

*Evaluations of  
Corn Hybrids  
in Alabama,  
2003*

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# EVALUATION OF CORN HYBRIDS IN ALABAMA

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## INTRODUCTION

Selected corn hybrids are evaluated annually by the Alabama Agricultural Experiment Station as a service to producers and industry. These tests are conducted 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 the following year.

The Regular Corn Hybrid Test is conducted at two locations in the northern region, two locations in the central region and four locations in the southern region. Early yellow corn hybrids are tested at one location in each region. In addition, a regular corn hybrid test is irrigated at Belle Mina and Headland and a preliminary test is irrigated at Tallassee. Locations and cultural practices for all tests are given in Table 1. No Early or Preliminary tests were conducted this year.

## EXPERIMENTAL PROCEDURES

All tests are laid out in a randomized complete block design with four replicate plots for each variety at each location. Rows are 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 Belle Mina, Tallassee and Headland are seeded 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 lbs) 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 locations each year. When virus or other disease symptoms indicate crop damage, disease ratings are compiled and published in this report.

## STATISTICAL ANALYSIS

All test were conducted in randomized complete block designs and analyzed accordingly. It is important to keep in mind that genotype x environment interaction is common in multi-year and multi-location mean. This interaction usually is an indication that the relative rankings of varieties change from one environment to the next. Thus, one cannot draw widespread conclusions if the interaction is significant.

## 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 was 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

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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, 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 is the "risk level" of the variety.

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 18) and soil types (Table 19) 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 2003 CORN HYBRID TRIALS**

Location	Planting date	Nitrogen Rate <sup>†</sup> lbs/ac	Plant pop. seeds/ac	Date harvested	Herbicides used
<b>NORTHERN ALABAMA</b>					
<b>Tennessee Valley Res. and Ext. Ctr. (Belle Mina)</b>					
Regular test (non-irrigated)	March 24	175	20,000	August 22	Atrazine/Dual
Regular test (irrigated).	March 25	210	25,000	August 26	Atrazine/Dual
<b>Sand Mountain Res. and Ext. Ctr. (Crossville)</b>					
Regular test	April 3	135	20,000	September 12	Atrazine/Dual
<b>CENTRAL ALABAMA</b>					
<b>E.V. Smith Research Center (Shorter)</b>					
No-Till Early corn test	March 25	140	20,000	August 21	Atrazine/Dual
<b>Prattville Experiment Field (Prattville)</b>					
	April 17	120	20,000	August 28	Atrazine
<b>Black Belt Res. and Ext. Ctr. (Marion Junction)</b>					
	April 26	150	20,000	August 26	Atrazine
<b>SOUTHERN ALABAMA</b>					
<b>Brewton Experiment Field (Brewton)</b>					
	March 24	140	20,000	August 26	Atrazine/Dual
<b>Wiregrass Res. and Ext. Ctr. (Headland)</b>					
Regular test (non-irrigated)	March 31	180	20,000	September 2	Atrazine
Regular test (irrigated)	March 31	250	25,000	August 28	Atrazine
<b>Gulf Coast Res. and Ext. Ctr. (Fairhope)</b>					
Regular test	Lost - hurricane				

<sup>†</sup> 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 IN NORTHERN ALABAMA, 2001-2003**

Brand name - hybrid	Grain yield		% stalks lodging	
	3-yr	2-yr	3-yr	2-yr
	----- bu/acre -----		----- % -----	
SS 900 BT	190	189	0.5	0.8
Pioneer 31G98	179	176	0.6	0.5
Pioneer 31R88	177	170	0.7	0.8
Garst/AgriPro 8222IT	173	173	0.9	0.9
Terral TV2160Bt	167	173	0.5	0.7
Dyna-Gro 5515	161	153	0.8	0.5
Terral TV23R15n		158		0.1
Pioneer 34B24		161		0.7
AgraTech 733RR		162		0.4
Terral TV2140nRR		162		0.8
Terral TV2155Bt		162		0.6
SS 781CL		165		0.6
Pioneer 32W86		171		0.5
Garst/AgriPro 8288		173		0.5
Dekalb DKC69-70 (YG)		175		0.3
SS 842RR		176		1.8
Dyna-Gro 58K22		181		0.4
<b>Test Average</b>	175	169		
<b>LSD</b> <sub>0.05</sub>	29.7	37.5		
<b>CV (%)</b>	5.7	7.8		

