

*Performance
of Small Grain
Varieties for
Grain in
Alabama,
2002*

*Agronomy and Soils Departmental Series No. 245
Alabama Agricultural Experiment Station
John Jensen, Interim Director
Auburn University, Auburn, Alabama,
September 2002*

*Printed in cooperation with the Alabama Cooperative Extension System
(Alabama A&M University and Auburn University)*

TABLE OF CONTENTS

	Page
Acknowledgments	2
Introduction	3
Procedure	3
Data Explanation	3
Discussion	3
Location and Planting and Harvest Dates for 2001-02	
Small Grain Tests	4
North Alabama Regional Averages of Small Grain Variety	
Performance	5
Tennessee Valley Research and Extension Center Small Grain Trial, Belle Mina	6
Sand Mountain Research and Extension Center Small Grain Trial, Crossville	8
Central Alabama Regional Averages of Small Grain Variety	
Performance	10
Prattville Experiment Field Small Grain Trial, Prattville	11
E.V. Smith Res. Ctr. Small Grain Trial, Plant Breeding Unit, Tallassee	12
Black Belt Research and Extension Center Small Grain Trial, Marion Junction	13
South Alabama Regional Averages of Small Grain Variety	
Performance	14
Wiregrass Research and Extension Center Small Grain Trial, Headland	15
Brewton Experiment Field Small Grain Trial, Brewton	16
Gulf Coast Research and Extension Center Small Grain Trial, Fairhope	17
Disease Ratings	
Barley Yellow Dwarf, Wheat	18
Leaf Rust, Wheat	19
Leaf Blotch, Wheat	20
Stripe Rust, Wheat	21
Powdery Mildew, Wheat	22
Oat	23
Triticale	24
Barley	24
Sources of Seed	25

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

ACKNOWLEDGMENTS

Appreciation is expressed to the following supervisory personnel of the outlying units whose support is gratefully acknowledged:

Northern Alabama

Tennessee Valley Research and Extension Center, Belle MinaB.E. Norris, Jr., Supt.
H.E. Burgess, Assoc. Supt.

Sand Mountain Research and Extension Center, Crossville.....R.A. Dawkins, Supt.

Upper Coastal Plain Substation, Winfield.....R.C. Rawls, Supt.

Central Alabama

Black Belt Research and Extension Center, Marion JunctionJ.L. Holliman, Supt.

Prattville Experiment Field.....D.P. Moore, Supt.

E.V. Smith Research Center, Plant Breeding Unit, TallasseeS.P. Nightengale, Supt.

Southern Alabama

Brewton Experiment FieldJ.R. Akridge, Supt.

Gulf Coast Research and Extension Center, Fairhope.....N.R. McDaniel, Supt.
M.D. Pegues, Assoc. Supt.

Wiregrass Research and Extension Center, Headland.....L.W. Wells, Supt.
B.E. Gamble, Asst. Supt.

Information contained herein is available to all persons regardless of race, color, sex, or national origin. Issued in furtherance of Cooperative Extension work in agriculture and home economic, Acts of May 8, and June 30, 1914, and other related acts, in cooperation with the U.S. department of Agriculture. The Alabama Cooperative Extension System (Alabama A&M University and Auburn University) offers educational programs, materials, and equal opportunity employment to all people without regard to race, color, national origin, religion, sex, age, veteran status, or disability

THE 2002 ALABAMA PERFORMANCE COMPARISON OF SMALL GRAIN VARIETIES

K.M. Glass, P.L. Mask, and E. van Santen

Agric. Program Associate, Professor and Extension Specialist, and Professor, Dept. of Agronomy and
Soils, Auburn University, AL 36849

INTRODUCTION

The large number of commercially available varieties of wheat, oat, rye, barley, and triticale makes it difficult for growers to select varieties most suited for their particular area of the State. Making this decision requires up-to-date, unbiased, reliable information on varietal yields and characteristics. This report is published annually to provide Alabama growers with this information.

Entries in each experiment are determined by the companies or institutes which control each variety or line, not by experiment station personnel. Data from tests conducted at eight locations were used to compile this report and they represent the varied growing conditions farmers experience around the State.

PROCEDURE

The experimental design for the tests was a split plot design with species as the main plot and varieties as subplots. Plots were 5 feet by 20 feet with rows spaced 7 inches apart. A cone drill was used to plant all tests in the State. Each variety was replicated three times in each test.

These tests are normally planted during late October to early November, which is approximately one month later than the forage tests. Planting dates for all tests in 2001 are shown in Table 1. All tests were fertilized with P and K according to soil test, plus 20 pounds N per acre at planting. A top dressing of 60 pounds N per acre was made in late February or early March, just prior to jointing. The plots were not sprayed to control disease, so that the varieties could be rated for their inherent disease resistance. The grain was allowed to mature and was harvested with a plot combine, then cleaned and weighed. Moisture and bushel test weight were measured.

DATA EXPLANATION

Grain yields were calculated by weighing air-dried grain and using 60 pounds per bushel for wheat, 32 pounds per bushel for oat, 48 pounds per bushel for barley, and 50 pounds per bushel for triticale.

Lodging was measured as the percent of plants in the stand broken or leaning that would likely be missed by a combine. Height was measured from the ground to the top of the grain head. The 1/10 headed date is the date when approximately 10 percent of a plot showed fully emerged heads.

