Mississippi Corn for Grain Variety Trials 1999

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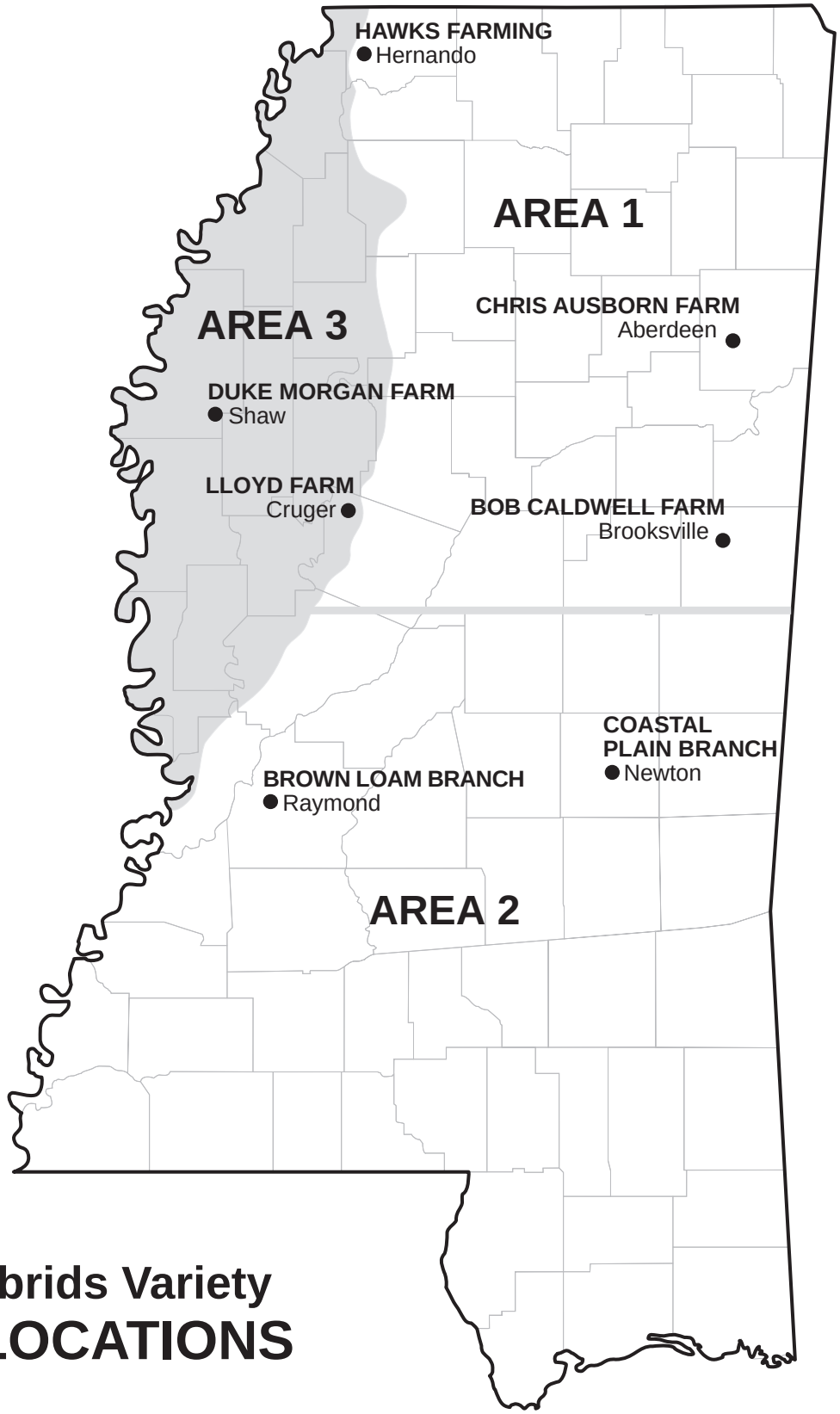

Corn Hybrids Variety
TEST LOCATIONS

Mississippi Corn for Grain Variety Trials 1999

Procedure

Trials were conducted on Experiment Station land or on grower-cooperator fields in three geographical areas in Mississippi: Area I, north of Interstate 20, three dryland locations; Area II, south of Interstate 20, two dryland locations; and Area III, in the Delta region of Mississippi, two irrigated locations (see the map on the second page). Commercial seed companies were given the opportunity to enter hybrids in Area I, Area II, or Area III.

Plots consisted of two 30-inch rows 13.33 feet long, planted on prepared seed beds. Weeds were controlled by cultivation and/or herbicides. Only herbicides currently registered for use on corn were used in these studies, with strict adherence to all label instructions. Lorsban 15G was donated by Dow Elanco and applied in-furrow at planting for insect control. Experimental design was a randomized complete block with five replications at each location.

Hybrids were separated into two maturity groups based upon relative maturity information provided by the sponsoring companies. Those hybrids with a relative maturity of 115 days or less were considered early maturing, while those that required 116 days or more to mature were considered late maturing.

Seeds of all entries were supplied by participating companies. All seeds were packaged for planting at seeding rates suggested by the participating company and planted with a cone planter. Phosphorus, potassium, and lime were applied according to soil test recommendations. Nitrogen was applied in Areas I and II at 140 to 200 pounds per acre, and plots in Area III received 200 to 300 pounds of N per acre. Plots in Areas I and II were grown in dry land conditions, and plots in Area III were irrigated, if necessary.

Variables Measured in the Corn Hybrid Tests

•**Yield:** An Almaco SPC 20 plot combine was used to harvest the total area of each plot. Harvested grain was weighed, moisture was determined, and yields were converted to bushels per acre at 15.5 percent moisture.

•**Root Lodging:** Root lodging is the percentage of plants, based on actual counts of all plants in each plot, that were leaning more than 30 degrees from vertical at harvest.

•**Stalk Lodging:** Stalk lodging is the percentage of plants, based on actual counts of all plants in each plot, that were broken below the upper ear-bearing node at harvest.

•**Ear Height:** Ear height is the distance from the soil to the highest ear-bearing node.

•**Harvest Population:** Harvest population is a measure of the number of plants per acre, based on actual stand counts at time of harvest.

Use of Data Tables and Summary Statistics

The yield potential of a given variety cannot be measured with complete accuracy. Consequently, replicate plots of all varieties are evaluated for yield, and the yield of a given variety is estimated as the mean of all replicate plots of that variety. Yields vary somewhat from one replicate plot to another, which introduces a certain degree of error to the estimation of yield potential. As a result, although the mean yields of some varieties are numerically different, the two varieties may not be significantly different from each other within the range of natural variation. That is, the ability to measure yield is not precise enough to determine what the small differences are, other than what might be observed purely by chance.

The least significant difference (LSD) is an estimate of the smallest difference between two varieties that can be declared to be the result of something other than random variation in a particular trial. Consider the following example for a given trial:

Variety	Yield
A	90 bu/A
B	85 bu/A
C	81 bu/A
LSD	7 bu/A

The difference between variety A and variety B is 5 bu/A (i.e., 90 - 85 = 5). This difference is smaller than the LSD (7 bu/A). Consequently, we would conclude that variety A and variety B have the same yield potential, since we are unable to say that the observed difference did not occur purely due to chance. However, the difference between variety A and variety C is 9 bu/A (i.e., 90 - 81 = 9), which is larger than the LSD (7 bu/A). We would therefore conclude that the yield potential of variety A is superior to that of variety C.

The coefficient of variation (CV) is a measure of the relative precision of a given trial and is used to compare the relative precision of different trials. The CV is generally considered an estimate of the amount of unexplained variation in a given trial. This unexplained variation can be the result of variation between plots with respect to soil type, fertility, insects, diseases, moisture stress, etc. Overall, as the CV increases, the precision of a given trial decreases.

The coefficient of determination (R^2) is another measure of the level of precision in a trial and is also used to compare the relative precision of different trials. The R^2 is a measure of the amount of variation that is explained, or accounted for, in a given trial. For example, an R^2 value of 90 percent indicates that 90 percent of the observed variation in the trial has been accounted for in the trial, with the remaining 10 percent being unaccounted for. The higher the R^2 value, the more precise the trial. The R^2 is generally considered a better measure of precision than the CV for comparison of different trials.

Table 1. Location, number of entries, planting dates, and harvest dates for 1999 corn hybrid trials.

Location	Maturity[1]	No. of entries	Planting date	Harvest date
Area I				
Hawks Farming, Inc. (Hernando)	Early Late	33 29	April 8	September 8
Chris Ausborn Farm (Aberdeen)	Early Late	33 29	April 13	September 3
Bob Caldwell Farm (Brooksville)	Early Late	33 29	April 13	August 26
Area II				
Brown Loam Branch (Raymond)	Early Late	21 14	April 14	August 24
Coastal Plain Branch (Newton)	Early Late	21 14	April 6	August 23
Area III				
Sid Lloyd, Jr. Farms (Cruger)	Early Late	40 31	April 7	August 31
Duke Morgan Farm (Shaw)	Early	40	April 12	August 30

[1]Early maturity = 115 days or less; late maturity =116 days or more.

