Performance of Small Grain Varieties for Grain in Alabama, 2011-12

Agronomy and Soils Departmental Series No. 323
Alabama Agricultural Experiment Station
William Batchelor, Director
Auburn University, Auburn, Alabama,
August 2012

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

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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 Mina.....B.E. Norris, Director

Sand Mountain Research and Extension Center, Crossville.....J. Treadaway Ducar, Act. Director

Central Alabama

Black Belt Research and Extension Center, Marion Junction .....J.L. Holliman, Director

Prattvile Experiment Field, Prattville.....D.P. Moore, Director

E.V. Smith Research Center, Plant Breeding Unit, Tallassee .....S.P. Nightengale, Assoc. Director

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Brewton Experiment Field, Brewton.....J.R. Akridge, Director

Gulf Coast Research and Extension Center, Fairhope.....M.D. Pegues, Act. Director
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Wiregrass Research and Extension Center, Headland.....L.W. Wells, Director
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THE 2012 ALABAMA PERFORMANCE COMPARISON OF SMALL GRAIN VARIETIES

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Introduction

The large number of commercially available varieties of wheat, oat, 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.

Grain only: These tests are normally planted during late October to early November. Planting dates for all tests in 2011 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. 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 the 2011-2012 variety trials for wheat, oats, and barley are summarized by region on pages 25-28. Diseases were generally rated during milk and soft dough stages by members of the Dept. of Entomology and Plant Pathology. Specifically, H. Lee Campbell, Research Associate, rated diseases at southern sites (Fairhope, Brewton and Headland), while in the central (Tallassee, Marion Junction, and Prattville) and northern (Belle Mina and Crossville) regions, diseases were rated by Dr. K. L. Bowen, Professor, and A. Subedi, Graduate Research Assistant. Rust diseases are rated on a severity scale ranging from 0 to 100, based on the proportion of the flag leaves that were affected across the plot. All other diseases are rated on a scale of 0 to 9, where 0 indicates no disease, 4-5 reflects about half of the plants are moderately affected, and 9 = severe disease affecting all plants in plot.

Discussion

Growing conditions and variety performance often vary among locations and years. Growing season conditions in the 2011-12 were not good for small grain production at almost all locations. Mild temperatures affected vernalization in many varieties at all locations.

Disease pressure across Alabama was variable in the spring of 2012; however the mild winter and regular rainfall through the spring contributed to high disease levels in some small grain production fields. Powdery mildew was noted in variety trials; usually this disease is not found as spring weather warms and humidity decreases. Leaf rust and stripe rust were observed earlier than in previous years and occurred on wheat throughout the state. Leaf rust was higher than in 2011, especially in central and south Alabama. Stripe rust was more prevalent in the western part of the state than in the eastern part and, where found in variety trials, was at levels similar to 2011. However, in production wheat, stripe rust was problematic throughout the U.S. Septoria leaf and glume blotch was found early and developed to higher levels than noted in 2011, especially in central AL; glume blotch continued to develop as heads dried and approached maturity. Fusarium head blight (=scab) was noted at northern locations, as well as at Fairhope, where traces of the pathogen were found on heads. Scab intensity was generally lower than seen in 2011. Minimal disease developed on those oat varieties evaluated; low levels of Helminthosporium leaf spot was noted throughout the state and tended to be more severe at central sites. Crown rust was observed on oats at Belle Mina, Headland, and Fairhope, and where found, was more severe than in 2011. Loose smut was found at moderate to high levels at Brewton and at a low incidence at Marion Junction. On barley, net blotch and spot blotch were noted at higher levels than found in 2011; scald was observed at moderately low levels. Barley yellow dwarf, which affects most small grain species, was minimal across the state.

TABLE 1. LOCATION, PLANTING AND HARVESTING DATES FOR THE 2011-12 SMALL GRAIN TESTS.

Location	Date planted	Date harvested
Northern Alabama		
Tennessee Valley Res. & Ext. Ctr. (Belle Mina)		
Small grain - grain only	November 11	June 8
Sand Mountain Res. & Ext. Ctr. (Crossville)		
Small grain - grain only	November 7	May 31
Central Alabama		
Black Belt Res. & Ext. Ctr. (Marion Junction)		
Small grain - grain only	November 9	May 25
E.V. Smith Res. Ctr., Plant Breeding Unit (Tallassee)		
Small grain - grain only	November 7	May 17
Prattville Research Field (Prattville)		
Small grain - grain only	November 21	May 23
Southern Alabama		
Wiregrass Res. & Ext. Ctr. (Headland)		
Small grain - grain only	December 5	May 23
Brewton Research Field (Brewton)		
Small grain - grain only	December 12	May 23
Gulf Coast Res. & Ext. Ctr. (Fairhope)		
Small grain - grain only	November 22	May 17

TABLE 2. NORTH ALABAMA REGIONAL AVERAGES OF WHEAT VARIETY PERFORMANCE.

