



EVALUATION OF CORN HYBRIDS IN ALABAMA, 1 9 9 2

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

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EVALUATION OF CORN HYBRIDS IN ALABAMA, 1992

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INTRODUCTION

Selected varieties of corn hybrids are evaluated annually by the Alabama Agricultural Experiment Station as a service to producers and industry. These tests are spread throughout the state in an attempt to determine effects of different climatic factors and soil types on yield. There are several types of tests in the program. The Preliminary Hybrid Tests are conducted at one location in each of the northern, central and southern regions of the State. These tests include experimental and newly released hybrids. If a hybrid is outstanding in the preliminary test it is entered in the Regular Corn Hybrid Test in the following year.

The Regular Corn Hybrid Test is conducted at three locations in the northern region, three locations in the central region and four locations in the southern region. White and early yellow corn hybrids also are tested at one location in each region. In addition, one regular and one white corn hybrid test are irrigated at Headland in southern Alabama. Locations and cultural practices for all tests are shown in Table 1.

Procedure

All tests are laid out in a randomized complete block design with four replicate plots for each variety at each location.

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Rows were 30 to 36 inches apart, depending on location. Two-row plots are used, and both rows are harvested. Plots are 20 to 30 feet long, depending on location. The target plant population for the tests is 20,000 plants per acre with a seeding rate of 23,000 seeds per acre. The irrigated tests at Headland are seeded at a rate to achieve 30,000 plants per acre, but are thinned to 25,000 plants per acre.

Grain yields are adjusted to 15.5 percent moisture and converted to bushels (56 lb) per acre. Stalks broken or leaning more than 45 degrees are considered lodged. The mid-silk data show the number of days from planting until approximately half the plants in the plots are showing silks. The Regular Corn Hybrid tests also are examined for disease incidence at selected location each year. When virus or other disease symptoms indicate crop damage, disease ratings are compiled and published in this report. Virus infection data from the tests at Marion Junction, Prattville, Belle Mina and Crossville are reported this year (Table 19 and Table 20), and are preceded by a report on the importance of the diseases, how they are rated, and the relevance of the results.

Interpretation of Data

In replicated experiments such as those reported here, yields from each of the four replicate plots of a particular variety at a given location will be slightly different, because of inherent differences in productivity among those plots. These differences in yield among replicate plots are known as random variation. Given this situation it is clearly necessary to have a method to determine whether differences among hybrids are "true" or "real" differences, or whether they are due to random variation. To do this a statistical analysis is conducted to

determine a "least significant difference" (LSD) by comparing the differences among varieties with random variation. If the difference in yield between two hybrids is larger than the LSD, then the difference is probably real, but if the difference is less than the LSD, it may not be real. If the difference between two hybrids is less than, but close to the LSD, then there is still a chance that it is real, but if it is considerably smaller than the LSD, then it is probably not real and mainly due to random variation.

With this in mind it is very important to study differences in hybrid yields in relation to the LSD which is provided at the bottom of the table for each of the current year yield columns at each location. Clearly, LSD's vary from one location to another. This is because random variation varies among locations and from year to year. The coefficient of variation (CV) is a reflection of random variation, and is reported below the LSD values in the tables. If the CV is low a precise or reliable test is indicated. Ideally, the CV should be below 10 percent, but CV's of 10 to 20 percent are acceptable. Values for the CV above 20 percent indicate a rather unreliable test, which may have been caused by factors such as disease variation among replicates, etc.

In comparing yield potential of two hybrids it is important to consider a wide range of results. Do not focus on results from only one year at one location. Two- and three-year average yields are provided by location and region. These are more useful guides than yields from only one year. However, other factors may deserve consideration. For example, the differences between the highest and the lowest yield of a hybrid across several locations may be an indication of the stability of

its yield under variable conditions, or what the "risk level" of the variety is.

Differences in yield of hybrids among locations will be a result of the combined effects of differences among locations in soil, weather (mainly rainfall), planting date, weed control, and other factors. To assist in estimating which factors most likely had the greatest effect on yield differences among locations, planting dates and cultural practices (Table 1), rainfall records (Table 21) and soil types (Table 22) are provided. This information also serves as a guide for assessing conditions to which results may be extrapolated.

Table 1. Locations and Cultural Practices for the 1992 Corn Hybrid Tests

Location	Planting date	Nitrogen rate*	Plant population	Date harvested	Herbicides used
<u>Northern Alabama</u>					
Tennessee Valley Substation (Belle Mina)	April 6	135	20,000	September 17	Atrazine
Sand Mountain Substation (Crossville)					
Early corn test	April 10	153	20,000	September 11	Aatrex/Dual
Regular test	April 13	153	20,000	September 24	Aatrex/Dual
Preliminary test	April 13	153	20,000	September 25	Aatrex/Dual
White corn test	April 13	153	20,000	September 28	Aatrex/Dual
Upper Coastal Plain Substation (Winfield)	April 6	100	20,000	September 23	Atrazine
<u>Central Alabama</u>					
E.V. Smith Research Center (Shorter)					
Early corn test	April 6	153	20,000	August 18	Atrazine/Lasso
White corn test	April 6	153	20,000	August 20	Atrazine/Lasso
Plant Breeding Unit (Tallassee)	March 31	142	20,000	August 18,31	Atrazine/Lasso
Prattville Experiment Field (Prattville)	March 27	120	20,000	September 1	Atrazine
Black Belt Substation (Marion Junction)	March 17	150	20,000	August 31	Atrazine
<u>Southern Alabama</u>					
Brewton Experiment Field (Brewton)	March 26	120	20,000	September 10	Atrazine/Dual
Monroeville Experiment Field (Monroeville)	March 27	123	20,000	September 1,2	Atrazine/Dual
Lower Coastal Plain Substation (Camden)	March 30	122	20,000	August 25	Atrazine/Dual
Wiregrass Substation (Headland)					
Regular test (unirrigated)	April 8	138	20,000	September 2	Atrazine
Regular test (irrigated)	April 8	200	25,000	September 2	Atrazine
White corn test (irrigated)	April 8	200	25,000	September 2	Atrazine
Gulf Coast Substation (Fairhope)					
Early corn test	March 3	150	20,000	August 5	Atrazine/Dual
Regular test	March 16	150	20,000	August 5	Atrazine/Dual
Preliminary test	March 16	150	20,000	August 5	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*, 1990-92

Brand Name-Hybrid	Yield Per Acre, Av.		Lodged Stalks, Av.	
	3-yr.	2-yr.	3-yr.	2-yr.
	1990-92	1991-92	1990-92	1991-92
	Bu.	Bu.	Pct.	Pct.
NC+ 7507.....	141	145	2.0	1.5
Pioneer 3165.....	140	148	1.2	0.8
Cargill 9027.....	139	149	2.0	2.0
Pioneer 3140.....	139	144	1.2	1.3
Northrup King S8505.....	139	143	2.5	2.8
Terra TR 1180.....	137	147	0.7	0.5
AgraTech 888.....	137	145	0.8	1.0
Northrup King S8645.....	137	146	1.0	0.5
Northrup King N8727.....	137	146	1.0	1.0
Dekalb DK 689.....	135	149	2.2	2.0
Deltapine G-4666.....	135	144	1.0	0.8
Zimmerman Z 27.....	135	136	2.3	2.3
ICI SB 1802.....	135	139	1.2	1.3
Jacques 8510.....	134	138	1.5	1.5
AgraTech 825.....	131	132	1.3	1.8
Dekalb DK 715.....	-	150	-	0.8
Hy Performer HS-9773.....	-	146	-	3.3
Hy Performer HS-9911.....	-	140	-	1.3
Pioneer 3154.....	-	139	-	2.8
AgraTech 757.....	-	136	-	1.0
Northrup King PX9540.....	-	120	-	1.0

*Belle Mina and Crossville.