Disease ratings for all 2001-2002 variety tests are summarized by region in Tables 13 - 20. Katherine B. Burch, Research Associate, Department of Entomology and Plant Pathology, made disease ratings at all locations. Disease onset on wheat was earlier than in previous years. At the time of mid-season ratings on wheat, incidence of powdery mildew was slightly lower at most locations than in 2001, while incidence of leaf rust and leaf blotch was observed to be higher. Stripe rust, which is rarely seen in Alabama, was also observed at most locations across the state, however, incidence and severity were higher in northern Alabama than in other parts of the state. Symptoms of the viral disease, barley yellow dwarf, tended to be higher in most entries across the state. On oats, levels of *Helminthosporium* leaf spot were similar to those observed last year. Crown rust was observed on only one variety in the northern and central regions but incidence was higher in the southern region than last year. On triticale, low levels of leaf rust and leaf blotch were observed at most locations. On barley, spot blotch, net blotch and scald developed at low levels.

DISCUSSION

Growing conditions and variety performance often vary among locations and years. The 1999-00 growing season had mild temperatures with a fairly dry spring. At Fairhope, planting was delayed due to dry soil conditions. In the 2000-01 growing season, planting was delayed due to wet soil conditions. Most locations had a wet spring. Moderate freeze damage occurred at several locations. In the 2001-02 growing season, planting was delayed at Crossville, Prattville, Headland and Fairhope due to dry soil conditions.

TABLE 1. LOCATION, PLANTING, AND HARVESTING DATES FOR THE 2001-02 SMALL GRAIN TESTS

Location	Date planted	Date harvested
Northern Alabama		
Tennessee Valley Res. & Ext. Ctr. (Belle Mina)		
Small grain-forage only	October 10	
Small grain-grain only	October 30	June 18
Sand Mountain Res. & Ext. Ctr. (Crossville)		
Small grain-forage only	October 9	
Small grain-grain only	December 6	June 12
Upper Coastal Plain Substation (Winfield)		
Small grain-forage only	September 28	
Central Alabama		
Black Belt Res. & Ext. Ctr. (Marion Junction)		
Small grain-forage only	October 23	
Small grain-grain only	October 10	May 24
E.V. Smith Res. Ctr., Plant Breeding Unit (Tallasse)		
Small grain-forage only	October 17	
Small grain-grain only	October 18	May 20
Prattville Experiment Field (Prattville)		
Small grain-forage only	October 16	
Small grain-grain only	November 26	June 7
Southern Alabama		
Wiregrass Res. & Ext. Ctr. (Headland)		
Small grain-forage only	October 17	
Small grain-grain only	November 28	May 24
Brewton Experiment Field (Brewton)		
Small grain-forage only	October 19	
Small grain-grain only	October 24	May 21
Gulf Coast Res. & Ext. Ctr. (Fairhope)		
Small grain-forage only	October 8	
Small grain-grain only	November 26	May 17

NEW THIS YEAR

Beginning this year we will move towards more advanced statistical analysis of trial data. The report will still contain some of the traditional features it had in years past. The new features are as follows:

1. All tables will report not only the entry mean for the current year but also two and three-year averages. Including the two-year average will provide more information for entries that haven't been in the trial for three years. Entries within tables are sorted from highest to lowest in the following sequence: 3-yr, 2-yr, current year.
2. For multi-year and multi-location averages, a warning will be posted if there is a statistically significant interaction indicating that there may be a shift in cultivar ranks among locations and/or years.
3. Multi-year and multi-location means are now least squares means rather than traditional arithmetic means. These means provide better estimates of performance when the trials are unbalanced.
4. Regional and multi-year averages will be reported with 90% confidence limits. Means with overlapping confidence limits are not significantly different from one another.

TABLE 2. NORTH ALABAMA REGIONAL AVERAGES OF SMALL GRAIN VARIETY PERFORMANCE

Brand-Variety	2002		2001-2002		2000-2002	
	Avg.	90% Confidence limits	Avg.	90% Confidence limits	Avg.	90% Confidence limits
----- bu/acre -----						
<i>Wheat</i>						
AGS 2000	64	(61,68)	65	(62,68)	75	(72,78)
SS 535	72	(69,76)	67	(64,70)	74	(71,77)
SS 518	62	(58,66)	62	(60,65)	71	(68,73)
USG 3209	61	(58,65)	62	(59,65)	70	(68,73)
Pioneer 2684	61	(58,65)	63	(60,66)	69	(66,71)
Armor 3235	66	(62,69)	62	(59,65)	68	(66,71)
Jackson	68	(65,72)	63	(60,66)	67	(65,70)
Roberts	64	(61,68)	57	(54,60)	67	(65,70)
Coker 9025	69	(66,73)	64	(61,67)		
Coker 9184	67	(63,70)	64	(61,67)		
Croplan Genetics 554W	75	(71,79)				
Croplan Genetics 517W	73	(69,76)				
Pocahontas	71	(68,75)				
SS 524	70	(66,73)				
SS 520	67	(64,71)				
Sisson	66	(62,69)				
Tribute	66	(63,70)				
Roane	65	(61,68)				
GA 92485E15	65	(62,69)				
AgriPro D97-6075	65	(61,69)				
SS 550	64	(61,68)				
Pat	63	(59,66)				
McCormick	62	(58,66)				
GA 92485E15	62	(58,66)				
NOTE: Entry x loc and/or entry x year interactions were significant. Thus these overall averages should be used with caution because entries may rank differently among locations and/or years.						
<i>Oat</i>						
Chapman	104	(98,111)	101	(93,109)	114	(109,119)
Horizon 314	88	(82,95)	79	(71,88)	102	(97,107)
LA 604	98	(91,104)	94	(85,102)		
SC 910337	93	(87,100)				
Horizon 474	86	(80,93)				
NOTE: Entry x loc and/or entry x year interactions were significant. Thus these overall averages should be used with caution because entries may rank differently among locations and/or years.						
<i>Barley</i>						
Nomini	74	(69,79)	73	(68,78)	81	(77,86)
Callao	76	(71,80)	74	(69,79)	77	(73,82)
VA 97B-388	78	(73,83)	75	(71,80)		
Price	69	(64,74)	72	(67,78)		
VA 97B-176	73	(68,78)	71	(66,76)		
<i>Triticale</i>						
Trical 498	78	(71,84)	77	(70,83)	82	(74,91)
RSI Exp 314	64	(57,70)				

