

2017 SMALL GRAIN PERFORMANCE TRIALS

LAES Research Summary No. 212

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Performance of Small Grain Varieties in Louisiana, 2016-17

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INTRODUCTION

Small grain variety trials are conducted annually by scientists of the Louisiana State University Agricultural Center Agricultural Experiment Station (LSUAC) to evaluate grain yield, agronomic performance, and disease reaction of varieties and advanced lines. The trials are conducted at seven LSUAC research stations representative of the major soil and climate regions of the state. Entries are included in the trials based upon previous performance or at the request of the originating agency. Inclusion of an entry in the trials does not constitute an endorsement. Beginning in 2017, the performance trial in north Louisiana is divided by relative maturity into two groups, early and medium-late (normal). This was done to facilitate planting and harvest. The north Louisiana early trial included 17 varieties (bold font) and experimental lines (normal font) while the normal trial included 44 entries. The 2017 southern performance trials included 28 entries.

New entries in the statewide trials are tested in the north Louisiana normal trial and in a south Louisiana vernalization trial, unless prior testing in Baton Rouge nurseries indicates an entry is adapted to south Louisiana, in which case it is also tested in the south Louisiana variety trials. South Louisiana consists of the Baton Rouge, Crowley, and Jeanerette locations; whereas North Louisiana consists of locations at Alexandria, Bossier City, St. Joseph, and Winnsboro.

When choosing varieties, growers should consult their local extension agents and choose varieties based on two-year data within a region, not based on a single year or location. Growers should also consider specific data from the LSUAC variety trial location that most closely matches the weather and soil conditions of their farm and should avoid growing a single variety on a large acreage. Growing several varieties helps hedge against losing the entire crop to chance occurrences in weather or shifts in pathogen or pest races or virulence patterns. Yield, test weight, maturity, and disease resistance are important traits to consider when selecting varieties. If a grower plans to plant wheat early, he should avoid varieties that have a very early heading date in order to reduce the danger of freeze damage.

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 - 5 Regional Director, and Associate Professor, respectively. Dean Lee Research Station, Alexandria.
 - 6 Assistant Professor and Research Associates, respectively. Macon Ridge Research Station, Winnsboro.
 - 7 Research Associate. Iberia Research Station, Jeanerette.

Specific management and cultural practices for a location are presented at the bottom of the tables, along with unusual or key observations about that test. All plots were seeded at the recommended rate with seed provided by the originating agency or company (Appendix A).

Characters Evaluated and Statistics Reported:

Data are collected on grain yield, test weight, heading and maturity dates, plant height, lodging, and disease reaction, as appropriate at each location. Grain yield was adjusted to 13% moisture. **Least significant differences (LSD's)** are reported at the 10% probability level. An LSD of 10% probability ($\alpha=0.10$) is the level of difference in a trait (like yield) that occurs between two varieties once in every 10 comparisons as a result of random chance due to greater soil fertility, better drainage, slightly greater harvest length, or any other "uncontrollable or unmeasurable factors" in the test, even if the varieties had the same genetic yield potential. If the LSD (0.10) for yield in a trial is 7.0 bu/a, there is a 10% chance that two varieties with a reported yield difference of 7.0 bu/acre are genetically equal and a 90% probability they have differences in genetic potential in that particular environment. LSD values are influenced by the degree of precision that soil fertility, stand establishment, plot length, harvest efficiency, and other variables of the trials are controlled, and by the number of replications of each variety or treatment. The letters 'NS' are used in the text and tables to indicate lack of significance (**not significantly different**) at the 10% probability level. Correlations are sometimes given to indicate the degree to which two traits, such as rust rating and yield, are related. A correlation between rust rating and yield of $r = -1.0$ would indicate that for every unit increase in rust there was a proportional decrease in yield.

Wheat leaf rust (*Puccinia triticina*), stripe rust (*Puccinia striiformis*), and oat crown rust (*Puccinia coronata*) are reported as percentage of the upper two leaves affected by the disease. Two replications are evaluated for leaf rust, between flowering and the early dough stage of kernel development. Wheat and oat stem rust (*Puccinia graminis*) are reported on a scale of 0-9, where a 0 indicates no disease and a 9 indicates that the plant was killed by the disease. Stem rust is normally rated somewhat later than leaf rust.

Bacterial streak (*Xanthomonas campestris* pv. *translucens*), Septoria leaf (*Mycosphaerella graminicola*) and glume blotch (*Leptosphaeria nodorum*) are rated on a scale of 0 to 9 during the dough stage of development. A rating of 0 indicates that no disease was present, while a 9 indicates very severe disease. The upper few leaves, heads, and stems below the head are the portions rated for these diseases. Since bacterial streak (black chaff) is not controlled by fungicides, it is important that this disease be distinguished from septoria blotch. Heading day is given as calendar day (day of year). Lodging is rated on a 0-9 scale, where a 0 indicates that all plants were completely upright.

Traits and Rating Scales for LAES Wheat and Oat Performance Trials.		
Trait	Abbreviation	Description
Yield	Yield	Grain yield in bushels per acre adjusted to 13% moisture.
Test weight	Test wt	Volume weight of grain in pounds per bushel
Heading day	Head day	Day of calendar year (days after December 31) until 50% heading.
Plant height	Ht	Plant height in inches.
Lodging rating	Lod	Lodging rated on a scale of 0 - 9, where a 0 indicates no lodging and a 9 indicates complete lodging (all plants flat).
Leaf rust	Leaf rust	Percent of upper two leaves affected by leaf rust, rated during grain fill. This rating is generally taken during soft to mid-dough, but varies somewhat by location and variety.
Stripe rust	Stripe rust	Percent of upper two leaves affected by stripe rust, rated between flag leaf and mid grain fill.
Septoria	Sept	Septoria leaf & glume blotch rated on a scale of 0 - 9, where 0 indicates no disease and 9 indicates severe disease on the flag leaf and head.
Bacterial Streak	Bact	Bacterial streak (black chaff) rated on a scale of 0 - 9, where 0 indicates no disease and 9 indicates severe disease on the flag leaf and head.
Powdery mildew	Powd mild	Powdery mildew rating on a scale of 0 - 9, where 0 indicates no disease and 9 indicates severe disease present on the foliage. Rated in early to mid spring.
Phenotype	Phe	Phenotypic rating, an overall visual rating prior to harvest. 0=poor, 9=excellent. This rating is a visual rating of 'eye-appeal'.

Growing Conditions and General Comments for 2016-2017

The 2016-17 growing season, like the two previous seasons, was difficult particularly in the southern part of the state. Heavy rains immediately after planting resulted in uneven stands and poor plant development. The warm winter led to vernalization problems in some late-heading entries. Rainfall during flowering resulted in severe Fusarium headblight (FHB) infection throughout the state. Wet weather patterns continued up to and into harvest, leading to delayed harvest. Weathering from heavy rainfall after maturity resulted in severe lodging, reduced yields and low test weights at some locations.

Bacterial streak (*Xanthomonas*) was moderate throughout the trials. Leaf rust pressure was high, stem rust pressure moderate, and stripe rust pressure was low. Delayed harvest led to severe lodging in some areas.

Results and Discussion

Performance of Wheat Varieties Across South Louisiana

South Region Means:

There were 28 entries in the South Louisiana trials in 2017. Data were not collected at Baton Rouge as stands were very irregular due to heavy post-plant rains. The average yield (46.8 bu/acre) across Crowley and Jeanerette was low as were test weights, with an average of 52.3 lbs/bu, the result of excessive weathering after maturity (Table 1). The top 5 entries included LA01110D-150-625 (63.6 bu/acre), AGS 2035 (60.2 bu/acre), LA03200E-2 (59.2 bu/acre), LA09264C-P5 (57.7 bu/acre) and AGS 2024 (57.7 bu/acre). The top 16 entries all had yields above 50 bu/acre, well above the average, and with one exception, had test weights above the mean.

The very warm winter and spring resulted in very large differences in heading date, which ranged from 62 to 98 days with a mean of 79 days. The eight lowest yielding entries all had heading days of 90 or above. LA01110D-150-625, the top yielding entry, had a heading date of 85 while the entry with the second highest yield, AGS 2035 headed at day 74.

Leaf rust pressure was low with a mean of 0.9% and a range of 0 to 8%. The top five yielding entries had leaf rust ratings of 0%. Lodging was severe due to heavy rain and weathering, with scores ranging between 0.4 and 5.9 (0-9 scale) and a mean of 3.3.

The LA experimental line LA01110D-150-625 (52.4 bu/acre) had the highest yield of 15 entries tested across South Louisiana for two years (Table 2). The experimental lines, LA03200E-2 and LA0111D-150-241, and the varieties AGS 2035 and AGS 2024 also had yields of 46.7 bu/acre or greater. Low test weights (mean, 53.3 lbs/bu) were the result of weathered seed due to heavy rains after maturity.

LA01110D-150-625 (50.1 bu/acre), LA03200E-2 (48.1 bu/acre), AGS 2035 (48.0 bu/acre) and LA0111D-150-241 (45.5 bu/acre) had the highest yields of 12 entries across south Louisiana for three years compared to the mean of 41.1 bu/acre (Table 3). Two of these had heading dates later than the mean of 87 days. The top entry, LA01110D-150-625, had an FHB score of 0.4 (0-9 scale) compared to the mean (1.4).

Baton Rouge

Data were not collected at Baton Rouge as heavy rains shortly after planting resulted in very irregular stands and heavy rains after maturity lead to severe lodging.

Crowley

Saturated soils during fall and winter reduced tillering and plant development resulting in reduced yields at Crowley. LA03200E-2 (55.2 bu/acre), LA09264C-P5 (53.9 bu/acre), AGS 2035 (51.7 bu/acre), TX-EL2 (50.9 bu/acre) and AGS 2024 (50.2 bu/acre) led in yield at this location (Table 4). The average yield was only 39.0 bu/acre. Test weights ranged from 37.3 lbs/bu to 56.4 lbs/bu with a mean of 53.5 lbs/bu. Four of the top five yielding entries all had test weights of 52.8 lbs/bu or greater.

Leaf rust pressure was low with a mean of 1%. The warm winter caused a 37 day range in heading date from the earliest to latest entry. Severe lodging in early entries

which could not be harvested before later entries were mature, led to weathering and reduced test weights.

Of 14 entries tested for two years, LA03200E-2, AGS 2035, and AGS 2024 all had yields above 42.0 bu/acre compared to the mean of 35.7 bu/acre.