	2012		2011-2012	2010-2012
Brand-Variety	Test wt	Avg.	Avg.	Avg.
	lbs/bu	---------- bu/acre ----------		
Terral TV 8861	54.6	78	91	88
Jamestown	58.3	73	87	87
AGS 2035	57.0	83	91	87
AGS 2060	58.9	75	89	87
Progeny 117	54.3	75	87	86
SS 8404	57.3	76	86	86
USG 3438	52.3	70	86	85
SS 8308	55.7	79	88	85
Baldwin	54.9	77	89	85
Oakes	56.9	75	84	85
Progeny 125	54.1	70	83	85
Terral LA 821	55.9	77	85	85
Oglethorpe	55.3	66	83	84
SS 520	53.6	66	78	83
USG 3555	55.7	71	83	82
Terral LA 841	54.3	68	78	79
SS 8641	56.0	72	81	78
Progeny 185	54.2	64	71	76
Terral 8848	53.4	77	96	
Terral 8626	50.1	75	92	
GA 001138-8E36	56.4	82	91	
Dyna Gro 9053	50.4	72	89	
SS 8500	54.3	77	88	
AGS 2026	55.4	79	87	
Terral 8535	52.8	69	87	
Terral 8525	55.4	71	86	
SS 8340	55.7	75	85	

continued

TABLE 2. CONTINUED.

Brand-Variety	2012 Test wt	2012 Avg.	2011-2012 Avg.	2010-2012 Avg.
	lbs/bu	---------- bu/acre ----------		
Syngenta B05*0154	52.7	82		
Progeny 870	52.8	79		
LA 01110D-150	55.1	79		
SS 5205	55.9	78		
GA 021245-9E16	56.6	75		
Progeny 357	50.6	75		
Progeny 11-14	52.2	74		
Progeny 11-8	55.7	73		
VA08W-294	55.4	72		
LA 02015E58	56.3	70		
LA 02024E12	55.4	66		
LA 02015E201	56.4	59		
Test Mean		74	86	84
C.V.(%)		15	13	12
LSD(0.10)		8	6	4

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

	2012		2011-2012	2010-2012
Brand-Variety	Test wt	Avg.	Avg.	Avg.
	lbs/bu	---------- bu/acre ----------		
Jamestown	58.3	62	69	67
USG 3438	52.3	54	69	66
Terral TV 8861	54.6	63	67	62
Baldwin	54.9	60	68	61
SS 8308	55.7	60	65	60
Progeny 125	54.1	58	61	60
AGS 2035	57.0	61	66	59
USG 3555	55.7	55	61	58
Terral LA 821	55.9	59	60	58
SS 8404	57.3	57	61	57
SS 520	53.6	54	55	57
Oakes	56.9	56	55	56
Progeny 117	54.3	55	56	56
Oglethorpe	55.3	52	57	55
AGS 2060	58.9	60	57	55
Terral LA 841	54.3	59	59	54
Progeny 185	54.2	52	50	52
SS 8641	56.0	62	60	52
Terral 8535	52.8	61	71	
Terral 8848	53.4	60	68	
Terral 8626	50.1	60	68	
SS 8340	55.7	58	68	
Dyna Gro 9053	50.4	61	67	
GA 001138-8E36	56.4	62	66	
Terral 8525	55.4	58	65	
AGS 2026	55.4	54	58	
SS 8500	54.3	60	58	

continued

TABLE 3. CONTINUED.

Brand-Variety	2012 Test wt	2012 Avg.	2011-2012 Avg.	2010-2012 Avg.
	lbs/bu	bu/acre		
Syngenta B05*0154	52.7	66		
LA 01110D-150	55.1	63		
Progeny 11-8	55.7	60		
Progeny 357	50.6	60		
LA 02015E58	56.3	60		
Progeny 11-14	52.2	59		
Progeny 870	52.8	58		
GA 021245-9E16	56.6	58		
SS 5205	55.9	56		
LA 02015E201	56.4	53		
LA 02024E12	55.4	52		
VA08W-294	55.4	48		
Test Mean		58	62	58
C.V.(%)		7	10	10
LSD(0.10)		4	5	4

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

	2012		2011-2012	2010-2012
Brand-Variety	Test wt	Avg.	Avg.	Avg.
	lbs/bu		bu/acre	
AGS 2060	61.5	90	122	119
Progeny 117	58.3	95	117	116
AGS 2035	59.9	104	117	115
SS 8404	60.3	95	112	115
Terral TV 8861	58.7	93	115	114
Oakes	60.3	93	113	114
Oglethorpe	58.6	80	109	112
Terral LA 821	59.1	94	111	111
SS 8308	59.4	98	111	111
Baldwin	58.8	95	111	110
Progeny 125	57.9	82	106	110
SS 520	58.3	77	101	109
Jamestown	60.5	85	104	108
USG 3438	55.2	86	104	105
USG 3555	58.5	86	105	105
SS 8641	58.9	82	102	105
Terral LA 841	58.2	77	97	103
Progeny 185	58.1	75	92	99
Terral 8848	56.7	93	123	
SS 8500	57.7	94	117	
AGS 2026	59.5	103	116	
GA 001138-8E36	60.0	101	116	
Terral 8626	53.3	90	116	
Dyna Gro 9053	54.6	83	111	
Terral 8525	59.2	85	108	
Terral 8535	54.9	77	103	
SS 8340	59.2	91	101	

continued

TABLE 4. CONTINUED.