**TABLE 3. 2003 YIELD OF CORN HYBRIDS BY LOCATION AND REGIONAL AVERAGES OF HYBRID CHARACTERISTICS IN NORTHERN ALABAMA**

Brand name - hybrid	Belle Mina	Crossville	2003 regional averages					Harvest moisture
			Yield	Lodging	Test-weight	Mid-silk	Husk cover <sup>1</sup>	
	----- bu/acre -----		-- % --	lb/bu	mo-day	-- % --		
SS 900 BT	242	226	234	0.9	57	6-16	1	16.2
Dekalb DKC 64-11	212	249	231	0.1	58	6-17	2	13.9
Pioneer 31G98	238	219	228	0.3	59	6-19	2	15.0
Dekalb DKC 69-71	231	221	226	0.3	58	6-23	2	17.0
SS 842RR	236	211	224	1.6	56	6-18	2	16.8
Pioneer 33R77	220	223	222	0.1	57	6-17	2	15.6
Dyna-Gro 5518	218	218	218	0.3	56	6-17	2	14.7
Garst 8350 YG1	209	222	215	0.0	58	6-16	2	14.3
Garst 8230IT	206	224	215	0.5	56	6-18	2	15.9
Terral TV2140	211	216	214	0.5	58	6-18	2	15.6

*continued*

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**TABLE 3. 2003 YIELD OF CORN HYBRIDS BY LOCATION AND REGIONAL AVERAGES OF HYBRID CHARACTERISTICS IN NORTHERN ALABAMA, CONTINUED**

Brand name - hybrid	Belle Mina	Cross- ville	2003 regional averages					Harvest moisture
			Yield	Lodging	Test- weight	Mid-silk	Husk cover <sup>1</sup>	
	----- bu/acre	----- bu/acre		-- % --	lb/bu	mo-day		-- % --
Terral TV26BR10n	219	207	213	0.0	58	6-17	2	14.4
Dyna-Gro 58K22	212	213	213	0.6	57	6-17	1	14.5
Garst ND200YG1	208	216	212	1.0	57	6-17	1	16.9
Garst/AgriPro 8222IT	200	223	211	1.1	59	6-17	2	16.5
Terral TV2160Bt	214	208	211	0.5	58	6-18	2	16.4
Dekalb DKC 63-24	217	204	211	0.4	58	6-16	2	14.3
SS 692 BT	216	203	210	0.1	59	6-17	1	14.2
Dekalb DKC69-70 (YG)	213	206	210	0.0	58	6-21	2	18.4
Pioneer 31G66	214	202	208	1.0	58	6-17	1	15.4
Pioneer 32W86	238	178	208	0.3	60	6-18	2	14.6
Pioneer 33M54	209	204	206	0.4	60	6-16	2	15.8
Garst 8118RR	200	206	203	1.0	56	6-23	2	17.0
Terral TV25B30	201	205	203	0.1	59	6-17	2	16.1
Pioneer 31R88	213	192	202	0.3	59	6-17	3	15.8
Garst/AgriPro 8288	197	205	201	0.5	58	6-16	2	15.7
SS 753 BT/CL	201	201	201	0.3	59	6-17	2	15.0
Terral TV26B23	202	199	200	0.6	59	6-16	2	15.8
Pioneer 33V15	201	197	199	0.4	61	6-16	2	14.5
Pioneer 34B23	207	189	198	0.4	59	6-17	2	13.9
Terral TV2130	203	187	195	0.1	57	6-18	2	15.5
Pioneer 34B24	198	189	194	0.5	59	6-18	2	13.8
SS 781CL	196	187	192	0.4	59	6-17	3	14.9
Dekalb DKC 61-42	215	168	191	0.6	58	6-16	2	14.9
Terral TV23R15n	191	190	190	0.3	58	6-18	1	14.5
Terral TV2155Bt	201	178	189	0.1	59	6-16	2	15.0
Terral TV2140nRR	206	173	189	0.3	57	6-18	1	16.0
AgraTech 733RR	193	185	189	0.4	57	6-17	2	15.0
Dyna-Gro 5515	196	181	188	0.0	57	6-20	2	14.9
Dekalb DKC 66-80	199	177	188	0.1	58	6-17	1	15.5
Dyna-Gro 5545	197	175	186	1.6	56	6-15	2	14.9
AgraTech 719RR	196	167	182	0.1	57	6-16	2	14.4
Terral TV24R10	191	168	179	0.3	59	6-18	1	16.9
Dyna-Gro 58K15	193	160	177	0.8	58	6-19	1	14.8
AgraTech 803RR	170	178	174	0.5	59	6-17	2	17.3
AgraTech EXP 31603	158	179	168	0.1	58	6-17	2	14.7
<b>Test Average</b>	207	198	203					
<b>LSD</b> <i>0.05</i>	15.6	41.5	22.2					
<b>CV (%)</b>	2.7	7.5	3.9					

