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PERFORMANCE

OF

**CORN
VARIETIES
IN
ALABAMA
1977**

November 1977

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TABLE OF CONTENTS

	Page
Introduction	1
Locations and Cultural Practices (Table 1)	5
Northern Alabama	
Three-year Characteristics (Table 2).	6
Two-year Characteristics (Table 3).	7
One-year Characteristics (Table 4).	8
Yields by Locations and 1-5 Year Averages (Table 5)	9
Central Alabama (1972-76 Data)	
Three-year Characteristics (Table 6).	10
Two-year Characteristics (Table 7).	11
One-year Characteristics (Table 8).	12
Yields by Locations and 1-5 Year Averages (Table 9)	14
Southern Alabama	
Three-year Characteristics (Table 10)	16
Two-year Characteristics (Table 11)	17
One-year Characteristics (Table 12)	18
Yields by Locations and 1-5 Year Averages (Table 13).	20
Irrigated Test at Camden	
Three-year (Table 14)	22
Two-year (Table 15).	23
One-year (Table 16)	24
Marion Junction (1974-76 Data)	
Three-year (Table 17)	26
Two-year (Table 18)	27
One-year (Table 19)	28

Viral Disease Reactions of Some Hybrids in 197630
 Marion Junction (Table 20)33
 Camp Hill (Table 21)34
 Belle Mina (Table 22)35
 Winfield (Tables 23-24).36
Preliminary Tests
 Northern Alabama (Table 25)38
 Southern Alabama (Table 26)40
List of Acceptable Hybrids for 197742

Performance of Corn Hybrids in Alabama, 1977

Emmett L. Carden^{1/}

Corn hybrids are evaluated annually at 12 locations in the regular corn variety testing program of the Auburn University Agricultural Experiment Station. In addition, 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 the preliminary tests are experimental or newly released hybrids that may have potential for use in Alabama. If a hybrid is outstanding in the preliminary tests it is entered in the regular testing program the following year.

Severe drouth during most of the 1977 growing season caused reduced yields at all locations. At most locations, moderate to heavy insect populations (primarily armyworms) caused further yield reductions and poor grain quality. It is likely that yields of some hybrids were affected by timeliness of showers in relation to their stage of growth; therefore, the 1977 data should be viewed with caution. However, regional averages over 3 or more years should give a reliable indication of the relative performance of hybrids in the regions indicated.

In central Alabama, at Camp Hill, Milstead, Prattville, Marion Junction, and Camden (non-irrigated), yields were near zero, and data from these locations are not included in this report. Data from the 1976 Corn Variety Report are included and should be used to assist in selecting hybrids for use in central Alabama. Yields from the irrigated variety test at Camden were good, and 1977 yields of this test are included in the report.

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Locations of the tests, cultural practices, and final plant population are shown in table 1. All entries at a location were treated the same. The experimental design was a split block with 4 replications. Row width was 36 to 42 inches depending on location. At Crossville, Winfield, and Camp Hill, one-row plots 60, 30, and 40 feet long, respectively, were used. At the other locations, 2-row plots were used with row length varying from 20 to 25 feet depending on location.

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 locations, and regional average yields for 1-5 years in northern Alabama. Similar data are given for southern Alabama in tables 10-13. Regional averages for 3, 2, and 1 years (1974-76) in central Alabama are given in tables 6-8. Table 9 shows yields by location, and regional averages for 1-5 years in central Alabama (1972-76). Data from Marion Junction during 1974-76 are given in tables 17-19. As discussed above, 1977 data from non-irrigated central Alabama tests are not included. The performance of corn hybrids grown under irrigation at Camden for 3, 2, and 1 years is given in tables 14-16. This test consisted of 2-row plots 20 feet long. Row width was 36 inches in 1977 and 30 inches in 1975 and 1976. Results of the preliminary tests are given in tables 25-26.

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. In 1977, due to insect damage and premature dry-down, disease symptoms were masked and meaningful ratings could be taken. Viral disease ratings from the 1976 Corn Variety Report are given in tables 20-24.

When comparing hybrids, small differences in yield may not be real differences but may result from variations in the plots and testing procedures. To aid in determining real differences between hybrids a statistical procedure, analysis of variance, was performed on data from each location. The L.S.D. (least significant difference) is given for yields at each location.

Since performance of hybrids may vary from year to year and location to location, particularly in a year like 1977 when drouth and insect damage greatly affected yields, 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. The composite score was obtained by subtracting values for lodging, quality, and ear height from its yield. The value subtracted for each characteristic was proportional to the numerical value shown for the characteristics in tables 2, 6, and 10.

All the 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 characteristics. All characteristics should be carefully considered when selecting a hybrid.

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A special thanks is expressed to W. H. Hearn and Mrs. Sally Bagwell, Research Data Analysis, for the computation and statistical analysis of the data in this report.

Table 1. Location and Cultural Practices for 1977 Corn Variety Tests^{1/}

Location	Plant- ing date	Nitro- gen rate Lb/A	Row width	Average Plant Population Thou.
<u>Northern Alabama</u>				
Tennessee Valley Substation (Belle Mina)	4/15	130	42	19
Sand Mountain Substation (Crossville)	4/15	200	36	^{2/}
Upper Coastal Plain Substation (Winfield)	4/12	160	40	18
<u>Central Alabama^{3/}</u>				
Agronomy Farm (Milstead)	4/27	120	40	--
Lower Coastal Plain Substation (Camden)				
Irrigated	4/18	135	36	19
Unirrigated	4/18	135	36	--
Piedmont Substation (Camp Hill)	4/13	100	40	--
Prattville Experiment Field (Prattville)	4/15	150	42	--
Black Belt Substation (Marion Junction)	4/12	125	36	--
<u>Southern Alabama</u>				
Brewton Experiment Field (Brewton)	3/16	120	36	21
Monroeville Experiment Field (Monroeville)	3/18	120	36	18
Wiregrass Substation (Headland)	3/28	160	36	28
Gulf Coast Substation (Fairhope)	3/22	140	38	20

^{1/}Lime, P₂O₅ and K₂O were applied according to soil test recommendations. Chemical and/or mechanical weed control practices were employed as needed.

^{2/}At Crossville, each entry was planted thick and hand thinned to the population recommended by the seed company.

^{3/}1977 data from non-irrigated tests in central Alabama are not included in the report due to excessive drouth and insect damage.

Table 2. Some Characteristics of Corn Varieties Tested Three Years in Northern Alabama, 1975-77^{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
Pioneer-----	3369A	115	18.6	2.1	1.0	3.6	83.1	2.4
Pioneer-----	3147	114	17.3	2.5	1.0	4.0	84.7	2.8
McCurdy-----	67-14	104	17.4	1.9	0.9	3.7	79.9	2.4
Coker-----	16	103	11.4	2.4	0.9	3.4	84.1	2.9
Funk's-----	G-4810	102	19.6	2.4	1.0	4.0	79.3	2.5
Pioneer-----	511A	101	26.0	2.3	1.0	4.0	79.8	1.9
Funk's-----	G-4864	101	13.2	2.7	0.9	4.0	82.5	1.7
Coker-----	56	101	15.9	2.3	1.0	4.0	81.6	2.0
McNair-----	X-300	99	16.2	2.4	0.9	3.6	79.0	1.9
Funk's-----	G-795W-1	99	26.8	2.5	1.0	4.0	80.5	1.9
DeKalb-----	XL80	96	16.8	2.1	0.9	3.6	79.8	1.9
McNair-----	S-338	94	17.3	2.9	0.9	3.7	82.1	2.4

^{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. Some Characteristics of Corn Varieties Tested Two Years in Northern Alabama, 1976-77^{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
Pioneer-----	3369A	103	24.8	2.3	0.9	3.6	82.4	2.5
Pioneer-----	3147	98	21.8	2.7	0.9	3.9	84.1	2.8
Funk's-----	G-4611	97	17.4	2.1	0.9	3.7	84.2	2.2
Funk's-----	G-4507	96	17.0	2.8	0.9	3.8	82.7	2.7
Pioneer-----	3368A	96	19.7	2.3	0.9	3.7	82.1	2.3
Coker-----	22	95	23.0	2.7	0.9	3.8	82.8	2.5
Pioneer-----	3145	93	13.7	2.5	0.9	4.1	79.4	2.1
Coker-----	18	91	23.2	2.7	1.0	3.7	78.9	2.4
Coker-----	16	90	14.6	2.4	0.9	3.3	81.7	2.9
McNair-----	X-300	89	21.6	2.7	0.9	3.6	78.8	2.2
DeKalb-----	XL394	87	13.9	2.6	0.8	4.5	81.1	2.1
Funk's-----	G-4810	87	25.7	2.6	0.9	4.0	79.2	2.4
Pioneer-----	511A	87	34.5	2.4	1.0	4.0	79.1	2.0
Coker-----	56	87	21.6	2.5	1.0	4.1	82.5	2.0
McCurdy-----	67-14	86	23.8	2.2	0.9	3.7	78.6	2.3
DeKalb-----	XL80	85	21.1	2.3	0.8	3.5	79.6	2.0
Funk's-----	G-4864	84	18.0	2.9	0.8	4.0	83.0	1.8
McNair-----	S-338	81	22.7	3.0	0.8	3.7	80.1	2.5
Funk's-----	G-795W-1	80	37.5	2.5	0.9	4.0	80.2	2.0