Brand-Variety	2012 Test wt	2012 Avg.	2011-2012 Avg.	2010-2012 Avg.
	lbs/bu	---------- bu/acre ----------		
SS 5205	59.5	101		
Progeny 870	55.7	100		
Syngenta B05*0154	55.7	98		
VA08W-294	57.7	95		
LA 01110D-150	59.1	94		
GA 021245-9E16	60.4	92		
Progeny 357	54.6	89		
Progeny 11-14	55.4	89		
Progeny 11-8	59.1	85		
LA 02015E58	59.7	80		
LA 02024E12	58.4	80		
LA 02015E201	58.7	65		
Test Mean		89	110	110
C.V.(%)		18	14	12
LSD(0.10)		17	11	8

TABLE 5. CENTRAL ALABAMA REGIONAL AVERAGES OF WHEAT VARIETY PERFORMANCE.

	2012		2011-2012	2010-2012
Brand-Variety	Test wt	Avg.	Avg.	Avg.
	lbs/bu	---------- bu/acre ----------		
AGS 2035	53.0	54	72	74
Baldwin	54.0	57	76	73
AGS 2060	57.8	54	72	71
Jamestown	55.3	48	68	69
Terral LA 841	47.3	51	65	68
AGS 2026	52.2	52	70	67
USG 3555	53.0	45	67	67
Oglethorpe	51.6	49	69	65
Terral LA 821	51.6	46	63	65
USG 3438	48.8	33	64	64
Progeny 125	50.7	43	66	61
Progeny 117	50.7	40	64	61
Progeny 185	49.6	31	60	58
GA 001138-8E36	52.3	53	71	
Terral 8525	52.4	39	64	
Terral 8626	48.1	30	63	
Dyna Gro 9053	48.3	28	61	
Terral 8535	48.4	25	59	
VA08W-294	55.6	57		
GA 021245-9E16	55.4	56		
LA 01110D-150	51.7	55		
LA 02024E12	54.0	49		
LA 02015E58	53.4	47		
LA 02015E201	52.9	45		
Progeny 11-8	53.2	40		
Progeny 11-14	48.2	36		
Progeny 357	47.4	35		
Progeny 870	48.7	34		
Test Mean		44	66	66
C.V.(%)		31	19	16
LSD(0.10)		8	6	5

TABLE 6. AVERAGES OF WHEAT VARIETY PERFORMANCE BLACK BELT RESEARCH AND EXTENSION CENTER.

	2012		2011-2012	2010-2012
Brand-Variety	Test wt	Avg.	Avg.	Avg.
	lbs/bu	---------- bu/acre ----------		
Terral 8535	48.4	30	64	†
Baldwin	54.2	40	64	
GA 001138-8E36	55.9	40	63	
Dyna Gro 9053	48.3	29	61	
Terral 8525	52.4	39	61	
Terral 8626	48.1	27	60	
USG 3438	48.8	34	58	
Progeny 117	53.6	28	58	
AGS 2026	57.4	25	57	
AGS 2060	57.8	29	56	
Oglethorpe	56.5	29	56	
Progeny 185	49.6	22	54	
Progeny 125	53.5	30	54	
USG 3555	53.2	29	53	
Terral LA 821	59.5	28	51	
Jamestown	57.7	25	50	
AGS 2035	55.1	26	49	
Terral LA 841	56.2	29	49	
Progeny 11-14	48.2	39		
VA08W-294	55.8	38		
Progeny 357	48.8	34		
Progeny 870	48.7	31		
Progeny 11-8	53.2	29		
LA 02015E58	54.9	27		
LA 01110D-150	57.2	26		
LA 02024E12	54.6	26		
GA 021245-9E16	55.4	25		
LA 02015E201	52.9	17		
Test Mean		30	57	
C.V.(%)		25	12	
LSD(0.10)		8	5	

† Three-year averages are not avialble for this location.

TABLE 7. AVERAGES OF WHEAT VARIETY PERFORMANCE PRATTVILLE EXPERIMENT FIELD.

	2012		2011-2012	2010-2012
Brand-Variety	Test wt	Avg.	Avg.	Avg.
	lbs/bu	---------- bu/acre ----------		
AGS 2035	57.5	73	86	76
Baldwin	57.2	61	81	75
AGS 2060	59.0	66	80	72
Jamestown	58.6	56	81	71
Terral LA 841	54.8	67	78	71
Terral LA 821	56.8	56	76	69
AGS 2026	55.8	68	81	68
Oglethorpe	54.4	56	80	67
USG 3555	53.0	39	67	63
Progeny 125	53.9	52	73	60
Progeny 117	54.4	38	65	59
USG 3438	49.8	9	55	57
Progeny 185	52.6	15	54	52
GA 001138-8E36	57.2	63	78	
Terral 8525	53.6	23	60	
Terral 8626	49.4	9	58	
Dyna Gro 9053	48.6	6	53	
Terral 8535	50.1	5	49	
GA 021245-9E16	58.8	73		
LA 01110D-150	55.8	68		
VA08W-294	55.8	64		
LA 02015E201	57.2	62		
LA 02024E12	55.9	62		
LA 02015E58	57.1	52		
Progeny 11-8	55.0	35		
Progeny 870	51.3	13		
Progeny 357	47.4	12		
Progeny 11-14	51.0	9		
Test Mean		43	70	66
C.V.(%)		21	12	13
LSD(0.10)		10	6	5

TABLE 8. AVERAGES OF WHEAT VARIETY PERFORMANCE PLANT BREEDING UNIT, TALLASSEE.

