80	55.80
AUGUSTA	3387	129	20.10	53.33
SOUTHERN STATES	736Bt	129	21.05	54.80
PIONEER BRAND	33G30	128	19.95	58.25
NK BRAND	N65-Y3	127	17.95	55.58
GARST	8362IT	126	20.33	55.55

Table 6, continued. Yields at MT HOLLY, VA in 2001.

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
MID-ATLANTIC	MA8011RR	126	19.53	54.00
AUGUSTA	6462	124	20.85	54.75
AUGUSTA	3885	124	22.63	53.88
VIGORO	V5110	123	20.30	54.80
DEKALB	DK647BtY	122	20.83	53.78
VIGORO	V5320	118	18.20	56.30
GARST	8484Bt	117	20.35	53.63
PIONEER BRAND	32H58	117	21.65	53.83
AUGUSTA	4454	117	19.93	55.80
DOEBLERS	638XYG	111	18.97	54.93
VIGORO	V55Y21	109	21.25	56.13
AUGUSTA	4585	107	20.58	55.43
VIGORO	V5520	99	23.03	55.55
Maturity Average		136	20.40	54.87
LSD (0.05)		44	1.87	1.64

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
AUGUSTA	2062	172	23.58	52.13
AUGUSTA	9552	164	22.85	50.35
HYTEST	HT7712	160	21.98	53.13
AUGUSTA	5635	155	24.85	49.85
PIONEER BRAND	31G98	154	25.68	51.18
DEKALB	DKC66-50	152	20.50	52.23
DOEBLERS	760DT	147	21.67	54.03
MID-ATLANTIC	MA9181	146	24.75	49.85
VIGORO	V5800	144	22.45	53.28
AUGUSTA	3562	143	23.60	50.30
HYTEST	HT7735Bt	140	18.03	55.73
NK BRAND	N72-V7	134	19.55	54.23
HYTEST	7747RR	133	20.73	53.73
AUGUSTA	3152	132	23.40	48.55
AUGUSTA	3184	132	22.73	53.37
DOEBLERS	818XYG	129	22.78	52.38
MID-ATLANTIC	MA9184YG	129	20.18	56.15
Maturity Average		145	22.36	52.32
LSD (0.05)		45	2.02	1.60

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DOEBLERS	859XY	143	24.48	51.03
HYTEST	7806	137	22.38	50.58
Maturity Average		140	23.43	50.80
LSD (0.05)		25	1.70	2.05
Location Average		137	20.37	54.50

Table 7. Two-year average yields at MT HOLLY, VA in 2000 and 2001.

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
ASGROW	RX708	176	18.78	54.63
AUGUSTA	9884	172	17.99	55.88
PIONEER BRAND	34K77	171	17.99	57.29
AUGUSTA	9813	170	19.21	55.29
AUGUSTA	4473	164	16.08	56.48
AUGUSTA	9873	143	17.09	56.51
Maturity Average		164	17.77	56.06
LSD (0.05)		16	1.19	0.88

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
SOUTHERN_STATES	670Bt	208	18.91	54.56
NK BRAND	N82-J6	205	19.65	53.74
AUGUSTA	4587	204	20.94	52.54
MID-ATLANTIC	MA9137	201	20.44	53.60
AUGUSTA	4487	195	20.03	53.85
AUGUSTA	3685	187	20.71	53.88
NK BRAND	N79-L3	186	21.13	57.58
AUGUSTA	4485	185	18.23	54.54
PIONEER BRAND	33G26	183	19.65	57.43
AUGUSTA	285	179	20.53	53.69
MID-ATLANTIC	MA8011RR	178	18.43	53.58
PIONEER BRAND	32K64	176	18.98	57.70
PIONEER BRAND	32R25	176	20.26	52.76
AUGUSTA	3387	176	18.99	53.71
DEKALB	DK647BtY	173	19.65	54.09
AUGUSTA	3673	169	19.43	55.58
PIONEER BRAND	33G30	164	19.88	57.70
AUGUSTA	4585	160	19.74	54.49
GARST	8362IT	156	19.48	55.73
AUGUSTA	6462	154	20.55	55.63
PIONEER BRAND	3394	140	18.80	56.28
Maturity Average		174	19.63	55.05
LSD (0.05)		24	1.18	0.88

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	31G98	198	22.58	53.09
AUGUSTA	2062	197	21.31	53.80
MID-ATLANTIC	MA9181	189	22.04	51.53
Maturity Average		195	21.98	52.80
LSD (0.05)		24	1.44	0.98
Location Average		174	19.48	55.04

Table 8. Three-year average yields at MT HOLLY, VA in 1999, 2000, and 2001.

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
AUGUSTA	9884	152	18.83	57.54
PIONEER BRAND	34K77	149	18.49	58.09
AUGUSTA	9873	136	17.36	57.04
Maturity Average		144	18.14	57.51
LSD (0.05)		11	0.81	0.68

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
NK BRAND	N79-L3	158	21.42	58.74
PIONEER BRAND	33G26	157	20.38	58.23
PIONEER BRAND	32R25	157	20.73	54.73
AUGUSTA	285	155	20.17	54.82
PIONEER BRAND	32K64	150	20.22	58.69
PIONEER BRAND	33G30	144	20.36	58.42
AUGUSTA	A6462	137	21.16	57.02
PIONEER BRAND	3394	136	19.11	56.68
Maturity Average		147	20.21	57.08
LSD (0.05)		15	0.75	0.72

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
AUGUSTA	2062	162	21.58	55.69
Location Average		147	19.82	57.08

Table 9. Yields at MT HOLLY, VA under irrigation in 2001.

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
MID-ATLANTIC	MA9094	298	17.55	54.75
DOEBLERS	HC540	290	16.83	56.73
DEKALB	DKC56-71	277	16.33	55.83
MID-ATLANTIC	MA9093YG	277	17.08	56.60
AUGUSTA	9884	277	17.53	56.75
DEKALB	DKC58-78	275	15.88	55.25
DEKALB	DKC60-08	271	16.60	56.78
PIONEER BRAND	34K77	271	17.85	56.58
ASGROW	RX708	263	16.48	56.00
AUGUSTA	4473	260	15.75	56.33
AUGUSTA	9813	259	17.60	56.00
AUGUSTA	9873	252	16.10	55.29
AUGUSTA	2067	228	15.13	57.53
AUGUSTA	6467	223	16.53	58.03
AUGUSTA	3667	223	16.80	57.50
Maturity Average		262	16.63	56.33
LSD (0.05)		17	1.54	0.69

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
MID-ATLANTIC	MA8011RR	284	17.35	54.48
PIONEER BRAND	32H58	283	19.60	57.78
PIONEER BRAND	32R25	279	19.73	55.78
DEKALB	DKC61-25	278	16.87	56.90
SOUTHERN STATES	702	278	18.80	52.88
SOUTHERN STATES	670Bt	276	17.55	54.93
AUGUSTA	3364	275	16.70	56.25
PIONEER BRAND	3394	274	17.89	56.99
AUGUSTA	4487	274	18.15	53.60
NK BRAND	N82-J6	273	19.58	55.83
AUGUSTA	3687	272	20.68	52.38
MID-ATLANTIC	MA9137	270	19.03	54.20
VIGORO	V5110	269	17.93	54.40
VIGORO	V5520	269	18.48	54.05
AUGUSTA	3387	269	18.45	55.08
AUGUSTA	4587	267	20.23	54.10
VIGORO	V55Y21	266	18.25	55.35
PIONEER BRAND	32K64	265	17.73	58.65
AUGUSTA	3685	265	18.63	55.23
SOUTHERN STATES	736Bt	265	18.87	55.67
MID-ATLANTIC	MA9140YG	264	18.23	56.33
AUGUSTA	3885	264	20.33	54.03
AUGUSTA	4485	262	18.28	55.23
AUGUSTA	285	262	18.03	55.25
VIGORO	V5320	260	18.00	55.90
DEKALB	DK647BtY	259	18.33	54.03
NK BRAND	N79-L3	258	20.27	57.97
AUGUSTA	4454	257	18.15	56.03

Table 9, continued. Yields at MT HOLLY, VA under irrigation in 2001.

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
GARST	8484Bt	255	18.58	54.08
VIGORO	V54C29	255	18.08	57.93
DOEBLERS	638XYG	253	17.80	55.68
PIONEER BRAND	33G26	252	17.90	58.65
GARST	8362IT	249	18.45	56.23
DEKALB	DKC63-03	249	17.65	55.93
DEKALB	DKC64-10	248	18.23	54.70
AUGUSTA	4585	248	17.65	55.90
AUGUSTA	3673	248	17.83	55.35
PIONEER BRAND	33G30	247	17.40	58.80
NK BRAND	N65-Y3	242	17.53	56.43
AUGUSTA	6462	240	20.28	57.10
Maturity Average		264	18.37	55.79
LSD (0.05)		20	1.07	0.98

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	31G98	290	21.28	55.65
AUGUSTA	5635	279	21.45	53.63
AUGUSTA	3184	271	19.13	55.00
VIGORO	V5800	267	19.53	55.73
AUGUSTA	3152	266	20.48	52.95
AUGUSTA	9552	265	21.20	53.80
DOEBLERS	818XYG	261	19.28	55.15
DOEBLERS	760DT	260	18.38	55.28
MID-ATLANTIC	MA9184YG	259	18.08	57.15
AUGUSTA	3562	256	21.63	54.37
DEKALB	DKC66-50	254	19.33	54.27
AUGUSTA	2062	252	21.35	55.50
HYTEST	HT7712	252	19.80	55.53
MID-ATLANTIC	MA9181	249	20.95	54.10
HYTEST	HT7735Bt	245	17.68	56.73
NK BRAND	N72-V7	234	19.50	54.30
HYTEST	7747RR	234	17.40	58.85
Maturity Average		258	19.78	55.20
LSD (0.05)		18	1.21	0.89

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DOEBLERS	859XY	254	22.05	56.30
HYTEST	7806	250	20.60	53.95
Maturity Average		252	21.33	55.13
LSD (0.05)		15	0.76	0.09
Location Average		262	18.38	55.76

Table 10. Two-year average yields at MT HOLLY, VA under irrigation in 2000 and 2001.

