
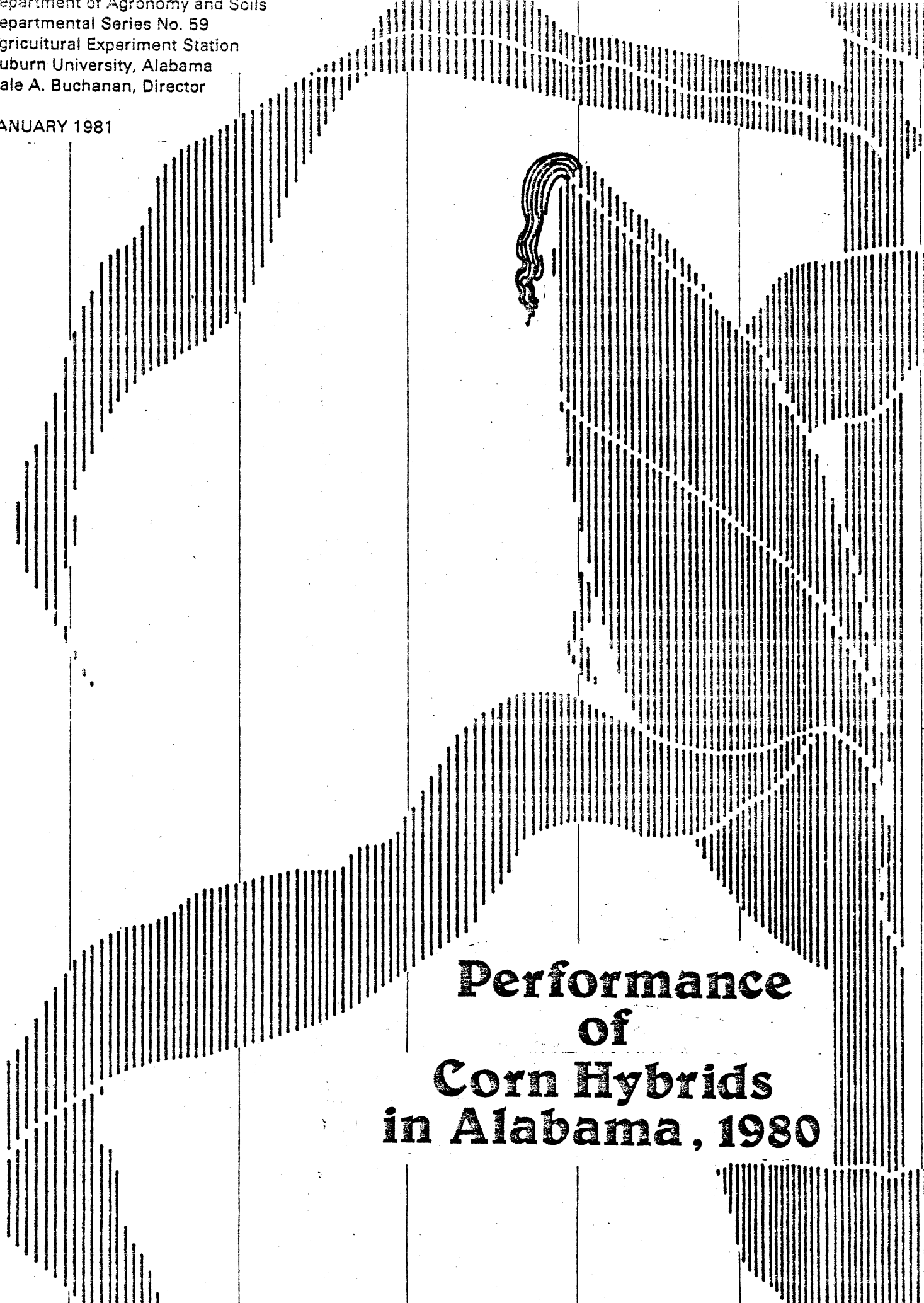


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**Performance
of
Corn Hybrids
in Alabama, 1980**

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Performance of Corn Hybrids in Alabama, 1980

Cliff G. Currier^{1/}

Corn hybrids are evaluated annually at 12 locations in the regular corn hybrid testing program of the Auburn University Agricultural Experiment Station. Preliminary tests are also conducted at one location in each region. Entries in preliminary tests are both experimental and newly released hybrids that have not been tested in the regular tests. If a hybrid is outstanding in the preliminary tests it is entered into the regular testing program the following year. White corn hybrids are tested at one location in each region.

Rainfall distribution was fair to poor depending on location during the 1980 growing season (table 1). Good yields were obtained at Fairhope, Brewton, Headland, and Prattville. Test yields at other locations averaged less than 60 bushels per acre. Generally, yield reduction was due to the lack of adequate rainfall during the period of greatest need for moisture by the hybrids in the tests. All data from the E.V. Smith Research Center, near Shorter, were not reported due to low and erratic yields.

Location of the tests, cultural practices, and average plant populations are shown in table 2. All hybrids at a location were treated the same. The experimental design was a randomized complete block with four replications. Row width was 36 to 40 inches depending on location. Two-row plots were used with row length varying from 18 to 30 feet depending on location. The target plant population for all tests was 20,000 plants per acre, with a seeding rate of 23,000 seeds per acre. The target plant

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population for the irrigated test at Headland was 26,000 plants per acre, with a seeding rate of 30,000 seeds per acre. After thinning, most locations obtained the target plant population in all plots.

Grain yields were adjusted to 15.5 percent moisture and converted to bushels (56 pounds) per acre. Stalks broken or leaning more than 45 degrees were considered lodged. Ear rot, earworm damage, size, and color of grain were used in rating grain quality. Height of ears was measured from ground level to the base of the ear. Husks were rated according to tightness and extension beyond the tip of the ear. The mid-silk date measured the number of days from planting until one half of the plants in the plots were showing silks.

Regional averages for 3, 2, and 1 years in northern Alabama are presented in tables 3, 4, and 5, respectively. Table 6 shows yields by location, and regional average yields for 1 to 5 years in northern Alabama. Similar data are given for central Alabama in tables 7-10, and for southern Alabama in tables 11-14. Yields from the irrigated test at Headland were excellent. Two- and 1-year averages for the irrigated test are shown in tables 15 and 16, respectively. In 1980, approximately 1-inch of sprinkler irrigation water was applied on June 3, 8, 12, 17, July 3, 7, 10, 14, and 25. Approximately 9 inches of irrigation water was applied over this period of time. Data from the test at Marion Junction are given and should be used to assist in comparing hybrids grown in that area. Performance of corn hybrids at Marion Junction for 3, 2, and 1 years are given in tables 17, 18, and 19, respectively. Yields and other characteristics of white corn hybrids grown at Crossville and Headland are given in tables 20-21. Results of the preliminary tests are given tables 23-24. The 1980 results of the preliminary and white corn test grown at the E.V. Smith Research Center are not shown due to extremely low yields.

The corn hybrid tests are examined each year for viral and other disease symptoms by Dr. R. T. Gudauskas, Department of Botany, Plant Pathology, and Microbiology. When disease symptoms indicate that damage may occur, disease ratings are compiled and published in this report. An introduction and discussion of procedure and results are given. Virus infection data from the hybrid test at Marion Junction are given in table 32.

When comparing hybrids, small differences in yield may not be large enough to be considered real differences. To aid in determining real differences between yields a statistical procedure, analysis of variance, was performed on the data from each location. The L.S.D. (least significant difference) and C.V. (coefficient of variation) are given for yields at each location in 1980.

Since performance of hybrids may vary from year to year and location to location, long-term averages from several locations are more reliable than 1-year averages when evaluating a hybrid from an area. Three-year results are considered sufficient to give a good indication of the relative performance of hybrids.

A composite rating system was used to determine the list of acceptable hybrids. The 3-year regional average grain yield of a hybrid was used as a base point. Then, the composite score was obtained by subtracting weighted values for lodging, quality, and ear height from this yield. The value subtracted for each characteristic was proportional to the numerical values shown for the characteristics in tables 3, 7, and 11.

All acceptable hybrids are not equal in performance. Some are outstanding in one or more characteristics. Others may not be outstanding in any one characteristic, but possess a satisfactory combination of

characters. All information should be carefully considered when selecting a hybrid.

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Tennessee Valley Substation, Belle Mina - W.B. Webster, Superintendent

Sand Mountain Substation, Crossville - J.T. Eason, Superintendent

Upper Coastal Plain Substation, Winfield - R.A. Moore, Jr., Superintendent

Black Belt Substation, Marion Junction - L.A. Smith, Superintendent

Experiment Field, Prattville - F.T. Glaze, Superintendent

E.V. Smith Research Center, Shorter - R. Akridge, Superintendent

Lower Coastal Plain Substation, Camden - J.A. Little, Superintendent

Piedmont Substation, Camp Hill - W.A. Griffey, Superintendent

Experiment Field, Brewton - J.A. Pitts, Superintendent

Experiment Field, Monroeville - J.A. Pitts, Superintendent

Gulf Coast Substation, Fairhope - E.L. Carden, Superintendent

Wiregrass Substation, Headland - J.G. Starling, Superintendent

Table 1. Monthly rainfall amounts and dates of planting and harvesting in 1980

Location	Planting date	Harvesting date	Monthly rainfall (inches)						
			March	April	May	June	July	August	September
<u>Northern Alabama</u>									
Belle Mina	4/7	9/5	14.2	4.7	10.3	1.5	4.0	3.3	5.0
Crossville	4/21	9/2	16.9	6.0	6.5	0.8	1.3	1.6	10.0
Winfield	4/9	9/1	15.8	8.9	9.2	2.2	1.1	2.0	6.6
<u>Central Alabama</u>									
Camden	4/28	9/3	13.2	8.8	9.2	2.5	2.7	1.7	1.9
E.V. Smith Research Center	5/1	9/1	11.6	6.1	4.9	1.9	1.4	1.2	1.7
Prattville	4/7	9/2	10.5	6.0	8.4	4.2	3.5	0.6	1.8
Camp Hill	4/22	10/16	13.6	5.8	6.3	2.5	1.6	1.7	2.5
Marion Junction	4/15	8/27	11.8	6.2	8.1	1.7	5.1	2.9	1.9
<u>Southern Alabama</u>									
Brewton	4/11	9/16	15.9	9.7	7.3	6.1	1.3	3.5	4.2
Monroeville	4/22	9/10	11.6	11.4	10.1	7.8	3.3	3.7	4.7
Headland	4/18	8/15	15.9	6.5	7.1	5.4	2.0	3.8	2.3
Fairhope	4/11	8/21	11.6	13.5	9.6	13.8	4.1	1.3	5.3

Table 2. Locations and Cultural Practices for the 1980 Corn Hybrid Tests

Location	Nitrogen rate and application ^{1/} LB. N/A	Average plant population ^{2/} Thou.	Herbicide used
<u>Northern Alabama</u>			
Tennessee Valley Substation (Belle Mina)	130	23	Atrazine
Sand Mountain Substation (Crossville)			
Regular test	150 (split app.)	20	Atrazine+Lasso
Preliminary test	150 (split app.)	20	Atrazine+Lasso
White corn test	150 (split app.)	20	Atrazine+Lasso
Upper Coastal Plain Substation (Winfield)	120	13	Atrazine
<u>Central Alabama</u>			
Lower Coastal Plain Substation (Camden)	120 (split app.)	21	Lorox ^{3/}
Prattville Experiment Field (Prattville)	140 (split app.)	19	Atrazine
Piedmont Substation (Camp Hill)	120 (split app.)	22	Atrazine
Black Belt Substation (Marion Junction)	120 (split app.)	19	Atrazine
<u>Southern Alabama</u>			
Brewton Experiment Field (Brewton)	120 (split app.)	24	Atrazine
Monroeville Experiment Field (Monroeville)	120 (split app.)	20	Atrazine
Wiregrass Substation (Headland)			
Regular test (Unirrigated)	150 (split app.)	18	Atrazine+Lasso
Regular test (Irrigated)	250 (split app.)	24	Atrazine+Lasso
White corn test	150 (split app.)	23	Atrazine+Lasso
Gulf Coast Substation (Fairhope)			
Regular test	140 (split app.)	20	Atrazine+Lasso
Preliminary test	140 (split app.)	20	Atrazine+Lasso

^{1/}Lime, phosphorus, potassium were applied according to soil test recommendations.

