Performance of Corn Hybrids in Alabama

1978

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Corn hybrids are evaluated annually at 12 locations in the regular corn variety testing program of the Auburn University Agricultural Experiment Station. Preliminary tests are conducted at 6 of the 12 locations. Entries in the regular tests have been tested one or more years and have performed well in the preliminary tests. Entries in preliminary tests are experimental and released hybrids that are new to the Alabama variety tests. If a hybrid is outstanding in the preliminary tests it is entered into the regular testing program the following year.

Rainfall distribution was poor in northern and central Alabama during the 1978 growing season. In these two regions yields were low except at Belle Mina. In southern Alabama all locations except Monroeville had average test yields over 100 bushels per acre. At Headland a total of 4½ inches of irrigation water was applied in three applications during the month of June to supplement rainfall. Generally, yield reduction was due to the lack of adequate moisture during the period of highest need for moisture by the corn hybrids.

Locations of the tests, cultural practices, and average plant populations are shown in table 1. All hybrids at a location were treated the same. The experimental design was a randomized complete or split block design with four replications. Row width was 36 to 42 inches depending on location. At Camp Hill, one-row plots 40 feet long were used. At all other locations, 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 22,000 plants per

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acre. The seeding rate was 25,300 seeds per acre based on plot size at each location. At Crossville a higher seeding rate was used for both the regular and preliminary tests. The target plant population for the irrigated test at Camden was 26,000 plants per acre, with a seeding rate of 29,700 seeds per acre. It was apparent that each location had different amounts of plant survival.

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 of grain, and luster of grain were used in rating grain quality. Height of ears was measured from the base of the ear to ground level. Husks were rated according to tightness and extension beyond the tip of the ear. Mid-silk data measured the number of days from planting until one half of the plants in the plot were showing silks.

Data from the 1975, 1976, and 1978 tests at Marion Junction are given separately and should be used to assist in comparing hybrids grown under conditions of high incidence of virus infection. Yields from the irrigated variety test at Camden were good. The 1978 yields and the 2- and 3-year averages from this test are included in the report.

Regional averages for 3, 2, and 1 years in northern Alabama are presented in tables 2, 3, and 4 respectively. Table 5 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 6-9, and for southern Alabama in tables 10-13. The performance of corn hybrids grown and irrigate at Camden for 3, 2, and 1 years is shown in tables 14, 15, and 16 respectivel In 1978, this test was sprinkler irrigated on June 30, July 5, 10, and 19. Approximately 2 inches of irrigation water was applied over this period of

time. Performances of corn hybrids at Marion Junction for 3, 2, and 1 years are given in tables 17, 18, and 19 respectively. Results of the preliminary tests are given in tables 21-23.

The corn variety tests are examined each year for viral and other disease symptoms by Dr. R. T. Gudauskas, Department of Botany 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, and virus infection data from the variety test at Marion Junction are given in table 20.

When comparing hybrids, small differences in yield may not be large enough to be considered real differences. To aid in determining real differences between hybrids a statistical procedure, analysis of variance, was performed on the data from each location. The L.S.D. (least significant difference) is given for yields at each location in 1978.

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 2, 6, and 10.

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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Table 1. Location and Cultural Practices for 1978 Corn Hybrid Tests[1/]

Location	Planting date	Nitrogen rate	Row width	Average plant population[2/]
		lb.N/A	In.	Thou.
Northern Alabama				
Tennessee Valley Substation (Belle Mina)				
Regular test	4/10	170	42	21
Preliminary test	4/10	170	42	22
Sand Mountain Substation (Crossville)				
Regular test	4/17	160	36	29
Preliminary test	4/17	160	36	28
Upper Coastal Plain Substation (Winfield)				
Regular test	4/18	160	40	21
Preliminary test	4/19	160	40	21
Central Alabama				
Agronomy Farm (E. V. Smith Research Center)				
Regular test	4/26	120	40	22
Preliminary test	4/26	120	40	20
Lower Coastal Plain Substation (Camden)				
Irrigated test	4/24	120	36	25
Unirrigated test	4/25	120	36	23
Piedmont Substation (Camp Hill)	4/26	120	40	15
Prattville Experiment Field (Prattville)	4/14	150	42	21
Black Belt Substation (Marion Junction)	4/24	130	36	18
Southern Alabama				
Brewton Experiment Field (Brewton)	3/20	120	36	24
Monroeville Experiment Field (Monroeville)	3/21	120	36	16
Wiregrass Substation (Headland)				
Regular test	3/29	130	36	19
Preliminary test	3/29	130	36	16
Gulf Coast Substation (Fairhope)				
Regular test	3/23	200	38	21
Preliminary test	3/23	200	38	20

1/Lime, P_2O_5, and K_2O were applied according to soil test recommendations. Chemical and/or mechanical weed control practices were employed as needed.
2/See introduction for discussion of plant populations.

Table 2. Characteristics of Corn Hybrids Tested Three Years in Northern Alabama, 1976-78[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
Pioneer	3369A	99	23.2	2.4	0.9	3.7	83.2	2.6
Pioneer	3147	94	17.0	2.7	0.9	3.9	83.2	2.9
Funk's	G-4507	91	14.2	2.8	0.8	3.9	83.5	2.7
Funk's	G-4611	91	16.5	2.2	0.9	3.8	83.3	2.3
Coker	22	90	21.2	2.7	0.9	3.9	82.1	2.4
Coker	18	89	21.3	2.6	0.9	3.7	81.0	2.4
Coker	16	86	16.8	2.5	0.9	3.5	82.4	3.0
McCurdy	67-14	84	26.5	2.2	0.8	3.8	79.1	2.5
McNair	X-300	83	18.9	2.7	0.8	3.6	79.3	2.2
DeKalb	XL394	82	16.0	2.6	0.8	4.4	82.4	2.2
Funk's	G-4810	82	21.5	2.6	0.9	4.0	79.1	2.4
Coker	56	81	19.4	2.6	0.9	4.0	82.2	2.3
Pioneer	511A	80	33.7	2.5	0.9	4.0	78.8	2.1
DeKalb	XL80	80	25.9	2.4	0.8	3.6	79.9	2.0
McNair	S-338	77	20.3	2.8	0.8	3.8	79.8	2.5
Funk's	G-4864	76	15.0	2.8	0.8	4.1	82.9	1.8
Funk's	G-795W-1	75	33.7	2.7	0.9	4.0	79.8	2.1

[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 3. Characteristics of Corn Hybrids Tested Two Years in Northern Alabama, 1977-78[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
Pioneer	3369A	79	29.9	2.7	0.8	3.6	84.3	2.7
Pioneer	3147	77	16.3	2.8	0.8	3.7	82.5	3.0
Ring Around	1502	76	15.4	2.5	0.8	3.6	82.8	2.2
Trojan	TXS 114	75	19.4	2.9	0.8	3.7	83.4	2.7
McCurdy	72-44A	73	28.8	2.6	0.9	3.9	82.7	2.5
Funk's	G-4507	71	17.6	3.1	0.8	3.8	84.7	2.7
Coker	22	69	26.5	2.9	0.8	3.7	83.8	2.5
Coker	18	69	28.9	2.9	0.8	3.6	84.6	2.5
Funk's	G-4611	69	19.3	2.5	0.8	3.7	82.3	2.5
Coker	16	68	21.6	2.7	0.8	3.6	83.6	3.0
Paymaster	UC 9792	67	30.0	2.4	0.7	3.7	82.8	2.3
McCurdy	67-14	65	30.4	2.5	0.7	3.6	80.7	2.5
McNair	X-300	62	22.6	3.1	0.8	3.5	80.5	2.4
DeKalb	XL80	61	30.0	2.7	0.7	3.6	80.9	2.2
Coker	56	61	23.3	2.6	0.8	3.8	82.0	2.5
Funk's	G-4810	60	25.2	2.8	0.8	3.9	80.1	2.3
Funk's	G-4776	58	30.1	3.2	0.8	3.9	82.2	2.5
Pioneer	511A	58	41.1	2.8	0.8	3.8	77.9	2.2
DeKalb	XL394	57	18.4	2.8	0.6	4.2	84.8	2.3
Funk's	G-795W-1	55	40.9	3.1	0.8	3.7	80.7	2.4
McNair	S-338	55	25.3	3.0	0.7	3.8	79.7	2.5
Funk's	G-4864	51	17.3	3.1	0.6	4.0	83.8	2.1
Ring Around	2602W	48	20.0	2.6	0.6	4.0	77.5	2.4

[1/]Belle Mina, Crossville, and Winfield.
[2/]Yields 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 in Northern Alabama, 1978[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
Trojan	TXS 115A	93	10.7	2.8	0.8	4.0	86.9	2.3	78
Ring Around	2501	92	10.9	2.3	0.8	3.6	82.1	2.2	77
Paymaster	UC 8951	91	13.3	2.2	0.8	4.0	82.8	2.3	78
P-A-G	SX 17A	91	30.1	2.7	0.8	3.8	84.5	3.1	80
Ring Around	1501	91	7.1	2.5	0.8	3.9	86.6	2.8	77
Pioneer	3369A	90	20.5	2.6	0.9	3.8	84.7	2.7	77
Ring Around	1502	90	8.5	2.6	0.8	3.8	82.2	2.0	77
Security	SS-112	89	9.3	2.5	0.8	3.9	82.9	2.8	78
Trojan	TXS 114	87	6.3	2.7	0.8	3.9	84.0	2.6	77
McCurdy	MSX 84aa	87	12.5	2.7	0.8	3.9	83.4	2.4	78
Pioneer	3147	87	7.5	2.6	0.8	3.7	81.4	3.1	81
Northrup,King	PX 79	85	10.5	2.4	0.8	3.9	87.6	3.5	63
Coker	18	84	17.8	2.6	0.8	3.9	85.1	2.5	81
Wilstar	6663	83	17.0	2.8	0.8	4.0	85.1	2.8	77
McCurdy	72-44A	82	28.7	2.8	0.8	4.3	82.6	2.3	79
Funk's	G-4507	82	9.2	2.9	0.7	4.0	85.1	2.7	80
Ring Around	2502	81	10.6	2.7	0.8	3.2	85.0	2.3	79
Coker	22	80	18.0	2.7	0.8	3.9	80.7	2.3	79
McCurdy	67-14	80	30.9	2.4	0.7	3.9	80.0	2.8	81
Funk's	G-4611	79	14.9	2.4	0.8	3.9	81.5	2.5	78
McCurdy	75-200	78	23.1	2.4	0.7	4.2	82.2	2.5	81
Coker	16	77	20.5	2.6	0.8	3.9	83.7	3.3	62
Northrup,King	PX 95	74	18.7	2.8	0.7	4.2	83.3	2.8	81
Northrup,King	PX 723	74	19.6	2.8	0.7	4.1	82.2	2.8	67
McNair	X-170	73	11.2	2.5	0.8	3.7	83.1	2.9	76
DeKalb	XL394	71	19.7	2.6	0.6	4.4	85.0	2.5	83
McNair	X-300	71	14.3	2.8	0.7	3.7	80.3	2.4	80
Funk's	G-4810	70	14.5	2.7	0.8	4.1	78.9	2.3	65
Paymaster	UC 9792	70	20.8	2.6	0.7	3.9	85.1	2.2	79
Coker	56	70	15.4	2.7	0.8	4.0	81.7	2.8	82
Funk's	G-4776	69	21.4	3.0	0.8	4.2	81.9	2.6	80
DeKalb	XL72b	68	6.4	2.8	0.7	3.5	81.8	2.9	79
[illegible]	XL80	68	34.3	2.6	0.7	3.8	80.6	2.1	81