Table 3. 1992 Yield of Corn Hybrids by Location and Regional Averages of Hybrid Characteristics in Northern Alabama

Brand Name-Hybrid	Belle Mina	Crossville	Winfield	1992 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.
Dekalb DK 715.....	176	194	121	164	4.0	57.1	6-27	2	17.1
Dekalb DK 743.....	174	202	115	163	5.3	57.5	6-27	2	17.0
Pioneer 3146.....	158	194	120	157	1.7	58.0	6-27	2	17.1
Pioneer 3085.....	145	177	147	156	7.3	55.9	6-30	2	18.8
McCurdy 7777.....	164	183	118	155	9.3	57.1	7-1	2	17.2
Cargill 9027.....	170	171	120	154	3.7	57.8	6-28	2	17.1
Dyna-Gro XP8309.....	158	183	120	153	1.7	56.5	6-27	2	16.9
Pioneer 3165.....	163	187	107	152	1.3	56.4	6-30	2	17.8
ICI Garst 8105.....	157	171	128	152	2.0	58.7	7-3	2	18.4
Dekalb DK 689.....	162	179	115	152	3.7	56.6	6-28	2	17.0
AgraTech 888.....	159	180	115	151	2.0	59.3	7-3	1	17.2
Hy Performer HS-9773..	161	177	115	151	4.7	56.3	6-28	2	16.4
Northrup King S8645...	157	179	113	150	2.7	58.8	7-2	1	16.5
NC+ 7507.....	156	171	118	148	3.0	57.2	7-4	2	16.0
Deltapine G-4666.....	150	178	113	147	3.7	58.3	7-3	1	16.8
ICI SB 1802.....	158	166	116	146	2.0	57.5	6-27	1	16.6
Terra TR 1180.....	162	168	108	146	1.3	59.1	7-1	1	16.5
Northrup King N8727...	159	167	110	145	4.3	57.9	6-30	3	17.3
Hy Performer HS-9911..	154	181	101	145	1.7	58.1	7-1	1	17.0
Cargill 7997.....	154	168	108	143	2.3	57.7	6-29	3	16.0
Terra TR 1167.....	145	158	127	143	1.7	57.2	7-1	1	16.1
Dyna-Gro 8116.....	149	176	100	142	1.3	57.9	7-1	1	16.7
Zimmerman Z 27.....	135	172	115	141	5.7	57.6	7-3	2	16.2
NC+ 7304.....	138	166	116	140	1.7	57.8	7-2	2	16.4
Pioneer 3154.....	138	180	102	140	3.3	57.1	6-26	2	17.2
Pioneer 3140.....	139	173	106	139	2.0	56.6	6-29	2	16.6
McCurdy 7477.....	157	152	108	139	4.0	57.9	6-28	1	16.8
AgraTech 825.....	141	165	109	138	2.7	58.4	6-29	2	17.0
Northrup King S8505...	139	174	100	137	5.3	57.2	7-5	2	16.4
AgraTech 757.....	147	161	103	137	2.3	57.8	7-3	2	16.1
Jacques 8510.....	154	163	87	135	9.3	57.8	6-28	2	16.7
Dyna-Gro 8290.....	135	151	113	133	1.7	58.0	6-30	2	16.5
Deltapine 4581.....	140	158	96	131	1.0	57.5	7-2	2	16.0
Northrup King PX9540..	132	135	97	121	2.7	58.0	6-29	1	15.8
Test Average.....	152.4	172.2	111.8						
L.S.D. (.05).....	16.9	19.7	23.8						
C.V. (%).....	7.9	8.2	15.2						

* 1= Excellent; 5= Very Poor.

** Mid-Silk Data from Crossville and Winfield only.

Table 4. White Corn Hybrid Test, Northern Alabama*, 1990-92

Brand Name-Hybrid	Yield Per Acre, Av.			Lodged Stalks, Av.			1992			
	3-yr.	2-yr.	1992	3-yr.	2-yr.	1992	Midsilk	Test	Husk***	Harvest
	1990-92	1991-92	1992	1990-92	1991-92	1992	Mo./Da.	Weight	Cover	Moisture
	Bu.	Bu.	Bu.	Pct.	Pct.	Pct.		Lb./Bu.	Rating	Pct.
Pioneer 3165 **	148	155	187	0.7	1.0	0	7-7	52.0	2	17.2
Zimmerman Z 63 W	141	156	201	1.3	1.5	1.0	7-3	55.5	1	17.0
Dekalb DK 689 **	140	154	192	1.0	1.0	1.0	7-4	53.3	1	16.9
Deltapine G-4644W	134	143	179	2.0	2.0	1.0	7-5	55.5	1	17.0
Zimmerman Z 16 W	133	143	175	1.0	1.0	0	7-3	55.8	1	17.1
Zimmerman Z 54 W	133	145	175	2.7	2.5	1.0	7-5	54.0	1	17.3
Hy Performer HS 175W	132	146	179	1.7	1.5	1.0	7-5	53.1	1	17.2
Pioneer 3144W	130	140	183	2.0	2.0	1.0	7-3	53.3	2	17.1
Zimmerman Z 17 W	121	136	175	1.7	1.5	1.0	7-4	53.3	1	17.0
Pioneer 3281W	-	135	167	-	1.5	1.0	7-4	55.3	1	16.8
Hy Performer HS165W	-	-	178	-	-	1.0	7-4	53.5	1	16.8
Hy Performer HS185W	-	-	177	-	-	1.0	7-3	55.4	1	17.4
Test Average			180.6							
L.S.D. (.05)			15.6							
C.V. (%)			7.5							

* Crossville.
 ** Yellow Corn Check Hybrid.
 *** 1= Excellent; 5= Very Poor.

