

# **Performance of Small Grain Varieties in Alabama, 2016-2017**



**Cullman County 1925**

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**Dept. Series No. CSES2017:Wheat**

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## Performance of Wheat Varieties in Alabama, 2017

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*“The mission of the Alabama Variety Testing Program is to provide research-based, unbiased results on the performance of various crop hybrids, cultivars, and varieties to the agricultural community in our state. We are intent on conducting these trials in a manner that will result in maximum biological yield through methods common to the top-producing farms in Alabama. We are committed to providing this information in a rapid, timely manner for its use during the decision-making process. The success of the program rests upon our ability to help Alabama producers provide a safe, dependable source of food and fiber for all families as well as economic sustainability for theirs.”*

### Methods

Planting dates for all trials in 2016-17 are shown in Table 1. Variety treatments were arranged in a randomized complete block experimental design with 3 replications. Fungicide treated seeds were drill planted to attain a population equivalent to local production practices. All tests were fertilized according to soil test recommendations, plus 20 lbs/acre N at planting. A top dressing of 60 lbs/acre N was made in late February or early March, just prior to “jointing”.

Region	Ala. Exp. Station location and soil texture	2016-2017	
		Date planted	Date harvested
<b>North</b>	Sand Mountain Research & Ext. Center Wynntown fine sandy loam	November 22	June 27
	Tennessee Valley Research & Ext. Center Decatur silt loam	November 7	June 14
<b>Central</b>	Black Belt Research & Ext. Center Vaiden clay	November 16	June 9
	Plant Breeding Unit, E.V. Smith Res. Ctr. Cahaba fine sandy loam	November 18	June 1
	Prattville Agricultural Research Unit Lucedale fine sandy loam	November 28	June 10
<b>Southern</b>	Brewton Agricultural Research Unit Benndale fine sandy loam	November 15	Not harvested
	Gulf Coast Research & Ext. Center Malbis fine sandy loam	November 17	June 16
	Wiregrass Research & Ext. Center Dothan fine sandy loam	December 12	June 9

Wheat trials were managed with foliar fungicides to prevent disease outbreaks. At maturity, grain was harvested using a small plot combine, cleaned, and weighed. Moisture and bushel test weight were also recorded unless otherwise noted.

## Tables

*\*Abbreviations: REC, Research & Extension Center; ARU, Agricultural Research Unit*

### 2017 Wheat Variety Performance - Yield & Averages

#### Northern Region

Table 2. Performance of wheat varieties in North Alabama, Tennessee Valley REC, Belle Mina

Table 3. Performance of wheat varieties in Northeast Alabama, Sand Mountain REC, Crossville

#### Central Region

Table 4. Performance of wheat varieties in Central Alabama, Black Belt REC, Marion Junction

Table 5. Performance of wheat varieties in Central Alabama, Prattville ARU, Prattville

Table 6. Performance of wheat varieties in Central Alabama, Plant Breeding Unit, Tallassee

#### Southern Region

Table 7. Performance of wheat varieties in Southeast Alabama, Wiregrass REC, Headland

Table 8. Performance of wheat varieties in South Alabama, Brewton ARU, Brewton\*\*

Table 9. Performance of wheat varieties in Southwest Alabama, Gulf Coast REC, Fairhope

### Oat and Triticale Variety Performance - Yield

#### Northern Region

Table 10. Performance of oat and triticale varieties in North Alabama, Tennessee Valley REC, Belle Mina

Table 11. Performance of oat and triticale varieties in North Alabama, Sand Mountain REC, Crossville

#### Central Region

Table 12. Performance of oat and triticale varieties in Central Alabama, Black Belt REC, Marion Junction

Table 13. Performance of oat and triticale varieties in Central Alabama, Prattville ARU, Prattville

Table 14. Performance of oat and triticale varieties in Central Alabama, Plant Breeding Unit, Tallassee

#### Southern Region

Table 15. Performance of oat and triticale varieties in South Alabama, Wiregrass REC, Headland

Table 16. Performance of oat and triticale varieties in South Alabama, Brewton ARU, Brewton\*\*

Table 17. Performance of oat and triticale varieties in South Alabama, Gulf Coast REC, Fairhope

#### Disease Ratings

Table 18. Disease ratings on wheat at Tennessee Valley REC, Belle Mina

Table 19. Disease ratings on triticale at Tennessee Valley REC, Belle Mina

Table 20. Disease ratings on wheat at Brewton ARU, Brewton

Table 21. Disease ratings on wheat at Gulf Coast REC, Fairhope

*\*\*Note: No harvest at this location due to excessive moisture levels during harvest time; seed heads were sprouting and too wet.*

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**Table 2. Performance of wheat varieties at Tennessee Valley Research & Extension Center - Belle Mina, AL**

