



Performance
of Corn
Hybrids
in Alabama
1991



January 1992
Agronomy and Soils
Departmental Series No. 157
Alabama Agricultural
Experiment Station
Lowell T. Frobish, Director
Auburn University
Auburn University, Alabama

TABLE OF CONTENTS

	Page
INTRODUCTION.....	5
ACKNOWLEDGMENTS.....	8
Table 1. Locations and Cultural Practices for the 1991 Corn Hybrid Tests.....	9
NORTHERN ALABAMA	
Table 2. Two- and Three-Year Yield and Lodging Averages for Yellow Corn for Northern Alabama, 1989-91.....	10
Table 3. 1991 Yield of Yellow Corn Hybrids by Location and Regional Averages of Hybrid Characteristics in Northern Alabama.....	11
Table 4. White Corn Hybrid Test, Northern Alabama, 1989-91.....	12
Table 5. Early Corn Hybrid Test, Northern Alabama, 1989-91.....	13
Table 6. Characteristics of Corn Hybrids Tested One Year in Preliminary Test at Crossville in Northern Alabama, 1991.....	14
CENTRAL ALABAMA	
Table 7. Two- and Three-Year Yield and Lodging Averages for Yellow Corn for Central Alabama, 1989-91.....	15
Table 8. 1991 Yield of Yellow Corn Hybrids by Location and Regional Averages of Hybrid Characteristics in Central Alabama.....	16
Table 9. White Corn Hybrid Test, Central Alabama, 1989-91.....	17
Table 10. Early Corn Hybrid Test, Central Alabama, 1989-91.....	18
Table 11. Characteristics of Corn Hybrids Tested One Year in Preliminary Test at Tallassee in Central Alabama, 1991	19
BLACK BELT	
Table 12. Black Belt Corn Hybrid/Virus Test 1989-91.....	20
SOUTHERN ALABAMA	
Table 13. Two- and Three-Year Yield and Lodging Averages for Yellow Corn for Southern Alabama, 1989-91.....	21

Table 14.	1991 Yield of Yellow Corn Hybrids by Location and Regional Averages of Hybrid Characteristics in Southern Alabama.....	22
Table 15.	Irrigated Corn Hybrid Performance and Characteristics at Headland in Southern Alabama, 1989-91.....	23
Table 16.	White Corn Hybrid Test, Southern Alabama, 1989-91.....	24
Table 17.	Early Corn Hybrid Test, Southern Alabama, 1989-91.....	25
Table 18.	Characteristics of Corn Hybrids Tested One Year in Preliminary Test at Fairhope in Southern Alabama, 1991	26
	VIRUS DISEASE REACTIONS OF SOME HYBRIDS IN 1991.....	27
	Procedure.....	28
	Results.....	28
Table 19.	Incidence of Maize Chlorotic Dwarf Virus Disease in Regular Corn Hybrid Tests, 1991.....	29
Table 20.	Incidence of Maize Dwarf Mosaic Virus Disease in Regular Corn Hybrid Tests, 1991.....	31
Table 21.	Growing Season Rainfall, 1989-91.....	33
	SOURCES OF 1991 CORN HYBRID TEST SEED.....	34
	ACCEPTABLE HYBRIDS FOR 1992.....	35

Information contained herein is available to all without regard to race, color, sex, or national origin.

PERFORMANCE OF CORN HYBRIDS IN ALABAMA, 1991

D.L. Thurlow and W.C. Johnson¹

INTRODUCTION

Corn hybrids are evaluated annually by the Alabama Agricultural Experiment Station in the Regular Corn Hybrid Test and the Preliminary Corn Hybrid Test on a northern, central, and southern regional basis. The Marion Junction, or Black Belt Substation, corn test is used as the prairie soil regional comparison. Entries in the preliminary tests are both experimental and newly released hybrids. If a hybrid is outstanding in the preliminary test, it is entered in the regular corn test the following year. White and early yellow corn hybrids are tested at one location in each region. One regular and one white corn hybrid test are irrigated at Headland in southern Alabama.

The locations and cultural practices for the tests are shown in table 1. The tests were designed as a randomized complete block with four replications. Row width was 30 to 36 inches depending on location. Two-row plots were used, with row length ranging from 20 to 30 feet depending, again, on location. The target plant population for the tests was 20,000 plants per acre with a seeding rate of 23,000 seeds per acre. The irrigated tests at Headland were seeded at a rate of 30,000 plants per acre and thinned to 25,000 per acre.

¹Respectively, Associate Professor and Professor of Agronomy and Soils.

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. The mid-silk data measured the number of days from planting until one-half of the plants in the plots were showing silks. Bushel test weights are reported as regional averages from this year's data.

To aid in determining real yield differences, a statistical analysis of variance is performed on the data from each location. The L.S.D. (least significant difference) and C.V. (coefficient of variation) are given for each location's test. The difference in yield of two hybrids must exceed the L.S.D. value for one hybrid to be considered superior to the others in yield in that particular test. The C.V. is a measure of the variability in an experiment. An increase in its value indicates an increase in the unaccounted variability.

The corn hybrid tests are examined for disease incidence each year by R.T. Gudauskas, Professor of Plant Pathology. When virus or other disease symptoms indicate crop damage, disease ratings are compiled and published in this report (page 28). Virus infection data from the tests at Marion Junction, Prattville, Belle Mina, and Crossville are reported this year, tables 19 and 20.

Since the performance of hybrids varies with location and year, long-term averages from several locations are more reliable than 1-year performance data. Three-year regional averages are considered a reliable evaluation of the relative performance of hybrids.

The irrigation test at Headland had 6.3 inches of water applied in 5 applications during June and July to supplement the rainfall. Good rainfall during May in 1991 set the stage for good yields at most locations. However, at Fairhope excess rainfall, 9 and 13 inches in April and May, respectively,

resulted in reduced yields. A committee comprised of Department of Agronomy and Soils research and extension personnel involved in corn research reviewed the past 3 years of corn hybrid test data to assemble the list of acceptable hybrids on pages 35-37. The recommended hybrids are not all equal in performance. Some are outstanding in one or more characteristics; while others may not be obviously outstanding, they might possess a satisfactory combination of all characteristics.

ACKNOWLEDGMENTS

Appreciation is expressed to the following supervisory personnel of the outlying units whose quality work makes this a reliable source of information for farmers in their areas.

NORTHERN ALABAMA

Tennessee Valley Substation, Belle Mina - W.B. Webster, H.E. Burgess,
B.E. Norris

Sand Mountain Substation, Crossville - J.T. Eason, M.E. Ruf

Upper Coastal Plain Substation, Winfield - W.A. Griffey, R.C. Rawls

CENTRAL ALABAMA

Black Belt Substation, Marion Junction - J.L. Holliman, J.R. Harris

Prattville Experiment Field - D.P. Moore

E.V. Smith Research Center, Shorter - R.R. Duffield

Plant Breeding Unit, Tallassee - S.P. Nightengale

SOUTHERN ALABAMA

Lower Coastal Plain Substation - J.A. Little, P.A. Rose

Brewton Experiment Field - J.R. Akridge

Monroeville Experiment Field - J.R. Akridge

Gulf Coast Substation, Fairhope - E.L. Carden, N.R. McDaniel,
M.D. Pegues

Wiregrass Substation, Headland - H.W. Ivey, L.N. Wells, B.E. Gamble

Appreciation is also expressed to Mien-Huei Tzeng and Mrs. Sally Bagwell, Research Data Analysis, for the computation, summarization, and analysis of the data in this report.

TABLE 1. LOCATIONS AND CULTURAL PRACTICES FOR THE 1991 CORN HYBRID TESTS

Location	Planting date	Nitrogen rate*	Plant population	Date harvested	Herbicides used
<u>Northern Alabama</u>					
Tennessee Valley Substation (Belle Mina)	April 3	136	20,000	August 28 September 3	Atrazine
Sand Mountain Substation (Crossville)					
Regular test	April 22	153	20,000	September 12	Atrazine + Dual
Preliminary test	April 22	153	20,000	September 16	Atrazine + Dual
White corn test	April 25	153	20,000	September 17	Atrazine + Dual
Early corn test	April 3	153	20,000	September 11	Atrazine + Dual
Upper Coastal Plain Substation (Winfield)	May 23	150	20,000	September 30	Atrazine
(Planted skips)	June 13				
<u>Central Alabama</u>					
E.V. Smith Research Center (Shorter)					
Early corn test	March 20	175	20,000	August 1	Atrazine + Lasso
White corn test	March 20	175	20,000	August 7	Atrazine + Lasso
Plant Breeding Unit (Tallassee)	March 25	200	20,000	August 20	Atrazine + Dual
Prattville Experiment Field (Prattville)	March 20	120	20,000	August 22	Atrazine
Black Belt Substation (Marion Junction)	March 21	150	20,000	August 21	Atrazine + Gramoxone
<u>Southern Alabama</u>					
Brewton Experiment Field (Brewton)					
Regular test	March 15	120	20,000	August 22	Atrazine + Dual
Preliminary test	March 21	120	20,000	August 23	Atrazine + Dual
Lower Coastal Plain Substation (Camden)					
Regular test	April 4	131	20,000	August 19	Atrazine
Wiregrass Substation (Headland)					
Regular test (unirrigated)	April 27	126	20,000	August 16 & 19	Atrazine
Regular test (irrigated)	April 27	206	25,000	August 16 & 19	Atrazine
White corn test (irrigated)	April 27	206	25,000	August 16 & 19	Atrazine
Gulf Coast Substation (Fairhope)					
Regular test	March 14	150	20,000	July 29	Atrazine + Dual
Preliminary test	March 14	150	20,000	July 29	Atrazine + Dual
Early corn test	February 28	150	20,000	July 24	Atrazine + Dual

*Pounds per acre N. Lime, phosphorus, potassium, zinc, and sulfur were applied according to soil test recommendations.