Table 5. Early Corn Hybrid Test, Northern Alabama*, 1990-92

Brand Name-Hybrid	Yield Per Acre, Av.			Lodged Stalks, Av.			1992			
	3-YR.	2-YR.	1992	3-YR.	2-YR.	1992	Midsilk	Test	Husk**	Harvest
	1990-92	1991-92		1990-92	1991-92		Mo./Da.	Weight	Cover	Moisture
	Bu.	Bu.	Bu.	Pct.	Pct.	Pct.		Lb./Bu.	Rating	Pct.
Pioneer 3165 ***.....	150	166	170	0.3	0	0	7-1	56.0	2	22.4
Dekalb DK 689 ***.....	144	160	158	0.3	0.5	1.0	7-1	56.1	2	22.2
Zimmerman Z 27.....	134	142	149	0.3	0.5	1.0	6-30	55.5	2	20.7
Zimmerman Z 38.....	131	139	150	0	0	0	6-26	56.0	2	20.9
Deltapine DP 5750.....	128	134	149	1.0	1.0	1.0	6-28	57.1	1	22.3
AgraTech 825.....	127	133	143	1.0	1.5	2.0	6-26	56.5	2	21.4
Deltapine G-4666.....	126	133	149	1.0	1.0	1.0	6-28	56.4	1	21.7
Pioneer 3245.....	124	127	120	0.7	0.5	0	6-28	57.2	1	19.8
ICI SB 1802.....	118	118	128	0.7	1.0	1.0	6-27	56.0	1	20.8
Deltapine 4581.....	-	140	136	-	0.5	0	6-29	55.3	2	20.7
Pioneer 3394.....	-	113	117	-	0.5	1.0	6-26	54.7	1	18.6
ICI Garst 8315.....	-	-	160	-	-	0	7-1	56.2	2	20.1
Northrup King N6330..	-	-	125	-	-	1.0	6-25	55.1	2	19.0
Pioneer 3215.....	-	-	120	-	-	1.0	6-29	55.1	2	22.8
Test Average.....			140.9							
L.S.D. (.05).....			20.7							
C.V. (%).....			12.7							

* Crossville.

** 1= Excellent; 5= Very Poor.

*** Standard Mid to Late Season Hybrids.

Report of Preliminary Tests
 Table 6. Characteristics of Corn Hybrids Tested One Year in
 Preliminary Test at Crossville in Northern Alabama, 1992

Brand Name-Hybrid	Av. Yield	Lodged	Husk*	Midsilk	Test	Harvest
	Per Acre	Stalks	Cover		Weight	Moisture
	<u>Bu.</u>	<u>Pct.</u>	<u>Rating</u>	<u>Mo.-Da.</u>	<u>Lb./Bu.</u>	<u>PCT.</u>
Dekalb DK 689 **...	193	0	1	7-4	52.7	18.1
Pioneer X7702RP....	192	0	1	7-6	53.0	18.5
Dekalb Exp 064.....	189	1.0	2	7-1	53.1	17.0
Pioneer 3165 **....	186	4.0	1	7-7	53.2	18.5
Hy Performer						
HS9977.....	185	1.0	2	7-3	54.1	18.5
Dyna-Gro 5510.....	181	0	2	7-1	56.0	17.4
Deltapine 4742.....	177	1.0	2	7-1	55.5	18.4
Hy Performer						
HS9843.....	177	1.0	1	7-4	54.3	17.0
Deltapine 8695.....	175	1.0	1	7-4	53.3	18.1
Hy Performer						
HS9502.....	174	0	2	7-1	53.0	16.5
Northrup King						
N8811.....	172	2.0	2	7-3	53.5	18.5
Terra TR 700E.....	171	1.0	1	7-3	53.7	18.1
Terra TR 621E.....	171	0	1	7-2	54.9	18.1
Deltapine 8620.....	166	1.0	1	6-30	53.8	17.4
NC+ 6959.....	162	0	1	7-3	54.2	17.2
NC+ 6485.....	159	0	1	7-1	53.7	17.0
Jacques 7970.....	157	1.0	1	6-29	52.1	17.0
Test Average.....	175.6					
L.S.D. (.05).....	19.3					
C.V. (%).....	7.7					

* 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*, 1990-92

Brand Name-Hybrid	Yield Per Acre, Av.		Lodged Stalks, Av.	
	3-yr.	2-yr.	3-yr.	2-yr.
	1990-92	1991-92	1990-92	1991-92
	Bu.	Bu.	Pct.	Pct.
Jacques 9220.....	106	120	1.2	0.8
McCurdy 7777.....	104	112	1.5	1.5
Pioneer 3165.....	100	113	2.5	2.3
Deltapine DP 5750.....	99	113	1.0	0.5
Jacques 8210.....	99	104	1.3	1.0
Dekalb DK 689.....	98	110	1.0	1.0
ICI SB 1802.....	97	107	1.5	1.8
Deltapine G-4666.....	96	111	0.7	0.5
Cargill 9027.....	96	103	1.5	1.5
Pioneer 3140.....	91	98	1.5	1.5
Pioneer 3320.....	91	98	2.5	3.0
Pioneer 3154.....	-	100	-	4.3

* Prattville and Camden.

Table 8. 1992 Yield of Corn Hybrids by Location and Regional Averages of Hybrid Characteristics in Central Alabama

Brand Name-Hybrid	Prattville	Camden	1992 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.
Terra TR 1167.....	107	138	123	0	56.3	6-15	2	14.9
Jacques 9220.....	110	135	122	0.5	55.9	6-15	2	14.4
Pioneer 3136.....	114	128	121	0.5	56.1	6-15	2	14.3
Pioneer 3146.....	109	118	114	0.5	58.6	6-14	2	14.2
Pioneer 3165.....	92	134	113	0	55.6	6-15	2	14.2
Pioneer 3085.....	106	121	113	2.0	56.7	6-15	3	14.4
Deltapine DP 5750...	101	118	110	0.5	57.5	6-15	2	13.8
Cargill 7997.....	97	122	109	0	54.7	6-14	2	13.9
McCurdy 7777.....	111	107	109	1.5	55.8	6-15	2	14.5
Cargill 9027.....	88	129	109	1.0	56.1	6-14	2	13.5
Deltapine G-4666....	103	112	108	0	56.9	6-15	2	14.5
Jacques 8210.....	103	110	107	0.5	57.4	6-13	2	13.6
Dyna-Gro XP8309.....	101	112	106	0	54.0	6-14	2	13.4
Dekalb DK 689.....	85	125	105	0.5	54.7	6-15	2	13.5
ICI SB 1802.....	103	107	105	0	55.7	6-14	2	13.8
Dyna-Gro 8290.....	99	107	103	0	57.8	6-14	2	13.7
Pioneer 3154.....	97	103	100	3.0	56.6	6-14	2	14.3
Pioneer 3140.....	90	99	94	0.5	55.3	6-14	2	13.5
Pioneer 3320.....	88	90	89	2.5	57.0	6-14	2	14.0
Test Average.....	100.1	116.5						
L.S.D. (.05).....	15.9	17.8						
C.V. (%).....	11.2	10.8						

* 1= Excellent; 5= Very Poor.