Table 4. Characteristics of Corn Hybrids in Northern Alabama, 1978[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
Funk's	G-795W-1	66	27.1	3.1	0.8	3.9	78.8	2.3	82
Golden Harvest	H-2740A	66	28.3	2.7	0.6	4.2	84.2	2.3	79
Pioneer	511A	65	32.4	2.8	0.8	4.0	78.0	2.2	82
Funk's	G-4864	60	9.9	2.6	0.6	4.2	82.7	1.9	83
Ring Around	2602W	59	12.2	2.1	0.6	4.2	76.7	2.1	82
Asgrow	RX114	58	8.6	2.5	0.7	3.7	78.4	2.1	81

[1/] Belle Mina, Crossville, and Winfield.
[2/] Yields adjusted to 15.5% moisture and 56 lb. per bushel.
[3/] 1 = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

Table 5. 1978 Yield of Corn Hybrids by Location and Regional Averages for 1-5 Years in Northern Alabama[1/]

Brand name	Hybrid	Belle Mina	Crossville	Winfield	Regional average yield per acre				
					1-yr. 1978	2-yr. 1977-78	3-yr. 1976-78	4-yr. 1975-78	5-yr. 1974-78
		Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.
Pioneer	3369A	141	72	57	90	79	99	109	114
Pioneer	3147	124	83	54	87	77	94	107	113
McCurdy	67-14	152	55	32	80	65	84	98	103
Coker	16	123	66	43	77	68	86	97	100
McNair	X-300	115	62	35	71	62	83	92	98
DeKalb	XL80	119	54	32	68	61	80	89	97
Coker	56	106	68	35	70	61	81	93	96
Pioneer	511A	103	63	28	65	58	80	92	96
Funk's	G-4864	116	36	29	60	51	76	91	96
Funk's	G-795W-1	95	64	38	66	55	75	90	95
McNair	S-338	106	61	34	67	55	77	87	94
Funk's	G-4810	108	60	43	70	60	82	94	
Funk's	G-4507	124	63	58	82	71	91		
Funk's	G-4611	116	64	55	79	69	91		
Coker	22	118	73	50	80	69	90		
Coker	18	123	87	44	84	69	89		
DeKalb	XL394	133	56	24	71	57	82		
Ring Around	1502	126	83	60	90	76			
Trojan	TXS 114	143	67	52	87	75			
McCurdy	72-44A	122	83	40	82	73			
Paymaster	UC 9792	98	69	43	70	67			
Funk's	G-4776	111	55	41	69	58			
Ring Around	2602W	102	50	26	59	48			
Trojan	TXS 115A	150	79	50	93				
Ring Around	2501	138	71	67	92				
Ring-Around	1501	149	69	54	91				
Paymaster	UC 8951	143	75	56	91				
P-A-G	SX 17A	155	78	40	91				
Security	SS-112	147	62	59	89				
McCurdy	MSX 84aa	135	68	59	87				
Northrup,King	PX 795	149	53	54	85				
[illegible]	6663	122	75	51	83				

Table 5. 1978 Yield of Corn Hybrids by Location and Regional Averages for 1-5 Years in Northern Alabama[1/] (Continued)

Brand name	Hybrid	Belle Mina	Crossville	Winfield	Regional average yield per acre 1-yr. 1978	2-yr. 1977-78	3-yr. 1976-78	4-yr. 1975-78	5-yr. 1974-78
		Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.
McCurdy	75-200	121	77	34	78				
Northrup,King	PX 95	134	57	32	74				
Northrup,King	PX 723	120	66	35	74				
McNair	X-170	107	64	48	73				
DeKalb	XL72b	103	61	41	68				
Golden Harvest	H-2740A	131	43	23	66				
Asgrow	RX114	99	43	32	58				
Test average:		124	65	43					
L.S.D. (.05):		25	13	14					
C.V.(%):		17.5	16.6	27.0					

[1/] Yields adjusted to 15.5% moisture and 56 lb. per bushel.

Table 6. Characteristics of Corn Hybrids Tested Three Years in Central Alabama, 1976-78[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
Pioneer	3147	48	19.3	3.2	0.7	3.7	78.8	2.6
Pioneer	3369A	44	20.2	2.9	0.7	3.4	80.6	2.5
McNair	508	43	16.5	2.6	0.8	4.3	74.9	2.1
Pioneer	3368A	43	21.1	2.9	0.7	3.5	79.9	2.5
Funk's	G-4507	42	20.3	3.5	0.6	3.6	78.8	2.9
Coker	56	42	23.1	2.7	0.7	3.8	76.6	2.3
Pioneer	3145	41	17.1	2.9	0.7	3.8	75.1	1.8
Coker	18	41	24.5	3.3	0.7	3.6	78.3	2.2
Coker	77	40	24.3	2.8	0.6	4.3	78.0	2.1
DeKalb	XL394	40	24.0	2.6	0.6	4.1	77.7	1.7
Funk's	G-795W-1	40	30.2	3.2	0.7	3.7	75.2	1.9
Funk's	G-4611	40	20.0	3.2	0.6	3.6	79.5	2.2
Pioneer	511A	40	31.1	2.9	0.7	3.8	76.3	1.9
Funk's	G-4810	40	21.4	3.1	0.6	3.7	75.2	2.3
Coker	16	39	25.3	3.2	0.6	3.3	77.2	2.6
Coker	54	38	25.7	2.5	0.7	3.9	75.6	1.8
Pioneer	3009	38	28.7	2.7	0.6	3.9	72.6	1.8
McNair	X-300	37	24.4	3.2	0.6	3.4	77.1	2.3
McCurdy	67-14	37	21.8	2.6	0.5	3.5	76.8	2.0
Funk's	G-5945	37	24.6	2.5	0.6	4.2	79.6	1.9
Funk's	G-4949A	37	24.0	2.8	0.6	4.2	75.9	2.3
Coker	22	36	24.3	3.2	0.6	3.5	76.8	2.2
DeKalb	XL80	36	20.0	3.1	0.6	3.4	77.4	2.3
DeKalb	XL395	36	18.2	2.6	0.6	4.2	78.4	2.0
Funk's	G-4864	33	15.5	2.8	0.5	3.9	75.6	1.9
McNair	S-338	30	24.1	3.4	0.5	3.5	73.1	2.4

1/ Camden, Camp Hill, Prattville, and E. V. Smith Research Center (1977 data is from Prattville only).

Table 7. Characteristics of Corn Hybrids Tested Two Years in Central Alabama, 1977-78[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
Pioneer	3147	39	8.6	3.8	0.7	3.8	76.1	2.9
Trojan	TXS 114	36	6.0	3.4	0.7	3.8	74.4	2.3
Ring Around	2502	35	13.1	3.6	0.6	3.3	73.6	3.0
Pioneer	3368A	34	13.8	3.4	0.7	3.7	76.3	2.8
Pioneer	3145	32	15.2	3.5	0.6	4.1	71.5	1.8
McNair	508	32	11.6	2.9	0.7	4.3	71.1	2.3
Pioneer	3369A	32	12.0	3.3	0.6	3.8	77.9	2.8
Coker	56	32	15.1	3.1	0.6	4.0	73.4	2.7
Ring Around	1502	31	11.0	3.3	0.6	3.6	76.0	1.9
Funk's	G-4507	31	7.0	3.8	0.5	3.9	74.9	3.3
Coker	18	31	18.8	3.8	0.6	3.9	73.0	2.4
Wilstar	6663	30	8.9	3.7	0.7	3.9	73.4	3.2
Pioneer	511A	30	26.6	3.4	0.6	4.0	73.5	2.1
Funk's	G-795W-1	30	22.6	3.6	0.6	3.7	70.9	2.0
Coker	16	29	15.2	3.6	0.6	3.7	73.4	2.7
DeKalb	XL394	29	16.0	3.1	0.5	4.4	73.2	1.7
Funk's	G-4949A	28	13.0	3.2	0.6	4.4	72.2	2.6
Funk's	G-4810	28	11.7	3.6	0.5	4.0	70.0	2.5
DeKalb	XL395	28	14.9	3.0	0.5	4.3	76.1	2.2
Coker	77	28	16.2	3.2	0.5	4.5	74.1	2.4
Paymaster	UC 9792	27	13.9	3.3	0.5	3.8	72.5	1.8
Funk's	G-4776	27	12.6	3.6	0.6	4.1	71.0	2.4
McNair	X-300	27	18.7	3.7	0.5	3.6	74.0	2.6
Funk's	G-5945	26	21.1	2.9	0.5	4.4	75.0	2.1
Coker	22	26	18.9	3.6	0.5	3.8	72.6	2.5
Funk's	G-4611	26	10.1	3.5	0.5	3.9	75.6	2.4
McCurdy	67-14	26	16.5	3.0	0.4	3.8	71.9	2.1
Coker	54	26	16.4	2.9	0.6	3.9	71.4	2.0
Pioneer	3009	25	20.2	3.3	0.5	4.1	67.8	1.9
Asgrow	RX114	25	16.8	3.5	0.5	3.8	68.3	2.2