Jeanerette

Even though the warm winter resulted in some vernalization issues, yields were relatively good at this location. LA01110D-150-625 (76.4 bu/acre), AGS 2035 (71.6 bu/acre), LA09225C-33 (67.9 bu/acre), LA 754 (67.1 bu/acre) and AGS 2038 (66.3 bu/acre) had the highest yields at Jeanerette compared to the mean of 54.7 bu/acre (Table 5). There was a 42-day range in heading dates at this location. Very early entries had poor test weights due to weathering whereas very late-heading entries had poor test weights due to heat during grainfill. Test weights ranged from 36.2 to 55.5 lbs/bu with a mean of 51.3 lbs/bu. The top five yielding entries all had test weights of 51.1 lbs/bu and above.

Leaf rust pressure was low (mean of 1%) with ratings ranging from 0 to 13%. The top five yielding entries had leaf rust ratings of 0%.

Performance of Wheat Varieties Across North Louisiana

Early Maturity North Region Means:

As in 2016, the North Louisiana trials performed better than those in the South. Data included are from Alexandria, St. Joseph, and Winnsboro. LA09264C-P5 (65.3 bu/acre) had the highest yield of 17 early entries tested across North Louisiana in 2017 (Table 6). AGS 2035 (60.1 bu/acre), LA09225C-33 (57.5 bu/acre), and LA 754 (56.2 bu/acre) all had yields above 56.0 bu/acre, compared to the mean of 54.4 bu/acre. The top three yielding entries all had test weights of 56.6 lbs/bu or above compared to the mean of 55.6 lbs/bu. Leaf rust pressure was moderate with ratings ranging from 0 to 12% and a mean of 3%. Leaf rust did not appear to be severe enough to affect yield. Bacterial streak was moderately severe, with a mean of 2.1 (0-9 scale). Heading date ranged from 68 days to 88 days with a mean of 76.

Delta Grow 3500 (58.9 bu/acre) had the highest yield of 11 early entries tested over two years, (Table 7). Yield ranged from 58.9 bu/acre to 45.0 bu/acre with a mean of 53.5 bu/acre. Yield differences were not (statistically) significant due to the large change in ranks over the six trials. Earlier entries tended to have lower yields (2016 freeze damage and 2017 weathering). Stripe rust pressure was high and leaf rust was moderate, with means of 5% and 3% respectively. Test weight ranged from 50.8 lbs/bu to 57.2 lbs/bu with a mean of 54.8 lbs/bu. Large differences in heading day were due to the warm fall and winter. Fusarium headblight pressure was high with scores ranging from 0 to 3 (0-9 scale) and FDK (percent Fusarium Damaged Kernels) ranging from 11% to 45%.

Of 9 entries, Delta Grow 3500 (58.4 bu/acre) had the highest yield over three years (Table 8). LA03200E-2, Pioneer 26R94, AGS 2038, and AGS 2055 (medium-late check), all had yields above 51.0 bu/acre, compared to the mean of 50.1 bu/acre. The leading entry also had a stripe rust rating of 1% and a leaf rust rating of 0%.

FDK (percent Fusarium Damaged Kernels) ranged from 24% to 44%.

Normal Maturity North Region Means

LA01110D-150-625 (55.5 bu/acre) had the highest yield of 44 normal-late entries tested across North Louisiana (Alexandria and Winnsboro) in 2017 (Table 9). LA 754 (52.9 bu/acre), TXEL-2 (51.9 bu/acre), GAJT 141-14E45 (51.7 bu/acre), and GA071012-14E6 (51.2 bu/acre) also all had yields above 51.0 bu/acre, compared to the mean of 31.7 bu/acre. Only three of the top five yielding entries had test weights greater than the mean of 52.5 lbs/bu. There were no statistically significant differences among entries for stripe rust, bacterial streak, or Fusarium headblight ratings. Heading date ranged from 70 days to 103 days with a mean of 86.

LA01110D-150-241 (65.2 bu/acre) had the highest yield of 19 entries tested over two years, (Table 10). The data were analyzed without Alexandria 2017 yields in order to minimize distortion from very low yields and test weights. AGS 2055 (63.1 bu/acre) and VA12W-72 (62.2 bu/acre) also yielded well above the mean (41.7 bu/acre). Heading day ranged from 83 to 103 days with a mean of 95 days. Stripe rust, bacterial streak and Fusarium headblight differences were not statistically significant. FDK (percent Fusarium Damaged Kernels) in inoculated and misted screening plots ranged from 10% to 47% with a mean of 23%.

LA01110D-150-241 (57.9 bu/acre) had the highest yield of 12 entries over three years (Table 11). AGS 2055, LA01110D-150-625, AGS 2038, and Pioneer 26R41 all had yields above 54.3 bu/acre, compared to the mean of 47.6 bu/acre. These five entries also had leaf rust and stripe rust ratings of 3% or less.

Alexandria

Of the 17 early entries at Alexandria, LA09264C-P5 and AGS 2035 both had yields of 61.0 bu/acre compared to the mean of 49.9 bu/acre (Table 12). LA10084C-74, Dyna-Gro Savoy, and AGS 2040 also had yields above 51.0 bu/acre. Test weight data were very low due to weathering and as a result, not published. Earlier entries generally had lower yields due to weathering. Four of the five top entries had leaf rust ratings of 0%.

A severe storm that caused extensive lodging followed by additional rainfall and delayed harvest resulted in extremely low yields and test weights at Alexandria. LA01110D-150-625 (46.2 bu/acre) led the normal trial, followed by TX_EL2 (43.0 bu/acre), GA071012-14E6 (42.2 bu/acre), LA 754 (41.4 bu/acre) and AGS 2038 (40.5bu/acre) compared to the mean of 23.8 bu/acre (Table 15). Leaf rust pressure was extremely high, with ratings ranging from 0% to 71% with a mean of 29%. GA071012-14E6, third in yield, had a leaf rust rating of 59%.

Bossier City

The wheat trial at Bossier City was not harvested due to severe lodging caused by heavy rainfall after maturity.

St. Joseph

Like Alexandria, yields and test weights in the early nursery at St. Joseph were low. LA03200E-2 (57.3 bu/acre) followed by LA02964C-P5 (57.0 bu/acre), AGS 2035 (54.9 bu/acre), SY Cypress (49.9 bu/acre), and AGS 2024 (49.5 bu/acre) had yields far above

the mean of 44.3 bu/acre (Table 13). Fusarium headblight was severe. FDK (percent Fusarium Damaged Kernels) ratings were high and ranged from 5% to 48% with a mean of 20% in grain from the normal yield plots (not inoculated nurseries).

Winnsboro

Two experimental lines, LA09225C-33 (85.5 bu/acre) and LA09264C-P5 (77.8 bu/acre) and two varieties, AGS 2055 (81.7 bu/acre) and Delta Grow 3500 (78.5 bu/acre) had the highest yields in the early trial at Winnsboro in 2017 (Table 14). Test weights were low due to heavy rainfall and delayed harvest. Fusarium samples were collected from a misted, inoculated nursery and submitted for DON analysis. This nursery provides ideal conditions for the development of the pathogen. Deoxynivalenol (DON) is a vomitoxin produced by Fusarium. The FDA has established a 1ppm DON level limit for products to be used for human consumption. In the early trial at Winnsboro, DON levels were between 8 and 31ppm, with a mean of 18ppm.

In the normal maturity trial at Winnsboro in 2017, both yields and test weights were low due to rains after maturity and delayed harvest. Both AGS 2055 and LA01110D-150-625 yielded 67.9 bu/acre compared to the mean of 39.7 bu/acre (Table 16). These two entries headed out within 10 days of each other and within 7 days of the mean. There were no statistically significant differences between entries for stripe rust and FHB ratings. Leaf rust pressure was high with a range of 0% to 35% and a mean of 9%.

LA01110D-150-625 (67.2 bu/acre) led in yield of 18 normal maturity entries over two years at Winnsboro followed by LA01110D-150-241, AGS 2038, VA12W-72, and AGS 2055, all with yields above 62.0 bu/acre. These four entries all had leaf rust ratings of 3% or less and stripe rust ratings of 0%.

Statewide Performance of Wheat Varieties

When comparing entries that were grown in both the north-early and south 2017 trials, the experimental line LA09264C-P5 (62.3 bu/acre) had the highest yield of 17 entries (Table 17). AGS 2035, LA09225C-33, LA03200E-2, and AGS 2038 all had yields over 56.0 bu/acre compared to the mean of 52.4 bu/acre. All five entries had heading days within four days of the mean.

LA01110D-150-625 (59.6 bu/acre) had the highest yield of 5 entries grown in both the north-normal and south trials in 2017. All but one had leaf rust ratings of 0%, and heading dates between 77 and 95 days.

Performance of Oat Varieties

Baton Rouge

Data were not collected at Baton Rouge, as plots were severely lodged, preventing harvest.

Winnsboro

Three Louisiana lines, LA07007SBSBSB-18 (93.5 bu/acre), LA09015SBS-U4 (87.6 bu/acre), and LA09015SBS-U1 (84.4 bu/acre) led in yield out of 28 entries at Winnsboro

in 2017 (Table 19). All had yields well above the mean of 55.1 bu/acre. LA09015SBS-U4 had the highest test weight (29.8 lbs/bu) and second-highest yield.

Crown rust pressure was high with ratings ranging from 0 to 78%. The top five yielding entries all had crown rust ratings of 15% or lower compared to the mean of 21%. Stem rust pressure was also high with ratings between 0.3 and 2.5 (0-9 scale) and a mean of 1.1. Plots were severely lodged due to heavy storms after maturity and only two of four reps harvested as a result.

Performance of Oat Varieties Across Louisiana

Over two years, the experimental line, LA07007SBSBSB-18 (87.4 bu/acre) had the highest yield of 10 entries statewide compared to the mean of 65.8 bu/acre (Table 20). A second LA line, LA08084SBSBS-15, the Texas line TX07CS2257, and the varieties Horizon 270 and FL720 also had yields above 71.0 bu/acre. The two LA entries had crown rust ratings of 0 and 2%, respectively. All five top yielding entries had stem rust ratings of 1.1 (0-9 scale) or less.

The entry LA07007SBSBSB-18 (82.2 bu/acre) again led the state in yield of eight entries over three years compared to the mean of 68.3 bu/acre (Table 20). This and a second LA line, LA08084SBSBS-15, both had crown rust ratings of 2% or less and stem rust ratings of 1.1 (0-9 scale) or less.

Table 1. Performance trial at South Louisiana for 2017.