^{2/}See the introduction for a discussion of plant populations.

^{3/}Applied as a post-emergence directed spray.

Table 3. Characteristics of Corn Hybrids Tested Three Years in Northern Alabama, 1978-80^{1/}

Brand name	Hybrid	Yield	Lodged stalks	Quality ^{3/}	Ears per stalk	Height of ears	Shelling	Husk ^{3/}
		per acre ^{2/}						
Ring Around-----	1502	84	7.3	2.6	0.9	3.4	82.7	2.1
Trojan-----	TXS 115A	84	8.2	2.9	0.8	3.6	84.8	2.3
Pioneer-----	3369A	84	13.5	2.6	0.9	3.5	82.2	2.7
McCurdy-----	84AA	82	9.3	2.7	0.8	3.5	82.5	2.4
Pioneer-----	3147	82	5.7	2.7	0.8	3.6	81.2	2.6
Ring Around-----	1501	82	6.2	2.9	0.8	3.5	84.5	2.5
Paymaster-----	UC8951	80	9.3	2.7	0.8	3.7	82.4	2.3
Funk's-----	G-4507	80	9.1	3.0	0.8	3.6	84.0	2.6
Trojan-----	TXS 114	79	9.5	2.9	0.9	3.5	82.3	2.3
Paymaster-----	UC9792	77	13.0	2.3	0.7	3.7	82.6	2.1
Ring Around-----	2502	76	6.8	2.8	0.8	3.0	82.8	2.3
Coker-----	16	76	13.1	2.7	0.9	3.4	82.4	2.7
Funk's-----	G-4611	76	10.7	2.5	0.8	3.5	83.2	2.4
Coker-----	22	76	14.1	2.9	0.8	3.5	81.1	2.3
McCurdy-----	67-14	74	17.9	2.7	0.7	3.6	78.7	2.4
Dekalb-----	XL72B	74	5.2	2.8	0.8	3.2	83.5	2.6
Northrup, King----	PX 723	73	11.8	2.8	0.7	3.8	81.9	2.3
N.K.-----	McNair X-300	69	9.5	2.9	0.8	3.4	77.9	2.3
Dekalb-----	XL80	69	24.0	2.7	0.7	3.5	78.1	2.2
Coker-----	56	68	11.5	2.7	0.8	3.8	80.1	2.3
Funk's-----	G-4810	68	10.5	2.8	0.8	3.6	78.8	2.3
Dekalb-----	XL394	67	12.5	2.6	0.7	4.0	82.0	2.1
Northrup, King----	PX 95	66	10.5	3.2	0.7	3.9	81.5	2.5
Funk's-----	G-795W-1	64	17.0	2.9	0.8	3.7	78.6	2.0

^{1/}Belle Mina, Crossville, and Winfield.

^{2/}Yield adjusted to 15.5% moisture and 56 lb. per bushel.

^{3/1} = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

Table 4. Characteristics of Corn Hybrids Tested Two Years in Northern Alabama, 1979-80^{1/}

Brand name	Hybrid	Yield	Lodged stalks	Quality ^{3/}	Ears per stalk	Height of ears	Shelling	Husk ^{3/}
		per acre ^{2/} Bu.	Pct.	Rating	No.	Ft.	Pct.	Rating
P-A-G-----	SX 333	85	9.2	2.8	0.9	3.5	84.1	2.7
Ring Around-----	1502	81	6.6	2.7	0.9	3.2	83.0	2.1
Funk's-----	G-4606	81	12.0	2.7	0.9	3.1	82.1	2.5
Paymaster-----	UC9792	81	9.6	2.2	0.7	3.5	81.5	2.1
Pioneer-----	3369A	80	9.2	2.7	0.9	3.3	80.8	2.7
McCurdy-----	84AA	80	7.4	2.8	0.8	3.2	81.9	2.5
Pioneer-----	3147	80	4.8	2.7	0.8	3.6	81.1	2.4
Funk's-----	G-4507	79	9.0	3.0	0.9	3.4	83.3	2.5
Trojan-----	TXS 115A	79	6.7	3.0	0.9	3.4	83.5	2.3
Trojan-----	TXS 119	78	8.8	2.9	0.9	3.2	81.8	2.5
Gutwein-----	62	78	8.3	2.9	0.9	3.4	85.0	2.5
Coker-----	19A	78	5.8	2.7	0.9	3.4	81.9	2.3
Ring Around-----	1501	77	5.6	3.0	0.9	3.3	83.2	2.3
Pioneer-----	3184	76	2.4	2.8	0.8	3.1	78.6	2.3
Dekalb-----	XL72B	76	4.4	2.8	0.9	3.1	84.4	2.4
Coker-----	16	75	8.4	2.7	0.9	3.2	81.6	2.4
Paymaster-----	UC8951	75	6.9	3.0	0.8	3.5	82.1	2.3
Trojan-----	TXS 114	74	11.2	3.0	0.9	3.3	81.2	2.1
Funk's-----	G-4611	74	8.2	2.6	0.8	3.3	84.2	2.4
Ring Around-----	2502	73	4.6	2.9	0.8	2.9	81.5	2.3
Coker-----	22	73	11.6	3.0	0.8	3.3	81.4	2.3
Northrup, King-----	PX 723	72	7.1	2.8	0.8	3.6	81.8	2.0
McCurdy-----	67-14	71	10.3	2.8	0.7	3.4	77.8	2.3
Dekalb-----	XL80	69	17.8	2.8	0.8	3.3	76.8	2.3
N.K.-----	McNair X-300	67	6.3	2.9	0.8	3.2	76.6	2.2
Coker-----	56	67	9.1	2.7	0.8	3.7	79.3	2.0
Funk's-----	G-4810	66	7.9	2.9	0.8	3.4	78.7	2.2
Dekalb-----	XL394	65	7.8	2.5	0.7	3.8	80.2	2.0
Funk's-----	G-795W-1	63	11.0	2.8	0.7	3.6	78.4	1.8
Northrup King-----	PX 95	62	5.3	3.4	0.7	3.7	80.3	2.3

^{1/}Belle Mina, Crossville, and Winfield.

^{2/}Yield adjusted to 15.5% moisture and 56 lb per bushel.

^{3/}1 = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

Table 5. Characteristics of Corn Hybrids Tested in Northern Alabama, 1980^{1/}

Brand name	Hybrid	Yield	Lodged	Quality ^{3/}	Bars	Height	Shelling	Husk ^{3/}	Mid-
		per acre ^{2/}	stalks		per stalk	of ears		Rating	silk
		Bu.	Pct.	Rating	No.	Ft.	Pct.	Rating	Days
Coker	19	60	2.4	2.8	0.9	3.1	79.8	2.2	78
McCurdy	7787	57	6.3	3.0	1.0	2.7	78.6	1.8	77
P-A-G	SX 333	57	4.3	3.0	0.9	3.1	80.9	2.4	78
Funk's	G-4507	57	3.4	3.2	0.9	3.1	80.6	2.3	79
Gutwein	62	57	3.3	3.0	0.9	3.0	82.6	2.1	78
USS	2315	55	3.9	2.4	0.8	3.2	81.5	1.8	81
Trojan	TXS 115A	55	1.8	3.0	0.8	3.0	79.8	1.9	79
Dekalb	XL72B	54	3.7	2.9	0.9	2.6	79.3	1.9	80
USS	1515	53	5.9	3.0	0.9	2.7	79.2	1.9	79
Pioneer	3369A	53	9.8	3.1	0.9	2.9	79.5	2.4	78
Trojan	TXS 119	53	6.9	3.0	0.9	2.8	77.9	2.1	80
McCurdy	84AA	52	5.2	3.0	0.8	2.9	78.6	2.3	78
Coker	19A	52	3.6	3.1	0.9	3.1	78.1	2.2	79
Ring Around	1501	52	2.2	3.2	0.9	3.1	80.3	2.2	78
Pioneer	3320	52	2.0	2.9	0.9	2.9	79.0	2.1	79
Paymaster	UC9792	52	9.3	2.5	0.5	3.2	78.5	1.9	81
Funk's	G-4740	51	0.9	2.9	0.8	2.8	76.3	2.2	84
Funk's	G-4606	49	7.2	3.1	0.9	2.7	78.7	2.1	80
Trojan	TXS 114	49	7.3	3.2	0.9	3.0	76.4	1.9	78
Funk's	G-4611	49	5.4	2.8	0.8	2.9	78.2	1.9	79
Coker	16	48	7.1	3.2	0.9	2.7	77.8	1.8	77
Paymaster	UC8951	47	5.8	3.1	0.8	3.1	78.5	2.1	79
Ring Around	1502	47	2.5	2.8	0.8	2.9	78.4	2.0	79
Northrup, King	PX 723	47	5.0	3.2	0.7	3.4	78.7	2.1	82
Gutwein	2910	47	12.3	3.3	0.8	3.0	78.2	2.0	80
Northrup, King	PX 87	45	10.7	3.4	0.8	3.0	77.9	1.8	80
Northrup, King	PX 79	45	3.6	3.4	0.8	3.2	78.7	2.1	79
Ring Around	2502	45	5.8	3.1	0.8	2.5	78.2	2.1	79
Pioneer	3184	42	1.4	3.4	0.8	2.8	74.9	2.2	80
Coker	22	42	11.3	3.3	0.8	2.9	76.1	1.9	81
Pioneer	3147	41	2.9	2.9	0.7	3.2	78.2	2.1	86
Dekalb	XL80B	40	12.0	3.1	0.7	3.0	74.2	2.3	82
Dekalb	XL80	40	20.1	3.1	0.7	2.9	75.2	2.3	81
McCurdy	67-14	40	4.9	3.0	0.7	2.9	75.5	2.0	82

Table 5. Characteristics of Corn Hybrids Tested in Northern Alabama, 1980^{1/}
(Continued)

Brand name	Hybrid	Yield	Lodged stalks	Quality ^{3/}	Ears per stalk	Height of ears	Shelling	Husk ^{3/}	Mid-silk
		per acre ^{2/}		Rating	No.	Pct.	Pct.	Rating	Days
		Bu.	Pct.			Ft.			
Funk's-----	G-4810	38	6.5	3.2	0.7	3.0	75.2	1.8	82
N.K.-----	McNair X-300	37	5.2	3.4	0.8	2.9	72.3	1.9	82
Dekalb-----	XL394	36	4.6	2.8	0.6	3.5	77.3	1.8	86
Coker-----	56	35	7.1	3.1	0.8	3.3	74.2	2.1	86
Funk's-----	G-795W-1	35	7.7	3.3	0.7	3.2	73.6	1.8	87
Northrup, King---	PX 95	27	1.8	3.7	0.5	3.5	72.4	2.0	82

1/Belle Mina, Crossville, and Winfield.

2/Yield adjusted to 15.5% moisture and 56 lb. per bushel.