Table 2. Characteristics provided by sponsoring companies for corn hybrids entered in the 1999 Mississippi variety trials.

Company	Hybrid	Planting rate (x1000)	Days to maturity	Grain texture[1]	MDMV resistance[2]	MCDV resistance[2]
AgriPro Seeds, Inc. Southern Business Units 761 Walnut Knoll Lane Suite 200 Memphis, TN 38018 901-844-7340	HY 9646 AP 9707 HS 9843 AP 9829IMI AP 9909 AP 9939	28 28 28 28 28 28	116 117 117 118 120 121	M MH H H H MH	S S S S S S	S S S S S S
Akin Seed - Agrigold RR 1 Box 203 St. Francisville, IL 62460 618-943-5776	A6725 A6609Bt A6590 XA3809	28 28 24 28	118 116 113 113	H M M M	– – – –	– – – –
Monsanto Company P.O. Box 359 Marion, AR 72364 870-739-4431	RX799Bt RX897 RX913 RX889 RX938	24/28 24/28 24/28 24/28 28/32	111 115 117 115 119	– – – – –	– – – – –	– – – – –
Monsanto Company 3100 Sycamore Road DeKalb, IL 60115 815-758-9323	DK697 DK687 DK679 DK650 DK611	28 28 28 28 28	119 118 117 115 111	M MH M M M	– – – – –	– – – – –
FFR Seed 969 Cloverleaf Drive Southaven, MS 38671 800-366-2667, Ext. 298	FFR 726 FFR 748 FFR 769Bt FFR 849 FFR79027Bt	28 32 32 28 32	113 115 115 118 120	M M H M	S S MR MR	S S MR MR
Garst Seed Company 7728 St Rd 1241 Hickory, KY 42051 270-856-4331	8220	24/28	120	–	–	–
Genesis Ag Ltd. P. O. Box 21085 Lansing, MI 48909 800-581-9866	Genesis 1215Bt Genesis 3214 Genesis 2215 Genesis 2218	28 28 28 28	115 114 115 118	M M M H	S S S S	S S S S
Hornbeck Seed Compny, Inc. P. O. Box 472 210 Drier Rd DeWitt, AR 72042 870-946-2087	Stewart S555 Stewart S660	28 28	110 115	M M	– –	– –
Novartis Seeds Inc 100 Sangria Drive Hattiesburg, MS 39401 601-264-2878	N63-G7 N79-L3Bt N83-N5	24/28 24/28 24/28	110 118 119	M H H	– – –	– – –
Pioneer Hi-Bred International 6767 Old Madison Pike Suite 110 Huntsville, AL 35806 256-971-0760	3167 33G26 3223 32K61 3163 3245 3394 33K81 33J56	28 28 28 28 24 28 28 28 28	124 112 116 114 119 115 110 113 113	M – – M-H M M M MH M	S MR – MS MR MS S S MR	S MR – MS MR MR S S MR
Southern States Coop P. O. Box 26234 6606 West Broad Richmond, VA 23200 804-281-1253	SS769Bt SS859IT SS729IT SS726 SS849IT SS77095 SS747IT SS77457	28/32 28/32 28/32 28/32 28/32 28/32 28/32 32	117 119 114 113 119 105 116 111	M M M M M M M M	S MR S S MR S S S	S MR S S MR S S S
Terra International, Inc. P.O. Box 171376 Memphis, TN 38187 901-758-1341	TR 1087 TR 1106 TR 1147RR TR 1154 TR 1157 TR 1167 TR 1167IT TR 702	28/32 28/32 28/32 28/32 28/32 28/32 28/32 28/32	108 110 114 115 115 116 116 120	M – – M M M – –	– – – S S R – –	– – – S S R – –
Terral Seed, Inc. P. O. Box 826 Lake Providence, LA 71254 318-559-2840	TV2090 TV2100 TV2140 TV2543 TV2930 TVX20980 TVX21481 TVX21680Bt	28 28 28 28 28 28 28 28	107 108 112 113 118 107 112 114	M M H MH M M H M	– – – MR R – – –	– – – MR R – – –
UAP Mid South 57 Germantown Court Suite 200 Cordova, TN 38018 901-752-4223	DG5510A DG5516 5505RR X5575 X5583	32 32 32 32 32	115 118 112 116 120	H H H H H	R MR MR MR R	– MR MR MR R

[1]M = Medium; H = Hard.
[2]MDMV = Maize Dwarf Mosaic Virus; MCDV = Maize Chlorotic Dwarf Virus (corn stunt); S = Susceptible; R = Resistant; MR = Moderately Resistant; and MS = Moderately Susceptible.

HAWKS FARMING, INC., HERNANDO

Crop Summary

The 1999 variety trial was planted under high-moisture conditions that continued until mid-season. Rainfall during June and July was less than at other locations, but it still provided enough moisture to produce excellent dryland yields. Disease and insect pressure was very light throughout the growing season.

Soil type	**Collins silt loam**
Soil pH	**6.0**
Soil fertility	**P-M, K-M**
Fertilizer added	**Preplant – N @ 125 lb/A, P @ 60 lb/A, K @ 90 lb/A**
	Sidedress – N @ 75 lb/A
Herbicide application	**Preemergence – Bicep @ 1.8 qt/A + Atrazine @ 1 qt/A**
Planting date	**April 8**
Harvest date	**September 8**

Table 3. Characteristics of 31 early-maturing corn hybrids grown without irrigation on a Collins silt loam soil in Hernando, DeSoto County, 1999.[1]

Brand name	Hybrid number	1999 yield	2-year average	3-year average	Root lodging	Stalk lodging	Ear height	Moisture content	Harvested stand (x1000)
		bu/A	*bu/A*	*bu/A*	*%*	*%*	*in*	*%*	
Terral	TV2140	210.2	142.6	–	0	0	53	13.6	28
Funk's	DG5510A	206.7	139.4	139.1	0	0	48	14.9	31
Pioneer	33J56	192.6	–	–	0	0	50	12.7	26
Terral	TVX21481	189.9	–	–	0	0	52	12.7	26
FFR	FFR769Bt	186.2	–	–	0	0	46	13.7	30
DeKalb	DK650	185.5	–	–	0	0	45	13.8	28
Terra	TR1154	178.6	120.8	120.3	0	0	56	13.1	24
Pioneer	3394	178.1	124.5	123.9	0	0	50	12.4	27
SS	77095	177.8	–	–	0	0	51	11.9	25
SS	729IT	175.8	–	–	0	0	51	12.6	28
Pioneer	33K81	172.7	–	–	0	0	43	13.0	26
Pioneer	32K61	171.9	118.1	121.5	0	0	48	13.6	28
Terra	TR1157	166.9	120.4	128.0	0	0	51	13.2	28
Pioneer	33G26	166.0	131.6	–	11	0	52	13.1	27
Asgrow	RX799Bt	164.8	–	–	0	0	46	13.8	24
Elite	FFR726	164.0	125.5	–	0	0	50	12.3	28
Terral	TV 2543	161.8	105.5	–	0	0	46	12.4	28
NK	N63-G7	161.2	–	–	0	0	47	12.1	23
Terral	TVX21680Bt	160.9	–	–	0	0	50	13.6	26
Terral	TV2090	158.6	105.4	119.8	0	0	42	12.3	26
Asgrow	RX 897	157.5	–	–	0	0	50	13.3	24
Agrigold	XA3809	155.6	–	–	0	0	47	12.1	26
DeKalb	DK611	154.9	–	–	0	0	46	12.9	26
Terral	TV2100	147.3	98.7	108.9	0	0	44	12.6	24
Asgrow	RX889	143.6	–	–	0	0	41	13.3	23
Terra	TR1147RR	142.4	–	–	0	0	45	12.3	25
Terral	TVX20980	141.2	–	–	0	0	48	11.8	25
Terra	TR1087	138.8	98.4	107.0	0	0	46	11.8	26
SS	726	137.7	–	–	0	0	47	12.3	20
Terra	TR1106	133.7	–	–	0	0	42	12.5	24
Dyna-Gro	5505RR	133.4	–	–	0	0	41	12.2	26
Overall mean		165.0	119.2	121.1					
LSD (.10)		28.3	19.3	16.8					
Error degrees of freedom		120	88	84					
CV (%)		16.3	21.8	22.8					
R^2 (%)		43	86	81					

[1]Planted April 8; harvested September 8.