Table 7. Characteristics of Corn Hybrids Tested Two Years in Central Alabama, 1977-78[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
DeKalb	XL80	22	15.6	3.7	0.5	3.8	72.1	2.6
McNair	S-338	19	15.8	4.0	0.5	3.7	65.5	2.6
Funk's	G-4864	17	8.5	3.4	0.4	4.2	67.9	2.1

[1/] Camden, Camp Hill, Prattville, and E. V. Smith Research Center (1977 data is from Prattville only).
[2/] Yields 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 in Central Alabama, 1978[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
Funk's	G-4507	49	7.0	2.7	0.7	3.9	85.5	2.7	69
Trojan	TXS 114	48	6.0	2.4	0.8	3.8	81.0	2.3	67
Ring Around	1502	47	11.0	1.9	0.7	3.6	84.1	2.2	67
Pioneer	3147	44	8.6	2.9	0.7	3.8	82.2	2.9	73
Ring Around	2502	43	13.1	2.4	0.6	3.3	83.8	2.8	66
Wilstar	6663	42	8.9	2.4	0.8	3.9	84.9	3.0	67
Coker	18	41	18.8	2.5	0.7	3.9	84.2	2.5	69
Pioneer	3368A	41	13.8	2.3	0.7	3.7	83.6	2.6	68
Paymaster	UC 9792	39	13.9	2.2	0.6	3.8	81.9	2.3	70
Security	SS-112	39	4.8	2.8	0.7	3.8	85.4	3.0	68
Coker	16	39	15.2	2.6	0.7	3.7	83.6	3.1	67
Pioneer	3145	39	15.2	2.6	0.6	4.1	80.1	2.0	72
Northrup, King	PX 675	38	7.1	2.5	0.6	3.8	85.2	2.9	68
Pioneer	3369A	38	12.0	2.4	0.6	3.8	85.0	2.6	68
Coker	22	38	18.9	2.4	0.6	3.8	84.4	2.8	68
Ring Around	3602	37	19.0	2.3	0.6	4.1	85.1	1.8	72
McNair	X-300	36	18.7	2.7	0.6	3.6	80.5	2.5	68
Asgrow	RX140A	35	11.6	2.1	0.6	4.1	76.0	1.9	74
Funk's	G-4810	35	11.7	2.4	0.5	4.0	80.0	2.4	70
McCurdy	67-14	34	16.5	1.8	0.5	3.8	80.5	1.9	72
Pioneer	511A	34	26.6	2.3	0.6	4.0	76.6	1.9	75
Coker	56	34	15.1	2.3	0.6	4.0	76.1	2.4	74
Funk's	G-4776	34	12.6	2.5	0.6	4.1	76.1	2.8	71
Funk's	G-4611	33	10.1	2.3	0.5	3.9	84.6	2.5	70
Funk's	G-795W-1	31	22.6	2.7	0.6	3.7	75.8	2.1	74
Golden Harvest	H-2775	31	18.9	2.7	0.6	3.6	79.3	1.9	70
DeKalb	XL394	30	16.0	1.9	0.4	4.4	79.9	1.8	71
Asgrow	RX114	30	16.8	2.4	0.5	3.8	81.6	2.1	72
Northrup, King	PX 95	29	24.9	2.3	0.5	4.2	82.2	2.0	69
DeKalb	XL80	29	15.6	2.4	0.4	3.8	79.5	1.9	69
Ring Around	2601	28	14.0	2.1	0.4	4.0	80.9	2.1	71

Table 8. Characteristics of Corn Hybrids Tested in Central Alabama, 1978[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
McNair	S-338	28	15.8	3.0	0.6	3.7	75.6	2.8	72
Coker	54	26	16.4	2.1	0.5	3.9	72.0	1.7	74
Pioneer	3009	26	20.2	2.5	0.5	4.1	72.8	1.9	71
Funk's	G-4949A	26	13.0	2.2	0.5	4.4	76.8	2.1	70
McNair	508	25	11.6	2.5	0.5	4.3	67.5	2.2	79
Funk's	G-5945	24	21.1	2.1	0.4	4.4	78.4	2.1	78
Coker	77	23	16.2	1.9	0.4	4.5	76.8	2.4	78
Funk's	G-4864	21	8.5	2.3	0.4	4.2	81.4	2.1	77
DeKalb	XL395	20	14.9	2.2	0.4	4.3	76.5	2.1	79

[1/] Camden, Camp Hill, Prattville, and E. V. Smith Research Center.
[2/] Yields adjusted to 15.5% moisture and 56 lb. per bushel.
[3/] 1 = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

Table 9. 1978 Yield of Corn Hybrids by Location and Regional Averages for 1-5 Years in Central Alabama[1/]

Brand name	Hybrid	Camden	Camp Hill	Prattville	E. V. Smith Research Center	Regional average yield per acre 1-yr. 1978	2-yr. 1977-78	3-yr. 1976-77	4-yr. 1975-78	5-yr. 1974-78
		Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.
Pioneer	3147	36	51	54	33	44	39	48	61	67
Coker	77	9	24	35	24	23	28	40	59	63
Pioneer	3369A	12	50	64	26	38	32	44	58	62
Funk's	G-795W-1	19	28	42	35	31	30	40	54	62
Pioneer	511A	22	33	47	34	34	30	40	53	60
McNair	508	25	23	22	31	25	32	43	56	59
Coker	56	28	39	36	32	34	32	42	53	58
Pioneer	3009	14	34	31	27	26	25	38	52	57
McCurdy	67-14	28	45	36	28	34	26	37	52	56
Funk's	G-5945	15	24	29	28	24	26	37	52	56
McNair	X-300	19	38	47	40	36	27	37	53	55
Funk's	G-4949A	15	30	37	22	26	28	37	49	54
Funk's	G-4864	8	32	25	18	21	17	33	48	53
McNair	S-338	18	37	35	22	28	19	30	46	51
DeKalb	XL394	24	36	32	29	30	29	40	55	
Funk's	G-4810	32	39	43	27	35	28	40	54	
Coker	16	32	46	51	26	39	29	39	52	
Coker	54	25	25	30	26	26	26	38	50	
DeKalb	XL80	17	30	43	25	29	22	36	50	
Pioneer	3368A	21	43	59	39	41	34	43		
Funk's	G-4507	60	45	67	24	49	31	42		
Pioneer	3145	17	44	57	38	39	32	41		
Coker	18	39	41	50	35	41	31	41		
Funk's	G-4611	23	37	50	22	33	26	40		
DeKalb	XL395	6	23	25	26	20	28	36		
Coker	22	18	48	56	28	38	26	36		
Trojan	TXS 114	50	46	57	40	48	36			
Ring Around	2502	42	41	54	36	43	35			
Ring Around	1502	39	46	66	40	47	31			
Wilstar	6663	37	38	65	29	42	30			
Paymaster	UC 9792	34	34	52	37	39	27			

Table 9. 1978 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	E. V. Smith Research Center	Regional average yield per acre 1-yr. 1978	2-yr. 1977-78	3-yr. 1976-77	4-yr. 1975-78	5-yr. 1974-78
		Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.
Funk's	G-4776	29	38	38	29	34	27			
Asgrow	RX114	32	25	44	20	30	25			
Security	SS-112	16	48	69	23	39				
Northrup,King	PX 675	27	43	58	25	38				
Ring Around	3602	26	43	48	31	37				
Asgrow	RX140A	43	31	33	34	35				
Golden Harvest	H-2775	19	32	42	31	31				
Northrup,King	PX 95	7	35	41	32	29				
Ring Around	2601	21	33	38	21	28				
Test Average:		25	37	45	29					
L.S.D. (.05):		17	13	8	11					
C.V.(%):		58.4	28.7	14.6	31.0					

[1/] Yield adjusted to 15.5% moisture and 56 lb. per bushel.

Table 10. Characteristics of Corn Hybrids Tested Three Years in Southern Alabama, 1976-78[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
Pioneer	3368A	108	12.8	2.5	1.0	3.6	80.7	2.7
Ring Around	1502	107	9.5	2.3	1.0	3.0	83.0	2.4
Coker	22	106	16.7	2.5	0.9	3.1	82.4	2.5
Pioneer	3369A	105	13.3	2.4	0.9	2.9	82.8	3.0
Funk's	G-4507	105	18.3	2.7	0.9	3.1	83.3	3.0
Pioneer	3147	104	17.3	2.5	0.9	3.2	82.7	2.8
McCurdy	67-14	104	18.2	1.8	0.9	2.9	80.3	2.7
Coker	16	102	12.3	2.2	1.0	2.7	82.2	3.0
DeKalb	XL80	101	18.9	2.0	0.9	2.7	80.6	2.4
Coker	77	101	19.9	2.2	1.0	3.8	81.0	2.5
Coker	18	101	20.9	2.4	0.9	3.1	83.5	2.6
Funk's	G-4611	100	17.8	2.1	0.9	3.0	82.8	2.4
Funk's	G-4810	99	13.9	2.1	0.9	3.2	81.1	2.8
DeKalb	XL394	99	17.0	2.1	1.0	3.5	82.6	2.4
Pioneer	3145	99	11.0	2.1	1.0	3.2	79.5	2.0
Funk's	G-795W-1	98	26.4	2.0	1.0	3.3	80.8	2.2
Pioneer	511A	98	24.4	1.8	1.0	3.4	80.6	2.3
McNair	X-300	97	18.0	2.2	0.9	2.8	80.7	2.4
McNair	S-338	96	23.3	2.3	0.9	3.0	80.8	2.5
Funk's	G-4949A	95	19.7	2.1	0.9	3.5	80.0	2.7
McNair	508	94	14.5	2.2	1.1	3.7	81.9	2.1
Funk's	G-4864	94	13.0	1.9	0.9	3.3	82.8	1.9
Pioneer	3030	93	18.3	2.0	1.0	3.4	77.3	1.8
P-A-G	751	88	24.8	2.1	1.0	3.6	80.3	2.0
Funk's	G-5945	88	21.9	2.3	0.9	3.5	81.6	2.3
Pioneer	3009	88	26.5	2.1	0.9	3.4	77.2	2.1
Coker	54	85	22.5	1.9	1.0	3.4	80.2	2.0