TABLE 3. TENNESSEE VALLEY RESEARCH AND EXTENSION CENTER SMALL GRAIN VARIETY TRIAL, BELLE MINA

Brand-Variety	2002		2001-2002		2000-2002	
	Test wt lbs/bu	Avg.	Avg.	90% Confidence limits	Avg.	90% Confidence limits
		----- bu/acre -----				
<i>Wheat</i>						
AGS 2000	56.7	64	59	(50,66)	72	(59,83)
Pioneer 26R24	56.2	71	58	(49,65)	70	(57,81)
SS 535	57.0	67	56	(47,63)	66	(53,77)
Pioneer 2684	56.8	59	54	(45,62)	65	(53,76)
Roberts	55.6	60	47	(39,55)	64	(51,75)
USG 3209	55.6	58	52	(43,59)	64	(51,75)
Jackson	55.9	67	54	(45,62)	62	(50,73)
Armor 3235	55.4	60	52	(43,59)	62	(49,73)
SS 518	53.4	48	44	(35,52)	61	(49,72)
Coker 9184	56.9	62	54	(45,61)		
Coker 9025	53.5	56	53	(45,61)		
Croplan Genetics 517W	53.9	67				
Croplan Genetics 554W	54.9	66				
SS 524	54.3	65				
Pocahontas	54.7	64				
Roane	57.0	63				
Pat	55.3	63				
AgriPro D97-6075	55.3	63				
SS 520	53.9	63				
Tribute	58.0	63				
GA 92485E15	57.8	62				
Sisson	56.4	60				
McCormick	57.0	59				
SS 550	56.2	58				
<i>Test Mean</i>		62				
<i>LSD (0.10)</i>		6				
<i>CV, %</i>		7				
<i>Oat</i>						
Horizon 314	31.4	105	84	(66,101)	104	(84,122)
Chapman	32.9	89	86	(68,103)	103	(84,122)
LA 604	34.5	83	81	(63,98)		
SC 910337	37.5	83				
Horizon 474	37.3	81				
<i>Test Mean</i>		88				
<i>LSD (0.10)</i>		7				
<i>CV, %</i>		5				

continued

TABLE 3. CONTINUED. TENNESSEE VALLEY RESEARCH AND EXTENSION CENTER SMALL GRAIN VARIETY TRIAL, BELLE MINA

Brand-Variety	2002		2001-2002		2000-2002	
	Test wt lbs/bu	Avg.	Avg.	90% Confidence limits bu/acre	Avg.	90% Confidence limits
<i>Barley</i>						
Nomini	42.5	64	60	(52,66)	72	(61,83)
Callao	42.5	65	62	(54,70)	71	(57,83)
VA 97B-388	43.2	79	70	(62,76)		
Price	43.9	62	62	(53,70)		
VA 97B-176	43.3	61	59	(52,66)		
<i>Test Mean</i>		66				
<i>LSD (0.10)</i>		6				
<i>CV, %</i>		6				
<i>Triticale</i>						
Trical 498	46.7	72	69	(50,87)	72	(40,103)
RSI Exp 314	49.8	71				
<i>Test Mean</i>		72				
<i>LSD (0.10)</i>		12				
<i>CV, %</i>		9				

TABLE 4. SAND MOUNTAIN RESEARCH AND EXTENSION CENTER SMALL GRAIN VARIETY TRIAL, CROSSVILLE

Brand-Variety	2002		2001-2002		2000-2002	
	Test wt lbs/bu	Avg.	Avg.	90% Confidence limits	Avg.	90% Confidence limits
		----- bu/acre -----				
Wheat						
AGS 2000	56.7	64	59	(50,66)	72	(59,83)
Pioneer 26R24	56.2	71	58	(49,65)	70	(57,81)
SS 535	57.0	67	56	(47,63)	66	(53,77)
Pioneer 2684	56.8	59	54	(45,62)	65	(53,76)
Roberts	55.6	60	47	(39,55)	64	(51,75)
USG 3209	55.6	58	52	(43,59)	64	(51,75)
Jackson	55.9	67	54	(45,62)	62	(50,73)
Armor 3235	55.4	60	52	(43,59)	62	(49,73)
SS 518	53.4	48	44	(35,52)	61	(49,72)
Coker 9184	56.9	62	54	(45,61)		
Coker 9025	53.5	56	53	(45,61)		
Croplan Genetics 517W	53.9	67				
Croplan Genetics 554W	54.9	66				
SS 524	54.3	65				
Pocahontas	54.7	64				
Roane	57.0	63				
Pat	55.3	63				
AgriPro D97-6075	55.3	63				
SS 520	53.9	63				
Tribute	58.0	63				
GA 92485E15	57.8	62				
Sisson	56.4	60				
McCormick	57.0	59				
SS 550	56.2	58				
Test Mean		62				
LSD (0.10)		6				
CV, %		7				
Oat						
Horizon 314	31.4	105	84	(66,101)	104	(84,122)
Chapman	32.9	89	86	(68,103)	103	(84,122)
LA 604	34.5	83	81	(63,98)		
SC 910337	37.5	83				
Horizon 474	37.3	81				
Test Mean		88				
LSD (0.10)		7				
CV, %		5				