Brand / variety	Grain Yield bu/acre	Test Wt lbs/bu	Head Day of yr	Plant Ht in	Lod Score 0-9	Leaf Rust %	FHB 0-9
LA01110D-150-625	63.6	54.7	85	34	2.9	0	0.4
AGS 2035	60.2	54.6	74	35	4.4	0	3.9
LA03200E-2	59.2	54.8	77	31	4.0	0	2.0
LA09264C-P5	57.7	53.9	81	30	4.4	0	1.3
AGS 2024	57.7	52.9	67	29	5.6	0	3.3
LA09264C-P2	57.3	54.9	71	32	4.6	3	2.1
AGS 2038	56.8	55.4	77	34	3.4	0	2.5
LA09225C-33	56.3	54.0	73	32	5.4	0	4.1
TX-EL2	54.8	49.2	70	30	5.9	1	1.5
LA754	53.9	53.4	83	34	2.6	0	0.8
GA07353-14E19	53.0	53.4	69	32	4.9	0	5.0
LA01110D-150-241	52.8	52.5	87	32	1.6	0	0.0
AGS 3000	52.1	55.9	58	30	4.5	6	
PIONEER 26R94	52.0	54.1	71	33	4.6	0	4.4
GA071012-14E6	51.8	53.8	62	31	5.1	1	4.5
GAJT 141-14E45	50.1	53.7	80	29	3.1	0	1.5
DYNA-GRO SAVOY	47.8	52.7	65	29	5.7	0	3.8
LA10084C-74	45.6	54.2	78	31	4.0	0	2.4
AGS 2040	45.2	54.3	72	31	4.7	0	2.8
SY CYPRESS	37.4	50.8	63	29	3.1	1	4.9
AGS 2055	35.2	41.6	93	31	1.6	0	0.0
DELTA GROW 3500	34.0	48.7	93	30	1.4	0	0.0
PROGENY AG PGX 16-1	33.9	55.5	96	31	0.4	0	0.0
PROGENY AG #TURBO	31.0	50.1	98	28	0.4	0	0.0
VA11W-108PA	30.2	44.4	90	29	0.7	0	0.0
HILLIARD	29.6	42.5	92	30	1.0	0	0.0
GA051207-14E53	27.4	48.7	97	30	1.6	8	0.0
PROGENY AG PGX16-4	24.8	54.2	97	32	0.6	4	0.0
Mean	46.8	52.3	79	31	3.3	0.9	2.0
CV%	10	3	2	5	19	312	28
LSD (0.10)	7.8	5.5	3	2	3.0	NS	3.2

Data from Crowley and Jeanerette.

COMMENTS: A very warm winter and spring resulted in a large differences in heading date. Early varieties lost test weight due to excessive weathering after maturity.

FHB is severity of Fusarium Headblight infection on a scale of 0 = none to 9 = 100% damaged florets/glumes . It is an estimate of proportion of florets infected.

Bold 'Brand/variety' indicates the entry is commercially available, others are non-released breeding lines.

Table 2. Wheat performance trial across South Louisiana for two years, 2016 and 2017.

Brand / variety	Grain Yield bu/acre	Test Wt lbs/bu	Head Day of yr	Plant Ht in	Lodging Score 0-9	Leaf Rust %	FHB 0-9
LA01110D-150-625	52.4	55.2	88	33	3.9	1	0.2
AGS 2035	51.0	54.6	81	34	4.1	0	2.4
LA03200E-2	50.9	55.3	84	31	4.1	14	1.5
AGS 2024	48.0	53.6	79	30	4.5	0	2.0
LA01110D-150-241	46.7	53.6	91	33	2.5	0	0.0
AGS 2038	46.2	54.3	85	34	3.7	0	1.4
PIONEER 26R94	45.6	54.2	81	34	4.5	0	2.5
AGS 3000	44.9	56.3	70	31	4.5	3	0.4
AGS 2040	44.7	55.6	79	31	3.9	0	1.5
DYNA-GRO SAVOY	44.3	53.7	77	30	4.6	0	3.3
DELTA GROW 3500	38.4	52.6	93	31	3.1	0	0.0
SY CYPRESS	36.2	52.9	76	29	3.7	8	2.7
AGS 2055	32.0	47.3	97	32	2.6	0	0.0
PROGENY AG #TURBO	31.5	51.6	98	29	1.9	0	0.0
HILLIARD	26.3	48.0	97	31	2.1	2	0.0
MEAN	42.6	53.3	85	32	3.6	2	1.2
CV%	13	3	2	5	23	240	63
LSD (0.10)	7.6	2.5	5	1	1.8	NS	1.9

Data from 2016 and 2017 at the Rice Research Station (Crowley) and Iberia Research Station (Jeanerette), and from 2016 at Central Station (Baton Rouge).

Bold 'Brand/variety' indicates the entry is commercially available, others are non-released breeding lines.

FHB is severity of Fusarium Headblight infection on a scale of 0 = none to 9 = 100% damaged florets/glumes . It is an estimate of proportion of florets infected.

Lodging 0 = none and 9 = severe.



Table 3. Wheat performance trial across South Louisiana for three years, 2015, 2016 and 2017.

	Grain Yield	Test Wt	Head Day	Plant Ht	Lodging	Leaf Rust	FHB
	bu/acre	lbs/bu	of yr	in	0-9	%	0-9
LA01110D-150-625	50.1	53.5	89	34	3.5	1	0.4
LA03200E-2	48.1	53.2	86	32	3.7	16	1.5
AGS 2035	48.0	52.7	84	34	3.4	0	2.3
LA01110D-150-241	45.5	52.0	92	34	2.2	0	0.5
AGS 2040	44.9	53.6	81	31	3.5	0	1.2
DYNA-GRO SAVOY	43.6	51.6	79	30	4.8	0	3.0
AGS 2038	42.7	52.2	88	35	3.4	0	1.6
PIONEER 26R94	42.1	52.1	84	34	4.0	0	2.2
DELTA GROW 3500	38.5	50.6	92	32	3.1	0	0.3
SY CYPRESS	35.8	50.7	80	30	3.7	7	2.1
AGS 2055	28.6	46.8	97	32	3.8	0	0.8
HILLIARD	25.1	46.9	97	31	2.4	2	0.2
MEAN	41.1	51.4	87	32	3.5	2	1.4
CV%	14	5	2	5	31	236	75
LSD (0.10)	6.0	2.0	4	1	NS	6	1.7
Data from 2015, 2016 and 2017 at the Rice Research Station (Crowley) and Iberia Research Station (Jeanerette), and from 2016 at Central Station (Baton Rouge).							
Bold 'Brand/variety' indicates the entry is commercially available, others are non-released breeding lines.							
Lodging 0 = none and 9 = severe.							

Table 4. Wheat performance trial at Crowley, LA for 2017.

Brand / variety	Grain Yield		Test	Head	Plant	Lod	Leaf
	2-YR	2017	Wt	Day	Ht	Score	Rust
	bu/a		lbs/bu	of yr	in	0-9	%
LA03200E-2	44.2	55.2	54.3	70	31	6.3	0
AGS 2035	43.4	51.7	54.4	68	36	7.0	0
AGS 2024	42.4	50.2	52.8	64	30	8.3	0
DYNA-GRO SAVOY	41.7	48.2	54.1	58	30	7.8	0
AGS 3000	41.4	44.5	56.4	55	30	6.0	0
AGS 2038	41.1	47.3	55.6	70	35	5.3	0
LA01110D-150-241	40.0	48.0	54.7	82	32	2.0	0
LA01110D-150-625	38.2	46.5	54.9	78	35	4.3	0
PIONEER 26R94	36.5	41.0	53.8	67	34	7.3	0
SY CYPRESS	30.4	28.2	53.3	58	30	4.8	0
DELTA GROW 3500	30.2	31.9	47.2	87	30	1.8	0
AGS 2055	26.6	31.5	48.7	89	31	2.0	0
PROGENY AG #TURBO	26.4	24.5	45.6	92	29	0.0	0
HILLIARD	23.9	27.1	53.0	87	30	1.0	0
LA09264C-P5		53.9	56.6	74	31	6.8	0
TX-EL2		50.9	49.8	66	31	8.3	0
LA09264C-P2		48.6	55.2	64	33	6.8	0
GA07353-14E19		46.9	53.7	64	33	7.0	0
LA09225C-33		44.6	54.1	66	33	8.0	0
GA071012-14E6		42.8	54.8	58	33	7.8	0
GAJT 141-14E45		42.2	54.5	74	30	4.0	0
LA754		40.7	55.2	76	36	3.8	0
LA10084C-74		34.2	54.3	72	33	6.0	0
VA11W-108PA		28.9	46.5	86	29	0.5	0
AGS 2040		27.3	47.5	65	32	6.8	0
PROGENY AG PGX 16-1		23.4		91	31	0.0	0
GA051207-14E53		19.0	37.3	92	30	2.0	16
PROGENY AG PGX16-4		15.9		92	32	0.3	0
Mean	35.7	39.0	53.5	74	32	4.7	1
CV%	10	10	2	2	6	16	614
LSD (0.10)	10.1	4.7	1.7	2	2	0.9	4
Data from Rice Research Station (South Unit) . Dustin Harrell, Don Groth, Boyd Padgett, James P. Leonards, Jacob Fluitt, Manoch Kongchum, and Jason Hartman.							
Cultural and Site: Crowley Silt Loam soil . Planting date: 11-15-16. Emergence 11-23-16. Harvested 5-11-17. Fertilizer: 250# 0-24-24-2.8S on 10/13; 100# 21-0-0-24 on 1/17; 90# 46-0-0 on 2/2. Herbicides: 2 oz Sharpen on 11/17; Osprey (4.75 oz) plus Harmony Extra XP (0.9 oz) plus 3 pts Prowl /acre + 1% MSO on 1/12/17.							
Test Observations: The fall and winter were very wet with frequent saturated soils that reduced tillering and plant development. A very warm winter and wet fall reduced tillering. Some heavy rainfall in late spring. The warm winter caused a 37 day difference in heading date from the earliest to the latest entry. Severe lodging in the early-maturing lines that could not be harvested until the later lines were mature. The 18 highest-yielding lines headed by day 76 (March 17) whereas 9 of the 11 lowest-yielding entries had heading dates later than 86. Test weights are low due to weathering on the earliest entries and poor grain fill on the latest entries.							
Lodging: 0 = none, 9 = severe.							
Hilliard was included as a medium-late maturity check in the south Louisiana trials. It is too late for production in south Louisiana.							
Bold 'Brand/variety' indicates the entry is commercially available, others are non-released breeding lines.							

Table 5. Wheat performance trial at Jeanerette, LA for 2017.