Table 9. White Corn Hybrid Test, Central Alabama*, 1990-92

Brand Name-Hybrid	Yield Per Acre, Av.			Lodged Stalks, Av.			1992		
	3-yr.	2-yr.	1992	3-yr.	2-yr.	1992	Midsilk	Test	Harvest
	1990-92	1991-92		1990-92	1991-92			Weight	Moisture
	Bu.	Bu.	Bu.	Pct.	Pct.	Pct.	Mo./Da.	Lb./Bu.	Pct.
Pioneer 3165 **.....	148	156	162	0.3	0.5	1.0	6-17	56.5	11.0
Zimmerman Z 63 W....	146	156	169	1.0	1.5	3.0	6-16	57.0	11.0
Zimmerman Z 54 W....	141	152	161	1.0	1.5	1.0	6-17	56.1	11.0
Zimmerman Z 17 W....	140	152	154	0.3	0	0	6-16	57.0	11.0
Hy Performer									
HS 175W.....	133	142	158	0.7	1.0	1.0	6-17	55.5	11.0
Dekalb DK 689**.....	132	147	153	0.7	0.5	1.0	6-15	56.1	11.0
Zimmerman Z 16 W....	131	136	149	0.3	0.5	0	6-16	56.7	11.0
Deltapine G-4644W...	128	140	140	1.3	1.5	0	6-17	58.5	11.0
Pioneer 3144W.....	123	135	136	0	0	0	6-16	55.1	11.0
Pioneer 3281W.....	-	143	149	-	0	0	6-16	58.2	11.0
Hy Performer HS185W.	-	-	159	-	-	1.0	6-15	57.1	11.0
Hy Performer HS165W.	-	-	154	-	-	0	6-16	57.1	11.0
Test Average.....			153.6						
L.S.D. (.05).....			12.3						
C.V. (%).....			6.9						

* Shorter.
 ** Yellow Corn Check Hybrid.

Table 10. Early Corn Hybrid Test, Central Alabama*, 1990-92

BRAND NAME-HYBRID	Yield Per Acre, Av.			Lodged Stalks, Av.			1992		
	3-YR.	2-YR.	1992	3-YR.	2-YR.	1992	Midsilk	Test	Harvest
	1990-92	1991-92		1990-92	1991-92			Weight	Moisture
	Bu.	Bu.	Bu.	Pct.	Pct.	Pct.	Mo./Da.	Lb./Bu.	Pct.
Dekalb DK 689 **.....	151	169	179	0	0	0	6-16	56.5	11.0
Pioneer 3165 **.....	148	157	172	0.3	0.5	0	6-17	57.3	11.0
Pioneer 3245.....	147	162	174	0	0	0	6-16	58.6	11.0
Deltapine DP 5750.....	140	146	153	0	0	0	6-17	56.1	11.0
Deltapine G-4666.....	140	148	159	0	0	0	6-17	56.5	11.0
Zimmerman Z 27.....	139	155	168	0.3	0.5	0	6-17	56.9	11.0
ICI SB 1802.....	138	147	158	0	0	0	6-15	57.0	11.0
AgraTech 825.....	136	147	159	0.3	0.5	0	6-16	57.0	11.0
Zimmerman Z 38.....	127	138	145	0	0	0	6-15	56.4	11.0
Pioneer 3394.....	-	149	163	-	0	0	6-15	57.1	11.0
Deltapine 4581.....	-	143	152	-	0.5	0	6-17	57.4	11.0
ICI Garst 8315.....	-	-	172	-	-	1.0	6-17	56.5	11.0
Pioneer 3215.....	-	-	158	-	-	3.0	6-17	56.3	11.0
Northrup King N6330..	-	-	148	-	-	0	6-15	55.8	11.0
Test Average.....			161.3						
L.S.D. (.05).....			15.2						
C.V. (%).....			8.2						

* Shorter.

** Standard Mid to Late Season Hybrids.

Report of Preliminary Tests
 Table 11. Characteristics of Corn Hybrids Tested One Year in Preliminary Test
 at Tallassee in Central Alabama, 1992

Brand Name-Hybrid	Av. Yield	Lodged	Husk*	Midsilk	Test	Harvest
	Per Acre	Stalks	Cover		Weight	Moisture
	<u>Bu.</u>	<u>Pct.</u>	<u>Rating</u>	<u>Mo.-Da.</u>	<u>Lb./Bu.</u>	<u>Pct.</u>
Pioneer 3165 **.....	117	0	3	6-22	57.5	24.0
Deltapine 8695.....	111	3.0	3	6-22	55.3	23.2
NC+ 6485.....	110	2.0	3	6-21	58.3	18.7
Pioneer X7702RP.....	108	1.0	2	6-22	57.4	23.0
Dekalb DK 689 **.....	100	1.0	3	6-22	55.1	22.5
Dekalb Exp 064.....	99	4.0	4	6-22	57.3	19.5
Terra TR 700E.....	97	2.0	3	6-21	55.9	23.0
Dyna-Gro 5510.....	96	1.0	3	6-22	58.4	21.4
Northrup King N8811.....	96	2.0	3	6-23	58.9	21.9
Deltapine 4742.....	92	3.0	3	6-23	58.7	20.7
Deltapine 8620.....	87	1.0	3	6-21	56.9	19.0
Terra TR 621E.....	86	1.0	2	6-23	56.3	20.8
Test Average.....	99.9					
L.S.D. (.05).....	23.1					
C.V. (%).....	16.1					

* 1= Excellent; 5= Very Poor.
 ** Standard Hybrids for Comparison.

Table 12. Black Belt Corn Hybrid/Virus Test, 1990-92

Brand Name-Hybrid	Yield Per Acre, Av.			Lodged Stalks, Av.			1992			
	3-yr.	2-yr.	1992	3-yr.	2-yr.	1992	Midsilk	Test	Husk**	Harvest
	1990-92	1991-92		1990-92	1991-92			Weight	Cover	Moisture
	Bu.	Bu.	Bu.	Pct.	Pct.	Pct.	Mo.-Da.	Lb./Bu.	Rating	Pct.
Pioneer 3165.....	130	125	150	4.3	6.5	12.0	6-11	57.1	3	19.1
Dekalb DK 689.....	121	123	139	3.3	4.5	9.0	6-10	56.0	2	16.0
McCurdy 7777.....	115	119	140	3.3	5.0	8.0	6-10	57.4	2	17.4
Jacques 9220.....	114	117	142	2.7	4.0	7.0	6-10	57.5	2	16.5
Jacques 8510.....	109	102	117	2.7	4.0	8.0	6-8	57.4	2	17.0
AgraTech 888.....	101	101	123	2.7	4.0	8.0	6-10	59.9	2	16.3
ICI SB 1860.....	99	88	91	2.0	3.0	4.0	6-14	59.1	2	19.3
Pioneer 3085.....	-	129	154	-	7.5	15.0	6-12	58.7	3	16.6
Jacques 8410.....	-	108	121	-	4.5	9.0	6-8	60.7	3	18.1
Dekalb DK 743.....	-	-	149	-	-	7.0	6-10	57.0	3	17.8
McCurdy 8181.....	-	-	141	-	-	11.0	6-11	60.1	2	18.7
Pioneer 3154.....	-	-	138	-	-	12.0	6-8	56.3	3	16.6
Pioneer 3215.....	-	-	134	-	-	16.0	6-10	56.6	3	15.3
Dyna-Gro 8116.....	-	-	134	-	-	8.0	6-10	59.1	2	15.9
Cargill 8527.....	-	-	131	-	-	11.0	6-10	59.8	2	16.3
Deltapine 4682.....	-	-	118	-	-	6.0	6-12	56.7	2	15.8
Test Average.....			132.6							
L.S.D. (.05).....			17.0							
C.V. (%).....			11.1							

* Marion Junction. See Tables 19 & 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*, 1990-92