**TABLE 4. IRRIGATED CORN HYBRID PERFORMANCE AND CHARACTERISTICS,  
BELLE MINA, ALABAMA, 2001-2003**

Brand name - hybrid	Grain yield			Lodging			Test-weight	Mid-silk	Husk cover <sup>1</sup>	Harvest moisture
	3-yr	2-yr	2003	3-yr	2-yr	2003				
	----- bu/acre -----			----- % -----						
Pioneer 31G98	234	234	256	0.9	0.7	0.3	58	6-18	2.5	16.0
SS 900 BT	227	236	254	0.8	1.2	1.3	55	6-17	1.5	17.6
Dyna-Gro 5515	219	221	220	1.2	1.1	0.3	59	6-17	1.5	16.6
Pioneer 31R88	218	220	240	1.4	0.9	0.5	58	6-19	2.3	19.7
Terral TV2160Bt	216	220	221	0.7	0.4	0.3	58	6-17	1.8	18.5
Garst/AgriPro 8222IT	215	211	231	1.6	1.7	2.3	59	6-17	1.3	18.5
SS 842RR		253	255		2.6	3.8	55	6-19	2.3	19.0
Pioneer 32W86		238	261		0.4	0.5	60	6-17	2.3	16.0
Terral TV2140nRR		236	243		1.6	0.8	55	6-19	1.3	17.3
Dyna-Gro 58K22		234	245		1.1	0.3	55	6-18	1.5	17.1
Dekalb DKC69-70 (YG)		230	241		0.1	0.3	57	6-20	1.8	20.5
Garst/AgriPro 8288		226	237		0.7	0.5	58	6-13	1.8	15.7
Terral TV23R15n		226	218		0.3	0.5	57	6-15	1.3	16.2
Terral TV2155Bt		224	225		0.2	0.0	58	6-17	2.0	18.4
AgraTech 733RR		221	209		0.9	0.5	58	6-17	1.8	16.2
SS 781CL		215	219		1.9	2.0	59	6-17	3.3	15.7
Pioneer 34B24		202	208		0.3	0.3	58	6-15	2.8	15.0
Pioneer 33R77			254			0.0	57	6-17	1.8	16.5
Garst ND200YG1			250			1.3	58	6-19	1.5	19.6
Pioneer 31G66			248			0.5	59	6-19	1.8	17.7
Terral TV2130			245			1.0	57	6-17	1.8	16.9
Dekalb DKC 61-42			242			0.3	57	6-16	2.0	15.2
Garst 8230IT			240			0.5	56	6-16	2.0	18.8
Terral TV2140			240			0.5	55	6-18	1.5	17.2
Dekalb DKC 69-71			238			1.0	58	6-18	2.3	19.9
AgraTech 719RR			233			0.5	56	6-18	2.0	15.6
Dyna-Gro 5518			232			0.0	56	6-18	1.8	17.0
Dyna-Gro 5545			232			0.5	54	6-15	2.0	17.5
Dekalb DKC 63-24			231			0.0	58	6-16	2.0	14.7
Terral TV25B30			230			0.0	60	6-17	1.8	18.1

*continued*



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**TABLE 4. IRRIGATED CORN HYBRID PERFORMANCE AND CHARACTERISTICS,  
BELLE MINA, ALABAMA, 2001-2003, CONTINUED**