^{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 . Some Characteristics of Corn Varieties Tested in Northern Alabama, 1977^{1/}

Brand name	Hybrid	Yield	Lodged stalks	Quality ^{3/}	Ears per stalk	Height of ears	Shelling	Husk ^{3/}	Mid-silk
		per acre ^{2/}							
		Bu.							
Pioneer-----	3369A	68	40.4	2.8	0.8	3.4	83.7	2.7	68
Pioneer-----	3147	66	25.0	3.1	0.8	3.7	83.9	3.0	76
Paymaster----	UC 9792	64	39.6	2.3	0.8	3.5	80.5	2.4	74
McCurdy-----	72-44A	63	29.0	2.4	0.9	3.4	82.9	2.7	72
Trojan-----	TXS 114	63	32.9	3.1	0.8	3.5	82.5	2.9	69
Pioneer-----	3368A	63	33.0	2.8	0.9	3.5	84.2	2.1	71
Ring Around--	1502	62	23.0	2.5	0.8	3.4	83.6	2.3	69
Funk's-----	G-4507	61	26.7	3.3	0.8	3.5	84.1	2.8	69
Pioneer-----	3145	61	20.8	2.8	0.7	3.8	80.2	2.3	73
Coker-----	16	59	22.8	2.8	0.8	3.2	83.4	2.8	68
Funk's-----	G-4611	59	24.3	2.6	0.8	3.5	83.5	2.6	72
Coker-----	22	58	36.2	3.1	0.8	3.5	88.4	2.6	70
Coker-----	18	54	40.8	3.3	0.9	3.4	83.8	2.5	73
DeKalb-----	XL80	54	25.2	2.8	0.7	3.4	81.3	2.3	72
McNair-----	X-300	52	31.9	3.4	0.8	3.3	80.7	2.3	72
Coker-----	56	52	32.5	2.6	0.8	3.7	82.4	2.3	76
Pioneer-----	511A	50	50.5	2.8	0.7	3.6	77.8	2.3	75
McCurdy-----	67-14	50	29.7	2.7	0.7	3.3	82.0	2.3	73
Funk's-----	G-4810	50	38.1	3.0	0.8	3.7	81.7	2.3	72
Funk's-----	G-4848	48	14.9	3.3	0.8	3.5	76.2	2.8	76
Funk's-----	G-4776	47	39.6	3.4	0.7	3.6	82.6	2.4	73
Funk's-----	G-795W-1	45	56.7	3.1	0.7	3.6	83.5	2.4	75
DeKalb-----	XL394	43	17.0	3.0	0.6	4.1	84.3	2.2	76
McNair-----	S-338	43	35.5	3.5	0.7	3.5	80.5	2.6	73
Funk's-----	G-4864	41	25.9	3.7	0.7	3.7	85.6	2.3	75
Funk's-----	G-4747W	39	34.4	3.3	0.6	3.9	80.1	2.2	76
Ring Around--	2602W	37	29.2	3.1	0.6	3.8	78.6	2.7	75

^{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 . 1977 Yield of Corn Varieties 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. 1977	2-yr. 1976-77	3-yr. 1975-77	4-yr. 1974-77	5-yr. 1973-77
		Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.
Pioneer-----	3369A	75	76	54	68	103	115	119	118
Pioneer-----	3147	74	66	58	66	98	114	119	117
McCurdy-----	67-14	64	59	27	50	86	104	109	109
Coker-----	16	69	65	42	59	90	103	106	104
Funk's-----	G-4864	58	36	29	41	84	101	104	104
McNair-----	X-300	61	60	35	52	89	99	105	103
Pioneer-----	511A	61	47	44	50	87	101	104	103
Funk's-----	G-795W-1	58	44	33	45	80	99	102	101
McNair-----	S-338	61	40	28	43	81	94	101	99
DeKalb-----	XL80	69	57	35	54	85	96	104	
Coker-----	56	58	49	48	52	87	101	103	
Funk's-----	G-4810	63	55	30	50	87	102		
Funk's-----	G-4611	72	76	28	59	97			
Pioneer-----	3368A	74	68	46	63	96			
Funk's-----	G-4507	73	69	41	61	96			
Coker-----	22	72	51	50	58	95			
Pioneer-----	3145	68	60	54	61	93			
Coker-----	18	66	55	40	54	91			
DeKalb-----	XL394	62	51	18	43	87			
Paymaster----	UC 9792	78	63	51	64				
McCurdy-----	72-44A	84	65	40	63				
Trojan-----	TXS 114	82	63	45	63				
Ring Around--	1502	80	61	46	62				
Funk's-----	G-4848	66	53	26	48				
Funk's-----	G-4776	57	45	40	47				
Funk's-----	G-4747W	64	34	18	39				
Ring Around--	2602W	57	34	21	37				
Test average:		68	56	38					
L.S.D. (.05):		13	11	15					
C.V. (%):		13.4	13.4	28.1					

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

Table 6. Some Characteristics of Corn Varieties Tested Three Years in Central Alabama, 1974-76^{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.		
McCurdy-----	72-24	90	27.9	2.2	1.0	4.3	84.2	1.6
Coker-----	77	86	14.5	2.0	1.0	4.0	82.3	1.7
Pioneer-----	3147	85	15.2	2.7	0.9	3.6	82.6	2.1
Funk's-----	G-795W-1	83	18.0	2.3	1.0	3.5	80.4	1.7
Pioneer-----	3369A	82	12.9	2.2	0.9	3.0	83.1	2.3
Pioneer-----	511A	80	18.3	2.1	1.0	3.5	80.2	1.6
Pioneer-----	3009	79	18.0	1.8	0.9	3.8	76.3	1.6
McNair-----	508	78	11.2	2.1	1.1	4.0	80.4	1.8
McCurdy-----	67-14	76	12.7	1.9	0.9	3.2	80.6	2.0
Funk's-----	G-4864	76	10.1	1.9	0.9	3.6	82.1	1.7
Coker-----	56	76	15.7	2.0	1.0	3.5	81.4	1.9
Funk's-----	G-5945	75	15.6	1.9	0.9	3.9	82.2	1.6
McNair-----	X300	74	14.9	2.3	0.9	3.1	80.1	1.8
McNair-----	S338	73	17.9	2.4	0.9	3.2	80.7	2.2
P-A-G-----	751	72	16.3	1.9	1.0	4.1	79.7	1.6
Funk's-----	G-4949A	72	17.9	2.0	0.9	3.9	80.5	2.0
Pioneer-----	3030	69	12.1	2.0	0.9	3.6	76.9	1.6
Greenwood-----	45	68	19.8	2.0	1.0	3.4	79.4	1.8

^{1/}Camden, Camp Hill, Prattville, Milstead (1976 data), and Auburn (1974-75 data).

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

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

Note: Due to severe drouth and insect damage, 1977 data from central Alabama are not included in this report.

Table 7. Some Characteristics of Corn Varieties Tested Two Years in Central Alabama, 1975-76^{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
Coker-----	77	91	18.9	1.9	1.0	4.0	83.5	1.6
McCurdy-----	72-24	86	30.2	2.2	1.0	4.4	84.3	1.6
Pioneer-----	3369A	85	15.5	1.9	0.9	3.0	83.7	2.1
Pioneer-----	3147	83	19.5	2.6	0.9	3.6	83.4	1.9
DeKalb-----	XL394	82	18.0	1.8	0.9	3.7	83.7	1.6
Funk's-----	G-4810	81	19.5	2.1	0.9	3.5	82.1	2.0
McNair-----	508	80	13.9	2.1	1.0	4.0	81.4	1.7
Pioneer-----	3009	80	22.6	1.6	0.9	3.7	78.4	1.4
McNair-----	X300	79	17.1	2.0	0.9	3.1	81.1	1.6
Funk's-----	G-795W-1	79	21.8	2.3	1.0	3.5	81.2	1.6
Funk's-----	G-4864	78	12.3	1.7	0.9	3.6	83.0	1.5
McCurdy-----	67-14	77	16.3	1.8	0.9	3.1	81.5	1.9
Funk's-----	G-5945	77	20.7	1.7	0.9	3.9	83.5	1.6
DeKalb-----	XL80	77	14.5	1.8	0.9	2.9	82.5	1.7
Pioneer-----	511A	76	22.3	2.0	1.0	3.5	80.8	1.5
Coker-----	56	75	19.3	1.9	1.0	3.5	81.8	1.6
Coker-----	54	75	22.5	1.6	1.0	3.7	80.2	1.4
P-A-G-----	751	75	20.9	1.8	1.0	4.1	80.4	1.5
Coker-----	16	75	19.5	2.5	0.9	3.0	82.7	2.1
McNair-----	S338	73	22.0	2.3	0.9	3.2	81.6	2.0
Funk's-----	G-4949A	71	23.8	1.8	0.9	4.0	81.3	1.8
Pioneer-----	3030	69	15.5	1.8	0.9	3.7	78.2	1.5
Greenwood-----	45	68	23.9	1.8	0.9	3.5	80.4	1.6

^{1/}Camden, Camp Hill, Prattville, Milstead (1976 data), and Auburn (1975 data).

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

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

Note: Due to severe drouth and insect damage, 1977 data from central Alabama are not included in this report.