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
AUGUSTA	9884	262	19.00	56.81
PIONEER BRAND	34K77	257	18.53	56.80
AUGUSTA	9813	253	18.59	55.90
ASGROW	RX708	248	17.76	55.78
AUGUSTA	4473	248	17.96	56.54
AUGUSTA	9873	241	17.40	55.83
Maturity Average		251	18.14	56.24
LSD (0.05)		15	1.38	0.63

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
MID-ATLANTIC	MA8011RR	278	18.25	53.65
AUGUSTA	4487	278	18.54	53.11
PIONEER BRAND	32R25	276	19.55	54.83
PIONEER BRAND	3394	270	18.03	56.94
DEKALB	DK647BtY	268	18.63	54.45
MID-ATLANTIC	MA9137	268	19.21	53.09
NK BRAND	N82-J6	267	20.44	55.04
PIONEER BRAND	33G26	263	18.81	57.91
AUGUSTA	3685	263	19.78	54.80
PIONEER BRAND	33G30	260	18.14	57.94
PIONEER BRAND	32K64	259	18.90	58.59
AUGUSTA	4485	259	19.30	54.91
AUGUSTA	4587	259	19.63	53.64
AUGUSTA	285	258	18.75	54.86
SOUTHERN_STATES	670Bt	258	19.04	54.65
AUGUSTA	3387	257	19.40	54.65
NK BRAND	N79-L3	253	20.74	57.56
AUGUSTA	4585	253	18.60	55.24
GARST	8362IT	246	18.99	56.04
AUGUSTA	3673	239	19.34	56.08
AUGUSTA	6462	238	20.78	50.24
Maturity Average		262	19.05	55.34
LSD (0.05)		17	1.33	4.15

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	31G98	277	20.53	55.34
AUGUSTA	2062	249	21.20	55.81
MID-ATLANTIC	MA9181	219	23.24	54.53
Maturity Average		249	21.65	55.23
LSD (0.05)		23	2.35	1.41
Location Average		3	19.11	55.51

Table 11. Three-year average yields at MT HOLLY, VA under irrigation in 1999, 2000, and 2001.

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
AUGUSTA	9884	241	20.02	57.41
PIONEER BRAND	34K77	236	20.28	56.88
AUGUSTA	9873	230	18.39	55.90
Maturity Average		235	19.45	56.65
LSD (0.05)		11	1.41	0.69

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	3394	265	18.44	57.18
PIONEER BRAND	32R25	259	20.69	55.78
PIONEER BRAND	32K64	252	20.38	58.76
PIONEER BRAND	33G30	250	19.74	58.59
PIONEER BRAND	33G26	246	20.34	58.09
AUGUSTA	285	245	20.03	55.04
NK BRAND	N79-L3	241	22.40	58.66
AUGUSTA	A6462	219	21.40	57.59
Maturity Average		250	20.06	57.40
LSD (0.05)		12	0.86	0.56

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
AUGUSTA	2062	224	22.59	56.46
Location Average		245	20.10	57.15

Table 12. Yields at BLACKSTONE, VA in 2001.

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

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
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

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
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 yields at BLACKSTONE, VA in 2000 and 2001.

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

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
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

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

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

Table 14. Three-year average yields at BLACKSTONE, VA in 1999, 2000, and 2001.

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	32R25	180	20.75	56.98
PIONEER BRAND	32K64	129	22.25	60.50
Maturity Average		168	21.13	57.86
LSD (0.05)		19	1.73	0.36
Location Average		168	21.13	57.86

Table 15. Yields at ORANGE, VA in 2001.

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Days To Silk	Ear Ht inches
PIONEER BRAND	34B23	214	14.75	78	51
DOEBLERS	HC540	210	14.58	80	55
ASGROW	RX708	206	14.08	78	54
AUGUSTA	9884	206	14.50	76	49
DEKALB	DKC60-08	201	13.95	74	52
DEKALB	DKC58-78	199	13.80	75	48
DEKALB	DKC56-71	193	14.90	79	55
Maturity Average		204	14.36	77	52
LSD (0.05)		22	0.76	2	3

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Days To Silk	Ear Ht inches
PIONEER BRAND	33J57	228	14.48	79	57
PIONEER BRAND	32R25	215	16.40	83	62
DEKALB	DKC61-25	214	14.63	80	57
PIONEER BRAND	3394	209	14.23	78	54
BIO GENE	BG316	207	17.45	77	55
NK BRAND	N82-J6	204	17.10	81	54
AUGUSTA	4587	203	16.05	79	50
MID-ATLANTIC	MA9137	200	15.50	79	50
MID-ATLANTIC	MA8011RR	198	14.98	77	48
PIONEER BRAND	32H58	196	15.93	80	55
PIONEER BRAND	33K81	194	15.05	79	53
BIO GENE	BG1130	194	15.85	80	52
AUGUSTA	4487	194	15.28	80	54
MID-ATLANTIC	MA9140YG	193	15.28	80	55
NK BRAND	N79-L3	193	16.78	80	52
DEKALB	DK647BtY	191	15.55	81	58
SOUTHERN STATES	740	191	15.60	80	52
GARST	8362IT	190	16.10	79	51
PIONEER BRAND	33G30	189	15.13	80	59
SOUTHERN STATES	781CL	187	15.55	79	56
NK BRAND	N65-Y3	184	14.88	75	48
DEKALB	DKC63-03	182	14.90	75	49
GARST	8484Bt	181	16.58	78	55
DEKALB	DKC64-10	174	14.73	80	56
AUGUSTA	3687	172	17.38	82	48
DOEBLERS	638XYG	170	15.28	80	55
GARST	8342GLS/Bt/I	167	16.60	78	50
Maturity Average		193	15.67	79	53
LSD (0.05)		26	0.88	2	4

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Days To Silk	Ear Ht inches
AUGUSTA	9552	238	16.40	84	64
AUGUSTA	3562	237	16.70	80	61
PIONEER BRAND	31G98	233	15.78	82	62

Table 15, continued. Yields at ORANGE, VA in 2001.

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Days To Silk	Ear Ht inches
AUGUSTA	2062	232	16.80	79	60
PIONEER BRAND	31B13	231	14.95	79	59
BIO GENE	BT4220	230	16.40	79	62
AUGUSTA	5635	229	16.60	83	65
MID-ATLANTIC	MA9184YG	217	15.78	79	57
BIO GENE	BG422	212	17.10	81	58
DOEBLERS	760DT	211	16.50	79	53
DEKALB	DKC66-50	201	15.43	79	54
HYTEST	HT7712	201	16.28	80	53
HYTEST	7747RR	197	14.58	80	53
SOUTHERN STATES	882CL	197	16.90	81	59
SOUTHERN STATES	842RR	189	18.08	82	56
DOEBLERS	818XYG	184	16.98	80	56
NK BRAND	N72-V7	182	16.80	76	47
Maturity Average		213	16.35	80	57
LSD (0.05)		19	0.97	1	4

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Days To Silk	Ear Ht inches
PIONEER BRAND	3156	239	16.48	80	61
PIONEER BRAND	31R88	214	18.03	82	64
HYTEST	7806	205	17.58	79	56
DOEBLERS	859XY	190	17.20	82	59
Maturity Average		212	17.32	81	60
LSD (0.05)		17	0.89	2	3
Location Average		202	15.84	79	55

Table 16. Two-year average yields at ORANGE, VA in 2000 and 2001.

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Days To Silk	Ear Ht inches
AUGUSTA	9884	204	16.38	71	48
ASGROW	RX708	190	15.53	72	51
Maturity Average		197	15.95	72	49
LSD (0.05)		9	0.86	1	2

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Days To Silk	Ear Ht inches
AUGUSTA	4587	211	17.85	73	50
PIONEER BRAND	32R25	210	18.13	77	59
BIO GENE	BG316	208	19.41	72	52
NK BRAND	N82-J6	204	19.24	75	53
PIONEER BRAND	33G30	200	16.88	73	55
AUGUSTA	4487	200	17.08	74	53
PIONEER BRAND	33K81	196	16.51	73	50
NK BRAND	N79-L3	196	18.33	73	50
MID-ATLANTIC	MA9137	195	17.41	73	50
PIONEER BRAND	3394	191	15.58	73	51
MID-ATLANTIC	MA8011RR	189	16.84	70	48
DOEBLERS	638XYG	185	16.45	73	54
GARST	8362IT	185	18.18	73	51
DEKALB	DK647BtY	185	17.71	76	55
GARST	8342GLS/IT	170	18.63	72	48
Maturity Average		195	17.61	73	52
LSD (0.05)		15	0.74	1	3

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Days To Silk	Ear Ht inches
PIONEER BRAND	31B13(Bt)	223	17.70	75	57
PIONEER BRAND	31G98	222	18.49	76	58
AUGUSTA	9552	222	19.61	79	60
BIO GENE	BT4220	216	19.10	74	58
AUGUSTA	2062	215	19.35	75	57
BIO GENE	BG422	190	18.91	75	55
DOEBLERS	818XYG	188	18.81	75	53
Maturity Average		211	18.85	76	57
LSD (0.05)		10	0.82	1	3

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Days To Silk	Ear Ht inches
PIONEER BRAND	3156	217	19.15	75	57
PIONEER BRAND	31R88	213	19.98	77	60
DOEBLERS	859XY	185	19.94	77	56
Maturity Average		205	19.69	76	58
LSD (0.05)		11	1.04	1	3
Location Average		200	18.04	74	54

Table 17. Three-year average yields at ORANGE, VA in 1999, 2000, and 2001.