Brand name - hybrid	Grain yield			Lodging			Test-weight	Mid-silk	Husk cover <sup>1</sup>	Harvest moisture
	3-yr	2-yr	2003	3-yr	2-yr	2003				
	----- bu/acre -----			----- % -----			lb/bu	mo-day		-- % --
Terral TV26B23			230			0.5	58	6-17	1.5	19.9
SS 753 BT/CL			230			0.0	58	6-17	2.0	16.7
Terral TV26BR10n			226			0.5	57	6-17	1.8	16.8
Pioneer 33M54			226			0.3	61	6-16	2.0	17.1
Pioneer 33V15			225			0.5	59	6-18	2.0	16.2
Dyna-Gro 58K15			225			0.5	59	6-18	1.3	17.6
Garst 8118RR			225			0.5	55	6-20	2.0	20.1
Garst 8350 YG1			223			4.0	58	6-16	1.5	15.7
Pioneer 34B23			222			0.5	59	6-17	2.8	14.3
Dekalb DKC 66-80			219			0.0	58	6-14	1.3	15.8
Dekalb DKC 64-11			219			0.0	57	6-16	2.0	15.6
Terral TV24R10			216			0.5	59	6-14	1.5	19.5
SS 692 BT			212			0.3	59	6-13	1.0	16.3
AgraTech EXP 31603			210			0.3	57	6-14	2.0	14.9
AgraTech 803RR			200			0.0	59	6-17	2.0	20.5
<b>Test Average</b>	221	226	231							
<b>LSD<sub>0.05</sub></b>	15.6	19.7	24.2							
<b>CV (%)</b>	2.5	3.1	3.7							

**TABLE 5. ONE, TWO- AND THREE-YEAR YIELD AND LODGING AVERAGES FOR YELLOW CORN AT PRATTVILLE IN CENTRAL ALABAMA, 2001-2003**

Brand name - hybrid	Grain yield			Lodging			Test-weight <i>lb/bu</i>	Mid-silk <i>mo-day</i>	Husk cover <sup>1</sup>	Harvest moisture <i>-- % --</i>
	3-yr	2-yr	2003	3-yr	2-yr	2003				
	<i>----- bu/acre -----</i>			<i>----- % -----</i>						
Pioneer 31G98	148	161	211	3.4	0.3	0.0	58	6-19	1.8	14.5
Terral TV2160Bt	141	150	194	4.2	1.6	0.3	58	6-19	2.3	15.4
Pioneer 32R25	139	155	199	9.2	0.5	0.0	57	6-20	2.8	14.9
Dyna-Gro 5515	137	152	184	2.9	0.4	0.3	57	6-20	2.3	14.3
Terral TV2140nRR		162	203		0.6	0.3	55	6-19	1.0	15.7
Dyna-Gro 58K22		156	192		0.2	0.0	55	6-20	1.8	15.9
Terral TV23R15n		154	187		0.0	0.0	58	6-18	1.0	14.4
Terral TV2155Bt		147	188		0.9	0.0	59	6-18	2.0	14.8
Terral TV2140			204			0.0	55	6-18	2.0	15.7
Dyna-Gro 5518			202			0.3	55	6-19	2.0	15.5
Terral TV26BR10n			196			0.0	57	6-19	1.5	14.4
Garst ND200YG1			196			0.0	56	6-17	1.3	16.6
Dyna-Gro 58K15			193			0.3	57	6-19	1.5	14.4
Pioneer 33M54			192			0.0	60	6-16	2.5	14.6
Terral TV2130			190			0.5	56	6-18	2.0	14.4
Pioneer 31G66			190			0.3	56	6-19	1.3	15.0
Terral TV26B23			186			0.0	59	6-17	1.5	15.4
Pioneer 33V15			185			0.0	60	6-18	2.3	14.1
Garst 8230IT			185			0.0	54	6-21	2.5	16.9
Terral TV25B30			184			0.3	60	6-17	1.3	14.1
Terral TV24R10			176			0.0	59	6-18	1.3	15.9
Dyna-Gro 5545			175			0.0	55	6-19	2.5	15.5
Garst 8118RR			174			0.0	53	6-23	2.3	17.7
Dyna-Gro 58K56			172			0.0	57	6-18	1.3	16.3
<b>Test Average</b>	141	155	190							
<b>LSD</b> <i>0.05</i>	10.4	13.1	19.9							
<b>CV (%)</b>	2.5	3.0	3.7							