[1/] Brewton, Fairhope, Headland, and Monroeville. (The test at Headland was irrigated in 1978).
[2/] Yields adjusted to 15.5% moisture and 56 lb. per bushel.
[3/] 1 = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

Table 11. Characteristics of Corn Hybrids Tested Two Years in Southern Alabama, 1977-78[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
Pioneer	3368A	93	17.6	2.3	0.9	2.7	83.0	2.7
Trojan	TXS 114	92	18.6	2.6	1.0	2.6	81.4	2.5
Ring Around	1502	91	11.5	2.5	0.9	2.8	82.7	2.3
Ring Around	2502	91	19.4	2.6	0.9	2.5	82.3	2.5
Funk's	G-4507	90	23.5	3.0	0.9	2.9	82.7	2.9
Ring Around	1501	90	13.5	3.2	0.9	2.8	82.2	3.0
Coker	16	89	16.2	2.3	1.0	2.5	82.0	2.8
Pioneer	3369A	89	18.0	2.5	0.9	2.7	82.1	2.9
Coker	22	89	20.5	2.8	0.9	2.9	81.7	2.5
McCurdy	67-14	88	20.1	2.0	0.9	2.6	79.9	2.7
Pioneer	3147	87	16.5	2.8	0.9	2.9	81.7	2.8
Pioneer	3145	86	13.7	2.3	0.9	2.9	78.9	2.1
Funk's	G-4810	85	17.7	2.4	0.9	3.0	80.3	2.7
Funk's	G-4611	85	22.2	2.3	0.9	2.8	82.2	2.5
Pioneer	511A	84	26.6	2.1	0.9	3.1	80.2	2.3
DeKalb	XL80	84	21.8	2.2	0.9	2.5	80.2	2.6
Coker	77	84	19.8	2.5	0.9	3.4	80.2	2.5
Funk's	G-4776	83	24.3	2.4	0.9	3.0	81.9	2.8
DeKalb	XL395A	83	13.9	2.3	0.9	3.1	79.6	2.3
Coker	18	82	26.1	2.8	0.9	2.8	83.0	2.6
Funk's	G-4949A	82	17.5	2.3	0.9	3.2	78.9	2.8
McNair	X-300	81	23.9	2.3	0.9	2.5	80.0	2.4
DeKalb	XL394	81	15.3	2.3	0.9	3.2	81.7	2.6
McNair	S-338	80	24.7	2.5	0.8	2.7	79.9	2.5
Funk's	G-4864	80	14.8	2.1	0.8	3.0	81.6	2.1
Funk's	G-795W-1	79	28.1	2.3	0.9	2.9	79.9	2.2
Pioneer	3030	77	17.5	2.2	0.9	3.1	75.9	2.0
McNair	508	75	15.6	2.4	1.0	3.3	81.2	2.1

Table 11. Characteristics of Corn Hybrids Tested Two Years in Southern Alabama, 1977-78[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
Pioneer	3009	74	27.1	2.3	0.8	3.1	76.5	2.4
DeKalb	XL395	72	17.0	2.3	0.8	3.2	81.2	2.4
P-A-G	751	72	24.7	2.3	0.9	3.2	79.7	2.0
Funk's	G-5945	72	19.2	2.5	0.8	3.1	80.6	2.3
Coker	54	69	21.6	2.0	0.9	2.9	79.3	2.1

[1/] Brewton, Fairhope, Headland, and Monroeville. (The test at Headland was irrigated in 1978)
[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 in Southern Alabama, 1978[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
Coker	22	130	6.9	2.2	1.0	3.2	84.5	2.4	74
Pioneer	3369A	128	6.6	1.9	1.0	2.9	83.7	3.0	72
McCurdy	MSX 84aa	128	9.4	2.1	1.0	3.2	83.9	2.5	72
Coker	77	128	18.1	1.8	1.2	3.8	83.3	2.8	80
Pioneer	3368A	127	5.3	1.6	1.0	2.9	84.2	2.6	74
Funk's	G-4507	123	11.8	2.0	1.0	3.1	85.1	2.9	72
Security	SS-112	122	6.5	2.1	1.0	3.2	84.5	2.8	72
Golden Harvest	H-2500	122	6.6	2.3	1.0	3.1	84.2	2.7	72
Ring Around	2502	120	5.6	2.1	1.0	2.8	84.1	2.5	73
Funk's	G-4949A	120	16.6	1.5	1.0	3.7	81.9	2.8	77
Pioneer	3147	120	6.9	2.1	1.0	3.3	83.8	3.1	77
Ring Around	1502	120	3.4	2.0	1.0	3.0	84.3	2.4	72
Funk's	G-4810	120	10.5	1.7	1.0	3.1	81.9	3.1	74
Ring Around	1501	120	8.4	2.4	1.0	3.1	84.3	3.0	73
Coker	16	119	5.2	1.8	1.0	2.4	83.6	2.9	70
Funk's	G-4776	118	12.0	1.6	1.0	3.4	83.9	2.9	76
McCurdy	67-14	118	12.7	1.4	1.0	2.8	80.7	2.8	76
Coker	18	117	10.4	1.8	1.0	3.1	85.0	2.4	75
Pioneer	511A	117	18.2	1.7	1.1	3.4	81.9	2.4	77
Trojan	TXS 114	117	11.6	1.9	1.0	2.8	83.4	2.6	72
Northrup, King	PX 79	116	5.1	2.1	1.0	3.2	84.7	2.9	75
McNair	S-338	116	13.2	1.9	1.0	2.9	82.0	2.8	76
DeKalb	XL395A	115	14.5	1.6	1.0	3.3	81.5	2.4	79
Pioneer	3145	114	7.4	1.7	1.0	3.3	80.4	2.2	74
Trojan	TXS 115A	114	7.5	2.1	1.0	3.1	84.5	2.8	72
Funk's	G-4611	114	4.9	1.6	0.9	2.9	83.7	2.6	74
DeKalb	XL80	114	12.0	1.3	1.0	2.5	81.0	2.5	73
McNair	X-300	113	9.7	1.7	1.1	2.6	81.7	2.3	74
DeKalb	XL394	112	18.5	1.9	1.1	3.6	83.2	2.8	77

Table 12. Characteristics of Corn Hybrids Tested in Southern Alabama, 1978[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
Pioneer	3030	112	12.5	1.6	1.1	3.4	78.6	2.0	79
Golden Harvest	H-2666	111	7.2	1.8	1.0	2.6	83.1	2.5	72
Funk's	G-4864	110	9.4	1.5	1.0	3.2	83.1	1.9	77
McNair	508	108	17.4	1.7	1.3	3.7	83.4	2.2	81
Funk's	G-795W-1	107	26.7	1.9	1.1	3.4	81.2	2.1	76
Pioneer	3009	104	24.9	1.5	1.0	3.3	77.8	2.6	76
DeKalb	XL395	104	9.7	1.6	1.0	3.5	83.5	2.8	79
P-A-G	751	103	21.3	1.7	1.2	3.5	81.3	2.1	82
McNair	X-170	100	4.5	1.8	1.0	2.4	83.9	3.3	70
Funk's	G-5945	100	18.5	2.1	1.0	3.4	82.4	2.5	78
Coker	54	94	18.1	1.4	1.1	3.1	81.3	2.3	77

[1/] Brewton, Fairhope, Headland, and Monroeville. (The test at Headland was irrigated in 1978).
[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. 1978 Yield of Corn Hybrids by Location and Regional Averages for 1-5 Years in Southern Alabama[1/]

Brand name	Hybrid	Fairhope	Brewton	Monroeville	Head-land[2/]	Regional average yield per acre 1-yr. 1978	2-yr. 1977-78	3-yr. 1976-78	4-yr. 1975-78	5-yr. 1974-78
		Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.
Pioneer	3147	151	132	73	125	120	87	104	107	106
Coker	77	149	161	67	134	128	84	101	106	103
Pioneer	3369A	172	140	71	129	128	89	105	105	103
McCurdy	67-14	139	139	70	123	118	88	104	105	102
Funk's	G-795W-1	110	141	61	118	107	79	98	102	101
Pioneer	511A	134	141	63	131	117	84	98	99	98
McNair	S-338	148	142	66	107	116	80	96	99	98
McNair	X-300	142	140	68	103	113	81	97	100	96
Funk's	G-4864	136	129	65	108	110	80	94	96	96
Funk's	G-4949A	132	145	68	136	120	82	95	96	95
McNair	508	125	147	45	116	108	75	94	96	94
Pioneer	3030	135	138	57	119	112	77	93	94	93
Funk's	G-5945	104	125	52	118	100	72	88	94	92
Pioneer	3009	112	128	67	108	104	74	88	92	90
P-A-G	751	123	137	46	108	103	72	88	91	89
Coker	54	99	124	55	98	94	69	85	90	88
Coker	16	152	133	74	115	119	89	102	102	
DeKalb	XL80	137	135	73	110	114	84	101	102	
Funk's	G-4810	144	145	71	120	120	85	99	102	
Pioneer	3145	136	126	70	125	114	86	99	100	
DeKalb	XL394	120	137	68	125	112	81	99	100	
Pioneer	3368A	157	145	78	128	127	93	108		
Ring Around	1502	154	146	74	105	120	91	107		
Coker	22	164	162	69	124	130	89	106		
Funk's	G-4507	138	154	92	108	123	90	105		
Coker	18	169	137	66	98	117	82	101		
Funk's	G-4611	145	124	77	109	114	85	100		
Trojan	TXS 114	156	137	71	104	117	92			
Ring Around	2502	147	140	80	114	120	91			
Ring Around	1501	133	149	82	114	120	90			

Table 13. 1978 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[2/]	Regional average yield per acre: 1-yr. 1978	2-yr. 1977-78	3-yr. 1976-78	4-yr. 1975-78	5-yr. 1974-78
		Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.
Funk's	G-4776	151	147	56	119	118	83			
DeKalb	XL395A	149	143	58	111	115	83			
DeKalb	XL395	123	134	52	106	104	72			
McCurdy	MSX 84aa	151	148	87	125	128				
Security	SS-112	136	150	87	116	122				
Golden Harvest	H-2500	142	147	87	112	122				
Northrup,King	PX 79	143	140	70	112	116				
Trojan	TXS 115A	125	147	83	99	114				
Golden Harvest	H-2666	136	128	63	115	111				
McNair	X-170	128	128	51	93	100				
Test average:		139	140	68	115					
L.S.D. (.05):		16	9	11	14					
C.V.(%):		9.7	5.6	14.0	10.5					

[1/] Yield adjusted to 15.5% moisture and 56 lb. per bushel.