Rainfall Summary

	Inches
April	8.92
May	4.79
June	2.42
July	3.63
August	1.18
September	1.11
Total	22.05

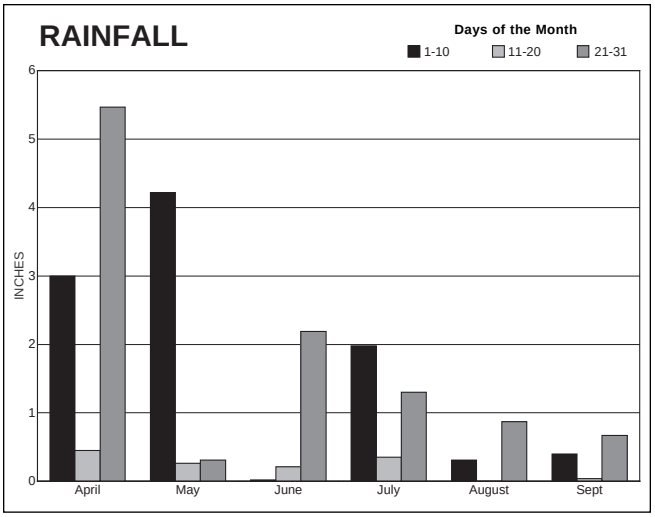

Table 4. Characteristics of 29 late-maturing corn hybrids grown without irrigation on a Collins silt loam soil in Hernando, DeSoto County, 1999.[1]

Brand name	Hybrid number	1999 yield	2-year average	3-year average	Root lodging	Stalk lodging	Ear height	Moisture content	Harvested stand (x1000)
		bu/A	*bu/A*	*bu/A*	*%*	*%*	*in*	*%*	
HyPerformer	HS 9843	201.4	135.8	135.2	0	0	49	13.8	28
SS	849IT	188.0	–	–	0	0	48	13.8	26
Pioneer	3223	183.2	128.7	136.7	0	0	53	13.3	28
AgriPro	AP9829IMI	180.9	124.7	–	0	0	53	13.8	27
SS	769Bt	178.5	–	–	0	0	46	13.9	28
Terra	TR702	177.2	–	–	0	0	48	13.6	26
SS	859IT	176.0	–	–	0	0	47	12.4	27
DeKalb	DK679	173.0	–	–	0	0	51	14.0	27
DeKalb	DK697	172.7	–	–	0	1	48	13.9	29
Asgrow	RX913	170.5	118.6	–	0	0	51	13.1	24
Funk's	X5575	170.0	–	–	0	0	50	12.1	32
Asgrow	RX 938	167.5	–	–	0	0	51	14.2	27
Terra	TR1167IT	165.9	–	–	0	0	52	13.0	26
Garst	8220	164.9	113.7	–	0	0	47	15.3	23
DeKalb	DK687	164.7	107.5	118.8	0	0	48	13.9	27
NK	N83-N5	162.4	–	–	0	0	51	13.4	26
SS	747IT	162.3	–	–	0	0	46	12.4	26
Agrigold	A6725	162.1	–	–	0	0	53	13.6	24
Agrigold	A6609Bt	162.1	–	–	0	0	47	13.5	26
AgriPro	AP9909	161.9	115.6	117.7	0	0	50	14.5	28
Pioneer	3163	160.7	113.3	124.6	0	0	46	13.7	26
AgriPro	AP9707	157.2	111.1	–	0	0	46	12.4	26
Funk's	X5583	155.2	–	–	0	0	46	13.9	30
AgriPro	AP9939	155.0	111.9	–	0	0	47	14.4	26
NK	N79-L3Bt	153.2	–	–	0	0	45	13.5	24
Terra	TR1167	152.8	114.8	123.1	0	0	50	12.8	25
HyPerformer	HY9646	151.3	–	–	0	0	52	13.0	26
Terral	TV 2930	139.1	102.4	–	0	0	39	15.5	16
Pioneer	3167	128.4	95.0	109.2	0	0	49	13.3	28
Overall mean		165.3	114.8	123.6					
LSD (.10)		30.5	21.4	18.9					
Error degrees of freedom		112	96	72					
CV (%)		17.6	25.1	25.1					
R^2 (%)		25	81	76					

[1]Planted April 8; harvested September 8.

Chris Ausborn Farm, Aberdeen

Crop Summary

Plentiful rainfall through July allowed the corn to grow relatively stress-free until shortly before maturity.

Soil type	**Houston clay loam**
Soil pH	**7.2**
Soil fertility	**P-M, K-M**
Fertilizer added	**Preplant – 0-26-26 @ 300 lb/A**
	Sidedress – N @ 200 lb/A
Herbicide application	**Preemergence – Atrazine @ 3 pt/A**
Planting date	**April 13**
Harvest date	**September 3**

Table 5. Characteristics of 31 early-maturing corn hybrids grown without irrigation on a Houston clay loam soil in Aberdeen, Monroe County, 1999.[1]

Brand name	Hybrid number	1999 yield	2-year average	3-year average	Root lodging	Stalk lodging	Ear height	Moisture content	Harvested stand (x1000)
		bu/A	*bu/A*	*bu/A*	*%*	*%*	*in*	*%*	
Funk's	DG5510A	181.6	145.8	126.2	0	0	30	14.3	32
Pioneer	32K61	178.3	151.9	130.6	0	0	32	13.5	26
Terra	TR1157	178.1	135.0	117.2	0	0	35	13.4	27
Terral	TV 2543	173.4	132.7	–	0	0	36	12.1	27
Terral	TV2100	173.0	130.1	110.5	0	0	29	13.1	28
SS	729IT	171.5	–	–	0	0	38	11.9	26
Asgrow	RX799Bt	169.9	–	–	0	0	28	14.3	24
NK	N63-G7	169.3	–	–	0	0	33	11.7	24
DeKalb	DK650	168.2	–	–	0	0	35	12.1	26
Agrigold	XA3809	164.2	–	–	0	0	33	11.7	26
Elite	FFR726	163.9	124.7	–	0	0	33	12.4	27
FFR	FFR769Bt	158.8	–	–	0	0	31	13.9	30
Terral	TVX21481	158.3	–	–	0	0	38	12.7	25
Pioneer	3394	156.1	121.9	110.5	0	0	32	11.8	27
Terra	TR1154	156.1	124.8	104.9	0	0	37	12.5	24
Terral	TVX21680Bt	154.1	–	–	0	0	37	13.8	24
Pioneer	33G26	150.3	135.6	–	0	0	33	12.7	26
Terra	TR1106	150.0	–	–	0	0	27	12.9	24
Asgrow	RX 897	148.1	–	–	0	0	34	13.1	24
SS	77095	147.9	–	–	0	0	37	11.4	26
Terral	TV2140	147.5	115.9	–	0	0	37	12.9	24
DeKalb	DK611	144.5	–	–	0	0	33	9.8	26
Pioneer	33K81	142.5	–	–	0	0	32	12.1	24
SS	726	141.8	–	–	0	0	27	12.2	22
Terral	TVX20980	140.0	–	–	0	0	31	11.6	26
Dyna-Gro	5505RR	138.3	–	–	0	0	31	11.9	26
Asgrow	RX889	134.9	–	–	0	0	29	13.1	22
Pioneer	33J56	134.5	–	–	0	0	29	12.6	23
Terra	TR1087	133.0	101.4	97.0	0	0	27	11.7	23
Terral	TV2090	126.7	92.9	88.5	0	0	29	11.8	20
Terra	TR1147RR	119.3	–	–	0	0	30	11.8	26
Overall mean		153.8	135.7	113.3					
LSD (.10)		29.2	18.5	11.7					
Error degrees of freedom		119	62	65					
CV (%)		18.0	16.0	15.5					
R^2 (%)		33	81	89					

[1]Planted April 13; harvested September 3.

Rainfall Summary

	Inches
April	7.21
May	4.01
June	6.47
July	5.19
August	1.07
September	1.37
Total	25.32

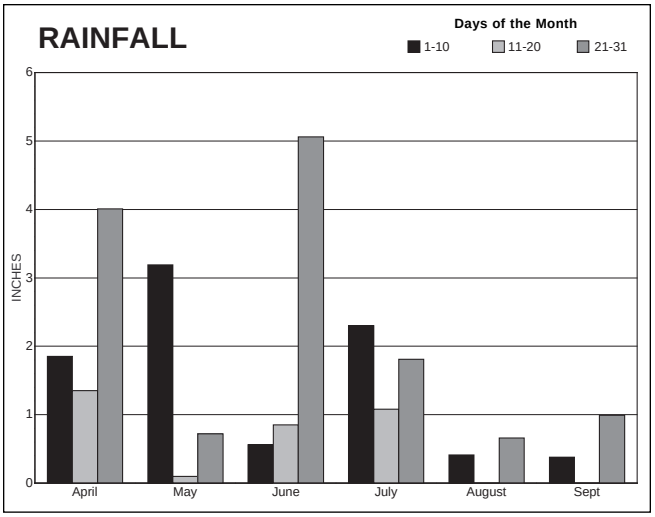

Table 6. Characteristics of 29 late-maturing corn hybrids grown without irrigation on a Houston clay loam soil in Aberdeen, Monroe County, 1999.[1]