## EVALUATIONS OF CORN HYBRIDS IN ALABAMA 2003

**TABLE 6. ONE, TWO- AND THREE-YEAR YIELD AND LODGING AVERAGES FOR CORN VIRUS TEST AT MARION JUNCTION IN CENTRAL ALABAMA, 2001-2003**

Brand name - hybrid	Grain yield			Lodging			Test-weight <i>lb/bu</i>	Mid-silk <i>mo-day</i>	Husk cover <sup>1</sup>	Harvest moisture <i>-- % --</i>
	3-yr	2-yr	2003	3-yr	2-yr	2003				
	<i>----- bu/acre -----</i>			<i>----- %-----</i>						
Pioneer 31G98	85	66	64	5.0	3.6	0.3	55		3.0	13.1
Terral TV2160Bt	83	69	68	4.4	1.9	0.0	57		3.0	13.5
Dyna-Gro 5515	82	65	60	3.5	0.9	0.5	57		3.0	13.4
Pioneer 32R25	80	56	52	9.8	6.3	0.8	54		3.0	12.8
Terral TV26BR10n		86	78		0.0	0.0	57		3.0	12.7
Terral TV23R15n		75	59		1.4	0.3	57		3.0	13.9
Garst 8118RR		73	83		2.2	0.5	56		3.0	16.2
Garst 8230IT		71	64		1.6	0.0	53		3.0	13.1
Terral TV24R10		63	55		2.3	0.3	59		3.0	15.1
Terral TV2155Bt		55	69		7.0	0.0	56		3.0	13.8
Dyna-Gro 58K22		50	48		7.5	1.3	53		3.0	14.4
Terral TV2140nRR		45	52		6.0	0.8	53		3.0	15.6
Terral TV2130			68			0.3	54		3.0	14.2
Terral TV25B30			62			0.0	59		3.0	13.5
Terral TV26B23			61			0.3	58		3.0	14.0
Dyna-Gro 58K15			58			0.5	57		3.0	12.5
Dyna-Gro 58K56			56			0.0	60		3.0	15.0
Terral TV2140			53			0.0	53		3.0	12.8
Pioneer 33M54			53			0.5	59		3.0	13.9
Pioneer 31G66			52			1.8	55		3.0	13.0
Pioneer 33V15			50			0.3	58		3.0	12.8
Dyna-Gro 5518			47			0.3	54		3.0	14.9
Dyna-Gro 5545			43			0.0	56		3.0	14.0
<b>Test Average</b>	83	64	59							
<b>LSD</b> <i>0.05</i>	19.5	20.3	21.9							
<b>CV (%)</b>	7.4	11.0	13.1							

**TABLE 7. ONE, TWO- AND THREE-YEAR YIELD AND LODGING AVERAGES FOR THE EARLY NO-TILL CORN TEST AT SHORTER IN CENTRAL ALABAMA, 2001-2003.**

Brand name - hybrid	Grain yield			Lodging			Test-weight <i>lb/bu</i>	Mid-silk <i>mo-day</i>	Husk cover	Harvest moisture <i>-- % --</i>
	3-yr	2-yr	2003	3-yr	2-yr	2003				
	<i>---- bu/acre ----</i>			<i>----- % -----</i>						
Terral TV2140nRR	†	154	180	†	0.7	0.5	56	6-13	‡	24.3
Terral TV2160Bt		153	180		0.4	0.3	59	6-10		23.6
Terral TV26BR10n		150	180		0.0	0.0	57	6-10		23.3
Terral TV2155Bt		143	168		0.0	0.0	59	6-9		22.6
Terral TV23R15n		135	147		0.0	0.0	58	6-12		22.4
Terral TV24R10		134	156		0.1	0.3	60	6-11		23.7
Pioneer 32R25			196			0.0	59	6-11		22.6
Pioneer 31G98			192			0.0	59	6-11		23.0
Dyna-Gro 5518			191			0.3	56	6-11		24.2
Garst 8118RR			189			0.5	57	6-14		26.2
Pioneer 33M54			188			0.3	60	6-8		23.2
Garst 8230IT			188			0.3	57	6-11		24.5
Pioneer 31G66			187			0.5	57	6-8		23.0
Dyna-Gro 58K15			186			0.0	58	6-9		22.0
Terral TV2140			185			0.3	56	6-9		24.4
Dyna-Gro 5545			184			0.0	56	6-9		23.2
Dyna-Gro 58K22			181			0.5	56	6-10		23.9
Terral TV2130			175			0.0	57	6-10		22.1
Pioneer 33V15			173			0.3	60	6-9		21.5
Dyna-Gro 5515			172			0.0	58	6-12		22.4
Dyna-Gro 58K56			156			0.0	60	6-10		23.9
<b>Test Average</b>		145	179							
<b>LSD</b> <i>0.05</i>		12.8	22.3							
<b>CV (%)</b>		2.9	4.4							