[2/] Test test at Headland was irrigated in 1978.

Table 14. Characteristics of Corn Hybrids Tested Under Irrigation Three Years at the Lower Coastal Plain Substation, 1976-78[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
Pioneer	3147	112	14.8	1.7	1.0	3.8	73.6	2.0
McNair	508	110	16.9	1.3	1.2	4.1	70.7	2.1
Funk's	G-4949A	109	21.1	1.4	1.0	4.3	72.1	2.1
Pioneer	3368A	107	7.9	1.6	0.9	3.6	75.3	2.4
Coker	77	105	26.6	1.3	1.2	4.2	71.5	1.8
Pioneer	511A	103	30.8	1.6	1.0	3.8	71.7	1.8
Funk's	G-4507	103	14.5	2.2	0.9	3.5	75.5	2.3
McCurdy	67-14	103	25.1	1.4	0.9	3.3	72.1	1.9
DeKalb	XL394	103	26.4	1.3	1.0	4.1	72.3	2.0
Coker	22	101	27.9	1.6	0.9	3.5	75.3	1.9
DeKalb	XL395	100	16.9	1.3	1.0	4.0	73.4	2.0
Pioneer	3145	100	10.1	1.7	1.0	3.9	68.9	1.8
Funk's	G-5945	100	26.9	1.3	0.9	4.1	72.4	2.0
McNair	X-300	100	26.6	1.7	1.0	3.3	71.8	1.9
Coker	56	100	22.3	1.4	1.0	3.9	71.5	2.0
McNair	S-338	99	21.5	1.7	1.0	3.5	70.8	2.1
Pioneer	3369A	99	19.2	1.8	0.9	3.5	75.7	2.4
Funk's	G-4810	98	22.0	1.6	1.0	3.7	72.0	2.3
Funk's	G-795W-1	97	35.9	1.7	0.9	3.7	71.1	1.8
Coker	16	96	18.5	1.8	0.9	3.1	75.5	2.3
Coker	18	94	20.9	1.8	0.9	3.5	76.4	2.0
Coker	54	92	40.7	1.4	1.0	3.8	71.6	1.5
Pioneer	3009	92	20.6	1.8	1.0	3.7	65.1	1.8
Funk's	G-4864	92	34.6	1.4	0.9	3.8	71.9	1.9
Funk's	G-4611	89	21.0	1.8	0.9	3.5	74.5	2.0
DeKalb	XL80	87	35.6	1.8	0.9	3.1	72.0	1.4

1/ Planted in 30-inch rows in 1976 and 36-inch rows in 1977 and 1978.
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 15. Characteristics of Corn Hybrids Tested Under Irrigation Two Years at the Lower Coastal Plain Substation, 1977-78[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	113	13.5	2.0	0.9	3.5	74.9	2.5
Pioneer	3147	112	18.9	2.0	1.0	4.0	72.6	2.0
Coker	77	111	23.6	1.5	1.3	4.1	70.9	1.8
Pioneer	3368A	111	9.8	1.9	0.9	3.8	74.8	2.4
Pioneer	3369A	111	24.2	2.0	1.0	3.8	76.3	2.4
Ring Around	2502	110	15.8	1.5	1.0	3.2	75.5	1.9
Funk's	G-4949A	107	25.4	1.6	1.0	4.4	71.1	2.1
McNair	508	107	18.6	1.5	1.2	4.1	69.4	2.1
Pioneer	3145	106	10.9	1.9	1.0	4.1	68.8	1.8
Funk's	G-4810	106	26.7	1.9	1.0	3.9	71.9	2.3
Coker	16	106	20.7	1.9	1.0	3.3	76.4	2.3
Funk's	G-4507	106	17.5	2.8	0.9	3.6	75.4	2.3
Asgrow	RX114	103	28.5	1.5	0.9	3.9	76.3	1.8
Pioneer	511A	103	39.1	1.9	1.0	3.9	71.1	1.8
Coker	56	103	25.3	1.6	1.0	4.1	70.7	2.0
McCurdy	67-14	102	28.6	1.6	0.9	3.5	71.4	1.9
McNair	X-300	101	37.2	2.0	1.0	3.4	71.3	1.9
Coker	22	100	34.9	1.9	0.9	3.6	75.6	1.9
Wilstar	6663	100	16.7	2.8	0.9	3.7	76.5	2.3
McNair	S-338	99	20.4	2.0	1.0	3.7	69.2	2.1
DeKalb	XL394	99	31.8	1.4	1.0	4.1	71.5	2.0
Funk's	G-4776	97	25.5	1.8	0.9	4.1	74.3	1.9
Funk's	G-795W-1	97	44.1	2.0	1.0	3.8	70.5	1.8
Paymaster	UC 9792	96	37.8	1.6	0.9	3.7	71.8	2.0
Funk's	G-5945	96	32.4	1.5	0.9	4.1	71.6	2.0
Coker	18	96	26.7	1.9	0.9	3.6	76.4	2.0
DeKalb	XL395	94	19.0	1.5	0.9	3.9	72.6	2.0
Trojan	TXS 114	94	28.0	2.3	1.0	3.5	74.4	1.6
Funk's	G-4611	93	23.0	2.3	0.9	3.7	75.3	2.0
Pioneer	3009	92	24.9	2.1	1.0	4.0	64.4	1.8

Table 15. Characteristics of Corn Hybrids Tested Under Irrigation Two Years at the Lower Coastal Plain Substation, 1977-78[1/] (Continued)

Brand name	Hybrid	Yield per acre[2/]	Lodged stalk	Quality[3/]	Ears per stalk	Height of ears	Shelling	Husk[3/]
		Bu.	Pct.	Rating	No.	Ft.	Pct.	Rating
Coker	54	87	46.5	1.6	0.9	3.9	70.7	1.5
DeKalb	XL80	84	41.8	2.3	0.9	3.1	71.4	1.4
Funk's	G-4864	83	48.5	1.6	0.9	3.9	70.1	1.9

[1/] Planted in 30-inch rows in 1976 and 36-inch rows in 1977 and 1978.
[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 16. Characteristics of Corn Hybrids Tested Under Irrigation One Year at the Lower Coastal Plain Substation, 1978[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	3369A	122	21.4	2.0	1.0	4.1	76.1	2.8	64
Northrup, King	PX 95	112	30.2	1.8	0.9	4.8	70.8	3.0	64
Pioneer	3368A	111	12.8	2.0	0.9	3.9	74.0	3.3	65
Coker	16	111	30.8	2.0	0.9	3.5	76.1	3.3	65
Ring Around	1502	111	23.7	2.0	0.9	3.6	72.7	3.0	64
Wilstar	6663	110	22.7	2.5	0.8	4.1	78.0	3.0	65
Funk's	G-4507	110	25.4	2.3	0.9	3.9	78.0	2.8	65
Coker	56	108	36.6	1.8	1.0	4.4	69.4	3.0	69
DeKalb	XL80	107	20.4	2.0	1.0	3.4	71.3	1.8	65
Funk's	G-4810	107	31.2	2.0	1.0	4.3	70.2	3.3	65
Security	SS-112	107	7.3	2.0	0.9	4.2	76.8	2.5	65
Pioneer	511A	106	48.8	2.3	1.0	4.5	69.4	2.5	68
Funk's	G-4949A	106	37.8	2.0	0.9	4.8	69.5	3.0	68
Coker	22	106	46.2	2.0	0.9	3.9	76.1	2.8	65
Coker	77	105	40.3	1.8	1.2	4.6	69.2	2.5	69
Pioneer	3147	105	26.5	2.3	0.9	4.1	72.0	2.8	65
Northrup, King	PX 675	105	13.3	2.0	0.9	4.0	76.7	3.0	65
Trojan	TXS 114	103	35.5	2.3	1.0	3.7	75.1	2.0	64
Ring Around	2502	103	26.2	1.8	1.0	3.2	74.4	2.8	64
DeKalb	XL394	103	38.4	1.5	1.0	4.5	70.0	3.0	69
McNair	508	101	28.6	1.8	1.1	4.3	67.9	3.3	73
Golden Harvest	H-2775	101	48.0	2.8	1.0	3.7	69.2	2.5	68
McNair	S-338	100	24.6	2.0	1.0	4.0	68.5	3.3	65
Asgrow	RX140A	100	45.4	2.0	0.9	4.1	68.6	2.0	67
Funk's	G-4776	100	39.1	2.0	0.9	4.2	73.5	2.3	67
Pioneer	3145	98	12.9	2.0	0.9	4.5	65.8	2.5	66
McCurdy	67-14	96	35.9	2.0	0.9	3.7	69.0	2.8	66
McNair	X-300	96	58.4	2.5	1.1	3.5	69.5	2.8	65
Ring Around	2601	95	43.9	1.8	0.9	3.7	70.3	2.3	68
DeKalb	XL395	95	27.5	1.8	0.8	4.5	71.2	3.0	71
Funk's	G-5945	93	43.6	1.8	0.9	4.6	69.1	3.0	73