TABLE 2. TWO- AND THREE-YEAR YIELD AND LODGING AVERAGES FOR YELLOW CORN FOR NORTHERN ALABAMA*, 1989-91

BRAND NAME-HYBRID	YIELD PER ACRE, AV.		LODGED STALKS, AV.	
	3-YR.	2-YR.	3-YR.	2-YR.
	1989-91	1990-91	1989-91	1990-91
	BU.	BU.	PCT.	PCT.
PIONEER 3140	140	131	1.0	0.8
PIONEER 3165	140	122	1.3	1.3
NC+ 7507	138	129	2.0	2.3
ZIMMERMAN Z 27	136	125	2.0	1.8
DEKALB DK 689	136	118	2.0	2.0
ZIMMERMAN Z 38	135	122	1.0	0.8
TERRA TR 1180	133	123	1.2	0.8
PIONEER 3320	132	117	1.7	1.5
DELTAPINE G-4666	132	121	1.2	1.0
SUNBELT 1802	132	121	1.2	1.0
NORTHRUP KING S8645	132	121	1.5	1.3
AGRATECH GK 900	131	115	1.5	1.5
TERRA TR 1170	130	120	1.0	1.0
SUNBELT 1827	129	107	1.5	1.3
DEKALB DK 789	129	112	1.3	0.8
SUNBELT 1876	128	105	2.3	2.3
TERRA TR 1190	128	115	1.3	1.0
NORTHRUP KING MCNAIR 508	120	91	3.0	3.0
HY PERFORMER HS-97	120	105	1.5	1.0
NORTHRUP KING S8505	-	130	-	2.0
CARGILL 9027	-	124	-	1.0
NORTHRUP KING N8727	-	124	-	0.5
JACQUES 8510	-	122	-	1.3
AGRATECH 888	-	121	-	0.5
ASGROW RX 911	-	120	-	0.5
ASGROW RX 947	-	120	-	1.8
FFR 16847	-	120	-	1.8
AGRATECH 825	-	120	-	1.0
DEKALB DK 677	-	117	-	1.0
PIONEER 3180	-	117	-	0.8
ZIMMERMAN Z 20	-	111	-	0.8

* BELLE MINA AND CROSSVILLE.

TABLE 3. 1991 YIELD OF YELLOW CORN HYBRIDS BY LOCATION AND REGIONAL AVERAGES OF HYBRID CHARACTERISTICS IN NORTHERN ALABAMA

BRAND NAME-HYBRID	BELLE MINA	CROSSVILLE	WINFIELD***	1991 REGIONAL AVERAGES.					
				YIELD	LODGED	TEST	MID-***	HUSK*	HARVEST
				PER ACRE	STALKS	WEIGHT	SILK	COVER	MOISTURE
	BU.	BU.	BU.	BU.	PCT.	LB./BU.	MO.-DA.	RATING	PCT.
PIONEER 3140	113	150	-	132	0.5	58.0	6-24	2	14.5
TERRA TR 1180	107	153	-	130	0.5	58.2	6-23	2	13.9
NORTHRUP KING S8505	102	157	-	130	2.0	58.6	6-23	2	14.5
NORTHRUP KING N8727	97	161	-	129	0	59.9	6-22	2	14.0
ASGROW RX 947	105	152	-	128	1.0	57.8	6-25	2	15.0
CARGILL 9027	101	153	-	127	0	58.6	6-23	2	14.3
DEKALB DK 689	110	144	-	127	1.5	57.5	6-24	2	14.0
NC+ 7507	114	137	-	126	1.5	58.2	6-25	3	13.8
ASGROW RX 911	100	151	-	125	0	58.7	6-23	2	14.1
NORTHRUP KING S8645	102	148	-	125	0.5	58.9	6-22	2	14.0
PIONEER 3142	106	143	-	124	1.0	58.2	6-24	3	14.0
DEKALB DK 677	101	147	-	124	1.0	59.3	6-24	2	13.6
DELTAPINE G-4666	103	144	-	124	0.5	58.7	6-22	2	14.2
HY PERFORMER HS-9773	111	134	-	122	2.5	57.6	6-23	3	14.1
SUNBELT 1876	85	157	-	121	1.0	56.6	7-2	2	15.0
PIONEER 3165	103	139	-	121	0.5	58.2	6-26	2	14.9
TERRA TR 1190	101	140	-	120	0.5	58.4	6-24	2	14.0
AGRATECH 888	108	132	-	120	0.5	58.4	6-22	2	13.9
PIONEER 3154	112	127	-	119	2.0	58.4	6-24	2	13.9
NORTHRUP KING PX79	100	139	-	119	0.5	56.8	6-23	2	13.5
ZIMMERMAN Z 27	104	133	-	119	1.0	57.4	6-27	2	14.3
ZIMMERMAN Z 38	102	135	-	119	1.0	59.0	6-22	2	13.9
FFR 16847	103	133	-	118	1.5	58.5	6-21	2	14.5
AGRATECH 757	97	139	-	118	0.5	58.2	6-25	2	13.7
TERRA TR 1170	103	133	-	118	0.5	59.1	6-21	3	14.1
FFR 793C	106	130	-	118	1.0	57.8	6-23	2	14.3
JACQUES 8510	100	134	-	117	1.0	57.9	6-21	2	14.7
PIONEER 3180	97	135	-	116	0.5	57.5	6-23	3	13.6
SUNBELT 1802	109	122	-	116	1.0	58.3	6-22	2	14.9
DEKALB DK 715	109	123	-	116	1.5	57.7	6-22	2	14.9
TERRA TR 367E	98	132	-	115	1.0	58.5	6-24	2	14.2
FFR 934C	102	126	-	114	1.5	57.8	6-22	2	14.9
PIONEER 3320	104	124	-	114	1.0	58.3	6-25	2	13.8
DEKALB DK 789	100	126	-	113	1.0	57.1	6-26	3	14.5
HY PERFORMER HS-9911	97	129	-	113	1.5	58.6	6-22	2	14.0
AGRATECH GK 900	91	133	-	112	1.0	59.8	6-24	2	14.5
ZIMMERMAN Z 20	92	131	-	112	0.5	58.8	6-25	2	13.9
AGRATECH 825	99	124	-	111	1.5	59.5	6-21	2	14.1
SUNBELT 1827	96	119	-	107	1.0	58.4	6-25	2	15.2
NORTHRUP KING PX9540	94	119	-	107	0.5	58.4	6-22	2	13.9
NORTHRUP KING MCNAIR 508	72	133	-	103	1.5	58.0	7-2	2	15.9
HY PERFORMER HS-97	92	113	-	102	0.5	58.0	6-23	2	14.1
TEST AVERAGE	101.1	136.4	.						
L.S.D. (.05)	11.7	23.0	.						
C.V. (%)	8.3	12.0	.						

* 1= EXCELLENT; 5= VERY POOR.

** MID-SILK DATA FROM BELLE MINA AND CROSSVILLE ONLY.

*** YIELD NOT RECORDED DUE TO POOR STAND.

TABLE 4. WHITE CORN HYBRID TEST, NORTHERN ALABAMA*, 1989-91

BRAND NAME-HYBRID	YIELD PER ACRE, AV.			LODGED STALKS, AV.			1991			
	3-YR.	2-YR.	1991	3-YR.	2-YR.	1991	MIDSILK	TEST	HUSK***	HARVEST
	1989-91	1990-91		1989-91	1990-91			WEIGHT	COVER	MOISTURE
	BU.	BU.	BU.	PCT.	PCT.	PCT.	MO./DA.	LB./BU.	RATING	PCT.
PIONEER 3165 **	142	128	123	1.0	1.0	2.0	7-9	57.2	1	15.8
DEKALB DK 689 **	134	115	117	0.7	1.0	1.0	7-8	56.8	1	15.0
ZIMMERMAN Z 54 W	130	112	115	4.0	3.5	4.0	7-9	56.7	2	16.3
DELTAPINE G-4644W	130	112	108	3.0	2.5	3.0	7-8	58.1	2	15.7
HY PERFORMER HS 175W	128	109	113	2.3	2.0	2.0	7-8	57.3	1	15.9
ZIMMERMAN Z 16 W	126	113	111	1.7	1.5	2.0	7-7	57.8	2	16.0
PIONEER 3144W	125	104	98	2.3	2.5	3.0	7-9	57.4	2	15.6
AGRATECH 917 W	124	103	109	2.3	1.5	2.0	7-8	56.5	1	15.4
ZIMMERMAN Z 14 W	119	101	95	3.0	3.0	3.0	7-7	57.2	1	15.9
ZIMMERMAN Z 17 W	118	94	97	2.0	2.0	2.0	7-6	57.2	2	15.0
ZIMMERMAN Z 63 W	-	110	112	-	1.5	2.0	7-8	57.8	1	15.8
FFR 922W	-	110	110	-	1.0	1.0	7-8	59.5	1	16.5
ZIMMERMAN Z 61 W	-	102	106	-	0.5	1.0	7-8	57.4	1	14.8
AGRATECH GK 927W	-	101	108	-	1.5	2.0	7-9	57.3	2	16.2
AGRATECH X 0717W	-	-	124	-	-	3.0	7-7	58.5	1	16.2
UAP 700W	-	-	112	-	-	2.0	7-7	58.4	1	15.8
PIONEER 3281W	-	-	103	-	-	2.0	7-9	58.5	1	15.3
TEST AVERAGE			109.3							
L.S.D. (.05)			17.6							
C.V. (%)			11.3							

* CROSSVILLE.
 ** YELLOW CORN CHECK HYBRID.
 *** 1= EXCELLENT; 5= VERY POOR.

TABLE 5. EARLY CORN HYBRID TEST, NORTHERN ALABAMA*, 1989-91

BRAND NAME-HYBRID	YIELD PER ACRE, AV.			LODGED STALKS, AV.			1991			
	3-YR.	2-YR.	1991	3-YR.	2-YR.	1991	MIDSILK	TEST	HUSK**	HARVEST
	1989-91	1990-91		1989-91	1990-91		MO./DA.	WEIGHT	COVER	MOISTURE
	BU.	BU.	BU.	PCT.	PCT.	PCT.		LB./BU.	RATING	PCT.
PIONEER 3165 ***	154	140	161	0.7	0.5	0	6-24	57.2	3	16.5
DEKALB DK 689 ***	146	137	163	0.7	0	0	6-22	57.0	2	15.5
ZIMMERMAN Z 27	134	127	136	0.7	0	0	6-19	56.9	2	15.7
ZIMMERMAN Z 38	133	121	128	0.3	0	0	6-20	56.9	2	16.0
PIONEER 3295	132	116	128	0.7	0	0	6-22	56.2	3	15.5
SUNBELT SB 1839	131	112	126	1.3	0.5	0	6-23	57.7	2	16.0
AGRATECH 825	131	119	123	0.7	0.5	1.0	6-20	57.0	2	15.8
DEKALB DK 649	130	119	138	0	0	0	6-23	55.8	3	15.5
SUNBELT 1827	126	113	125	0.7	0	0	6-22	57.3	2	15.6
DELTAPINE G-4666	126	114	118	1.3	1.0	1.0	6-21	57.8	1	16.0
DELTAPINE DP 5750	125	118	120	1.7	1.0	1.0	6-21	56.8	1	15.9
SUNBELT 1802	123	113	107	1.0	0.5	1.0	6-19	56.1	2	15.5
AGRATECH 888	121	112	117	0.7	0	0	6-20	56.8	1	15.8
PIONEER 3245	-	126	135	-	1.0	1.0	6-21	58.4	2	15.1
ZIMMERMAN Z 20	-	123	136	-	0.5	0	6-22	57.7	2	15.6
NORTHROP KING PX9540	-	114	119	-	0.5	1.0	6-21	58.0	2	15.6
DELTAPINE 4581	-	-	145	-	-	1.0	6-22	56.8	3	15.5
NORTHROP KING PX79	-	-	141	-	-	0	6-20	55.3	2	15.3
DEKALB DK 643	-	-	141	-	-	1.0	6-21	55.1	3	15.3
FFR 19448	-	-	133	-	-	0	6-23	55.9	3	15.8
SUNBELT 1803	-	-	131	-	-	0	6-20	57.1	2	15.6
JACQUES 8210	-	-	129	-	-	0	6-20	56.8	1	15.5
HY PERFORMER HS-60	-	-	127	-	-	1.0	6-22	57.3	2	15.8
NORTHROP KING N7816	-	-	127	-	-	0	6-21	54.5	3	15.5
HY PERFORMER HS-9773	-	-	125	-	-	0	6-22	56.7	3	15.4
FFR 10467	-	-	124	-	-	0	6-21	56.9	2	15.7
ZIMMERMAN Z 36	-	-	119	-	-	1.0	6-21	57.0	2	16.2
AGRATECH 757	-	-	119	-	-	0	6-23	56.4	2	15.6
FFR 19439	-	-	118	-	-	0	6-20	56.9	1	15.8
UAP 8344	-	-	117	-	-	0	6-21	57.2	2	15.5
PIONEER 3394	-	-	109	-	-	0	6-20	57.0	2	15.2
TEST AVERAGE			128.5							
L.S.D. (.05)			21.9							
C.V. (%)			12.2							