Table 8. Some Characteristics of Corn Varieties Tested in Central Alabama, 1976^{1/}

Brand name	Hybrid	Yield	Lodged stalks	Quality ^{3/}	Ears per stalk	Height of ears	Shelling	Husk ^{3/}	Mid-silk ^{4/}
		per acre ^{2/}	Pct.	Rating	No.	Ft.	Pct.	Rating	Days
Funk's-----G-4611		68	32.5	2.4	0.9	3.2	83.4	1.8	73
Pioneer-----3369A		67	29.3	2.1	0.9	3.0	84.0	2.0	72
Coker-----77		66	33.8	2.0	0.8	4.1	82.7	1.7	79
McNair-----508		66	22.1	1.9	0.9	4.3	80.4	1.8	84
McCurdy-----72-24		65	46.3	2.2	0.8	4.3	85.3	1.7	79
DeKalb-----XL80		65	25.4	1.9	0.8	3.0	82.3	1.6	74
Funk's-----G-4507		64	35.5	2.7	0.9	3.3	83.5	1.9	74
Pioneer-----3147		64	30.5	2.1	0.8	3.6	83.0	1.9	78
Pioneer-----3009		64	38.2	1.7	0.8	3.7	78.0	1.4	78
DeKalb-----XL394		64	33.2	1.5	0.8	3.8	83.7	1.8	78
Funk's-----G-4810		63	33.0	2.1	0.9	3.4	81.8	2.0	74
Funk's-----G-4864		63	23.4	1.7	0.7	3.6	82.0	1.6	76
Coker-----54		63	36.0	1.6	0.9	3.9	80.6	1.4	78
Coker-----56		61	32.5	1.8	0.9	3.6	81.4	1.6	77
Pioneer-----3368A		61	30.1	1.8	0.8	3.2	85.3	2.0	74
Funk's-----G-795W-1		61	38.9	2.4	0.8	3.6	81.4	1.6	76
Coker-----18		60	30.6	2.4	0.8	3.4	85.6	1.7	76
McCurdy-----67-14		60	28.1	1.8	0.8	3.1	82.4	1.6	74
Pioneer-----511A		60	36.8	2.1	0.9	3.6	80.2	1.5	76
McNair-----X300		59	30.6	2.1	0.8	3.1	80.7	1.6	74
Pioneer-----3145		59	19.9	1.6	0.9	3.6	80.9	1.7	74
Funk's-----G-5945		59	28.8	1.7	0.7	4.0	85.8	1.7	80
Coker-----16		57	36.7	2.5	0.8	2.9	82.1	2.3	71
P-A-G-----751		57	28.2	1.8	0.8	4.2	80.6	1.6	81
Coker-----22		57	30.9	2.3	0.9	3.2	81.9	1.6	74
Greenwood----45		55	45.1	1.8	0.8	3.6	80.2	1.4	77
Pioneer-----3030		55	27.7	1.8	0.8	3.7	77.0	1.3	80
Funk's-----G-4525		54	36.5	1.8	0.9	3.1	80.0	1.7	74
McNair-----S338		54	33.2	2.2	0.7	3.4	80.7	1.9	77
Funk's-----G-4949A		54	37.6	1.8	0.7	4.1	81.8	1.7	78

Continued:

Table 8. (Cont'd) Some Characteristics of Corn Varieties Tested in Central, Alabama, 1976^{1/}

Brand name	Hybrid	Yield	Lodged stalks	Quality ^{3/}	Ears per stalk	Height of ears	Shelling	Husk ^{3/}	Mid-silk ^{4/}
		per acre ^{2/}		Rating	No.	Ft.	Pct.	Rating	Days
		Bu.	Pct.						
DeKalb-----XL395		53	22.2	1.8	0.7	4.0	81.9	1.6	78
DeKalb-----1214A		52	25.5	1.8	0.7	4.0	78.1	1.6	82
Greenwood----44		49	27.1	2.1	0.8	3.1	81.6	1.8	70

^{1/}Camden, Camp Hill, Prattville, and Milstead.

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

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

^{4/}Average of Camden and Milstead data. Tests were planted April 16 and 23, respectively.

Note: Due to severe drouth and insect damage, 1977 data from central Alabama are not included in this report.

Table 9. 1976 Yield of Corn Varieties by Location and Regional Averages for 1-5 Years in Central Alabama^{1/}

Brand name	Hybrid	Regional average yield per acre								
		Camden	Camp Hill	Prattville	Milstead	1-yr.	2-yr.	3-yr.	4-yr.	5-yr.
		Bu.	Bu.	Bu.	Bu.	1976	1975-76	1974-76	1973-76	1972-76
Pioneer-----	3147	51	120	52	32	64	83	85	87	94
Funk's-----	G-795W-1	46	107	44	47	61	79	83	86	89
Pioneer-----	511A	57	92	46	44	60	76	80	84	89
Pioneer-----	3369A	22	145	52	50	67	85	82	84	87
McNair-----	508	57	133	39	33	66	80	78	79	86
Pioneer-----	3009	50	117	42	47	64	80	79	81	85
McCurdy-----	67-14	25	124	50	43	60	77	76	79	83
Funk's-----	G-5945	48	115	41	31	59	77	75	79	83
PAG-----	751	47	124	32	25	57	75	72	75	81
McNair-----	S338	30	113	36	36	54	73	73	74	80
Funk's-----	G-4949A	40	108	35	31	54	71	72	74	79
Pioneer-----	3030	44	99	41	33	55	69	69	72	78
Greenwood----	45	37	106	32	47	55	68	68	71	77
Funk's-----	G-4864	51	124	39	39	63	78	76	79	
Coker-----	56	45	114	41	45	61	75	76	77	
McCurdy-----	72-24	49	118	46	47	65	86	90		
Coker-----	77	48	131	47	39	66	91	86		
McNair-----	X300	30	114	45	49	59	79	74		
DeKalb-----	XL394	48	131	43	31	64	82			
Funk's-----	G-4810	39	128	40	47	63	81			
DeKalb-----	XL80	30	132	49	47	65	77			
Coker-----	54	55	111	39	46	63	75			
Coker-----	16	14	119	47	51	57	75			
Funk's-----	G-4611	29	136	50	57	68				
Funk's-----	G-4507	28	119	56	54	64				
Pioneer-----	3368A	23	119	56	47	61				
Coker-----	18	16	122	51	52	60				
Pioneer-----	3145	45	100	43	48	59				
Coker-----	22	30	112	43	42	57				
Funk's-----	G-4525	31	99	46	39	54				

Continued:

Table 9. (Cont'd) 1976 Yield of Corn Varieties by Location and Regional Averages for 1-5 Years in Central Alabama^{1/}

Brand name	Hybrid					1-yr.	2-yr.	3-yr.	4-yr.	5-yr.
		Camden	Camp Hill	Prattville	Mil- stead	1976	1975-76	1974- 76	1973- 76	1972- 76
		Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.
DeKalb-----	XL395	40	105	37	31	53				
DeKalb-----	1214A	37	115	27	30	52				
Greenwood----	44	26	79	47	43	49				
Test average:		38	116	43	42					
L.S.D. (.05):		16	22	7	10					
C.V. (%):		29.2	13.4	11.2	17.0					

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

Note: Due to severe drouth and insect damage, 1977 data from central Alabama are not included in this report.

Table 10. Some Characteristics of Corn Varieties Tested Three Years in Southern Alabama, 1975-77^{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
Pioneer-----	3147	103	22.1	2.8	0.9	3.1	82.4	2.6
McCurdy-----	67-14	101	18.3	2.0	0.9	2.9	80.2	2.6
Funk's-----	G-795W-1	100	27.3	2.1	1.0	3.2	80.9	2.1
Coker-----	77	99	21.3	2.2	1.0	3.7	81.1	2.4
DeKalb-----	XL80	99	19.4	2.2	0.9	2.7	80.8	2.3
Pioneer-----	3369A	98	14.3	2.5	0.9	2.8	82.7	2.9
Coker-----	16	97	14.0	2.5	1.0	2.7	82.3	3.0
DeKalb-----	XL394	96	17.6	2.2	1.0	3.4	82.3	2.3
McNair-----	X-300	96	17.9	2.3	0.9	2.8	80.5	2.3
Pioneer-----	3145	96	13.7	2.2	1.0	3.1	79.8	2.0
Funk's-----	G-4810	95	15.8	2.2	0.9	3.2	80.9	2.6
McNair-----	S-338	94	24.7	2.6	0.9	2.9	81.2	2.4
Pioneer-----	511A	93	28.6	2.0	1.0	3.3	80.6	2.1
Funk's-----	G-4864	92	15.6	2.1	0.9	3.3	83.0	1.9
Funk's-----	G-5945	92	23.0	2.3	0.9	3.5	81.4	2.1
McNair-----	508	91	14.0	2.3	1.1	3.6	81.4	2.0
Coker-----	54	88	24.5	1.9	1.0	3.4	80.4	1.8
Pioneer-----	3009	88	25.9	2.2	0.9	3.3	77.8	1.7
Pioneer-----	3030	88	21.0	2.0	0.9	3.3	77.2	1.7
Funk's-----	G-4949A	88	21.1	2.4	0.9	3.4	80.2	2.6
P-A-G-----	751	87	29.7	2.2	1.0	3.5	79.8	1.9