<b>Planting Date: 11/7/2016</b>		<b>Harvest Date: June 14-15, 2017</b>	
<b>Variety</b>	<b>Test Weight</b>	<b>Yield</b>	<b>Grain Yield</b>
	<b>lb/bu</b>	<b>rank</b>	<b>avg</b>
USG 3448	56.2	1	93
Progeny 357	53.2	2	93
TX-EL2	56.5	3	92
Croplan SRW 9410	55.2	4	91
AGS 2024	57.1	5	91
Dyna Gro 9701	55.3	6	90
VA 11W-108	56.3	7	88
VA 11W-106	57.0	8	88
USG 3197	54.4	9	88
Dyna Gro 9522	54.9	10	87
Progeny PGX 16-3	55.5	11	86
AGS 2055	56.0	12	85
GA 051207-14E53	56.1	13	85
GA 071012-14E6	57.2	14	85
USG 3458	54.6	15	85
Progeny PGX 16-1	56.6	16	85
GA 07353-14E19	57.3	17	83
VA 13W-38	56.7	18	83
Progeny #Boss	54.5	19	83
VA 11W-108PA	56.4	20	82
USG 3895	55.3	21	82
Progeny PGX 16-4	56.8	22	81
USG 3536	55.1	23	81
Progeny #Turbo	55.8	24	81
Progeny #Bullet	55.5	25	79
USG 3404	55.1	26	79
Limagrain L11541	57.2	27	78
AGS 2033	57.3	28	78
Progeny PGX 14-3	56.5	29	78
AGS 2038	56.7	30	77
Limagrain LCS 3204	58.2	31	77
Dyna Gro 9750	53.9	32	77
Progeny #Warrior	54.8	33	76
GA 041052-11E51	55.7	34	74
Croplan SS 8415	55.3	35	73
Progeny PGX 14-5	58.1	36	73
USG 3228	53.8	37	72
GAJT 141-14E45	55.8	38	64
AGS 2040	56.1	39	64
Limagrain LCS 3334	57.3	40	55
<b>Trial Mean</b>			<b>81</b>
<b>LSD (0.1)</b>			<b>9</b>
<b>CV (%)</b>			<b>8</b>
<b>Pr&gt;F</b>			<b>0.0001</b>

**Wheat variety performance over multiple years at Tennessee Valley REC**

<b>Variety</b>	<b>Average Yield (bu/Acre)</b>		
	<b>2017</b>	<b>2016-2017</b>	<b>2015-2017</b>
	<b>1 - year</b>	<b>2 - year</b>	<b>3 - year</b>
Progeny 357	93	85	85
AGS 2038	77	79	79
USG 3404	79	76	78
AGS 2040	64	66	65

Sorted by 3 year average

**Table 3. Performance of wheat varieties at Sand Mountain Research & Extension Center - Crossville, AL**

<b>Planting Date: 11/22/2016</b>		<b>Harvest Date: 6/27/2017</b>	
<b>Variety</b>	<b>Test Weight</b>	<b>Yield</b>	<b>Grain Yield</b>
	<b>lbs/bushel</b>	<b>rank</b>	<b>bu/acre</b>
TX-EL2	53.0	1	128
Limagrain LCS 3204	52.3	2	124
USG 3895	50.3	3	120
Progeny #Warrior	50.7	4	120
VA 11W-108	49.7	5	118
USG 3458	48.0	6	118
Progeny PGX 14-3	53.7	7	116
Progeny PGX 16-3	47.2	8	115
GA 051207-14E53	53.7	9	115
Croplan SRW 9410	50.7	10	115
VA 11W-108PA	50.9	11	114
Croplan SS 8415	49.8	12	114
Progeny #Boss	46.1	13	113
Dyna Gro 9522	49.3	14	113
Progeny PGX 16-1	48.9	15	112
Progeny PGX 14-5	54.6	16	110
AGS 2055	50.7	17	110
USG 3536	49.9	18	110
USG 3404	48.1	19	109
Limagrain L11541	53.3	20	108
USG 3228	50.7	21	108
GA 071012-14E6	50.2	22	108
AGS 2033	50.0	23	107
AGS 2024	50.8	24	106
VA 13W-38	47.8	25	104
AGS 2038	51.7	26	103
VA 11W-106	49.5	27	102
Progeny 357	46.1	28	101
USG 3197	50.5	29	101
USG 3448	50.5	30	101
GAJT 141-14E45	51.4	31	101
GA 07353-14E19	47.2	32	100
Dyna Gro 9701	47.2	33	100
Progeny #Turbo	53.3	34	100
AGS 2040	52.2	35	98
Progeny #Bullet	47.8	36	97
Dyna Gro 9750	50.1	37	96
GA 041052-11E51	45.6	38	96
Progeny PGX 16-4	49.8	39	95
Limagrain LCS 3334	48.6	40	91
<b>Trial mean</b>			<b>108</b>
<b>LSD (0.1)</b>			<b>16</b>
<b>CV (%)</b>			<b>11</b>
<b>Pr&gt;F</b>			<b>0.0511</b>

**Wheat variety performance over multiple years at Sand Mountain REC**

<b>Variety</b>	<b>Average Yield (bu/acre)</b>		
	<b>2017</b>	<b>2016 - 2017</b>	<b>2015 - 2017</b>
	<b>1 - year</b>	<b>2 - year</b>	<b>3 - year</b>
AGS 2038	103	112	108
USG 3404	109	101	104
Progeny 357	101	92	102
AGS 2040	98	103	101