* CROSSVILLE.
 ** 1= EXCELLENT; 5= VERY POOR.
 *** STANDARD MID TO LATE SEASON HYBRIDS.

TABLE 6. CHARACTERISTICS OF CORN HYBRIDS TESTED ONE YEAR IN PRELIMINARY TEST
AT CROSSVILLE IN NORTHERN ALABAMA, 1991

BRAND NAME-HYBRID	AV. YIELD	LODGED	HUSK*	MIDSILK	TEST	HARVEST
	PER ACRE	STALKS	COVER		WEIGHT	MOISTURE
	BU.	PCT.	RATING	MO.-DA.	LB./BU.	PCT.
DEKALB DK 689 **	153	1.0	2	7-5	58.2	15.5
UAP 8105	151	0	3	7-6	57.6	16.0
DELTAPINE 6111X	151	1.0	2	7-4	56.6	16.3
PIONEER 3165 **	147	1.0	2	7-5	57.6	16.0
DELTAPINE 7056X	147	0	1	7-3	57.1	16.1
PIONEER X0726	145	1.0	2	7-6	57.3	15.4
AGRATECH X1725	143	0	2	7-6	57.2	15.6
UAP 8116	143	1.0	1	7-3	57.5	15.6
NC+ 7304	142	1.0	2	7-6	56.7	15.3
HY PERFORMER HS9704	141	1.0	3	7-4	57.1	15.8
DEKALB DK 743	140	2.0	2	7-2	57.4	16.0
NORTHRUP KING N8318	138	0	2	7-1	54.9	16.1
CARGILL 7997	136	1.0	3	7-1	57.8	15.5
NORTHRUP KING N7816	136	1.0	3	7-2	56.3	15.2
PIONEER X0813	135	1.0	2	7-5	58.0	15.3
JACQUES 8410	130	1.0	3	7-5	57.2	16.2
PIONEER 3320	127	2.0	2	7-5	56.8	15.2
FFR 45240	126	0	3	7-6	55.7	16.0
DELTAPINE 4581	126	1.0	2	7-5	57.1	15.2
UAP XP8309	126	1.0	3	7-3	56.9	15.6
UAP 8344	125	1.0	2	7-3	57.2	15.5
NC+ 8410	125	0	2	7-7	56.1	15.9
AGRATECH X1900	125	1.0	3	7-5	58.2	15.7
AGRATECH 1177	124	1.0	2	7-11	56.3	17.3
PIONEER 3394	120	1.0	2	7-1	56.9	14.4
SUNBELT 1803	119	0	2	7-3	56.8	15.3
ZIMMERMAN Z 36	116	1.0	2	7-4	56.9	14.6
HY PERFORMER HS9592	115	0	2	7-3	58.2	15.4
UAP 8290	115	0	2	7-2	57.9	15.8
HY PERFORMER HS-60	110	2.0	2	7-5	57.1	16.0
TEST AVERAGE	132.4					
L.S.D. (.05)	20.8					
C.V. (%)	11.2					

* 1= EXCELLENT; 5= VERY POOR.

** STANDARD HYBRIDS FOR COMPARISON.

TABLE 7. TWO- AND THREE-YEAR YIELD AND LODGING AVERAGES FOR YELLOW CORN FOR CENTRAL ALABAMA*, 1989-91

BRAND NAME-HYBRID	YIELD PER ACRE, AV.		LODGED STALKS, AV.	
	3-YR.	2-YR.	3-YR.	2-YR.
	1989-91	1990-91	1989-91	1990-91
	BU.	BU.	PCT.	PCT.
MCCURDY 7777	104	102	1.2	1.5
JACQUES 9220	100	99	1.2	1.5
DELTAPINE DP 5750	99	94	1.0	1.3
DEKALB DK 689	97	94	1.0	1.3
TERRA TR 1180	96	91	0.5	0.5
DELTAPINE G-4666	96	90	0.8	1.0
TERRA TR 1190	96	96	0.7	0.8
SUNBELT 1802	94	92	1.7	2.3
PIONEER 3320	94	92	1.7	2.5
JACQUES 8210	93	95	1.5	1.8
SUNBELT 1860	93	90	1.0	1.3
TERRA TR 1170	92	87	0.5	0.5
NC+ 7507	92	92	1.2	1.5
PIONEER 3165	92	93	2.7	3.8
DEKALB DK 789	92	92	1.7	2.3
SUNBELT 1827	90	87	1.5	2.3
ZIMMERMAN Z 27	89	88	1.2	1.8
HY PERFORMER HS-97	88	85	1.0	1.3
ZIMMERMAN Z 38	88	84	0.7	1.0
AGRATECH GK 900	85	83	2.0	2.8
PIONEER 3140	85	89	1.5	2.0
SUNBELT 1876	83	78	2.5	3.3
FFR 934C	-	91	-	2.3
AGRATECH 825	-	90	-	0.5
CARGILL 9027	-	89	-	1.8
AGRATECH 888	-	88	-	1.0
ZIMMERMAN Z 20	-	81	-	3.8

* PRATTVILLE AND CAMDEN.

TABLE 8. 1991 YIELD OF YELLOW CORN HYBRIDS BY LOCATION AND REGIONAL AVERAGES OF HYBRID CHARACTERISTICS IN CENTRAL ALABAMA

BRAND NAME-HYBRID	PRATTVILLE	CAMDEN	1991 REGIONAL AVERAGES.					
			YIELD	LODGED	TEST	MID-	HUSK*	HARVEST
			PER ACRE	STALKS	WEIGHT	SILK	COVER	MOISTURE
	BU.	BU.	BU.	PCT.	LB./BU.	MO.-DA.	RATING	PCT.
DELTAPINE DP 5750	121	114	117	0.5	59.6	6-4	2	14.0
JACQUES 9220	121	113	117	1.0	57.0	6-5	2	13.6
TERRA TR 1190	120	113	116	0.5	58.3	6-4	2	13.7
MCCURDY 7777	112	121	116	1.5	56.9	6-5	2	14.0
DELTAPINE G-4666	119	111	115	1.0	59.4	6-4	1	14.2
TERRA TR 1180	121	109	115	0.5	59.3	6-4	1	14.1
DEKALB DK 689	127	102	114	1.5	56.4	6-5	2	13.5
DEKALB DK 789	120	108	114	3.0	57.1	6-5	2	14.8
AGRATECH 888	120	107	114	1.0	57.8	6-4	2	13.4
PIONEER 3165	119	108	114	4.5	58.9	6-6	2	14.8
PIONEER 3142	106	122	114	1.5	57.8	6-5	3	13.9
HY PERFORMER HS-9911	118	106	112	0	57.8	6-5	2	13.8
SUNBELT 1827	121	100	110	2.5	58.5	6-5	2	13.8
SUNBELT 1802	120	97	109	3.5	57.9	6-5	2	14.3
SUNBELT 1860	118	99	109	1.5	59.0	6-7	1	15.4
PIONEER 3320	115	101	108	3.5	58.7	6-4	2	13.7
SUNBELT SB 1839	108	108	108	5.0	60.3	6-6	2	15.3
TERRA TR 367E	112	103	108	0.5	58.8	6-4	2	13.7
NC+ 7507	113	99	106	1.5	56.6	6-5	2	13.9
HY PERFORMER HS-9773	111	98	104	1.5	57.1	6-4	3	13.7
AGRATECH 825	114	95	104	0	59.5	6-4	2	14.2
SUNBELT 1876	117	91	104	5.0	58.0	6-8	2	16.2
TERRA TR 1170	112	94	103	1.0	58.8	6-4	2	14.0
PIONEER 3140	114	90	102	2.5	55.6	6-5	2	14.2
FFR 934C	105	99	102	1.0	57.7	6-4	2	14.3
JACQUES 8210	108	96	102	1.5	58.4	6-4	2	13.5
HY PERFORMER HS-97	108	94	101	1.5	57.1	6-4	2	13.8
PIONEER 3154	108	92	100	5.5	43.1	6-4	2	14.1
ZIMMERMAN Z 38	103	96	99	1.0	59.0	6-4	2	13.9
ZIMMERMAN Z 27	116	82	99	1.5	56.7	6-5	3	13.5
CARGILL 9027	106	91	98	2.0	58.7	6-4	2	14.4
AGRATECH GK 900	86	106	96	4.5	60.0	6-5	3	14.8
ZIMMERMAN Z 20	91	89	90	6.0	57.6	6-5	2	13.4
TEST AVERAGE	112.9	101.4						
L.S.D. (.05)	14.0	19.1						
C.V. (%)	8.8	13.4						

* 1= EXCELLENT; 5= VERY POOR.