Table 16. Characteristics of Corn Hybrids Tested Under Irrigation One Year at the Lower Coastal Plain Substation, 1978[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
Asgrow	RX114	91	37.6	2.0	0.9	4.1	80.6	2.5	65
Pioneer	3009	88	32.6	2.5	0.9	4.4	62.0	2.5	67
Funk's	G-4611	88	30.3	2.5	0.8	4.2	73.6	2.8	65
Coker	18	87	36.7	2.3	0.8	3.8	76.6	3.0	65
Funk's	G-795W-1	86	54.1	2.3	0.8	4.1	67.8	2.5	66
Paymaster	UC 9792	86	46.8	2.0	0.9	3.9	71.5	3.0	66
Ring Around	3602	79	32.5	2.3	0.9	4.3	67.0	2.5	65
Coker	54	78	46.1	2.0	0.8	4.3	68.2	2.0	68
Funk's	G-4864	76	76.4	2.3	0.8	4.2	69.6	2.8	67
Test average:		100							
L.S.D. (.05):		17							
C.V. (%):		14.6							

1/ Planted in 30-inch rows in 1976 and 36-inch rows in 1977 and 1978.
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 the Black Belt Substation, 1975, 1976, and 1978[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
DeKalb	XL394	77	12.2	2.3	0.9	3.8	82.3	1.8
Pioneer	3145	72	7.4	2.6	0.9	3.8	78.2	2.2
Funk's	G-4864	72	7.1	2.8	0.8	3.9	81.2	1.6
Funk's	G-5945	69	16.4	2.4	0.9	4.1	81.1	2.3
Pioneer	3009	68	14.8	2.9	0.9	4.0	76.9	1.9
McNair	508	66	5.3	2.3	1.0	4.0	79.5	1.9
Pioneer	511A	66	24.4	2.7	0.9	3.8	80.5	1.5
Coker	56	66	4.5	2.3	0.9	3.7	81.0	2.2
Funk's	G-795W-1	64	12.3	2.9	0.9	3.7	77.1	1.5
Funk's	G-4949A	61	14.1	2.8	0.8	4.0	80.2	2.2
Pioneer	3369A	59	26.1	2.6	0.8	3.3	79.0	2.9

[1/] Due to severe drouth and insect damage, no data were collected at this location in 1977. Averages are based on data obtained in 1975, 1976, and 1978.
[2/] Yields adjusted to 15.5% moisture and 56 lb. per bushel.
[3/] 1 = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

Table 18. Characteristics of Corn Hybrids Tested Two Years at the Black Belt Substation, 1976 and 1978[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
Pioneer	3145	67	10.3	2.6	0.9	3.6	76.8	2.3
DeKalb	XL394	67	17.9	2.4	0.8	3.5	80.6	1.9
Funk's	G-4810	63	14.4	3.0	0.8	3.4	77.1	2.4
Funk's	G-4864	61	9.6	3.1	0.8	3.7	79.1	1.6
Funk's	G-4776	61	12.8	2.0	0.9	3.7	79.2	2.1
Pioneer	3009	60	19.0	2.9	0.8	3.5	73.3	1.8
McNair	508	58	6.6	2.4	0.9	3.8	76.7	2.1
Pioneer	511A	58	30.6	2.8	0.8	3.4	79.0	1.5
Funk's	G-5945	57	23.9	2.4	0.8	3.7	79.1	2.5
Coker	56	56	5.3	2.4	0.8	3.6	79.3	2.3
Funk's	G-4507	52	25.7	3.0	0.8	3.3	81.7	3.5
Pioneer	3368A	52	7.7	2.6	0.8	3.2	80.1	3.3
Funk's	G-795W-1	51	17.6	3.1	0.9	3.4	73.2	1.4
Coker	77	50	14.4	2.3	0.8	3.8	79.7	2.0
Funk's	G-4949A	50	17.9	2.6	0.7	3.7	78.9	2.3
McNair	X-300	49	17.5	3.1	0.8	3.2	78.2	2.6
Pioneer	3369A	49	29.4	2.5	0.8	3.3	77.0	3.3
DeKalb	XL395	48	14.0	2.1	0.6	3.6	80.0	2.5
Coker	18	47	7.3	2.8	0.8	3.4	80.8	3.0
Coker	16	46	20.1	2.7	0.8	3.2	78.5	3.5
Coker	54	46	42.6	2.4	0.8	3.4	78.8	2.1
Coker	22	43	21.3	2.9	0.7	3.2	79.8	2.3

1/ Due to severe drouth and insect damage, no data were collected at this location in 1977. Averages are based on data obtained in 1976 and 1978.
2/ Yields adjusted to 15.5% moisture and 56 lb. per bushel.
3/ 1 = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

Table 19. Characteristics of Corn Hybrids Tested One Year at the Black Belt Substation, 1978

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
Pioneer	3147	77	13.1	1.8	0.9	3.7	79.1	3.8	71
Ring Around	2502	72	6.5	1.8	0.9	3.2	80.3	3.3	65
Pioneer	511A	70	41.5	2.8	0.7	3.7	77.9	1.5	69
Pioneer	3145	68	12.2	2.8	0.8	3.7	75.3	2.5	69
Pioneer	3369A	67	39.8	2.3	0.8	3.6	79.7	3.3	63
Funk's	G-4776	67	17.0	1.8	0.9	3.9	78.6	2.0	68
Coker	56	65	5.7	2.5	0.8	3.8	78.3	2.5	72
DeKalb	XL394	65	24.4	2.0	0.7	3.7	79.3	1.5	71
Golden Harvest	H-2775	63	24.3	2.5	0.8	3.4	75.9	2.0	69
McNair	508	63	8.9	2.5	0.9	3.9	75.9	2.5	75
Funk's	G-4864	61	13.4	3.3	0.7	3.6	76.9	2.0	71
Northrup, King	PX 95	59	26.2	3.0	0.8	3.8	80.1	3.3	66
Ring Around	3602	58	30.0	1.8	0.7	3.6	81.2	2.5	67
Funk's	G-4810	58	21.0	2.8	0.7	3.4	75.9	2.5	69
McNair	X-300	58	24.2	3.3	0.7	3.5	77.6	3.0	68
Asgrow	RX114	57	26.8	2.0	0.8	3.3	76.9	2.5	68
Wilstar	6663	55	40.9	2.5	0.6	3.5	82.4	3.8	66
Funk's	G-5945	55	34.2	2.5	0.7	3.5	78.3	2.8	72
Coker	18	55	5.9	2.3	0.8	3.7	79.1	3.3	68
Ring Around	1502	55	10.7	2.5	0.8	3.3	80.7	2.8	66
Pioneer	3009	54	28.0	3.3	0.7	3.5	68.9	2.0	72
Ring Around	2601	54	21.4	2.0	0.8	3.3	77.3	2.5	70
McCurdy	67-14	54	20.2	1.8	0.8	3.3	75.5	1.8	71
Asgrow	RX140A	54	33.5	2.8	0.7	3.2	77.8	2.0	72
Pioneer	3368A	54	10.1	2.5	0.8	3.6	79.9	3.5	68
Funk's	G-795W-1	52	22.6	3.5	0.9	3.4	75.3	1.5	71
McNair	S-338	50	26.6	2.8	0.8	3.1	75.7	3.0	68
Funk's	G-4507	50	37.6	2.8	0.7	3.4	80.7	3.8	65
Paymaster	UC 9792	50	16.1	2.5	0.7	3.3	78.0	2.5	68

Table 19. Characteristics of Corn Hybrids Tested One Year at the Black Belt Substation, 1978 (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
Coker	16	50	31.3	2.0	0.7	3.5	79.2	3.8	66
DeKalb	XL395	49	18.7	2.0	0.6	3.5	78.8	2.5	72
Coker	77	49	16.9	2.0	0.7	3.8	77.9	2.8	73
Northrup, King	PX 675	47	12.3	4.0	0.7	3.2	80.3	2.8	69
Coker	22	45	28.6	2.5	0.7	3.5	78.7	2.3	68
Funk's	G-4611	45	15.3	2.5	0.7	3.1	76.4	2.0	70
Security	SS-112	42	28.1	2.3	0.6	3.4	79.7	3.5	66
Funk's	G-4949A	41	26.9	2.8	0.6	3.6	76.5	2.3	72
Coker	54	41	60.5	2.5	0.7	3.2	77.8	2.5	69
Trojan	TXS 114	40	11.6	3.3	0.6	3.2	78.8	2.8	67
DeKalb	XL80	35	55.2	3.8	0.6	2.7	74.7	2.8	71
Test average:		55							
L.S.D. (.05):		13							
C.V. (%):		20.2							

[1] Yield adjusted to 15.5% moisture and 56 lb. per bushel.
[2] 1 = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.

VIRAL DISEASE REACTIONS OF SOME HYBRIDS IN 1978

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INTRODUCTION

Presently, 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 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 for MCD and MDM. Commercial and experimental hybrids and inbred lines are evaluated yearly to identify resistant hybrids of promising

sources of resistance to the diseases. Results of evaluations of some commercial hybrids during 1978 are summarized in this report.

PROCEDURE

Viral disease ratings were made on entries in the corn variety 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 the diseases for each hybrid. Average disease severity for each hybrid was calculated from ratings of individual plants on a 1-9 scale, where 1 = no visible symptoms, 2 = upper two or three leaves chlorotic or discolored; no stunting, 3 = all leaves above ear chlorotic or discolored; no stunting, 4 = general chlorosis or discoloration above ear; some stunting, 5 = general chlorosis or discoloration above the ear; plants stunted and ear reduced in size, 6 = upper three-fourths of plant chlorotic or discolored; plants stunted and ear reduced in size, 7 = entire plant chlorotic or discolored and stunted; small ear, 8 = entire plant chlorotic or discolored, stunted; no ear produced, 9 = plant dead; no ear.

RESULTS

Evaluations for viral diseases in the variety test on the Black Belt Substation are given in table 20. Tests on the Piedmont, Tennessee Valley, Sand Mountain, and Upper Coastal Plain substations were also examined but disease incidence was insignificant.

With on exception, MCD and MDM were found in every hybrid in the Black Belt test. Average incidence of MCD within all hybrids was 55% as compared to 15% for MDM. Occurrence of both diseases in the same plant was frequently observed.