Sorted by 3 year average

**Table 4. Performance of wheat varieties at Black Belt Research & Extension Center - Marion Junction, AL**

<b>Planting Date: 11/16/16</b>		<b>Harvest Date: 6/9/2017</b>	
<b>Variety</b>	<b>Test Weight</b>	<b>Yield</b>	<b>Grain Yield</b>
	<b>lbs/bushel</b>	<b>rank</b>	<b>bu/acre</b>
AGS 2033	55.0	1	61
GA 051207-14E53	54.2	2	60
Croplan SS 8415	.	3	51
VA 13W-38	55.6	4	49
GA 041052-11E51	54.5	5	49
TX-EL2	.	6	49
Progeny #Warrior	51.6	7	47
GAJT 141-14E45	54.1	8	46
GA 071012-14E6	54.5	9	46
AGS 2038	.	10	45
GA 07353-14E19	54.6	11	44
USG 3458	52.4	12	42
Progeny PGX 16-3	.	13	42
AGS 2024	54.1	14	39
USG 3448	51.6	15	38
AGS 2040	53.7	16	35
USG 3895	51.1	17	34
AGS 2055	.	18	33
Croplan SRW 9410	.	19	32
Progeny PGX 16-1	.	20	31
Progeny #Bullet	51.6	21	31
Progeny PGX 16-4	.	22	29
USG 3536	.	23	27
VA 11W-108PA	51.1	24	26
Progeny PGX 14-5	.	25	25
Progeny #Turbo	51.1	26	25
VA 11W-108	50.0	27	25
USG 3197	58.4	28	17
Progeny #Boss	.	29	17
USG 3228	56.4	30	17
Progeny PGX 14-3	48.4	31	16
Progeny 357	58.2	32	15
USG 3404	.	33	14
<b>Trial mean</b>			<b>35</b>
<b>LSD (0.1)</b>			<b>7</b>
<b>CV (%)</b>			<b>14</b>
<b>Pr&gt;F</b>			<b>0.0001</b>

Mechanical difficulties during transport, during a heavy rain, caused some of the samples to be damaged. Therefore, some of the test weight data is unavailable.

There is no multi-year performance data because there was no wheat harvested at Black Belt REC in 2016.

**Table 5. Performance of wheat varieties at Prattville Agricultural Research Unit - Prattville, AL**

<b>Planting Date: 11/28/2016</b>		<b>Harvest Date: 6/10/2017</b>	
<b>Variety</b>	<b>Test Weight</b>	<b>Yield</b>	<b>Grain Yield</b>
	<b>lbs./bushel</b>	<b>rank</b>	<b>bu/acre</b>
GA 07353-14E19	53.2	1	34
Progeny #Warrior	50.1	2	26
TX-EL2	52.1	3	26
AGS 2038	52.1	4	25
GAJT 141-14E45	51.7	5	25
USG 3536	49.7	6	25
Croplan SS 8415	50.3	7	24
GA 071012-14E6	51.0	8	24
AGS 2024	48.8	9	22
USG 3448	50.7	10	22
AGS 2055	51.0	11	22
Progeny #Bullet	48.9	12	21
Progeny PGX 16-3	47.2	13	21
GA 041052-11E51	50.9	14	20
GA 051207-14E53	51.5	15	20
Croplan SRW 9410	49.4	16	19
VA 13W-38	51.7	17	19
USG 3458	49.6	18	18
AGS 2033	50.6	19	18
Progeny PGX 16-4	50.0	20	17
Progeny PGX 16-1	52.9	21	17
AGS 2040	51.2	22	16
VA 11W-108	46.3	23	13
Progeny #Boss	44.1	24	11
USG 3197	47.7	25	11
VA 11W-108PA	46.1	26	11
USG 3228	44.7	27	10
Progeny PGX 14-5	48.8	28	9
USG 3895	46.3	29	7
Progeny #Turbo	46.8	30	7
Progeny PGX 14-3	43.0	31	7
Progeny 357	43.9	32	4
USG 3404	40.8	33	4
<b>Trial mean</b>			<b>17</b>
<b>LSD (0.1)</b>			<b>7</b>
<b>CV (%)</b>			<b>29</b>
<b>Pr&gt;F</b>			<b>0.0001</b>

<b>Wheat variety performance over multiple years at Prattville Agricultural Research Unit</b>			
<b>Variety</b>	<b>Average Yield (bu/acre)</b>		
	<b>2017</b>	<b>2016 - 2017</b>	<b>2015 - 2017</b>
	<b>1-year</b>	<b>2-year</b>	<b>3-year</b>
AGS 2040	16	35	47
AGS 2038	25	40	41
USG 3404	4	19	38
Progeny 357	4	11	30