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

^{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. Some Characteristics of Corn Varieties Tested Two Years in Southern Alabama, 1976-77^{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
Ring Around--	1502	100	12.3	2.4	1.0	3.0	82.3	2.3
Pioneer-----	3368A	98	16.4	3.0	0.9	3.9	78.6	2.7
McCurdy-----	67-14	96	20.8	2.0	0.9	2.9	80.1	2.6
Pioneer-----	3147	96	21.4	2.7	0.9	3.2	82.1	2.7
DeKalb-----	XL80	95	22.1	2.3	0.9	2.9	80.3	2.3
Funk's-----	G-4507	95	21.5	3.1	0.9	3.1	82.2	3.0
Coker-----	22	95	21.5	2.6	0.9	3.1	81.0	2.6
Coker-----	16	94	15.8	2.5	1.0	2.8	81.4	3.0
Funk's-----	G-795W-1	93	26.3	2.0	0.9	3.2	80.5	2.2
Funk's-----	G-4611	93	24.0	2.4	0.9	3.1	82.3	2.3
Pioneer-----	3369A	93	16.7	2.6	0.9	2.9	82.2	3.1
Coker-----	18	92	25.6	2.7	0.9	3.1	82.7	2.7
DeKalb-----	XL394	92	16.3	2.2	0.9	3.5	82.2	2.3
Pioneer-----	3145	91	12.8	2.3	0.9	3.2	79.0	2.0
McNair-----	X-300	89	21.3	2.5	0.9	2.9	80.1	2.4
Funk's-----	G-4810	89	15.6	2.3	0.9	3.3	80.6	2.6
Pioneer-----	511A	88	27.5	1.9	0.9	3.4	79.8	2.2
Coker-----	77	88	20.7	2.4	1.0	3.8	79.6	2.3
McNair-----	508	87	13.2	2.4	1.0	3.7	81.1	2.0
McNair-----	S-338	87	28.1	2.6	0.8	3.0	80.1	2.3
Funk's-----	G-4864	86	14.6	2.1	0.8	3.4	82.7	1.9
Pioneer-----	3030	83	21.3	2.1	0.9	3.5	76.4	1.8
Funk's-----	G-5945	82	23.4	2.4	0.8	3.5	81.1	2.2
Funk's-----	G-4949A	82	21.3	2.4	0.9	3.5	78.7	2.7
P-A-G-----	751	81	26.3	2.3	0.9	3.6	79.6	1.9
Pioneer-----	3009	80	27.2	2.3	0.8	3.4	76.9	1.8
Coker-----	54	80	24.4	2.1	0.9	3.5	79.7	1.8

^{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 12. Some Characteristics of Corn Varieties Tested in Southern Alabama, 1977^{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
Trojan-----	TXS 114	67	25.2	3.2	0.9	2.5	78.0	2.3	69
Ring Around-----	1502	63	19.0	2.9	0.8	2.5	79.6	2.2	68
Ring Around-----	2502	61	32.5	3.1	0.9	2.3	78.9	2.4	69
Coker-----	16	60	27.3	2.9	0.9	2.5	78.8	2.8	69
Ring Around-----	1501	60	18.4	3.9	0.8	2.6	78.2	3.1	70
Pioneer-----	3368A	59	29.5	2.9	0.8	2.6	80.6	2.8	72
McCurdy-----	67-14	59	27.0	2.6	0.8	2.4	78.4	2.6	73
Pioneer-----	3145	58	20.0	2.9	0.8	2.6	76.0	2.1	72
Funk's-----	G-4507	58	34.9	3.9	0.8	2.7	78.0	3.0	70
McCurdy-----	76	58	30.8	2.6	0.9	2.7	77.3	2.6	71
Funk's-----	G-4611	55	38.7	2.9	0.8	2.6	79.2	2.4	71
Pioneer-----	3147	54	24.0	3.4	0.8	2.6	77.3	2.6	77
DeKalb-----	XL80	54	31.0	3.0	0.8	2.5	78.6	2.6	72
Paymaster-----	UC 9792	53	29.6	2.8	0.7	2.7	77.7	2.2	75
Pioneer-----	511A	51	34.5	2.4	0.8	2.7	76.7	2.2	77
Funk's-----	G-795W-1	51	29.3	2.7	0.7	2.5	77.2	2.3	76
Funk's-----	G-4864	50	19.5	2.6	0.7	2.8	78.4	2.3	75
Pioneer-----	3369A	50	29.3	3.1	0.8	2.5	78.3	2.9	68
DeKalb-----	XL395A	50	13.4	3.0	0.7	2.9	75.4	2.2	76
Funk's-----	G-4810	50	24.7	3.1	0.8	2.8	76.6	2.4	73
McNair-----	X-300	49	35.2	3.0	0.7	2.5	76.4	2.4	73
DeKalb-----	XL394	49	12.2	2.8	0.7	2.8	78.5	2.4	75
Coker-----	22	48	34.3	3.3	0.8	2.6	75.1	2.6	71
Funk's-----	G-4776	48	35.3	3.2	0.8	2.7	77.3	2.6	73
Coker-----	18	47	39.7	3.8	0.8	2.5	78.1	2.8	72
Pioneer-----	3009	45	29.1	3.0	0.7	2.8	73.5	2.2	73
McNair-----	S-338	44	35.4	3.2	0.7	2.6	75.0	2.1	74
Coker-----	54	43	24.6	2.7	0.7	2.8	75.2	1.9	78
Funk's-----	G-5945	43	19.8	2.9	0.7	2.8	76.9	2.2	78

(Continued):

Table 12. (Cont'd) Some Characteristics of Corn Varieties Tested in Southern Alabama, 1977^{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
Funk's-----	G-4747W	43	30.3	3.7	0.7	2.8	72.6	2.3	76
Funk's-----	G-4949A	43	18.4	3.1	0.7	2.8	71.5	2.7	76
McNair-----	508	41	14.0	3.1	0.8	2.9	76.0	1.9	84
Pioneer-----	3030	41	22.6	2.8	0.7	2.8	69.6	1.9	77
Coker-----	77	40	21.3	3.1	0.7	3.0	71.9	2.3	81
P-A-G-----	751	40	27.5	2.9	0.7	2.9	75.8	1.9	82
DeKalb-----	XL395	40	23.6	2.9	0.6	2.9	75.8	2.1	79
Funk's-----	G-4848	37	14.6	4.1	0.7	2.6	69.4	2.6	77
Paymaster-----	UC 11982	34	13.0	4.1	0.6	2.6	68.0	2.3	81

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

^{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 13. 1977 Yield of Corn Varieties by Location and Regional Averages for 1-5 Years in Southern Alabama^{1/}

Brand name	Hybrid	Location					Regional average yield per acre				
		Fairhope Bu.	Brewton Bu.	Monroeville Bu.	Headland Bu.	1-yr. 1977 Bu.	2-yr. 1976-77 Bu.	3-yr. 1975-77 Bu.	4-yr. 1974-77 Bu.	5-yr. 1973-77 Bu.	
Funk's-----G-795W-1		58	51	47	47	51	93	100	99	99	
McCurdy-----67-14		73	57	41	64	59	96	101	98	97	
Pioneer-----3369A		78	42	34	47	50	93	98	97	97	
Pioneer-----511A		62	54	44	46	51	88	93	94	96	
Funk's-----G-4864		75	57	32	38	50	86	92	92	94	
McNair-----S-338		65	51	22	41	44	87	94	93	92	
Funk's-----G-5945		51	54	33	36	43	82	92	90	90	
Funk's-----G-4949A		52	53	28	40	43	82	88	89	90	
McNair-----508		37	47	50	32	41	87	91	90	88	
Pioneer-----3030		53	51	33	27	41	83	88	88	88	
Pioneer-----3009		56	48	33	42	45	80	88	86	88	
Coker-----54		53	53	28	39	43	80	88	86	87	
P-A-G-----751		47	52	45	15	40	81	87	85	86	
Pioneer-----3147		67	60	41	49	54	96	103	102		
Coker-----77		47	52	38	23	40	88	99	97		
McNair-----X-300		73	57	16	51	49	89	96	92		
DeKalb-----XL80		75	53	21	68	54	95	99			
Coker-----16		80	49	31	79	60	94	97			
DeKalb-----XL394		57	58	38	43	49	92	96			
Pioneer-----3145		72	50	43	68	58	91	96			
Funk's-----G-4810		64	51	29	56	50	89	95			
Ring Around---1502		85	57	37	72	63	100				
Pioneer-----3668A		80	50	37	69	59	98				
Funk's-----G-4507		91	50	27	63	58	95				
Coker-----22		68	47	31	47	48	95				
Funk's-----G-4611		79	51	31	60	55	93				
Coker-----18		63	31	29	63	47	92				
Trojan-----TXS 114		87	59	40	81	67					
Ring Around---2502		76	49	45	73	61					
Ring Around---1501		90	49	28	73	60					

(Continued):

Table 13 (Cont'd). 1977 Yield of Corn Varieties by Locations and Regional Averages for 1-5 Years in Southern Alabama^{1/}