	2012		2011-2012	2010-2012
Brand-Variety	Test wt	Avg.	Avg.	Avg.
	lbs/bu	---------- bu/acre ----------		
AGS 2035	53.0	63	81	72
Baldwin	54.0	70	82	72
USG 3555	55.2	68	80	71
AGS 2060	58.5	66	81	71
USG 3438	51.7	48	76	69
Jamestown	55.3	61	73	67
Progeny 185	53.7	57	72	66
AGS 2026	52.2	63	70	65
Progeny 125	50.7	47	70	64
Terral LA 841	47.3	56	66	63
Progeny 117	50.7	56	69	63
Oglethorpe	51.6	61	67	62
Terral LA 821	51.6	53	60	59
Terral 8626	48.9	54	73	
Terral 8525	53.9	53	71	
Dyna Gro 9053	49.5	50	71	
GA 001138-8E36	52.3	56	68	
Terral 8535	51.1	39	67	
LA 01110D-150	51.7	69		
GA 021245-9E16	55.5	69		
VA08W-294	55.6	68		
LA 02015E58	53.4	62		
LA 02024E12	54.0	60		
Progeny 357	49.4	58		
Progeny 11-8	54.2	56		
LA 02015E201	53.5	55		
Progeny 11-14	50.9	51		
Progeny 870	51.7	51		
Test Mean		58	72	66
C.V.(%)		11	8	7
LSD(0.10)		7	5	3

TABLE 9. SOUTH ALABAMA REGIONAL AVERAGES OF WHEAT VARIETY PERFORMANCE.

	2012		2011-2012	2010-2012
Brand-Variety	Test wt	Avg.	Avg.	Avg.
	lbs/bu	---------- bu/acre ----------		
AGS 2035	55.3	56	75	74
Baldwin	56.8	48	66	66
AGS 2060	56.8	48	65	66
Terral LA 821	52.6	43	63	65
AGS 2026	53.4	35	61	64
Jamestown	55.5	38	62	63
Terral LA 841	49.4	37	59	63
Progeny 117	51.7	30	54	60
Progeny 125	50.0	21	54	58
Progeny 185		12	46	52
GA 001138-8E36	55.9	52	71	
Terral 8525		9	47	
Terral 8535		6	45	
Terral 8626		6	42	
LA 02024E12	53.6	46		
VA08W-294	56.0	45		
LA 01110D-150	53.8	44		
GA 021245-9E16	54.6	43		
LA 02015E201	54.6	42		
LA 02015E58	55.2	39		
USG 3555	51.3	15		
Progeny 11-8		14		
Dyna Gro 9053		6		
USG 3438		5		
Progeny 870		4		
Progeny 357		3		
Progeny 11-14		3		
Test Mean		28	58	63
C.V.(%)		27	19	15
LSD(0.10)		5	5	3

TABLE 10. AVERAGES OF WHEAT VARIETY PERFORMANCE AT BREWTON EXPERIMENT FIELD.

	2012		2011-2012	2010-2012
Brand-Variety	Test wt	Avg.	Avg.	Avg.
	lbs/bu	---------- bu/acre ----------		
AGS 2060		41	58	53
AGS 2035		43	58	53
Baldwin		37	54	52
AGS 2026		34	54	51
Terral LA 841		36	51	49
Terral LA 821		35	51	48
Jamestown		24	48	46
Progeny 117		16	41	42
Progeny 125		8	38	38
Progeny 185		4	34	37
GA 001138-8E36		35	51	
Terral 8535		1	37	
Terral 8525		2	33	
Terral 8626		3	33	
LA 02024E12		38		
VA08W-294		35		
LA 02015E201		34		
GA 021245-9E16		28		
LA 01110D-150		26		
LA 02015E58		25		
USG 3555		6		
Dyna Gro 9053		4		
Progeny 11-14		3		
Progeny 11-8		2		
Progeny 870		2		
USG 3438		2		
Progeny 357		1		
Test Mean		19	46	47
C.V.(%)		24	10	11
LSD(0.10)		5	4	3

TABLE 11. AVERAGES OF WHEAT VARIETY PERFORMANCE AT WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND.