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Days To Silk	Ear Ht inches
AUGUSTA	9884	167	17.57	70	43

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Days To Silk	Ear Ht inches
PIONEER BRAND	32R25	167	19.63	76	52
PIONEER BRAND	3394	155	16.98	71	46
PIONEER BRAND	33G30	154	18.09	72	48
PIONEER BRAND	33K81	153	17.51	72	44
BIO GENE	BG316	148	20.54	72	45
Maturity Average		155	18.55	73	47
LSD (0.05)		10	0.75	1	2

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Days To Silk	Ear Ht inches
PIONEER BRAND	31B13(Bt)	182	19.63	74	52
AUGUSTA	2062	172	20.59	74	51
BIO GENE	BG422	156	19.92	74	49
Maturity Average		170	20.04	74	50
LSD (0.05)		8	0.76	1	2

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Days To Silk	Ear Ht inches
PIONEER BRAND	3156	169	21.00	74	51
DOEBLERS	859XY	148	21.15	76	50
Maturity Average		158	21.08	75	50
LSD (0.05)		8	1.05	1	1
Location Average		161	19.33	73	48

Table 18. Yields at SHENANDOAH VALLEY, VA in 2001.

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DEKALB	DKC56-71	127	19.43	58.30
DEKALB	DKC58-78	127	17.58	54.83
ASGROW	RX708	117	17.13	56.80
DEKALB	DKC60-08	104	15.60	57.18
PIONEER BRAND	34B23	99	16.98	58.88
DOEBLERS	HC540	94	18.70	58.23
Maturity Average		111	17.57	57.37
LSD (0.05)		27	2.04	1.57

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DEKALB	DKC64-10	134	19.85	55.45
GARST	8484Bt	128	20.40	57.30
DOEBLERS	638XYG	128	19.63	56.23
NK BRAND	N65-Y3	125	17.98	58.35
AUGUSTA	3387	124	18.05	57.45
DEKALB	DKC63-03	120	18.77	57.83
PIONEER BRAND	33K81	120	20.38	60.15
SOUTHERN STATES	740	114	19.40	58.05
MID-ATLANTIC	MA9140YG	109	21.73	56.80
SOUTHERN STATES	781CL	108	19.45	62.13
DEKALB	DKC61-25	107	21.35	56.13
GARST	8362IT	105	19.73	57.93
MID-ATLANTIC	MA9137	105	18.85	58.53
MID-ATLANTIC	MA8011RR	103	18.83	57.88
DEKALB	DK647BtY	98	20.03	56.23
AUGUSTA	3685	98	19.93	56.15
PIONEER BRAND	33G30	97	21.28	57.95
PIONEER BRAND	3394	96	18.20	58.70
AUGUSTA	4585	96	19.93	58.28
GARST	8342GLS/Bt/I	95	19.85	54.63
PIONEER BRAND	32H58	91	21.20	58.38
AUGUSTA	285	90	20.17	56.57
PIONEER BRAND	32K64	86	19.20	58.48
AUGUSTA	3687	86	21.18	55.23
AUGUSTA	3885	82	21.43	57.63
PIONEER BRAND	33J57	81	19.50	56.77
NK BRAND	N82-J6	73	24.00	56.08
AUGUSTA	4485	71	19.70	57.87
Maturity Average		103	20.01	57.48
LSD (0.05)		39	1.37	3.66

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
MID-ATLANTIC	MA9184YG	121	21.30	58.28
AUGUSTA	3562	109	23.27	53.43
AUGUSTA	2062	107	21.80	54.43
SOUTHERN STATES	882CL	105	22.17	54.17

Table 18, continued. Yields at SHENANDOAH VALLEY, VA in 2001.

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DEKALB	DKC66-50	103	18.85	56.20
DOEBLERS	760DT	100	20.10	59.17
HYTEST	HT7712	95	20.63	58.68
PIONEER BRAND	31G98	91	22.85	57.28
SOUTHERN STATES	842RR	89	24.55	53.35
NK BRAND	N72-V7	87	20.57	56.80
AUGUSTA	3152	86	22.03	54.77
AUGUSTA	9552	66	22.47	55.60
AUGUSTA	5635	65	21.30	53.83
Maturity Average		95	21.81	55.90
LSD (0.05)		39	2.71	2.67

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DOEBLERS	887V2	107	24.93	50.88
HYTEST	7722	105	22.30	54.75
PIONEER BRAND	31R88	96	23.38	52.73
DOEBLERS	859XY	90	22.50	53.53
Maturity Average		100	23.28	52.97
LSD (0.05)		37	1.52	1.31
Location Average		102	20.38	56.73

Table 19. Two-year average yields at SHENANDOAH VALLEY, VA in 2000 and 2001.

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
ASGROW	RX708	173	18.69	54.54

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DEKALB	DK647BtY	184	19.86	54.71
DOEBLERS	638XYG	182	20.66	55.38
MID-ATLANTIC	MA9137	181	19.83	55.56
MID-ATLANTIC	MA8011RR	179	20.65	55.70
AUGUSTA	4585	177	17.55	55.63
AUGUSTA	285	177	18.00	53.81
PIONEER BRAND	33K81	176	19.95	57.33
AUGUSTA	4485	168	19.26	56.51
PIONEER BRAND	33G30	167	20.41	57.11
GARST	8362IT	166	20.06	56.15
AUGUSTA	3685	166	19.20	54.30
NK BRAND	N82-J6	154	24.13	52.95
PIONEER BRAND	32K64	149	19.36	56.40
Maturity Average		171	19.94	55.51
LSD (0.05)		23	2.25	1.91

Table 18, continued. Yields at SHENANDOAH VALLEY, VA in 2001.

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DEKALB	DKC66-50	103	18.85	56.20
DOEBLERS	760DT	100	20.10	59.17
HYTEST	HT7712	95	20.63	58.68
PIONEER BRAND	31G98	91	22.85	57.28
SOUTHERN STATES	842RR	89	24.55	53.35
NK BRAND	N72-V7	87	20.57	56.80
AUGUSTA	3152	86	22.03	54.77
AUGUSTA	9552	66	22.47	55.60
AUGUSTA	5635	65	21.30	53.83
Maturity Average		95	21.81	55.90
LSD (0.05)		39	2.71	2.67

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DOEBLERS	887V2	107	24.93	50.88
HYTEST	7722	105	22.30	54.75
PIONEER BRAND	31R88	96	23.38	52.73
DOEBLERS	859XY	90	22.50	53.53
Maturity Average		100	23.28	52.97
LSD (0.05)		37	1.52	1.31
Location Average		102	20.38	56.73

Table 19. Two-year average yields at SHENANDOAH VALLEY, VA in 2000 and 2001.

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
ASGROW	RX708	173	18.69	54.54

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DEKALB	DK647BtY	184	19.86	54.71
DOEBLERS	638XYG	182	20.66	55.38
MID-ATLANTIC	MA9137	181	19.83	55.56
MID-ATLANTIC	MA8011RR	179	20.65	55.70
AUGUSTA	4585	177	17.55	55.63
AUGUSTA	285	177	18.00	53.81
PIONEER BRAND	33K81	176	19.95	57.33
AUGUSTA	4485	168	19.26	56.51
PIONEER BRAND	33G30	167	20.41	57.11
GARST	8362IT	166	20.06	56.15
AUGUSTA	3685	166	19.20	54.30
NK BRAND	N82-J6	154	24.13	52.95
PIONEER BRAND	32K64	149	19.36	56.40
Maturity Average		171	19.94	55.51
LSD (0.05)		23	2.25	1.91

Table 19, continued. Two-year average yields at SHENANDOAH VALLEY, VA in 2000 and 2001.

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	31G98	184	22.44	54.69
AUGUSTA	2062	170	22.78	54.19
AUGUSTA	9552	161	22.43	54.43
Maturity Average		172	22.55	54.43
LSD (0.05)		22	3.17	1.52

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	31R88	159	24.24	51.46
DOEBLERS	859XY	150	24.25	50.85
DOEBLERS	887V2	150	26.73	48.09
Maturity Average		153	25.07	50.13
LSD (0.05)		21	1.12	2.70
Location Average		169	21.04	54.48

Table 20. Three-year average yields at AUGUSTA, VA in 1999, 2000, and 2001.

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
AUGUSTA	285	151	19.90	53.07
PIONEER BRAND	33K81	146	21.32	56.24
PIONEER BRAND	33G30	138	22.44	55.79
PIONEER BRAND	32K64	125	21.59	55.77
Maturity Average		140	21.34	55.26
LSD (0.05)		16	1.94	1.78

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
AUGUSTA	2062	141	25.72	52.37

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DOEBLERS	859XY	125	25.93	50.76
DOEBLERS	887V2	123	27.33	48.73
Maturity Average		124	26.63	49.74
LSD (0.05)		18	1.23	1.49
Location Average		135	23.50	53.25

Table 21. Yields at BLACKSBURG, VA in 2001.