Brand name	Hybrid	Fairhope Bu.	Brewton Bu.	Monroeville Bu.	Headland Bu.	Regional average yield per acre				
						1-yr. 1977 Bu.	2-yr. 1976-77 Bu.	3-yr. 1975-77 Bu.	4-yr. 1974-77 Bu.	5-yr. 1973-77 Bu.
McCurdy-----	76	78	53	37	62	58				
Paymaster-----	UC 9792	79	52	18	64	53				
DeKalb-----	XL395A	47	57	46	51	50				
Funk's-----	G-4776	66	46	26	54	48				
Funk's-----	G-4747W	74	37	18	44	43				
DeKalb-----	XL395	47	48	34	29	40				
Funk's-----	G-4848	54	44	20	30	37				
Paymaster-----	UC 11982	48	38	21	28	34				
Test average:		66	50	33	50					
L.S.D. (.05):		10	10	10	15					
C.V. (%):		10.6	14.2	21.4	20.8					

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

Table 14. Some Characteristics of Irrigated Corn Hybrids, Camden - 1975-77^{1/}

Brand name	Hybrid	Yield per acre ^{2/} Bu.	Lodged stalks Pct.	Quality ^{3/} Rating	Ears per Stalk No.	Ear Height Ft.	Shelling Pct.	Husk ^{3/} Rating
Pioneer-----	3147	112	6.9	1.3	1.0	3.7	73.6	1.3
Coker-----	77	107	13.3	1.1	1.1	4.1	72.4	1.1
McNair-----	508	107	7.7	1.1	1.1	4.1	70.8	1.1
Funk's-----	G-4949A	105	7.6	1.1	1.0	4.2	72.5	1.4
P-A-G-----	751	103	17.9	1.1	1.1	4.3	70.2	1.0
Funk's-----	G-795W-1	102	20.5	1.3	1.0	3.5	71.8	1.0
DeKalb-----	XL394	101	15.4	1.2	0.9	3.9	73.5	1.0
Funk's-----	G-4864	100	6.9	1.0	1.0	3.7	73.3	1.0
McNair-----	X-300	100	6.8	1.2	0.9	3.1	72.5	1.0
Funk's-----	G-5945	100	16.0	1.1	1.0	3.9	73.4	1.0
McCurdy-----	67-14	99	14.5	1.1	1.0	3.2	72.9	1.1
Pioneer-----	511A	99	17.9	1.2	1.0	3.5	72.0	1.0
Pioneer-----	3030	99	14.4	1.1	1.0	3.7	66.9	1.0
Coker-----	56	98	9.9	1.2	1.0	3.6	72.1	1.3
Funk's-----	G-4810	97	15.6	1.3	1.0	3.5	72.4	1.4
Coker-----	54	95	32.2	1.1	1.0	3.8	72.4	1.0
McNair-----	S-338	93	16.5	1.6	1.0	3.3	72.4	1.3
Pioneer-----	3369A	92	14.6	1.4	0.9	3.2	75.2	1.5
Pioneer-----	3009	92	11.9	1.3	1.0	3.6	66.3	1.0
Coker-----	16	89	6.9	1.4	0.9	2.8	74.9	1.4
DeKalb-----	XL80	82	35.7	1.5	0.8	3.0	72.9	1.0

^{1/}Planted in 30-inch rows in 1975 and 1976 and 36-inch rows in 1977.

^{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. Some Characteristics of Irrigated Corn Hybrids, Camden - 1976-77^{1/}

Brand name	Hybrid	Yield per acre ^{2/} Bu.	Lodged stalks Pct.	Quality ^{3/} Rating	Ears per stalk No.	Ear height Ft.	Shelling Pct.	Husk ^{3/} Rating
Pioneer-----	3147	116	8.5	1.4	1.0	3.6	74.4	1.3
McNair-----	508	114	9.0	1.1	1.2	4.0	72.2	1.0
Funk's-----	G-4949A	110	8.7	1.1	1.0	4.1	73.6	1.3
McCurdy-----	67-14	106	17.2	1.1	1.0	3.2	73.9	1.0
P-A-G-----	751	106	14.3	1.1	1.1	4.2	70.6	1.0
Coker-----	77	106	18.9	1.1	1.1	4.0	72.9	1.0
Pioneer-----	3368A	105	4.4	1.4	1.0	3.5	76.1	1.5
Funk's-----	G-5945	103	15.3	1.1	1.0	3.8	74.2	1.0
DeKalb-----	XL395	103	9.9	1.1	1.0	3.8	74.7	1.0
Funk's-----	G-795W-1	103	23.4	1.4	1.0	3.5	72.8	1.0
Pioneer-----	3030	103	17.4	1.0	1.0	3.7	68.4	1.0
DeKalb-----	XL394	103	18.4	1.3	1.0	3.8	73.7	1.0
Pioneer-----	511A	102	17.9	1.3	1.0	3.5	73.2	1.0
McNair-----	X-300	101	8.4	1.3	1.0	3.1	73.2	1.0
Pioneer-----	3145	101	8.1	1.5	1.0	3.5	70.7	1.0
Funk's-----	G-4507	100	7.9	2.1	1.0	3.2	74.1	1.8
Coker-----	54	100	36.8	1.1	1.1	3.6	73.3	1.0
Funk's-----	G-4864	99	8.5	1.0	1.0	3.6	73.1	1.0
McNair-----	S-338	98	19.7	1.5	1.0	3.2	72.2	1.0
Coker-----	22	98	14.9	1.4	0.9	3.2	74.9	1.0
Coker-----	18	97	10.9	1.5	0.9	3.3	76.3	1.0
Coker-----	56	95	13.0	1.3	1.0	3.6	73.0	1.0
Funk's-----	G-4810	94	14.9	1.4	1.0	3.4	73.3	1.3
Pioneer-----	3009	94	11.9	1.4	1.0	3.3	67.0	1.0
Funk's-----	G-4611	90	14.6	1.5	0.9	3.2	75.0	1.3
Coker-----	16	88	9.0	1.6	0.9	2.9	75.0	1.3
Pioneer-----	3369A	87	17.8	1.6	0.9	3.2	75.4	2.0
DeKalb-----	XL80	77	46.1	1.8	0.8	2.9	72.6	1.0

^{1/}Planted in 30-inch rows in 1976 and 36-inch rows in 1977.

^{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. Some Characteristics of Corn Hybrids Planted in 36-inch Rows and Irrigated, Camden - 1977

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
Pioneer-----	3147	120	11.1	1.8	1.0	3.9	73.1	1.3
Coker-----	77	118	5.1	1.3	1.3	3.7	72.5	1.0
Ring Around--	2502	117	2.9	1.3	1.0	3.1	76.5	1.0
Ring Around--	1502	116	0.5	2.0	1.0	3.4	77.1	2.0
Asgrow-----	RX114	115	16.7	1.0	1.0	3.8	73.2	1.0
Pioneer-----	3145	114	8.3	1.8	1.0	3.7	71.6	1.0
McNair-----	508	113	5.9	1.3	1.4	3.8	70.8	1.0
Pioneer-----	3368A	111	5.7	1.8	1.0	3.7	75.7	1.5
Funk's-----	G-795W-1	109	30.1	1.8	1.1	3.5	72.8	1.0
Funk's-----	G-4949A	109	8.0	1.3	1.0	4.0	72.8	1.3
McCurdy-----	67-14	107	18.3	1.3	1.0	3.2	73.8	1.0
McCurdy-----	76	107	10.4	1.3	1.0	3.4	73.8	1.0
Paymaster----	UC 9792	107	26.1	1.3	1.0	3.4	72.0	1.0
Wilstar-----	9997	106	14.2	1.3	1.0	3.1	75.0	1.3
McNair-----	X-300	106	13.7	1.5	1.0	3.2	73.1	1.0
McCurdy-----	72-44A	106	15.8	1.5	1.1	3.4	75.2	1.0
Funk's-----	G-4810	104	19.8	1.8	1.0	3.5	73.8	1.3
Coker-----	18	104	14.4	1.5	0.9	3.4	76.2	1.0
P-A-G-----	751	101	9.0	1.3	1.2	4.2	69.1	1.0
Funk's-----	G-4507	101	8.1	3.3	1.0	3.4	72.9	1.8
Coker-----	16	101	5.6	1.8	1.0	3.1	76.7	1.3
Pioneer-----	511A	100	25.5	1.5	1.0	3.4	73.0	1.0
Funk's-----	G-4848	99	13.5	2.3	1.0	3.7	65.4	1.3
Pioneer-----	3369A	99	28.0	2.0	1.0	3.4	76.6	2.0
Funk's-----	G-5945	99	17.6	1.3	1.0	3.6	74.1	1.0
Pioneer-----	3030	99	15.7	1.0	1.1	3.6	67.4	1.0
Funk's-----	G-4611	98	13.3	2.0	1.0	3.1	76.7	1.3
McNair-----	S-338	97	15.6	2.0	1.0	3.4	70.0	1.0
Coker-----	56	97	10.9	1.5	1.1	3.7	72.4	1.0
Coker-----	54	97	47.1	1.3	1.1	3.6	72.9	1.0
Pioneer-----	3009	97	15.6	1.8	1.0	3.7	66.8	1.0

(Continued):

Table 16. (Cont'd) Some Characteristics of Corn Hybrids Planted in 36-inch Rows and Irrigated, Camden - 1977^{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
Funk's-----	G-4776	95	7.8	1.5	1.0	3.9	75.1	1.5
DeKalb-----	XL394	94	23.8	1.3	1.0	3.7	73.3	1.0
Coker-----	22	94	18.2	1.8	0.9	3.4	75.1	1.0
DeKalb-----	XL395	93	8.0	1.3	1.0	3.4	74.2	1.0
Pioneer-----	3535	91	10.0	2.0	1.0	3.6	75.9	2.3
Wilstar-----	6663	89	7.5	3.0	1.0	3.3	74.8	1.5
Funk's-----	G-4864	89	15.2	1.0	0.9	3.6	70.5	1.0
Trojan-----	TXS 114	85	17.9	2.3	0.9	3.4	73.5	1.3
DeKalb-----	XL80	60	70.5	2.5	0.8	2.9	71.6	1.0
Test average:		102						
L.S.D. (.05):		20						
C.V. (%)		14.0						

^{1/}One and one-half inches of water applied on June 1, 6, 13, and July 1, 8, and 28.