Brand Name-Hybrid	Yield Per Acre, Av.		Lodged Stalks, Av.	
	3-yr.	2-yr.	3-yr.	2-yr.
	1990-92	1991-92	1990-92	1991-92
	Bu.	Bu.	Pct.	Pct.
Terra TR 1180.....	108	116	2.3	3.5
Jacques 9220.....	106	109	6.8	10.0
Northrup King S8645.....	106	114	1.9	2.8
AgraTech 888.....	106	113	2.5	3.5
Dekalb DK 689.....	105	111	3.4	5.1
McCurdy 7777.....	104	108	4.1	5.9
McCurdy 8181.....	104	108	1.8	2.3
Cargill 9027.....	101	104	3.6	4.8
Northrup King S8505.....	101	105	4.8	6.3
Pioneer 3165.....	101	104	2.8	3.8
Sunbelt 7400.....	101	107	2.7	3.8
ICI SB 1860.....	99	104	1.7	2.1
Northrup King N8727.....	98	106	1.3	2.0
NC+ 7507.....	94	96	5.0	7.4
Deltapine G-4666.....	-	111	-	2.8
Deltapine DP 5750.....	-	107	-	2.9
Pioneer 3136.....	-	106	-	4.5
Pioneer 3085.....	-	103	-	3.3
Hy Performer HS-9773.....	-	102	-	5.6
Hy Performer HS-9911.....	-	102	-	3.3
Dekalb DK 715.....	-	98	-	3.9

* Fairhope, Brewton, Monroeville, and Headland.

Table 14. 1992 Yield of Corn Hybrids by Location and Regional Averages of Hybrid Characteristics in Southern Alabama

Brand Name-Hybrid	Fairhope	Brewton	Monroeville	Headland	1992 Regional Averages					
					Yield	Lodged	Test	Mid-	Husk*	Harvest
					Per Acre	Stalks	Weight	Silk	Cover	Moisture
	Bu.	Bu.	Bu.	Bu.	Bu.	Pct.	Lb./Bu.	Mo.-Da.	Rating	Pct.
Northrup King S8645.....	117	110	112	91	108	5.3	57.4	6-8	2	16.5
Hy Performer HS-9911.....	112	118	112	87	107	5.8	57.2	6-7	2	16.5
Terra TR 1180.....	116	118	109	83	106	6.5	57.1	6-7	2	16.4
AgraTech 888.....	91	116	119	94	105	6.5	57.4	6-10	2	16.4
Deltapine G-4666.....	103	126	111	76	104	5.3	56.9	6-9	2	16.3
Sunbelt 7400.....	116	109	113	77	104	6.5	55.6	6-13	2	17.7
McCurdy 8181.....	109	105	124	74	103	4.5	57.6	6-9	2	17.6
Dekalb DK 689.....	131	90	113	78	103	9.3	55.3	6-10	3	16.7
Deltapine DP 5750.....	106	108	119	75	102	5.5	57.2	6-9	2	16.3
Pioneer 3136.....	134	88	105	70	99	9.0	55.8	6-7	2	16.8
Cargill 9027.....	101	102	126	68	99	9.3	56.6	6-7	3	16.4
Jacques 9220.....	108	107	106	73	98	17.5	56.3	6-11	3	17.0
Dyna-Gro XP8309.....	118	89	118	65	98	4.8	55.1	6-9	2	16.1
Dekalb DK 743.....	115	110	99	66	97	11.0	56.3	6-7	3	16.9
Pioneer 3165.....	106	98	102	81	97	6.3	55.9	6-9	3	17.2
Terra TR 1167.....	113	90	99	86	97	7.5	56.3	6-10	2	16.0
Dyna-Gro 8116.....	112	105	103	66	96	6.3	57.0	6-9	2	16.2
Pioneer 3146.....	118	98	90	76	95	4.5	56.8	6-8	3	16.4
Northrup King N8727.....	92	108	109	72	95	3.8	57.7	6-9	2	16.7
Hy Performer HS-9773.....	123	91	91	74	95	11.3	55.8	5-30	3	16.5
Northrup King S8505.....	104	91	100	78	93	12.0	56.2	6-8	2	16.2
ICI Garst 8105.....	107	91	108	61	92	4.8	57.7	6-6	2	16.8
McCurdy 7777.....	99	74	116	74	91	11.0	55.9	6-10	2	16.8
ICI SB 1860.....	85	97	103	74	90	3.5	56.5	6-11	2	17.1
Dekalb DK 715.....	101	103	95	58	89	7.3	55.7	6-7	3	16.2
Pioneer 3085.....	111	64	106	70	88	5.3	56.1	6-12	3	17.1
AgraTech 757.....	123	66	90	69	87	10.5	56.9	6-8	3	16.5
Dyna-Gro 8290.....	111	80	95	55	85	4.5	56.8	6-7	2	16.1
NC+ 7507.....	117	63	87	63	82	12.0	56.2	6-11	3	16.5
Deltapine 4581.....	108	77	75	55	79	9.0	56.2	6-10	2	15.9
Cargill 7997.....	107	62	94	33	74	6.5	56.3	6-8	3	15.7
Cargill C701.....	98	52	85	56	73	3.3	58.1	6-14	2	17.7
TEST AVERAGE.....	109.6	93.9	104.0	71.1						
L.S.D. (.05).....	30.8	29.9	24.6	22.9						
C.V. (%).....	20.0	22.7	16.9	22.9						

* 1= Excellent; 5= Very Poor.

Table 15. Irrigated Corn Hybrid Performance and Characteristics, Headland, Alabama, 1990-92*