Brand / variety	Grain Yield		Test	Head	Mat	Plant	Lod	Leaf	FHB
	2-YR	2017	Wt	Day	Day	Ht	Score	Rust	
	bu/a		lbs/bu	of yr	of yr	in	0-9	%	0-9
LA01110D-150-625	59.8	76.4	54.4	91	137	32	1.0	0	0.0
AGS 2035	52.6	71.6	54.8	80	126	33	1.0	0	1.0
AGS 2038	52.0	66.3	55.3	84	130	33	1.0	0	0.5
LA01110D-150-241	51.7	57.5	49.6	92	138	32	1.0	0	0.0
LA03200E-2	50.6	63.2	55.4	84	130	30	1.0	0	0.0
AGS 2040	49.5	63.2	54.9	80	126	30	2.0	0	1.5
AGS 2024	48.9	65.1	53.0	70	116	29	2.0	0	3.3
PIONEER 26R94	48.6	63.0	54.4	76	122	33	1.0	0	1.5
DYNA-GRO SAVOY	39.1	47.3	51.2	73	119	27	3.0	0	3.8
AGS 3000	38.3	62.1	55.4	61	107	30	2.5	13	
SY CYPRESS	36.6	46.7	49.6	69	115	28	1.0	2	2.5
DELTA GROW 3500	34.9	38.2	45.2	98	144	31	1.0	0	
PROGENY AG #TURBO	34.1	37.4	52.3	103	149	28	1.0	0	
AGS 2055	33.9	38.9	36.2	98	144	32	1.0	0	0.0
HILLIARD	30.0	32.0	39.9	97	143	29	1.0	0	0.0
LA09225C-33		67.9	53.8	80	126	30	1.8	0	2.0
LA754		67.1	51.1	90	136	32	1.0	0	0.0
LA09264C-P2		65.9	54.6	78	124	30	1.7	7	1.5
LA09264C-P5		61.6	51.3	88	134	29	1.3	0	1.0
GA071012-14E6		60.9	52.8	66	112	30	1.7	1	2.0
GA07353-14E19		59.1	53.1	74	120	30	2.0	0	2.5
TX-EL2		58.7	48.7	75	121	29	2.7	3	1.5
GAJT 141-14E45		58.1	52.6	86	132	29	1.8	0	0.0
LA10084C-74		57.0	54.1	84	130	29	1.3	0	0.5
PROGENY AG PGX 16-1		44.5	55.5	103	146	32	1.0	0	
GA051207-14E53		35.8	51.6	102	148	32	1.0	0	
PROGENY AG PGX16-4		33.6	54.2	103	149	31	1.0	9	
VA112-108PA		31.6	40.6	94	140	30	1.0	0	0.0
Mean	44.1	54.7	51.3	85	131	30	1.4	1	1.2
CV%	15	10	4	2	2	4	29	143	42
LSD (0.10)	14.5	6.5	2.4	2	2	2	0.6	2	0.6

Data from Iberia Research Station, Jeanerette, LA. Greg Williams and Boyd Padgett.

Cultural and Site: Planted 11/14/16. Iberia Research Station. Jeanerette, LA. Baldwin Silty Clay Loam. Harvested 5/8/17 and a late maturity harvest 5/26/17. Dry conditions at planting followed by 7.5 inches in December. 13-13-13 applied preplant at 25 lbs N/acre on 12/14/16 followed by Urea 0.46 applied at 100lbs N/acre on 2/15/17. Finesse herbicide applied at 0.5oz/acre on 11/18/16 followed by Axial XL at 16oz/acre and Osprey at 4oz/acre applied 3/9/17. Total rainfall for crop cycle was 27.9 inches. Temperatures were mild all winter with the lowest being 23 degrees for 2 days on January 7 & 8. Some varieties had poor or uneven vernalization. Average High and Low temperatures are as follows: December 66H-49L, January 67H-49L, February 71H-53L, March 74H-56L, and April 80H-60L. The coldest period was January 7,8,&9 with 23, 23, & 24 degrees respectively. Weed and disease pressure were minimal throughout the crop cycle. Conditions during harvest were optimal.

COMMENTS: A very warm winter and spring resulted in a 42 day difference in heading date. Early varieties lost test weight due to excessive weathering after maturity. The 8 latest-heading entries also had the 8 lowest yields.

Bold 'Brand/variety' indicates the entry is commercially available, others are non-released breeding lines.



Table 6. Early-heading wheat performance trial across North Louisiana for 2017.

Brand / variety	Grain Yield bu/acre	Test Wt lbs/bu	Head Day of yr	Plant Ht in	Lod Score 0-9	Leaf Rust %	Bact eria 0-9	Phe notype 0-9	FHB 0-9	FDK %
LA09264C-P5	65.3	58.0	72	37	3.0	0	0.9	5.4	1.7	20
AGS 2035	60.1	56.0	75	41	3.7	0	1.4	5.4	2.5	38
LA09225C-33	57.5	56.6	79	38	3.7	0	1.2	6.0	1.7	38
LA754	56.2	55.1	75	39	4.6	0	1.0	5.3	2.8	83
AGS 2038	55.7	53.9	84	40	2.9	0	1.2	5.6	2.8	28
LA10084C-74	55.6	54.7	74	37	4.2	2	0.8	5.0	2.8	38
PIONEER 26R94	55.6	56.7	76	40	3.6	4	1.0	5.6	2.3	35
AGS 2055	55.4	53.4	88	38	2.8	0	1.2	6.1	0.0	53
LA03200E-2	55.1	56.7	75	37	3.7	7	1.5	6.0	2.2	50
DELTA GROW 3500	54.9	56.1	80	37	4.7	0	1.3	6.1	0.4	23
DYNA-GRO SAVOY	54.6	55.9	70	35	4.0	0	6.1	4.4	3.2	33
AGS 2024	53.6	53.6	76	37	3.3	0	2.9	4.9	3.7	68
AGS 3000	52.4	57.0	68	37	4.0	12	5.9	5.0	1.2	23
LA09264C-P2	50.7	56.2	70	38	4.5	6	0.7	4.5	1.8	28
AGS 2040	50.3	57.5	70	37	4.6	0	3.1	5.6	2.0	10
SY CYPRESS	49.2	54.6	73	35	3.8	5	3.8	4.6	2.3	35
GA051207-14E53	42.6	52.8	86	38	3.1	8	1.1	5.4	0.0	28
Mean	54.4	55.6	76	38	3.8	3	2.1	5.3	2.0	37
CV%	15	2	4	4	57	137	62	11	24	30
LSD (0.10)	11.9	2.2	4	2	2.0	6	1.8	0.9	NS	19

Data from Alexandria, St. Joseph, and Winnsboro.

Phenotype: is overall physical appearance rated twice during the spring, with 0 indicating very poor and 9 indicating outstanding field appearance.

Bacteria: is bacterial streak (black chaff) rating with 0 = no damage and 9 = severe.

COMMENTS: A very warm winter and spring resulted in large differences in heading date.

FHB is severity of Fusarium Headblight infection on a scale of 0 = none to 9 = 100% damaged florets/glumes . It is an estimate of proportion of florets infected.

FDK is percent of kernels damaged by Fusarium Headblight (FHB)

Bold 'Brand/variety' indicates the entry is commercially available, others are non-released breeding lines.



Table 7. Early-heading wheat performance trial across North Louisiana for two years, 2016 and 2017.

Brand / variety	Grain Yield bu/acre	Test Wt lbs/bu	Head Day of yr	Plant Ht in	Lod Score 0-9	Stripe Rust %	Leaf Rust %	Bact eria 0-9	Phe notype 0-9	FHB 0-9	FDK %
DELTA GROW 3500	58.9	56.4	85	37	3.1	2	0	0.8	5.3	0.9	19
AGS 2055 **	58.5	50.8	92	39	1.7	0	0	1.0	5.1	0.0	45
AGS 2038	56.8	53.5	88	40	1.5	4	0	0.6	5.1	3.0	29
LA03200E-2	55.5	55.6	82	37	2.3	2	13	0.9	5.3	1.9	32
PIONEER 26R94	55.5	55.5	82	39	1.8	0	2	1.0	4.9	2.1	22
AGS 2024	54.1	53.5	83	37	2.1	1	0	1.3	4.6	3.0	38
AGS 2035	54.1	53.9	80	41	2.1	22	0	0.9	5.4	1.7	27
AGS 2040	51.6	56.4	78	37	2.4	0	0	3.0	5.4	1.2	11
SY CYPRESS	50.1	54.5	78	35	2.7	18	9	1.6	4.9	1.6	17
DYNA-GRO SAVOY	48.2	55.4	76	35	2.3	4	0	4.8	5.3	1.9	22
AGS 3000	45.0	57.2	73	37	2.0	0	7	4.1	5.0	0.9	15
Mean	53.5	54.8	81	38	2.2	5	3	1.8	5.1	1.7	25
CV%	15	2	2	4	88	80	202	89	10	41	28
LSD (0.10)	NS	1.7	3	2	NS	5	7	1.4	NS	1.3	10

Data from Alexandria, St. Joseph, and Winnsboro for 2016 and 2017.

** AGS2055 was included as a medium-late check for cross comparison.

NS Yield, Lodging, and Phenotype differences are not statistically significant due to the very large change in yield ranks over the six trials (GxE inereaction). The performance/ranking of entries changes significantly across trials.

Bacteria is bacterial streak (black chaff) rating with 0 = no damage and 9 = severe.

COMMENTS: A very warm winter and spring resulted in a large difference in heading date.

FHB is severity of Fusarium HeadBlight infection on a scale of 0 = none to 9 = 100% damaged florets/glumes . It is an estimate of proportion of florets infected.

FDK is percent of kernels damaged by Fusarium Headblight (FHB)

Bold 'Brand/variety' indicates the entry is commercially available, others are non-released breeding lines.



Table 8. WNOLAE173YR. Early-heading wheat performance trial across North Louisiana for three years, 2015, 2016 and 2017.

Brand / variety	Grain Yield bu/acre	Test Wt lbs/bu	Head Day of yr	Plant Ht in	Lod Score 0-9	Stripe Rust %	Leaf Rust %	Bacteria 0-9	FHB 0-9	FDK %
DELTA GROW 3500	58.4	55.0	87	37	2.7	1	0	0.8	3.4	28
LA03200E-2	54.5	54.5	85	38	2.0	3	9	0.9	3.6	34
PIONEER 26R94	52.0	54.3	85	40	1.4	0	1	1.0	4.0	33
AGS 2038	51.8	53.0	90	41	1.7	3	0	0.6	4.0	40
AGS 2055 *	51.1	49.7	94	39	1.7	0	0	1.0	3.7	44
AGS 2035	47.9	53.5	84	41	2.0	23	0	0.9	3.6	34
SY CYPRESS	45.6	53.6	82	36	2.6	21	7	1.6	3.1	27
AGS 2040	44.6	56.0	82	37	2.0	1	0	3.0	2.9	24
DYNA-GRO SAVOY	44.5	54.0	81	36	2.1	1	0	4.8	3.5	36
Mean	50.1	53.7	86	38	2.0	6	2	1.6	0.5	33
CV%	16	5	1	4	84	85	238	85	28	21
LSD (0.10)	6.8	1.5	2	1	NS	9	5	1.3	NS	10

Data from Alexandria, St. Joseph, and Winnsboro for 2015, 2016 and 2017; and 2015 Bossier City.