*Sorted by 3 year average*

**Table 6. Performance of wheat varieties at Plant Breeding Unit, EV Smith - Tallassee, AL**

<b>Planting Date: 11/18/2016</b>		<b>Harvest Date: 6/1/2017</b>	
<b>Variety</b>	<b>Test Weight</b>	<b>Yield</b>	<b>Grain Yield</b>
	<b>lbs/bushel</b>	<b>rank</b>	<b>bu/acre</b>
USG 3895	55.6	1	74
AGS 2033	56.4	2	73
Progeny PGX 16-1	55.6	3	72
GA 07353-14E19	56.8	4	63
AGS 2055	54.9	5	63
VA 11W-108PA	55.8	6	62
VA 11W-108	55.1	7	62
Progeny #Bullet	54.8	8	60
Croplan SRW 9410	54.7	9	60
Progeny #Turbo	54.6	10	60
Progeny PGX 14-3	55.7	11	58
USG 3536	52.5	12	57
USG 3197	55.2	13	56
GA 051207-14E53	54.8	14	56
AGS 2040	56.8	15	55
TX-EL2	52.9	16	54
USG 3404	52.5	17	53
USG 3458	50.8	18	53
GAJT 141-14E45	53.6	19	51
GA 071012-14E6	55.5	20	51
Progeny PGX 16-4	55.1	21	51
VA 13W-38	56.0	22	50
Croplan SS 8415	54.7	23	50
Progeny PGX 14-5	57.4	24	49
Progeny #Boss	50.8	25	49
USG 3228	54.4	26	49
USG 3448	51.5	27	49
AGS 2024	54.2	28	48
AGS 2038	56.2	29	47
Progeny #Warrior	50.2	30	46
GA 041052-11E51	55.4	31	44
Progeny PGX 16-3	48.1	32	37
Progeny 357	46.5	33	23
<b>Trial mean</b>			<b>54</b>
<b>LSD (0.1)</b>			<b>18</b>
<b>CV (%)</b>			<b>16</b>
<b>Pr&gt;F</b>			<b>0.0001</b>

**Wheat variety performance over multiple years at EV Smith Plant Breeding Unit**

<b>Variety</b>	<b>Average Yield (bu/acre)</b>		
	<b>2017</b>	<b>2016 - 2017</b>	<b>2015 - 2017</b>
	<b>1-year</b>	<b>2-year</b>	<b>3-year</b>
AGS 2040	55	52	51
AGS 2038	47	52	47
USG 3404	53	41	44
Progeny 357	23	25	28

*Sorted by 3-year average*



**Table 7. Performance of wheat varieties at Wiregrass Research & Extension Center - Headland, AL**

<b>Planting Date: 12/12/2016</b>		<b>Harvest Date: 6/9/2017</b>	
<b>Variety</b>	<b>Test Weight (lbs/bushel)</b>	<b>Yield rank</b>	<b>Grain Yield (bu/acre)</b>
AGS 2024	54.6	1	54
AGS 2038	55.1	2	48
GA 071012-14E6	53.3	3	47
GA 07353-14E19	52.0	4	47
VA 11W-108PA	53.7	5	42
VA 13W-38	54.0	6	41
AGS 3000	52.9	7	40
AGS 2033	54.1	8	40
GA 041052-11E51	51.6	9	36
Progeny PGX 14-5	55.5	10	35
Croplan SS 8415	54.8	11	33
GAJT 141-14E45	51.8	12	31
Progeny PGX 16-4	55.2	13	31
AGS 2027	54.2	14	30
Croplan SRW 9410	53.6	15	28
VA 11W-108	55.0	16	26
Progeny #Turbo	51.0	17	23
Progeny #Bullet	53.4	18	22
AGS 2040	53.8	19	22
Progeny PGX 16-3	52.9	20	22
GA 051207-14E53	54.5	21	17
Progeny PGX 16-1	55.3	22	16
Progeny #Warrior	54.2	23	14
Progeny PGX 14-3	51.4	24	8
Progeny #Boss	51.2	25	4
Progeny 357	48.3	26	3
<b>Trial mean</b>			<b>29</b>
<b>LSD (0.1)</b>			<b>18</b>
<b>CV (%)</b>			<b>45</b>
<b>Pr&gt;F</b>			<b>0.0001</b>

**Wheat variety performance over multiple years at Wiregrass REC**

	<b>Average Yield (bu/acre)</b>		
	<b>2017</b>	<b>2016 - 2017</b>	<b>2015 - 2017</b>
	<b>1-year</b>	<b>2-year</b>	<b>3-year</b>
AGS 2038	48	66	68
AGS 2040	22	51	52
Progeny 357	3	25	32

*Sorted by 3-year average*

**Table 8. Performance of wheat varieties at Brewton Agricultural Research Unit - Brewton, AL**

Note: No harvest at this location due to excessive moisture levels during harvest time; seed heads were sprouting and too wet.