^{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. Performance of Corn Hybrids Tested Three Years at the Black Belt Substation, 1974-76^{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
Funk's-----	G-4864	90	1.9	2.4	0.9	4.2	83.8	1.7
Pioneer-----	3009	80	5.6	2.5	0.9	4.2	80.4	2.0
Funk's-----	G-5945	79	2.5	2.6	1.0	4.5	82.3	2.0
Pioneer-----	3369A	61	20.4	3.0	0.7	3.3	80.3	3.0

^{1/}Some lodging and yield reduction due to deer and raccoon damage.

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

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

Note: Due to severe drouth and insect damage, 1977 data from Marion Junction is not included in this report.

Table 18. Performance of Corn Hybrids Tested Two Years at the Black Belt Substation, 1975-76^{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	84	3.4	2.5	1.0	3.9	83.6	2.0
Funk's-----	G-4864	78	2.4	2.5	0.9	4.1	83.1	1.4
Funk's-----	G-5945	76	3.3	2.4	1.0	4.3	82.3	2.0
Pioneer-----	3009	75	6.1	2.8	1.0	4.2	80.7	1.9
Pioneer-----	3145	75	3.8	2.5	1.0	3.9	79.8	2.0
Funk's-----	G-4949A	71	4.9	2.8	0.9	4.2	81.5	2.1
Funk's-----	G-795W-1	71	5.1	2.6	1.0	3.9	77.9	1.5
McNair-----	508	68	2.6	2.1	1.1	4.0	81.5	1.6
Coker-----	56	66	3.7	2.1	1.0	3.7	82.5	2.0
Pioneer-----	511A	64	9.0	2.6	1.0	3.8	82.1	1.5
Pioneer-----	3030	64	8.9	2.1	0.9	4.0	78.5	1.3
P-A-G-----	751	62	8.6	2.3	1.0	4.2	80.8	1.8
Funk's-----	G-4525	60	9.8	3.3	0.9	3.2	81.6	2.5
Pioneer-----	3369A	55	16.6	2.7	0.7	3.2	78.6	2.8

^{1/}Some lodging and yield reduction due to deer and raccoon damage.

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

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

Note: Due to severe drouth and insect damage, 1977 data from Marion Junction is not included in this report.

Table 19. Performance of Corn Hybrids Tested One Year at the Black Belt Substation, 1976^{1/}

Brand name	Hybrid	Yield	Lodged	Quality ^{3/}	Ears	Ear	Shelling	Husk ^{3/}
		per acre ^{2/}	stalks	Rating	per stalk	height		Rating
		Bu.	Pct.		No.	Ft.	Pct.	
McCurdy-----	72-24	76	3.7	2.5	1.0	4.1	82.5	1.3
DeKalb-----	XL394	69	6.6	2.8	0.8	3.3	82.3	2.3
Funk's-----	G-4810	68	3.7	3.3	0.9	3.4	78.4	2.3
Pioneer-----	3009	66	5.0	2.5	0.9	3.6	78.7	1.5
Pioneer-----	3145	66	6.8	2.5	1.0	3.6	78.8	2.0
Funk's-----	G-4864	62	3.1	3.0	0.9	3.9	82.0	1.3
Funk's-----	G-5945	59	4.7	2.3	0.9	3.9	80.0	2.3
Funk's-----	G-4949A	59	1.8	2.5	0.8	3.9	81.3	2.3
Funk's-----	G-4776	56	4.0	2.3	1.0	3.5	80.1	2.3
Funk's-----	G-4507	54	2.1	3.3	0.9	3.1	83.0	3.3
McNair-----	508	53	2.5	2.3	1.0	3.8	77.9	1.8
Coker-----	77	52	9.3	2.5	0.9	3.8	82.1	1.3
Funk's-----	G-795W-1	51	8.6	2.8	0.9	3.4	70.5	1.3
Coker-----	54	51	9.1	2.3	1.1	3.7	79.9	1.8
Pioneer-----	3368A	50	3.5	2.8	0.9	2.9	80.3	3.0
PAG-----	751	50	10.4	2.3	0.8	3.8	78.4	2.0
Pioneer-----	3535	49	6.3	3.3	1.0	3.0	81.6	2.5
Funk's-----	G-4848	47	1.1	3.0	0.6	3.0	77.1	2.7
DeKalb-----	XL395	47	6.6	2.3	0.6	3.6	81.8	2.5
Coker-----	56	46	4.6	2.3	0.8	3.4	81.2	2.0
Pioneer-----	3030	46	4.6	2.0	0.8	3.4	75.3	1.0
DeKalb-----	1214A	46	7.0	3.0	0.8	4.0	76.3	1.5
Pioneer-----	511A	45	9.3	2.8	0.9	3.2	81.1	1.5
Greenwood---	44	45	5.7	2.5	0.7	3.1	81.0	3.0
Coker-----	16	43	1.1	3.3	1.0	2.9	77.6	3.3
Coker-----	22	42	8.3	3.3	0.7	3.0	81.3	2.3
McNair-----	X300	41	2.3	3.0	0.8	3.0	79.4	2.3

Continued:

Table 19. (Cont'd) Performance of Corn Hybrids Tested One Year at the Black Belt Substation, 1976^{1/}

Brand name	Hybrid	Yield per acre ^{2/} Bu.	Lodged stalks Pct.	Quality ^{3/} Rating	Ears per stalk No.	Ear height Ft.	Shelling Pct.	Husk ^{3/} Rating
Coker-----	18	40	10.3	3.3	0.9	3.0	83.8	2.8
Funk's-----	G-4525	37	6.8	3.0	0.8	2.7	80.8	2.3
Pioneer-----	3369A	31	8.1	2.8	0.7	3.0	70.8	3.3

Test average: 52
L.S.D. (.05): 16
C.V. (%): 21.9

^{1/}Some yield reduction due to deer and raccoon damage.

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

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

Note: Due to severe drouth and insect damage, 1977 data from Marion Junction is not included in this report.

VIRAL DISEASE REACTIONS OF SOME HYBRIDS IN 1976

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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 or promising sources of resistance to the diseases. Results of evaluations of some commercial hybrids during 1976 are summarized in this report.

PROCEDURE

Viral disease ratings were made on entries in corn variety tests at six locations. 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 variety tests on the Black Belt, Piedmont, Tennessee Valley, and Upper Coastal Plain substations are given in tables 20-24. Tests on the Main Station and Sand Mountain Substation were also examined but disease incidence was insignificant.

Highest overall disease incidence and severity occurred in the test on the Black Belt Substation; average incidence and severity for all hybrids

were 59% and 3.26, respectively. Incidence of MCD and MDM was not separated at this location. Virus ratings were made on the first planting of the test which was not harvested because of poor stand and damage to viral diseases; yield data are from the second planting.

Viral disease reactions were comparatively lower at the other locations. Average incidences of the two diseases were: Piedmont Substation, MCD - 14.5%, MDM - 5.9%; Tennessee Valley Substation, MCD - 12.8%, MDM - 11.3%; Upper Coastal Plain Substation, regular variety test, MCD - 29.4%, MDM - 5.8%; preliminary variety test, 23.4%, MDM - 4.6%.

Hybrids showing relatively high resistance or tolerance were apparent at each location. Under conditions of higher incidence of viral diseases many hybrids would be more 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. Viral Disease Reactions, Regular Corn Variety Test, Marion Junction, July 23, 1976

Hybrid	Incidence (%)	Severity ^{1/}
Coker 16	74.1	4.03
Coker 18	88.6	5.07
Coker 22	72.2	3.73
Coker 54	75.2	4.20
Coker 56	81.5	4.10
Coker 77	80.1	3.79
DeKalb XL394	31.4	2.15
DeKalb XL395	66.3	3.81
DeKalb 1214A	59.5	2.82
Funks G-795W-1	78.5	3.71
Funks G-4507	73.1	3.73
Funks G-4525	51.5	2.48
Funks G-4776	31.4	1.86
Funks G-4810	45.6	2.15
Funks G-4848	17.5	1.58
Funks G-4864	50.4	3.14
Funks G-4949A	55.5	3.28
Funks G-5945	40.2	2.92
Greenwood 44	50.7	2.75
McCurdy 72-24	59.1	2.68
McNair 508	28.4	1.98
McNair X300	53.3	2.88
P.A.G. 751	71.7	3.50
Pioneer 511A	76.2	4.13
Pioneer 3009	60.3	3.07
Pioneer 3030	61.8	2.96
Pioneer 3145	47.6	2.94
Pioneer 3147	49.6	2.57
Pioneer 3368A	98.6	6.57
Pioneer 3369A	51.5	3.12