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	34B23	138	16.80	52.23
NK BRAND	N63-G7	136	14.30	51.95
ASGROW	RX708	129	14.20	48.85
DEKALB	DKC60-08	125	14.53	50.53
DEKALB	DKC56-71	122	12.95	47.75
DOEBLERS	HC540	117	15.43	50.45
DEKALB	DKC58-78	112	13.50	46.13
Maturity Average		126	14.57	49.83
LSD (0.05)		19	0.92	2.36

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DEKALB	DK647BtY	173	18.65	49.60
DEKALB	DKC63-03	171	19.30	51.25
BIO GENE	BG1130	169	17.60	54.85
DEKALB	DKC64-10	152	17.28	50.28
NK BRAND	N82-J6	149	19.40	51.08
PIONEER BRAND	32K64	147	16.60	52.38
SOUTHERN STATES	740	147	17.80	52.50
SOUTHERN STATES	781CL	146	18.93	52.90
DOEBLERS	638XYG	145	16.67	50.87
PIONEER BRAND	33J57	143	16.50	49.80
BIO GENE	BG316	139	17.27	49.73
DEKALB	DKC61-25	137	16.00	48.40
PIONEER BRAND	32H58	130	19.65	51.70
NK BRAND	N79-L3	130	19.88	53.05
Maturity Average		149	18.00	51.35
LSD (0.05)		25	1.70	3.01

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
BIO GENE	BT4220	182	19.85	52.85
SOUTHERN STATES	842RR	165	24.75	47.05
SOUTHERN STATES	882CL	165	21.73	52.33
AUGUSTA	2062	160	20.73	52.38
DEKALB	DKC66-50	157	18.88	50.13
AUGUSTA	3562	155	22.28	49.58
AUGUSTA	3152	155	22.38	49.73
AUGUSTA	5635	155	22.80	49.33
AUGUSTA	9552	154	19.95	51.28
NK BRAND	N83-N5	153	19.50	51.60
BIO GENE	BG422	151	21.83	52.55
DOEBLERS	760DT	148	18.88	53.55
DOEBLERS	818XYG	144	18.65	50.50
PIONEER BRAND	31G98	142	17.93	51.53
NK BRAND	N83-Z8	142	20.90	52.83
AUGUSTA	3184	131	19.20	48.50

Table 21, continued. Yields at BLACKSBURG, VA in 2001.

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
NK BRAND	N72-V7	107	17.48	47.10
Maturity Average		151	20.45	50.75
LSD (0.05)		22	1.58	2.18

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	31R88	178	24.28	49.20
DOEBLERS	887V2	161	23.78	47.60
DOEBLERS	859XY	145	20.27	54.03
Maturity Average		163	23.00	49.94
LSD (0.05)		16	2.02	1.90
Location Average		147	18.81	50.74

Table 22. Two-year average yields at BLACKSBURG, VA in 2000 and 2001.

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
NK BRAND	N63-G7	154	16.76	55.28

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	32K64	175	19.70	56.90
BIO GENE	BG316	162	19.24	53.61
NK BRAND	N79-L3	153	21.53	57.25
Maturity Average		163	20.20	56.02
LSD (0.05)		13	1.36	1.81

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
BIO GENE	BT4220	186	21.41	55.95
AUGUSTA	2062	180	21.41	55.70
AUGUSTA	9552	174	20.03	54.39
PIONEER BRAND	31G98	173	19.75	54.88
NK BRAND	N83-N5	173	21.34	55.64
NK BRAND	N83-Z8	170	23.05	55.69
BIO GENE	BG422	162	22.29	56.09
Maturity Average		174	21.33	55.48
LSD (0.05)		15	0.83	1.16

Table 22, continued. Two-year average yields at BLACKSBURG, VA in 2000 and 2001.

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	31R88	197	23.78	52.78
DOEBLERS	887V2	184	24.44	49.30
DOEBLERS	859XY	177	21.70	56.59
Maturity Average		187	23.37	52.73
LSD (0.05)		12	1.16	0.87
Location Average		173	21.19	55.00

Table 23. Three-year average yields at BLACKSBURG, VA in 1999, 2000, and 2001.

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	32K64	165	20.26	57.48
BIO GENE	BG316	149	19.42	53.94
NK BRAND	N79-L3	138	21.12	57.46
Maturity Average		151	20.29	56.36
LSD (0.05)		13	0.97	1.26

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
NK BRAND	NX8318	162	23.22	55.37
AUGUSTA	2062	162	21.89	55.45
NK BRAND	N83-N5	155	21.64	54.86
BIO GENE	BG422	153	22.33	55.21
Maturity Average		158	22.27	55.22
LSD (0.05)		15	0.69	1.30

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DOEBLERS	887V2	161	23.54	49.98
DOEBLERS	859XY	154	21.65	55.29
Maturity Average		158	22.63	52.52
LSD (0.05)		10	0.94	1.17
Location Average		155	21.70	55.01

Table 24. Yields at WYTHE, VA in 2001.

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DOEBLERS	HC540	151	12.80	55.95
NK BRAND	N63-G7	138	12.63	55.25
DEKALB	DKC60-08	134	15.00	57.65
ASGROW	RX708	132	13.75	56.28
PIONEER BRAND	34B23	123	16.20	58.18
Maturity Average		135	14.08	56.66
LSD (0.05)		30	1.13	1.17

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DEKALB	DKC63-03	133	18.70	56.07
PIONEER BRAND	32H58	128	17.53	60.63
DEKALB	DK647BtY	127	18.00	55.75
PIONEER BRAND	33J57	125	14.25	55.63
NK BRAND	N79-L3	123	18.90	59.33
DEKALB	DKC61-25	119	16.08	57.03
DEKALB	DKC64-10	114	17.28	54.78
PIONEER BRAND	33G30	109	14.25	58.55
PIONEER BRAND	32K64	108	15.68	59.03
DOEBLERS	638XYG	101	16.38	55.15
Maturity Average		119	16.70	57.19
LSD (0.05)		35	1.27	1.69

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
DOEBLERS	760DT	160	14.50	56.88
DEKALB	DKC66-50	147	16.77	55.13
PIONEER BRAND	31G98	147	14.83	56.25
AUGUSTA	3562	142	19.43	54.88
NK BRAND	N83-Z8	139	19.75	56.93
AUGUSTA	5635	138	17.57	54.13
AUGUSTA	2062	136	19.55	57.63
SOUTHERN STATES	842RR	133	20.00	50.63
SOUTHERN STATES	882CL	126	19.25	57.23
NK BRAND	N83-N5	123	19.40	57.08
AUGUSTA	9552	97	18.15	55.18
AUGUSTA	3184	83	13.95	57.30
AUGUSTA	3152	78	16.15	54.18
Maturity Average		127	17.64	55.65
LSD (0.05)		34	1.87	1.87

Table 24, continued. Yields at WYTHE, VA in 2001.

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	31R88	171	22.88	56.78
PIONEER BRAND	3156	104	16.88	54.80
DOEBLERS	859XY	97	19.43	54.53
Maturity Average		124	19.73	55.37
LSD (0.05)		29	1.87	1.32
Location Average		125	16.96	56.28

Table 25. Two-year average yields at WYTHE, VA in 2000 and 2001.

Very Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
NK BRAND	N63-G7	172	17.74	54.84

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	32K64	162	20.24	57.86
NK BRAND	N79-L3	161	22.29	57.38
PIONEER BRAND	33G30	158	18.88	58.46
Maturity Average		160	20.47	57.90
LSD (0.05)		23	0.81	1.43

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	31G98	192	20.31	54.59
NK BRAND	N83-Z8	177	23.51	55.15
NK BRAND	N83-N5	173	23.20	55.45
AUGUSTA	2062	173	23.35	55.38
AUGUSTA	9552	151	22.09	54.09
Maturity Average		173	22.49	54.93
LSD (0.05)		20	1.19	1.35

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	31R88	191	25.70	55.30
PIONEER BRAND	3156	156	21.31	53.56
DOEBLERS	859XY	142	23.09	53.91
Maturity Average		163	23.37	54.26
LSD (0.05)		16	1.76	1.17
Location Average		167	21.81	55.50

Table 26. Three-year average yields at WYTHE, VA in 1999, 2000, and 2001.

Early Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	33G30	158	20.10	58.49
PIONEER BRAND	32K64	158	21.22	58.02
NK BRAND	N79-L3	154	22.77	57.23
Maturity Average		157	21.36	57.91
LSD (0.05)		16	0.61	1.08

Medium Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
NK BRAND	NX8318	169	23.83	55.59
NK BRAND	N83-N5	165	23.48	55.98
Maturity Average		167	23.65	55.79
LSD (0.05)		16	0.90	1.33

Mid-Full Maturity Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
PIONEER BRAND	3156	152	22.37	54.02
DOEBLERS	859XY	146	23.31	55.01
Maturity Average		149	22.84	54.51
LSD (0.05)		11	1.03	0.98
Location Average		157	22.44	56.33

SECTION II. VIRGINIA WHITE CORN HYBRID TRIALS IN 2001.

Table 27. White corn hybrid yields at HOLLAND, VA in 2001.

Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
ZIMMERMAN	Z62W	221	20.23	55.03
PIONEER BRAND	32Y52	209	21.00	57.40
ZIMMERMAN	E8272	209	22.00	53.85
PIONEER BRAND	33T17	197	19.03	58.08
PIONEER BRAND	32K72	196	19.43	58.05
ZIMMERMAN	1851W	190	21.98	54.10
ZIMMERMAN	E2010	174	20.93	57.58
PIONEER BRAND	32H39	172	19.33	57.70
Location Average		196	20.49	56.47
LSD (0.05)		13	0.84	0.91

Table 28. White corn hybrid yields at MT HOLLY, VA under irrigation in 2001.