Brand Name-Hybrid	Yield Per Acre, Av.			Lodged Stalks, Av.			1992			
	3-yr.	2-yr.	1992	3-yr.	2-yr.	1992	Midsilk	Test	Husk**	Harvest
	1990-92	1991-92		1990-92	1991-92		Mo.-Da.	Weight	Cover	Moisture
	Bu.	Bu.	Bu.	Pct.	Pct.	Pct.		Lb./Bu.	Rating	Pct.
Jacques 9220.....	180	167	144	6.7	9.5	10.0	5-13	57.8	3	14.2
Dekalb DK 689.....	171	161	150	4.7	6.5	1.0	5-21	56.5	2	14.2
Sunbelt 7400.....	170	166	151	6.0	9.0	8.0	5-13	54.9	2	14.2
Northrup King N8727....	165	152	154	1.7	2.5	1.0	5-21	59.2	2	14.2
McCurdy 8181.....	165	156	145	3.0	4.5	0	5-13	59.0	2	14.2
ICI SB 1860.....	163	152	107	3.0	4.5	1.0	5-21	57.4	3	14.2
Northrup King S8505....	162	150	133	3.7	5.5	3.0	5-13	55.5	3	14.2
AgraTech 888.....	161	153	140	2.7	4.0	1.0	5-13	58.0	2	14.2
Terra TR 1180.....	159	151	141	1.0	1.5	0	5-21	58.7	2	14.2
Northrup King S8645....	159	158	134	1.7	2.5	2.0	5-13	59.6	3	14.2
McCurdy 7777.....	158	151	136	5.3	8.0	6.0	5-28	56.7	3	14.2
Cargill 9027.....	154	146	144	7.3	10.0	8.0	5-13	57.1	4	14.2
NC+ 7507.....	153	143	121	7.7	11.5	10.0	5-21	56.7	2	14.2
Pioneer 3165.....	149	139	128	12.7	18.0	22.0	5-28	56.1	2	14.2
Pioneer 3136.....	-	167	150	-	4.5	4.0	5-13	56.3	2	14.2
Deltapine G-4666.....	-	165	153	-	7.5	4.0	5-21	58.3	2	14.2
Hy Performer HS-9911...	-	162	147	-	3.5	1.0	5-28	59.2	2	14.2
Deltapine DP 5750.....	-	155	137	-	5.0	6.0	5-28	58.9	2	14.2
Dekalb DK 715.....	-	151	156	-	1.5	1.0	5-21	57.3	2	14.2
Pioneer 3085.....	-	145	137	-	15.5	21.0	5-28	57.1	2	14.2
Hy Performer HS-9773...	-	145	134	-	13.5	4.0	5-28	55.8	3	14.2
Pioneer 3146.....	-	-	149	-	-	1.0	5-13	57.9	3	14.2
ICI Garst 8105.....	-	-	147	-	-	2.0	5-13	59.4	2	14.2
Terra TR 1167.....	-	-	145	-	-	6.0	5-21	57.2	3	14.2
Dekalb DK 743.....	-	-	138	-	-	5.0	5-28	57.3	3	14.2
AgraTech 757.....	-	-	136	-	-	1.0	5-21	56.8	2	14.2
Dyna-Gro 8116.....	-	-	133	-	-	5.0	5-28	58.7	2	14.2
Dyna-Gro 8290.....	-	-	127	-	-	3.0	5-21	57.4	3	14.2
Dyna-Gro XP8309.....	-	-	126	-	-	1.0	5-13	56.2	3	14.2
Deltapine 4581.....	-	-	121	-	-	14.0	5-13	56.3	3	14.2
Cargill 7997.....	-	-	121	-	-	4.0	5-28	55.9	4	14.2
Cargill C701.....	-	-	120	-	-	4.0	5-21	60.6	2	14.2
Test Average.....			137.6							
L.S.D. (.05).....			25.1							
C.V. (%).....			13.0							

* The test received approximately 11.3 inches of irrigation water in 9 applications during the months of May, June and July.

** 1= Excellent; 5= Very Poor.

Table 16. White Corn Hybrid Test, Southern Alabama*, 1990-92

Brand Name-Hybrid	Yield Per Acre, Av.			Lodged Stalks, Av.			1992			
	3-yr.	2-yr.	1992	3-yr.	2-yr.	1992	Midsilk	Test	Husk***	Harvest
	1990-92	1991-92		1990-92	1991-92			Weight	Cover	Moisture
	Bu.	Bu.	Bu.	Pct.	Pct.	Pct.	Mo./Da.	Lb./Bu.	Rating	Pct.
Zimmerman Z 63 W.....	163	153	143	3.7	5.0	6.0	5-13	57.8	3	14.2
Zimmerman Z 16 W.....	156	141	130	2.7	4.0	4.0	5-21	57.7	3	14.2
Dekalb DK 689 **.....	153	148	129	2.7	4.0	5.0	5-21	56.4	2	14.2
Zimmerman Z 17 W.....	150	146	141	2.3	3.0	4.0	5-13	57.3	2	14.2
Deltapine G-4644W.....	149	140	129	4.3	6.5	10.0	5-13	59.3	3	14.2
Zimmerman Z 54 W.....	145	132	119	4.3	5.0	8.0	5-13	56.6	3	14.2
Pioneer 3144W.....	145	126	113	5.3	8.0	13.0	5-13	57.4	2	14.2
Pioneer 3165 **.....	140	125	108	3.7	5.5	1.0	5-13	56.1	3	14.2
Hy Performer HS 175W...	138	128	115	3.0	4.0	7.0	5-21	57.3	3	14.2
Pioneer 3281W.....	-	132	116	-	2.0	3.0	5-21	58.3	2	14.2
Hy Performer HS165W....	-	-	142	-	-	4.0	5-13	57.7	2	14.2
Hy Performer HS185W....	-	-	133	-	-	4.0	5-28	57.6	2	14.2
Test Average.....			126.4							
L.S.D. (.05).....			16.1							
C.V. (%).....			11.0							

* Headland. The test received approximately 11.3 inches of irrigation water in 9 applications during the months of May, June and July.

** Yellow Corn Check Hybrid.

*** 1= Excellent; 5= Very Poor.

Table 17. Early Corn Hybrid Test, Southern Alabama*, 1990-92

Brand Name-Hybrid	Yield Per Acre, Av.			Lodged Stalks, Av.			1992			
	3-YR.	2-YR.	1992	3-YR.	2-YR.	1992	Midsilk	Test	Husk**	Harvest
	1990-92	1991-92		1990-92	1991-92		Mo./Da.	Weight	Cover	Moisture
	Bu.	Bu.	Bu.	Pct.	Pct.	Pct.		Lb./Bu.	Rating	Pct.
Dekalb DK 689 ***.....	108	97	124	0	0	0	5-30	56.2	3	21.3
Deltapine DP 5750.....	98	74	108	0.3	0.5	0	5-29	56.9	2	20.7
Deltapine G-4666.....	96	82	115	0	0	0	5-28	56.9	2	20.6
Pioneer 3165 ***.....	96	80	113	1.3	0	0	5-31	56.5	3	21.7
Pioneer 3245.....	95	75	113	0	0	0	5-28	58.5	3	20.0
Zimmerman Z 38.....	94	72	101	0	0	0	5-26	57.4	3	21.0
Zimmerman Z 27.....	92	81	119	0	0	0	5-28	57.8	3	20.2
AgraTech 825.....	88	73	118	0	0	0	5-26	57.5	3	20.9
ICI SB 1802.....	88	71	99	0.3	0.5	1.0	5-26	55.9	2	21.4
Deltapine 4581.....	-	87	124	-	0	0	5-28	56.8	3	20.4
Pioneer 3394.....	-	67	110	-	0	0	5-26	57.9	3	19.4
ICI Garst 8315.....	-	-	118	-	-	0	5-29	57.3	3	20.3
Pioneer 3215.....	-	-	112	-	-	0	5-28	57.2	3	21.1
Northrup King N6330...	-	-	111	-	-	1.0	5-25	57.5	3	20.3
Test Average.....			113.2							
L.S.D. (.05).....			22.8							
C.V. (%).....			17.4							

* Fairhope.
 ** 1= Excellent; 5= Very Poor.
 *** Standard Mid to Late Season Hybrids.