^{1/} 1-9 scale; 1 = no visible symptoms, 9 = severe symptoms

Table 21. Viral Disease Reactions, Regular Corn Variety Test, Camp Hill, August 10, 1976

Hybrid	Incidence (%)		Severity rating ^{1/}
	MCD	MDM	
Coker 16	3.6	1.8	1.11
Coker 18	51.1	26.7	2.40
Coker 22	18.3	6.0	1.82
Coker 54	5.2	5.2	1.20
Coker 56	36.3	18.1	2.18
Coker 77	27.6	20.7	1.90
DeKalb XL80	11.4	1.6	1.52
DeKalb XL394	0	0	1.00
DeKalb XL395	13.1	19.6	1.70
DeKalb 1214A	4.4	0	1.10
Funks G-795W-1	6.2	20.9	1.58
Funks G-4507	5.4	0	1.27
Funks G-4525	13.0	0	1.15
Funks G-4611	26.5	10.2	1.65
Funks G-4810	1.7	0	1.14
Funks G-4864	26.2	8.2	1.66
Funks G-4949A	7.7	9.6	1.25
Funks G-5945	6.0	2.0	1.22
Greenwood 44	15.9	4.6	1.75
Greenwood 45	10.5	3.5	1.44
McCurdy 67-14	8.5	0	1.36
McCurdy 72-24	34.2	4.9	1.54
McNair 508	9.8	0	1.22
McNair S338	23.1	7.7	1.52
McNair X300	5.7	0	1.28
P.A.G. 751	8.3	2.1	1.21
Pioneer 511A	8.0	2.0	1.30
Pioneer 3009	10.2	3.4	1.32
Pioneer 3030	26.4	1.9	1.68
Pioneer 3145	19.6	3.9	1.65
Pioneer 3147	11.8	0	1.39
Pioneer 3368A	19.7	9.0	1.59
Pioneer 3369A	1.9	1.9	1.07

^{1/} 1-9 scale; 1 = no visible symptoms; 9 = severe symptoms

Table 22. Viral Disease Reactions, Regular Corn Variety Test,
Belle Mina, August 5, 1976

Hybrid	Incidence (%)		Severity rating ^{1/}
	MCD	MDM	
Coker 16	9.1	5.4	1.29
Coker 18	52.0	8.0	1.80
Coker 22	13.8	8.6	1.26
Coker 56	7.6	13.8	1.40
DeKalb XL80	14.7	1.6	1.21
DeKalb XL394	2.2	2.2	1.04
Funks G-795W-1	8.6	6.9	1.21
Funks G-4507	3.6	20.0	1.25
Funks G-4525	0	15.8	1.21
Funks G-4611	9.4	32.1	1.43
Funks G-4810	10.2	6.1	1.18
Funks G-4864	6.7	6.7	1.18
Funks G-5757	18.0	8.0	1.42
Greenwood 44	21.8	21.8	2.04
McCurdy 67-14	17.0	13.2	1.45
McCurdy MSX 88	39.6	15.1	2.40
McNair S338	14.0	12.0	1.30
McNair X300	12.5	8.9	1.36
Pioneer 511A	3.6	14.5	1.25
Pioneer 3145	4.2	2.1	1.06
Pioneer 3147	5.0	1.7	1.08
Pioneer 3179	10.7	0	1.32
Pioneer 3368A	20.7	45.2	2.72
Pioneer 3369A	4.8	3.2	1.14

^{1/} 1-9 scale; 1 = no visible symptoms, 9 = severe symptoms

Table 23. Viral Disease Reactions, Regular Corn Variety Test,
Winfield, August 6, 1976

Hybrid	Incidence (%)		Severity rating ^{1/}
	MCD	MDM	
Coker 16	13.4	2.8	1.60
Coker 18	66.6	33.0	3.22
Coker 22	43.1	7.6	2.25
Coker 56	22.8	18.5	1.92
DeKalb XL80	18.3	2.5	1.69
DeKalb XL394	17.5	3.8	1.42
Funks G-795W-1	56.4	13.4	2.61
Funks G-4507	20.5	1.5	1.81
Funks G-4525	24.8	2.7	1.51
Funks G-4611	29.7	2.5	1.90
Funks G-4810	15.5	0	1.44
Funks G-4864	20.1	3.0	1.53
Funks G-5757	25.0	0	1.43
Greenwood 44	56.8	12.8	2.79
McCurdy 67-14	21.3	0	1.56
McCurdy MSX 88	48.2	0	2.65
McNair S 338	26.3	2.6	1.67
McNair X 300	27.1	1.3	1.56
Pioneer 511A	25.7	2.6	1.59
Pioneer 3145	26.0	5.1	1.64
Pioneer 3147	15.5	7.4	1.48
Pioneer 3179	54.9	3.1	2.88
Pioneer 3368A	23.6	13.6	1.67
Pioneer 3369A	7.4	1.3	1.30

^{1/} 1-9 scale; 1 = no visible symptom, 9 = severe symptoms

Table 24. Viral Disease Reactions, Preliminary Corn Variety Test, Winfield, August 6, 1976

Hybrid	Incidence (%)		Severity rating ^{1/}
	MCD	MDM	
ACCO UC 9792	15.8	2.6	1.29
ACCO AR 38146	12.2	24.4	1.66
ACCO UC 11982	34.2	4.9	1.78
Asgrow RX114	28.9	2.6	1.58
Asgrow RX115A	47.1	0	2.09
Funks G-4520	35.9	5.1	1.82
Funks G-4747W	31.7	2.4	1.58
Funks G-4776	5.1	0	1.05
Funks G-4848	16.7	5.6	1.28
Funks G-4850	8.1	0	1.22
Funks G-4880W	11.8	2.9	1.23
GH H-2740A	45.4	12.1	2.51
GH H-2775	25.6	0	1.46
GH XC-9045	35.3	8.8	1.91
McCurdy 72-44A	36.5	2.4	1.66
McCurdy 75-58	10.2	5.1	1.31
McCurdy MSX 84A	11.8	0	1.53
McNair S-237	11.6	6.9	1.39
MDM 116	30.8	10.3	1.87
Pioneer 3535	35.9	5.1	1.82
RA 1502	14.7	2.9	1.32
RA 2502	17.9	25.6	1.67
RA 2601	46.4	0	2.64
RA 2602-W	3.1	0	1.06
SS 102A	36.8	0	1.84
SS 112	22.8	2.8	1.86
SS 125	11.4	0	1.09
TXS 114	21.6	0	1.73
TXS 119	24.3	8.1	2.13
Wilstar 6663	16.7	0	1.17
Wilstar 9997	19.1	2.4	1.83

^{1/} 1-9 scale; 1 = no visible symptoms, 9 = severe symptoms

PRELIMINARY REPORT

Table 25. Some Characteristics of Corn Hybrids Tested One Year at Three Locations in Northern Alabama, 1977

Brand name	Hybrid	Yield per acre ^{1/}				Lodged stalks Pct.	Quality ^{2/} Rating	Ears per stalk No.	Ear height Ft.	Shelling Pct.	Husk ^{2/} Rating	Mid-silk Days
		Belle Mina Bu.	Cross-ville Bu.	Win-field Bu.	Regional average Bu.							
P-A-G-----SX 17A		91	58	27	59	19.7	2.5	0.8	3.4	85.6	2.8	75
Pioneer-----3535		85	60	29	58	18.9	2.8	0.8	3.4	84.2	2.5	69
Wilstar-----6663		86	57	22	55	25.8	3.0	0.8	3.5	84.7	2.5	69
Trojan-----TXS 113		74	56	34	54	14.6	3.0	0.8	5.3	82.7	4.4	68
McCurdy-----84A		74	50	37	54	25.3	3.0	0.8	3.4	84.4	2.4	70
Ring Around--1501		83	50	27	53	28.2	3.4	0.7	3.3	84.9	2.4	70
Ring Around--2501		79	41	40	53	26.0	3.0	0.7	3.1	83.3	2.3	70
DeKalb-----XL72B		82	36	40	53	17.2	2.9	0.7	3.2	84.7	3.0	70
Pioneer-----3152		75	34	43	50	20.8	3.0	0.6	3.4	82.1	2.5	74
Wilstar-----5555		80	45	26	50	14.9	3.0	0.8	3.1	82.1	2.6	68
Ring Around--2502		74	42	33	50	28.0	2.8	0.7	3.1	81.4	2.3	71
P-A-G-----SX 98		79	38	32	50	25.9	3.0	0.7	3.2	81.5	2.8	71
Paymaster----UC 8951		87	40	22	49	33.1	2.7	0.6	3.6	82.4	2.3	73
Pioneer-----3369A ^{3/}		75	49	22	49	40.1	2.9	0.8	3.3	83.8	2.5	69
Northrup, King-PX79		87	43	15	49	17.1	2.9	0.7	3.6	84.0	3.1	73
DeKalb-----XL80A		79	39	28	49	18.2	3.3	0.7	3.5	80.8	2.8	72
Trojan-----T 1120		77	47	21	49	23.3	3.1	0.7	3.1	83.3	2.6	69
McCurdy-----75-200		67	56	22	48	30.0	3.3	0.7	3.6	82.4	2.5	74
Funk's-----G-4810A		67	47	27	47	26.6	3.1	0.7	3.6	84.3	2.5	74
Pioneer-----3147 ^{3/}		74	38	29	47	18.6	3.3	0.7	3.8	84.2	2.8	77
Trojan-----TXS 115A		85	43	12	47	25.4	3.0	0.7	3.4	84.4	2.3	72
Golden Harvest-H-2740A		71	39	28	46	19.7	2.8	0.7	3.9	82.5	2.2	72
McNair-----X-170		73	52	11	46	26.1	2.9	0.8	3.0	82.7	2.5	68
Northrup, King-PX723		65	38	30	44	18.7	3.3	0.7	3.9	83.2	2.4	74
DeKalb-----XL78		71	38	22	44	47.9	2.8	0.7	3.2	84.4	2.8	69
McCurdy-----75-210		60	38	29	42	31.0	2.9	0.6	3.8	82.3	2.5	74
Asgrow-----RX114		62	30	19	37	21.2	3.3	0.6	3.6	80.3	2.2	75