	2012		2011-2012	2010-2012
Brand-Variety	Test wt	Avg.	Avg.	Avg.
	lbs/bu	---------- bu/acre ----------		
AGS 2035		72	90	83
Terral LA 821		57	76	75
Baldwin		65	76	75
Jamestown		51	77	74
AGS 2060		58	70	71
AGS 2026		44	68	69
Terral LA 841		43	66	67
Progeny 125		29	63	67
Progeny 117		37	61	63
Progeny 185		17	54	57
GA 001138-8E36		76	85	
Terral 8525		14	56	
Terral 8535		7	46	
Terral 8626		9	44	
GA 021245-9E16		63		
LA 02024E12		55		
VA08W-294		54		
LA 02015E201		50		
LA 01110D-150		50		
LA 02015E58		50		
USG 3555		20		
Progeny 11-8		13		
Dyna Gro 9053		8		
Progeny 357		7		
Progeny 11-14		7		
USG 3438		7		
Progeny 870		7		
Test Mean		36	67	70
C.V.(%)		16	10	9
LSD(0.10)		6	5	4

TABLE 12. AVERAGES OF WHEAT VARIETY PERFORMANCE AT GULF COAST RESEARCH AND EXTENSION CENTER, FAIRHOPE.

	2012		2011-2012	2010-2012
Brand-Variety	Test wt	Avg.	Avg.	Avg.
	lbs/bu	---------- bu/acre ----------		
AGS 2035	55.3	52	77	86
Progeny 117	51.7	36	60	74
AGS 2060	56.8	44	66	74
Terral LA 821	52.6	36	61	73
Terral LA 841	49.4	33	60	72
AGS 2026	53.4	28	62	72
Baldwin	56.8	42	67	72
Jamestown	55.5	41	62	70
Progeny 125	50.0	27	62	69
Progeny 185		14	51	63
GA 001138-8E36	55.9	46	76	
Terral 8535		8	52	
Terral 8525		10	52	
Terral 8626		9	47	
LA 01110D-150	53.8	56		
LA 02024E12	53.6	46		
VA08W-294	56.0	45		
LA 02015E58	55.2	42		
LA 02015E201	54.6	41		
GA 021245-9E16	54.6	38		
Progeny 11-8		27		
USG 3555	51.3	20		
USG 3438		11		
Progeny 357		5		
Dyna Gro 9053		5		
Progeny 870		5		
Progeny 11-14		5		
Test Mean		29	61	72
C.V.(%)		22	10	13
LSD(0.10)		7	5	6

TABLE 13. NORTH ALABAMA REGIONAL AND LOCATION AVERAGES OF BARLEY VARIETY PERFORMANCE.

	2012		2011-2012	2010-2012
Brand-Variety	Test wt	Avg.	Avg.	Avg.
	lbs/bu	---------- bu/acre ----------		
Regional Averages				
Thoroughbred	41.8	75	91	89
Atlantic	42.4	75	91	
Price	42.9	75	90	
Test Mean		75	91	89
C.V.(%)		12	17	1
LSD(0.10)		7	8	8
Tennessee Valley Research and Extension Center, Belle Mina, AL				
Thoroughbred	42.8	76	94	86
Price	44.1	77	81	
Atlantic	43.3	66	78	
Test Mean		73	84	86
C.V.(%)		11	22	29
LSD(0.10)		9	15	15
Sand Mountain Research and Extension Center, Crossville, AL.				
Thoroughbred	40.7	74	89	92
Atlantic	41.4	84	105	
Price	41.6	72	100	
Test Mean		77	98	92
C.V.(%)		12	10	10
LSD(0.10)		10	8	8

TABLE 13. NORTH ALABAMA REGIONAL AND LOCATION AVERAGES OF OAT VARIETY PERFORMANCE.

	2012		2011-2012	2010-2012
Brand-Variety	Test wt	Avg.	Avg.	Avg.
	lbs/bu	---------- bu/acre ----------		
Regional Averages				
LA 05006-65-S1	33.1	116	124	†
Florida 501	32.2	88	95	
Soil Saver	26.5	58	58	
Test Mean		87	92	
C.V.(%)		11	12	
LSD(0.10)		8	6	
Tennessee Valley Research and Extension Center, Belle Mina, AL				
LA 05006-65-S1	33.8	109	119	
Florida 501	33.8	87	96	
Soil Saver	27.7	54	52	
Test Mean		84	89	
C.V.(%)		7	11	
LSD(0.10)		7	7	
Sand Mountain Research and Extension Center, Crossville, AL.				
LA 05006-65-S1	32.4	123	128	
Florida 501	30.6	89	94	
Soil Saver	25.2	62	63	
Test Mean		91	95	
C.V.(%)		14	12	
LSD(0.10)		15	9	

† this is the second year for the oat test, hence no three-year avearges are availbale.

TABLE 14. CENTRAL ALABAMA REGIONAL AND LOCATION AVERAGES OF OAT VARIETY PERFORMANCE.