TABLE 9. WHITE CORN HYBRID TEST, CENTRAL ALABAMA*, 1989-91

BRAND NAME-HYBRID	YIELD PER ACRE, AV.			LODGED STALKS, AV.			1991		
	3-YR.	2-YR.	1991	3-YR.	2-YR.	1991	MIDSILK	TEST	HARVEST
	1989-91	1990-91		1989-91	1990-91		MO./DA.	WEIGHT	MOISTURE
	BU.	BU.	BU.	PCT.	PCT.	PCT.		LB./BU.	PCT.
ZIMMERMAN Z 54 W	130	132	143	0.7	1.0	2.0	6-2	56.8	11.0
PIONEER 3165 **	129	142	151	0	0	0	6-2	58.2	11.0
ZIMMERMAN Z 17 W	128	133	150	0.7	0.5	0	6-1	57.5	11.0
ZIMMERMAN Z 14 W	125	132	137	2.7	3.5	6.0	5-30	57.0	11.0
DEKALB DK 689 **	124	122	142	0.3	0.5	0	6-1	57.5	11.0
HY PERFORMER HS 175W	122	121	126	0.3	0.5	1.0	5-30	56.3	11.0
AGRATECH 917 W	116	125	136	0	0	0	6-1	56.5	11.0
ZIMMERMAN Z 16 W	114	122	124	0.3	0.5	1.0	5-29	58.5	11.0
PIONEER 3144W	114	117	135	0	0	0	6-1	57.0	11.0
DELTAPINE G-4644W	106	122	139	1.3	2.0	3.0	5-31	60.0	11.0
ZIMMERMAN Z 63 W	-	135	144	-	0	0	5-31	57.8	11.0
AGRATECH GK 927W	-	123	133	-	2.5	4.0	6-3	57.2	11.0
FFR 922W	-	122	130	-	0.5	0	5-30	58.7	11.0
ZIMMERMAN Z 61 W	-	115	137	-	0	0	6-2	59.1	11.0
UAP 700W	-	-	150	-	-	1.0	5-30	56.8	11.0
AGRATECH X 0717W	-	-	143	-	-	0	5-30	58.8	11.0
PIONEER 3281W	-	-	136	-	-	0	6-2	58.6	11.0
TEST AVERAGE			138.4						
L.S.D. (.05)			21.2						
C.V. (%)			10.8						

* SHORTER.

** YELLOW CORN CHECK HYBRID.

TABLE 10. EARLY CORN HYBRID TEST, CENTRAL ALABAMA*, 1989-91

BRAND NAME-HYBRID	YIELD PER ACRE, AV.			LODGED STALKS, AV.			1991		
	3-YR.	2-YR.	1991	3-YR.	2-YR.	1991	MIDSILK	TEST	HARVEST
	1989-91	1990-91		1989-91	1990-91		MO./DA.	WEIGHT	MOISTURE
	BU.	BU.	BU.	PCT.	PCT.	PCT.		LB./BU.	PCT.
PIONEER 3165 **	147	136	141	0.7	0.5	1.0	6-2	58.6	10.5
DELTAPINE DP 5750	144	134	139	0.3	0	0	5-30	58.1	10.5
DEKALB DK 689 **	143	137	158	0.3	0	0	6-1	57.3	10.5
SUNBELT 1827	142	134	140	0.7	0.5	1.0	5-30	59.5	10.5
DELTAPINE G-4666	141	130	137	0.3	0	0	5-30	58.1	10.5
ZIMMERMAN Z 27	139	124	142	0.3	0.5	1.0	5-29	58.3	10.5
SUNBELT SB 1839	139	129	141	0.3	0.5	1.0	5-30	59.5	10.5
DEKALB DK 649	135	125	133	0.3	0	0	5-31	57.6	10.5
AGRATECH 888	135	126	133	0.3	0	0	5-30	59.1	10.5
SUNBELT 1802	134	129	135	0.3	0	0	5-27	59.4	10.5
AGRATECH 825	131	125	134	0.3	0.5	1.0	5-30	58.8	10.5
ZIMMERMAN Z 38	124	118	131	0.3	0	0	5-30	57.9	10.5
PIONEER 3295	115	103	134	0	0	0	5-29	56.9	10.5
PIONEER 3245	-	134	150	-	0	0	5-30	59.7	10.5
NORTHROP KING PX9540	-	117	123	-	0	0	5-28	58.8	10.5
ZIMMERMAN Z 20	-	110	124	-	1.0	0	5-30	58.7	10.5
FFR 10467	-	-	147	-	-	0	5-29	57.8	10.5
HY PERFORMER HS-9773	-	-	146	-	-	1.0	5-29	57.4	10.5
FFR 19439	-	-	139	-	-	0	5-29	58.9	10.5
JACQUES 8210	-	-	139	-	-	0	5-29	58.6	10.5
DEKALB DK 643	-	-	138	-	-	0	5-28	57.1	10.5
NORTHROP KING PX79	-	-	136	-	-	0	5-29	57.3	10.5
DELTAPINE 4581	-	-	135	-	-	1.0	5-30	58.5	10.5
PIONEER 3394	-	-	134	-	-	0	5-28	57.7	10.5
SUNBELT 1803	-	-	134	-	-	0	5-29	58.1	10.5
ZIMMERMAN Z 36	-	-	134	-	-	1.0	5-30	59.4	10.5
AGRATECH 757	-	-	130	-	-	0	6-1	58.6	10.5
UAP 8344	-	-	130	-	-	1.0	5-29	59.5	10.5
FFR 19448	-	-	130	-	-	0	6-1	59.6	10.5
NORTHROP KING N7816	-	-	127	-	-	0	5-29	57.9	10.5
HY PERFORMER HS-60	-	-	126	-	-	1.0	5-30	59.1	10.5
TEST AVERAGE			136.1						
L.S.D. (.05)			14.6						
C.V. (%)			7.7						

* SHORTER.

** STANDARD MID TO LATE SEASON HYBRIDS.

TABLE 11. CHARACTERISTICS OF CORN HYBRIDS TESTED ONE YEAR IN PRELIMINARY TEST
AT TALLASSE IN CENTRAL ALABAMA, 1991

BRAND NAME-HYBRID	AV. YIELD	LODGED	HUSK*	MIDSILK	TEST	HARVEST
	PER ACRE	STALKS	COVER		WEIGHT	MOISTURE
	BU.	PCT.	RATING	MO.-DA.	LB./BU.	PCT.
UAP 8105	163	0	3	6-5	59.0	18.0
DEKALB DK 743	161	0	3	6-4	56.9	17.0
DEKALB DK 689 **	161	0	2	6-5	57.3	17.5
AGRATECH X1900	158	0	3	6-5	59.2	17.3
NC+ 7304	157	0	3	6-5	57.7	15.2
PIONEER X0726	149	2.0	3	6-5	57.7	17.4
PIONEER 3394	149	0	3	6-4	56.6	15.2
CARGILL 7997	149	0	3	6-4	56.8	15.9
HY PERFORMER HS9704	148	0	3	6-5	58.3	16.8
UAP XP8309	148	0	2	6-3	57.6	16.2
DELTAPINE 6111X	144	0	2	6-4	58.1	17.7
AGRATECH 1177	144	0	2	6-14	56.3	19.5
PIONEER 3320	143	0	3	6-4	57.5	15.5
AGRATECH X1725	143	0	3	6-4	56.4	15.0
UAP 8116	142	0	3	6-5	58.2	17.5
UAP 8344	141	0	3	6-3	58.7	15.4
JACQUES 8410	141	0	3	6-5	59.5	16.6
NORTHRUP KING N8318	141	0	3	6-3	53.3	16.3
SUNBELT 1803	138	0	4	6-4	57.6	15.6
PIONEER 3165 **	136	0	3	6-6	57.3	17.5
DELTAPINE 7056X	136	0	3	6-4	56.9	17.1
PIONEER X0813	135	0	3	6-4	58.8	16.6
NORTHRUP KING N7816	135	0	4	6-3	56.2	15.8
UAP 8290	133	1.0	3	6-4	58.8	15.6
DELTAPINE 4581	132	0	3	6-4	58.6	16.3
HY PERFORMER HS-60	129	1.0	3	6-4	57.8	16.3
ZIMMERMAN Z 36	128	0	3	6-5	58.0	15.4
NC+ 8410	125	0	2	6-5	54.8	17.6
HY PERFORMER HS9592	124	0	2	6-4	58.3	16.7
FFR 45240	122	1.0	3	6-5	53.4	17.1
TEST AVERAGE	141.7					
L.S.D. (.05)	17.0					
C.V. (%)	8.5					

* 1= EXCELLENT; 5= VERY POOR.
** STANDARD HYBRIDS FOR COMPARISON.

TABLE 12. BLACK BELT* CORN HYBRID/VIRUS TEST, 1989-91

BRAND NAME-HYBRID	YIELD PER ACRE, AV.			LOGGED STALKS, AV.			1991			
	3-YR.	2-YR.	1991	3-YR.	2-YR.	1991	MIDSILK	TEST	HUSK**	HARVEST
	1989-91	1990-91		1989-91	1990-91			WEIGHT	COVER	MOISTURE
	BU.	BU.	BU.	PCT.	PCT.	PCT.	MO.-DA.	LB./BU.	RATING	PCT.
PIONEER 3165	117	121	100	0.3	0.5	1.0	6-4	57.2	1	18.0
DEKALB DK 689	107	112	107	0.3	0.5	0	6-3	56.5	2	17.2
DEKALB DK 789	104	104	81	1.3	1.5	2.0	6-4	57.4	2	18.5
JACQUES 9220	102	100	91	2.3	0.5	1.0	6-4	58.0	1	18.1
MCCURDY 7777	102	103	99	1.0	1.0	2.0	6-4	57.9	1	18.3
SUNBELT 1860	99	104	85	1.0	1.0	2.0	6-5	59.1	1	18.2
AGRATECH GK 900	96	98	93	0.7	0.5	1.0	6-4	59.5	1	18.4
DEKALB DK 649	95	93	82	0.3	0.5	1.0	6-6	55.0	2	15.5
AGRATECH 891	92	96	83	0.7	1.0	1.0	6-2	58.3	1	16.7
AGRATECH 888	85	90	79	0	0	0	6-4	58.8	1	15.8
HY PERFORMER HS-97	84	83	70	1.0	1.0	2.0	5-31	57.2	1	14.2
JACQUES 8510	-	104	86	-	0	0	5-31	56.8	1	16.9
ASGROW RX 947	-	103	89	-	0	0	6-4	58.1	1	19.5
DEKALB DK 643	-	100	84	-	0.5	1.0	5-30	52.7	2	13.6
AGRATECH 917 W	-	98	95	-	0.5	1.0	6-4	56.6	1	18.0
SUNBELT 7400	-	95	94	-	1.0	1.0	6-8	56.0	1	19.2
TERRA TR 1180	-	91	87	-	1.0	2.0	6-4	59.4	1	15.0
FFR 934C	-	91	77	-	1.0	1.0	5-31	57.8	1	17.3
AGRATECH GK 927W	-	76	69	-	0	0	6-7	58.1	1	18.6
PIONEER 3085	-	-	104	-	-	0	6-6	56.8	2	17.6
SUNBELT 1876	-	-	98	-	-	0	6-16	57.5	1	20.9
JACQUES 8410	-	-	95	-	-	0	5-31	60.4	1	18.7
AGRATECH 1177	-	-	95	-	-	2.0	6-13	57.3	1	21.8
FFR 45240	-	-	89	-	-	1.0	6-5	55.1	1	18.8
CARGILL 7997	-	-	85	-	-	2.0	5-29	57.7	3	15.4
DELTAPINE G-4666	-	-	84	-	-	1.0	6-4	58.8	1	15.3
DELTAPINE DP 5750	-	-	82	-	-	2.0	6-4	59.5	1	16.0
CARGILL 9027	-	-	80	-	-	1.0	5-31	56.4	1	16.3
NORTHRUP KING S8505	-	-	78	-	-	2.0	6-4	57.3	1	14.9
ASGROW RX 911	-	-	75	-	-	1.0	6-4	59.1	1	15.6
HY PERFORMER HS-9911	-	-	74	-	-	2.0	6-4	58.4	1	16.0
TERRA TR 1190	-	-	73	-	-	2.0	6-4	58.7	1	16.4
HY PERFORMER HS-60	-	-	71	-	-	0	6-5	57.3	1	15.4
TEST AVERAGE			85.7							
L.S.D. (.05)			16.3							
C.V. (%)			13.6							

* MARION JUNCTION. SEE TABLES 19 AND 20 FOR VIRUS DISEASE REACTIONS.