(Continued):

Table 25. (Cont'd) Some Characteristics of Corn Hybrids Tested One Year at Three Locations in Northern Alabama, 1977

Brand name	Hybrid	Yield per acre ^{1/}				Lodged stalks Pct.	Quality ^{2/} Rating	Ears per stalk No.	Ear height Ft.	Shelling Pct.	Husk ^{2/} Rating	Mid-silk Days
		Belle Mina Bu.	Cross-ville Bu.	Win-field Bu.	Regional average Bu.							
Northrup,King-PX718W		69	24	17	37	30.4	3.1	0.5	3.9	82.5	2.5	76
Northrup,King-PX95		60	33	13	36	19.2	3.7	0.6	4.0	81.0	2.7	75
Golden Harvest-H-2750		60	25	15	33	29.9	3.4	0.6	3.4	79.7	2.3	74
McNair-----508		40	29	16	28	12.5	3.9	0.6	3.9	72.6	2.4	82
Paymaster-----UC 12052		48	18	17	28	5.8	3.5	0.4	3.8	79.6	2.3	82

Test average: 73 42 25
L.S.D. (.05): 14 16 16
CV(%) 13.5 28.1 46.7

^{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.

PRELIMINARY REPORT

Table 26. Some Characteristics of Corn Hybrids Tested at Two Locations in Southern Alabama, 1977

Brand name	Hybrid	Yield per acre ^{1/}			Lodged stalks Pct.	Quality ^{2/} Rating	Ears per stalk No.	Ear height Ft.	Shelling Pct.	Husk ^{2/} Rating	Mid-silk Days
		Head-land Bu.	Fair-hope Bu.	Average Bu.							
McNair-----	X-170	77	89	83	21.7	2.9	1.0	2.7	79.7	2.6	63
Golden Harvest---	H-2666	80	84	82	37.0	2.8	0.9	2.8	81.0	2.5	64
Trojan-----	TXS 115A	76	87	82	23.1	3.8	0.9	3.0	79.2	3.0	65
Trojan-----	TXS 113	75	83	79	27.8	2.9	1.0	2.5	79.5	2.9	63
Pioneer-----	3369A ^{3/}	75	81	78	39.7	3.1	0.9	3.0	79.7	2.6	64
Golden Harvest---	H-2500	74	79	76	27.0	3.5	0.9	3.1	79.5	2.1	64
Wilstar-----	6663	68	85	76	35.3	3.3	0.9	2.9	80.1	2.8	65
McCurdy-----	84A	65	86	75	30.2	3.3	0.9	2.9	78.7	2.1	65
Northrup, King---	PX 79	69	81	75	27.3	3.3	0.9	3.0	75.5	2.8	64
DeKalb-----	XL78	73	74	73	43.1	2.5	0.9	2.8	78.4	2.6	65
McCurdy-----	72-44A	65	79	72	47.3	3.1	1.0	3.1	79.0	2.0	66
Paymaster-----	UC 8951	59	85	72	39.3	3.4	0.8	3.2	77.1	2.1	66
Ring Around-----	2501	64	80	72	39.2	2.6	0.9	2.8	80.7	2.3	64
Northrup, King---	PX675	61	83	72	25.6	3.5	0.9	2.9	80.8	2.1	65
Trojan-----	T 1120	61	79	70	22.2	3.3	0.9	2.8	77.7	2.5	63
Ring Around-----	2601	63	76	70	31.3	3.4	0.9	3.2	80.9	2.5	67
DeKalb-----	XL80A	58	71	65	37.8	3.5	0.8	3.0	78.1	2.6	65
Golden Harvest---	H-2775	55	69	62	39.5	3.0	0.9	2.7	77.6	2.3	67
Ring Around-----	2602W	63	61	62	39.4	3.6	0.8	3.3	76.4	2.4	68
Wilstar-----	9990	51	73	62	48.7	3.1	0.8	2.8	80.2	2.3	67
Pioneer-----	3152	57	66	61	35.4	3.5	0.9	2.9	78.6	2.8	68
McCurdy-----	75-200	46	68	57	51.4	3.3	0.7	3.3	78.0	2.1	69
Funk's-----	G-4810A	47	66	57	41.1	3.0	0.8	3.2	77.2	2.8	67
Pioneer-----	3147 ^{3/}	46	65	56	39.0	3.3	0.8	3.1	80.3	2.5	72
Wilstar-----	9997	45	61	53	47.8	2.8	0.7	3.1	79.6	2.1	68
Northrup, King---	PX95	43	61	52	42.1	3.8	0.8	3.3	79.0	2.8	68
Asgrow-----	RX140A	36	55	45	33.7	3.3	0.6	3.4	77.6	2.3	74
Funk's-----	G-4880W	39	51	45	36.2	3.4	0.7	3.2	74.6	1.9	71

(Continued):

Table 26. (Cont'd) Some Characteristics of Corn Hybrids Tested at Two Locations in Southern Alabama, 1977

Brand name	Hybrid	Yield per acre ^{1/}			Lodged stalks Pct.	Quality ^{2/} Rating	Ears per stalk No.	Ear height Ft.	Shelling Pct.	Husk ^{2/} Rating	Mid-silk Days
		Head-land Bu.	Fair-hope Bu.	Average Bu.							
Asgrow-----	RX132	40	49	45	42.5	2.9	0.7	3.0	77.0	2.0	72
Paymaster-----	UC 12052	29	59	44	21.8	3.3	0.7	3.1	73.7	1.8	78
P-A-G-----	752	35	51	43	30.8	3.6	0.7	3.1	75.6	2.1	71
DeKalb-----	XL390A	36	45	40	44.2	4.0	0.6	3.2	76.9	1.9	71
Asgrow-----	RX450A	33	46	39	43.7	3.0	0.6	3.4	77.4	2.3	72

Test average: 59 72
L.S.D. (.05): 16 9
C.V. (%): 19.8 8.9

^{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 1978

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 group and yellow and white hybrids designated (Y) and (W) respectively. Central Alabama composite ratings are based on 1974-76 data.

NORTHERN ALABAMA			CENTRAL ALABAMA			SOUTHERN ALABAMA		
Brand name	Hybrid		Brand name	Hybrid		Brand name	Hybrid	
<u>Early to Mid-Season</u>			<u>Early to Mid-Season</u>			<u>Early to Mid-Season</u>		
Pioneer-----	3369A	(Y)	Pioneer-----	3369A	(Y)	McCurdy-----	67-14	(Y)
McCurdy-----	67-14	(Y)	McCurdy-----	67-14	(Y)	Pioneer-----	3369A	(Y)
Coker-----	16	(Y)	McNair-----	S-338	(Y)	Coker-----	16	(Y)
Funk's-----	G-4810	(Y)	McNair-----	X300	(Y)	DeKalb-----	XL80	(Y)
McNair-----	X-300	(Y)				McNair-----	X-300	(Y)
DeKalb-----	XL80	(Y)				Funk's-----	G-4810	(Y)
McNair-----	S-338	(Y)				DeKalb-----	XL394	(Y)
						McNair-----	S-338	(Y)
			<u>Full Season</u>					
			Funk's-----	G-795W-1	(W)			
			Pioneer-----	3147	(Y)			
			Pioneer-----	511A	(W)	<u>Full Season</u>		
			Funk's-----	G-4864	(Y)	Pioneer-----	3147	(Y)
			Coker-----	77	(Y)	Pioneer-----	3145	(Y)
			Pioneer-----	3009	(Y)	Coker-----	77	(Y)
			McNair-----	508	(Y)	Funk's-----	G-795W-1	(W)
			Coker-----	56	(Y)	Funk's-----	G-4864	(Y)
			Funk's-----	G-5945	(Y)	McNair-----	508	(Y)
			P-A-G-----	751	(Y)	Pioneer-----	511A	(W)
			Funk's-----	G-4949A	(Y)	Funk's-----	G-5945	(Y)
			*Pioneer-----	3030	(Y)	Pioneer-----	3030	(Y)
						Coker-----	54	(Y)
						Pioneer-----	3009	(Y)
						Funk's-----	G-4949A	(Y)

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

NOTE: Normally, hybrids are evaluated for 3 years in the regular corn variety tests before being considered for inclusion in the list of acceptable hybrids. However, hybrids that have been outstanding for 2 years may be suitable for use on a trial basis. Two-year averages of yield and other characteristics are given by region in tables 3, 7, and 11.

*Information contained
herein is available to
all regardless of race,
color, or national origin.*