continued

TABLE 4. CONTINUED. SAND MOUNTAIN RESEARCH AND EXTENSION CENTER SMALL GRAIN VARIETY TRIAL, CROSSVILLE

Brand-Variety	2002		2001-2002		2000-2002	
	Test wt lbs/bu	Avg.	Avg.	90% Confidence limits bu/acre	Avg.	90% Confidence limits
<i>Barley</i>						
Nomini	42.5	64	60	(52,66)	72	(61,83)
Callao	42.5	65	62	(54,70)	71	(57,83)
VA 97B-388	43.2	79	70	(62,76)		
Price	43.9	62	62	(53,70)		
VA 97B-176	43.3	61	59	(52,66)		
<i>Test Mean</i>		66				
<i>LSD (0.10)</i>		6				
<i>CV, %</i>		6				
<i>Triticale</i>						
Trical 498	46.7	72	69	(50,87)	72	(40,103)
RSI Exp 314	49.8	71				
<i>Test Mean</i>		72				
<i>LSD (0.10)</i>		12				
<i>CV, %</i>		9				

TABLE 5. CENTRAL ALABAMA REGIONAL AVERAGES OF SMALL GRAIN VARIETY PERFORMANCE

Brand-Variety	2002		2001-2002		2000-2002	
	Avg.	90% Confidence limits	Avg.	90% Confidence limits	Avg.	90% Confidence limits
----- bu/acre -----						
<i>Wheat</i>						
Pioneer 26R24	44	(41,46)	56	(53,59)	60	(58,63)
Roberts	48	(45,51)	53	(50,56)	58	(56,61)
AGS 2000	39	(36,41)	52	(49,55)	57	(55,60)
Pioneer 26R38	28	(25,31)	44	(41,47)	51	(49,54)
Armor 3235	44	(41,46)	49	(46,52)	50	(48,53)
Jackson	36	(34,39)	48	(45,51)	46	(44,49)
Croplan Genetics 517W	48	(45,50)				
Pat	47	(44,50)				
Croplan Genetics 554W	47	(44,50)				
Sisson	42	(39,44)				
GA 92485E15	40	(37,43)				
McCormick	40	(37,43)				
Roane	38	(35,40)				
Pocahontas	32	(29,34)				
Tribute	31	(28,34)				
NOTE: Entry x loc and/or entry x year interactions were significant. Thus these overall averages should be used with caution because entries may rank differently among locations and/or years.						
<i>Oat</i>						
Horizon 314	22	(19,26)	40	(36,43)	50	(47,54)
Chapman	19	(15,22)	30	(26,33)	46	(42,49)
LA 604	21	(18,24)	32	(28,35)		
Horizon 474	20	(17,23)				
SC 910337	9	(6,12)				
NOTE: Entry x loc and/or entry x year interactions were significant. Thus these overall averages should be used with caution because entries may rank differently among locations and/or years.						
<i>Triticale</i>						
Trical 498	36	(34,37)	44	(41,46)	47	(45,50)
RSI Exp 314	28	(27,30)				

TABLE 6. PRATTVILLE EXPERIMENT FIELD SMALL GRAIN VARIETY TRIAL, PRATTVILLE

Brand-Variety	2002		2001-2002		2000-2002	
	Test wt lbs/bu	Avg.	Avg.	90% Confidence limits	Avg.	90% Confidence limits
		----- bu/acre -----				
<i>Wheat</i>						
Pioneer 26R24	54.5	38	53	(43,62)	58	(50,65)
Roberts	53.2	47	53	(43,62)	55	(47,62)
AGS 2000	53.5	31	43	(33,52)	50	(42,57)
Pioneer 26R38	50.7	27	43	(33,52)	49	(41,55)
Jackson	51.2	37	46	(36,55)	45	(38,52)
Armor 3235	52.1	32	41	(31,50)	44	(36,50)
Pat	50.8	46				
Croplan Genetics 554W	52.2	45				
GA 92485E15	54.3	40				
McCormick	54.0	37				
Sisson	52.3	33				
Roane	52.3	28				
Tribute	54.1	27				
Pocahontas	60.0	22				
Test Mean		39				
LSD (0.10)		4				
CV, %		7				
<i>Oat</i>						
Horizon 314	32.0	29	54	(36,72)	57	(44,70)
Chapman	32.0	28	49	(31,67)	53	(40,66)
LA 604	32.0	21	40	(22,58)		
Horizon 474	32.0	11				
SC 910337	32.0	8				
Test Mean		19				
LSD (0.10)		5				
CV, %		16				
<i>Triticale</i>						
Trical 498	40.7	51	51	(45,55)	50	(47,53)
RSI Exp 314	45.1	32				
Test Mean		42				
LSD (0.10)		2				
CV, %		3				

TABLE 7. E.V. SMITH RESEARCH CENTER SMALL GRAIN VARIETY TRIAL, PLANT BREEDING UNIT, TALLASSEE

Brand-Variety	2002		2001-2002		2000-2002	
	Test wt lbs/bu	Avg.	Avg.	90% Confidence limits bu/acre	Avg.	90% Confidence limits
<i>Wheat</i>						
AGS 2000	54.1	21	49	(31,66)	57	(43,70)
Roberts	54.7	22	39	(21,56)	53	(39,66)
Armor 3235	53.6	25	42	(24,59)	47	(33,60)
Jackson	53.7	16	40	(22,57)	40	(26,53)
Sisson	56.1	23				
Croplan Genetics 517W	53.1	23				
Pioneer 26R24	55.4	22				
Pat	54.1	22				
Croplan Genetics 554W	53.5	22				
Roane	55.0	21				
McCormick	58.2	20				
Pocahontas	53.9	19				
GA 92485E15	53.8	18				
Tribute	57.9	16				
Pioneer 26R38	53.0	13				
Test Mean		20				
LSD (0.10)		5				
CV, %		18				
<i>Oat</i>						
Chapman	23.8	4	7	(0,15)	36	(13,59)
Horizon 314	23.1	7	20	(12,28)	41	(18,63)
SC 910337	27.6	5				
LA 604	27.6	9				
Horizon 474	29.1	13				
Test Mean		8				
LSD (0.10)		6				
CV, %		51				
<i>Triticale</i>						
Trical 498	38.7	9	31	(11,51)	41	(25,55)
RSI Exp 314	41.8	11				
Test Mean		10				
LSD (0.10)		3				
CV, %		19				