* AGS2055 was included as a medium-late check for cross comparison.

NS yield, Lodging, and Phenotype differences are not statistically significant due to the very large change in yield ranks over the six trials (GxE interaction). The performance/ranking of entries changes significantly across trials.

Bacteria is bacterial streak (black chaff) rating with 0 = no damage and 9 = severe.

COMMENTS: A very warm winter and spring resulted in a large difference in heading date.

FHB is severity of Fusarium Headblight infection on a scale of 0 = none to 9 = 100% damaged florets/glumes . It is an estimate of proportion of florets infected.

FDK is percent of kernels damaged by Fusarium Headblight (FHB)

Bold 'Brand/variety' indicates the entry is commercially available, others are non-released breeding lines.



Table 9. Normal and late-heading wheat performance trial across North Louisiana for 2017.

Brand / variety	Grain Yield bu/acre	Test Wt lbs/bu	Head Day of yr	Plant Ht in	Lod Score 0-9	Stripe Rust	Leaf Rust %	Bact eria 0-9	Phe notype 0-9	FDK NI %	FHB 0-9	FDK %
LA01110D-150-625	55.5	52.7	73	36	1.0	0.0	1	0.5	7.0	5	1.5	43
LA754	52.9	52.8	72	37	1.5	0.5	1	0.6	6.0	3	1.7	38
TX-EL2	51.9	51.2	77	35	1.0	0.0	14	0.7	5.8	10	1.7	40
GAJT 141-14E45	51.7	54.8	71	36	1.0	0.0	0	0.4	6.5	5	2.4	30
GA071012-14E6	51.2	51.5	70	36	1.0	0.0	38	1.3	6.3	5	6.5	70
AGS 2038	50.5	53.2	79	37	1.0	0.0	0	0.8	6.8	48	1.0	40
GA07353-14E19	50.0	54.4	72	35	1.0	0.0	0	1.5	6.5	18	3.1	43
AGS 2055	48.4	52.8	86	38	1.0	0.0	0	0.8	6.3	35	0.3	63
VA12W-72	48.1	51.0	75	35	1.0	0.0	30	0.8	6.3	38	3.8	43
LA01110D-150-241	47.9	53.4	76	37	1.0	0.0	1	1.0	6.3	15	5.0	50
VA12W-68	44.1	52.6	75	35	1.0	0.5	14	0.7	7.0	8	0.6	30
PROGENY AG PGX 16-1	39.7	52.8	84	37	1.0	0.0	0	0.6	6.0	13	2.8	45
PROGENY AG #TURBO	39.4	52.4	90	34	1.0	0.0	11	0.3	4.8	8	2.5	10
NC13-21213	39.2	54.6	91	37	1.0	0.0	3	0.6	5.8	5	0.7	28
PROGENY AG PGX16-4	39.0	55.1	86	37	1.0	0.0	1	0.8	6.0	8	0.9	55
USG 3536	38.7	52.1	99	37	1.0	0.0	12	0.0	4.0	3	0.1	10
PIONEER 26R41	36.0	53.3	92	34	1.0	0.0	19	0.5	4.3	5	0.3	30
VA11W-108PA	35.3	52.4	83	36	1.0	0.0	12	0.4	5.3	15	1.3	38
NC13-21987	34.1	55.1	86	35	1.0	0.0	0	0.6	5.8	1	1.5	18
PROGENY AG #BULLET	33.8	53.3	97	38	1.0	0.0	10	0.0	5.0	1	0.1	15
DYNA-GRO 9701	32.9	52.4	97	37	1.0	0.0	12	0.0	4.0	1		
DELTA GROW 1000	32.8	50.5	95	36	1.0	2.0	16	0.0	4.0	3	4.5	5
HILLIARD	30.5	49.8	87	38	1.0	0.0	8	0.5	5.0	15	1.1	23
NC10034-50	29.8	54.1	89	39	1.0	0.0	16	0.4	5.0	3	2.3	40
AGRIMAXX 473	29.6	53.6	96	36	1.0	0.0	17	0.0	3.8	8	0.7	8
NC09-20986	27.4	51.9	91	35	1.0	0.0	20	0.3	5.3	3	0.9	8
PROGENY AG PGX14-5	25.6	54.2	88	36	1.0	0.0	33	0.8	4.3	1	1.0	13
PIONEER 26R53	25.6	53.4	92	30	1.5	0.0	39	0.0	4.3	13	0.1	35
AGRIMAXX 444	24.4	50.4	93	36	2.5	0.0	24	0.0	3.0	5	0.7	15
SYNGENTA SX1790	22.5	50.6	90	36	1.0	0.0	44	0.3	4.5	3	0.4	13
AGRIMAXX 415	22.4	50.1	89	35	2.0	1.5	34	0.8	3.3	3	1.3	28
DYNA-GRO 9750	22.0	51.6	90	32	1.0	0.0	29	0.0	3.8	8	0.8	5
PROGENY AG #WARRIOR	21.0	53.3	91	35	1.5	0.0	33	0.0	3.5	10	1.3	15
USG 3228	20.1	53.2	90	33	1.0	0.0	25	0.0	4.3	8	0.3	8
USG 3448	19.6	48.5	94	35	2.3	0.0	40	0.0	3.0	10	1.4	13
DYNA-GRO wx16722	19.6	56.0	92	35	1.8	0.0	29	0.0	2.5		3.2	18
PROGENY AG #BOSS	16.9	51.5	98	33	5.3	2.5	22	0.0	2.5	10	0.0	10
SY VIPER	15.6	51.4	94	36	6.5	0.0	37	0.0	4.0	3	0.6	25
PIONEER 26R59	14.2	46.9	92	31	2.5	0.0	47	0.0	3.5	10	2.4	15
PROGENY AG PGX16-3	12.0	51.6	102	34	2.0	0.0	40	0.0	3.0	15	0.5	30
SY HARRISON	11.6	50.8	94	34	5.3	0.0	53	0.0	2.5	15	4.2	15
AGRIMAXX Exp 1786	9.8	53.2	103	33	2.5	0.0	42	0.0	2.5		2.0	40
PROGENY AG 243	9.6	53.9	94	34	8.0	0.0	46	0.0	2.8		0.8	5
PROGENY AG 357	7.9	52.6	95	33	8.3	0.0	41	0.0	3.0	8	1.4	30
Mean	31.7	52.5	86	35	1.9	0.1	20.7	0.4	4.6	10	1.6	28
CV%	22	4	2	5	57	465	60	58	9	35	98	45
LSD (0,10)	15.3	4.2	8	3	1.3	NS	5.0	NS	0.7	6	NS	23

Data from Alexandria and Winnsboro.

Phenotype is overall physical appearance rated twice during the spring, with 0 indicating very poor and 9 indicating outstanding field appearance.

Bacteria is bacterial streak (black chaff) rating with 0 = no damage and 9 = severe.

COMMENTS: A very warm winter and spring resulted in a large difference in heading date.

FHB is severity of Fusarium Headblight infection on a scale of 0 = none to 9 = 100% damaged florets/glumes . It is an estimate of proportion of florets infected. This data came from a misted, inoculated nursery and not the normal variety trial.

FDK is percent of kernels damaged by Fusarium Headblight (FHB). Shaded gray data is from the misted, inoculated nursery. Non-shaded is from the normal variety trial.

Bold 'Brand/variety' indicates the entry is commercially available, others are non-released breeding lines.



Table 10. Late and normal- maturity wheat performance trial at North Louisiana for two years, 2016 and 2017.

Brand / variety	Grain Yield		Test	Head	Plant	Lod	Leaf	Stripe	Bact	FHB	FDK	Pheno
	All	-AX17	Wt	Day	Ht	Score	Rust	Rust	eria	I	I	type
	bu/a		lbs/bu	of yr	in	0-9	%	%	0-9	0-9	%	0-9
LA01110D-150-241	59.0	65.2	54.7	86	39	0.4	0	3	0.5	2.2	30	4.9
VA12W-72	57.0	62.2	52.4	86	36	0.7	13	0	0.4	1.3	25	5.1
AGS 2055	56.3	63.1	49.6	92	39	0.7	0	0	1.1	0.1	47	4.6
LA01110D-150-625	55.9	58.4	55.5	83	38	1.2	0	0	0.3	1.2	18	5.5
AGS 2038	55.0	58.6	53.2	86	38	0.3	0	3	0.6	2.5	34	5.4
PROGENY AG #TURBO	54.4	61.9	54.9	93	35	0.4	4	0	0.1	0.8	10	4.6
HILLIARD	45.5	51.5	50.4	93	39	0.9	3	0	0.8	0.4	24	4.5
DELTA GROW 1000	45.1	51.7	52.3	102	38	1.7	5	0	0.1	0.9	10	4.3
PROGENY AG #BULLET	42.5	47.9	52.7	103	39	1.4	4	1	0.0	0.0	11	4.3
PIONEER 26R41	41.6	45.4	50.7	98	36	1.3	9	0	0.2	0.1	26	4.6
SY VIPER	28.8	32.2	50.5	96	38	4.6	35	0	0.0	0.4	18	4.0
AGRIMAXX 415	28.5	30.8	47.9	95	36	2.6	25	1	0.3	0.4	25	4.4
PIONEER 26R53	26.8	27.6	49.1	97	33	3.2	28	0	0.1	0.5	24	4.9
AGRIMAXX 444	26.3	26.8	46.5	101	38	2.4	27	0	0.0	0.2	17	4.3
PROGENY AG 243	23.7	26.7	47.4	98	38	5.1	29	0	0.4	0.2	17	4.6
PROGENY AG #WARRIOR	23.6	24.7	43.6	98	36	2.6	27	0	0.0	0.4	22	4.5
PIONEER 26R59	23.4	25.9	43.1	97	33	2.4	37	0	0.0	0.8	20	4.3
SY HARRISON	19.4	20.9	43.3	101	35	3.6	47	0	0.0	0.8	25	4.3
PROGENY AG 357	10.5	10.6	47.8	101	35	6.9	56	0	0.0	0.5	25	5.0
Mean	38.0	41.7	50.1	95	37	2.2	18	0	0.3	0.7	23	4.6
CV%	19	18	3	2	4	72	61	179	114	130	40	12
LSD(0.10)	8.9	9.2	3.4	4	2	1.6	14	NS	NS	NS	9	NS

Data from Alexandria and Winnsboro for 2016 and 2017, and St. Joseph for 2016.

-AX17 is mean yield without the Alexandria 2017 data included.

NS indicates that variety mean differences were not statistically significant.

Test Weights are low due to rainfall and delayed harvest.

Phenotype is overall visual appearance of the plot on a 0-9 scale where a higher score indicates a prettier plot.