Report of Preliminary Tests
 Table 18. Characteristics of Corn Hybrids Tested One Year in
 Preliminary Test at Fairhope in Southern Alabama, 1992

Brand Name-Hybrid	Av. Yield	Lodged	Husk*	Midsilk	Test	Harvest
	Per Acre	Stalks	Cover		Weight	Moisture
	Bu.	Pct.	Rating	Mo.-Da.	Lb./Bu.	Pct.
Asgrow RX 947.....	149	0	3	6-3	53.4	23.9
Northrup King N8811...	146	0	3	6-2	54.9	23.8
Deltapine 4742.....	145	0	3	6-2	55.1	23.4
Pioneer X7702RP.....	144	0	2	6-4	54.0	24.4
Terra TR 700E.....	139	1.0	3	6-1	54.1	24.0
Dyna-Gro 5510.....	138	0	3	5-30	55.1	22.6
Asgrow RX 986.....	137	0	3	6-4	53.7	24.6
Asgrow RX 899.....	136	0	3	6-1	56.2	22.0
Pioneer 3165 **.....	135	0	3	6-3	54.8	24.9
Dekalb DK 689 **.....	135	0	3	6-3	54.1	24.1
Hy Performer HS9977...	134	0	3	6-1	55.1	23.0
Dekalb Exp 064.....	133	0	3	5-31	56.4	21.9
Terra TR 621E.....	133	0	2	5-31	53.9	24.2
Deltapine 8620.....	130	0	1	5-30	56.5	23.0
Deltapine 8695.....	126	1.0	3	6-2	53.7	23.2
NC+ 6959.....	119	0	2	6-1	54.6	22.0
Hy Performer HS9843...	118	0	2	6-1	54.6	22.4
NC+ 6485.....	114	0	2	5-31	55.5	22.5
<hr/>						
Test Average.....	133.8					
L.S.D. (.05).....	24.1					
C.V. (%).....	12.7					

* 1= Excellent; 5= Very Poor.
 ** Standard Hybrids for Comparison.

VIRUS DISEASE REACTIONS OF SOME HYBRIDS IN 1992

The most prevalent virus 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 over-season or reservoir host for the viruses, and MCD and MDM incidence and damage are high in corn fields that are heavily infested with johnsongrass.

Use of resistant or tolerant corn hybrids and the control or avoidance of johnsongrass-infested areas are the most practical controls 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 1992 are summarized in this report.

Procedure

Virus disease ratings were made on entries in the corn hybrid tests at the Prattville Experiment Field, Prattville, the Black Belt Substation, Marion Junction, the Sand Mountain Substation, Crossville, the Tennessee Valley Substation, Belle Mina, and the Upper Coastal Plain Substation, Winfield. 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 and MDM were insufficient for any meaningful ratings at the Tennessee Valley Substation, and they were extremely low in the tests at the other locations, tables 19 and 20. Incidence for MCD across all the tests ranged from 0 to 4.8%, and averaged 0.94%; levels of MDM ranged from 0 to 2.8%, and averaged 0.29%. Several hybrids at all locations showed no symptoms of either disease.

Although virus disease incidence was generally low, hybrids showing relatively greater resistance or tolerance were apparent at all location. Presumably, hybrids would retain their relative ranking under conditions of higher incidence of the diseases. 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 yield and other characteristics given elsewhere in this report.

Table 19. Incidence of Maize Chlorothic Dwarf Virus Disease in Regular Corn Hybrid Tests, 1992

Brand Name-Hybrid	Crossville	Marion Juntion	Prattville	Winfield
	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>
AgraTech 757.....	-	-	-	0.00
AgraTech 825.....	0.92	-	-	1.53
AgraTech 888.....	0.44	1.31	-	0.00
Cargill 7997.....	1.36	-	2.00	0.50
Cargill 8527.....	-	0.00	-	-
Cargill 9027.....	0.00	-	0.00	0.00
Dekalb DK 689.....	0.00	0.38	1.98	1.72
Dekalb DK 715.....	1.87	-	-	0.00
Dekalb DK 743.....	0.93	0.72	-	0.46
Deltapine 4581.....	0.00	-	-	0.69
Deltapine 4682.....	-	2.11	-	-
Deltapine DP 5750.....	-	-	4.79	-
Deltapine G-4666.....	2.27	-	0.46	2.39
Dyna-Gro 5509.....	1.04	-	1.46	0.00
Dyna-Gro 8116.....	1.33	0.36	-	1.01
Dyna-Gro 8290.....	0.00	-	2.43	0.91
Hy Performer HS-9773....	1.76	-	-	1.90
Hy Performer HS-9911....	0.44	-	-	0.00
ICI Garst 8105.....	0.45	-	-	2.30
ICI SB 1802.....	2.86	2.35	2.33	0.00
Jacques 8210.....	-	-	1.40	-
Jacques 8410.....	-	0.35	-	-
Jacques 8510.....	0.00	1.16	-	0.00
Jacques 9220.....	-	0.34	0.46	-
McCurdy 7477.....	0.48	-	-	0.00
McCurdy 7777.....	0.00	0.00	1.43	0.35
McCurdy 8181.....	-	0.00	-	-
NC+ 7304.....	0.45	-	-	0.48
NC+ 7507.....	1.27	-	-	0.79
Northrup King N8727.....	4.66	-	-	0.00
Northrup King PX9540....	0.92	-	-	2.02
Northrup King S8505.....	0.40	-	-	0.37
Northrup King S8645.....	0.46	-	-	0.38
Pioneer 3085.....	0.95	0.00	0.00	0.00
Pioneer 3136.....	-	-	0.47	-
Pioneer 3140.....	0.00	-	0.46	3.10
Pioneer 3146.....	0.00	-	0.00	0.49
Pioneer 3154.....	0.00	0.00	2.83	0.00
Pioneer 3165.....	1.39	3.88	1.80	4.27
Pioneer 3215.....	-	0.42	-	-
Pioneer 3320.....	-	-	1.36	-
Terra TR 1167.....	0.00	-	1.34	0.37
Terra TR 1180.....	0.89	-	-	0.00
Zimmerman Z 27.....	0.91	-	-	0.85

Table 20. Incidence of Maize Dwarf Mosaic Virus Disease in Regular Corn Hybrid Tests, 1992

Brand Name-Hybrid	Crossville	Marion Junction	Prattville	Winfield
	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>
AgraTech 757.....	-	-	-	0.87
AgraTech 825.....	0.45	-	-	.51
AgraTech 888.....	0.44	0.00	-	0.00
Cargill 7997.....	0.47	-	0.00	1.00
Cargill 8527.....	-	0.00	-	-
Cargill 9027.....	0.44	-	0.00	0.00
Dekalb DK 689.....	0.45	0.00	0.50	0.42
Dekalb DK 715.....	1.38	-	-	0.00
Dekalb DK 743.....	0.00	0.00	-	0.00
Deltapine 4581.....	0.00	-	-	0.69
Deltapine 4682.....	-	0.00	-	-
Deltapine DP 5750.....	-	-	1.06	-
Deltapine G-4666.....	1.39	-	0.00	0.00
Dyna-Gro 5509.....	0.69	-	0.00	0.52
Dyna-Gro 8116.....	0.43	0.00	-	0.00
Dyna-Gro 8290.....	0.91	-	0.49	0.00
Hy Performer HS-9773....	0.43	-	-	0.46
Hy Performer HS-9911....	0.44	-	-	0.00
ICI Garst 8105.....	0.00	-	-	0.75
ICI SB 1802.....	2.83	0.37	0.00	0.00
Jacques 8210.....	-	-	0.00	-
Jacques 8410.....	-	0.00	-	-
Jacques 8510.....	0.00	0.00	-	0.00
Jacques 9220.....	-	0.00	0.00	-
McCurdy 7477.....	0.00	-	-	0.50
McCurdy 7777.....	1.36	0.00	0.00	0.00
McCurdy 8181.....	-	0.00	-	-
NC+ 7304.....	0.91	-	-	0.00
NC+ 7507.....	0.42	-	-	0.82
Northrup King N8727....	1.36	-	-	0.79
Northrup King PX9540....	0.47	-	-	0.00
Northrup King S8505....	0.40	-	-	0.00
Northrup King S8645....	0.82	-	-	0.38
Pioneer 3085.....	0.96	0.00	0.00	0.00
Pioneer 3136.....	-	-	0.00	-
Pioneer 3140.....	0.00	-	0.00	0.00
Pioneer 3146.....	0.00	-	0.00	0.00
Pioneer 3154.....	0.00	0.48	0.00	0.00
Pioneer 3165.....	0.00	0.00	0.00	1.16
Pioneer 3215.....	-	0.00	-	-
Pioneer 3320.....	-	-	0.00	-
Terra TR 1167.....	0.00	-	0.00	0.00
Terra TR 1180.....	0.00	-	-	0.45
Zimmerman Z 27.....	0.00	-	-	0.38