Hybrids showing relatively greater resistance or tolerance were apparent. Under conditions of higher or lower incidence of viral diseases many hybrids would be more or less susceptible but should 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 20. Incidence and severity of viral diseases in the regular corn variety test, Black Belt Substation, July 27, 1978

Hybrid	Incidence (%)[1]		Severity rating[2]
	MCD	MDM	
Asgrow RX 114	43	10	2.4
Asgrow RX 140A	45	6	2.4
Coker 16	41	15	2.1
Coker 18	82	45	3.3
Coker 22	41	8	2.6
Coker 54	73	17	3.4
Coker 56	77	33	3.3
Coker 77	56	27	2.8
DeKalb XL80	76	24	3.8
DeKalb XL394	54	4	2.6
DeKalb XL395	36	18	2.7
Funk's G-795W-1	32	7	1.9
Funk's G-4507	72	8	3.6
Funk's G-4611	63	12	3.3
Funk's G-4776	43	0	2.5
Funk's G-4810	52	16	4.1
Funk's G-4864	32	12	1.8
Funk's G-4949A	15	7	1.5
Funk's G-5945	70	13	2.8
Golden Harvest H-2775	58	7	2.6
McCurdy 67-14	35	11	2.5
McNair X-300	87	35	4.6
McNair S-338	61	12	3.0
McNair 508	28	4	2.1
Northrup, King PX 95	76	12	2.8
Northrup, King PX 675	56	4	3.3
Paymaster UC 9792	87	13	4.7
Pioneer 511A	27	33	2.5
Pioneer 3009	38	11	2.4
Pioneer 3145	61	6	2.6
Pioneer 3147	59	10	2.6
Pioneer 3368A	63	29	3.6
Pioneer 3369A	48	24	2.7
Ring Around 1502	47	11	3.8
Ring Around 2502	29	21	2.0
Ring Around 2601	57	12	3.2
Ring Around 3602	54	10	3.0
Security SS-112	73	27	4.5
Trojan TXS 114	96	32	5.7
Wilstar 6663	50	13	2.7

[1] Percentage of plants showing symptoms of maize chlorotic dwarf (MCD) or maize dwarf mosaic (MDM).
[2] 1=9 scale; 1 = no visible symptoms, 9 = severe symptoms.

Table 21. Characteristics of Corn Hybrids Tested One Year at Three Locations in Northern Alabama, 1978

Brand name	Hybrid	Yield per acre[1/] Belle Mina	Cross-ville	Win-field	Regional Average	Lodged stalks	Quality[2/]	Ears per stalk	Height of ears	Shelling	Husk[2/]	Mid-silk
		Bu.	Bu.	Bu.	Bu.	Pct.	Rating	No.	Ct.	Pct.	Rating	Days
Gutwein	62	132	84	71	96	7.8	2.6	0.9	3.8	84.6	2.5	77
Wilstar	7774	129	85	61	92	6.3	2.4	0.9	3.3	84.2	2.7	79
Golden Harvest	H-2606	122	71	68	87	5.9	2.6	0.8	3.5	83.3	2.6	77
Funk's	G-4606	120	80	61	87	11.5	2.8	0.9	3.7	79.9	2.3	76
Coker	19A	124	74	63	87	6.6	2.7	0.8	3.8	84.8	2.1	79
Pioneer	3184	128	79	50	86	2.2	2.3	0.9	3.5	78.4	3.2	80
P-A-G	SX 346	128	68	61	86	9.4	2.5	0.9	3.6	80.5	2.9	78
Trojan	TXS 119	109	85	63	86	7.9	2.5	0.9	3.4	82.9	2.7	78
P-A-G	SX 98	129	75	51	85	7.7	2.7	0.8	3.5	83.6	2.8	80
Pioneer	3311	118	83	52	84	5.0	2.5	0.8	3.8	79.0	2.4	82
P-A-G	SX 333	125	60	66	84	7.2	2.7	0.8	3.7	84.5	2.8	77
Gutwein	72	113	76	59	83	6.4	2.6	0.9	3.7	81.6	2.7	79
Wilstar	7676	106	85	56	82	17.0	2.6	0.9	3.7	78.4	2.7	78
Funk's	G-4574	123	60	62	82	11.1	2.6	0.8	3.6	83.5	2.4	77
RBA	122	119	81	43	81	14.4	2.4	0.9	4.0	80.9	2.3	80
Pioneer	3369A[3/]	126	66	51	81	11.6	2.7	0.8	3.6	83.7	2.5	78
Wilstar	5555	113	70	59	81	4.9	2.5	0.9	3.5	84.4	2.2	76
McCurdy	76-92	113	69	57	80	7.2	2.8	0.8	3.7	82.7	2.7	80
Golden Harvest	H-2666	111	69	59	80	4.8	2.8	0.8	3.5	83.7	2.4	77
DeKalb	XL78	121	65	53	80	11.2	2.4	0.9	3.6	80.8	2.8	76
Security	S7-111	125	63	49	79	8.4	2.6	0.8	3.8	85.7	2.9	79
Gutwein	74	113	63	60	79	9.7	2.7	0.8	3.6	81.9	2.2	79
Pioneer	3147[3/]	108	81	47	79	7.1	2.6	0.9	3.6	80.0	2.7	82
Trojan	TXS 119A	103	72	57	78	4.8	2.8	0.8	3.5	83.9	2.8	77
Funk's	G-4709	114	65	50	76	8.9	2.9	0.8	3.7	81.8	3.2	81
Ring Around	2601	114	57	51	74	14.9	2.5	0.7	3.7	77.9	2.5	82
Asgrow	RX115A	104	61	57	74	8.2	2.6	0.8	3.6	81.2	2.1	78
Ring Around	3602	107	63	51	74	8.0	2.7	0.8	3.9	79.8	2.1	80
Golden Harvest	H-2775	104	68	43	72	11.4	2.8	0.8	3.7	78.1	2.3	80
RBA	124	130	51	32	71	12.4	2.3	0.7	3.9	78.1	2.3	82
Coker	18A	95	64	50	70	12.0	2.7	0.8	3.7	77.8	2.6	81

Table 21. Characteristics of Corn Hybrids Tested One Year at Three Locations in Northern Alabama, 1978 (Continued)

Brand name	Hybrid	Yield per acre[1/] Belle Mina	Cross-ville	Win-field	Regional Average	Lodged stalks	Quality[2/]	Ears per stalk	Height of ears	Shelling	Husk[2/]	Mid-silk
		Bu.	Bu.	Bu.	Bu.	Pct.	Rating	No.	Ft.	Pct.	Rating	Days
FFR	2325	95	67	45	69	12.4	2.8	0.8	3.9	79.5	2.0	83
RBA	111	94	60	50	68	5.8	2.7	0.7	3.5	81.3	2.3	77
Asgrow	RX112	90	66	42	66	6.3	2.8	0.8	3.7	82.3	2.2	81
Pioneer	3040	108	59	29	65	10.0	2.6	0.7	3.8	78.4	1.7	84
Ring Around	2655	94	58	40	64	11.6	2.8	0.8	3.5	78.8	2.0	79
Northrup, King	PX 718W	105	36	34	58	10.0	2.5	0.6	4.0	79.9	2.1	83
Asgrow	RX140A	92	46	27	55	4.6	3.0	0.7	3.8	79.4	1.8	82
DeKalb	XL390A	75	60	28	55	8.5	3.2	0.7	3.7	75.9	1.9	83
McNair	488	65	48	31	48	6.2	3.2	0.7	3.7	79.2	2.3	84
Test average:		111	67	51								
L.S.D. (.05):		24	10	13								
C.V.(%):		18.2	13.1	21.4								

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

Table 22. Characteristics of Corn Hybrids Tested One Year in Central Alabama at the E. V. Smith Research Center, 1978

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
P-A-G	SX 17A	58	3.2	1.5	0.7	3.3	84.3	5.0	73
Northrup, King	PX 723	58	3.2	1.5	0.7	3.7	82.9	3.3	76
Wilstar	9990	54	3.1	1.8	0.7	3.2	79.1	2.3	71
McCurdy	76-92	53	2.7	1.0	0.6	3.5	81.4	3.8	69
FFR	2325	52	4.7	2.0	0.7	3.4	80.4	1.0	79
Paymaster	UC 12052	50	0.0	2.5	0.6	3.5	76.1	2.0	84
RBA	122	49	7.0	1.5	0.8	3.7	80.6	2.0	67
Funk's	G-4606	47	4.5	1.8	0.7	3.5	80.2	4.5	70
Gutwein	62	46	2.7	2.3	0.7	3.6	82.1	4.3	70
Ring Around	2501	46	8.7	2.0	0.7	3.3	82.3	2.8	68
Pioneer	3311	45	4.7	2.5	0.6	3.3	79.7	4.3	79
Trojan	TXS 119	45	6.6	2.5	0.7	3.0	79.1	5.0	69
Asgrow	RX115A	45	4.8	1.8	0.6	3.6	80.5	3.3	71
Ring Around	1501	44	3.3	2.0	0.6	3.4	80.9	3.5	70
Pioneer	3369A[3]	43	20.5	2.0	0.6	3.4	79.9	3.5	68
Gutwein	72	43	1.2	2.3	0.6	3.4	81.2	3.5	73
Golden Harvest	H-2666	43	4.6	2.5	0.7	3.0	81.4	3.0	69
DeKalb	XL78	42	12.1	1.8	0.7	3.4	82.6	4.5	69
RBA	124	42	3.2	1.5	0.5	3.3	80.7	2.0	82
Trojan	TXS 119A	42	4.0	2.3	0.5	3.3	80.6	4.5	73
McCurdy	MSX 84aa	41	3.8	1.3	0.6	3.6	80.2	2.8	77
McCurdy	75-200	40	1.6	1.5	0.6	3.7	78.7	1.5	77
Wilstar	5555	39	3.5	1.5	0.7	3.3	83.1	3.8	69
Northrup, King	PX 718W	39	5.1	2.5	0.5	3.6	76.9	2.5	80
Security	S7-111	39	3.3	2.5	0.5	3.4	72.6	4.5	74
Asgrow	RX112	38	4.9	1.5	0.6	3.2	78.6	2.5	74
DeKalb	XL390A	38	5.4	3.3	0.5	3.7	80.8	1.8	82
Trojan	TXS 115A	38	2.9	2.8	0.6	3.4	79.9	4.5	71
Golden Harvest	H-2606	36	4.5	2.0	0.6	3.3	79.9	3.8	74