** 1= EXCELLENT; 5= VERY POOR.

TABLE 13.TWO- AND THREE-YEAR YIELD AND LODGING AVERAGES FOR YELLOW CORN FOR SOUTHERN ALABAMA*, 1989-91

BRAND NAME-HYBRID	YIELD PER ACRE, AV.		LODGED STALKS, AV.	
	3-YR.	2-YR.	3-YR.	2-YR.
	1989-91	1990-91	1989-91	1990-91
	BU.	BU.	PCT.	PCT.
DEKALB DK 689	111	106	0.6	0.5
MCCURDY 8181	111	104	0.4	0.4
MCCURDY 7777	111	111	1.5	0.6
SUNBELT 7400	109	99	1.6	0.8
JACQUES 9220	108	110	2.7	1.5
TERRA TR 1180	107	108	0.5	0.3
SUNBELT 1860	107	103	1.0	0.8
SUNBELT 1802	106	108	0.2	0.1
NC+ 7507	106	100	1.5	1.5
SUNBELT 1827	105	101	0.4	0.1
NORTHRUP KING S8645	104	105	0.3	0.3
TERRA TR 1190	103	104	0.8	0.4
TERRA TR 1170	103	98	0.6	0.4
ZIMMERMAN Z 38	103	103	0.3	0
AGRATECH GK 900	103	96	0.9	0.4
NORTHRUP KING MCNAIR 508	101	93	1.1	0.9
SUNBELT 1876	101	97	2.7	0.8
ZIMMERMAN Z 27	100	96	0.8	0.8
HY PERFORMER HS-97	100	97	1.5	0.8
DEKALB DK 789	99	96	0.9	0.6
PIONEER 3165	98	103	1.3	1.0
PIONEER 3140	98	98	0.3	0.3
PIONEER 3320	91	88	1.6	1.4
AGRATECH 888	-	106	-	0.5
NORTHRUP KING S8505	-	105	-	1.1
ASGROW RX 911	-	104	-	0.4
CARGILL 9027	-	102	-	0.8
PIONEER 3055	-	101	-	0.6
ASGROW RX 947	-	101	-	1.8
FFR 16847	-	100	-	0.6
AGRATECH 825	-	100	-	0
NORTHRUP KING N8727	-	99	-	0.1
DEKALB DK 677	-	98	-	0.1
FFR 934C	-	95	-	0.6
PIONEER 3180	-	89	-	0.3
ZIMMERMAN Z 20	-	80	-	0.4

* FAIRHOPE, BREWTON, MONROEVILLE, AND HEADLAND.

TABLE 14. 1991 YIELD OF YELLOW CORN HYBRIDS BY LOCATION AND REGIONAL AVERAGES OF HYBRID CHARACTERISTICS IN SOUTHERN ALABAMA

BRAND NAME-HYBRID	FAIRHOPE	BREWTON	MONROEVILLE	HEADLAND	1991 REGIONAL AVERAGES					
					YIELD**	LOGGED	TEST	MID-	HUSK*	HARVEST
					PER ACRE	STALKS	WEIGHT	SILK	COVER	MOISTURE
	BU.	BU.	BU.	BU.	BU.	PCT.	LB./BU.	MO.-DA.	RATING	PCT.
TERRA TR 1180	98	143	123	140	135	0.5	57.7	5-29	2	14.6
JACQUES 9220	90	145	111	136	131	2.5	55.9	5-29	2	14.4
MCCURDY 7777	109	142	113	134	130	0.8	56.3	5-29	2	14.5
PIONEER 3085	88	140	108	139	129	1.3	55.9	5-30	3	15.0
TERRA TR 1190	88	131	123	132	129	0.8	56.6	5-29	2	14.6
AGRATECH 888	98	134	122	129	128	0.5	57.4	5-27	2	14.6
SUNBELT 7400	58	139	123	122	128	1.0	55.3	6-3	2	15.8
DEKALB DK 689	90	139	112	133	128	1.0	54.9	5-28	3	14.7
SUNBELT 1860	88	130	112	142	128	0.8	57.6	6-1	2	15.8
SUNBELT 1802	106	138	120	126	128	0.3	55.9	5-24	2	14.6
DELTAPINE DP 5750	68	128	121	131	127	0.3	57.9	5-29	2	14.8
NORTHROP KING S8645	106	134	114	132	126	0.3	57.2	5-27	2	14.9
ASGROW RX 911	90	134	118	127	126	0.5	57.1	5-30	2	14.7
AGRATECH GK 900	89	146	110	118	125	0.8	58.1	5-28	2	14.7
PIONEER 3055	86	128	116	130	124	0.8	57.1	5-30	2	15.0
NORTHROP KING MCNAIR 508	72	144	114	114	124	1.0	56.8	6-5	2	16.1
SUNBELT 1827	71	143	106	120	123	0.3	56.7	5-29	2	14.8
DELTAPINE G-4666	102	127	118	123	123	0.3	57.4	5-28	2	15.1
SUNBELT 1876	62	137	106	124	122	0.5	55.9	6-5	2	16.0
ASGROW RX 947	74	140	113	113	122	1.8	55.3	5-30	2	14.6
NY PERFORMER HS-9911	23	131	108	125	121	0.8	57.3	5-29	2	14.2
NORTHROP KING N8727	108	134	104	122	120	0.3	57.0	5-27	3	14.7
NORTHROP KING S8505	108	126	109	123	119	0.5	55.6	5-29	2	14.3
DEKALB DK 677	78	129	107	121	119	0.3	57.1	5-29	2	14.3
FFR 10467	112	126	106	124	119	0	56.2	5-28	2	14.2
MCCURDY 8181	98	125	103	128	118	0	57.4	5-27	2	15.2
FFR 934C	47	142	88	122	117	0.5	56.5	5-28	2	15.0
PIONEER 3245	78	119	101	130	116	0.3	57.0	5-28	2	14.2
GARST 8315	98	123	110	115	116	0.8	55.3	5-30	2	15.0
NY PERFORMER HS-9773	93	115	111	121	116	0	55.3	5-27	3	14.5
PIONEER 3165	96	114	100	131	115	1.3	56.0	5-29	2	15.0
NC+ 7507	98	119	114	111	115	2.8	54.9	5-28	2	14.6
ZIMMERMAN Z 38	84	123	102	117	114	0	56.3	5-23	3	14.6
PIONEER 3136	111	106	93	142	113	0	55.8	5-28	2	14.7
DEKALB DK 715	91	128	82	129	113	0.5	54.9	5-26	3	14.9
PIONEER 3140	103	130	104	103	112	0.3	55.0	5-30	2	14.8
AGRATECH 825	71	129	94	113	112	0	56.9	5-25	2	14.7
TERRA TR 367E	89	118	97	121	112	0	56.1	5-28	2	14.7
CARGILL 9027	104	126	95	115	112	0.3	55.9	5-26	2	14.6
PIONEER 3180	63	137	83	114	111	0	54.5	5-28	3	14.7
TERRA TR 1170	76	113	100	120	111	0	56.7	5-26	3	14.9
DEKALB DK 789	81	128	109	96	111	0.3	54.8	5-30	3	15.7
NY PERFORMER HS-97	96	120	89	119	109	1.3	56.1	5-27	2	14.7
ZIMMERMAN Z 27	93	122	100	101	108	1.3	54.9	5-30	2	14.4
FFR 793C	89	109	95	119	108	0.3	56.0	5-28	3	15.1
PIONEER 3142	117	114	74	131	106	1.0	55.5	5-29	3	14.7
FFR 16847	81	114	83	122	106	0.8	55.0	5-27	3	14.4
PIONEER 3320	63	103	84	117	101	1.3	55.4	5-27	2	14.4
NORTHROP KING PX9540	71	103	79	103	95	0	55.7	5-25	2	14.4
ZIMMERMAN Z 20	42	104	79	93	92	0.5	55.5	5-29	3	14.4
TEST AVERAGE	85.8	127.4	104.0	122.2						
L.S.D. (.05)	33.1	24.2	22.4	20.8						
C.V. (%)	27.6	13.6	15.4	12.2						

* 1= EXCELLENT; 5= VERY POOR.

** YIELDS FROM FAIRHOPE NOT INCLUDED IN REGIONAL AVERAGE BECAUSE OF HIGH COEFFICIENT OF VARIATION CAUSED BY EXCESS RAINFALL; SEE TABLE 21.