TABLE 8. BLACK BELT RESEARCH AND EXTENSION CENTER SMALL GRAIN VARIETY TRIAL, MARION JUNCTION

Brand-Variety	2002		2001-2002		2000-2002	
	Test wt lbs/bu	Avg.	Avg.	90% Confidence limits	Avg.	90% Confidence limits
		----- bu/acre -----				
<i>Wheat</i>						
Roberts	52.8	53	32	(12,51)	44	(27,59)
McCormick	57.8	71				
Sisson	55.7	65				
Tribute	59.9	60				
Roane	58.5	58				
Pat	54.3	56				
Pocahontas	53.0	54				
Pioneer 26R24	54.5	53				
Armor 3235	51.5	51				
Jackson	52.9	47				
Croplan Genetics 554W	54.0	43				
Croplan Genetics 517W	54.2	43				
AGS 2000	53.9	32				
GA 92485E15	54.6	32				
Pioneer 26R38	48.4	18				
<i>Test Mean</i>		47				
<i>LSD (0.10)</i>		5				
<i>CV, %</i>		8				
<i>Oat</i>						
Horizon 314	23.2	46	32	(18,45)	53	(31,73)
Horizon 474	27.0	31				
Chapman	21.4	23				
LA 604	24.9	23				
SC 910337	24.8	21				
<i>Test Mean</i>		29				
<i>LSD (0.10)</i>		6				
<i>CV, %</i>		14				
<i>Triticale</i>						
Trical 498	39.6	17	19	(16,20)	31	(19,41)
RSI Exp 314	46.2	25				
<i>Test Mean</i>		21				
<i>LSD (0.10)</i>		5				
<i>CV, %</i>		14				

TABLE 9. SOUTH ALABAMA REGIONAL AVERAGES OF SMALL GRAIN VARIETY PERFORMANCE

Brand-Variety	2002		2001-2002		2000-2002	
	Avg.	90% Confidence limits	Avg.	90% Confidence limits	Avg.	90% Confidence limits
----- bu/acre -----						
<i>Wheat</i>						
AGS 2000	65	(61,68)	68	(65,72)	69	(67,72)
Pioneer 26R61	56	(53,60)	60	(56,64)	61	(59,63)
Coker 9835	54	(51,58)	61	(57,65)	59	(57,61)
Coker 9663	48	(44,51)	55	(51,58)	58	(55,60)
Jackson	37	(33,40)	50	(46,53)	43	(40,45)
Pioneer 26R38	65	(62,69)	69	(65,72)		
USG 3209	59	(56,63)	62	(58,65)		
GA 92485E15	54	(51,58)				
Croplan Genetics 517W	51	(48,55)				
McCormick	49	(46,53)				
Croplan Genetics 554W	48	(45,52)				
Coker 9152	46	(42,49)				
Tribute	44	(41,48)				
Pocahontas	40	(37,43)				
Sisson	27	(23,30)				
Roane	25	(22,29)				
<i>Oat</i>						
Horizon 314	69	(63,74)	95	(91,100)	100	(95,104)
Chapman	49	(43,54)	86	(81,90)	80	(75,84)
LA 604	44	(39,50)	75	(70,79)		
Horizon 474	68	(62,73)				
SC 910337	45	(40,51)				
<i>Triticale</i>						
Trical 498	48	(46,51)	57	(55,59)	66	(64,68)
RSI Exp 314	44	(42,47)				

TABLE 10. WIREGRASS RESEARCH AND EXTENSION CENTER SMALL GRAIN VARIETY TRIAL, HEADLAND

Brand-Variety	2002		2001-2002		2000-2002	
	Test wt lbs/bu	Avg.	Avg.	90% Confidence limits	Avg.	90% Confidence limits
			----- bu/acre -----			
<i>Wheat</i>						
AGS 2000	53.8	68	59	(51,66)	65	(58,70)
Pioneer 26R61	56.0	59	53	(45,60)	58	(52,63)
Northrup King Coker 983	51.4	51	51	(43,58)	54	(48,59)
Coker 9663	54.7	44	43	(35,50)	48	(42,53)
Jackson	52.0	41	42	(34,49)	42	(36,47)
Pioneer 26R38	53.5	69	63	(55,70)		
USG 3209	54.1	55	49	(41,56)		
Croplan Genetics 517W	50.5	56				
GA 92485E15	55.5	54				
McCormick	56.0	48				
Croplan Genetics 554W	52.0	44				
Tribute	57.9	41				
Pocahontas	50.7	38				
Coker 9152	53.2	32				
Sisson	49.9	26				
Roane	50.8	21				
<i>Test Mean</i>		50				
<i>LSD (0.10)</i>		9				
<i>CV, %</i>		12				
<i>Oat</i>						
Horizon 314	27.2	64	72	(51,92)	82	(66,97)
Chapman	22.1	33	68	(47,88)	74	(58,89)
LA 604	30.5	29	54	(33,74)		
Horizon 474	35.5	70				
SC 910337	32.9	45				
<i>Test Mean</i>		48				
<i>LSD (0.10)</i>		9				
<i>CV, %</i>		12				
<i>Triticale</i>						
Trical 498	41.1	66	54	(43,65)	64	(52,75)
RSI Exp 314	42.7	60				
<i>Test Mean</i>		63				
<i>LSD (0.10)</i>		9				
<i>CV, %</i>		9				