**Table 9. Performance of wheat varieties at Gulf Coast Research & Extension Center - Fairhope, AL**

<b>Planting Date: 11/17/2016</b>	<b>Harvest Date: 6/16/2017</b>		
<b>Variety</b>	<b>Test Weight</b>	<b>Yield</b>	<b>Grain Yield</b>
	<b>(lbs/bushel)</b>	<b>rank</b>	<b>(bu/acre)</b>
AGS 2038	57.8	1	80
GA 07353-14E19	59.2	2	74
AGS 2040	59.9	3	73
AGS 2024	59.2	4	72
VA 11W-108	59.9	5	71
GA 041052-11E51	58.6	6	71
AGS 3000	60.2	7	69
AGS 2033	58.7	8	69
VA 11W-108PA	59.6	9	68
GA 071012-14E6	59.8	10	66
GAJT 141-14E45	59.6	11	64
GA 051207-14E53	59.3	12	64
Progeny #Warrior	59.3	13	63
Progeny PGX 16-1	59.3	14	63
VA 13W-38	59.7	15	62
Progeny #Turbo	60.3	16	61
Croplan SRW 9410	59.8	17	60
Progeny #Boss	60.3	18	58
Progeny PGX 16-4	59.9	19	57
Progeny PGX 14-5	58.9	20	55
AGS 2027	59.1	21	53
Progeny #Bullet	59.7	22	52
Progeny PGX 16-3	58.7	23	41
Croplan SS 8415	60.6	24	41
Progeny 357	59.2	25	38
Progeny PGX 14-3	59.5	26	38
<b>Trial mean</b>			<b>61</b>
<b>LSD (0.1)</b>			<b>8</b>
<b>CV (%)</b>			<b>9</b>
<b>Pr&gt;F</b>			<b>0.0001</b>

**Wheat variety performance over multiple years at Gulf Coast REC**

<b>Variety</b>	<b>Average Yield (bu/acre)</b>		
	<b>2017</b>	<b>2016 - 2017</b>	<b>2015-2017</b>
	<b>1-year</b>	<b>2-year</b>	<b>3-year</b>
AGS 2038	80	74	64
AGS 2040	73	68	58
Progeny 357	38	37	26

Sorted by 3-year average

## 2017 Alabama Oat & Triticale Variety Trial Results

**Table 10. Performance of oat & triticale varieties at Tennessee Valley REC - Belle Mina, AL**

Planting Date: 11/7/2016		Harvest Date: 6/14-15/2017	
Oat Varieties	Test Weight (lbs/bushel)	Yield rank	Grain Yield (bu/acre)
Horizon 270	34.2	1	124
FL720-R6	33.7	2	116
LA 05006-65-S1	37.1	3	103
<b>Trial mean</b>			<b>114</b>
<b>LSD (0.1)</b>			<b>36</b>
<b>CV (%)</b>			<b>18</b>
<b>Pr&gt;F</b>			<b>0.533</b>

Triticale Varieties	Test Weight (lbs/bushel)	Yield rank	Grain Yield (bu/acre)
FL 91142-A19	48.4	1	64
FL 01143	49.2	2	59
NS 202567	43.7	3	59
FL 08128	53.4	4	49
<b>Trial mean</b>			<b>58</b>
<b>LSD (0.1)</b>			<b>5</b>
<b>CV (%)</b>			<b>5</b>
<b>Pr&gt;F</b>			<b>0.0047</b>

**Table 11. Performance of oat & triticale varieties at Sand Mountain REC - Crossville, AL**

Planting Dated: 11/22/2016		Harvest Date: 6/27/2017	
Oat Variety	Test Weight (lbs/bushel)	Yield rank	Grain Yield (bu/acre)
Horizon 270	34.2	1	156
FL720-R6	32.3	2	144
LA 05006-65-S1	34.6	3	143
<b>Trial mean</b>			<b>148</b>
<b>LSD (0.1)</b>			<b>27</b>
<b>CV (%)</b>			<b>11</b>
<b>Pr&gt;F</b>			<b>0.5695</b>

Triticale Variety	Test Weight (lbs/bushel)	Yield rank	Grain Yield (bu/acre)
FL 91142-A19	41.5	1	105
NS 202567	30.7	2	105
FL 08128	45.6	3	98
FL 01143	44.5	4	94
<b>Trial mean</b>			<b>101</b>
<b>LSD (0.1)</b>			<b>8</b>
<b>CV (%)</b>			<b>5</b>
<b>Pr&gt;F</b>			<b>0.1163</b>

**Table 12. Performance of oat & triticale varieties at Black Belt REC - Marion Junction, AL**

Planting Date: 11/16/2016		Harvest Date: 6/9/2017	
Oat Variety	Test Weight (lbs/bushel)	Yield rank	Grain Yield (bu/acre)
LA 05006-65-S1	32.8	1	77
FL720-R6	30.6	2	72
Horizon 270	.	3	71
<b>Trial mean</b>			<b>73</b>
<b>LSD (0.1)</b>			<b>4</b>
<b>CV (%)</b>			<b>3</b>
<b>Pr&gt;F</b>			<b>0.0779</b>

Triticale Variety	Test Weight (lbs/bushel)	Yield rank	Grain Yield (bu/acre)
FL 01143	.	1	20
FL 08128	.	2	20
<b>Trial mean</b>			<b>20</b>
<b>LSD (0.1)</b>			<b>13</b>
<b>CV (%)</b>			<b>27</b>
<b>Pr&gt;F</b>			<b>0.9123</b>

Mechanical difficulties during transport, during a heavy rain, caused some of the samples to be damaged. Therefore, some of the test weight data is unavailable.

**Table 13. Performance of oat and triticale varieties at Prattville ARU - Prattville, AL**

There was no recorded data for oat varieties at Prattville ARU in 2017.