TABLE 15. IRRIGATED CORN HYBRID PERFORMANCE AND CHARACTERISTICS AT HEADLAND IN SOUTHERN ALABAMA, 1989-91*

BRAND NAME-HYBRID	YIELD PER ACRE, AV.			LOGGED STALKS, AV.			1991			
	3-YR.	2-YR.	1991	3-YR.	2-YR.	1991	MIDSILK	TEST	HUSK**	HARVEST
	1989-91	1990-91		1989-91	1990-91			WEIGHT	COVER	MOISTURE
	BU.	BU.	BU.	PCT.	PCT.	PCT.	MO.-DA.	LB./BU.	RATING	PCT.
DEKALB DK 689	174	181	172	5.0	6.5	12.0	5-31	56.4	3	10.8
SUNBELT 1860	173	191	196	3.3	4.0	8.0	5-31	58.1	2	10.5
AGRATECH GK 900	172	178	163	1.0	1.5	3.0	5-28	59.9	3	10.6
SUNBELT 1827	171	186	190	1.3	2.0	3.0	5-28	58.4	3	12.5
JACQUES 9220	168	197	190	6.0	5.0	9.0	5-28	57.5	3	11.2
MCCURDY 8181	164	175	168	3.0	4.5	9.0	6-5	59.5	2	11.0
SUNBELT 1802	164	179	176	1.0	1.0	2.0	5-28	56.9	2	11.6
NC+ 7507	163	169	165	5.0	6.5	13.0	5-31	54.9	3	10.7
DEKALB DK 789	162	174	158	4.3	4.5	9.0	5-31	56.8	2	12.3
MCCURDY 7777	161	169	165	3.3	5.0	10.0	5-31	56.7	3	10.8
SUNBELT 7400	159	180	181	4.0	5.0	10.0	6-5	56.9	2	10.8
ZIMMERMAN Z 27	158	170	168	5.0	7.5	15.0	6-3	56.9	2	11.7
PIONEER 3140	158	172	166	0.7	1.0	1.0	5-31	56.4	3	12.0
TERRA TR 1190	156	164	162	2.0	3.0	6.0	5-28	58.3	3	10.8
NORTHROP KING S8645	156	171	181	1.0	1.5	3.0	5-28	60.9	2	11.3
TERRA TR 1180	155	168	161	1.0	1.5	3.0	5-31	59.2	2	12.2
TERRA TR 1170	154	170	172	1.0	1.5	3.0	6-3	57.1	3	11.6
NORTHROP KING MCNAIR 508	149	166	164	4.3	5.5	9.0	6-3	58.5	3	12.1
PIONEER 3165	146	160	150	5.7	8.0	14.0	6-3	57.0	2	11.8
HY PERFORMER HS-97	145	154	140	3.3	4.5	9.0	6-2	57.4	2	11.6
ZIMMERMAN Z 38	144	159	148	3.7	4.5	9.0	5-28	58.0	3	11.5
SUNBELT 1876	143	167	163	9.0	7.5	13.0	6-5	57.3	2	11.4
PIONEER 3320	140	155	151	5.0	6.5	12.0	5-31	56.5	2	12.1
ASGROW RX 947	-	189	183	-	7.0	13.0	5-31	58.0	3	12.9
PIONEER 3055	-	182	173	-	5.0	10.0	5-31	57.9	2	10.5
NORTHROP KING S8505	-	177	168	-	4.0	8.0	5-31	57.3	2	11.3
DEKALB DK 677	-	175	171	-	1.5	2.0	5-31	58.1	3	11.0
FFR 16847	-	172	158	-	4.5	9.0	6-2	55.9	3	11.7
AGRATECH 888	-	172	165	-	3.5	7.0	5-31	59.0	3	12.4
NORTHROP KING N8727	-	170	150	-	2.0	4.0	6-3	58.3	2	11.6
ASGROW RX 911	-	167	158	-	2.0	4.0	6-5	59.2	2	11.8
PIONEER 3180	-	165	140	-	5.5	11.0	5-31	55.9	3	11.2
FFR 934C	-	163	164	-	6.0	10.0	5-31	57.8	2	10.8
AGRATECH 825	-	162	160	-	0.5	1.0	6-5	58.9	3	11.0
CARGILL 9027	-	159	147	-	7.0	12.0	6-2	57.6	3	11.4
ZIMMERMAN Z 20	-	144	116	-	4.5	8.0	5-31	56.0	3	11.4
PIONEER 3136	-	-	183	-	-	5.0	5-28	57.2	2	11.1
HY PERFORMER HS-9911	-	-	176	-	-	6.0	5-31	58.9	3	10.9
DELTAPINE G-4666	-	-	176	-	-	11.0	6-3	59.2	2	11.6
PIONEER 3245	-	-	176	-	-	2.0	5-31	57.9	3	11.6
DELTAPINE DP 5750	-	-	173	-	-	4.0	5-31	60.2	3	11.6
FFR 793C	-	-	170	-	-	9.0	5-28	57.2	3	11.6
FFR 10467	-	-	164	-	-	9.0	5-31	57.0	3	10.6
TERRA TR 367E	-	-	163	-	-	2.0	5-28	56.3	3	11.9
GARST 8315	-	-	158	-	-	22.0	6-5	56.0	2	11.6
PIONEER 3142	-	-	155	-	-	10.0	6-2	56.9	3	11.9
HY PERFORMER HS-9773	-	-	155	-	-	23.0	5-31	55.5	2	10.6
NORTHROP KING PX9540	-	-	154	-	-	11.0	5-28	58.0	3	11.0
PIONEER 3085	-	-	152	-	-	10.0	6-5	57.4	2	11.1
DEKALB DK 715	-	-	147	-	-	2.0	5-28	57.4	3	11.6
TEST AVERAGE			164.0							
L.S.D. (.05)			24.5							
C.V. (%)			10.7							

* THE TEST RECEIVED APPROXIMATELY 6.3 INCHES OF IRRIGATION WATER IN 5 APPLICATIONS DURING THE MONTHS OF JUNE AND JULY.

** 1= EXCELLENT; 5= VERY POOR.

TABLE 16. WHITE CORN HYBRID TEST, SOUTHERN ALABAMA*, 1989-91

BRAND NAME-HYBRID	YIELD PER ACRE, AV.			LODGED STALKS, AV.			1991			
	3-YR.	2-YR.	1991	3-YR.	2-YR.	1991	MIDSILK	TEST	HUSK***	HARVEST
	1989-91	1990-91		1989-91	1990-91			WEIGHT	COVER	MOISTURE
	BU.	BU.	BU.	PCT.	PCT.	PCT.	MO./DA.	LB./BU.	RATING	PCT.
ZIMMERMAN Z 16 W	158	169	152	2.3	2.0	4.0	5-31	58.4	2	14.8
DEKALB DK 689 **	155	164	166	1.7	1.5	3.0	6-7	56.2	3	12.0
PIONEER 3144W	154	161	139	1.7	1.5	3.0	6-3	56.7	3	14.3
ZIMMERMAN Z 14 W	154	165	152	1.0	1.5	3.0	6-7	57.5	3	14.7
DELTAPINE G-4644W	149	160	152	1.0	1.5	3.0	6-3	58.7	3	13.9
ZIMMERMAN Z 17 W	148	155	152	1.7	1.5	2.0	5-28	58.0	3	14.0
ZIMMERMAN Z 54 W	147	158	145	1.7	2.5	2.0	6-5	56.9	3	13.1
AGRATECH 917 W	144	154	153	1.7	2.5	3.0	5-31	56.7	2	12.9
PIONEER 3165 **	143	156	141	4.3	5.0	10.0	6-3	56.2	2	14.3
HY PERFORMER HS 175W	139	149	141	1.3	1.0	1.0	6-3	56.8	3	13.9
ZIMMERMAN Z 63 W	-	174	163	-	2.5	4.0	6-2	58.2	2	13.6
ZIMMERMAN Z 61 W	-	163	148	-	0.5	1.0	6-5	57.7	2	13.9
FFR 922W	-	156	149	-	0.5	0	6-3	60.2	3	13.8
AGRATECH GK 927W	-	149	156	-	3.0	6.0	5-31	57.0	2	13.6
AGRATECH X 0717W	-	-	164	-	-	2.0	6-3	57.8	2	14.6
UAP 700W	-	-	152	-	-	2.0	5-31	57.8	3	13.8
PIONEER 3281W	-	-	149	-	-	1.0	5-31	58.3	3	13.1
TEST AVERAGE	151.2									
L.S.D. (.05)	18.5									
C.V. (%)	8.6									

* HEADLAND. THE TEST RECEIVED APPROXIMATELY 6.3 INCHES OF IRRIGATION WATER IN 5 APPLICATIONS DURING THE MONTHS OF JUNE AND JULY.

** YELLOW CORN CHECK HYBRID.

*** 1= EXCELLENT; 5= VERY POOR.

TABLE 17. EARLY CORN HYBRID TEST, SOUTHERN ALABAMA*, 1989-91

BRAND NAME-HYBRID	YIELD PER ACRE, AV.			LOGGED STALKS, AV.			1991			
	3-YR.	2-YR.	1991	3-YR.	2-YR.	1991	MIDSILK	TEST	MUSK**	HARVEST
	1989-91	1990-91	1991	1989-91	1990-91	1991	MO./DA.	WEIGHT	COVER	MOISTURE
	BU.	BU.	BU.	PCT.	PCT.	PCT.		LB./BU.	RATING	PCT.
DEKALB DK 689 ***	118	101	70	5.3	0	0	5-28	54.1	3	20.7
SUNBELT SB 1839	117	92	56	2.3	0	0	5-28	54.8	3	21.1
DELTAPINE DP 5750	112	92	39	3.0	0.5	1.0	5-28	56.2	2	19.8
ZIMMERMAN Z 38	110	91	43	1.0	0	0	5-24	54.8	2	19.6
PIONEER 3165 ***	105	87	47	8.3	2.0	0	6-1	55.4	3	19.6
AGRATECH 888	103	76	36	0.7	0	0	5-29	54.2	2	19.6
ZIMMERMAN Z 27	102	79	44	4.3	0	0	5-26	54.3	3	17.9
DELTAPINE G-4666	101	86	49	2.7	0	0	5-31	55.6	2	20.2
SUNBELT 1802	100	82	44	2.3	0	0	5-25	55.6	2	18.1
PIONEER 3295	98	87	36	5.3	0	0	5-29	54.3	3	20.8
SUNBELT 1827	97	70	27	1.7	0.5	0	5-28	56.2	3	19.8
DEKALB DK 649	96	78	30	2.3	0.5	1.0	5-29	55.3	3	19.9
AGRATECH 825	93	73	28	3.0	0	0	5-25	54.9	2	19.2
PIONEER 3245	-	85	36	-	0	0	5-27	55.2	3	18.4
NORTHROP KING PX9540	-	81	37	-	0	0	5-23	56.2	3	18.8
ZIMMERMAN Z 20	-	71	32	-	0	0	5-26	54.4	3	20.0
HY PERFORMER HS-9773	-	-	57	-	-	0	5-24	54.2	3	21.5
FFR 10467	-	-	53	-	-	0	5-24	55.0	3	19.3
DELTAPINE 4581	-	-	50	-	-	0	5-26	50.0	3	19.3
NORTHROP KING N7816	-	-	47	-	-	0	5-24	54.9	3	17.9
UAP 8344	-	-	47	-	-	0	5-25	55.1	2	18.3
SUNBELT 1803	-	-	46	-	-	0	5-24	55.0	3	19.2
FFR 19448	-	-	46	-	-	0	5-27	54.6	3	18.9
NORTHROP KING PX79	-	-	44	-	-	0	5-26	54.0	3	19.0
AGRATECH 757	-	-	43	-	-	0	5-25	54.8	3	19.0
FFR 19439	-	-	41	-	-	0	5-24	56.3	2	18.4
HY PERFORMER HS-60	-	-	40	-	-	0	5-28	55.8	3	19.3
ZIMMERMAN Z 36	-	-	38	-	-	0	5-26	54.9	3	19.5
DEKALB DK 643	-	-	36	-	-	0	5-24	54.0	3	18.5
JACQUES 8210	-	-	31	-	-	0	5-23	54.7	2	18.5
PIONEER 3394	-	-	24	-	-	0	5-23	55.5	3	18.1
TEST AVERAGE			41.8							
L.S.D. (.05)			17.1							
C.V. (%)			29.2							

* FAIRHOPE.
 ** 1= EXCELLENT; 5= VERY POOR.
 *** STANDARD MID TO LATE SEASON HYBRIDS.