	2012		2011-2012	2010-2012
Brand-Variety	Test wt	Avg.	Avg.	Avg.
	lbs/bu	---------- bu/acre ----------		
Regional Averages				
LA 05006-65-S1	34.1	88	102	†
Florida 501	33.3	84	85	
Soil Saver	25.3	45	32	
Test Mean		72	73	
C.V.(%)		34	28	
LSD(0.10)		16	10	
Black Belt Research and Extension Center, Marion Junction, AL				
LA 05006-65-S1	30.9	52	94	
Florida 501	28.5	75	80	
Soil Saver	20.8	72		
Test Mean		66	87	
C.V.(%)		31	16	
LSD(0.10)		24	11	
Prattville Research Field, Prattville, AL.				
LA 05006-65-S1	35.6	83	120	
Florida 501	35.6	75	112	
Soil Saver	28.4	16	43	
Test Mean		58	92	
C.V.(%)		27	15	
LSD(0.10)		18	10	
E.V. Smith Research and Extension Center, Plant Breeding Unit, Tallassee, AL.				
LA 05006-65-S1	35.8	130	91	
Florida 501	35.7	102	64	
Soil Saver	26.8	47	28	
Test Mean		93	61	
C.V.(%)		6	34	
LSD(0.10)		6	16	

† this is the second year for the oat test, hence no three-year avearges are avialbale.

TABLE 15. SOUTH ALABAMA REGIONAL AND LOCATION AVERAGES OF OAT VARIETY PERFORMANCE .

	2012		2011-2012	2010-2012
Brand-Variety	Test wt	Avg.	Avg.	Avg.
	lbs/bu	---------- bu/acre ----------		
Regional Averages				
LA 05006-65-S1		76	114	†
Florida 501		52	80	
Soil Saver		44	59	
Test Mean		58	84	
C.V.(%)		28	22	
LSD(0.10)		10	8	
Brewton Research Field, Brewton, AL.				
LA 05006-65-S1		59	102	
Florida 501		36	66	
Soil Saver		49	62	
Test Mean		48	77	
C.V.(%)		23	13	
LSD(0.10)		13	8	
Gulf Coast Research and Extension Center, Fairhope, AL.				
LA 05006-65-S1	32.1	105	135	
Florida 501	31.2	91	110	
Soil Saver	20.9	48	73	
Test Mean		82	106	
C.V.(%)		17	11	
LSD(0.10)		16	9	
Wiregrass Research and Extension Center, Headland, AL.				
LA 05006-65-S1		65	105	
Florida 501		30	63	
Soil Saver		36	43	
Test Mean		44	70	
C.V.(%)		25	26	
LSD(0.10)		13	14	

† this is the second year for the oat test, hence no three-year avearges are available.

TABLE 16. LEVELS OF DISEASES ON WHEAT VARIETIES AVERAGED ACROSS NORTHERN ALABAMA SITES (BELLE MINA AND CROSSVILLE), 2011-2012.

Brand-Variety	Powdery Mildew[1]	Leaf Rust[2]	Stripe Rust[2]	Septoria Blotch[1]	Barley Yellow Dwarf[2]	Fusarium Head Blight[2]
AGS 2026	0.3	0.8	0.0	1.3	0.7	0.0
AGS 2035	0.3	0.0	0.3	0.8	0.7	0.0
AGS 2060	0.5	0.0	0.0	0.8	0.5	0.0
Baldwin	0.2	0.0	1.5	0.5	0.3	0.0
Dyna Gro 9053	0.5	0.3	0.0	0.3	0.5	0.0
GA 021245-9E16	0.0	0.0	0.0	1.0	0.5	0.2
GA 001138-8E36	0.2	0.0	0.0	1.3	0.5	0.0
Jamestown	0.0	0.0	0.0	1.8	0.5	0.0
LA 01110D-150	0.2	0.0	0.2	2.2	0.8	0.0
LA 02015E201	0.0	0.0	0.0	1.5	0.8	0.0
LA 02015E58	0.0	0.2	0.0	1.5	1.3	0.2
LA 02024E12	0.3	0.0	0.0	2.2	1.0	0.0
Oakes	0.3	0.5	0.0	0.7	0.3	0.0
Oglethorpe	0.2	0.2	0.0	1.8	0.7	0.5
Progeny 11-14	0.0	0.8	0.0	0.7	0.7	0.2
Progeny 117	0.0	4.8	3.8	0.8	0.3	0.0
Progeny 11-8	0.2	1.0	0.0	0.8	1.0	0.0
Progeny 125	0.0	2.8	0.0	4.2	0.5	0.2
Progeny 185	0.2	0.8	1.2	1.2	0.7	0.0
Progeny 357	0.2	0.7	0.3	0.5	0.2	0.2
Progeny 870	0.3	0.2	0.0	0.8	1.5	0.0
SS 520	0.0	0.7	4.5	1.3	1.2	0.3
SS 5205	0.0	0.0	0.0	2.3	1.2	0.0
SS 8308	0.3	0.5	0.8	1.2	0.5	0.0
SS 8340	0.3	0.5	0.0	0.7	0.3	0.0
SS 8404	0.3	0.0	5.3	1.5	0.7	0.0
SS 8500	0.2	0.3	0.0	1.7	0.5	0.0
SS 8641	0.2	0.0	0.0	1.2	1.7	0.0
Syngenta B05*0154	0.2	0.0	0.0	0.8	0.7	0.0
Terral 8525	0.2	0.3	0.0	1.7	1.3	0.0
Terral 8535	0.2	1.7	0.0	0.7	2.2	0.0
Terral 8626	0.2	0.3	0.0	0.5	0.7	0.2
Terral 8848	0.3	1.7	0.0	0.8	0.3	0.0
Terral LA 821	0.0	0.0	0.0	2.3	1.3	0.2
Terral LA 841	0.0	0.2	0.0	2.5	0.8	0.2
Terral TV 8861	0.5	0.8	0.0	0.5	0.5	0.0
USG 3438	0.3	0.3	0.0	0.7	1.0	0.0
USG 3555	0.0	2.0	0.0	1.3	0.5	0.0
VA08W-294	0.0	0.2	0.0	1.2	0.5	0.0
$LSD_{0.05}$	ns	1.5	2.6	0.8	0.9	ns