3/1 = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

Table 6 . 1980 Yield of Corn Hybrids by Location and Regional Averages for 1-5 Years in Northern Alabama^{1/}

Brand name	Hybrid	Bella Mina	Crossville	Winfield	Regional average yield per acre				
					1-yr. 1980	2-yr. 1979-80	3-yr. 1978-80	4-yr. 1977-80	5-yr. 1976-80
Pioneer-----	3369A	Bu. 63	Bu. 67	Bu. 27	Bu. 53	Bu. 80	Bu. 84	Bu. 80	Bu. 91
Pioneer-----	3147	48	53	23	41	80	82	78	89
Funk's-----	G-4507	63	76	32	57	79	80	75	87
Funk's-----	G-4611	50	69	27	49	74	76	71	84
Coker-----	22	44	64	19	42	73	76	71	83
Coker-----	16	56	64	23	48	75	76	72	82
McCurdy-----	67-14	46	54	20	40	71	74	68	79
N.K.-----	McNair X-300	35	54	22	37	67	69	64	77
Dekalb-----	XL80	46	48	28	40	69	69	65	75
Coker-----	56	41	47	19	35	67	68	64	75
Funk's-----	G-4810	37	58	18	38	66	68	63	75
Dekalb-----	XL394	42	49	18	36	65	67	61	75
Funk's-----	G-795W-1	37	52	16	35	63	64	59	70
Ring Around-----	1502	55	56	30	47	81	84	79	
Trojan-----	TXS 114	58	64	25	49	74	79	75	
Paymaster-----	UC9792	54	71	30	52	81	77	74	
Trojan-----	TXS 115A	62	69	32	55	79	84		
McCurdy-----	84AA	60	73	24	52	80	82		
Ring Around-----	1501	61	68	27	52	77	82		
Paymaster-----	UC8951	60	61	21	47	75	80		
Ring Around-----	2502	56	60	18	45	73	76		
Dekalb-----	XL72B	54	71	36	54	76	74		
Northrup, King-----	PX 723	49	60	31	47	72	73		
Northrup, King-----	PX 95	31	42	8	27	62	66		
P-A-G-----	SX 333	62	75	34	57	85			
Funk's-----	G-4606	59	60	30	49	81			
Gutwein-----	62	68	73	29	57	78			
Trojan-----	TXS 119	65	67	26	53	78			
Coker-----	19A	61	69	26	52	78			
Pioneer-----	3184	48	58	21	42	76			
Coker-----	19	70	75	34	60				
McCurdy-----	7787	66	76	31	57				
USS-----	2315	65	69	33	55				

Table 6 . 1980 Yield of Corn Hybrids by Location and Regional Averages for 1-5 Years in Northern Alabama^{1/} (Continued)

Brand name	Hybrid	Bella Mina	Crossville	Winfield	Regional average yield per acre				
					1-yr. 1980	2-yr. 1979-80	3-yr. 1978-80	4-yr. 1977-80	5-yr. 1976-80
		Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.
USS-----	1515	63	67	29	53				
Pioneer-----	3320	58	77	21	52				
Funk's-----	G-4740	58	70	24	51				
Gutwein-----	2910	54	62	24	47				
Northrup, King----	PX 79	48	60	27	45				
Northrup, King----	PX 87	53	60	22	45				
Dekalb-----	XL80B	53	45	23	40				
Test average:		54	63	25					
L.S.D. (.05):		9	9	9					
C.V. (%):		13.7	11.5	31.0					

^{1/}Yields adjusted to 15.5% moisture and 56 lb. per bushel.

Table 7. Characteristics of Corn Hybrids Tested Three Years in Central Alabama, 1978-80^{1/}

Brand name	Hybrid	Yield per acre ^{2/}	Lodged stalks	Quality ^{3/}	Ears per stalk	Height of ears	Shelling	Husk ^{3/}
		Bu.	Pct.	Rating	No.	Ft.	Pct.	Rating
Ring Around-----	1502	66	8.9	1.9	0.9	3.3	82.1	2.0
Trojan-----	TXS 114	64	8.9	2.2	0.8	3.3	81.4	2.0
Pioneer-----	3147	63	6.5	2.8	0.8	3.5	80.2	2.5
Funk's-----	G-4507	61	6.5	2.8	0.8	3.4	82.5	2.7
Paymaster-----	UC9792	59	12.1	1.9	0.8	3.5	80.3	1.6
Ring Around-----	2502	59	8.4	2.2	0.8	3.0	81.1	2.3
Pioneer-----	3368A	57	9.7	2.2	0.8	3.3	81.2	2.3
Pioneer-----	3145	56	8.6	2.3	0.8	3.6	76.8	1.8
Coker-----	16	55	10.9	2.5	0.8	3.2	81.3	2.7
Pioneer-----	3369A	55	8.8	2.1	0.8	3.3	81.0	2.6
McCurdy-----	67-14	55	10.2	1.9	0.7	3.4	77.8	2.0
N.K.-----	McNair 508	52	8.4	2.1	0.8	3.8	76.0	1.7
Funk's-----	G-795W-1	52	14.6	2.5	0.8	3.5	76.9	1.8
Coker-----	22	52	12.9	2.2	0.9	4.0	75.9	2.3
Coker-----	56	51	11.8	2.0	0.8	3.6	77.5	1.8
Funk's-----	G-4611	51	7.5	2.3	0.7	3.4	81.6	2.5
N.K.-----	McNair X-300	50	11.3	2.4	0.8	3.3	77.2	2.2
Funk's-----	G-4776	50	9.4	2.3	0.8	3.7	77.9	2.2
Funk's-----	G-4810	47	8.0	2.3	0.7	3.5	77.3	2.3
Funk's-----	G-4949A	47	7.0	2.0	0.7	3.9	76.4	1.9
Dekalb-----	XL394	46	14.7	2.0	0.6	3.8	79.9	1.9
Coker-----	77	44	10.0	2.1	0.7	3.9	77.9	1.8
Funk's-----	G-5945	43	14.9	2.0	0.6	3.8	77.8	1.8

^{1/}Camden, Camp Hill, Prattville, and E.V. Smith Research Center. (1980 data from E.V. Smith Research Center are not in average.)

^{2/}Yield adjusted to 15.5% moisture and 56 lb. per bushel.

^{3/1} = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

Table 8 . Characteristics of Corn Hybrids Tested Two Years in Central Alabama, 1979-80^{1/}

Brand name	Hybrid	Yield per acre ^{2/}	Lodged stalks	Quality ^{3/}	Ears per stalk	Height of ears	Shelling	Husk ^{3/}
		Bu.	Pct.	Rating	No.	Ft.	Pct.	Rating
Ring Around-----	1502	75	7.9	2.0	0.9	3.1	81.4	1.9
Pioneer-----	3147	72	5.5	2.7	0.8	3.3	79.6	2.3
Trojan-----	TXS 114	72	10.5	2.1	0.9	3.1	81.5	1.8
McCurdy-----	84AA	71	8.7	2.1	0.9	3.3	80.6	2.1
Paymaster-----	UC9792	69	11.1	1.7	0.9	3.3	79.9	1.3
Ring Around-----	2502	67	5.6	2.2	0.9	2.8	80.2	2.0
Funk's-----	G-4507	66	6.3	2.8	0.9	3.2	81.5	2.7
N.K.-----	McNair 508	66	6.6	2.0	0.9	3.6	78.0	1.5
Pioneer-----	3368A	65	7.4	2.2	0.9	3.2	80.5	2.2
McCurdy-----	67-14	65	6.9	1.9	0.8	3.2	77.1	2.0
Trojan-----	TXS 119	64	5.4	2.4	0.9	3.0	81.0	2.3
Pioneer-----	3145	64	5.1	2.1	0.9	3.4	75.7	1.6
Funk's-----	G-4606	64	9.8	1.9	0.9	3.0	79.9	2.1
Coker-----	16	63	8.6	2.4	0.9	2.9	80.6	2.6
Pioneer-----	3369A	63	7.1	2.0	0.9	3.0	79.7	2.6
Funk's-----	G-795W-1	63	10.2	2.5	0.9	3.4	77.2	1.7
Ring Around-----	1501	61	9.2	2.8	0.9	3.1	82.2	2.6
Funk's-----	G-4611	60	6.0	2.3	0.8	3.2	80.8	2.5
Coker-----	56	60	9.9	1.9	0.9	3.4	77.9	1.5
Coker-----	22	59	9.7	2.2	1.1	4.1	73.4	2.0
Funk's-----	G-4776	58	7.7	2.3	0.9	3.5	78.5	1.9
N.K.-----	McNair X-300	57	7.4	2.3	0.9	3.1	76.2	2.1
Funk's-----	G-4949A	57	3.7	2.0	0.8	3.7	76.3	1.8
Northrup, King-----	PX 723	56	15.0	2.3	0.8	3.5	79.9	1.9
Coker-----	77	55	6.7	2.2	0.8	3.6	78.2	1.5
Dekalb-----	XL394	54	14.1	2.0	0.7	3.5	80.0	1.9
Funk's-----	G-4810	52	6.0	2.3	0.8	3.2	76.5	2.3
Funk's-----	G-5945	52	11.6	2.0	0.8	3.6	77.6	1.7

^{1/}Camden, Camp Hill, Prattville, and E.V. Smith Research Center. (1980 data from E.V. Smith Research Center are not

^{2/}Yield adjusted to 15.5% moisture and 56 lb. per bushel.

in average).

^{3/}1 = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

Table 9. Characteristics of Corn Hybrids Tested in Central Alabama, 1980^{1/}

Brand name	Hybrid	Yield per acre ^{2/}	Lodged stalks	Quality ^{3/}	Ears per stalk	Height of ears	Shelling	Husk ^{3/}	Mid-silk
		Bu.	Pct.	Rating	No.	Ft.	Pct.	Rating	Days
Pioneer-----	3320	64	3.9	1.8	1.0	2.9	77.1	1.4	64
Ring Around-----	1502	63	6.0	2.0	0.9	3.0	78.4	1.8	64
Funk's-----	G-4740	61	2.2	2.5	1.1	2.7	78.2	2.2	69
Jacques-----	JX180	61	9.1	2.3	1.0	3.2	80.2	2.3	65
McCurdy-----	7787	61	15.8	2.5	1.0	3.8	77.0	2.7	64
USS-----	1515	61	3.4	2.1	0.9	2.7	81.1	2.1	64
Trojan-----	TXS 114	60	12.7	2.3	0.9	2.9	77.1	1.6	64
Pioneer-----	3147	60	3.7	2.9	0.9	3.2	78.1	2.0	70
McCurdy-----	84AA	59	9.0	2.0	0.9	3.1	77.4	1.9	65
Ring Around-----	2502	59	3.6	2.2	1.0	2.5	77.6	1.5	64
Pioneer-----	3368A	58	5.1	2.2	1.0	3.0	78.8	2.1	65
Funk's-----	G-4507	58	4.4	3.0	1.0	3.1	77.7	2.6	65
Gutwein-----	2910	58	10.1	2.3	1.0	3.2	78.0	1.8	66
Pioneer-----	3369A	57	4.5	1.8	0.9	2.8	77.3	2.2	64
Paymaster-----	UC9792	57	11.2	1.9	1.0	3.1	78.8	1.1	67
Ring Around-----	1501	57	6.8	2.8	1.0	2.9	79.3	2.4	65
Dekalb-----	XL72B	55	5.4	2.2	0.9	2.6	78.9	1.6	65
USS-----	2315	54	7.8	2.0	1.0	3.3	79.5	1.9	69
Coker-----	16	53	7.0	2.4	1.0	2.7	77.6	2.4	64
Gold Kist-----	GK-915	53	10.5	1.9	0.9	3.2	75.4	1.7	66
Funk's-----	G-4606	52	6.2	2.0	0.9	2.8	75.9	1.8	65
Trojan-----	TXS 119	52	3.1	2.3	0.9	2.8	77.4	1.9	65
Pioneer-----	3145	51	2.1	2.3	0.9	3.3	74.3	1.5	68
Northrup, King-----	PX 723	51	7.0	2.3	0.8	3.4	77.9	1.8	68
McCurdy-----	67-14	50	7.1	1.8	0.9	3.0	76.1	1.8	68
Paymaster-----	UC9451	50	4.8	2.1	1.0	3.0	76.1	2.1	67
Funk's-----	G-4611	49	3.1	2.3	0.9	3.0	77.2	2.1	66
Coker-----	22	48	6.4	2.3	1.5	4.7	64.0	1.8	66
Funk's-----	G-795W-1	47	9.7	2.7	1.0	3.1	74.0	1.5	70
N.K.-----	McNair X-300	46	3.8	2.5	1.0	3.1	74.0	1.9	68
N.K.-----	McNair 488	44	4.8	2.6	1.0	3.5	75.9	1.8	72
Funk's-----	G-4776	44	9.6	2.5	0.9	3.5	77.2	1.7	68
Northrup, King-----	PX 95	43	5.8	2.9	0.9	3.7	75.3	1.7	68

Table 9 . Characteristics of Corn Hybrids Tested in Central Alabama, 1980^{1/} (Continued)

Brand name	Hybrid	Yields		Lodged stalks	Quality ^{3/}	Ears per stalk	Height of ears	Shelling	Husk ^{3/}	Mid-silk
		per acre ^{2/}	Bu.							
Dekalb-----	XL394	43	4.3	2.3	0.8	3.5	78.7	1.9	71	
Funk's-----	G-4810	43	5.8	2.3	0.8	3.1	73.9	1.8	69	
Coker-----	56	42	7.9	2.1	0.9	3.4	74.7	1.4	70	
Funk's-----	G-4949A	42	4.3	2.3	0.8	3.6	74.6	1.5	71	
Coker-----	77	41	7.5	2.5	0.8	3.5	76.2	1.3	74	
N.K.-----	McNair 508	40	5.6	2.4	0.9	3.5	72.3	1.3	74	
Funk's-----	G-5945	38	8.0	2.3	0.8	3.5	75.4	1.6	72	

^{1/}Camden, Prattville, and Camp Hill. (1980 data from E.V. Smith Research Center are not in average).