Brand name	Hybrid number	1999 yield	2-year average	3-year average	Root lodging	Stalk lodging	Ear height	Moisture content	Harvested stand (x1000)
		bu/A	*bu/A*	*bu/A*	*%*	*%*	*in*	*%*	
DeKalb	DK697	177.5	–	–	0	0	35	13.6	26
SS	859IT	172.8	–	–	0	0	32	12.8	28
SS	849IT	172.5	–	–	0	0	31	14.2	25
HyPerformer	HY9646	171.9	–	–	0	0	36	13.3	28
Funk's	X5583	171.3	–	–	0	0	31	15.3	30
AgriPro	AP9829IMI	169.5	128.9	–	0	0	30	14.2	21
Asgrow	RX913	169.1	124.6	–	0	0	35	13.6	25
DeKalb	DK687	168.3	138.1	118.2	0	0	35	14.5	26
Terra	TR1167IT	167.0	–	–	0	0	35	13.8	27
SS	769Bt	164.4	–	–	0	0	32	14.3	25
Pioneer	3223	164.2	140.7	115.1	0	0	35	14.2	28
Terra	TR702	161.7	–	–	0	0	34	14.9	25
HyPerformer	HS 9843	160.8	133.4	114.5	0	0	34	13.5	28
AgriPro	AP9939	156.8	130.2	–	0	0	34	15.9	25
SS	747IT	156.3	–	–	0	0	33	12.3	25
AgriPro	AP9909	156.2	129.7	105.1	0	0	36	15.4	26
Terra	TR1167	153.0	125.5	105.8	0	0	34	13.4	25
DeKalb	DK679	152.4	–	–	0	0	35	14.1	26
Pioneer	3163	150.5	125.9	108.8	0	0	33	13.2	24
AgriPro	AP9707	148.8	123.9	–	0	0	34	12.5	25
Terral	TV 2930	147.3	116.7	–	0	0	28	15.8	18
Agrigold	A6725	146.4	–	–	0	0	36	13.8	23
Garst	8220	144.1	122.5	–	0	0	33	14.6	22
Pioneer	3167	143.0	133.1	112.8	0	0	34	16.0	21
Agrigold	A6609Bt	137.9	–	–	0	0	32	13.9	24
Funk's	X5575	137.8	–	–	0	0	36	12.7	29
NK	N83-N5	136.9	–	–	0	0	39	14.1	23
Asgrow	RX 938	134.0	–	–	0	0	34	11.4	26
NK	N79-L3Bt	124.8	–	–	0	0	28	13.7	23
Overall mean		155.7	128.7	111.5					
LSD (.10)		25.0	15.1	10.5					
Error degrees of freedom		111	96	72					
CV (%)		15.3	15.8	15.4					
R^2 (%)		32	75	87					

[1]Planted April 13; harvested September 3.

Bob Caldwell, Jr., Farms, Brooksville

Crop Summary

Corn was planted into stale seedbeds rowed up the previous fall. Good growing conditions resulted in good stands and fast early growth. Adequate rainfall in June and July produced good yields.

Soil type . . . . . Brooksville silty clay
Soil pH 6.1
Soil fertility . . . . . P-M, K-M
Fertilizer added . . . . . Preplant – 6-19-28 @ 300 lb/A
Sidedress – N @ 200 lb/A
Herbicide application . . . Preplant – Atrazine @ 2 qt/A,
Lasso @ 2 qt/A, and Gramoxone @ 1 qt/A
Planting date . . . . . April 13
Harvest date . . . . . August 26

Table 7. Characteristics of 31 early-maturing corn hybrids grown without irrigation on a Brooksville silty clay soil in Brooksville, Noxubee County, 1999.[1]

Brand name	Hybrid number	1999 yield	2-year average	3-year average	Root lodging	Stalk lodging	Ear height	Moisture content	Harvested stand (x1000)
		bu/A	*bu/A*	*bu/A*	*%*	*%*	*in*	*%*	
Agrigold	XA3809	131.3	–	–	0	0	43	14.8	28
Dyna-Gro	5505RR	130.0	–	–	0	3	39	14.6	30
NK	N63-G7	128.8	–	–	0	0	40	15.2	24
Pioneer	32K61	128.2	109.3	98.6	0	0	37	15.6	24
SS	77095	126.1	–	–	0	0	45	15.9	28
Funk's	DG5510A	125.0	104.9	97.8	0	5	36	15.9	27
Elite	FFR726	124.3	92.3	–	0	1	37	15.1	27
Asgrow	RX799Bt	121.9	–	–	0	0	36	18.8	25
FFR	FFR769Bt	121.7	–	–	0	0	36	18.0	30
Pioneer	33G26	121.0	107.1	–	0	0	39	15.2	26
Terral	TVX21680Bt	120.7	–	–	0	0	48	18.5	26
Terra	TR1087	118.7	100.4	96.7	0	0	39	15.0	28
Terral	TV2140	118.3	91.1	–	0	1	42	17.0	26
Asgrow	RX 897	117.0	–	–	0	0	42	16.9	24
Terra	TR1157	116.1	102.2	94.9	0	0	45	15.9	27
Terral	TVX20980	115.7	–	–	0	0	38	13.8	26
DeKalb	DK611	115.5	–	–	0	0	40	15.5	26
Terral	TV 2543	115.0	96.6	–	0	1	40	15.3	27
Terral	TVX21481	114.1	–	–	0	0	45	19.2	28
DeKalb	DK650	113.5	–	–	0	2	37	15.8	28
SS	726	113.1	–	–	0	0	38	14.7	23
Pioneer	3394	111.7	93.2	94.1	0	0	38	14.5	28
Pioneer	33J56	110.7	–	–	0	1	37	15.4	26
Terra	TR1106	110.6	–	–	0	3	35	14.4	28
SS	729IT	109.4	–	–	0	0	46	12.8	28
Terral	TV2090	109.1	85.9	78.2	0	0	35	14.9	27
Pioneer	33K81	107.2	–	–	0	0	34	14.6	27
Terral	TV2100	103.5	81.5	83.1	0	1	35	13.9	26
Asgrow	RX889	102.7	–	–	0	1	35	16.7	24
Terra	TR1147RR	97.5	–	–	0	0	34	15.1	26
Terra	TR1154	86.3	75.8	76.7	0	0	45	11.7	25
Overall mean		115.6	95.0	90.0					
LSD (.10)		21.1	12.0	9.5					
Error degrees of freedom		120	88	84					
CV (%)		17.4	16.9	17.4					
R^2 (%)		37	76	73					

[1]Planted April 13; harvested August 26.

Rainfall Summary

	Inches
April	3.25
May	2.46
June	6.87
July	4.29
August	0.60
Total	17.47

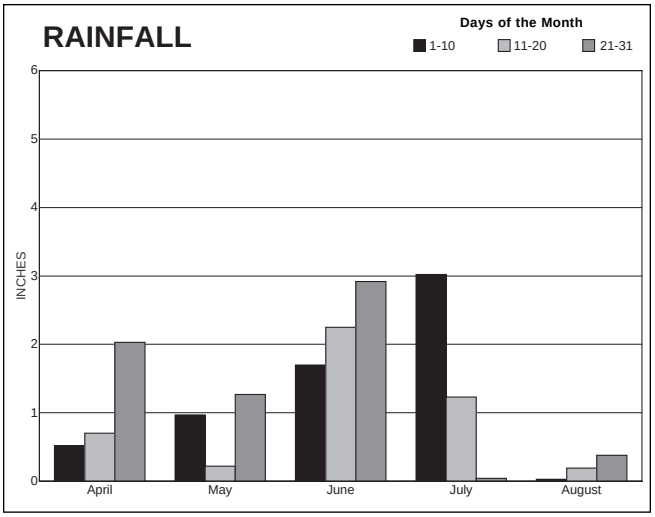

Table 8. Characteristics of 29 late-maturing corn hybrids grown without irrigation on a Brooksville silty clay soil in Brooksville, Noxubee County, 1999.[1]

Brand name	Hybrid number	1999 yield	2-year average	3-year average	Root lodging	Stalk lodging	Ear height	Moisture content	Harvested stand (x1000)
		bu/A	*bu/A*	*bu/A*	*%*	*%*	*in*	*%*	
Pioneer	3223	164.0	131.6	118.1	0	0	49	16.7	28
Terra	TR1167IT	149.9	–	–	0	0	45	17.0	28
SS	849IT	144.0	–	–	0	0	43	16.5	26
SS	747IT	138.4	–	–	0	0	41	16.2	29
Agrigold	A6725	138.1	–	–	0	0	47	18.0	23
Pioneer	3163	133.5	111.1	107.6	0	0	39	14.9	23
Agrigold	A6609Bt	133.4	–	–	0	0	37	17.5	28
SS	769Bt	132.3	–	–	0	0	35	17.6	26
HyPerformer	HY9646	128.1	–	–	0	0	47	16.3	24
SS	859IT	127.6	–	–	0	1	37	17.1	27
AgriPro	AP9939	127.6	108.3	–	0	0	42	19.3	29
DeKalb	DK697	126.2	–	–	0	1	45	18.0	26
Asgrow	RX913	124.4	102.2	–	0	0	48	18.7	22
DeKalb	DK687	123.4	107.8	105.8	0	0	41	18.0	26
DeKalb	DK679	122.1	–	–	0	1	49	20.2	28
AgriPro	AP9909	120.1	104.2	92.8	0	0	45	20.2	28
AgriPro	AP9829IMI	118.8	95.1	–	0	0	45	19.5	26
Asgrow	RX 938	118.4	–	–	0	1	44	17.5	26
NK	N83-N5	118.3	–	–	0	0	46	18.8	24
AgriPro	AP9707	118.2	97.5	–	0	1	42	16.0	28
Terra	TR1167	117.9	104.1	96.5	0	0	44	16.7	25
NK	N79-L3Bt	115.7	–	–	0	0	37	15.7	24
Terra	TR702	115.5	–	–	0	0	39	19.3	28
Garst	8220	112.9	92.9	–	0	0	38	16.2	22
HyPerformer	HS 9843	112.1	100.1	95.9	0	0	42	16.3	27
Funk's	X5583	111.5	–	–	0	5	40	17.0	30
Funk's	X5575	109.1	–	–	0	0	41	15.4	29
Pioneer	3167	107.3	97.9	88.1	0	1	39	17.6	26
Terral	TV 2930	105.4	90.8	–	0	1	44	19.6	22
Overall mean		124.6	103.3	100.7					
LSD (.10)		20.2	12.3	9.8					
Error degrees of freedom		112	96	72					
CV (%)		15.5	15.9	16.0					
R^2 (%)		49	73	76					

[1]Planted April 13; harvested August 26.