TABLE 18. CHARACTERISTICS OF CORN HYBRIDS TESTED ONE YEAR IN PRELIMINARY TEST
AT FAIRHOPE IN SOUTHERN ALABAMA, 1991

BRAND NAME-HYBRID	AV. YIELD	LODGED	HUSK*	MIDSILK	TEST	HARVEST
	PER ACRE	STALKS	COVER		WEIGHT	MOISTURE
	BU.	PCT.	RATING	MO.-DA.	LB./BU.	PCT.
PIONEER X0726	108	0	3	5-26	54.5	18.2
SUNBELT 1803	103	0	3	5-22	55.7	17.4
UAP 8105	101	0	3	5-27	55.0	19.1
PIONEER 3394	97	0	3	5-22	53.9	17.4
HY PERFORMER HS9704	91	0	3	5-24	56.3	17.1
DEKALB DK 689 **	91	0	3	5-26	55.7	18.0
AGRATECH X1900	89	0	3	5-27	56.4	18.4
HY PERFORMER HS9592	85	0	2	5-22	56.9	17.1
NC+ 7304	84	0	3	5-26	56.6	16.9
NORTHROP KING N7816	83	0	3	5-24	56.0	17.4
PIONEER X0813	78	0	3	5-27	55.6	18.3
DEKALB DK 743	78	0	3	5-26	53.6	19.5
PIONEER 3165 **	76	0	3	5-30	55.7	18.4
UAP 8116	73	0	2	5-27	56.0	17.4
NORTHROP KING N8318	73	0	2	5-22	53.3	17.7
UAP 8344	71	0	2	5-23	56.1	16.9
ZIMMERMAN 2 36	68	0	3	5-28	57.2	17.1
DELTAPINE 6111X	67	0	2	5-26	56.5	18.0
AGRATECH X1725	65	0	3	5-27	55.3	17.2
DELTAPINE 4581	64	0	3	5-26	55.6	17.4
PIONEER 3320	64	0	2	5-26	55.1	18.7
FFR 45240	63	0	3	5-28	52.3	19.0
UAP XP8309	62	0	3	5-26	54.7	17.4
UAP 8290	60	0	3	5-26	56.1	16.4
JACQUES 8410	55	0	3	5-26	57.0	16.5
HY PERFORMER HS-60	55	0	2	5-27	55.4	17.1
CARGILL 7997	55	0	3	5-27	55.4	16.5
NC+ 8410	54	0	2	5-29	54.7	17.8
DELTAPINE 7056X	52	0	2	5-28	56.2	17.9
AGRATECH 1177	45	0	2	6-6	53.8	18.5
TEST AVERAGE	73.5					
L.S.D. (.05)	35.2					
C.V. (%)	34.1					

* 1= EXCELLENT; 5= VERY POOR.
** STANDARD HYBRIDS FOR COMPARISON.

VIRAL DISEASE REACTIONS OF SOME HYBRIDS IN 1991²

The 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 since 1973. Both diseases probably occur throughout Alabama; however, they generally have been more prevalent and damaging in the northern two-thirds of the State.

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

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

Use of resistant or tolerant corn hybrids and the control of johnsongrass or avoidance of johnsongrass-infested areas are the most practical control for MCD and MDM. Commercial and experimental hybrids are evaluated yearly to identify resistant hybrids or promising sources of resistance to the diseases. Results of evaluations of some commercial hybrids during 1991 are summarized in this report.

²Prepared by Robert T. Gudauskas, Professor of Plant Pathology.

Procedure

Viral disease ratings were made on entries in the corn hybrid test at the Prattville Experiment Field, Prattville, the Black Belt Substation, Marion Junction, the Sand Mountain Substation, Crossville, and the Tennessee Valley Substation, Belle Mina. Plants showing symptoms of MCD and/or MDM were counted, and data are reported as percent incidence of the diseases for each hybrid.

Results

Levels of MCD were generally higher than in recent years, most notably in the tests at Marion Junction and Belle Mina; MDM incidence was relatively low at all locations. Incidence of MCD and MDM among hybrids in the two tests in central Alabama ranged from 0 to 12 percent and 0 to 4.2 percent, respectively. Several hybrids in both tests showed no symptoms of either disease. In tests at the two northern locations, incidence of MCD ranged from 0 to 16.1 percent, and from 0 to 7.0 percent for MDM. Again, a number of hybrids showing no symptoms to either disease were apparent in both tests.

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

Table 19. INCIDENCE OF MAIZE CHLOROTIC DWARF VIRUS DISEASE IN REGULAR
CORN HYBRID TESTS, 1991

Brand name	Hybrid	Crossville July 26	Marion Junction June 27	Prattville June 27	Belle Mina August 2
		<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>
AgraTech	757	0	-	-	3.6
AgraTech	825	3.8	-	0	0
AgraTech	888	0	2.3	0	1.8
AgraTech	891	-	8.2	-	-
AgraTech	1177	-	4.4	-	-
AgraTech	GK 900	0	3.4	1.8	0
AgraTech	GK 927W	-	8.3	-	-
AgraTech	917 W	-	3.8	-	-
Asgrow	RX 911	0	7.3	-	3.9
Asgrow	RX 947	0	0	-	0
Cargill	7997	-	2.1	-	-
Cargill	9027	0	4.4	0	1.9
DeKalb	DK 643	-	2.2	-	-
DeKalb	DK 649	-	4.0	-	-
DeKalb	DK 677	0	-	-	3.8
DeKalb	DK 689	0	2.0	0	1.8
DeKalb	DK 715	0	-	-	1.9
DeKalb	DK 789	0	4.9	0	1.8
Deltapine	DP 5750	-	0	3.6	-
Deltapine	G-4666	0	2.1	0	1.8
FFR	793C	0	-	-	0
FFR	934C	0	6.3	0	9.3
FFR	16847	0	-	-	0
FFR	45240	-	2.2	-	-
Hy Performer	HS-60	-	4.4	-	0
Hy Performer	HS-97	3.8	9.5	1.8	5.3
Hy Performer	HS-9773	0	-	0	3.8
Hy Performer	HS-9911	0	7.1	5.4	5.5
Jacques	8210	-	-	1.9	-
Jacques	8410	-	0	-	-
Jacques	8510	0	2.1	-	1.8
Jacques	9220	-	0	0	-
McCurdy	7777	-	2.0	3.6	-
NC+	7507	2.0	-	0	1.8
Northrup King	McNair 508	0	-	-	7.0
Northrup King	N8727	0	-	-	5.5
Northrup King	PX 79	0	-	-	1.8
Northrup King	PX 9540	2.0	-	-	3.8
Northrup King	S8505	0	4.7	-	1.8
Northrup King	S8645	0	-	-	14.0
Pioneer	3085	-	8.0	-	-
Pioneer	3140	3.8	-	1.9	0
Pioneer	3142	0	-	0	0

Continued

Table 19 (Continued). INCIDENCE OF MAIZE CHLOROTIC DWARF VIRUS DISEASE
IN REGULAR CORN HYBRID TESTS, 1991

Brand name	Hybrid	Crossville	Marion Junction	Prattville	Belle Mina
		July 26	June 27	June 27	August 2
		<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>
Pioneer	3154	0	-	1.9	0
Pioneer	3165	3.8	0	1.9	4.0
Pioneer	3180	0	-	-	1.9
Pioneer	3320	0	-	3.8	16.1
Sunbelt	1802	3.8	-	0	0
Sunbelt	1827	0	-	0	5.6
Sunbelt	1860	-	2.2	0	-
Sunbelt	1876	0	12.0	0	2.0
Sunbelt	7400	-	8.2	-	-
Sunbelt	SB 1839	-	-	2.0	-
Terra	TR 367E	0	-	0	3.5
Terra	TR 1170	0	-	0	5.8
Terra	TR 1180	0	4.4	1.8	5.5
Terra	TR 1190	0	4.8	0	3.8
Zimmerman	Z 20	1.9	-	2.0	0
Zimmerman	Z 27	0	-	0	1.9
Zimmerman	Z 38	0	-	0	1.9

Table 20. INCIDENCE OF MAIZE DWARF MOSAIC VIRUS DISEASE IN REGULAR CORN HYBRID TESTS, 1991

Brand name	Hybrid	Crossville July 26	Marion Junction June 27	Prattville June 27	Belle Mina August 2
		<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>
AgraTech	757	0	-	-	0
AgraTech	825	0	-	0	0
AgraTech	888	0	0	0	1.8
AgraTech	891	-	0	-	-
AgraTech	1177	-	2.2	-	-
AgraTech	GK 900	0	0	0	1.7
AgraTech	GK 927W	-	2.1	-	-
AgraTech	917 W	-	0	-	-
Asgrow	RX 911	0	0	-	3.9
Asgrow	RX 947	0	0	-	0
Cargill	7997	-	4.2	-	-
Cargill	9027	0	0	0	0
DeKalb	DK 643	-	0	-	-
DeKalb	DK 649	-	0	-	-
DeKalb	DK 677	5.7	-	-	3.8
DeKalb	DK 689	0	0	0	0
DeKalb	DK 715	0	-	-	0
DeKalb	DK 789	0	2.4	0	0
Deltapine	DP 5750	-	0	0	-
Deltapine	G-4666	0	0	0	3.6
FFR	793C	2.0	-	-	0
FFR	934C	0	0	0	5.6
FFR	16847	1.9	-	-	0
FFR	45240	-	0	-	-
Hy Performer	HS-60	-	0	-	-
Hy Performer	HS-97	1.9	0	0	3.5
Hy Performer	HS-9773	0	-	0	0
Hy Performer	HS-9911	0	0	0	3.6
Jacques	8210	-	-	0	-
Jacques	8410	-	0	-	-
Jacques	8510	3.7	2.1	-	1.8
Jacques	9220	-	0	0	-
McCurdy	7777	-	0	0	-
NC+	7507	2.0	-	1.8	0
Northrup King	Mcnaair 508	0	-	-	3.5
Northrup King	N8727	0	-	-	0
Northrup King	PX 79	0	-	-	0
Northrup King	PX 9540	0	-	-	0
Northrup King	S8505	0	2.3	-	3.6
Northrup King	S8645	0	-	-	7.0
Pioneer	3085	-	2.0	-	-
Pioneer	3140	0	-	0	0
Pioneer	3142	0	-	0	0