^{2/}Yield adjusted to 15.5% moisture and 56 lb. per bushel.

^{3/}1 = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

Table 10. 1980 Yield of Corn Hybrids by Location and Regional Averages for 1-5 Years in Central Alabama^{1/}

Brand name	Hybrid	Camden	Camp Hill	Prattville	Regional average yield per acre ^{2/}				
					1-yr. 1980	2-yr. 1979-80	3-yr. 1978-80	4-yr. 1977-80	5-yr. 1976-80
		Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.
Pioneer-----	3147	53	87	88	60	72	63	56	57
Pioneer-----	3368A	60	73	86	58	65	57	50	52
Funk's-----	G-4507	61	68	94	58	66	61	49	52
N.K.-----	McNair 508	61	21	70	40	66	52	49	52
Pioneer-----	3369A	55	62	103	57	63	55	48	52
Pioneer-----	3145	50	60	82	51	64	56	48	50
Coker-----	16	43	68	90	53	63	55	46	49
Funk's-----	G-795W-1	52	53	73	47	63	52	46	49
Coker-----	56	41	49	74	42	60	51	46	49
McCurdy-----	67-14	53	56	86	50	65	55	45	48
Funk's-----	G-4611	46	62	86	49	60	51	43	48
Coker-----	22	57	48	79	48	59	52	43	46
Dekalb-----	XL394	48	43	70	43	54	46	41	46
Coker-----	77	49	38	70	41	55	44	41	46
Funk's-----	G-4949A	55	40	66	42	57	47	43	45
N.K.-----	McNair X-300	46	48	82	46	57	50	42	45
Funk's-----	G-4810	47	45	73	43	52	47	40	45
Funk's-----	G-5945	43	39	64	38	52	43	39	43
Trojan-----	TXS 114	60	74	92	60	72	64	54	
Ring Around-----	1502	82	72	91	63	75	66	53	
Ring Around-----	2502	67	65	93	59	67	59	51	
Paymaster-----	UC9792	58	71	84	57	69	59	48	
Funk's-----	G-4776	43	44	84	44	58	50	43	
McCurdy-----	84AA	75	61	91	59	71			
Funk's-----	G-4606	54	55	88	52	64			
Trojan-----	TXS 119	47	66	88	52	64			
Ring Around-----	1501	53	71	94	57	61			
Northrup, King-----	PX 723	55	53	85	51	56			
Pioneer-----	3320	67	79	95	64				
Funk's-----	G-4740	52	88	89	61				
McCurdy-----	7787	56	73	95	61				
Jacques-----	JX180	61	76	99	61				
USS-----	1515	73	70	90	61				
Gutwein-----	2910	72	60	86	58				
Dekalb-----	XI.72B	61	54	89	55				

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Table 10. 1980 Yield of Corn Hybrids by Location and Regional Averages for 1-5 Years in Central Alabama^{1/} (Continued)

Brand name	Hybrid	Camden	Camp Hill	Prattville	Regional average yield per acre ^{2/}				
					1-yr. 1980	2-yr. 1979-80	3-yr. 1978-80	4-yr. 1977-80	5-yr. 1976-80
		Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.
USS-----	2315	52	69	84	54				
Gold Kist-----	GK-915	57	59	85	53				
Paymaster-----	UC9451	47	61	89	50				
N.K.-----	McNair 488	51	54	65	44				
Northrup, King---	PX 95	40	39	89	43				
Test average:		55	59	85					
L.S.D. (.05):		13	18	8					
C.V. (%):		20.2	25.7	8.1					

^{1/}Yield adjusted to 15.5% moisture and 56 lb. per bushel.

^{2/}Averages for 2-5 years include data from the E.V. Smith Research Center.

Table 11. Characteristics of Corn Hybrids Tested Three Years in Southern Alabama, 1978-80^{1/}

Brand name	Hybrids	Yields		Lodged stalks	Quality ^{3/}	Ears per stalk	Height of ears	Shelling	Husk ^{3/}
		per acre ^{2/}	Pct.						
		Bu.	Pct.		Rating	No.	Ft.	Pct.	Rating
Ring Around-----	1502	111	7.4		2.2	1.0	2.9	83.6	2.4
Pioneer-----	3147	111	12.3		2.3	1.0	3.0	81.7	2.8
Pioneer-----	3368A	110	8.9		1.8	1.0	2.9	82.9	2.7
McCurdy-----	84AA	109	10.3		2.3	1.0	2.9	82.7	2.6
Golden Harvest----	H-2500	108	7.3		2.8	1.0	2.9	83.9	2.6
Coker-----	22	107	9.1		2.4	1.0	3.0	82.5	2.5
McCurdy-----	67-14	105	14.9		1.6	1.0	2.8	80.1	2.6
Pioneer-----	3369A	104	8.9		2.3	1.0	2.8	82.8	2.8
Ring Around-----	2502	104	6.6		2.2	1.0	2.5	82.7	2.4
Funk's-----	G-4507	104	9.8		2.8	0.9	3.0	83.8	2.7
Ring Around-----	1501	102	7.6		2.9	0.9	3.0	83.1	2.8
Pioneer-----	3145	100	8.8		1.9	1.0	3.1	78.8	2.2
Northrup, King----	PX 79	100	7.3		2.6	1.0	3.0	83.3	2.7
Funk's-----	G-4949A	100	11.7		1.8	1.0	3.3	80.6	2.4
Trojan-----	TXS 114	100	13.8		2.5	1.0	2.7	82.0	2.6
Dekalb-----	XL80	99	15.4		1.7	1.0	2.6	80.2	2.4
Funk's-----	G-4810	99	10.6		1.8	0.9	3.0	80.6	2.8
Funk's-----	G-4611	98	11.3		2.1	0.9	2.9	82.6	2.6
Funk's-----	G-4864	98	13.4		1.6	0.9	3.1	82.2	1.9
Dekalb-----	XL394	98	15.3		1.9	1.0	3.3	82.7	2.4
Pioneer-----	3030	97	12.7		1.6	1.0	3.1	77.5	1.8
Coker-----	16	97	8.5		1.9	1.0	2.5	82.6	3.0
N.K.-----	McNair X-300	97	9.8		2.0	1.0	2.6	80.7	2.3
Coker-----	77	97	13.9		2.0	1.1	4.1	71.9	2.8
N.K.-----	McNair 508	95	14.7		1.8	1.2	3.5	81.0	2.2
N.K.-----	McNair S-338	93	12.8		2.1	0.9	2.8	80.2	2.3

^{1/}Brewton, Fairhope, Headland, and Monroeville.

^{2/}Yield adjusted to 15.5% moisture and 56 lb. per bushel.

^{3/}1 = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

Table 12. Characteristics of Corn Hybrids Tested Two Years in Southern Alabama, 1979-1980^{1/}

Brand name	Hybrid	Yield per acre ^{2/}	Lodged stalks	Quality ^{3/} Rating	Ears per stalk	Height of ears	Shelling Pct.	Husk ^{3/} Rating
		Bu.	Pct.		No.	Ft.		
Ring Around	1502	107	9.3	2.3	1.0	2.8	83.1	2.5
Pioneer	3147	107	14.5	2.4	1.0	2.9	80.6	2.7
Pioneer	3368A	101	10.7	1.9	1.0	2.8	82.1	2.7
Golden Harvest	H-2500	101	7.6	3.1	1.0	2.9	83.7	2.6
Paymaster	UC8951	101	8.1	2.4	1.0	3.0	81.7	2.6
McCurdy	84AA	100	10.8	2.5	1.0	2.8	81.9	2.6
McCurdy	67-14	98	16.0	1.6	0.9	2.8	79.7	2.5
Funk's	G-4606	97	11.4	2.4	1.0	2.8	81.8	2.9
Coker	19A	97	8.7	2.8	1.0	2.9	82.5	2.8
Ring Around	2502	96	7.2	2.2	1.0	2.4	81.8	2.4
Coker	22	95	10.2	2.5	0.9	2.9	81.2	2.6
Funk's	G-4507	94	8.8	3.2	0.9	2.9	82.9	2.6
Northrup, King	PX 95	94	10.7	2.7	0.9	3.0	81.5	2.9
Ring Around	1501	94	7.1	3.2	0.9	3.0	82.3	2.8
Gutwein	74	94	13.1	2.7	1.0	2.6	82.7	2.8
Pioneer	3145	93	9.5	2.0	1.0	3.0	77.8	2.2
Pioneer	3369A	93	10.1	2.4	1.0	2.7	82.1	2.7
Dekalb	XL80	92	17.1	1.9	0.9	2.7	79.6	2.3
Funk's	G-4864	92	15.3	1.7	0.9	3.1	81.7	1.9
Northrup, King	PX 79	92	8.3	2.9	0.9	2.9	82.4	2.6
Trojan	TXS 114	91	14.9	2.7	1.0	2.6	81.1	2.5
Dekalb	XL394	91	13.6	1.8	0.9	3.1	82.4	2.2
Funk's	G-4611	91	14.6	2.3	0.9	2.8	82.0	2.7
Funk's	G-4949A	90	9.2	2.0	1.0	3.0	79.7	2.1

Table 12. Characteristics of Corn Hybrids Tested Two Years in Southern Alabama, 1979-1980^{1/} (Continued)

Brand name	Hybrid	Yield	Lodged stalks	Quality ^{3/}	Ears per stalk	Height	Shelling	Husk ^{3/}
		per acre ^{2/}				of ears		
		Bu.	Pct.	Rating	No.	Ft.	Pct.	Rating
Pioneer-----	3030	90	12.8	1.6	1.0	3.0	76.9	1.7
N.K.-----	McNair X-300	89	9.9	2.1	0.9	2.7	80.1	2.3
Funk's-----	G-4810	89	10.6	1.9	0.9	2.9	79.7	2.6
N.K.-----	McNair 508	89	13.5	1.9	1.1	3.4	79.7	2.2
Coker-----	16	87	10.2	2.0	0.9	2.6	81.9	3.0
N.K.-----	McNair S-338	82	12.5	2.2	0.9	2.7	79.0	2.1
Coker-----	77	81	11.9	2.0	1.1	4.2	64.9	2.8

^{1/}Brewton, Fairhope, Headland, and Monroeville.

^{2/}Yield adjusted to 15.5% moisture and 56 lb. per bushel.