TABLE 11. BREWTON EXPERIMENT FIELD SMALL GRAIN VARIETY TRIAL, BREWTON

Brand-Variety	2002		2001-2002		2000-2002	
	Test wt	Avg.	Avg.	90% Confidence limits	Avg.	90% Confidence limits
	lbs/bu		----- bu/acre -----			
<i>Wheat</i>						
USG 3209	54.0	59				
Coker 9152	53.5	56				
Pioneer 26R38	50.7	55				
AGS 2000	52.7	54				
Coker 9663	52.0	53				
Pioneer 26R61	55.0	49				
Sisson	52.5	45				
Croplan Genetics 554W	51.0	44				
GA 92485E15	53.8	43				
Northrup King Coker 983	49.3	43				
Tribute	54.4	42				
Pocahontas	52.0	41				
McCormick	54.4	39				
Roane	53.9	34				
Jackson	51.4	32				
<i>Test Mean</i>		46				
<i>LSD (0.10)</i>		6				
<i>CV, %</i>		9				
<i>Oat</i>						
Horizon 474	29.9	56				
Chapman	25.0	50				
Horizon 314	25.8	48				
LA 604	29.2	47				
SC 910337	29.2	31				
<i>Test Mean</i>		46				
<i>LSD (0.10)</i>		16				
<i>CV, %</i>		23				
<i>Triticale</i>						
RSI Exp 314	41.9	31				
Trical 498	36.8	25				
<i>Test Mean</i>		28				
<i>LSD (0.10)</i>		10				
<i>CV, %</i>		20				

NOTE: No multi-year averages are available for this location because the small grain trial was planted here for the first time. This location replaces **Monroeville Experiment Field**, which was closed last year by the AAES Director and converted to a pine plantation.

TABLE 12. GULF COAST RESEARCH AND EXTENSION CENTER SMALL GRAIN VARIETY TRIAL, FAIRHOPE

Brand-Variety	2002		2001-2002		2000-2002	
	Test wt lbs/bu	Avg.	Avg.	90% Confidence limits	Avg.	90% Confidence limits
			----- bu/acre -----			
Wheat						
AGS 2000	55.8	61	77	(65,89)	74	(63,84)
Coker 9663	54.8	52	67	(54,79)	67	(56,78)
Pioneer 26R61	57.5	53	67	(54,79)	64	(53,74)
Northrup King Coker 983	51.8	58	71	(58,83)	64	(52,74)
Jackson	52.7	32	58	(45,69)	43	(32,53)
USG 3209	54.6	64	75	(62,86)		
Pioneer 26R38	54.6	62	75	(62,86)		
Coker 9152	56.0	59				
GA 92485E15	56.3	54				
Croplan Genetics 554W	52.5	53				
McCormick	55.4	50				
Tribute	58.9	48				
Croplan Genetics 517W	50.7	47				
Pocahontas	51.0	42				
Roane	48.5	30				
Sisson	48.5	28				
Test Mean		49				
LSD (0.10)		6				
CV, %		9				
Oat						
Horizon 314	22.7	74	119	(86,150)	117	(92,141)
Chapman	18.2	64	103	(71,135)	85	(60,110)
LA 604	27.4	60	96	(63,127)		
Horizon 474	32.0	65				
SC 910337	25.6	45				
Test Mean		62				
LSD (0.10)		10				
CV, %		11				
Triticale						
Trical 498	34.2	30	60	(33,87)	69	(50,86)
RSI Exp 314	38.5	29				
Test Mean		30				
LSD (0.10)		4				
CV, %		7				

TABLE 13. BARLEY YELLOW DWARF RATINGS FOR WHEAT VARIETIES IN ALABAMA, 2001-2002. THE NUMBERS GIVEN REPRESENT THE PERCENT OF SYMPTOMATIC PLANTS.

Brand-variety	Northern Alabama	Central Alabama	Southern Alabama
AGRIPRO D97-6075	53.3	-	-
AGS 2000	59.2	70.6	58.9
Armor 3235	36.7	73.8	-
Pat	33.3	52.8	-
Cropland Genetics 517W	66.7	78.1	76.0
Cropland Genetics 554W	59.2	67.6	50.1
GA 92485E15	61.7	60.0	45.8
Jackson	60.0	72.8	64.4
NK Coker 9025	32.5	-	-
NK Coker 9152	-	-	47.8
NK Coker 9663	-	-	22.2
NK Coker 9835	-	-	-
NK Coker 9184	34.2	-	-
Pioneer 2684	57.5	-	-
Pioneer 26R24	54.2	63.9	-
Pioneer 26R38	-	74.4	61.7
Pioneer 26R61	-	-	46.7
Pocahontas	73.3	76.6	54.4
Roane	35.0	41.7	24.0
Roberts	61.7	79.8	-
Sisson	28.3	65.0	32.8
SS-518	53.3	-	-
SS-520	72.5	-	-
SS-524	66.7	-	-
SS-535	25.0	-	-
SS-550	39.2	-	-
USG 3209	38.3	-	33.3
McCormick	40.8	74.3	51.1
Tribute	49.2	73.9	67.2

TABLE 14. LEAF RUST RATINGS FOR WHEAT VARIETIES IN ALABAMA, 2001-2002. PLOTS WERE EVALUATED ON A 0-10 SCALE, WHERE 0 = NO DISEASE AND 10 = SEVERE DISEASE.