Continued

Table 20 (Continued). INCIDENCE OF MAIZE DWARF MOSAIC VIRUS DISEASE
IN REGULAR CORN HYBRID TESTS, 1991

Brand name	Hybrid	Crossville July 26	Marion Junction June 27	Prattville June 27	Belle Mina August 2
		<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>
Pioneer	3154	0	-	0	0
Pioneer	3165	0	0	3.7	0
Pioneer	3180	0	-	-	0
Pioneer	3320	0	-	0	3.6
Sunbelt	1802	0	-	0	0
Sunbelt	1827	6.0	-	0	3.7
Sunbelt	1860	-	0	0	-
Sunbelt	1876	0	2.0	0	0
Sunbelt	7400	-	2.0	-	-
Sunbelt	SB 1839	-	-	0	-
Terra	TR 367E	0	-	0	0
Terra	TR 1170	1.9	-	0	0
Terra	TR 1180	0	0	0	3.6
Terra	TR 1190	0	2.4	0	5.7
Zimmerman	Z 20	1.9	-	0	0
Zimmerman	Z 27	0	-	1.8	0
Zimmerman	Z 38	0	-	0	0

Table 21. Growing Season Rainfall, 1989-91

Test location	Year	Monthly rainfall (inches)							7-month total
		Mar.	Apr.	May	June	July	Aug.	Sept.	
Belle Mina	1991	8.0	9.0	9.5	1.8	2.1	2.0	3.7	36.1
	1990	8.0	4.5	5.0	3.9	3.8	1.2	1.5	27.9
	1989	5.6	3.2	3.9	13.5	5.1	2.8	3.8	37.9
Crossville	1991	5.6	6.2	4.9	5.5	2.9	3.1	3.2	31.4
	1990	7.4	3.4	4.1	3.5	2.0	2.0	3.9	26.3
	1989	5.8	3.3	3.4	8.3	9.1	1.8	8.9	40.6
Winfield	1991	4.8	14.8	15.0	4.5	1.9	2.9	3.1	47.0
	1990	6.9	3.2	7.2	7.3	3.1	2.1	2.7	25.5
	1989	5.0	3.8	4.5	8.3	7.3	3.3	5.7	37.9
Tallassee	1991	7.5	3.1	4.3	4.2	9.0	4.3	2.5	34.9
	1990	11.7	2.8	4.1	2.0	2.8	1.3	1.3	25.0
	1989	7.3	7.3	5.3	13.7	7.5	1.7	3.3	46.1
Shorter	1991	8.8	3.4	4.8	6.4	2.7	3.8	1.8	31.7
	1990	10.9	2.9	4.6	1.7	2.0	2.4	2.1	26.6
	1989	9.5	7.0	3.5	14.4	9.0	1.9	5.8	51.1
Prattville	1991	5.5	5.1	11.7	5.4	3.8	2.9	2.6	37.0
	1990	10.1	1.6	4.8	1.6	6.1	1.3	0.3	25.8
	1989	7.1	6.0	3.2	10.7	8.1	1.0	2.0	38.1
Marion Junction	1991	3.8	6.1	8.1	3.3	4.3	3.9	2.9	32.4
	1990	9.9	4.5	5.0	1.6	3.5	0.8	0.7	26.0
	1989	7.3	5.5	1.9	9.3	5.7	1.3	1.5	32.5
Camden	1991	6.9	6.8	11.2	2.8	5.6	1.9	2.8	38.0
	1990	8.2	3.0	6.4	1.5	1.5	2.9	2.9	25.6
	1989	5.3	4.2	2.1	10.3	7.4	1.9	3.7	35.9
Monroeville	1991	7.2	5.5	12.4	5.7	6.9	6.8	2.0	46.5
	1990	9.0	4.5	6.3	0.7	5.3	2.3	1.8	29.8
	1989	7.0	8.2	3.6	13.4	7.3	1.7	4.5	45.7
Brewton	1991	5.7	5.0	11.9	8.6	7.0	3.6	2.4	45.2
	1990	12.9	3.8	8.8	1.5	3.5	3.6	1.5	35.6
	1989	8.3	4.6	8.0	11.3	4.8	2.1	4.4	43.5
Fairhope	1991	4.9	9.1	13.8	5.9	8.6	6.7	3.1	52.1
	1990	10.4	2.5	4.9	6.2	5.8	0.9	1.6	32.3
	1989	4.3	2.9	7.0	18.5	8.9	2.2	0.8	44.6
Headland	1991	9.4	3.3	8.8	3.1	5.8	5.6	2.7	38.7
	1990	4.3	2.1	3.5	2.7	3.2	0.8	0.8	17.4
	1989	5.2	3.0	5.6	11.6	7.2	1.9	5.1	39.6

SOURCES OF 1991 CORN HYBRID TEST SEED

<u>Seed Company</u>	<u>Brand</u>	<u>Seed Company</u>	<u>Brand</u>
AgraTech Seed, Inc. 5559 N. 500 W. McCordsville, IN 46055	AgraTech	Hy Performer Seed Co. 5100 Poplar Ave. Memphis, TN 38137	Hy Performer
Alabama Farmers Cooperative, Inc. P.O. Box 2227 Decatur, AL 35602	FFR	Jacques Seed Co. 720 St. Croix St. Prescott, WI 54021	Jacques
Asgrow Seed Co. 7000 Portage Road Kalamazoo, MI 49001	Asgrow	McCurdy Seed Co. 522 East Main St. Fremont, IA 52561	McCurdy
Cargill Hybrid Seeds Box 5645 Minneapolis, MN 55440	Cargill	NC + Hybrid Box 4408 Lincoln, NE 68504	NC +
DeKalb Plant Genetics 3100 Sycamore Road DeKalb, IL 60115	DeKalb	Northrup King Co. 705 Woodbridge Dr. Somerville, TN 38068	Northrup King
Delta and Pine Land Co. P.O. Box 157 Scott, MS 38772	Deltapine	Pioneer Hi-Bred Int. 1000 W. Jefferson St. Tipton, IN 46072	Pioneer
Dixie Ag. Supply P.O. Box 534 Athens, AL 35611	UAP	Super Crost Seeds P.O. Box 67 Kentland, IN 47951	Sunbelt
FFR Cooperative 4112 E. State Road 225 W. Lafayette, IN 47906	FFR	Terra International, Inc. P.O. Box 171376 Memphis, TN 38187	Terra
Garst Seed Company Rt. 3 Box 93 Bowling Green, MO 63334	Garst	Zimmerman Hybrids, Inc. 5147 W. Franklin Rd. Evansville, IN 47712	Zimmerman

ACCEPTABLE HYBRIDS FOR 1992

All of the acceptable hybrids are not equal in performance. It is suggested that this report be carefully studied before choosing a hybrid. For relative maturity information, use the days to mid silk data in preceding tables. Unless otherwise noted, all acceptable hybrids have been tested at least 3 years in the tests and are listed in descending order of 3-year average yield.

NORTHERN ALABAMA

Yellow hybrids		White hybrids		Early hybrids+	
Brand name	Hybrid	Brand name	Hybrid	Brand name	Hybrid
Pioneer	3140	Zimmerman	Z 54 W	Zimmerman	Z 27
Pioneer	3165	Deltapine	G-4644 W	*Sunbelt	1802
NC +	7507	Hy Performer	HS 175 W	Zimmerman	Z 38
Zimmerman	Z 27	Zimmerman	Z 16 W	AgraTech	825
DeKalb	DK 689	Pioneer	3144 W	*AgraTech	888
Zimmerman	Z 38	*Zimmerman	Z 14 W	*Deltapine	DP 5750
Terra	TR 1180	*Zimmerman	Z 17 W	**Pioneer	3245
Pioneer	3320			Pioneer	3295
Deltapine	G-4666			Sunbelt	1827
Sunbelt	1802			**Zimmerman	Z 20
Northrup King	S8645			Sunbelt	SB 1839
AgraTech	GK 900			DeKalb	DK 649
**Northrup King	S8505				

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

**Recommended based on exceptional 2-year average.

+ Early hybrids listed in order of maturity

ACCEPTABLE HYBRIDS FOR 1992 (continued)
CENTRAL ALABAMA

<u>Yellow hybrids</u>		<u>White hybrids</u>		<u>Early hybrids+</u>		<u>Black Belt</u>	
<u>Brand name</u>	<u>Hybrid</u>	<u>Brand name</u>	<u>Hybrid</u>	<u>Brand name</u>	<u>Hybrid</u>	<u>Brand name</u>	<u>Hybrid</u>
McCurdy	7777	Zimmerman	Z 54 W	Sunbelt	1802	Pioneer	3165
Jacques	9220	Zimmerman	Z 17 W	Zimmerman	Z 27	DeKalb	DK 689
Deltapine	DP 5750	Zimmerman	Z 14 W	Deltapine	DP 5750	DeKalb	DK 789
DeKalb	DK 689	Hy Performer	HS 175 W	Sunbelt	1827	Jacques	9220
Terra	TR 1180	*Zimmerman	Z 16 W	**Pioneer	3245	McCurdy	7777
Deltapine	G-4666	**Zimmerman	Z 63 W	Deltapine	G-4666	Sunbelt	1860
Terra	TR 1190			Sunbelt	SB 1839		
Sunbelt	1802			AgraTech	888		
Pioneer	3320			DeKalb	DK 649		
Jacques	8210						
Sunbelt	1860						
*Zimmerman	Z 27						

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

**Recommended based on exceptional 2-year average.

+Early hybrids listed in order of maturity.

ACCEPTABLE HYBRIDS FOR 1992 (continued)
SOUTHERN ALABAMA

Yellow hybrids		White hybrids		Early hybrids+	
Brand name	Hybrid	Brand name	Hybrid	Brand name	Hybrid
DeKalb	DK 689	Zimmerman	Z 16 W	Zimmerman	Z 38
McCurdy	8181	Pioneer	3144 W	Zimmerman	Z 27
McCurdy	7777	Zimmerman	Z 14 W	Sunbelt	SB 1839
Sunbelt	7400	Deltapine	G-4644W	Deltapine	DP 5750
Jacques	9220	*Zimmerman	Z 54 W	*Sunbelt	1827
Terra	TR 1180	**Zimmerman	Z 63 W		
Sunbelt	1860				
Sunbelt	1802				
NC +	7507				
Sunbelt	1827				
Northrup King	S8645				
*Northrup King	McNair 508				
*Sunbelt	1876				
*Zimmerman	Z 27				
*DeKalb	DK 789				

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

**Recommended based on exceptional 2-year average.

+Early hybrids listed in order of maturity.