^{3/}1 = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

Table 13. Characteristics of Corn Hybrids Tested in Southern Alabama, 1980^{1/}

Brand name	Hybrid	Yield	Lodged stalks	Quality ^{3/}	Ears per stalk	Height of ears	Shelling	Musk ^{3/}	Mid-silk
		per acre ^{2/}		Rating				Rating	
		Bu.	Pct.		No.	Ft.	Pct.		
Pioneer-----	3147	100	4.8	2.7	1.0	2.8	79.9	3.0	65
Ring Around-----	1502	99	1.7	2.6	1.0	2.9	82.8	2.5	61
McCurdy-----	84AA	95	5.3	2.7	1.0	2.8	81.2	2.8	62
Funk's-----	G-4740	94	5.5	2.3	1.1	2.4	81.4	3.1	64
Golden Harvest-----	II-2500	93	2.3	2.9	1.0	2.9	83.0	2.5	62
McCurdy-----	9410	93	1.2	1.9	1.0	3.0	82.4	2.1	65
Pioneer-----	3040	93	3.9	1.6	1.1	2.9	81.3	1.8	65
P-A-G-----	SX 333	92	3.3	2.7	1.0	3.0	82.5	2.9	62
Paymaster-----	UC8951	91	2.4	2.6	1.0	2.9	80.5	2.9	63
McCurdy-----	67-14	91	4.6	1.7	1.0	2.6	79.6	2.6	66
Trojan-----	TXS 119	91	4.7	2.6	1.0	2.6	82.2	2.9	61
Coker-----	19A	91	1.9	2.8	1.0	2.8	81.8	2.9	62
Pioneer-----	3368A	91	5.3	2.3	1.0	2.8	81.5	2.9	63
N.K.-----	McNair X-300	88	3.8	2.3	1.0	2.7	80.8	2.7	63
Paymaster-----	UC9451	88	4.1	1.9	1.0	2.5	79.0	2.7	63
Funk's-----	G-4949A	88	4.4	2.0	1.0	3.0	80.1	1.9	65
Coker-----	22	87	3.7	2.6	1.0	2.8	80.2	2.6	62
Ring Around-----	1501	87	1.8	3.0	1.0	3.0	81.2	2.8	62
N.K.-----	McNair 508	87	4.1	1.6	1.1	3.4	80.2	2.2	66
Funk's-----	G-4507	87	2.1	3.3	0.9	2.9	81.5	2.7	63
Dekalb-----	XL80	87	4.3	2.1	1.0	2.6	79.0	2.4	64
Pioneer-----	3030	86	6.2	1.5	1.0	3.0	76.8	1.8	64
Funk's-----	4864	86	3.5	1.6	1.0	3.1	81.4	1.8	64
Coker-----	77	85	8.6	2.1	1.3	5.0	80.6	3.0	65
Gutwein-----	2910	84	5.7	2.6	1.1	2.7	82.6	2.5	62

Table 13. Characteristics of Corn Hybrids Tested in Southern Alabama, 1980^{1/} (Continued)

Brand name	Hybrid	Yield per acre ^{2/}	Lodged stalks	Quality ^{3/}	Ears per stalk	Height of ears	Shelling	Husk ^{3/}	Mid-silk
		Bu.	Pct.	Rating	No.	Ft.	Pct.	Rating	Days
Dekalb-----	XL394	84	3.2	2.1	1.0	3.2	81.4	2.0	65
USS-----	2315	84	4.5	2.7	1.0	3.0	80.9	2.1	64
Trojan-----	TXS 114	84	7.8	2.9	1.0	2.5	80.6	2.6	62
Northrup, King-----	PX 95	84	0.7	3.2	1.0	3.0	80.0	3.0	64
Northrup, King-----	PX 79	84	1.3	3.3	1.0	3.0	81.2	2.7	64
Ring Around-----	2502	83	2.5	2.4	1.0	2.4	80.9	2.5	62
Funk's-----	G-4606	81	4.4	2.2	1.0	2.7	80.0	3.1	62
N.K.-----	McNair S-338	81	5.4	2.2	1.0	2.7	79.6	2.0	63
Pioneer-----	3369A	80	3.0	2.9	1.0	2.6	79.4	3.0	62
Funk's-----	G-4611	80	3.4	2.2	0.9	2.8	80.3	3.0	63
Gutwein-----	74	79	3.1	2.7	1.0	2.6	81.7	3.0	63
Pioneer-----	3145	79	3.8	2.0	1.0	2.9	76.7	2.3	63
Funk's-----	G-4810	76	5.0	2.0	1.0	2.8	78.4	2.9	64
Gold Kist-----	GK-748	76	1.7	2.9	0.9	2.6	81.0	2.6	63
Coker-----	16	74	3.1	2.3	1.0	2.5	80.3	3.1	62

^{1/}Brewton, Fairhope, Headland, and Monroeville.

^{2/}Yield adjusted to 15.5% moisture and 56 lb. per bushel.

^{3/}1 = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

Table 14 . 1980 Yield of Corn Hybrids by Location and Regional Averages for 1-5 Years in Southern Alabama^{1/}

Brand name	Hybrid	Fairhope	Brewton	Monroeville	Headland	Regional average yield per acre				
						1-yr. 1980	2-yr. 1979-80	3-yr. 1978-80	4-yr. 1977-80	5-yr. 1976-80
		Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.
Ring Around-----	1502	118	123	59	96	99	107	111	99	107
Pioneer-----	3147	129	105	68	100	100	107	111	97	105
Pioneer-----	3368A	114	102	55	91	91	101	110	97	105
Coker-----	22	104	102	52	92	87	95	107	92	102
McCurdy-----	67-14	126	89	53	96	91	98	105	93	101
Funk's-----	G-4507	113	91	54	90	87	94	104	92	100
Pioneer-----	3369A	111	86	48	73	80	93	104	91	100
Dekalb-----	XL80	115	92	52	88	87	92	99	88	98
Pioneer-----	3145	101	79	48	87	79	93	100	90	97
Funk's-----	G-4611	112	79	49	78	80	91	98	88	96
Coker-----	16	104	70	47	76	74	87	97	88	96
Dekalb-----	XL394	95	102	52	87	84	91	98	86	96
Funk's-----	G-4810	108	85	41	71	76	89	99	87	95
N.K.-----	McNair X-300	122	97	43	91	88	89	97	85	94
Funk's-----	G-4949A	111	102	47	90	88	90	100	86	93
Funk's-----	G-4864	109	102	50	84	86	92	98	86	93
Coker-----	77	116	98	47	57	79	81	97	83	93
Pioneer-----	3030	114	103	45	83	86	90	97	83	92
N.K.-----	McNair 508	112	98	52	87	87	89	95	82	92
N.K.-----	McNair S-338	109	92	37	85	81	82	93	81	90
Ring Around-----	2502	106	93	50	85	83	96	104	93	
Ring Around-----	1501	103	100	57	88	87	94	102	92	
Trojan-----	TXS 114	114	82	61	77	84	91	100	91	
McCurdy-----	84AA	122	107	57	95	95	100	109		
Golden Harvest-----	H-2500	109	113	55	96	93	101	108		
Northrup, King-----	PX 79	116	101	47	70	84	92	100		
Paymaster-----	UC8951	129	93	52	90	91	101			
Coker-----	19A	121	99	53	90	91	97			
Funk's-----	G-4606	107	91	46	83	81	97			
Northrup King-----	PX 95	115	87	44	89	84	94			
Gutwein-----	74	106	88	45	76	79	94			
Funk's-----	G-4740	118	106	66	86	94				
McCurdy-----	9410	126	97	54	93	93				
Pioneer-----	3040	123	102	57	89	93				

Table 14. 1980 Yield of Corn Hybrids by Location and Regional Averages for 1-5 Years in Southern Alabama^{1/}
(Continued)

Brand name	Hybrid	Fairhope	Brewton	Monroeville	Headland	Regional average yield per acre				
						1-yr. 1980	2-yr. 1979-80	3-yr. 1978-80	4-yr. 1977-80	5-yr. 1976-80
		Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.
P-A-G-----	SX 333	112	98	57	100	92				
Trojan-----	TXS 119	106	106	60	92	91				
Paymaster-----	UC9451	118	86	52	95	88				
USS-----	2315	104	94	58	80	84				
Gutwein-----	2910	100	95	48	94	84				
Gold Kist-----	GK-748	94	78	49	80	76				
Test Average:		112	95	52	86					
L.S.D. (.05):		11	16	8	15					
C.V. (%):		8.3	13.9	12.8	12.5					

^{1/}Yield adjusted to 15.5% moisture and 56 lb. per bushel.

Table 15. Characteristics of Corn Hybrids Tested Under Irrigation Two Years at Headland, 1979-80

Brand name	Hybrid	Yield per acre ^{1/}	Lodged stalks	Quality ^{2/}	Ears per stalk	Height of ears	Shelling	Husk ^{2/}
		Bu.	Pct.	Rating	No.	Ft.	Pct.	Rating
Ring Around	1502	181	6.4	2.1	1.1	3.2	84.7	2.4
McCurdy	84AA	175	9.3	2.5	1.1	3.2	84.3	2.5
Northrup, King	PX 95	171	10.5	2.8	1.1	3.2	83.5	2.5
Pioneer	3368A	170	5.6	2.3	1.1	3.1	84.5	2.1
Paymaster	UC8951	169	14.1	2.5	1.0	3.3	84.1	1.9
N.K.	McNair 508	167	11.6	2.3	1.3	3.6	83.0	2.0
Gutwein	74	167	10.8	2.6	1.1	2.8	85.2	2.5
Funk's	G-4606	164	11.0	2.6	1.1	3.2	84.5	2.1
Coker	19A	163	5.4	2.4	1.0	3.3	84.9	2.4
Pioneer	3147	163	14.5	3.1	1.1	3.2	83.0	2.1
Coker	77	162	14.0	2.5	1.2	3.5	82.3	2.1
Coker	22	160	16.0	2.6	1.1	3.0	84.1	2.4
Pioneer	3145	159	6.3	2.1	1.1	3.2	79.5	1.9
Dekalb	XL394	159	12.6	2.1	1.1	3.1	82.5	2.3
Funk's	G-4949A	159	13.3	2.1	1.0	3.2	81.7	2.1
Ring Around	1501	158	7.6	2.8	1.0	3.2	85.1	2.6
Trojan	TXS 114	157	9.5	2.4	1.1	3.0	84.1	2.4
Funk's	G-4507	157	13.3	2.9	1.0	3.2	86.8	2.6
McCurdy	67-14	156	20.8	2.0	1.1	3.2	81.4	2.3
Ring Around	2502	155	5.2	2.3	1.0	2.7	82.1	2.5
Northrup, King	PX 79	151	9.5	2.6	1.1	3.0	84.7	2.6
Golden Harvest	II-2500	149	8.3	2.9	1.0	3.1	85.4	2.4
Pioneer	3030	148	15.6	2.1	1.1	3.4	78.4	1.9
Coker	16	148	9.0	2.6	1.0	2.9	84.7	2.3
Funk's	G-4810	146	14.2	2.1	1.0	2.9	82.0	2.3
Pioneer	3369A	145	9.8	2.6	1.0	3.1	83.6	2.5

Table 15. Characteristics of Corn Hybrids Tested Under Irrigation Two Years at Headland, 1979-80 (Continued)

Brand name	Hybrid	Yield	Lodged stalks	Quality ^{2/}	Ears per stalk	Height of ears	Shelling	Husk ^{2/}
		per acre ^{1/}		Rating	No.	Ft.	Pct.	Rating
		Bu.	Pct.					
N.K.-----	McNair X-300	145	7.2	2.5	1.0	3.0	81.2	2.1
Funk's-----	G-4864	144	10.4	2.9	1.0	3.1	83.2	2.0
Dekalb-----	XL80	141	15.4	2.4	1.0	3.0	85.0	2.4
Funk's-----	G-4611	134	12.0	2.6	1.0	3.1	85.3	2.0
N.K.-----	McNair S-338	133	16.4	2.8	1.1	3.1	79.3	2.1

^{1/}Yield adjusted to 15.5% moisture and 56 lb. per bushel.