Brand/Company	Hybrid	Yield bu/A	Moist %	Test Wt lb/bu
ZIMMERMAN	E8272	252	22.25	51.45
ZIMMERMAN	1851W	251	20.33	53.10
ZIMMERMAN	Z62W	251	19.80	53.73
PIONEER BRAND	33T17	249	18.50	58.40
PIONEER BRAND	32Y52	245	19.93	57.05
PIONEER BRAND	32H39	244	18.15	57.10
PIONEER BRAND	32K72	242	19.38	57.15
ZIMMERMAN	E2010	199	20.28	55.48
Location Average		241	19.83	55.43
LSD (0.05)		19	0.98	1.07

SECTION III. VIRGINIA CORN SILAGE TRIALS IN 2001.

Companies Participating in the 2001 Corn Silage Trials

Company	Brand	Address
AUGUSTA SEED CORPORTATION	AUGUSTA	106 FAIRBURN RD MT SOLON VA 22843
DOEBLER'S PA. HYBRIDS INC.	DOEBLER'S	RR 1 BOX 424 JERSEY SHORE PA 17740
GARST SEED CO.	GARST	2369 330TH SLATER IA 50244
HOFFMAN SEEDS, INC.	NK BRAND	144 MAIN ST LANDISVILLE PA 17538
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
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
SOUTHERN STATES COOP., INC.	SOUTHERN STATES	PO BOX 26234 RICHMOND VA 23260
SYNGENTA SEEDS, INC.	NK BRAND	PO BOX 959 MINNEAPOLIS MN 55440

Corn silage trials were conducted at three locations in Virginia in 2001. 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
E	Early	105-114 days
M	Medium	115-120 days
L	Mid/Full Season	120+ days.

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

Shenandoah Valley (Thanks to the Foltz farm in Page County)

Planted: April 30, 2001
Harvested: September 5, 2001
Pesticide: Bicep II Magnum® + simazine + 2,4-D + Python® at recommended rates + 4.4 lb Force 3G® at planting
Fertilizer: 3 tons broiler litter + 5 tons barnyard manure preplant incorporated + 20 gal 15-15-0 + S + micronutrients at planting
Plot Size: 2 rows 35' x 30" 4 replications
Cooperators: Tom Stanley, Bobby Clark, and the Foltz farm

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

Planted: April 20, 2001
Harvested: August 21, 2001
Pesticide: 4.4 lb Force 3G® at planting + 1.5 qt Bladex 4L + 1 qt Dual II + 1 qt Basogran® May 24, 2001 for nutsedge control
Fertilizer: 1000 lb 10-10-10 preplant incorporated +
20 gal 15-15-0 + S + micronutrients at planting + 80 lb N May 23, 2001
Plot Size: 2 rows 25' x 30" 4 replications
Soil Type: Wedowee
Cooperators: C Teutsch, W. B. Wilkinson and R. R. Wilmouth

Wythe County (Thanks to the Roger King farm, John Huffard, and the Fowlkes Equipment Company)

Planted: May 4, 2001
Harvested: September 18, 2001
Pesticide: 1 qt simazine + 2.5 qt Bicep + 1 qt Lorsban + 1.25 qt Gramoxone April 24, 2001 + 4.4 lb Force 3G® at planting
Fertilizer: 200 lb N April 24, 2001+ 20 gal 15-15-0 + S + micronutrients at planting
Plot Size: 2 rows 35' x 30" 4 replications
Cooperators: David Danner, Scott Jerrell, John Huffard, and Roger King

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
NE	Net Energy	ADF	Acid Detergent Fiber
L	Lactation	NDF	Neutral Detergent Fiber

Table 29. Corn silage varieties at the Shenandoah Valley in VA in 2001 (thanks to Charles Foltz of Page 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	Cargill	5481FQ	19.47	26.7	25.50	9.2	68.8	0.69	0.46	24.2	45.8	78.0	51.9
VE	Augusta	508	18.63	32.0	20.41	8.5	69.7	0.70	0.47	22.2	43.4	79.2	52.0
VE	Augusta	9873	18.04	33.2	19.03	8.7	68.9	0.69	0.46	24.0	43.5	77.0	47.1
	Maturity Average		18.71	30.6	21.64	8.8	69.1	0.69	0.46	23.5	44.2	78.0	50.3
	LSD (0.05)		2.56	2.3	2.89	2.8	1.6	0.04	0.04	3.3	10.4	6.9	8.4

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 %
E	Doeblers	638XYG	20.80	30.2	24.09	9.2	69.1	0.69	0.46	23.5	43.5	78.7	50.9
E	NK Brand	N79-L3	20.52	29.3	24.54	9.0	68.9	0.69	0.46	23.9	44.9	78.8	52.8
E	Mid-Atlantic	MA9197	20.02	27.2	25.79	8.5	67.0	0.67	0.43	27.9	52.2	75.0	52.2
E	Pioneer Brand	33J57	19.69	28.8	23.83	9.7	67.7	0.67	0.44	26.5	49.1	75.5	50.1
E	Pioneer Brand	32H58	19.07	30.7	21.62	9.3	67.2	0.67	0.43	27.5	50.4	75.2	50.6
E	Garst	8362IT	18.48	31.4	20.63	8.2	68.8	0.69	0.45	24.1	47.6	76.9	51.3
E	Dekalb	DK647BtY	17.37	28.0	21.72	9.2	68.5	0.68	0.45	24.7	46.1	77.3	50.7
E	Doeblers	HC540	17.31	30.9	19.57	9.2	68.0	0.68	0.45	25.9	49.5	74.9	49.2
E	Augusta	3885	17.14	30.3	19.80	9.2	68.4	0.69	0.45	24.9	47.2	78.5	54.5
E	Cargill	7512	17.10	26.7	22.39	9.8	68.4	0.68	0.45	25.0	47.2	77.1	51.5
E	Dekalb	DKC64-10	15.38	27.9	19.25	8.9	67.4	0.67	0.44	27.1	48.3	75.5	49.3
	Maturity Average		18.44	29.2	22.11	9.1	68.1	0.68	0.44	25.5	47.8	76.7	51.2
	LSD (0.05)		3.56	4.5	3.54	1.4	1.9	0.02	0.03	4.0	5.9	4.8	5.6

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	24.75	28.4	30.52	8.3	67.9	0.68	0.44	26.1	44.9	76.6	47.8
M	Dekalb	DKC69-70	24.39	27.9	30.62	8.8	67.8	0.68	0.44	26.2	52.9	75.5	53.8
M	Dekalb	DKC68-70	24.31	28.3	30.13	8.7	69.1	0.69	0.46	23.5	44.2	79.7	54.1
M	Pioneer Brand	31R88	23.80	28.7	28.99	7.7	68.0	0.68	0.45	25.9	48.4	74.2	46.8
M	Augusta	5635	23.65	31.3	26.39	8.6	67.7	0.68	0.44	26.4	48.5	77.1	52.7
M	NK Brand	N83-N5	22.47	27.5	28.64	8.2	68.5	0.69	0.45	24.8	46.0	75.8	47.5
M	Pioneer Brand	3130	22.20	29.4	26.46	8.4	67.0	0.67	0.43	28.0	47.1	76.3	49.6
M	Augusta	3562	22.16	29.3	26.44	8.0	68.4	0.68	0.45	25.0	45.3	76.4	48.3

Table 29, continued. Corn silage varieties at the Shenandoah Valley in VA in 2001.

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	Augusta	3556	22.15	30.1	25.78	8.4	68.6	0.69	0.45	24.5	45.5	79.3	54.6
M	Augusta	2062	21.68	27.6	27.55	8.4	68.2	0.68	0.45	25.4	44.1	75.8	44.7
M	Garst	8222IT	21.65	28.6	26.52	8.5	68.6	0.69	0.45	24.6	46.1	76.0	48.2
M	Dekalb	DK697	21.26	27.2	27.35	9.8	67.6	0.67	0.44	26.7	50.5	74.9	50.2
M	Southern States	849CL	19.93	31.6	22.07	8.3	69.0	0.69	0.46	23.7	42.0	79.1	50.3
M	Southern States	859CL	19.91	25.8	27.04	9.0	68.5	0.68	0.45	24.7	47.8	76.1	50.0
M	Southern States	842RR	19.56	31.2	21.94	8.3	68.6	0.69	0.45	24.6	45.2	74.9	44.5
M	Doeblers	760DT	19.21	32.9	20.41	8.9	68.9	0.69	0.46	23.8	45.8	75.0	45.6
M	Augusta	9552	19.04	27.5	24.22	8.7	67.9	0.68	0.44	26.0	47.3	76.8	50.8
M	Dekalb	DKC66-50	17.27	29.9	20.21	8.4	68.8	0.69	0.46	24.2	45.2	75.4	45.5
M	Hytest	HT7712	17.10	30.3	19.67	9.4	68.9	0.69	0.46	23.9	44.8	76.0	46.4
M	Mid-Atlantic	MA9174	16.06	29.0	19.35	8.5	68.1	0.68	0.45	25.6	48.4	75.7	49.7
M	VA Tech	BMR101	14.52	27.5	18.48	9.3	69.3	0.69	0.46	23.1	45.6	81.8	60.3
	Maturity Average		20.81	29.0	25.18	8.6	68.3	0.68	0.45	25.1	46.5	76.6	49.6
	LSD (0.05)		2.63	4.2	2.64	1.0	1.2	0.01	0.02	2.5	5.6	4.0	6.4