Planting Date: 11/28/2016		Harvest Date: 6/10/2017	
Triticale Varieties	Test Weight (lbs/bushel)	Yield rank	Grain Yield (bu/acre)
FL 08128	.	1	11
FL 01143	.	2	8
<b>Trial mean</b>			<b>10</b>
<b>LSD (0.1)</b>			<b>11</b>
<b>CV (%)</b>			<b>47</b>
<b>Pr&gt;F</b>			<b>0.4224</b>

**Table 14. Performance of oat & triticale varieties at Plant Breeding Unit - Prattville, AL**

<b>Planting Date: 11/18/2016</b>		<b>Harvest Date: 6/1/2017</b>	
<b>Oat Varieties</b>	<b>Test Weight (lbs/bushel)</b>	<b>Yield rank</b>	<b>Grain Yield (bu/acre)</b>
Horizon 270	31.6	1	62
LA 05006-65-S1	36.5	2	59
FL720-R6	30.8	3	47
<b>Trial mean</b>			<b>56</b>
<b>LSD (0.1)</b>			<b>7</b>
<b>CV (%)</b>			<b>8</b>
<b>Pr&gt;F</b>			<b>0.0223</b>

<b>Triticale Varieties</b>	<b>Test Weight (lbs/bushel)</b>	<b>Yield rank</b>	<b>Grain Yield (bu/acre)</b>
FL 01143	41.3	1	28
FL 08128	17.8	2	15
<b>Trial mean</b>			<b>21</b>
<b>LSD (0.1)</b>			<b>16</b>
<b>CV (%)</b>			<b>32</b>
<b>Pr&gt;F</b>			<b>0.1347</b>

**Table 15. Performance of oat & triticale varieties at Wiregrass REC - Headland, AL**

<b>Planting Date: 12/12/2016</b>		<b>Harvest Date: 6/9/2017</b>	
<b>Oat Varieties</b>	<b>Test Weight (lbs/bushel)</b>	<b>Yield rank</b>	<b>Grain Yield (bu/acre)</b>
Horizon 270	33.6	1	36
FL720-R6	31.5	2	28
LA 05006-65-S1	35.0	3	25
<b>Trial mean</b>			<b>30</b>
<b>LSD (0.1)</b>			<b>18</b>
<b>CV (%)</b>			<b>35</b>
<b>Pr&gt;F</b>			<b>0.4717</b>

<b>Triticale Varieties</b>	<b>Test Weight (lbs/bushel)</b>	<b>Yield rank</b>	<b>Grain Yield (bu/acre)</b>
FL 08128	53.6	1	77
FL 01143	48.8	2	68
<b>Trial mean</b>			<b>72</b>
<b>LSD (0.1)</b>			<b>8</b>
<b>CV (%)</b>			<b>5</b>
<b>Pr&gt;F</b>			<b>0.0781</b>

**Table 16. Performance of oat & triticale varieties at Brewton Agricultural Research Unit - Brewton, AL**

*Note: No harvest at this location due to excessive moisture levels during harvest time; seed heads were sprouting and too wet.*

**Table 17. Performance of oat & triticale varieties at Gulf Coast REC - Fairhope, AL**

Planting Date: 11/17/2016		Harvest Date: 6/16/2017	
Oat Varieties	Test Weight (lbs/bushel)	Yield rank	Grain Yield (bu/acre)
Horizon 270	.	1	132
FL720-R6	.	2	120
LA 05006-65-S1	.	3	105
<b>Trial mean</b>			<b>119</b>
<b>LSD (0.1)</b>			<b>33</b>
<b>CV (%)</b>			<b>16</b>
<b>Pr&gt;F</b>			<b>0.3272</b>

Triticale Varieties	Test Weight (lbs/bushel)	Yield rank	Grain Yield (bu/acre)
FL 01143	.	1	52
FL 08128	.	2	35
<b>Trial mean</b>			<b>43</b>
<b>LSD (0.1)</b>			<b>43</b>
<b>CV (%)</b>			<b>42</b>
<b>Pr&gt;F</b>			<b>0.3723</b>

*Test weights not available*

## **Disease Ratings**

Disease ratings for the 2016-2017 variety trials for wheat and oats are summarized by location in Tables 18 - 21. Diseases were rated by K.L. Bowen, Professor of Plant Pathology, with help from graduate student Brett Brown and undergraduate assistant Joshua Anderson. Rust diseases are rated on a severity scale ranging from 0 to 100, indicating the proportion of the flag leaves that are 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. Diseases were rated as close to soft dough as could be scheduled, late April to early May.

## **Discussion**

Wheat variety trials at Gulf Coast REC (GCRC, in Fairhope), Brewton Ag Research Unit (BARU), and Tennessee Valley REC (TVREC, in Belle Mina) were rated in the spring of 2017. Fungicides had been applied to wheat variety trials at most locations and did a good job at minimizing foliar diseases. Low levels of leaf rust and glume blotch, as well as traces of scab, were found on some varieties at GCRC, where plots were rated on 21 April. Slightly higher levels of rust and leaf blotch were found at BARU (rated on 22 April) than at GCRC, but scab and glume blotch levels were lower. Several varieties at BARU and GCRC were over-mature and excessively dry at the time of rating. No leaf rust was noted at TVREC, but leaf and glume blotches, as well as scab were noted at low levels on 9 May. Wheat varieties at the Prattville Agricultural Research Unit (PARU) were too mature to rate for disease. Powdery mildew and stripe rust were not found at any location.