^{2/}1 = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

Table 16. Characteristics of Corn Hybrids Tested Under Irrigation One Year at Headland, 1980^{1/}

Brand name	Hybrid	Yield	Lodged	Quality ^{3/}	Ears	Height	Shelling	Husk ^{3/}
		per acre ^{2/}	stalks	Rating	per stalk	of ears		Pct.
		Bu.	Pct.		No.	Ft.		
Ring Around-----	1502	176	0.4	2.3	1.0	3.4	84.8	2.5
N.K.-----	McNair 508	174	0.8	2.3	1.3	3.6	84.3	2.0
Paymaster-----	UC9451	168	1.3	2.5	1.0	3.2	85.1	2.3
Gutwein-----	2910	166	3.4	2.8	1.2	3.2	86.1	2.3
McCurdy-----	84AA	165	1.7	2.8	1.1	3.4	85.7	2.5
Trojan-----	TXS 114	164	3.2	2.5	1.1	3.4	84.0	2.0
P-A-G-----	SX 333	164	1.3	3.0	1.1	3.2	86.4	2.0
McCurdy-----	9410	163	4.0	2.0	1.0	3.2	84.5	1.8
Pioneer-----	3368A	160	0.0	2.5	1.0	3.2	85.7	1.8
Pioneer-----	3147	158	2.7	3.5	1.1	3.3	83.5	1.8
Funk's-----	G-4949A	158	4.3	2.3	1.0	3.4	84.1	1.8
Funk's-----	G-4507	157	0.8	3.3	1.0	3.6	86.0	2.5
Coker-----	77	155	5.3	2.3	1.3	3.5	84.3	2.0
Northrup, King-----	PX 95	155	1.3	2.8	1.1	3.2	83.9	2.0
Paymaster-----	UC8951	155	4.2	2.8	1.0	3.5	84.3	1.8
Ring Around-----	1501	154	0.8	3.3	1.0	3.5	84.4	2.0
Dekalb-----	XL394	153	4.2	2.3	1.1	3.2	83.7	1.8
Ring Around-----	2502	151	0.4	2.3	1.1	2.9	85.5	2.3
Pioneer-----	3040	151	7.7	2.5	1.2	3.3	83.7	1.8
Pioneer-----	3030	151	4.5	2.0	1.1	3.5	80.6	1.8
Funk's-----	G-4740	150	1.9	3.3	1.1	2.9	82.8	2.5
Funk's-----	G-4606	150	0.9	3.3	1.1	3.4	85.0	2.0
Coker-----	19A	150	0.4	2.5	1.0	3.5	85.2	2.3
McCurdy-----	67-14	148	6.5	2.0	1.0	3.5	83.8	2.0
USS-----	2315	148	0.8	2.5	1.0	3.5	83.6	2.0
Gutwein-----	74	147	0.0	3.3	1.0	2.8	85.6	2.0

Table 16. Characteristics of Corn Hybrids Tested Under Irrigation One Year at Headland, 1980^{1/} (Continued)

Brand name	Hybrid	Yield per acre ^{2/}	Lodged stalks	Quality ^{3/}	Ears per stalk	Height of ears	Shelling	Husk ^{3/}
		Bu.	Pct.	Rating	No.	Ft.	Pct.	Rating
Golden Harvest-----	H-2500	146	2.3	3.0	1.0	3.2	85.1	2.3
Coker-----	22	146	1.3	3.3	1.0	3.1	84.8	2.0
Northrup, King-----	PX 79	146	0.9	2.8	1.0	3.1	85.2	2.3
N.K.-----	McNair X-300	144	0.0	2.8	1.0	3.2	83.5	2.3
Pioneer-----	3145	142	0.0	2.3	1.1	3.4	81.2	1.8
Trojan-----	TXS 119	139	0.0	3.0	1.0	3.0	85.3	2.3
Dekalb-----	XL80	138	4.9	2.5	1.0	2.9	82.0	2.0
Funk's-----	G-4810	136	3.3	2.3	1.0	2.9	82.7	2.0
Funk's-----	G-4864	134	2.6	3.0	1.0	3.2	84.5	1.8
Gold Kist-----	GK-748	132	1.5	3.0	1.0	3.3	85.5	2.0
Pioneer-----	3369A	130	1.3	3.3	1.0	3.2	83.3	2.0
Coker-----	16	130	0.0	3.0	1.0	2.9	85.0	1.8
N.K.-----	McNair S-338	124	4.3	3.3	1.1	3.4	83.0	2.0
Funk's-----	G-4611	120	1.7	3.0	1.0	3.3	86.2	2.0
Test Average:		150						
L.S.D. (.05):		18						
C.V. (%):		10.2						

^{1/}The test received approximately nine inches of irrigation water from early June to late July.

^{2/}Yield adjusted to 15.5% moisture and 56 lb. per bushel.

^{3/1} = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

Table 17. Characteristics of Corn Hybrids Tested Three Years at Marion Junction, 1978-80

Brand name	Hybrids	Yield	Lodged stalks	Quality ^{2/}	Ears per stalk	Height of ears	Shelling	Husk ^{2/}
		per acre ^{1/} Bu.	Pct.	Rating	No.	Pt.	Pct.	Rating
Pioneer-----	3145	72	8.2	1.9	0.9	3.3	77.9	2.0
Pioneer-----	3369A	70	18.9	2.5	0.9	3.1	80.7	3.2
Paymaster-----	UC9792	68	9.6	2.0	0.8	3.2	81.9	1.8
Ring Around-----	1502	66	9.6	1.9	0.9	3.0	81.9	2.1
Funk's-----	G-4864	61	8.4	2.4	0.8	3.4	79.9	1.9
Coker-----	56	59	5.7	2.3	0.9	3.5	79.8	2.3
Funk's-----	G-795W-1	58	14.5	2.8	0.8	3.3	78.1	1.4
Pioneer-----	3147	58	7.1	1.9	0.8	3.1	78.6	2.7
Funk's-----	G-4611	58	10.9	2.0	0.8	3.0	78.8	2.2
Funk's-----	G-4810	58	8.5	2.3	0.7	3.1	78.6	2.3
Ring Around-----	2502	57	14.1	2.3	0.8	2.7	80.5	2.6
Funk's-----	G-4507	57	15.5	2.8	0.8	3.1	84.0	2.7
Coker-----	77	56	13.2	2.1	0.7	3.6	81.0	2.2
Pioneer-----	3368A	56	7.4	2.4	0.8	3.1	80.8	2.9
Funk's-----	G-4776	56	8.7	2.0	0.8	3.5	80.0	1.9
Coker-----	22	54	11.5	2.2	0.8	3.1	80.3	2.2
N.K.-----	McNair 508	54	11.7	2.3	0.8	3.6	77.8	2.3
Dekalb-----	XL394	53	14.7	2.3	0.7	3.4	80.6	1.2
McCurdy-----	67-14	52	10.0	1.8	0.8	3.1	77.8	1.5
N.K.-----	McNair X-300	51	11.5	2.5	0.7	3.0	78.2	2.7
Trojan-----	TXS 114	50	17.5	2.8	0.7	3.0	76.5	2.6
Funk's-----	G-4949A	47	12.3	2.2	0.7	3.3	78.7	2.1

^{1/}Yield adjusted to 15.5% moisture and 56 lb. per bushel.

^{2/1} = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

Table 18. Characteristics of Corn Hybrids Tested Two Years at Marion Junction, 1979-80.

Brand name	Hybrid	Yield per acre ^{1/}	Lodged stalks	Quality ^{2/}	Ears per stalk	Height of ears	Shelling	Husk ^{2/}
		Bu.	Pct.	Rating	No.	Ft.	Pct.	Rating
Paymaster-----	UC9792	77	6.8	1.8	0.9	3.2	83.3	1.5
Pioneer-----	3145	74	6.3	1.5	0.9	3.1	79.2	1.8
Pioneer-----	3369A	71	10.2	2.6	0.9	2.9	81.1	3.1
Ring Around-----	1502	71	9.1	1.6	0.9	2.9	82.4	1.8
Northrup, King-----	PX 723	65	7.3	1.9	0.8	3.1	82.2	2.0
Funk's-----	G-4611	65	8.8	1.8	0.8	2.9	79.7	2.3
Funk's-----	G-4606	64	10.0	2.3	0.9	2.7	82.1	3.0
Ring Around-----	1501	62	5.5	2.3	0.8	3.0	84.7	2.6
Funk's-----	G-795W-1	62	11.0	2.5	0.8	3.2	79.3	1.4
Funk's-----	G-4507	61	5.0	2.9	0.9	2.9	85.4	2.1
Funk's-----	G-4864	61	5.8	2.0	0.8	3.3	81.5	1.9
Coker-----	77	60	11.2	2.1	0.7	3.5	82.4	2.0
Coker-----	22	59	3.5	2.0	0.8	2.9	81.0	2.1
Funk's-----	G-4810	57	2.3	2.1	0.7	3.0	80.0	2.1
Pioneer-----	3368A	57	6.0	2.3	0.8	2.8	81.3	2.6
Trojan-----	TXS 119A	57	4.3	2.5	0.9	2.9	77.5	2.4
Coker-----	56	57	5.6	2.3	0.9	3.3	80.7	2.2
Trojan-----	TXS 114	56	20.6	2.5	0.8	2.8	75.7	2.5
Trojan-----	TXS 119	53	8.9	2.0	0.8	2.6	81.8	2.5
McCurdy-----	67-14	51	5.6	1.8	0.8	3.0	79.2	1.3
Funk's-----	G-4776	51	4.6	2.1	0.8	3.2	81.0	1.9
Funk's-----	G-4949A	50	5.8	1.9	0.7	3.2	79.7	2.0
Ring Around-----	2502	50	17.4	2.6	0.7	2.5	80.7	2.3
N.K.-----	McNair 508	49	13.0	2.1	0.8	3.4	79.2	2.2
Pioneer-----	3147	49	4.6	2.0	0.8	2.9	78.1	2.1
Dekalb-----	XL394	47	9.7	2.4	0.7	3.3	81.6	1.0
N.K.-----	McNair X-300	47	4.3	2.1	0.7	2.7	78.7	2.5

^{1/}Yield adjusted to 15.5% moisture and 56 lb. per bushel.

^{2/}1 = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

Table 19. Characteristics of Corn Hybrids Tested One Year at Marion Junction, 1980

Brand name	Hybrids	Yield	Lodged	Quality ^{2/}	Ears	Height	Shelling	Husk ^{3/}	Mid-
		per acre ^{1/}	stalks	Rating	per stalk	of ears		Pct.	Rating
		Bu.	Pct.		No.	Ft.			Days
Pioneer-----	3160	62	0.0	2.3	0.9	2.6	76.6	1.5	75
Paymaster-----	UC9792	59	7.6	2.0	0.9	2.7	81.8	1.5	74
McCurdy-----	7978	56	5.2	2.0	0.9	2.8	81.8	2.3	73
Funk's-----	G-4740	55	1.4	2.5	0.8	2.2	83.6	3.3	77
Northrup, King---	PX 723	51	12.0	1.8	0.8	2.8	80.9	2.0	76
Pioneer-----	3179	50	18.4	2.3	0.8	2.8	77.7	2.3	74
Pioneer-----	3147	48	7.5	2.5	0.7	2.7	78.0	2.3	78
Funk's-----	G-4507	46	5.7	2.5	0.9	2.6	81.9	2.3	71
Ring Around-----	1502	45	2.4	1.8	0.8	2.4	80.1	1.5	71
McCurdy-----	X890	44	6.1	2.5	0.8	2.7	81.8	2.3	77
Dekalb-----	XL72BB	43	4.5	2.5	0.7	2.3	81.6	3.8	75
Dekalb-----	XL394	41	17.3	1.8	0.6	2.9	80.1	1.0	79
Trojan-----	TXS 119A	41	5.2	2.0	0.8	2.4	70.6	2.8	72
Funk's-----	G-795W-1	40	2.3	2.8	0.6	2.6	77.0	1.5	78
Pioneer-----	3145	39	11.1	1.8	0.7	2.7	75.0	2.0	76
Dekalb-----	XL72B	39	4.7	2.3	0.8	2.2	80.9	2.3	74
Funk's-----	G-4611	39	12.9	2.5	0.7	2.4	78.3	2.5	73
Trojan-----	TXS 119	39	2.0	2.0	0.8	2.3	79.5	2.8	75
Pioneer-----	3368A	38	6.0	3.3	0.8	2.4	78.6	2.5	74
Ring Around-----	1501	37	7.6	3.0	0.7	2.5	82.5	2.5	73
McCurdy-----	67-14	36	9.0	2.0	0.6	2.7	76.9	1.3	76
Pioneer-----	3369A	36	9.6	2.8	0.7	2.4	76.8	3.0	73
Funk's-----	EXP29092	36	1.8	2.5	0.6	2.4	80.1	2.3	76
Trojan-----	TXS 114	35	6.6	2.5	0.7	2.4	79.2	2.3	71
Funk's-----	G-4606	35	11.9	2.3	0.7	2.3	78.9	3.0	70
Jacques-----	JX227	34	6.6	2.8	0.7	2.7	78.3	2.5	74