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 %
L	NK Brand	N91-R9	25.32	27.4	32.38	8.0	67.8	0.68	0.44	26.2	51.8	75.2	52.2
L	Hytest	TNT118W	24.06	28.8	29.25	8.7	67.4	0.67	0.44	27.0	50.0	75.9	51.8
L	NK Brand	N82-J6	23.69	29.4	28.22	8.5	68.8	0.69	0.45	24.2	46.4	78.4	53.4
L	Mid-Atlantic	MA9185R	22.22	29.7	26.14	8.8	68.6	0.68	0.45	24.7	45.8	79.0	54.1
L	Hytest	HT7924	21.80	32.1	23.80	8.1	69.0	0.69	0.46	23.8	43.7	78.2	50.3
L	Doeblers	S807Q	21.67	30.5	24.86	8.2	67.8	0.68	0.44	26.1	53.4	74.2	51.8
L	Doeblers	859XY	21.48	27.6	27.26	8.7	69.2	0.69	0.46	23.3	45.6	78.1	52.0
L	Hytest	HT7722	20.75	26.5	27.45	8.7	69.4	0.69	0.46	22.9	45.5	79.6	55.2
L	Hytest	HT7815	20.67	26.1	27.74	9.0	68.6	0.69	0.45	24.6	47.9	76.5	50.9
L	Mid-Atlantic	MA9200	18.86	29.2	22.61	8.8	69.4	0.70	0.47	22.7	44.2	77.7	49.5
L	Southern States	943	17.72	29.8	20.90	8.6	70.0	0.70	0.47	21.7	43.1	79.3	51.8
	Maturity Average		21.66	28.8	26.42	8.6	68.7	0.69	0.45	24.3	47.1	77.5	52.1
	LSD (0.05)		2.12	4.9	2.57	0.9	1.3	0.02	0.02	2.8	5.9	3.7	6.1

Table 30. Corn silage varieties at Blackstone, VA in 2001 (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	Dekalb	DK647BtY	25.04	41.2	21.20	5.3	65.6	0.65	0.41	30.9	52.6	71.6	45.9
E	Pioneer Brand	33J57	24.80	43.8	19.92	6.2	69.6	0.69	0.46	22.6	41.7	78.6	48.6
E	Pioneer Brand	32H58	24.42	42.5	20.16	5.2	66.7	0.66	0.43	28.6	51.3	72.6	46.1
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	Dekalb	DKC64-10	23.39	42.4	19.31	6.0	66.6	0.66	0.43	28.7	50.0	73.4	46.9
E	Mid-Atlantic	MA9197	23.35	41.8	19.54	5.7	66.6	0.66	0.43	28.8	51.0	72.0	45.1
E	NK Brand	N79-L3	23.14	43.6	18.57	5.1	65.0	0.65	0.41	32.0	60.1	68.6	47.7
E	Doeblers	HC540	21.22	43.9	16.97	5.8	66.6	0.66	0.43	28.7	51.2	72.2	45.3
	Maturity Average		23.60	43.6	19.36	5.5	66.5	0.66	0.42	28.9	51.5	72.7	46.9
	LSD (0.05)		2.41	6.1	1.55	1.0	3.0	0.03	0.04	6.3	12.0	7.7	6.6

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	Augusta	3562	27.32	45.1	21.21	5.7	66.2	0.66	0.42	29.6	48.0	73.0	43.1
M	Dekalb	DKC68-70	26.97	41.9	22.53	5.4	65.7	0.65	0.42	30.6	58.7	72.5	52.9
M	Augusta	5635	26.22	44.8	20.54	6.1	66.7	0.67	0.43	28.5	48.7	75.6	49.9
M	Pioneer Brand	3130	25.97	45.6	19.95	5.5	66.4	0.66	0.43	29.1	49.7	73.6	46.9
M	Doeblers	82XP	25.75	43.2	20.84	6.3	67.9	0.68	0.44	26.1	45.0	77.3	49.4
M	Doeblers	760DT	25.43	45.5	19.57	6.0	67.0	0.67	0.44	27.9	48.5	75.2	48.8
M	Augusta	3556	24.74	43.8	19.84	5.7	65.4	0.65	0.41	31.3	51.7	71.5	45.0
M	Dekalb	DK697	24.40	46.4	18.38	5.2	66.1	0.66	0.42	29.8	52.2	71.1	44.4
M	NK Brand	N83-N5	23.91	42.8	19.57	6.1	65.6	0.65	0.41	30.8	52.2	74.1	50.3
M	Pioneer Brand	31R88	23.89	42.5	19.74	5.2	66.0	0.66	0.42	29.9	54.9	70.4	45.7
M	Augusta	9552	23.45	41.1	19.96	6.6	67.0	0.67	0.43	27.9	48.7	77.4	53.7
M	Augusta	2062	23.14	41.7	19.48	6.0	66.4	0.66	0.43	29.1	50.4	73.3	46.9
M	Mid-Atlantic	MA9174	23.13	43.4	18.87	5.5	66.4	0.66	0.42	29.2	54.4	72.2	49.1
M	Dekalb	DKC66-50	22.93	43.4	18.59	6.2	67.8	0.68	0.44	26.3	46.5	76.2	48.3
M	Pioneer Brand	31B13	22.83	45.3	17.65	5.2	64.5	0.64	0.40	33.2	57.5	70.0	48.0
M	Dekalb	DKC69-70	22.36	46.0	17.00	4.8	64.3	0.64	0.40	33.4	58.2	68.2	44.1
	Maturity Average		24.53	44.2	19.61	5.7	66.2	0.66	0.42	29.5	51.6	73.2	47.9
	LSD (0.05)		3.59	5.3	2.82	1.5	2.9	0.03	0.04	6.1	15.0	6.7	9.4

Table 30, continued. Corn silage varieties at Blackstone, VA in 2001.

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	26.69	40.0	23.44	4.9	65.7	0.65	0.42	30.5	55.0	70.8	47.3
L	Doeblers	S807Q	25.28	42.3	21.02	5.0	64.8	0.65	0.40	32.6	56.3	70.4	47.6
L	Mid-Atlantic	MA9200	22.27	41.8	18.66	6.9	66.9	0.67	0.43	28.0	51.0	73.5	47.8
	Maturity Average		24.75	41.8	21.04	5.6	65.8	0.65	0.42	30.4	54.1	71.6	47.6
	LSD (0.05)		4.40	6.0	3.65	2.1	13.2	0.12	0.16	27.4	43.7	25.3	3.9

Table 31. Corn silage varieties at Wythe County, VA in 2001 (thanks to the Roger King Farm and John Huffard).

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	19.61	35.1	19.54	8.1	66.0	0.66	0.42	30.0	54.4	71.8	48.1
VE	Augusta	9873	17.84	36.0	17.34	7.4	65.4	0.65	0.41	31.2	58.2	68.9	46.5
	Maturity Average		18.73	35.5	18.44	7.8	65.7	0.65	0.42	30.6	56.3	70.3	47.3
	LSD (0.05)		4.13	15.6	3.21	14.3	4.8	0.00	0.00	9.9	24.5	11.8	45.0

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 %
E	Pioneer Brand	32H58	26.65	35.0	26.68	7.8	67.4	0.67	0.44	27.0	45.1	76.2	47.2
E	Mid-Atlantic	MA9197	25.91	32.1	28.20	7.0	66.6	0.66	0.43	28.8	50.7	75.7	52.3
E	Pioneer Brand	33J57	25.52	37.4	23.90	6.8	66.0	0.66	0.42	30.0	51.3	68.0	36.5
E	NK Brand	N79-L3	25.42	35.7	24.93	6.3	66.8	0.66	0.43	28.3	47.8	73.5	44.4
E	Doeblers	HC540	24.05	34.7	24.26	6.3	65.5	0.65	0.41	31.0	52.6	72.3	48.0
E	Dekalb	DK647BtY	23.64	31.0	26.80	7.5	67.0	0.67	0.43	27.9	45.7	72.7	40.1
E	Dekalb	DKC64-10	22.63	33.4	23.67	6.9	67.8	0.68	0.44	26.3	45.3	76.5	48.0
E	Doeblers	638XYG	21.46	33.3	22.45	7.1	66.1	0.66	0.42	29.8	51.3	72.3	46.3
E	Augusta	3885	20.72	32.6	22.26	7.6	67.5	0.67	0.44	26.8	47.6	76.1	49.8
	Maturity Average		24.09	33.9	24.87	7.0	66.7	0.66	0.43	28.4	48.6	73.7	45.8
	LSD (0.05)		3.14	6.1	3.12	1.4	4.7	0.05	0.06	9.7	15.0	8.7	6.6

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	29.19	31.2	32.79	7.2	65.4	0.65	0.41	31.3	53.3	69.9	43.5
M	Pioneer Brand	3130	28.15	31.9	30.91	7.1	66.4	0.66	0.43	29.0	47.5	74.8	46.9
M	Dekalb	DK697	27.97	33.0	29.65	7.2	67.4	0.67	0.44	27.0	48.4	74.7	47.7
M	Dekalb	DKC69-70	27.09	32.2	29.47	7.5	65.3	0.65	0.41	31.4	54.2	69.3	43.3
M	NK Brand	N83-N5	26.36	33.7	27.41	6.9	67.4	0.68	0.44	27.0	42.5	74.9	40.9
M	Augusta	5635	26.18	33.1	27.65	6.8	66.2	0.66	0.42	29.5	50.3	75.7	51.8
M	Augusta	3152	24.83	33.2	26.20	7.2	66.6	0.67	0.43	28.7	57.9	73.7	54.5
M	Doeblers	760DT	24.30	33.0	25.84	7.7	66.2	0.66	0.42	29.6	48.9	73.7	46.3
M	Pioneer Brand	31R88	24.07	28.5	29.52	6.9	66.4	0.66	0.42	29.1	48.1	74.6	47.1
M	Augusta	2062	23.91	33.4	24.99	6.9	66.8	0.67	0.43	28.2	55.6	76.4	58.0
M	Southern States	859CL	23.64	31.9	25.96	6.7	66.5	0.66	0.42	28.9	45.7	75.7	46.4
M	Augusta	3562	23.39	28.6	28.62	7.2	66.4	0.66	0.43	29.2	50.7	74.5	49.7
M	Mid-Atlantic	MA9174	22.26	30.1	25.90	6.6	65.0	0.65	0.41	32.0	59.1	68.8	47.6
M	Dekalb	DKC68-70	21.46	24.6	30.56	8.1	64.8	0.65	0.41	32.4	52.2	70.1	42.5
M	Southern States	849CL	20.28	32.3	21.96	7.4	67.4	0.67	0.44	27.0	43.7	76.4	46.0
M	Augusta	9552	20.13	29.0	24.23	7.5	65.2	0.65	0.41	31.7	51.7	73.5	48.7
M	Southern States	842RR	19.49	27.2	25.17	8.1	66.4	0.66	0.42	29.2	61.6	71.8	53.3
M	Dekalb	DKC66-50	19.26	31.7	21.36	7.9	65.3	0.65	0.41	31.4	53.6	71.1	46.3
M	Augusta	3556	17.24	28.5	21.18	7.9	65.7	0.65	0.42	30.7	53.2	72.2	47.8
	Maturity Average		23.64	30.9	26.81	7.3	66.2	0.66	0.42	29.6	51.5	73.3	47.8
	LSD (0.05)		3.47	5.2	3.32	1.8	3.1	0.03	0.04	6.5	9.3	7.6	12.6