MAFES Brown Loam Branch, Raymond

Crop Summary

Corn emerged to a good stand. Below-normal temperatures created good growing conditions despite the late planting date of April 14, 1999. Timely rainfall during June and July, coupled with average daytime temperatures, resulted in good growth, pollination, and grain fill. Harvest proceeded on time. Weeds and diseases were not a problem this year.

Soil type . . . . . Calloway Silt Loam
Soil pH 6.5
Soil fertility . . . . . P-H, K-M
Fertilizer added . . . . . 0-26-26 @ 200 lb/A, N @ 180 lb/A
Herbicide application . . . Preemergence – Atrazine @ 2.0 qt/A + Dual 8E @ 1.0 qt/A
Planting date . . . . . April 14
Harvest date . . . . . August 24

Table 9. Characteristics of 21 early-maturing corn hybrids grown without irrigation on a Calloway silt loam soil at the MAFES Brown Loam Branch, Raymond, 1999.[1]

Brand name	Hybrid number	1999 yield	2-year average	3-year average	Root lodging	Stalk lodging	Ear height	Moisture content	Harvested stand (x1000)
		bu/A	*bu/A*	*bu/A*	*%*	*%*	*in*	*%*	
Funk's	DG5510A	157.7	143.7	129.3	0	0	43	15.7	28
Terral	TV 2543	156.1	128.1	–	0	0	44	13.1	28
SS	729IT	149.1	–	–	0	0	47	12.8	27
Pioneer	33G26	145.2	–	–	0	0	46	13.8	27
Terra	TR1154	142.4	133.1	120.3	0	0	51	15.0	26
Terral	TVX21481	141.8	–	–	0	0	45	13.4	24
Terral	TVX21680Bt	141.2	–	–	0	0	46	13.8	26
Dyna-Gro	5505RR	139.3	–	–	0	0	42	13.4	28
Pioneer	33K81	138.9	–	–	0	0	44	13.5	23
Pioneer	3245	138.8	130.6	113.7	0	0	45	13.9	25
Terral	TV2140	134.7	124.8	118.9	0	0	46	14.2	26
DeKalb	DK650	133.5	–	–	0	0	43	14.4	26
DeKalb	DK611	132.5	–	–	0	0	45	13.7	26
Terra	TR1087	129.6	113.4	103.9	0	0	43	12.2	25
Terral	TVX20980	124.9	–	–	0	0	43	12.1	26
Terra	TR1157	121.4	113.8	108.7	0	0	46	14.3	26
Terral	TV2090	120.2	109.1	–	0	0	38	12.6	26
Pioneer	32K61	119.8	123.2	121.5	0	0	42	14.8	25
Terra	TR1106	119.0	–	–	0	0	41	12.6	25
Terra	TR1147RR	117.4	–	–	0	0	42	13.1	25
Terral	TV2100	115.5	98.6	91.7	0	0	44	12.5	24
Overall mean		134.2	121.8	113.5					
LSD (.10)		15.0	9.7	9.1					
Error degrees of freedom		80	72	84					
CV (%)		10.6	10.7	132					
R^2 (%)		52	77	75					

[1]Planted April 14; harvested August 24.

Rainfall Summary

	Inches
April	**3.01**
May	**1.63**
June	**3.85**
July	**2.48**
August	**1.05**
Total	**12.02**

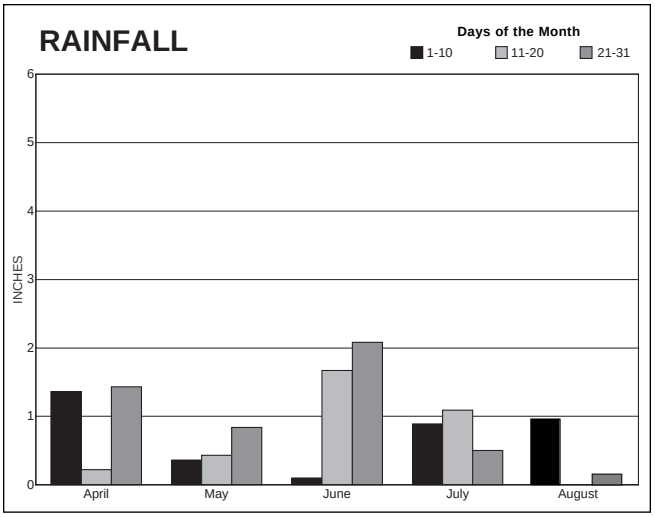

Table 10. Characteristics of 14 late-maturing corn hybrids grown without irrigation on a Calloway silt loam soil at the MAFES Brown Loam Branch, Raymond, 1999.[1]

Brand name	Hybrid number	1999 yield	2-year average	3-year average	Root lodging	Stalk lodging	Ear height	Moisture content	Harvested stand (x1000)
		bu/A	*bu/A*	*bu/A*	*%*	*%*	*in*	*%*	
Terral	TV 2930	155.6	132.4	–	0	0	46	14.6	26
Pioneer	3167	150.5	128.6	122.2	0	0	47	14.4	26
Pioneer	3223	146.0	131.8	121.9	0	0	45	14.7	24
SS	859IT	144.4	–	–	0	0	44	15.3	26
Funk's	X5575	143.2	–	–	0	0	46	15.0	24
HyPerformer	HS 9843	143.0	125.2	–	0	0	46	14.4	24
Terra	TR1167IT	140.6	–	–	0	0	44	15.7	26
Terra	TR1167	134.7	122.8	114.1	0	0	45	14.3	26
DeKalb	DK697	133.8	–	–	0	1	46	13.5	27
DeKalb	DK679	132.0	–	–	0	0	45	14.3	24
Funk's	X5583	130.5	–	–	0	0	46	15.0	25
Pioneer	3163	130.2	121.7	113.7	0	0	46	14.7	26
Terra	TR702	129.5	–	–	0	0	46	15.1	25
DeKalb	DK687	126.1	118.2	109.4	0	0	46	14.1	25
Overall mean		138.6	125.8	116.2					
LSD (.10)		22.7	13.1	9.8					
Error degrees of freedom		52	48	48					
CV (%)		15.5	13.9	13.7					
R^2 (%)		45	71	74					

[1]Planted April 14; harvested August 24.

MAFES Coastal Plain Branch, Newton

Crop Summary

Abundant rainfall in March delayed planting until the first week of April. Conditions became extremely dry in April and May with only 1.82 inches of rainfall during the 55 days after planting. Timely rains relieved stress before pollination, and combined with subsequent rains in late June and July, resulted in good yields.

Soil type	**Prentiss very fine sandy loam**
Soil pH	**6.8**
Soil fertility	**P-H, K-H**
Fertilizer added	**Preplant – N @ 22 lb/A, P @ 74 lb/A, K @ 60 lb/A Sidedress – N @ 160 lb/A**
Herbicide application	**Frontier 6E @ 22 oz/A + Atrazine 4L @ 2 qt/A**
Planting date	**April 6**
Harvest date	**August 23**

Table 11. Characteristics of 21 early-maturing corn hybrids grown without irrigation on a Prentiss very fine sandy loam soil at the MAFES Coastal Plain Branch, Newton, 1999.[1]

Brand name	Hybrid number	1999 yield	2-year average[2]	3-year average[2]	Root lodging	Stalk lodging	Ear height	Moisture content	Harvested stand (x1000)
		bu/A	*bu/A*	*bu/A*	*%*	*%*	*in*	*%*	
DeKalb	DK611	158.6	–	–	0	1	34	12.9	26
SS	729IT	158.3	–	–	0	0	39	13.1	26
DeKalb	DK650	150.1	–	–	0	3	32	14.4	26
Funk's	DG5510A	144.3	141.7	–	0	7	31	15.3	28
Pioneer	33G26	142.8	–	–	0	2	34	13.6	24
Terra	TR1154	142.1	138.6	–	0	1	40	13.5	22
Pioneer	32K61	141.3	150.8	–	0	1	32	14.4	25
Terra	TR1087	138.1	136.1	–	0	0	28	12.3	23
Terral	TV2100	136.5	142.1	–	0	2	32	13.2	24
Pioneer	3245	136.4	146.7	–	5	9	28	13.4	26
Terral	TV 2543	135.4	–	–	0	5	38	13.2	25
Terral	TV2090	134.8	–	–	0	0	33	13.2	24
Terral	TVX21481	134.0	–	–	0	5	39	14.4	25
Terra	TR1106	132.0	134.8	–	0	0	32	13.4	22
Pioneer	33K81	131.7	–	–	0	2	32	13.2	23
Terra	TR1157	130.8	136.4	–	0	3	40	13.9	21
Terral	TVX21680Bt	128.8	–	–	0	5	40	14.7	24
Terral	TV2140	128.6	136.5	–	0	8	40	15.0	26
Dyna-Gro	5505RR	128.5	–	–	1	3	31	12.1	26
Terral	TVX20980	121.7	–	–	0	1	36	12.0	22
Terra	TR1147RR	106.3	–	–	0	2	25	12.8	24
Overall mean		136.2	140.4	–					
LSD (.10)		20.8	12.1	–					
Error degrees of freedom		80	64	–					
CV (%)		14.5	11.5	–					
R^2 (%)		54	57	–					

[1]Planted April 6; harvested August 23.
[2]2-year average = 1999 & 1997. No 3-year average.