[1] Rust diseases are rated on the flag leaves as a proportion of affected leaf, 0 to 100%.

[2] Disease rated on a scale of 0 to 9 where 0 = no disease, 9 = severe disease throughout plot.

TABLE 17. LEVELS OF DISEASES ON WHEAT VARIETIES AVERAGED ACROSS CENTRAL ALABAMA SITES (PRATTVILLE, MARION JUNCTION, AND TALLASSEE), 2011-2012.

Brand-Variety	Powdery Mildew[1]	Leaf Rust[2]	Stripe Rust[2]	Septoria Blotch[1]	Barley Yellow Dwarf[2]	Fusarium Head Blight[2]
AGS 2026	0.0	1.1	0.0	3.3	1.3	0.2
AGS 2035	0.1	0.7	0.1	3.6	1.8	0.2
AGS 2060	0.0	0.9	0.0	2.7	0.8	0.2
Baldwin	0.0	1.1	0.0	2.2	0.9	0.2
Dyna Gro 9053	0.1	17.1	0.0	1.2	0.4	0.1
GA 021245-9E16	0.0	0.1	0.0	4.0	1.6	0.0
GA 001138-8E36	0.4	0.1	0.0	2.4	1.2	0.3
Jamestown	0.0	7.3	0.0	3.4	1.8	0.0
LA 01110D-150	0.0	1.2	0.1	3.4	1.8	0.1
LA 02015E201	0.0	0.7	0.0	3.7	1.9	0.2
LA 02015E58	0.0	1.0	0.0	3.0	2.4	0.1
LA 02024E12	0.0	1.0	0.0	3.6	1.4	0.2
Oglethorpe	0.0	0.3	0.0	3.4	2.1	0.3
Progeny 11-14	0.0	13.2	0.0	1.2	0.7	0.4
Progeny 117	0.0	28.9	1.9	3.4	0.8	0.0
Progeny 11-8	0.0	6.6	0.0	2.1	1.2	0.3
Progeny 125	0.0	17.4	0.6	4.4	1.2	0.2
Progeny 185	0.0	22.4	0.2	2.1	0.8	0.1
Progeny 357	0.3	19.6	0.0	1.0	0.3	0.0
Progeny 870	0.0	4.9	0.0	1.1	0.7	0.2
Terral 8525	0.0	13.9	0.0	2.6	1.0	0.1
Terral 8535	0.0	3.7	0.0	1.2	0.7	0.2
Terral 8626	0.0	15.7	0.0	1.0	0.4	0.0
Terral LA 821	0.0	0.8	0.0	3.2	1.9	0.1
Terral LA 841	0.2	0.6	0.0	4.3	1.3	0.0
USG 3438	0.1	5.9	0.0	1.1	0.8	0.1
USG 3555	0.0	13.8	0.1	2.9	1.2	0.0
VA08W-294	0.0	0.8	0.0	2.3	0.8	0.3
$LSD_{0.05}$	0.3	13.6	0.7	1.3	1.2	0.4

[1] Rust diseases are rated on the flag leaves as a proportion of affected leaf, 0 to 100%.

[2] Disease rated on a scale of 0 to 9 where 0 = no disease, 9 = severe disease throughout plot.

TABLE 18. LEVELS OF DISEASES ON WHEAT VARIETIES AVERAGED ACROSS SOUTH ALABAMA SITES (FAIRHOPE AND HEADLAND), 2011-2012.