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	29.85	27.7	37.75	7.3	65.4	0.65	0.41	31.1	53.5	71.5	47.0
L	NK Brand	N82-J6	28.63	33.3	30.07	7.5	67.5	0.67	0.44	26.9	45.7	76.6	49.1
L	Mid-Atlantic	MA9185R	28.17	37.9	26.02	6.1	67.3	0.67	0.44	27.2	46.5	77.3	51.6
L	Mid-Atlantic	MA9200	22.88	29.2	27.41	7.9	67.0	0.67	0.44	27.8	47.3	75.5	48.3
L	Doeblers	S807Q	21.57	34.7	21.78	7.7	67.4	0.67	0.44	27.1	45.7	75.6	46.7
L	Doeblers	859XY	20.76	31.4	22.99	7.7	67.7	0.67	0.44	26.5	45.0	74.8	44.3
L	Southern States	943	17.43	28.1	21.78	8.0	66.9	0.67	0.43	28.1	49.9	72.8	45.4
	Maturity Average		24.18	31.7	26.83	7.4	67.0	0.67	0.43	27.8	47.6	74.9	47.5
	LSD (0.05)		3.83	9.3	2.73	1.6	3.6	0.04	0.05	7.4	11.2	9.7	10.0

SECTION IV. GRAY LEAF SPOT STUDIES IN 2001.

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

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RESISTANCE AND AGRONOMIC CHARACTERS OF CORN HYBRIDS UNDER NATURAL GRAY LEAF SPOT DISEASE PRESSURE, MONTGOMERY CO., VA, 2001: Gray leaf spot disease ratings, grain harvest moisture, bushel weights, and grain yields were obtained for 38 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 zeae-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 10 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 mid-June. From late June through August temperatures were mild to warm with less than normal rainfall. These conditions, however, were generally favorable for disease development. GLS lesions had moved to the ear leaf and above on the more susceptible hybrids by 31 Jul and to the top of these hybrids by 7 Aug. Significant differences in GLS ratings among hybrids were apparent at all rating periods. At harvest, statistically significant differences ($P \leq 0.05$) 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 39th for grain yield of the 39 hybrids evaluated and yielded 68 bushels less than the highest yielding hybrid in the test.

Table 32. Resistance and agronomic characters of corn hybrids under natural gray leaf spot disease pressure, Montgomery County, VA, 2001.

Hybrid[1]	GLS Index[2] (0-5) 31 Jul	7 Aug	6 Sep	Harvest[3] Moisture % H_2O 10 Oct	Bushel[4] Weight in lbs 10 Oct	Yield[5] Bu/A @15.5% 10 Oct
PIONEER BRAND 31R88	1.63	2.13	3.22	26.8	51.9	200.8[6]
DEKALB DK647-BTY	1.45	2.18	3.38	21.1	51.6	196.6
DEKALB DKC68-70	1.52	2.05	2.60	29.6	50.3	191.0
SYNGENTA NX6890	1.35	2.00	3.25	18.7	52.0	189.4
FFR COOPERATIVE SS943	1.50	1.85	2.55	28.3	47.1	187.8
SYNGENTA NX7670	1.58	2.15	3.05	23.7	52.0	186.6
DOEBLER'S DH19023	1.60	2.17	3.47	18.8	54.5	182.8
FFR COOPERATIVE SS729CL	1.47	2.15	3.32	21.1	53.9	182.2
DEKALB DKC66-50	1.42	2.15	3.27	23.0	49.9	181.7
DEKALB DKC58-78	1.68	2.30	3.58	18.0	53.5	181.1
PIONEER BRAND 34B23	1.80	2.53	4.10	16.5	57.3	179.5
FFR COOPERATIVE SS781CL	1.55	2.20	3.47	21.3	54.1	177.6
SYNGENTA NX8901	1.47	2.22	3.40	24.3	47.8	176.7
SYNGENTA N72-J5	1.13	2.10	3.65	20.8	51.3	176.1
SYNGENTA NX7630	1.63	2.25	3.70	21.0	53.2	174.6
DEKALB DKC58-52	1.67	2.40	3.62	17.9	54.5	173.2
DEKALB DK697	1.58	2.25	3.35	22.9	52.0	172.9
PIONEER BRAND 33Y18	1.88	2.40	3.77	19.0	58.1	172.0
SYNGENTA NX8218	1.25	2.13	3.15	24.3	51.8	171.9
DEKALB DKC63-03	1.52	2.25	3.38	22.0	51.9	171.5
SYNGENTA N83-Z8	1.45	2.15	3.50	22.2	54.4	171.1
SYNGENTA N91-R9	1.25	2.10	2.90	29.1	50.2	170.3
SYNGENTA NX5220	1.23	2.10	3.73	15.6	53.0	169.5
PIONEER BRAND 33J56	1.83	2.90	4.05	16.3	54.7	168.7
FFR COOPERATIVE SS849CL	1.40	2.00	2.92	24.1	46.8	168.5
SYNGENTA NX6830	1.45	2.25	3.85	17.8	53.0	166.4
DEKALB DKC61-25AF	1.73	2.53	4.03	19.1	53.7	164.9
SYNGENTA NX6910	1.55	2.20	3.90	17.9	53.3	164.3
EKALB DKC60-08	1.50	2.15	3.60	18.9	55.1	162.7
SYNGENTA NX7330	1.50	2.13	3.47	21.8	52.5	160.9
SYNGENTA N63-G7	1.48	2.25	3.85	16.7	53.8	159.6
SYNGENTA NX6370	1.35	2.10	3.65	18.2	53.0	158.8
FFR COOPERATIVE SS842RR	1.20	1.85	2.43	29.7	47.3	157.9
SYNGENTA N58-D1	1.78	2.40	4.07	16.4	55.1	156.8
SYNGENTA N65-Y3	1.63	2.45	4.07	18.0	55.8	156.6
PIONEER BRAND 32H58	1.78	2.42	3.85	19.2	56.8	150.0
PIONEER BRAND 31G98	1.88	2.65	4.00	18.9	52.7	149.2
SYNGENTA N75-K6	1.83	2.30	3.78	22.2	54.2	146.1
PIONEER BRAND 3394	2.57	3.70	4.72	14.4	53.7	132.8
Least Significant Difference (P≤0.05) =	0.17	0.12	0.23	1.3	0.8	17.0
Standard Deviation =	0.12	0.09	0.16	0.92	0.55	12.16
Coefficient of Variation =	7.93	3.76	4.61	4.41	1.05	7.12

[1]Hybrid entry planted in four 25-ft rows spaced 2.5 ft apart and replicated four times.

[2]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.

[3]Grain moisture at harvest expressed in percent.

[4]Bushel weight expressed in lb at a standard 15.5% grain moisture.

[5]Yield expressed in bu/A at a standard 15.5% grain moisture.

[6]Means differ significantly ($P \leq 0.05$) by Fischer's LSD.

RESISTANCE AND AGRONOMIC CHARACTERS OF CORN HYBRIDS UNDER NATURAL GRAY LEAF SPOT DISEASE PRESSURE, WYTHE CO., VA, 2001: Gray leaf spot (GLS) ratings, yield, harvest grain moisture, and lodging ratings were obtained for 38 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 5 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. zeae-maydis*. Leaf blighting was assessed one time and is reported as a disease severity index (0-5). 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 20 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 the weather was unseasonably dry with moderate temperatures. These conditions were favorable for the early development of disease. The dry conditions throughout July and August did not appear retard continued development of GLS. Statistically significant ($P \leq 0.05$) differences among hybrids occurred for blighting, lodging, grain moisture at harvest, bushel weight, and grain yield. The susceptible check hybrid, Pioneer Brand 3394, the most heavily blighted, ranked 39th for grain yield of the 39 hybrids evaluated and yielded 87.7 bushels less than the highest yielding hybrid in the test.

Table 33. Resistance and agronomic characters of corn hybrids under natural gray leaf spot disease pressure, Wythe County, VA, 2001.