Brand-variety	Northern Alabama	Central Alabama	Southern Alabama
AGRIPRO D97-6075	1.5	-	-
AGS 2000	0.0	2.6	2.0
Armor 3235	2.6	5.1	-
Pat	2.1	4.3	-
Cropland Genetics 517W	1.5	5.2	4.6
Cropland Genetics 554W	2.6	4.9	3.2
GA 92485E15	0.0	2.2	0.7
Jackson	3.3	5.9	5.1
NK Coker 9025	0.0	-	-
NK Coker 9152	-	-	0.0
NK Coker 9663	-	-	3.6
NK Coker 9835	-	-	5.5
NK Coker 9184	0.5	-	-
Pioneer 2684	1.8	-	-
Pioneer 26R24	1.7	4.4	-
Pioneer 26R38	-	4.3	1.6
Pioneer 26R61	-	-	0.0
Pocahontas	2.0	5.0	3.6
Roane	0.7	3.8	1.4
Roberts	2.0	5.2	-
Sisson	1.8	2.7	2.0
SS-518	0.0	-	-
SS-520	1.0	-	-
SS-524	1.0	-	-
SS-535	2.5	-	-
SS-550	1.5	-	-
USG 3209	0.0	-	1.8
McCormick	1.2	1.1	1.4
Tribute	1.8	1.8	1.9

TABLE 15. LEAF BLOTCH RATINGS FOR WHEAT VARIETIES IN ALABAMA, 2001-2002. PLOTS WERE EVALUATED ON A 0-10 SCALE, WHERE 0 = NO DISEASE AND 10 = SEVERE DISEASE.

Brand-variety	Northern Alabama	Central Alabama	Southern Alabama
AGRIPRO D97-6075	3.6	-	-
AGS 2000	3.9	3.3	4.1
Armor 3235	3.3	3.7	-
Pat	3.0	3.3	-
Cropland Genetics 517W	3.3	3.2	4.5
Cropland Genetics 554W	3.1	2.8	2.9
GA 92485E15	4.0	3.3	3.9
Jackson	3.4	3.1	3.6
NK Coker 9025	3.3	-	-
NK Coker 9152	-	-	3.9
NK Coker 9663	-	-	3.4
NK Coker 9835	-	-	3.8
NK Coker 9184	2.9	-	-
Pioneer 2684	4.0	-	-
Pioneer 26R24	3.7	2.9	-
Pioneer 26R38	-	3.4	3.9
Pioneer 26R61	-	-	3.6
Pocahontas	3.4	2.9	3.2
Roane	3.0	2.7	2.8
Roberts	3.5	2.9	-
Sisson	3.0	3.1	3.3
SS-518	3.8	-	-
SS-520	3.4	-	-
SS-524	3.5	-	-
SS-535	3.1	-	-
SS-550	3.1	-	-
USG 3209	3.5	-	3.7
McCormick	3.0	2.7	3.4
Tribute	3.4	3.1	3.7

TABLE 16. STRIPE RUST RATINGS FOR WHEAT VARIETIES IN ALABAMA, 2001-2002. PLOTS WERE EVALUATED ON A 0-10 SCALE, WHERE 0 = NO DISEASE AND 10 = SEVERE DISEASE.

Brand-variety	Northern Alabama	Central Alabama	Southern Alabama
AGRIPRO D97-6075	1.3	-	-
AGS 2000	2.0	0.4	0.3
Armor 3235	0.5	0.0	-
Pat	1.2	0.0	-
Cropland Genetics 517W	1.8	0.2	0.0
Cropland Genetics 554W	1.7	0.3	0.0
GA 92485E15	2.5	0.4	0.1
Jackson	2.4	0.7	0.0
NK Coker 9025	3.4	-	-
NK Coker 9152	-	-	0.0
NK Coker 9663	-	-	0.0
NK Coker 9835	-	-	0.2
NK Coker 9184	1.5	-	-
Pioneer 2684	1.2	-	-
Pioneer 26R24	2.0	0.2	-
Pioneer 26R38	-	0.4	0.0
Pioneer 26R61	-	-	0.0
Pocahontas	3.3	0.9	0.6
Roane	1.5	0.7	0.0
Roberts	1.9	0.4	-
Sisson	2.7	1.2	0.2
SS-518	2.2	-	-
SS-520	2.8	-	-
SS-524	1.5	-	-
SS-535	1.8	-	-
SS-550	2.1	-	-
USG 3209	1.8	-	0.3
McCormick	0.7	0.1	0.0
Tribute	1.1	0.0	0.0

TABLE 17. POWDERY MILDEW RATINGS FOR WHEAT VARIETIES IN ALABAMA, 2001-2002. PLOTS WERE EVALUATED ON A 0-10 SCALE, WHERE 0 = NO DISEASE AND 10 = SEVERE DISEASE.