Bacteria is bacterial streak (Xanthomonas). Missing scores are because the entries were not headed at the time of rating and flag leaves were absent or just emerged.

FHB and FDK are Fusarium headblight rating (0 - none) and Fusarium Damaged Kernels . I indicates the data is from an inoculated screening nursery.

Table 11. WNOLA3YRN. Late and normal- maturity wheat performance trial at North Louisiana for three years, 2015, 2016 and 2017.

Brand / variety	Grain Yield bu/a	Test Wt lbs/bu	Head Day of yr	Plant Ht in	Lod Score 0-9	Stripe Rust %	Leaf Rust %	Bac teria 0-9	FHB 0-9	FDK %
LA01110D-150-241	57.9	52.4	93	39	0.9	2	0	0.5	4.5	31
AGS 2055	56.0	48.8	96	38	0.9	0	0	1.1	3.8	45
LA01110D-150-625	54.5	54.2	91	40	1.4	0	0	0.3	3.9	21
AGS 2038	54.5	52.8	94	40	0.4	3	0	0.6	4.1	38
PIONEER 26R41	54.4	52.9	101	35	1.4	0	3	0.2	1.6	30
HILLIARD	54.2	52.3	97	39	1.0	0	1	0.8	1.9	30
SY VIPER	43.8	51.9	97	40	3.8	0	24	0.0	2.2	24
PIONEER 26R53	41.9	53.1	100	34	2.9	0	14	0.1	1.2	25
AGRIMAXX 415	41.5	51.8	98	36	3.0	1	16	0.3	1.5	30
AGRIMAXX 444	40.0	50.0	103	37	2.4	0	19	0.0	1.4	25
PIONEER 26R59	38.3	48.9	100	33	2.1	0	23	0.0	1.6	26
SY HARRISON	33.8	47.5	103	36	3.7	0	34	0.0	2.2	32
Mean	47.6	51.5	98	38	2.0	1	11	0.3	2.5	30
CV%	15	4	1	5	82	234	60	77	32	29
LSD(0.10)	11.8	3.1	2.3	2	1.7	1	12	NS	1.4	9

Data from Winnsboro for 2015, 2016 and 2017; Alexandria for 2016; Bossier City for 2015; and St. Joseph for 2015 and 2016.

NS indicates that variety mean differences were not statistically significant.

Test Weights are low due to rainfall and delayed harvest.

Bacteria is bacterial streak (Xanthomonas). Missing scores are because the entries were not headed at the time of rating and flag leaves were absent or just emerged.

FHB and FDK are Fusarium headblight rating (0 - none) and Fusarium Damaged Kernels .

Table 12. Early maturity wheat performance trial at Alexandria for 2017.

Brand / variety	Grain Yield		Test Wt	Head Day	Plant Ht	Lod Score	Leaf Rust	Bact eria	FHB
	2-Yr	2017							
	bu/a		lbs/bu	of yr	in	0-9	%	0-9	0-9
LA03200E-2	52.8	50.8	not	62	38.5	7.5	4	1.0	1.3
AGS 2035	52.2	61.0	published	66	39.6	7.0	0	0.5	1.8
DELTA GROW 3500	51.5	48.5	very	71	38.0	5.0	0	0.8	0.0
AGS 2055	49.2	36.6	low	80	39.5	5.0	0	0.0	0.0
AGS 2040	45.9	51.3	due	59	37.1	8.0	0	3.5	2.0
SY CYPRESS	44.4	46.1	to	62	36.0	2.5	0	3.8	2.0
AGS 2038	43.9	44.7	severe	69	39.8	4.0	0	0.3	1.3
PIONEER 26R94	43.8	48.0	storms	67	38.7	7.0	0	0.3	1.5
AGS 2024	42.7	36.7		64	35.6	6.0	0	2.5	2.3
DYNA-GRO SAVOY	35.4	58.6		56	35.5	6.0	0	6.0	2.5
AGS 3000	35.1	51.0		55	35.8	5.0	18	6.5	0.5
LA09264C-P5		61.0		64	36.6	6.0	0	0.5	1.0
LA10084C-74		60.1		65	37.5	5.0	3	0.5	2.3
LA09264C-P2		54.1		59	38.5	2.0	11	0.0	1.0
LA754		53.4		64	39.1	7.0	0	0.0	0.5
LA09225C-33		44.4		67	35.8	6.5	0	1.3	0.8
GA051207-14E53		38.4		80	36.6	4.5	14	0.0	0.0
Mean	45.2	49.9		65.1	37.5	5.5	2.9	1.6	1.2
CV	17	14		3	4	31	122	81	36
LSD	25.6	8.3		3	NS	3	4.2	1.5	0.5

Data from Dean Lee Research Station, Alexandria, LA. Boyd Padgett, Daniel Stephenson, Caitlin Woodard, and Darrell Franks.

Cultural and Site Information: Planted on Nov 9, 2016. 2 oz/a of Powerflex + nis applied on Dec 15, 2016. 92-0-0 as urea applied on Feb 1, 2017.

NS indicates that variety mean difference were not statistically significant.

AGS2055 was included as a medium-late check - also in the 'Normal Trial'.

Test Weights are low due to rainfall and delayed harvest.

Missing heading date indicates the variety was very late and headed after note-taking was terminated.

Bacteria is bacterial streak (Xanthomonas), 0 = none, 9 = severe. Higher ratings may be related to leaf frost damage on leaves of the earliest entries.

FHB is severity of Fusarium Headblight infection on a scale of 0 = none to 9 = 100% damaged florets/glumes. It is an estimate of proportion of florets infected.

FDK is percent of Fusarium Damaged Kernels. Rated visually from seed hand-harvested from misted, inoculated nursery.

Table 13. Early maturity wheat performance trial at St. Joseph for 2017.

Brand / variety	Grain Yield		Test	Head	Lod	Plant	Leaf	FHB	FDK	Pheno
	2-Yr	2017	Wt	Day	Score	Ht	Rust	0-9	%	type
	bu/a		lbs/bu	of yr	0-9	in	%	0-9	%	0-9
AGS 2055	56.9	48.0	51.7	93	2.8	38	0		28	6.5
PIONEER 26R94	55.6	46.4	53.9	82	3.5	42	15	4.0	23	5.0
LA03200E-2	55.1	57.3	57.5	82	1.8	39	18	4.0	20	6.0
AGS 2038	54.8	47.5	54.1	95	1.5	42	0	6.0	48	5.0
AGS 2035	51.1	54.9	55.9	81	2.8	43	0	4.0	20	5.0
SY CYPRESS	50.2	49.9	54.5	79	2.5	37	8	3.0	15	4.5
AGS 2040	50.0	36.3	55.3	75	3.8	38	0	2.0	10	5.5
AGS 2024	49.0	49.5	53.4	83	2.8	41	0	6.5	30	4.5
DELTA GROW 3500	48.7	37.9	55.2	87	5.0	39	0	2.0	23	6.0
DYNA-GRO SAVOY	48.3	43.0	56.0	77	3.0	36	0	4.5	20	4.5
AGS 3000	34.3	36.6	55.8	73	4.3	39	8	2.5	13	4.5
LA09264C-P5		57.0	56.8	73	2.3	42	0	3.0	5	5.0
LA10084C-74		44.1	52.2	80	3.5	38	0	4.0	28	4.5
LA09225C-33		42.8	55.8	88	2.0	40	0	3.5	8	5.5
LA754		40.5	54.2	82	5.8	39	0	5.0	35	5.0
GA051207-14E53		34.4	52.3	91	3.0	41	0		8	6.0
LA09264C-P2		27.9	55.1	77	6.8	39	0	3.5	8	4.0
Mean		44.3	54.7	81.9	3.3	39	3	3.9	20	5.1
CV%		16	3	5	61	4	138	17	42	11
LSD(.10)		8.5	2.6	7	2	3	7	1.2	15	1.0

Data from Northeast Research Station, St. Joseph, LA. Rick Mascagni, Boyd Padgett, and Steve Harrison.

Cultural and Site Information: Trial was planted November 22. Stand very uniform across the trial. Ryegrass was a problem early and on December 16, 16.4 oz Axial + 1.0 oz Zidua/acre was applied. On January 31, 0.75 oz Harmony was applied for the control of henbit and swinecress. Nitrogen fertilizer as 30-0-0-2 was dribbled at 50 lb N/acre on February 1 and February 15 for a total of 100 lb N/acre. The winter was relatively warm. Previous crop was wheat. Harvested on 5/19/17.

NS indicates that variety mean differences were not statistically significant.

AGS2055 was included as a medium-late check - also in the 'Normal Trial'.

Test Weights are low due to rainfall and delayed harvest.

FHB is severity of Fusarium Headblight infection on a scale of 0 = none to 9 = 100% damaged florets/glumes . It is an estimate of proportion of florets infected.

Phenotype is overall visual appearance of the plot on a 0-9 scale where a higher score indicates a prettier plot.

Table 14. Early maturity wheat performance trial at Winnsboro for 2017.

Brand / variety	Grain Yield		Test Wt	Head Day	Plant Ht	Rel Mat	Lod Score	Leaf Rust	Bacteria	Pheno type	FHB FDK	FHB Score	FHB FDK	FHB DON
	2-Yr	2017												
	bu/a		lbs/bu	of yr	in	0-9	0-9	%	0-9	0-9	%	0-9	%	ppm
DELTA GROW 3500	76.7	78.5	56.9	82	33.5	5.0	4.3	0	2.3	6.3	8	2.1	23	14
AGS 2038	71.8	74.9	53.8	89	39.0	5.0	3.8	0	3.0	6.3	28	1.6	28	22
AGS 2055	69.3	81.7	55.2	92	37.0	5.5	1.8	0	3.5	5.8	15	2.7	53	31
AGS 2024	69.1	70.3	53.9	81	39.0	5.0	2.5	0	3.8	5.3	15	4.9	68	24
PIONEER 26R94	67.0	70.2	58.1	80	37.5	5.0	2.0	0	2.5	6.3	5	1.9	35	18
AGS 3000	65.6	69.7	58.2	75	34.0	4.0	3.3	5	4.8	5.5	5	1.7	23	13
DYNA-GRO SAVOY	61.0	62.2	55.8	77	40.0	4.5	4.0	0	6.3	4.3	8	2.0	33	14
AGS 2040	59.0	63.4	59.8	76	35.0	4.0	3.8	0	2.3	5.8	1	1.1	10	13
AGS 2035	58.8	64.6	56.2	80	37.0	5.0	3.0	0	3.3	5.8	5	3.1	38	21
LA03200E-2	58.6	57.3	55.9	82	33.0	5.0	3.8	3	2.5	6.0	23	2.8	50	19
SY CYPRESS	55.8	51.7	54.7	79	36.5	4.5	5.8	11	3.8	4.8	5	2.2	35	27
LA09225C-33		85.5	57.5	82	38.0	5.0	4.0	0	1.0	6.5	1	2.1	38	20
LA09264C-P5		77.8	59.2	80	34.0	5.0	2.3	0	1.8	5.8	3	1.3	20	13
LA754		70.8	56.0	79	38.0	5.0	2.3	1	3.0	5.5	25	5.6	83	20
LA09264C-P2		70.1	57.2	75	35.5	4.5	3.5	3	2.0	5.0	1	2.5	28	15
LA10084C-74		62.7	57.2	78	33.5	5.0	4.5	1	1.5	5.5	13	3.8	38	15
GA051207-14E53		55.0	53.3	87	33.0	6.0	2.5	4	3.3	4.8	3	1.3	28	8
Mean	64.8	68.6	56.4	80.6	36.1	4.9	3.3	2	3.0	5.6	10	3.4	37	18
CV	14	14	2	2	5	7	73	332	39	10	35	55	30	26
LSD	10.7	11.3	1.7	2	2.8	1	NS	5	2.0	1.0	6	3.3	19	8

Data from Macon Ridge Research Station, Winnsboro, LA.