Table 19. Characteristics of Corn Hybrids Tested One Year at Marion Junction, 1980 (Continued)

Brand name	Hybrid	Yield per acre ^{1/}	Lodged stalks	Quality ^{2/}	Ears per stalk	Height of ears	Shelling	Husk ^{2/}	Mid-silk
		Bu.	Pct.	Rating	No.	Ft.	Pct.	Rating	Days
Gold Kist-----	GK-955	34	12.4	2.8	0.6	2.5	77.4	1.8	76
Coker-----	22	33	3.9	3.0	0.7	2.4	76.6	2.3	73
Ring Around-----	2502	31	7.4	2.5	0.6	2.3	79.0	2.5	74
Funk's-----	G-4848	31	7.4	2.8	0.7	2.4	74.3	1.8	73
Funk's-----	G-4864	31	8.8	2.8	0.7	2.8	77.1	2.3	77
Golden Harvest----	H-2660W	30	11.4	2.5	0.6	2.7	68.5	1.0	78
Coker-----	56	27	5.6	2.0	0.8	3.0	75.3	2.3	79
Funk's-----	G-4776	27	7.0	2.8	0.7	2.7	77.6	2.3	77
Funk's-----	G-4949A	27	5.6	2.3	0.6	2.7	75.4	2.0	79
Funk's-----	G-4810	25	2.7	2.5	0.5	2.6	72.9	2.0	78
N.K.-----	McNair X-300	24	5.3	2.8	0.6	2.3	71.9	3.3	78
Coker-----	77	22	4.4	2.5	0.5	3.1	73.6	2.3	82
Funk's-----	G-4787W	20	5.0	2.3	0.4	2.6	75.4	1.7	79
N.K.-----	McNair 508	17	7.9	3.3	0.5	2.9	68.8	2.8	86
Test Average:		38							
L.S.D. (.05):		12							
C.V. (%):		26.0							

^{1/}Yield adjusted to 15.5% moisture and 56 lb. per bushel.

^{2/1} = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

Table 20. Characteristics of White Corn Hybrids Tested At Crossville and Headland, 1980^{1/}

Brand name	Hybrid	Yield per acre ^{2/} Bu.	Lodged stalks Pct.	Quality ^{3/} Rating	Ears per stalk No.	Height of ears Ft.	Shelling Pct.	Husk ^{3/} Rating	Mid-silk Days
Sand Mountain Substation, Crossville									
Ring Around	-----1502 ^{4/}	66	3.2	2.5	0.8	2.8	83.2	2.0	79
Pioneer	-----3147 ^{4/}	63	8.6	3.0	0.8	2.9	77.1	2.0	85
Dekalb	-----XL390B	52	7.7	3.0	0.7	2.9	83.8	2.3	84
Pioneer	-----519	51	5.0	2.8	0.8	2.9	73.7	2.0	84
Funk's	-----795W-1	46	12.7	3.0	0.6	2.9	77.0	2.0	87
Ring Around	-----2602W	41	9.1	3.0	0.6	2.9	68.5	2.0	85
Funk's	-----G-4787W	40	5.5	3.0	0.7	2.9	74.7	2.0	91
Golden Harvest	-----H-2660W	40	5.0	3.0	0.6	2.9	70.4	2.0	83
Ring Around	-----3605W	39	8.6	3.0	0.6	2.9	69.1	2.3	84
Funk's	-----G-4747W-1	39	3.2	3.0	0.7	2.9	67.5	2.3	84
Jacques	-----W-300	38	7.3	3.0	0.5	2.8	69.4	2.0	83
N.K.	-----McNair X-233	37	2.3	3.0	0.5	3.0	70.5	2.0	86
Golden Harvest	-----H-2665W	36	4.5	3.0	0.6	3.1	71.7	2.3	87
Zimmerman	-----Z52-W	35	9.1	3.0	0.5	2.9	71.2	2.3	87
Zimmerman	-----Z11-W	35	5.5	3.0	0.6	2.9	68.7	2.3	87

Test Average; 44
L.S.D. (.05); 8
C.V. (%); 15.2

1/The 1980 results for the white corn hybrid test at the E.V. Smith Research Center were not reported because of extremely low yields.

2/Yield adjusted to 15.5% moisture and 56 lb. per bushel.

3/1 = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

4/Yellow corn check hybrids.

Table 21. Characteristics of White Corn Hybrids Tested At Crossville and Headland, 1980^{1/}

Brand name	Hybrid	Yield per acre ^{2/} Bu.	Lodged stalks Pct.	Quality ^{3/} Rating	Ears per stalk No.	Height of ears Ft.	Shelling Pct.	Husk ^{3/} Rating
Wiregrass Substation, Headland ^{5/}								
Pioneer-----	3147 ^{4/}	159	14.4	3.3	1.1	3.5	85.7	2.0
Ring Around-----	1502 ^{4/}	158	3.3	2.5	1.0	3.3	85.0	2.5
Funk's-----	G-795W-1	150	11.7	2.5	1.1	3.4	81.9	2.5
Ring Around-----	3605W	147	6.8	2.5	1.0	3.5	81.5	2.5
Ring Around-----	2602W	142	8.0	2.5	1.1	3.4	77.5	2.5
Pioneer-----	519	140	5.1	2.0	1.0	3.3	82.7	2.3
N.K.-----	McNair X-233	137	4.6	2.5	1.0	3.5	77.8	2.5
Golden Harvest-----	H-2665W	136	6.4	2.8	1.0	3.5	81.8	2.5
Funk's-----	G-4747W-1	135	2.9	2.5	0.9	3.4	78.0	2.3
Golden Harvest-----	H-2660W	133	7.6	2.3	1.0	3.6	78.1	2.0
Dekalb-----	XL390B	129	5.5	4.0	1.0	3.4	85.9	2.8
Funk's-----	G-4787W	126	5.5	3.0	1.0	3.4	82.5	3.0
Jacques-----	W-300	112	9.8	2.8	1.0	3.5	76.7	2.3
Test Average:		139						
L.S.D. (.05):		12						
C.V. (%):		7.1						

1/The 1980 results for the white corn hybrid test at the E.V. Smith Research Center were not reported because of extremely low yields.

2/Yield adjusted to 15.5% moisture and 56 lb. per bushel.

3/1 = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

4/Yellow corn check hybrids.

5/The test at Headland received approximately nine inches of irrigation water from early June to late July.

VIRAL DISEASE REACTIONS OF SOME HYBRIDS IN 1980

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The two most prevalent viral diseases of corn in Alabama are maize chlorotic dwarf (MCD) caused by the maize chlorotic dwarf virus (MCDV), and maize dwarf mosaic (MDM) caused by the maize dwarf mosaic virus (MDMV). Discovery of MDM in the State dates back to the early 1960's, while MCD has been recognized only since 1973. Both diseases probably occur throughout Alabama, however, they generally have been more prevalent and damaging in the northern two-thirds of the State.

Symptoms of the two diseases are similar in appearance and sometimes difficult to distinguish. Generally, affected plants are chlorotic or discolored and may be stunted. Leaves of MDM-diseased plants show an irregular, light and dark green mosaic or mottle; the initial symptom of MCD is a fine, chlorotic streaking over the smallest veins.

The causal viruses are spread by feeding activities of insects. MCDV is transmitted by certain leafhoppers and MDMV is carried by some aphids. Both viruses have similar host ranges among a variety of wild and cultivated grasses. Johnsongrass is an important overseason or reservoir host for the viruses, and MCD and MDM incidence and damage usually are high in corn fields that are heavily infested with johnsongrass.

Use of resistant or tolerant corn hybrids presently is the most practical control of MCD and MDM. Commercial and experimental hybrids are evaluated yearly to identify resistant hybrids or promising sources of resistance to the diseases. Results of evaluations of some commercial hybrids during 1980 are summarized in this report.

PROCEDURE

Viral disease ratings were made on entries in the corn hybrid test at the Black Belt Substation, Marion Junction. Plants showing symptoms of MCD and/or MDM were counted and data are reported as percent incidence of viral diseases for each hybrid.

RESULTS

Evaluations for viral diseases in the hybrid test on the Black Belt Substation are given in table 22. Data given are total incidences of viral diseases. No attempt was made to separate MCD and MDM at the time of rating. However, MCD was clearly the predominant disease throughout the test. Tests on the Piedmont, Tennessee Valley, Sand Mountain, and Upper Coastal Plain substations were also examined, but disease incidence was insignificant.

The incidence of viral diseases ranged from 0-35% among the hybrids in the test and averaged 11.3% for the entire test. No symptoms of virus disease were found in Jacques JX227 and Paymaster UC9792, and disease incidence was less than 5% in several other hybrids.

Hybrids showing relatively greater resistance or tolerance were apparent. Under conditions of higher or lower incidence of viral diseases hybrids would be expected to retain their relative ranking. When selecting a hybrid, viral disease reactions should be taken into account for areas where the diseases occur, along with consideration of yield and other characteristics given elsewhere in this report.

Table 22. Incidence of viral diseases in the regular corn hybrid test,
Marion Junction, July 25, 1980

Brand name	Hybrid	Incidence
		Pct.
Coker-----	22	28.3
Coker-----	56	9.2
Coker-----	77	17.3
Dekalb-----	XL72B	4.3
Dekalb-----	XL72BB	17.0
Dekalb-----	XL394	8.3
Funk's-----	EXP 29092	3.8
Funk's-----	G-795W-1	35.4
Funk's-----	G-4507	11.4
Funk's-----	G-4606	15.0
Funk's-----	G-4611	16.4
Funk's-----	G-4740	5.5
Funk's-----	G-4776	9.7
Funk's-----	G-4787W	23.1
Funk's-----	G-4810	4.0
Funk's-----	G-4848	14.0
Funk's-----	G-4864	7.8
Funk's-----	G-4949A	4.0
Golden Harvest----	H-2660W	12.2
Gold Kist-----	GK-955	6.5
Jacques-----	JX227	0
McCurdy-----	67-14	9.2
McCurdy-----	7978	2.0
McCurdy-----	X890	6.8
N.K.-----	McNair 508	1.8
N.K.-----	McNair X-300	6.7
Northrup, King----	PX 723	2.2
Paymaster-----	UC9792	0
Pioneer-----	3145	2.2
Pioneer-----	3147	3.9
Pioneer-----	3160	5.2
Pioneer-----	3179	3.8
Pioneer-----	3368A	27.6
Pioneer-----	3369A	23.6
Ring Around-----	1501	24.0
Ring Around-----	1502	7.4
Ring Around-----	2502	26.8
Trojan-----	TXS 114	8.5
Trojan-----	TXS 119	35.5
Trojan-----	TXS 119A	3.8

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Table 23. Characteristics of Corn Hybrids Tested One Year at Crossville in Northern Alabama, 1980