Rainfall Summary

	Inches
April	0.90
May	2.27
June	7.25
July	2.75
August	1.15
Total	14.32

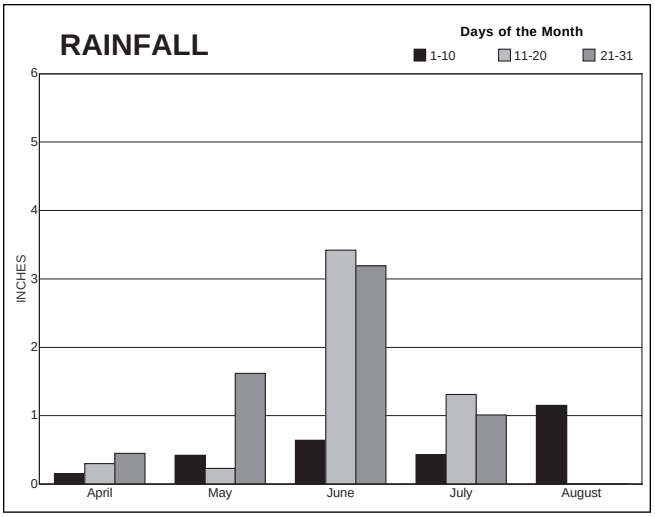

Table 12. Characteristics of 14 late-maturing corn hybrids grown without irrigation on a Prentiss very fine sandy loam soil at the MAFES Coastal Plain Branch, Newton, 1999.[1]

Brand name	Hybrid number	1999 yield	2-year average[2]	3-year average[2]	Root lodging	Stalk lodging	Ear height	Moisture content	Harvested stand (x1000)
		bu/A	*bu/A*	*bu/A*	*%*	*%*	*in*	*%*	
Funk's	X5583	180.6	–	–	0	2	37	15.9	30
DeKalb	DK697	160.6	–	–	0	1	35	18.0	27
DeKalb	DK679	158.5	–	–	0	1	40	15.9	26
Pioneer	3223	153.5	154.4	–	0	1	40	15.7	26
Funk's	X5575	153.2	–	–	0	1	37	13.5	28
DeKalb	DK687	152.9	143.9	–	0	1	35	16.4	24
HyPerformer	HS 9843	151.1	–	–	0	0	38	14.5	26
Terra	TR1167IT	146.5	–	–	0	1	38	14.9	25
Terra	TR1167	141.5	141.6	–	0	0	39	14.5	24
SS	859IT	140.8	–	–	0	1	34	14.8	24
Terra	TR702	136.1	129.9	–	0	1	36	16.4	25
Pioneer	3163	135.8	140.1	–	0	1	33	14.1	20
Pioneer	3167	110.0	119.2	–	0	7	36	18.4	26
Terral	TV 2930	96.2	–	–	0	6	36	18.6	21
Overall mean		143.6	138.2	–					
LSD (.10)		24.5	16.3	–					
Error degrees of freedom		51	40	–					
CV (%)		16.0	15.7	–					
R^2 (%)		57	40	–					

[1]Planted April 6; harvested August 23.
[2]2-year average = 1999 & 1997. No 3-year average.

DUKE MORGAN FARM, SHAW

Crop Summary

The field was rowed up in the fall of 1998. A spring burn-down was applied before planting. The planting date was later in the year than the grower wanted, but the corn grew off well. Good growing conditions were prevalent through mid-July. The last significant rainfall occurred on July 12. Furrow irrigation was applied as needed until corn matured. Southern rust appeared but did not hurt yield.

Soil type	**Sharkey clay**
Soil pH	**6.2**
Soil fertility	**P-M, K-H**
Fertilizer added	**Preplant – 11-37-0 @ 15 gal/A + Zinc @ .9 lb/A**
	Sidedress – N @ 273 lb/A + P @ 25 lb/A
Herbicide application	**Preemergence – Frontier @ 25 oz/A**
	Postemergence – Atrazine @ 2 qt/A
	+ Charity @ .5 pt/A
Irrigation	**May 24, June 5, June 15, June 26, July 5,**
	July 11, July 20 and July 29
Planting date	**April 12**
Harvest date	**August 30**

Rainfall Summary

	Inches
April	**6.32**
May	**5.69**
June	**2.56**
July	**1.88**
August	**0.21**
Total	**16.66**

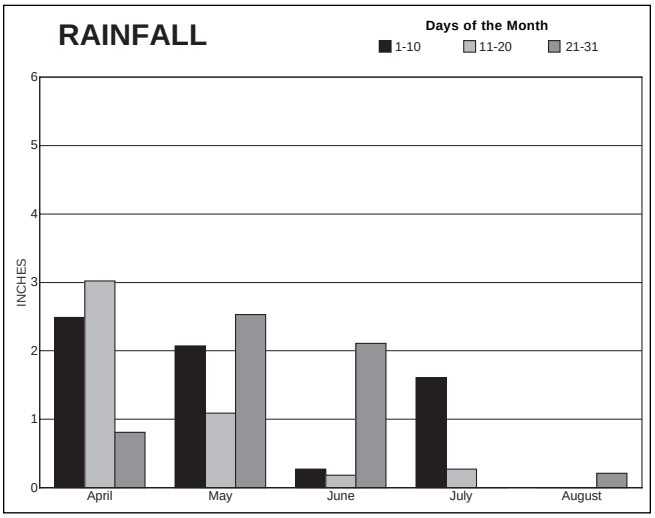

Table 13. Characteristics of 38 early-maturing corn hybrids grown with irrigation on a Sharkey clay soil in Shaw, Bolivar County, 1999.[1]

Hybrid number	Brand name	1999 yield	2-year average	3-year average	Root lodging	Stalk lodging	Ear height	Moisture content	Harvested stand (x1000)
		bu/A	*bu/A*	*bu/A*	*%*	*%*	*in*	*%*	
FFR	FFR748	230.9	–	–	0	0	44	13.1	33
SS	77095	226.3	–	–	0	0	52	12.1	28
Terral	TVX21680Bt	220.9	–	–	0	0	54	13.7	26
Terra	TR1087	219.9	206.9	190.7	0	0	42	12.4	31
Funk's	DG5510A	214.6	213.7	191.9	0	0	41	15.3	31
SS	77457	214.1	–	–	0	0	46	12.5	31
Asgrow	RX799Bt	209.4	–	–	0	0	44	13.8	29
SS	729IT	209.0	–	–	0	0	46	12.9	32
Terra	TR1157	206.7	211.1	191.1	0	0	50	13.1	28
Asgrow	RX889	206.1	–	–	0	0	37	13.0	28
NK	N63-G7	205.4	–	–	0	0	46	12.7	27
Stewart	S555	205.4	207.6	–	0	0	42	12.5	27
Pioneer	33J56	205.1	–	–	0	0	45	13.1	26
Dyna-Gro	5505RR	203.5	–	–	0	0	42	12.8	28
Terral	TV 2543	200.3	195.1	–	0	0	43	12.8	27
Terra	TR1147RR	200.3	–	–	0	0	39	12.3	28
Pioneer	3245	200.0	207.1	193.4	0	0	42	13.4	27
Pioneer	32K61	199.6	198.8	186.3	0	0	43	13.8	28
DeKalb	DK611	199.1	–	–	0	0	44	12.8	28
Terra	TR1106	199.1	–	–	0	0	41	12.7	28
Terral	TV2090	199.0	195.7	–	0	0	40	12.5	28
Terral	TVX21481	197.5	–	–	0	0	48	13.4	26
Genesis	Genesis 3214	197.0	–	–	0	0	40	13.5	26
Terral	TV2100	196.2	200.5	186.9	0	0	42	12.8	26
DeKalb	DK650	193.6	–	–	0	0	40	13.6	26
Asgrow	RX 897	192.3	198.5	181.9	0	0	47	12.9	28
Elite	FFR726	192.2	199.1	–	0	0	44	12.6	28
Terra	TR1154	190.5	193.4	174.9	0	0	52	13.1	28
Genesis	Genesis 2215	186.8	–	–	0	0	48	13.0	28
Agrigold	A6590	185.9	–	–	0	0	44	12.7	24
Terral	TVX20980	185.5	–	–	0	0	42	12.0	26
Genesis	Genesis 1215Bt	182.3	–	–	0	0	40	13.8	26
SS	726	181.2	–	–	0	0	44	12.7	28
Stewart	S660	174.4	189.1	–	0	0	46	12.9	29
FFR	FFR769Bt	173.0	–	–	0	0	33	12.1	26
Pioneer	33K81	172.4	–	–	0	0	38	13.1	25
Pioneer	3394	171.4	172.2	–	0	0	41	12.6	26
Terral	TV2140	171.1	184.3	172.9	0	0	52	12.9	26
Overall mean		197.8	198.2	185.6					
LSD (.10)		32.6	19.6	13.2					
Error degrees of freedom		148	112	96					
CV (%)		15.7	13.3	11.7					
R^2 (%)		24	32	67					

[1]Planted April 12; harvested August 30.