† There were no varieties in common between the 2003 and the 2001 test

‡ Husk ratings were not taken at this location

## EVALUATIONS OF CORN HYBRIDS IN ALABAMA 2003

**TABLE 8. TWO- AND THREE-YEAR YIELD AND LODGING AVERAGES FOR YELLOW CORN IN SOUTHERN ALABAMA, 2001-2003**

Brand name - hybrid	Grain yield		% stalks lodging	
	3-yr	2-yr	3-yr	2-yr
	----- bu/acre -----		----- % -----	
Pioneer 32R25	126	121	1.4	2.4
Dyna-Gro 5515	124	123	2.6	2.5
Terral TV2160Bt	124	123	2.2	3.5
Pioneer 31G98	118	112	2.7	4.3
Terral TV2140nRR		115		5.2
Terral TV2155Bt		121		4.0
Garst/AgriPro 8288		121		1.0
Terral TV23R15n		121		1.3
Dyna-Gro 58K22		123		5.7
<b>Test Average</b>	123	120		
<b>LSD</b> <sub>0.05</sub>	18.4	24.8		
<b>CV (%)</b>	4.7	7.1		

**TABLE 9. 2003 YIELD OF CORN HYBRIDS BY LOCATION AND REGIONAL AVERAGES OF HYBRID CHARACTERISTICS IN SOUTHERN ALABAMA**

Brand name - hybrid	Fair- hope	Brew- ton	Head- land	2003 regional averages					
				Yield	Lodg- ing	Test- weight	Mid-silk	Husk cover <sup>1</sup>	Harvest moist.
				----- bu/acre -----	-- % --	lb/bu	mo-day		-- % --
Dekalb DKC 69-71	†	152	175	164	3.3	59	6-4	2	16.3
AgraTech EXP 31610		155	165	160	0.6	59	6-4	2	15.7
Terral TV2140		142	175	158	7.8	56	6-4	1	15.2
Pioneer 31G66		154	162	158	3.8	56	6-3	2	15.7
Terral TV26BR10n		147	168	158	4.0	56	5-11	2	15.2
Pioneer 33M54		147	168	157	4.0	58	6-3	2	15.9
Terral TV23R15n		146	164	155	1.1	57	6-3	2	15.1
Dyna-Gro 58K22		142	168	155	6.8	56	6-2	2	15.0
Dyna-Gro 5518		140	165	153	5.8	55	6-3	2	15.3
Garst ND200YG1		151	155	153	5.1	56	6-3	2	15.8
Dekalb DKC 67-60		146	160	153	4.1	56	6-5	2	16.2
Terral TV2160Bt		142	162	152	5.3	56	6-4	2	15.4
Dyna-Gro 58K15		145	158	152	5.3	57	6-4	2	15.2
Terral TV2130		139	160	150	4.0	55	5-16	2	15.2
Garst/AgriPro 8288		145	153	149	1.9	57	6-2	2	15.6
Terral TV24R10		130	167	149	10.3	58	6-4	2	16.2
Pioneer 32R25		140	156	148	4.4	55	6-5	3	15.7
Dekalb DKC 66-80		138	156	147	4.9	55	6-4	2	15.4
Dyna-Gro 5515		140	153	147	3.3	57	6-5	2	15.4
Garst 8230IT		138	154	146	5.0	55	6-5	2	15.6
Terral TV25B30		143	149	146	0.8	58	6-2	2	16.0
Pioneer 31G98		140	151	146	6.0	56	6-4	3	15.4
Terral TV26B23		134	156	145	5.1	58	6-3	2	15.7
Terral TV2140nRR		134	150	142	7.1	55	6-5	2	15.2
AgraTech 905RR		130	152	141	4.3	55	6-3	2	15.1
Dyna-Gro 5545		144	137	141	3.9	55	6-4	3	15.0
Terral TV2155Bt		139	139	139	7.0	56	6-3	2	15.8
Dyna-Gro 58K56		125	148	137	2.0	58	6-4	2	16.2
AgraTech 1701		128	143	136	7.0	55	6-5	2	15.0
AgraTech 803RR		127	143	135	4.1	58	6-4	2	16.0
Pioneer 33V15		133	136	134	7.3	58	6-2	2	15.9
<b>Test Average</b>		140	156	148					
<b>LSD</b> <sub>0.05</sub>		23.5	26.1	17.6					
<b>CV (%)</b>		6.0	6.0	4.2					