Oats and triticale variety trials were also rated. At GCRC, oats were generally too dry to rate for disease, however, no crown rust was noticed. At BARU and TVREC, the three oats varieties all had similarly low levels of *Helminthosporium* leaf spot; only a trace of crown rust was noticed on 'Horizon 306.' Among triticale cultivars, 'NS 202567' consistently had lower *Septoria* blotch than the other cultivars. No rust or powdery mildew were noted on triticale.

**Table 18. Disease ratings on wheat varieties at Tennessee Valley Research and Extension Center**

Cultivar	Leaf Blotch		Glume Blotch		Scab		Barley yellow dwarf	
AGS 2024	2	cd	1.25	cde	1.5	bc	0	d
AGS 2033	0	g	0.5	cde	1	cd	0.5	d
AGS 2038	0.25	fg	0.5	cde	1.25	bcd	2	ab
AGS 2040	2.5	bcd	1.9	bcd	0.5	cd	0	d
AGS 2055	1	ef	0.01	de	0.5	cd	0.05	d
Croplan SRW 9410	1.5	de	1.5	bcde	0.13	cd	0	d
Croplan SS 8415	0.5	fg	2	bcd	0	d	0	d
Dyna Gro 9522	2.5	bcd	0	de	0	d	0.25	d
Dyna Gro 9701	0	g	0.1	de	0	d	0	d
Dyna Gro 9750	0	g	0.2	de	0	d	0.12	d
GA 051207-14E53	2	cd	4.5	a	0	d	0	d
GA 071012-14E6	2.75	bc	0	de	0.5	cd	0.5	d
GA 07353-14E19	4	a	2	bcd	2.5	ab	0	d
GAJT 141-14E45	2	cd	1.4	cde	0.5	cd	0	d
Hilliard	0	g	0.5	cde	0	d	0.75	cd
Limagrain L11541	0.01	fg	0	de	0.13	cd	0	d
Limagrain LCS 3204	0	g	0.75	cde	0	d	2.5	a
Limagrain LCS 3334	0.1	fg	0	de	0.13	cd	0	d
Limagrain LCS L11550	0	g	0.5	cde	0	d	1.5	bc
Progeny #Boss	0	g	0.25	de	0	d	1.5	bc
Progeny #Bullet	0.01	fg	0.5	cde	0.13	cd	0	d
Progeny #Turbo	0	g	2.75	abc	0	d	0.25	d
Progeny #Warrior	0.1	fg	0.35	de	0.5	cd	0	d
Progeny 243	.		.		.		0.3	d
Progeny 357	0.01	fg	0.5	cde	0.13	cd	0.88	bcd
Progeny PGX 14-5	0	g	0.1	de	0	d	1	bcd
Progeny PGX 16-1	0.5	fg	3.5	ab	1.5	bc	0.25	d
Progeny PGX 16-3	0	g	0.76	cde	0	d	1.5	bc
Progeny PGX 16-4	0	g	4.5	a	1	cd	0	d
Savoy	3	b	1	cde	3	a	0	d
TX-EL2	2	cde	0	de	0	d	0.12	d
USG 3197	0	g	0.2	de	0	d	0.12	d
USG 3228	0.35	fg	0.35	de	0	d	0	d
USG 3404	0	g	0	e	0	d	0	d
USG 3448	0	g	0.5	cde	0	d	0	d
USG 3458	0	g	0.75	cde	0	d	0.25	d
USG 3536	0	g	0.25	de	0	d	0.25	d
USG 3895	0	g	0.1	de	0	d	0.5	d
VA 11W-108PA	0	g	0.35	de	0.5	cd	1.75	ab
VA 13W-38	2.25	cd	1	cde	0.5	cd	0	d

Leaf rust severity is on a scale of 0 to 100% of flag leaf;

other diseases rated 0 to 10, where 5 = ~ 50% of plants in plot are wholly affected.

Ratings made on 9 May 2017.



**Table 19. Disease ratings on triticale varieties at Tennessee Valley Research and Extension Center**

Cultivar	Leaf Blotch	Glume Blotch
FL 01143	2 b	1.27
FL 08128	1.67 b	0.67
NS 202567	0.17 c	0.03
Trical 342	3.33 a	2.5

Leaf rust severity is on a scale of 0 to 100% of flag leaf;  
other diseases rated 0 to 10, where 5 = ~ 50% of plants in plot are wholly affected.  
Disease ratings made on 9 May 2017.