SID LLOYD, JR., FARMS, CRUGER

Crop Summary

Soil conditions were good for crop planting, and seedlings emerged in 10-14 days. Moderate temperatures provided good early growth. There were no setbacks during the season. Corn was furrow irrigated three times during the growing season.

Soil type . . . . . Collins silt loam
Soil pH 6.7
Soil fertility . . . . . P-M, K-L
Fertilizer added . . . . . Preplant – 6-16-37@ 250 lb/A
Sidedress – N @ 210 lb/A + S @ 8 lb/A
Herbicide application . . . Lasso @ 2 qt/A + Atrazine @ 9 qt/A
Irrigation . . . . . June 12, July 5, and July 19
Planting date . . . . . April 7
Harvest date . . . . . August 31

Table 14. Characteristics of 38 early-maturing corn hybrids grown with irrigation on a Collins silt loam soil in Cruger, Holmes County, 1999.[1]

Brand name	Hybrid number	1999 yield	2-year average	3-year average[2]	Root lodging	Stalk lodging	Ear height	Moisture content	Harvested stand (x1000)
		bu/A	*bu/A*	*bu/A*	*%*	*%*	*in*	*%*	
SS	77457	231.8	–	–	0	0	42	12.1	29
SS	77095	227.4	–	–	0	0	45	11.8	30
Terral	TV2140	224.4	196.4	–	0	0	49	14.0	26
SS	729IT	219.9	–	–	0	0	48	13.2	30
Funk's	DG5510A	218.6	195.1	–	0	0	40	16.1	30
Terra	TR1087	218.6	199.2	–	0	0	42	12.3	29
FFR	FFR769Bt	216.5	–	–	0	0	44	15.0	32
FFR	FFR748	216.1	–	–	0	0	41	13.8	30
Terra	TR1106	216.1	–	–	0	0	45	12.9	28
Pioneer	3245	209.3	198.3	–	0	0	41	13.5	28
Elite	FFR726	209.0	184.8	–	0	0	44	13.3	27
Terral	TVX21680Bt	203.8	–	–	0	0	45	14.8	25
Terra	TR1157	203.7	190.3	–	0	0	48	13.3	28
Genesis	Genesis 3214	202.7	–	–	0	0	41	15.2	21
Asgrow	RX799Bt	202.4	–	–	0	0	40	14.9	29
Terra	TR1154	200.1	186.4	–	0	0	48	13.8	27
Terral	TV2100	196.7	168.2	–	0	0	39	12.9	26
DeKalb	DK650	196.1	–	–	0	0	41	14.4	26
Asgrow	RX 897	194.8	178.2	–	0	0	48	13.9	27
Pioneer	32K61	192.7	175.6	–	0	0	41	13.6	26
Genesis	Genesis 2215	192.5	–	–	0	0	44	13.2	26
DeKalb	DK611	186.5	–	–	0	0	42	12.6	26
NK	N63-G7	185.3	–	–	0	0	39	11.9	25
Pioneer	33J56	183.2	–	–	0	0	42	12.3	25
Terra	TR1147RR	182.1	–	–	0	0	37	12.3	27
Terral	TV 2543	180.7	166.8	–	0	0	41	13.4	27
Stewart	S660	180.0	164.4	–	0	0	40	13.2	26
Dyna-Gro	5505RR	179.6	–	–	0	0	38	12.3	27
Genesis	Genesis 1215Bt	179.3	–	–	0	0	39	14.8	27
Asgrow	RX889	179.2	–	–	0	0	37	13.8	24
Pioneer	3394	179.2	169.4	–	0	0	41	12.4	25
Agrigold	A6590	178.4	–	–	0	0	39	12.7	23
Terral	TV2090	171.9	158.8	–	0	0	38	12.7	25
Stewart	S555	169.7	156.1	–	0	0	35	12.4	25
Terral	TVX21481	169.6	–	–	0	0	42	14.6	26
Pioneer	33K81	166.9	–	–	0	0	37	12.9	24
Terral	TVX20980	160.9	–	–	0	0	42	11.5	25
SS	726	157.5	–	–	0	0	38	13.8	21
Overall mean		194.3	179.5	–					
LSD (.10)		26.5	17.6	–					
Error degrees of freedom		148	110	–					
CV (%)		13.0	13.1	–					
R^2 (%)		52	62	–					

[1]Planted April 7; harvested August 31.
[2]No 3-year average.

Rainfall Summary

	Inches
April	4.90
May	6.10
June	3.80
July	2.10
August	0
Total	16.90

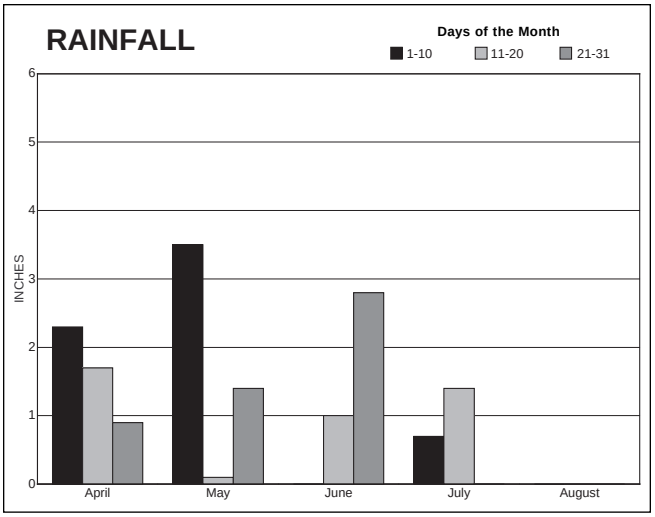

Table 15. Characteristics of 31 late-maturing corn hybrids grown with irrigation on a Collins silt loam soil in Cruger, Holmes County, 1999.[1]

Brand name	Hybrid number	1999 yield	2-year average	3-year average[2]	Root lodging	Stalk lodging	Ear height	Moisture content	Harvested stand (x1000)
		bu/A	*bu/A*	*bu/A*	*%*	*%*	*in*	*%*	
Funk's	X5583	233.6	–	–	0	0	44	16.1	32
FFR	FFR79027Bt	231.4	–	–	0	0	42	15.5	31
SS	747IT	224.3	–	–	0	0	45	14.1	30
Asgrow	RX 938	222.2	185.1	–	0	0	48	15.5	28
Garst	8220	220.5	182.6	–	0	0	44	17.4	25
Funk's	X5575	220.4	–	–	0	0	44	13.5	32
Terra	TR1167IT	219.0	–	–	0	0	50	13.8	29
FFR	FFR849	218.4	–	–	0	0	42	15.8	27
Funk's	DG5516	214.5	196.4	–	0	0	48	14.3	28
SS	849IT	214.1	–	–	0	0	47	16.7	28
AgriPro	AP9707	212.6	184.7	–	0	0	44	15.0	26
Pioneer	3163	211.5	190.9	–	0	0	43	12.8	23
Agrigold	A6725	209.2	–	–	0	0	49	16.1	26
SS	769Bt	205.9	–	–	0	0	42	15.2	32
Terra	TR702	205.6	–	–	0	0	38	16.1	28
NK	N83-N5	204.1	–	–	0	0	46	15.5	25
Pioneer	3223	203.3	191.5	–	0	0	47	13.9	27
DeKalb	DK679	202.6	–	–	0	0	46	16.3	26
Pioneer	3167	202.1	183.7	–	0	0	45	17.8	25
DeKalb	DK697	201.6	–	–	0	0	46	16.3	26
HyPerformer	HS 9843	188.3	170.9	–	0	0	46	14.0	25
AgriPro	AP9829IMI	187.4	168.9	–	0	0	45	15.9	25
HyPerformer	HY9646	186.6	–	–	0	0	49	13.9	26
NK	N79-L3Bt	186.2	–	–	0	0	39	14.6	25
DeKalb	DK687	182.9	168.9	–	0	0	48	15.8	24
Genesis	Genesis 2218	176.4	–	–	0	0	42	14.8	24
Agrigold	A6609Bt	171.3	–	–	0	0	39	14.5	24
Terral	TV 2930	160.7	162.1	–	0	0	47	17.8	22
Asgrow	RX913	159.6	158.2	–	0	0	49	14.3	25
Terra	TR1167	159.5	172.4	–	0	0	45	12.9	27
SS	859IT	120.2	–	–	0	0	39	11.4	31
Overall mean		198.6	178.2	–					
LSD (.10)		36.7	22.7	–					
Error degrees of freedom		120	96	–					
CV (%)		17.6	17.2	–					
R^2 (%)		43	49	–					

[1]Planted April 7; harvested August 31.
[2]No 3-year average.