† This test was severely lodged and lost due to a hurricane

## EVALUATIONS OF CORN HYBRIDS IN ALABAMA 2003

**TABLE 10. IRRIGATED CORN HYBRID PERFORMANCE AND CHARACTERISTICS, HEADLAND, ALABAMA, 2001-2003**

Brand name - hybrid	Grain yield			Lodging			Test-weight lb/bu	Mid-silk mo-day	Husk cover <sup>1</sup>	Harvest moisture -- % --
	3-yr	2-yr	2003	3-yr	2-yr	2003				
	----- bu/acre -----			----- % -----						
Pioneer 31G98	189	171	190	1.2	1.3	2.5	57	6-7	3.0	13.4
Pioneer 32R25	187	172	200	0.3	0.5	1.0	57	6-8	3.0	13.4
Dyna-Gro 5515	175	166	168	2.0	1.6	2.5	56	6-9	3.0	13.4
Terral TV2160Bt	163	151	149	6.2	9.4	13.5	58	6-7	3.0	13.4
Dyna-Gro 58K22		177	194		3.1	3.0	55	6-7	3.0	13.4
Garst/AgriPro 8288		174	177		1.7	1.5	58	6-6	2.5	13.4
Terral TV23R15n		167	178		0.8	1.5	57	6-7	2.5	13.4
Terral TV2140nRR		166	178		2.0	4.0	55	6-7	2.0	13.4
Terral TV2155Bt		151	150		4.2	7.0	59	6-10	2.0	13.4
Terral TV2140			202			1.5	55	6-9	2.0	13.4
Garst ND200YG1			202			2.5	58	6-8	3.0	13.4
Dekalb DKC 69-71			200			4.0	59	6-7	2.5	13.4
Dyna-Gro 5518			197			1.5	55	6-7	2.5	13.4
Pioneer 33M54			195			1.5	58	6-9	3.0	13.4
Terral TV2130			191			1.5	56	6-8	2.0	13.4
AgraTech EXP 31610			187			6.0	60	6-7	2.0	13.4
Pioneer 31G66			185			3.5	57	6-4	2.5	13.4
Terral TV26BR10n			185			3.0	58	6-8	3.0	13.4
Dekalb DKC 67-60			179			4.5	58	6-9	2.5	13.4
Dekalb DKC 66-80			178			1.5	57	6-9	2.0	13.4
Garst 8230IT			178			9.0	53	6-8	3.0	13.4
Terral TV24R10			177			2.5	61	6-6	2.0	13.4
Dyna-Gro 58K15			174			3.5	56	6-8	3.5	13.4
Terral TV26B23			172			1.5	60	6-4	2.5	13.4
AgraTech 1701			171			9.0	54	6-7	3.0	13.4
AgraTech 905RR			168			2.5	55	6-7	2.0	13.4
Terral TV25B30			166			0.0	60	6-10	2.0	13.4
AgraTech 803RR			165			2.0	60	6-9	2.0	13.4
Dyna-Gro 58K56			165			1.5	61	6-8	2.0	13.4
Pioneer 33V15			164			1.0	59	6-5	2.5	13.4
Dyna-Gro 5545			163			1.5	55	6-5	3.0	13.4
<b>Test Average</b>	178	166	179							
<b>LSD0.05</b>	14.7	14.4	18.2							
<b>CV (%)</b>	2.6	3.0	3.6							

TABLE 11. GROWING SEASON RAINFALL, 2001-2003.