Table 22. Characteristics of Corn Hybrids Tested One Year in Central Alabama at the E.V. Smith Research Center, 1978

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
P-A-G	SX 333	36	2.6	3.0	0.7	3.6	79.8	4.8	72
Funk's	G-4574	36	1.6	2.5	0.5	3.5	82.4	4.3	75
Northrup, King	PX 79	35	1.9	2.3	0.5	3.5	82.7	5.0	77
RBA	111	35	3.5	2.5	0.5	3.1	80.7	3.0	79
Pioneer	3147[3]	35	7.4	3.8	0.5	3.1	78.5	4.5	79
McNair	X-170	34	4.7	2.3	0.5	3.4	80.6	4.5	73
Pioneer	3184	32	3.0	2.3	0.5	3.1	79.3	4.5	79
Gutwein	74	32	2.3	2.3	0.5	3.2	77.5	4.3	76
Golden Harvest	H-2660W	31	8.9	2.5	0.4	3.4	74.6	1.3	77
Funk's	G-4709	30	2.3	3.0	0.5	3.3	77.2	5.0	78
McNair	488	30	3.9	2.3	0.6	3.5	77.3	2.5	87
Test average:		42							
L.S.D. (.05):		10							
C.V.(%):		20.5							

[1] Yield adjusted to 15.5% moisture and 56 lb. per bushel.
[2] 1 = excellent; 2 = good; 3 = fair; 4 = poor; 5 = very poor.
[3] Check hybrids.

Table 23. Characteristics of Corn Hybrids Tested at Two Locations in Southern Alabama, 1978

Brand name	Hybrid	Yield per acre[1/] Head-land	Fair-hope	Regional Average	Lodged stalks	Quality[2/]	Ears per stalk	Height of ears	Shelling	Husk[2/]	Mid-silk
		Bu.	Bu.	Bu.	Pct.	Rating	No.	Ft.	Pct.	Rating	Days
Paymaster	UC 8951	123	170	147	5.0	2.4	1.1	3.3	84.1	2.9	70
Pioneer	3311	126	161	144	2.8	2.3	1.1	3.2	83.7	3.3	72
Golden Harvest	H-2775	123	163	143	5.3	1.9	1.0	3.2	82.9	2.9	71
Coker	18A	108	177	143	3.7	2.5	1.1	3.2	83.0	2.8	72
Pioneer	3369A[3/]	118	167	143	3.2	2.3	1.1	3.0	86.9	3.3	68
Funk's	G-4606	118	167	142	1.8	2.3	1.1	3.1	84.3	3.3	69
Gutwein	74	121	160	141	5.1	2.4	1.1	3.0	85.6	3.4	69
Northrup, King	PX 95	128	151	140	14.1	2.8	1.1	3.6	84.3	3.3	73
Funk's	G-4709	115	160	137	4.8	3.3	1.1	3.3	84.0	3.3	71
RBA	122	104	166	135	3.3	2.3	1.1	3.1	83.1	3.0	70
Ring Around	2501	108	160	134	1.4	1.9	1.0	3.0	83.1	3.1	71
DeKalb	XL380A	122	145	134	11.0	2.5	1.0	3.0	82.3	3.0	62
Coker	19A	114	150	132	3.8	2.6	1.0	3.4	84.4	3.1	70
Security	S7-111	123	142	132	4.8	2.9	1.0	3.2	85.8	3.4	70
P-A-G	SX 98	124	140	132	1.0	2.1	1.0	3.1	84.7	3.4	68
Pioneer	3184	109	155	132	3.3	2.3	1.1	3.0	81.3	3.3	73
Golden Harvest	H-2750	115	149	132	4.5	2.6	1.1	3.3	83.6	3.0	73
McCurdy	76-92	117	147	132	5.2	2.1	1.0	3.0	84.4	3.1	72
P-A-G	SX 17A	112	150	131	4.8	2.4	1.1	2.9	85.9	3.3	73
DeKalb	XL78	103	158	131	3.5	2.0	1.0	3.2	85.1	3.5	68
Asgrow	RX112	118	137	128	2.5	2.0	1.0	3.3	82.0	3.1	72
Funk's	G-4574	107	147	127	4.4	2.3	1.0	3.1	84.1	2.8	69
Paymaster	UC 12052	115	138	127	12.0	2.0	1.0	3.3	79.9	2.4	74
McCurdy	76-101	115	134	125	2.7	2.1	1.1	3.4	83.7	3.4	-
Wilstar	6663	108	137	123	2.6	2.4	1.0	3.1	83.5	3.0	69
Gutwein	62	108	137	122	3.4	2.6	1.0	3.2	83.2	3.0	69
Asgrow	RX114	111	133	122	4.3	2.1	1.0	3.2	80.7	2.9	73
Ring Around	2601	104	136	120	9.3	2.0	1.0	3.3	82.3	3.4	73
Pioneer	3147[3/]	108	131	119	3.7	2.8	1.2	3.3	84.0	3.1	73

Table 23. Characteristics of Corn Hybrids Tested at Two Locations in Southern Alabama, 1978 (Continued)

Brand name	Hybrid	Yield per acre[1/] Head-land	Fair-hope	Regional Average	Lodged stalks	Quality[2/]	Ears per stalk	Height of ears	Shelling	Husk[2/]	Mid-silk
		Bu.	Bu.	Bu.	Pct.	Rating	No.	Ft.	Pct.	Rating	Days
Golden Harvest	H-2606	101	136	119	2.4	2.5	1.0	3.0	84.6	3.3	70
Gutwein	72	99	137	118	2.7	2.4	1.0	3.0	83.2	3.3	69
Northrup, King	PX 675	98	136	117	2.4	2.5	1.0	3.2	80.9	3.5	69
Trojan	TXS 119A	104	128	116	2.4	3.0	1.0	3.4	84.6	3.4	69
FFR	2325	110	118	114	6.4	2.0	1.2	3.4	82.3	2.8	74
Trojan	TXS 119	95	128	112	2.0	2.6	1.0	2.9	84.1	3.3	68
Asgrow	RX140A	108	114	111	6.0	2.4	1.0	3.1	80.8	2.9	73
Wilstar	5555	93	125	109	1.6	2.6	1.0	3.2	83.5	3.4	68
RBA	111	94	115	105	3.6	2.5	1.0	3.0	83.0	3.1	70
DeKalb	XL390A	88	114	101	15.5	2.6	0.9	3.4	83.3	2.9	72
McNair	488	93	101	97	3.6	2.4	1.1	3.3	81.4	2.6	-
Test average:		110	143								
L.S.D. (.05):		19	26								
C.V. (%):		15.0	15.6								

1/ Yield 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 1979

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 according to composite rating within maturity groups. Yellow and white hybrids are designated by (Y) and (W) respectively. All composite ratings are based on 1976-78 data.

NORTHERN ALABAMA

Brand name	Hybrid	
Early to Mid-Season		
Pioneer	3369A	(Y)
Funk's	G-4611	(Y)
Funk's	G-4507	(Y)
Coker	22	(Y)
Coker	18	(Y)
Coker	16	(Y)
McNair	X-300	(Y)
DeKalb	XL394	(Y)
McCurdy	67-14	(Y)
Funk's	G-4810	(Y)
DeKalb	XL80	(Y)
*McNair	S-338	(Y)
Full Season		
Pioneer	3147	(Y)
Coker	56	(Y)
*Funk's	G-4864	(Y)
Pioneer	511A	(W)
Funk's	G-795W-1	(W)

CENTRAL ALABAMA

Brand name	Hybrid	
Early to Mid-Season		
Pioneer	3369A	(Y)
Pioneer	3368A	(Y)
Pioneer	3145	(Y)
Funk's	G-4507	(Y)
DeKalb	XL394	(Y)
Funk's	G-4611	(Y)
Funk's	G-4810	(Y)
Coker	18	(Y)
McCurdy	67-14	(Y)
Coker	16	(Y)
*McNair	X-300	(Y)
*McNair	S-338	(Y)
Full Season		
Pioneer	3147	(Y)
McNair	508	(Y)
Coker	56	(Y)
Coker	77	(Y)
Coker	54	(Y)
Pioneer	511A	(W)
Funk's	G-795W-1	(W)
Pioneer	3009	(Y)
Funk's	G-5945	(Y)
*Funk's	G-4949A	(Y)
*Funk's	G-4864	(Y)
*P-A-G	751**	(&)

SOUTHERN ALABAMA

Brand name	Hybrid	
Early to Mid-Season		
Ring Around	1502	(Y)
Pioneer	3368A	(Y)
Pioneer	3369A	(Y)
Coker	16	(Y)
Coker	22	(Y)
McCurdy	67-14	(Y)
Funk's	G-4507	(Y)
Pioneer	3145	(Y)
DeKalb	XL80	(Y)
Funk's	G-4810	(Y)
Funk's	G-4611	(Y)
DeKalb	XL394	(Y)
Coker	18	(Y)
McNair	X-300	(Y)
McNair	S-338	(Y)
Full Season		
Pioneer	3147	(Y)
Coker	77	(Y)
Funk's	G-4864	(Y)
Pioneer	511A	(W)
McNair	508	(Y)
Funk's	G-795W-1	(W)
Funk's	G-4949A	(Y)
Pioneer	3030	(Y)
*Funk's	G-5945	(Y)
*Pioneer	3009	(Y)
*Coker	54	(Y)

*If present trends continue, this hybrid will be removed from the acceptable list next year in the region indicated.
**This hybrid was not tested in central Alabama in 1978.

NOTE: All acceptable hybrids have been tested 3 years in the regular variety tests. Hybrids that have outstanding performance for two years may be suitable for use on a trial basis. Two-year average of yield and other characteristics are given by region in tables 3, 7, and 11.