Cultural and Site Information: Trial was planted November 16. Stand is overall good, with some weak areas in the field. Had intense bluegrass pressure and to a lesser extent swinecress. On January 13, 2.5 oz Sencor + 0.4 g Finesse/acre + 0.25% NIS was applied. Nitrogen fertilizer as 30-0-0-2 was dribbled at 50 lb N/acre on January 31 and February 25 for a total of 100 lb N/acre. The winter has been relatively warm and the wheat is beginning to grow well. Previous crop was soybeans. Early variety test and Pre-A test harvested 5/18/17 and other trials harvested 5/26/17.

NS indicates that variety mean difference were not statistically significant.

AGS2055 was included as a medium-late check - also in the 'Normal Trial'.

Test Weights are low due to rainfall and delayed harvest.

Relative Maturity is a rating taken on April 4 where: 0 = very early and 9 = very late. Entries later than 7.0 were generally not adapted and completed grainfill during hot and rainy weather, resulting in low yields.

Bacteria is bacterial streak (Xanthomonas), 0 = none, 9 = severe. Higher ratings may be related to leaf frost damage on leaves of the earliest entries.

FHB Score from a misted inoculated nursery. It is a weighted mean of FHB Index and FDK where 0 = no disease and 9 = severe FHB.

FHB Index is percent of heads infected with FHB multiplied by the percent of kernels on those heads that are infected. It is an estimate of percent kernels infected.

FDK is percent of Fusarium Damaged Kernels. Rated visually from seed hand-harvested from misted, inoculated nursery.

Phenotype is the overall visual appearance of the plot on a 0-9 scale where a higher score indicates a prettier plot.

Table 15. Normal maturity wheat performance trial at Alexandria for 2017.

Brand / variety	Grain Yield		Test Wt	Head Day	Bird Dmg	Leaf Rust	Tan Spot
	2-Yr	2017					
	bu/a		lbs/bu	of yr	0-9	%	0-9
VA12W-72	46.2	36.1	not	68	0.5	49	1.5
AGS 2055	45.4	29.0	published	81	1.5	0	1.0
LA01110D-150-625	44.4	46.2	very	64	1.0	1	0.5
LA01110D-150-241	42.9	34.3	low	69	0.5	2	0.5
AGS 2038	41.8	40.5	due	71	0.5	1	1.0
HILLIARD	38.9	21.4	to	83	0.5	11	1.0
PIONEER 26R41	35.8	26.6	severe	88	1.0	29	1.0
PROGENY AG #TURBO	35.4	24.5	storms	88	2.0	18	0.0
DELTA GROW 1000	32.4	20.5		95	1.0	22	0.0
PROGENY AG #BULLET	30.8	20.8		97	1.5	16	0.0
AGRIMAXX 415	27.2	19.1		87	0.5	47	0.0
PROGENY AG 243	25.4	12.4		94	0.0	62	0.0
AGRIMAXX 444	24.9	24.5		93	0.0	33	0.0
PIONEER 26R53	22.3	23.5		91	0.5	59	0.0
PROGENY AG #WARRIOR	21.8	19.0		89	0.0	38	0.0
SY HARRISON	18.7	13.4		94	0.0	71	0.0
PIONEER 26R59	17.8	13.3		90	0.0	62	0.0
SY VIPER	16.2	15.2		94	0.5	56	0.0
PROGENY AG 357	10.1	10.4		97	0.0	45	0.0
TX-EL2		43.0		70	0.0	15	3.0
GA071012-14E6		42.2		61	0.5	59	4.0
LA754		41.4		62	0.0	0	1.0
GA07353-14E19		40.4		62	0.5	0	1.5
GAJT 141-14E45		36.7		62	0.0	0	1.0
USG 3536		25.4		99	1.5	17	0.0
VA12W-68		25.4		68	0.5	22	2.0
DYNA-GRO wx16722		24.7		92	1.0	36	0.0
NC13-21987		23.7		80	1.5	0	0.5
NC13-21213		23.1		88	1.5	5	0.0
VA11W-108PA		22.9		76	1.0	18	1.5
PROGENY AG PGX14-5		22.3		84	1.0	41	0.5
PROGENY AG PGX16-4		22.0		82	2.5	2	1.5
PROGENY AG PGX 16-1		21.9		78	2.0	0	0.5
DYNA-GRO 9101		21.7		97	2.5	18	0.0
AGRIMAXX 473		20.1		96	1.0	27	0.0
NC10034-50		20.0		87	1.5	21	0.0
PROGENY AG #BOSS		18.1		98	0.0	27	0.5
SX1790		17.4		86	1.0	57	0.5
NC09-20986		16.8		87	2.0	32	0.5
DYNA-GRO 9750		15.9		87	1.0	42	1.0
USG 3448		15.8		94	0.5	61	0.0
USG 3228		14.2		86	1.0	36	0.5
PROGENY AG PGX16-3		9.0		102	0.0	57	0.0
AGRIMAXX Exp 1786		5.1		103	0.0	54	0.0
Mean	30.4	23.8		84	0.8	29	0.6
CV%	26	25		2	60	50	82
LSD(0.10)	14.6	7.2		3	1	19	0.8

Data from Dean Lee Research Station, Alexandria, LA.

Cultural and Site Information: Planted on Nov 9, 2016. 2 oz/a of Powerflex + nis applied on Dec 15, 2016. 92-0-0 as urea applied on Feb 1, 2017.

Test Weights are low due to a severe storm that caused extensive lodging, followed by rainfall and delayed harvest.

CORRELATION of yield with heading date is -0.85**. There was a 42 day difference in heading date. Very late varieties were poorly vernalized and had very low yields.

Table 16. Normal maturity wheat performance trial at Winnsboro for 2017.

Brand / variety	Grain Yield		Test Wt	Head Day	Rel Mat	Plant Ht	Lod Score	Stripe Rust	Leaf Rust	Bact eria	Pheno type	FDK NI	FHB	FDK INOC	DON ppm
	2-Yr	2017													
	bu/a		lbs/bu	of yr	0-9	in	0-9	%	%	0-9	0-9	%	0-9	%	
LA01110D-150-625	67.2	67.9	52.7	81	4.0	34.0	1.0	0	0	1.3	7.0	5	1.5	42.5	21
LA01110D-150-241	66.9	61.5	53.4	83	4.5	35.0	1.0	0	0	2.5	6.3	15	5.0	50.0	37
AGS 2038	64.6	60.6	53.2	87	4.5	38.5	1.0	0	0	2.0	6.8	48	1.0	40.0	32
VA12W-72	64.4	60.0	51.0	82	5.0	33.0	1.0	0	3	2.0	6.3	38	3.8	42.5	21
AGS 2055	62.4	67.9	52.8	91	5.5	38.0	1.0	0	0	3.0	6.3	35	0.3	62.5	31
DELTA GROW 1000	57.4	49.2	50.5		7.0	35.0	1.0	2	0		4.0	3	4.5	5.0	7
PROGENY AG #BULLET	54.5	46.7	53.3		7.0	38.5	1.0	0	2		5.0	1	0.1	15.0	12
HILLIARD	50.7	39.5	49.8	91	6.5	38.0	1.0	0	4	2.0	5.0	15	1.1	22.5	18
PIONEER 26R41	48.3	45.5	53.3	96	7.0	35.0	1.0	0	4	2.0	4.3	5	0.3	30.0	18
SYNGENTA SY VIPER	34.0	16.0	51.4	95	7.0	37.0	6.5	0	9		4.0	3	0.6	25.0	20
AGRIMAXX 415	32.1	25.6	50.1	92	6.5	33.5	2.0	2	14	3.0	3.3	3	1.3	27.5	12
PIONEER 26R53	31.8	27.7	53.4	95	7.0	30.0	1.5	0	10		4.3	13	0.1	35.0	20
AGRIMAXX 444	29.3	24.4	50.4		8.0	37.0	2.5	0	10		3.0	5	0.7	15.0	9
PIONEER 26R59	27.6	15.0	46.9	96	7.5	30.5	2.5	0	24		3.5	10	2.4	15.0	10
PROGENY AG #WARRIOR	26.0	23.1	53.3	95	7.5	35.0	1.5	0	25		3.5	10	1.3	15.0	8
PROGENY AG 243	23.8	5.8	53.9		7.0	32.0	8.0	0	23		2.8		0.8	5.0	3
SYNGENTA SY HARRISON	19.9	9.9	50.8		7.5	34.0	5.3	0	26		2.5	15	4.2	15.0	11
PROGENY AG 357	11.4	5.4	52.6	91	7.0	33.5	8.3	0	35		3.0	8	1.4	30.0	27
GAJT 141-14E45	66.7	54.8	81	5.5	35.0	1.0	0	0	0	1.0	6.5	5	2.4	30.0	11
LA754	64.5	52.8	81	5.0	34.0	1.5	1	3	1.5	6.0	3	1.7	37.5	17	
VA12W-68	62.8	52.6	81	5.0	34.5	1.0	1	1	1.8	7.0	8	0.6	0.6	30.0	16
TX-EL2	60.8	51.2	84	5.0	33.0	1.0	0	13	1.8	5.8	10	1.7	1.7	40.0	26
NC13-21213	60.6	54.6	93	6.0	36.5	1.0	0	0	2.5	5.8	5	0.7	0.7	27.5	17
GA071012-14E6	60.1	51.5	78	4.5	34.0	1.0	0	6	2.3	6.3	5	6.5	6.5	70.0	37
GA07353-14E19	59.6	54.4	83	4.5	34.5	1.0	0	0	3.8	6.5	18	3.1	3.1	42.5	16
PROGENY AG PGX 16-1	57.6	52.8	90	6.0	36.5	1.0	0	1	1.5	6.0	13	2.8	2.8	45.0	31
PROGENY AG PGX16-4	56.0	55.1	90	6.0	36.5	1.0	0	0	2.0	6.0	8	0.9	0.9	55.0	20
PROGENY AG #TURBO	54.3	52.4	91	6.0	34.0	1.0	0	0	1.0	4.8	8	2.5	10.0	8	
USG 3536	52.0	52.1	7.0	39.0	1.0	0	4	4	4.0	3	0.1	10.0	7		
VA11W-108PA	47.6	52.4	90	5.5	37.5	1.0	0	3	1.0	5.3	15	1.3	1.3	37.5	18
NC13-21987	44.5	55.1	93	6.0	34.0	1.0	0	0	1.5	5.8	1	1.5	1.5	17.5	7
DYNA-GRO 9701	44.0	52.4	7.0	38.5	1.0	0	3	3	4.0	1					
NC10034-50	39.6	54.1	92	6.0	37.0	1.0	0	9	1.0	5.0	3	2.3	2.3	40.0	16
AGRIMAXX 473	39.1	53.6	7.0	35.0	1.0	0	1	1	3.8	8	0.7	7.5	13		
NC09-20986	38.0	51.9	94	6.5	37.0	1.0	0	2	1.0	5.3	3	0.9	0.9	7.5	5
SX1790	29.5	50.6	93	6.0	37.5	1.0	0	24	1.0	4.5	3	0.4	0.4	12.5	17
PROGENY AG PGX14-5	28.9	54.2	92	6.5	37.5	1.0	0	20	3.0	4.3	1	1.0	1.0	12.5	4
DYNA-GRO 9750	28.0	51.6	94	6.5	31.0	1.0	0	9	3.8	8	0.8	5.0	3		
USG 3228	25.9	53.2	93	7.0	33.5	1.0	0	9	4.3	8	0.3	7.5	10		
USG 3448	23.4	48.5	7.5	33.0	2.3	0	10	10	3.0	10	1.4	12.5	17		
PROGENY AG #BOSS	15.7	51.5	8.0	33.0	5.3	3	14	14	2.5	10	0.0	10.0	29		
PROGENY AG PGX16-3	15.1	51.6	7.0	34.0	2.0	0	14	14	3.0	15	0.5	0.5	30.0	14	
DYNA-GRO wx16722	14.4	56.0	7.5	34.5	1.8	0	20	20	2.5		3.2	17.5	17.5	17	
AGRIMAXX Exp 1786	12.2	53.2	8.0	33.5	2.5	0	23	23	2.5		2.0	40.0	26		
Mean	39.7	52.5	88.8	6.3	35.0	1.9	0	9	1.8	4.6	10	1.6	27.3	17	
CV%	19	4	2	7	4	57	465	83	28	9	35	98	45	47	
LSD(0.10)	9.1	4.2	3	1	3	1.3	NS	12	1.0	0.7	6	NS	23.3	15	