Location	Year	----- Monthly rainfall in inches -----							7-month total
		Mar.	Apr.	May	June	July	Aug.	Sept.	
<b>Belle Mina</b>									
	2003	2.2	4.3	9.8	5.0	4.6	3.0	8.6	37.5
	2002	5.5	1.5	10.3	0.9	4.5	1.7	5.3	29.7
	2001	5.8	3.9	6.4	8.8	4.3	3.2	5.6	38.0
<b>Crossville</b>									
	2003	4.4	5.1	12.6	4.0	4.8	5.9	3.9	40.7
	2002	7.8	3.0	4.8	1.9	4.5	2.0	8.9	32.9
	2001	8.4	2.7	5.2	1.0	4.7	4.5	3.7	30.2
<b>Shorter</b>									
	2003	6.7	9.1	6.0	6.6	7.8	6.9	4.5	47.6
	2002	6.5	3.6	2.5	5.6	2.3	1.9	4.6	27.0
	2001	13.8	6.0	3.6	7.1	3.1	2.4	1.6	37.6
<b>Prattville</b>									
	2003	5.2	8.8	4.8	7.4	6.8	8.0	2.2	43.2
	2002	5.8	1.4	2.6	1.9	4.2	2.2	6.2	24.3
	2001	13.1	3.8	2.9	5.1	4.0	9.6	2.4	40.9
<b>Marion Junction</b>									
	2003	3.4	10.4	7.7	9.2	7.9	7.3	2.1	48.0
	2002	5.3	1.0	4.6	3.6	6.5	4.3	9.1	34.4
	2001	11.5	5.4	2.5	5.3	4.1	6.6	3.7	39.1
<b>Brewton</b>									
	2003	6.3	7.4	9.4	8.1	11.5	13.2	5.9	61.8
	2002	5.3	2.2	1.8	12.4	12.4	5.7	11.5	51.3
	2001	16.0	3.0	1.5	9.5	4.8	7.8	3.4	46.0
<b>Fairhope</b>									
	2003	5.2	3.1	5.8	9.5	18.4	5.2	3.7	50.9
	2002	4.2	3.1	2.3	3.4	10.8	5.8	14.8	44.4
	2001	8.7	0.3	0.6	13.8	15.7	0.1	4.7	43.9
<b>Headland</b>									
	2003	6.0	9.2	3.4	8.8	7.5	6.1	4.7	45.7
	2002	5.2	3.4	2.9	3.9	4.1	3.1	2.9	25.5
	2001	12.6	2.5	2.1	11.6	3.3	3.9	3.7	39.7



## EVALUATIONS OF CORN HYBRIDS IN ALABAMA 2003

**TABLE 12. SOIL TYPES FOR CORN TRIALS, 2003**

Test location	Soil type
<b>North</b>	
Belle Mina .....	Decatur silt loam
Crossville .....	Wynnvilleville fine sandy loam
<b>Central</b>	
Tallassee .....	Cahaba loamy sand
Shorter .....	Norfolk sandy loam
Prattville .....	Lucedale fine sandy loam
Marion Junction .....	Vaiden clay
<b>South</b>	
Brewton .....	Benndale fine sandy loam
Headland .....	Dothan sandy loam
Fairhope .....	Malbis fine sandy loam

**SOURCES OF 2003 CORN HYBRID TRIAL SEED**

Seed Company	Brand	Seed Company	Brand
AgraTech Seeds P.O. Box 88823 Dunwoody, GA 30356	AgraTech	Pioneer Hi-Bred Int., Inc. 6767 Old Madison Pike Huntsville, AL 35806	Pioneer
Garst Seed Company 761 Walnut Knoll Lane Memphis, TN 38018	Garst,	Terral Seed P.O. Box 826 Lake Providence, LA 71254	TV
Monsanto Company 3100 Sycamore Road DeKalb, IL 60115	Dekalb DK	UAP Southeast 25324 HSV-Brownsferry Rd Madison, AL 35756	Dyna-Gro
Southern States P.O. Box 26230 Richmond, VA 23260	SS		