Brand-variety	Northern Alabama	Central Alabama	Southern Alabama
AGRIPRO D97-6075	0.5	-	-
AGS 2000	0.0	0.0	0.0
Armor 3235	0.0	0.0	-
Pat	2.2	0.0	-
Cropland Genetics 517W	0.0	0.0	0.4
Cropland Genetics 554W	0.0	0.0	0.0
GA 92485E15	0.0	0.0	0.0
Jackson	1.2	0.0	0.3
NK Coker 9025	1.2	-	-
NK Coker 9152	-	-	0.0
NK Coker 9663	-	-	0.0
NK Coker 9835	-	-	0.0
NK Coker 9184	0.0	-	-
Pioneer 2684	0.0	-	-
Pioneer 26R24	0.0	0.0	-
Pioneer 26R38	-	0.0	0.2
Pioneer 26R61	-	-	0.0
Pocahontas	0.0	0.0	0.0
Roane	0.0	0.0	0.0
Roberts	1.0	0.0	-
Sisson	0.0	0.0	0.0
SS-518	0.0	-	-
SS-520	0.0	-	-
SS-524	0.0	-	-
SS-535	0.0	-	-
SS-550	0.0	-	-
USG 3209	0.0	-	0.0
McCormick	0.0	0.0	0.0
Tribute	0.0	0.1	0.0

TABLE 18. DISEASE RATINGS FOR OAT VARIETIES IN ALABAMA, 2001-2002.

Brand-variety	Helminthosporium leaf spot	Crown rust	Barley yellow dwarf
<u>Northern Alabama</u>			
Chapman	1.8†	2.3†	49.2‡
Horizon 474	1.8	0.0	60.8
Horizon 314	1.6	0.0	21.0
LA 604	1.3	0.0	17.5
SC 910337	2.2	0.0	48.3
<u>Central Alabama</u>			
Chapman	3.3	1.3	85.5
Horizon 474	3.3	0.0	81.7
Horizon 314	3.0	0.0	63.3
LA 604	2.7	0.0	75.0
SC 910337	3.7	0.0	89.7
<u>Southern Alabama</u>			
Chapman	1.3	5.1	46.0
Horizon 474	1.2	0.0	17.3
Horizon 314	1.4	1.3	22.8
LA 604	1.0	0.7	27.0
SC 910337	1.0	3.8	33.6

† Plots evaluated on a 0-10 scale: 0 = no disease, 10 = severe disease.

‡ Percent symptomatic plants.

TABLE 19. DISEASE RATINGS FOR TRITICALE VARIETIES IN ALABAMA, 2001-2002.

Brand-variety	Leaf blotch	Leaf rust	Barley yellow dwarf
<u>Northern Alabama</u>			
RSI Exp 351	3.4†	0.0†	47.5‡
Trical 498	3.3	1.0	46.7
<u>Central Alabama</u>			
RSI 351	4.7	0.0	63.3
Trical 498	4.4	1.0	65.0
<u>Southern Alabama</u>			
RSI 351	4.9	0.0	65.4
Trical 498	4.3	1.2	58.9

† Plots evaluated on a 0-10 scale: 0 = no disease, 10 = severe disease.

‡ Percent symptomatic plants.

TABLE 20. DISEASE RATINGS FOR BARLEY VARIETIES IN ALABAMA, 2001-2002.

Brand-variety	Spot blotch	Net blotch	Barley Scald	Barley yellow dwarf
Callao	2.3†	1.7†	0.3†	77.5‡
Nomini	2.7	1.0	0.2	72.5
Price	2.7	1.0	0.2	80.8
VA 97B-176	2.3	1.7	0.0	61.7
VA 97B-388	3.5	2.0	0.7	70.8

† Plots evaluated on a 0-10 scale: 0 = no disease, 10 = severe disease.

‡ Percent symptomatic plants.

SOURCES OF SEED**WHEAT**

AgriPro D97-6075*	AgriPro Wheat Jonesboro, Arkansas
Armor 3235 (formerly AR 494B-2-2) Pat (formerly AR 839-27-1-3)	University of Arkansas Fayetteville, Arkansas
GA 92485E15*, Roberts, AGS 2000	Univ. of Georgia, Georgia Station Griffin, Georgia
Coker (all varieties, brands, and hybrids)	Syngenta Seeds Bay, Arkansas
Pioneer (all varieties, brands, and hybrids)	Pioneer Hi-Bred International, Inc. Huntsville, Alabama
Tribute, McCormick, Roane, Pocahontas, Jackson, Sisson	Virginia Polytechnic Inst. Blacksburg, Virginia
Croplan Genetics 517W, Croplan Genetics 554W	Croplan Genetics Memphis, Tennessee
SS-518, SS-520, SS-524 SS-535, SS-550	Southern States Coop. Richmond, Virginia
USG 3209	UniSouth Genetics, Inc. Nashville, Tennessee

BARLEY

Callao, Nomini, Price VA 97B-176, VA 97B-388	Virginia Polytechnic Inst. Blacksburg, Virginia
-------------------------------------------------	----------------------------------------------------

TRITICALE

Trical 336, Trical 498, Trical 2700
RSI Exp314*, RSI Exp351*

Resource Seeds, Inc.
Union, Kentucky

OAT

Chapman, Horizon 314,
Horizon 474, Plantation Exp 201*

Univ. of Florida, Agric. Res. Ctr.
Quincy, Florida

LA 604, Harrison

Arkansas County Seed Co.
Stuttgart, Arkansas

SC 910337*

South Carolina Foundation Seed
Clemson, South Carolina

RYE

Wren's Abruzzi AL

Alabama Crop Improvement Assoc.
Auburn, Alabama

Bates, Elbon, Maton,
Oklon, NF 1, NF 65

Samuel Roberts Noble Foundation, Inc.
Ardmore, Oklahoma

Wintergrazer 70

Pennington Seed, Inc.
Madison, Georgia

Carolina Grazer, Carolina Early Grazer
AFC 20-20, AFC 20-20 Early

Gainey Grain, Inc.
Laurel Hill, North Carolina

SS Early Graze

Southern States Coop.
Richmond, Virginia

* Experimental line; not yet commercially available.