Brand name	Hybrid	Yield per acre ^{1/}	Lodged stalks	Quality ^{2/}	Ear per stalk	Height of ears	Shelling	Husk	Mid-silk
		Bu.	Pct.	Rating	No.	Ft.	Pct.	Rating	Days
Aztec-----	SX640	78	0.5	2.0	0.9	3.3	85.5	2.0	75
Jacques-----	JX180	75	6.8	2.5	0.9	3.4	83.5	2.0	76
Paymaster-----	UC8201	75	10.5	2.5	0.9	3.2	87.4	2.0	77
Aztec-----	644	73	0.9	2.3	0.9	3.3	85.2	2.0	76
Pioneer-----	3160	73	1.8	2.3	1.0	3.2	82.4	2.0	78
Big D-----	4862	71	6.4	2.5	0.9	3.2	86.6	2.0	77
Paymaster-----	UC9532	68	9.5	2.5	0.8	3.1	84.8	2.0	79
Golden Harvest-----	H-2680	67	5.9	2.5	0.9	3.2	84.4	2.3	79
Pioneer-----	3369A ^{3/}	67	1.4	3.0	0.9	3.0	83.8	2.3	75
McCurdy-----	8225	67	6.8	2.5	1.0	3.4	85.1	2.0	79
Ring Around-----	1504	66	6.8	2.5	0.9	3.2	85.7	2.3	78
Pioneer-----	3382	66	1.4	3.0	0.9	3.0	85.3	2.0	76
P-A-G-----	SX 351	65	3.2	2.5	0.9	3.1	84.7	2.5	77
Dekalb-----	XL72BB	64	1.4	2.5	0.8	3.0	85.3	2.5	78
Gold Kist-----	GK-748	63	0.9	2.5	0.8	3.0	85.9	2.0	77
McCurdy-----	7978	62	9.1	2.5	0.8	3.4	85.5	2.0	78
Ring Around-----	1604	62	1.4	2.5	0.9	3.2	83.1	2.0	78
Big D-----	2249	62	3.6	3.0	0.9	2.9	83.9	2.0	75
Jacques-----	JX247	61	2.3	2.0	0.8	3.2	85.0	2.3	78
USS-----	2315	58	9.1	2.5	0.8	3.3	85.5	2.0	78
Pioneer-----	3147 ^{3/}	57	3.2	3.0	0.8	3.3	80.6	2.0	82
Funk's-----	G-4848	57	0.9	2.3	0.8	2.9	77.0	2.3	79
Funk's-----	G-4689	57	1.8	3.0	0.9	2.9	85.4	2.3	78
Trojan-----	TXS 119A	56	3.2	2.8	0.8	3.1	84.4	2.3	78
Golden Harvest-----	H-2775A	55	6.4	3.0	0.8	3.2	80.3	2.0	78
P-A-G-----	SX 373	54	3.2	2.8	0.8	3.3	80.1	2.0	78
Paymaster-----	UC9451	54	2.7	3.0	0.7	3.1	82.5	2.3	78
Dekalb-----	XL82	54	8.6	2.8	0.6	3.4	83.2	2.0	78
Gpld Kist-----	GK-915	53	14.5	2.3	0.7	3.2	82.7	2.0	78
Trojan-----	T 1230	53	1.8	3.0	0.8	3.2	84.4	2.0	79
Funk's-----	G-4525A	52	1.8	2.8	0.8	3.1	83.1	2.0	77
Gutwein-----	2875	52	1.8	2.5	0.6	3.3	83.6	2.0	77
Ring Around-----	2601	51	8.6	2.8	0.6	3.2	79.6	2.0	79

Table 23. Characteristics of Corn Hybrids Tested One Year at Crossville in Northern Alabama, 1980 (continued)

Brand name	Hybrids	Yields		Lodged stalks	Quality ^{2/}	Ears per stalk	Height of ears	Shelling	Husk	Mid-silk
		per acre ^{1/}	Bu.							
Northrup, King-----	PX 707	51	5.9	2.8	0.7	3.4	81.2	2.3	78	
Northrup, King-----	PX 664	51	2.7	3.0	0.8	2.8	81.2	2.0	74	
Northrup, King-----	PX 83	48	16.4	3.0	0.7	3.2	79.2	2.5	77	
USS-----	2461	48	6.4	2.3	0.6	3.3	84.5	2.0	80	
Pioneer-----	3179	42	3.6	2.8	0.7	3.1	79.0	2.3	82	
Dekalb-----	EX8914	33	6.8	3.0	0.5	3.4	79.2	2.0	81	
N.K.-----	McNair EXP3232	33	4.1	3.0	0.6	3.2	77.0	2.0	84	

Test Average: 59
L.S.D. (0.5): 10
C.V. (%): 14.7

^{1/}Yields adjusted to 15.5% moisture and 56 lb. per bushel.
^{2/}1 = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.
^{3/}Check hybrids.

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Table 24. Characteristics of Corn Hybrids Tested One Year at Fairhope in Southern Alabama, 1980

Brand name	Hybrid	Yield	Lodged stalks	Quality ^{2/}	Ears	Height	Shelling	Husk
		per acre ^{1/}		Rating	per stalk	of ears		Rating
		Bu.	Pct.		No.	Ft.	Pct.	
Pioneer-----	3160	137	2	2.5	1.0	3.7	76.2	2.8
McCurdy-----	8150	128	0	1.5	1.1	3.6	79.8	2.0
Paymaster-----	UC9902	127	0	3.0	1.0	3.8	80.7	2.3
McCurdy-----	8230	124	0	2.5	1.0	3.6	79.0	2.8
Trojan-----	TXS 115A	122	0	2.5	1.0	3.6	81.3	3.3
Golden Harvest-----	H-2775A	122	0	2.0	1.0	3.5	80.2	4.0
McCurdy-----	7787	122	0	3.5	1.0	3.0	81.9	2.3
Jacques-----	JX247	121	0	3.0	1.1	3.6	81.4	3.0
Ring Around-----	2601	121	0	1.5	1.0	3.7	77.2	4.0
Trojan-----	T 1230	121	0	3.5	1.1	3.7	80.8	3.0
Ring Around-----	1604	120	0	3.5	1.0	3.5	80.9	3.3
Golden Harvest-----	H-2680	119	0	3.5	1.0	3.6	81.0	2.8
P.A.G.-----	SX 373	118	0	2.5	1.0	3.8	81.0	3.5
USS-----	2020	118	0	3.0	1.0	3.5	82.1	3.5
Pioneer-----	3147 ^{3/}	117	0	2.0	0.9	3.8	80.0	4.3
Pioneer-----	3369A ^{3/}	116	0	3.0	1.0	3.5	81.1	3.3
Funk's-----	4689	115	0	2.5	1.0	3.2	81.6	3.0
Big D-----	4862	114	0	3.5	1.0	3.6	82.7	2.8
Dekalb-----	XL82	114	0	3.0	1.0	3.9	77.7	3.5
Northrup, King-----	PX 87	113	0	3.0	1.0	3.6	80.1	2.3
Paymaster-----	UC12052A	113	1	1.5	0.9	3.6	75.6	1.0
Pioneer-----	3382	112	0	2.0	1.0	3.5	80.9	3.0
Trojan-----	TXS 119A	112	0	3.5	1.0	3.4	80.7	4.3
Pioneer-----	3320	111	0	2.0	1.0	3.2	80.7	2.3
Jacques-----	JX180	110	0	4.5	1.0	3.6	79.5	3.5
Northrup, King-----	PX 72	110	1	5.0	1.0	3.5	77.8	2.8
Gutwein-----	2875	109	0	2.0	1.0	3.5	78.9	2.5
Dekalb-----	XL72B	109	1	2.5	1.0	3.1	83.7	3.3
N.K.-----	McNair EXP3232	109	0	3.0	1.0	3.5	78.3	3.5
Gold Kist-----	GK-915	109	0	2.0	0.9	3.3	78.0	3.5
Ring Around-----	1504	108	0	4.0	1.0	3.5	80.1	4.5
Northrup, King-----	PX 664	106	0	1.5	1.0	3.2	77.8	2.5
Funk's-----	G-4525A	105	1	2.0	1.0	3.7	80.7	3.3

Table 24. Characteristics of Corn Hybrids Tested One Year at Fairhope in Southern Alabama, 1980(Continued)

Brand name	Hybrids	Yields	Lodged stalks	Quality ^{2/}	Ears per stalk	Height of ears	Shelling	Husk
		per acre ^{1/}	Pct.	Rating	No.	Ft.	Pct.	Rating
USS-----	1515	105	0	2.5	1.0	3.1	82.1	4.0
Coker-----	19	103	0	4.5	1.0	3.6	80.4	2.3
Gold Kist-----	GK-955	103	0	2.0	1.0	3.6	78.1	3.5
Coker-----	56	102	1	2.5	1.1	3.5	77.3	3.8
Dekalb-----	XL395A	100	0	2.0	1.0	4.0	77.2	2.3
Dekalb-----	XL80B	98	0	2.5	1.0	3.3	76.9	3.8
Funk's-----	G-4323	89	0	3.5	1.0	3.0	80.1	2.8
Test Average:		113						
L.S.D. (.05):		13						
C.V. (%):		9.7						

1/Yields adjusted to 15.5% moisture and 56 lb. per bushel.
^{2/}1 = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.
^{3/}Check hybrids.

ACCEPTABLE HYBRIDS FOR 1981

All of the acceptable hybrids are not equal in performance. It is suggested that this report be carefully studied before choosing a hybrid. Hybrids are listed in decending order of their composite rating. For relative maturity information for these hybrids, use the number of days to midsilk, found in tables 5, 9, and 13. All hybrids have yellow grain except the white grain hybrids indicated by a (W).^{1/} All composite ratings are based on 1978-80 regional averages, found in tables 3, 7, and 11. All acceptable hybrids have been tested at least 3 years in the regular variety tests.

NORTHERN ALABAMA

Brand name	Hybrid
Ring Around-----	I502
Trojan-----	TXS 115A
Pioneer-----	3147
Ring Around-----	1501
Pioneer-----	3369A
McCurdy-----	84AA
Paymaster-----	UC8951
Funk's-----	G-4507
Trojan-----	TXS 114
Ring Around-----	2502
Paymaster-----	UC9792
Funk's-----	G-4611
Dekalb-----	XL72B
Coker-----	16
Coker-----	22
*McCurdy-----	67-14
*Northrup, King-----	McNair X-300
*Funk's-----	G-4810
*Coker-----	56
*Dekalb-----	XL394
*Dekalb-----	XL80
*Funk's-----	G-795W-1 (W)

CENTRAL ALABAMA

Brand name	Hybrid
Ring Around-----	I502
Trojan-----	TXS 114
Pioneer-----	3147
Ring Around-----	2502
Funk's-----	G-4507
Paymaster-----	UC9792
Pioneer-----	3368A
McCurdy-----	67-14
Pioneer-----	3369A
Pioneer-----	3145
Coker-----	16
Northrup, King-----	McNair 508
Funk's-----	G-4611
Coker-----	56
Coker-----	22
Funk's-----	G-795W-1 (W)
Northrup, King-----	McNair X-300
Funk's-----	G-4776
*Funk's-----	G-4949A
*Coker-----	77
*Dekalb-----	XL394

SOUTHERN ALABAMA

Brand Name	Hybrid
Ring Around-----	I502
Pioneer-----	3368A
Pioneer-----	3147
McCurdy-----	84AA
Golden Harvest-----	H-2500
Ring Around-----	2502
Coker-----	22
Pioneer-----	3369A
McCurdy-----	67-14
Funk's-----	G-4507
Pioneer-----	3145
Ring Around-----	1501
Northrup, King-----	PX 79
Funk's-----	G-4810
Coker-----	16
Northrup, King-----	McNair X-300
Funk's-----	G-4949A
Dekalb-----	XL80
Funk's-----	G-4611
Funk's-----	G-4864
Trojan-----	TXS 114
*Pioneer-----	3030
*Dekalb-----	XL394
*Coker-----	77

^{1/}For a comparison of white grain hybrids see table 20.

*If present trends continue, this hybrid will be removed from the acceptable list next year in the region indicated.