Table 16. Average grain production by area for early-maturing corn hybrids grown in Mississippi, 1999.

Hybrid number	Brand name	Area I[1]			Area II[2]			Area III[3]		
		1999 yield	2-yr. avg.	3-yr. avg.	1999 yield	2-yr. avg.	3-yr. avg.	1999 yield	2-yr. avg.	3-yr. avg.
A6590	Agrigold	–	–	–	–	–	–	182.1	–	–
XA3809	Agrigold	150.4	–	–	–	–	–	–	–	–
RX799Bt	Asgrow	152.2	–	–	–	–	–	205.9	–	
RX897	Asgrow	140.9	–	–	–	–	–	193.6	188.4	175.1
RX889	Asgrow	127.1	–	–	–	–	–	192.7	–	–
DK650	DeKalb	155.7	–	–	141.8	–	–	194.9	–	–
DK611	DeKalb	138.3	–	–	145.6	–	–	192.8	–	–
5505RR	Dyna-Gro	133.9	–	–	133.9	–	–	191.6	–	–
FFR 726	FFR	150.7	114.2	–	–	–	–	200.6	191.9	–
FFR 748	FFR	–	–	–	–	–	–	223.5	–	–
FFR 769Bt	FFR	155.6	–	–	–	–	–	194.8	–	–
DG5510A	Funk's	171.1	130.1	121.1	151.1	140.4	133.5	216.6	204.4	185.7
Genesis 1215Bt	Genesis	–	–	–	–	–	–	180.8	–	–
Genesis 3214	Genesis	–	–	–	–	–	–	199.9	–	–
Genesis 2215	Genesis	–	–	–	–	–	–	189.6	–	–
N63-G7	NK	153.1	–	–	–	–	–	195.3	–	–
33G26	Pioneer	145.7	124.8	–	144.0	–	–	–	–	–
32K61	Pioneer	159.5	126.4	116.9	130.6	128.6	132.1	196.2	187.2	178.6
3245	Pioneer	–	–	–	137.6	130.0	126.2	204.6	202.7	190.5
3394	Pioneer	148.7	113.2	109.5	–	–	–	175.3	170.8	–
33K81	Pioneer	140.8	–	–	135.3	–	–	169.6	–	–
33J56	Pioneer	145.9	–	–	–	–	–	194.2	–	–
729IT	SS	152.2	–	–	153.7	–	–	214.5	–	–
726	SS	130.9	–	–	–	–	–	169.4	–	–
77095	SS	150.6	–	–	–	–	–	226.9	–	–
77457	SS	–	–	–	–	–	–	222.0	–	–
Stewart S555	Stewart	–	–	–	–	–	–	187.5	181.8	–
Stewart S660	Stewart	–	–	–	–	–	–	177.2	176.8	–
TR 1087	Terra	130.2	100.1	100.2	133.8	115.5	113.6	219.2	203.1	188.2
TR 1106	Terra	131.4	–	–	125.5	–	–	207.6	–	–
TR 1147RR	Terra	119.7	–	–	111.8	–	–	191.2	–	–
TR 1154	Terra	140.3	107.1	100.6	142.3	132.9	127.0	195.3	189.9	172.6
TR 1157	Terra	153.7	119.2	113.4	126.1	116.1	117.5	205.2	200.7	185.0
TV2090	Terral	131.5	94.7	95.5	127.5	112.7	–	185.4	177.2	–
TV2100	Terral	141.3	103.4	100.8	126.0	103.9	106.9	196.4	184.4	176.1
TV2140	Terral	158.7	116.5	–	131.7	123.2	124.1	197.7	190.3	177.0
TV2543	Terral	150.1	111.6	–	145.8	122.9	–	190.5	180.9	–
TVX20980	Terral	132.3	–	–	123.3	–	–	173.2	–	–
TVX21481	Terral	154.1	–	–	137.9	–	–	183.6	–	–
TVX21680Bt	Terral	145.2	–	–	135.0	–	–	212.4	–	–
Overall Mean		144.8	115.2	107.8	135.2	126.8	124.6	196.1	188.9	186.4
LSD (.10)		15.2	9.6	7.6	12.8	11.3	11.4	20.9	13.1	10.3
Error degrees of freedom		359	238	233	160	122	164	296	222	159
CV (%)		17.4	18.8	19.7	12.8	14.7	19.6	14.5	13.3	11.8
R^2 (%)		60	86	84	54	56	34	38	54	66

[1]Average of Aberdeen, Brooksville, and Hernando.
[2]Average of Newton and Raymond.
[3]Average of Cruger and Shaw.

Table 17. Average grain production by area for late-maturing corn hybrids grown in Mississippi, 1999.

Hybrid number	Brand name	Area I[1]			Area II[2]			Area III[3]		
		1999 yield	2-yr. avg.	3-yr. avg.	1999 yield	2-yr. avg.	3-yr. avg.	1999 yield	2-yr. avg.	3-yr. avg.
A6725	Agrigold	148.9	–	–	–	–	–	209.2	–	–
A6609Bt	Agrigold	144.4	–	–	–	–	–	171.3	–	–
HY 9646	AgriPro	150.4	–	–	–	–	–	186.6	–	–
AP 9707	AgriPro	141.4	110.8	–	–	–	–	212.6	196.1	–
HS 9843	AgriPro	158.1	123.1	115.2	147.1	127.2	–	188.3	177.7	166.8
AP 9829IMI	AgriPro	156.4	116.2	–	–	–	–	187.4	177.0	–
AP 9909	AgriPro	146.1	116.5	105.2	–	–	–	–	–	–
AP 9939	AgriPro	146.5	116.8	–	–	–	–	–	–	–
RX913	Asgrow	154.7	115.1	–	–	–	–	159.6	163.8	–
RX938	Asgrow	140.0	–	–	–	–	–	222.2	188.2	177.3
DK697	DeKalb	158.8	–	–	147.2	–	–	201.6	–	–
DK687	DeKalb	152.1	117.8	114.3	139.5	124.9	121.0	182.9	176.2	163.4
DK679	DeKalb	149.2	–	–	145.3	–	–	202.6	–	–
FFR 849	FFR	–	–	–	–	–	–	218.4	–	–
FFR79027Bt	FFR	–	–	–	–	–	–	231.4	–	–
DG5516	Funk's	–	–	–	–	–	–	214.5	204.3	–
X5575	Funk's	139.0	–	–	148.2	–	–	220.4	–	–
X5583	Funk's	146.0	–	–	155.5	–	–	233.6	–	–
8220	Garst	140.6	109.7	–	–	–	–	220.5	179.5	–
Genesis 2218	Genesis	–	–	–	–	–	–	176.4	–	–
N79-L3Bt	NK	131.2	–	–	–	–	–	186.2	–	–
N83-N5	NK	139.2	–	–	–	–	–	204.1	–	–
3167	Pioneer	126.2	108.6	103.4	130.3	118.4	118.6	202.1	187.6	179.8
3223	Pioneer	170.5	133.7	123.3	149.7	133.6	132.0	203.3	194.0	183.6
3163	Pioneer	148.2	116.8	113.6	133.0	123.1	122.4	211.5	194.8	180.7
769Bt	SS	158.4	–	–	–	–	–	205.9	–	–
859IT	SS	158.8	–	–	142.6	–	–	120.2	–	–
849IT	SS	168.1	–	–	–	–	–	214.1	–	–
747IT	SS	152.3	–	–	–	–	–	224.3	–	–
TR 1167	Terra	141.3	114.8	108.5	138.1	124.5	122.7	159.5	173.9	162.0
TR 1167IT	Terra	160.9	–	–	143.6	–	–	219.0	–	–
TR 702	Terra	149.8	–	–	132.8	–	–	205.6	–	–
TV2930	Terral	130.6	103.3	–	125.9	117.6	–	160.7	160.5	155.3
Overall Mean		148.5	115.6	111.9	144.1	128.7	125.7	198.6	178.8	171.3
LSD (.10)		14.7	9.6	7.8	16.5	12.9	8.6	36.7	14.9	14.9
Error degrees of freedom		335	288	216	103	72	80	120	143	111
CV (%)		16.4	19.4	20.1	15.7	16.5	14.5	17.6	17.1	16.5
R^2 (%)		54	80	81	52	64	70	43	47	51

[1]Average of Aberdeen, Brooksville, and Hernando.
[2]Average of Newton and Raymond.
[3]Average of Shaw and Cruger.

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