Hybrid[1]	GLS Severity Index (0-5)[2] 25 Jul	Lodging[3] % of plants 20 Oct	Harvest[4] Moisture % H_2O 20 Oct	Bu wt[5] (lb) 20 Oct	Yield[6] (bu/A) 20 Oct
FFR COOPERATIVE SS842RR	1.83	0.8	21.8	49.3	193.2[7]
PIONEER BRAND 31R88	2.03	19.1	22.6	55.5	178.2
FFR COOPERATIVE SS943	1.58	0.9	22.4	48.1	177.2
DEKALB DKC58-78	2.10	7.6	15.1	55.2	166.4
DEKALB DKC60-08	2.23	0.7	14.8	56.1	166.4
SYNGENTA NX6370	2.05	8.0	14.0	53.7	163.2
SYNGENTA NX7330	2.07	5.3	18.2	55.2	163.2
DEKALB DKC63-03	2.03	1.9	16.9	53.9	161.2
SYNGENTA N72-J5	2.15	4.5	15.6	52.9	160.9
SYNGENTA NX8218	1.97	0.0	20.6	53.4	159.5
FFR COOPERATIVE SS781CL	2.00	17.4	17.0	56.6	156.0
SYNGENTA NX8901	2.20	7.9	20.5	48.3	154.1
FFR COOPERATIVE SS729CL	2.10	19.8	17.4	54.9	153.2
SYNGENTA N83-Z8	2.03	8.8	19.4	56.1	152.5
SYNGENTA NX5220	1.78	2.5	13.5	54.2	149.0
DEKALB DKC58-52	2.17	25.3	14.6	55.4	148.7
PIONEER BRAND 34B23	2.20	5.3	15.5	57.5	147.8
SYNGENTA NX6830	2.03	12.2	13.7	53.1	147.2
SYNGENTA N63-G7	2.08	14.4	13.5	53.8	143.4
PIONEER BRAND 33Y18	2.33	9.3	15.3	57.5	144.3
DEKALB DKC68-70	2.00	20.6	22.2	53.6	142.8
DEKALB DK647-BTY	2.08	21.0	18.0	52.9	142.2
DOEBLER'S DH9023	2.22	9.1	13.9	54.6	142.0
SYNGENTA NX6890	1.95	26.5	15.7	54.3	140.1
SYNGENTA NX7670	2.13	24.8	18.8	55.9	137.2
SYNGENTA NX6910	2.03	2.4	14.1	53.5	134.3
FFR COOPERATIVE SS849CL	1.98	0.0	19.6	48.7	132.3
DEKALB DKC66-50	2.08	37.3	18.9	54.0	129.8
PIONEER BRAND 31G98	2.45	14.5	13.5	53.8	127.6
SYNGENTA N91-R9	1.92	38.5	23.5	54.7	127.1
SYNGENTA N58-D1	2.17	4.8	13.1	54.8	127.1

SYNGENTA N75-K6		2.10	6.3	18.3	56.7	125.2
DEKALB DK697		1.90	15.3	16.6	54.0	121.2
PIONEER BRAND 33J56		2.40	13.7	13.8	55.2	120.0
PIONEER BRAND 32H58		2.30	22.6	16.6	58.2	114.0
DEKALB DKC61-25AF		2.28	31.0	15.8	55.3	110.3
SYNGENTA N65-Y3		2.20	13.1	13.8	55.5	108.2
PIONEER BRAND 3394		2.95	2.0	12.4	51.8	105.5
Least Significant Difference (P≤0.05)	=	0.18	18.6	1.6	1.5	31.8
Standard Deviation	=	0.13	13.31	1.12	1.07	22.72
Coefficient of Variation	=	6.27	106.09	6.65	1.97	15.94

[1]Hybrid entry planted in four 25-ft rows spaced 2.5 ft apart and replicated four times.
[2]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.
[3]Stalk lodging expressed as the mean percentage of plants lodged.
[4]Grain moisture at harvest expressed in percent.
[5]Bushel weight expressed in lb at a standard 15.5% grain moisture.
[6]Yield expressed in bu/A at a standard 15.5% grain moisture.
[7]Means differ significantly ($P \leq 0.05$) by Fischer's LSD.

EVALUATION OF FOLIAR FUNGICIDES FOR THE CONTROL OF GRAY LEAF SPOT OF CORN IN VIRGINIA, 2001: Gray leaf spot (GLS) ratings, yield, harvest grain moisture, and lodging ratings were obtained for 18 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 7 May into a field continuously cropped to corn since 1986 and abundantly covered with corn debris naturally infested with *Cercospora zeae-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. An additional application of some of the fungicides were made on 3 Aug, depending on protocol. Leaf blighting or GLS reaction was assessed four 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 19 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 the susceptible hybrid by mid-June. From late June through August temperatures were mild to warm with less than normal rainfall. Although dry these conditions were generally favorable for disease development. GLS lesions had moved from the ear leaf to nearly the top of the plants on the non-treated control by 2 Aug rating. The non-treated control had severe lesion development below the ear with lesions to the top of the plant by the 17 Aug rating and by the 17 Sep rating very little green tissue remained. For all fungicide treatments blighting remained below the ear leaf by the 2 Aug rating, by the 17 Aug and 17 Sep ratings differences between single and double fungicide applications were easily detected. Significant differences ($P \leq 0.05$) in GLS ratings between all treatments and the non-treated control were apparent at the 2 and 17 Aug and the 6 Sep rating periods. At harvest, statistically significant differences among treatments occurred in grain yield, grain moisture at harvest, 1000 kernel weights and bushel weights. Single fungicide applications increased grain moisture at harvest (1.9-5.5%), bushel weights (-0.2 to 0.8 lb / bu), 1000 kernel weight (22.2 to 85.9 g), grain yield (17 to 37.6 bu/A) over the non-treated control. Two fungicide applications increased grain moisture at harvest (4.5-6.6%), bushel weights (-1.3 to 0.1 lb / bu), 1000 kernel weight (82.8 to 109.9 g), grain yield (37.6 to 71.8 bu/A) over the non-treated control. All fungicide applications, either single or double, provided statistically significant ($P \leq 0.05$) reduction in blighting at all rating dates. No phytotoxicity was observed for any fungicide treatment.

Treatment in ai/A and application timing[1]		GLS Severity Index (0-5)[2] 2 Aug	17 Aug	6 Sep	Grain[3] H_2O 19 Oct	Bu wt[4] in lb 19 Oct	1000 K[5] in g 9 Nov	Yield[6] Bu/A 19 Oct
BAS 50000F 2.09E 38.4	2	1.43b-d	1.43f	1.43h	21.6a	54.3e-g	386.1ab	209.9a
Quadris 2.08SC 38.4	2	1.50b-d	1.50f	1.50h	21.6a	54.2fg	388.4a	201.6ab
Stratego 250E 28.16	2	1.45b-d	1.45f	1.65h	21.4a	54.6c-f	380.7ab	197.4a-c
Quadris 2.08SC 57.6	2	1.55bc	1.53f	1.53h	21.2a	53.7g	396.2a	197.2a-c
Tilt 3.6E 28.8	2	1.53b-d	1.53f	2.40f	20.3ab	55.1a-d	375.7a-c	191.2a-d
AMS 21619 480SC 80.0 ..... + Induce 0.125% v/v	2	1.43b-d	1.43f	2.10g	20.7ab	54.6c-f	386.6a	188.0b-d
Stratego 250E 41.76	2	1.43b-d	1.43f	1.45h	21.4a	54.4d-g	382.2ab	186.2b-e
Quadris 2.08SC 57.6	1	1.55bc	1.63f	2.50ef	18.2c-f	55.0b-f	355.1b-d	179.8c-f
Quadris 2.08SC 38.4	1	1.35d	2.00e	2.53ef	20.4ab	54.8c-f	365.6a-c	179.1c-f
Stratego 250E 41.76	1	1.38cd	2.18c-e	3.18d	19.3b-e	55.6ab	346.1c-e	178.7c-f
BAS 50000F 2.09E 38.4	1	1.58b	2.20cd	2.73e	19.8a-c	55.4a-c	372.2a-c	177.8c-f
AMS 21619 480SC 40.0 ..... + Induce 0.125% v/v	2	1.60b	2.08de	2.70e	19.4b-d	55.1a-e	369.1a-c	175.7d-g
Tilt 3.6E 28.8	1	1.43b-d	2.15c-e	3.53c	17.5f	55.7ab	331.8d-f	165.8e-h
Stratego 250E 28.16	1	1.43b-d	2.28bc	3.58bc	17.7ef	55.8a	329.1d-f	159.1f-h
Folicur 3.6F 43.2 ..... + Induce 0.125% v/v	1	1.48b-d	2.40b	3.78b	17.5f	55.7ab	329.7d-f	156.4g-i
AMS 21619 480SC 40.0 ..... + Induce 0.125% v/v	1	1.53b-d	2.33bc	3.78b	16.8f	55.7ab	323.3ef	155.6g-i
AMS 21619 480SC 80.0 ..... + Induce 0.125% v/v	1	1.55bc	2.20cd	3.43c	17.8d-f	55.7ab	308.8fg	155.1g-i
Non-treated		2.50a	3.38a	4.55a	14.9g	55.0b-f	286.3g	138.1i
Least Significant Diff. ($P \leq 0.05$)	=	0.16	0.18	0.21	1.6	0.7	27.1	18.3
Standard Deviation	=	0.11	0.12	0.15	1.11	0.49	18.96	12.84
Coefficient of Variation	=	7.09	6.37	5.60	5.75	0.89	5.32	7.24

[1]Treatment and timing: Fungicide(s) applied in g ai/A. Timing of applications was as follows: 1 = a single application (21 Jul) at 5% silking; 2 = an application at 5% silking (13 Jul) followed by a second application 21 days later (3 Aug).

[2]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.

[3]Grain moisture at harvest expressed in percentage.

[4]Bushel weight in pounds at a standard 15.5% grain moisture.

[5]1000 Kernel weight in grams.

[6]Yield in bushels per acre at a standard 15.5% grain moisture.

[7]Means with letters in common do not differ statistically ($P \leq 0.05$) by Duncan's Multiple Range Test.