Brand-Variety	Powdery Mildew[1]	Leaf Rust[2]	Stripe Rust[2]	Septoria Blotch1	Barley Yellow Dwarf[2]
AGS 2026	0.4	0.0	0.0	0.4	2.8
AGS 2035	0.8	0.0	0.0	1.0	0.2
AGS 2060	1.6	0.0	0.0	0.7	0.7
Baldwin	0.8	0.0	0.0	0.9	0.4
Dyna Gro 9053	1.3	8.9	0.0	0.8	2.6
GA 021245-9E16	0.8	0.0	1.1	1.2	0.8
GA 001138-8E36	0.6	0.0	2.2	0.9	0.0
Jamestown	0.7	2.2	1.1	0.6	0.2
LA 01110D-150	0.9	0.6	0.0	0.8	0.6
LA 02015E201	0.6	0.0	0.0	1.6	0.6
LA 02015E58	0.8	0.0	1.1	1.3	0.7
LA 02024E12	0.7	0.0	12.2	1.6	0.6
Progeny 11-14	3.8	18.9	0.0	1.1	3.7
Progeny 117	0.6	14.4	2.5	0.8	1.0
Progeny 11-8	0.3	15.9	0.0	0.4	3.4
Progeny 125	1.1	16.1	0.0	0.3	2.4
Progeny 185	0.7	10.3	0.0	0.3	3.6
Progeny 357	1.4	22.4	0.0	0.9	2.9
Progeny 870	0.6	10.6	0.0	0.8	2.8
Terral 8525	0.4	8.7	0.0	0.6	4.2
Terral 8535	0.8	5.6	0.0	1.1	3.6
Terral 8626	2.1	17.6	0.0	1.0	2.7
Terral LA 821	0.2	0.0	1.1	0.8	2.1
Terral LA 841	0.8	0.0	0.0	0.9	0.6
USG 3438	0.3	10.0	0.0	1.4	2.6
USG 3555	0.4	7.6	0.0	0.2	2.2
VA08W-294	0.3	0.0	3.3	0.6	0.0
$LSD_{0.05}$	1.1	11.2	4.3	1.1	1.6

[1] Rust diseases are rated on the flag leaves as a proportion of affected leaf, 0 to 100%.

[2] Disease rated on a scale of 0 to 9 where 0 = no disease, 9 = severe disease throughout plot.

TABLE 19. LEVELS OF DISEASES ON BARLEY VARIETIES AVERAGED ACROSS NORTHERN ALABAMA SITES (BELLE MINA AND CROSSVILLE), 2011-2012.

Brand-Variety	Net Blotch[1]	Spot Blotch[1]	Scald[1]	Barley Yellow Dwarf[1]
Price	0.7	4.2	1	0.5
Atlantic	1	3.2	0.7	0.3
Thoroughbred	1.3	3.2	1.2	0.7

[1]Disease rated on a scale of 0 to 9 where 0 = no disease, 9 = severe disease throughout plot.

TABLE 20. LEVELS OF DISEASES ON OAT VARIETIES AVERAGED ACROSS TWO SITES PER REGION (SEE OAT TABLES FOR SITES), 2011-2012.

Region	Brand-Variety	Leaf Spot[1]	Crown Rust[2]	Barley Yellow Dwarf[1]	Loose smut[1]
North	Florida 501	0.8	0.83	1.8	0
	LA 05006-65-S1	0.7	0	0.8	0.3
	Soil Saver	0.6	0	0.3	0
Central	Florida 501	2.1	nf	1.7	0.1
	LA 05006-65-S1	2.2	nf	1.4	0
	Soil Saver	1.3	nf	1.8	0
South	Florida 501	0.9	6.1	0.4	20
	LA 05006-65-S1	1.3	0.6	0.1	22.2
	Soil Saver	0.8	0	0.3	20

[1]Disease rated on a scale of 0 to 9 where 0 = no disease, 9 = severe disease throughout plot.

[2]Rust diseases are rated on the flag leaves as a proportion of affected leaf, 0 to 100%.

nf--disease not found in region.

SOURCES OF SEED

Cultivar	Source
Wheat	
AGS 2026, AGS 2035, AGS 2060	AGSouth Genetics Albany, Georgia
DynaGro 9053, DynaGro Baldwin DynaGro Oglethorpe	Crop Production Services/DynaGro Seed Dublin, Ohio
LA 01110D-150*, LA 02015E58* LA 02015E201*, LA 02024E12*	Louisiana State University Baton Rouge, Louisiana
Progeny 117, Progeny 125, Progeny 185, Progeny 357, Progeny 870, Progeny 358, PGX 11-4*, PGX 11-8*	Progeny Ag Products Wynne, Arkansas
SS 520, SS 5205, SS 8308, S 8340 SS 8404, SS 8641, SS 8500	Southern States Coop. Richmond, Virginia
Oakes, B050154*	Syngenta Seeds, Inc. Bay, Arkansas
Terral LA 821, Terral LA 841, Terral TV 8525, Terral TV 8535, Terral TV 8626, Terral TV 8848, Terral TV 8861	Terral Seed Co. Lake Providence, Louisiana
USG 3438, USG 3555	UniSouth Genetics, Inc. Dickson, Tennessee
GA 001138-8E36*, GA 021245-9E16*	University of Georgia Griffin, Georgia
Jamestown, VA 08W-294*	Virginia Crop Improvement, Assn. Warsaw, Virginia

* Experimental line; not yet commercially available.

Cultivar	Source
Oat	
Florida 501, SoilSaver	Alabama Crop Improvement Assn. Headland, Alabama
LA 05006-65-S1*	Louisiana State University Baton Rouge, Louisiana
Barley	
Price, Thoroughbred, Atlantic (formerly VA06B-19)	Virginia Crop Improvement, Assn. Warsaw, Virginia

* Experimental line; not yet commercially available.