**Table 20. Disease ratings on wheat varieties at Brewton Agricultural Research Unit**

Cultivar	Leaf Rust	Leaf Blotch	Glume Blotch	Scab
AGS 2024	6.67 c	0	0.67	0
AGS 2027	0.003 c	0	0.67	0
AGS 2033	0 c	0.33	1.33	0.5
AGS 2038	13.33 bc	1.33	1.67	1.33
AGS 2040	0 c	1.33	1	0
AGS 3000	0 c	0	0	0.33
Croplan SRW 9410	1 c	0.67	0.33	0
Croplan SS 8415	10.67 bc	0	0.67	0
GA 051207-14E53	0.34 c	0.17	1.67	0
GA 071012-14E6	2.67 c	0	0	2.33
GA 07353-14E19	0 c	0.33	0	0
GAJT 141-14E45	0 c	0.34	2.33	0.33
Hilliard	0 c	0	1	0
Progeny #Boss	0.667 c	0	0.33	0
Progeny #Bullet	0 c	0.166	0.33	0
Progeny #Turbo	0 c	0.003	1	0
Progeny #Warrior	6 c	0	0.33	0
Progeny 243	25.33 ab	1	1.33	0
Progeny 357	30 a	0	0.67	0
Progeny PGX 14-5	5.33 c	0.33	0.67	0
Progeny PGX 16-1	0 c	0.67	1	0
Progeny PGX 16-3	0 c	0	0.33	0
Progeny PGX 16-4	0.003 c	0.67	0.67	0
Savoy	0 c	0	1.67	2.67
VA 11W-108PA	0.003 c	0.67	0.33	0
VA 13W-38	1.67 c	0.67	1.17	0.003

Leaf rust severity is on a scale of 0 to 100% of flag leaf;  
other diseases rated 0 to 10, where 5 = ~ 50% of plants in plot are wholly affected.  
Ratings made on 22 Apr 2017.

**Table 21. Disease ratings on wheat varieties at Gulf Coast Research and Extension Center**

Cultivar	Leaf Rust	Leaf Blotch	Glume Blotch	Scab
AGS 2024	0	0	0	0
AGS 2027	0	0.5	2	0.5
AGS 2033	0	0.005	2	0.005
AGS 2038	0	0	1	2
AGS 2040	0	0.5	2	0
AGS 3000	0	0	0.25	0
Croplan SRW 9410	7.5	0.5	1.5	0
Croplan SS 8415	5	0.5	2.5	0
GA 051207-14E53	7.5	0.5	2.5	0
GA 071012-14E6	0	0	1.5	0
GA 07353-14E19	0	0	2	0.25
GAJT 141-14E45	0	0.005	2	0.75
Hilliard	0	0	0.5	0
Progeny #Boss	0	0	0.5	0
Progeny #Bullet	0	0.005	0.5	1
Progeny #Turbo	0	0	1	0.5
Progeny #Warrior	7.5	1	0.5	3.5
Progeny 243	15	0.5	3.5	0.5
Progeny 357	7.5	0.005	0.5	0.5
Progeny PGX 14-5	7.5	0	2.5	0.005
Progeny PGX 16-1	5	0	1.5	0.005
Progeny PGX 16-3	0	0	1.5	0.5
Progeny PGX 16-4	7.5	0	1	0.75
Savoy	0	0	0	0.5
VA 11W-108PA	12.5	0.005	2	0.25
VA 13W-38	7.5	0.75	2	0.5
Leaf rust severity is on a scale of 0 to 100% of flag leaf;				
other diseases rated 0 to 10, where 5 = ~ 50% of plants in plot are wholly affected				
Ratings made on 21 Apr 2017.				

## 2016-2017 Grain Sources

### Wheat

<b>Cultivar:</b>	<b>Source:</b>
AGS 2024, AGS 2027, AGS 2033	AGSouth Genetics
AGS 2038, AGS 2040, AGS 2055, AGS 3000	Albany, Georgia
DynaGro 9522, DynaGro 9701, DynaGro 9750, DynaGro Savoy	Crop Production Services/DynaGro Seed Bloomville, Ohio
Croplan SS8415	Croplan by Winfield
Croplan SRW9410	Shoreview, Minnesota
Limagrain LCS 3204, Limagrain LCS 3334	Limagrain Cereal Seeds
Limagrain L11541*, Limagrain L11550*	Cordova, Tennessee
Progeny 243, Progeny 357	Progeny Ag Products
#Boss, #Bullet, #Turbo, #Warrior	Wynne, Arkansas
PGX 14-5*, PGX 16-1*, PGX 16-3*, PGX 16-4*	
TX-EL2*	Texas A&M AgriLife Commerce, Texas
USG 3197, USG 3228, USG 3404	UniSouth Genetics, Inc.
USG 3448, USG 3458, USG 3536, USG 3895	Dickson, Tennessee
GA 07353-14E19*, GA 051207-14E53*, GA 071012-14E6*, GAJT 141-14E45*	University of Georgia Griffin, Georgia
Hilliard	
VA 11W-108PA*, VA 13W-38*	Virginia Crop Improvement Assn. Warsaw, Virginia

### Oats

<b>Cultivar:</b>	<b>Source:</b>
Horizon 270, Horizon 306	Plantation Seed Conditioners, Inc.
Horizon 720	Newton, Georgia
<b>Triticale</b>	
Trical 342	Northern Seed, LLC
NS202567	Union, Kentucky
FL 01143*	University of Florida
FL 08128*	Gainesville, Florida
<b>* Experimental line; not yet commercially available.</b>	

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