Table 21. Growing Season Rainfall, 1990-92

Test location	Year	Monthly rainfall (inches)							7-month total
		Mar.	Apr.	May	June	July	Aug.	Sept.	
Belle Mina	1992	4.8	1.8	2.3	9.0	6.3	4.3	5.2	33.7
	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
Crossville	1992	4.2	2.2	2.1	5.7	5.5	4.5	4.3	28.5
	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
Winfield	1992	3.9	1.5	1.1	4.5	8.4	5.2	2.3	26.9
	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
Tallassee	1992	4.2	2.8	0.7	4.1	5.1	2.8	2.7	22.4
	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
Shorter	1992	3.6	2.8	1.7	3.4	7.4	5.1	2.9	26.9
	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
Prattville	1992	3.3	3.9	1.7	4.1	6.1	3.0	2.4	24.5
	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	1.6	0.3	25.8
Marion Junction	1992	3.1	3.2	1.7	3.8	5.5	2.7	4.2	24.2
	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
Camden	1992	2.9	2.8	1.4	6.4	5.9	4.7	4.0	28.1
	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
Monroeville	1992	4.2	3.2	2.2	8.5	5.8	11.6	2.6	38.1
	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
Brewton	1992	3.9	3.4	2.2	4.3	5.0	7.7	6.4	32.9
	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
Fairhope	1992	2.9	2.7	2.4	4.6	5.0	6.2	1.4	25.2
	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
Headland	1992	7.5	0.6	2.5	3.8	7.4	4.9	0.4	27.1
	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

Table 22. Soil Types for Corn Trials, 1992

Test location	Soil type
Belle Mina	Decatur silt loam
Crossville	Wynnvilke fine sandy loam
Winfield	Savannah loam
Tallassee	Cahaba loamy sand
Shorter	Norfolk sandy loam
Prattville	Lucedale fine sandy loam
Marion Junction.....	Vaiden
Camden.....	Forkland fine sandy loam
Monroeville.....	Lucedale loam
Brewton.....	Benndale fine sandy loam
Headland.....	Dothan sandy loam
Fairhope.....	Malbis fine sandy loam

SOURCES OF 1992 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. 6075 Poplar Ave. Memphis, TN 38119	Hy Performer
AgriGene Seed Research R.R. 2, Box 3A Ames, IA 50010	McCurdy	ICI Seeds Rt. 3 Box 93 Bowling Green, MO 63334	Garst Sunbelt
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	NC + Hybrid Box 4408 Lincoln, NE 68504	NC+
Cargill Hybrid Seeds Box 5645 Minneapolis, MN 55440	Cargill	Northrup King Co. 705 Woodbridge Dr. Somerville, Tn 38068	Northrup King
Dekalb Plant Genetics 3100 Sycamore Road DeKalb, IL 60115	Dekalb	Pioneer Hi-Bred Int. 1000 W. Jefferson St. Tipton, IN 46072	Pioneer
Delta and Pine Land Co. P.O. Box 157 Scott, MS 38772	Deltapine	Terra International, Inc. 600 Fourth Street Sioux City, IA 51101	Terra
Dixie Ag. Supply P.O. Box 534 Athens, AL 35611	Dyna-Gro	Zimmerman Hybrids, Inc. 5147 W. Franklin Rd. Evansville, IN 47712	Zimmerman

ACCEPTABLE HYBRIDS FOR 1993

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 ¹	
Brand name	Hybrid	Brand name	Hybrid	Brand name	Hybrid
NC +	7507	Zimmerman	Z 63 W	Zimmerman	Z 27
Pioneer	3165	Deltapine	G-4644 W	Zimmerman	Z 38
Cargill	9027	Zimmerman	Z 16 W	Deltapine	DP 5750
Pioneer	3140	Zimmerman	Z 54 W	AgraTech	825
Northrup King	S8505	Hy Performer	HS175 W	Deltapine	G-4666
Terra	TR 1180	Pioneer	3144 W	**Deltapine	4581
AgraTech	888				
Northrup King	S8645				
Northrup King	N8727				
Dekalb	DK689				
*Deltapine	G-4666				
*Zimmerman	Z 27				
**Dekalb	DK715				

*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.

¹Early hybrids listed in order of maturity.

ACCEPTABLE HYBRIDS FOR 1993 (continued)
CENTRAL ALABAMA

Yellow hybrids		White hybrid		Early hybrids		Black Belt	
Brand name	Hybrid	Brand name	Hybrid	Brand name	Hybrid	Brand name	Hybrid
Jacques	9220	Zimmerman	Z 63 W	Pioneer	3245	Pioneer	3165
McCurdy	7777	Zimmerman	Z 54 W	Deltapine	DP 5750	Dekalb	DK 689
Pioneer	3165	Zimmerman	Z 17 W	Deltapine	G-4666	McCurdy	7777
Deltapine	DP 5750	*Hy Performer	HS175 W	Zimmerman	Z 27	Jacques	9220
Jacques	8210			Sunbelt	1802	Jacques	8510
Dekalb	DK 689			AgraTech	825	*Sunbelt	1860
*Sunbelt	1802					**Pioneer	3085
*Deltapine	G-4666						
*Pioneer	3320						

*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.

¹Early hybrids listed in order of maturity.

ACCEPTABLE HYBRIDS FOR 1993 (continued)
SOUTHERN ALABAMA

Yellow hybrids		White hybrids		Early hybrids ¹	
Brand name	Hybrid	Brand name	Hybrid	Brand name	Hybrid
Terra	TR 1180	Zimmerman	Z 63 W	Deltapine	DP 5750
Jacques	9220	Zimmerman	Z 16 W	Deltapine	G-4666
Northrup King	S 8645	Zimmerman	Z 17 W	Pioneer	3245
AgraTech	888	Deltapine	G-4644W	Zimmerman	Z 38
DeKalb	DK 689	*Pioneer	3144 W	*Zimmerman	4581
McCurdy	7777				
McCurdy	8181				
*Sunbelt	7400				
*Sunbelt	1860				
*NC +	7507				
**Deltapine	G-4666				

*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.

¹Early hybrids listed in order of maturity.