Data from Macon Ridge Research Station, Winnsboro, LA. Rick Mascagni, Trey Price, Myra Purvis, John Stapp, Paul Washam, Steve Harrison, Kelly Arceneaux, Katie McCarthy, and Ally Lunos.

Cultural and Site Information: Cultural and Site Information: Trial was planted November 16. Stand was good overall, with some weak areas in the field. Intense bluegrass pressure and, to a lesser extent, swinecress. On January 13, 2.5 oz Sencor + 0.4 g Finesse/acre + 0.25% NIS was applied. Nitrogen fertilizer as 30-0-0-2 was dribbled at 50 lb N/acre on January 31 and February 25 for a total of 100 lb N/acre. The winter was relatively warm. Previous crop was soybeans. Early variety test and Pre-A test harvested 5/18/17 and other trials harvested 5/26/17.

NS indicates that variety mean differences were not statistically significant.

Test Weights are low due to rainfall and delayed harvest.

Relative Maturity is a rating taken on April 4 where: 0 = very early and 9 = very late. Entries later than 7.0 were generally not adapted and completed grainfill during hot and rainy weather, resulting in low yields.

Missing heading date indicates the variety was very late and headed after note-taking was terminated.

Bacteria is bacterial streak (Xanthomonas). Missing scores are because the entries were not headed at the time of rating and flag leaves were absent or just

FHB, FDK, and DON are Fusarium headblight rating (0 - none), Fusarium Damaged Kernels and DON toxin. Gray shading indicates the data is from an inoculated, misted nursery.

Phenotype is overall visual appearance of the plot on a 0-9 scale where a higher score indicates a prettier plot.



Table 17. Performance trial across Louisiana for 2017, south Louisiana plus north Louisiana early / normal combined.

Brand / variety	Grain Yield bu/acre	Test Wt lbs/bu	Head Day of yr	Plant Ht in	Lod Score 0-9	Leaf Rust %	Baterial 0-9	FHB 0-9	Pheno type 0-9
NORTH-EARLY PLUS SOUTH									
LA09264C-P5	62.3	55.3	77	33	3.6	0	0.9	1.4	5.4
AGS 2035	60.2	55.1	74	37	4.0	0	1.4	3.3	5.4
LA09225C-33	57.0	54.9	75	35	4.4	0	1.2	3.0	6.0
LA03200E-2	56.8	55.4	76	33	3.8	3	1.5	2.1	6.0
AGS 2038	56.1	54.9	80	37	3.1	0	1.2	2.6	5.6
AGS 2024	55.3	53.1	71	33	4.2	0	2.9	3.5	4.9
LA754	55.3	54.1	79	36	3.8	0	1.0	1.4	5.3
PIONEER 26R94	54.1	54.8	73	36	4.0	2	1.0	3.5	5.6
LA09264C-P2	53.3	55.3	71	34	4.5	5	0.7	2.0	4.5
AGS 3000	52.3	56.3	62	33	4.2	9	5.9	1.2	5.0
DYNA-GRO SAVOY	51.9	53.8	67	32	4.7	0	6.1	3.4	4.4
LA10084C-74	51.6	54.4	76	34	4.1	1	0.8	2.6	5.0
AGS 2040	48.3	55.6	71	34	4.6	0	3.1	2.4	5.6
DELTA GROW 3500	48.0	52.0	87	33	3.4	0	1.3	0.2	6.1
AGS 2055	47.3	45.9	91	34	2.3	0	1.2	0.0	6.1
SY CYPRESS	44.2	52.3	67	32	3.5	3	3.8	3.7	4.6
GA051207-14E53	36.5	50.5	92	34	2.5	8	1.1	0.0	5.4
Mean	52.4	53.8	76	34	3.8	2	2.1	2.3	5.4
CV%	13	3	3	5	45	190	62	25	11
LSD (0.10)	8.6	3.2	5	1	NS	4	1.8	1.8	0.9
NORTH-NORMAL PLUS SOUTH									
LA01110D-150-625	59.6	54.3	81	34.4	2.2	0		0.6	
AGS 2038	53.7	55.0	77	35.0	2.5	0		2.2	
LA754	53.4	53.3	79	35.1	2.2	0		0.9	
LA01110D-150-241	50.3	52.7	83	33.8	1.4	0		1.0	
PROGENY PGX 15-12	35.2	50.6	95	30.4	0.6	4		0.8	
Mean	50.2	53.3	83	33.8	1.8	1.1		1.1	
CV%	10.1	2.6	2	5.5	37.3	554.0		73.6	
LSD (0.10)	6.7	NS	5	2.2	NS	NS		NS	
Data from Crowley, Jeanerette, Alexandria, St. Joseph, and Winnsboro.									
COMMENTS: A very warm winter and spring resulted in a large difference in heading date. Early varieties lost test weight due to excessive weathering after maturity.									
Bold 'Brand/variety' indicates the entry is commercially available, others are non-released breeding lines.									

Table 18. Wheat screening nursery at Winnsboro for 2017.

Brand / variety	Grain Yield bu/a	Test Wt lbs/bu	Rel Mat 0-9	Head Day of yr	Leaf Rust %	Bact eria 0-9	FHB 0-9	Pheno type 0-9
AGS 2038	68.9	53.3	6.0	86.5	0	3.5	3.5	6.3
SX4537	63.3	51.6	6.0	87.0	0	5.0	2.0	5.5
AGS 3000	62.3	56.5	4.0	75.0	13	4.5	3.0	6.3
SX4435	60.6	54.5	5.5	88.0	13	2.0	2.0	6.8
EXP 1096	53.2	55.8	6.0	84.5	0	5.0	2.5	4.0
SX3189	52.5	55.1	5.0	85.5	0	8.0	2.0	3.3
PIONEER XW15C	52.0	53.4	7.5	96.5	5			3.8
SX4591	47.3	56.2	6.5	89.0	0	3.0	2.0	4.3
HILLIARD*	40.6	52.0	7.0	91.0	20	3.0		5.0
SX3051	38.8	53.8	5.5	90.0	20	2.5	2.0	5.5
Mean	54.0	54.2	5.9	87.3	7	4.1	2.5	5.1
CV	9	2	6.2	2.8	126	16	20	7
LSD	8.8	2.4	0.7	4.5	NS	1.2	NS	0.7

Data from Macon Ridge Research Station, Winnsboro, LA.

Cultural and Site Information: Trial was planted November 16. Stand good overall with some weak areas in the field. Intense bluegrass pressure and to a lesser extent swinecress. On January 13, 2.5 oz Sencor + 0.4 g Finesse/acre + 0.25% NIS was applied. Nitrogen fertilizer as 30-0-0-2 was dribbled at 50 lb N/acre on January 31 and February 25 for a total of 100 lb N/acre. The winter was relatively warm. Previous crop was soybeans. Early variety test and Pre-A test harvested 5/18/17 and other trials harvested 5/26/17.

NS indicates that variety mean differences were not statistically significant.

AGS3000, AGS2038 and Hilliard were included as early, medium-late and late checks.

Test Weights are low due to rainfall and delayed harvest.

Relative Maturity is a rating taken on April 4 where: 0 = very early and 9 = very late. Entries later than 7.0 were generally not adapted and completed grainfill during hot and rainy weather, resulting in low yields.

Bacteria is bacterial streak (Xanthomonas), 0 = none, 9 = severe. Higher ratings may be related to leaf frost damage on leaves of the earliest entries.

Phenotype is overall visual appearance of the plot on a 0-9 scale where a higher score indicates a prettier plot.

Table 19. Oat Variety Trial at Winnsboro, LA 2017.

DESIG	Grain Yield bu/A	Test Wt lbs/bu	Seed Quality 0-9	Growth Habit 0-9	Leaf iness 0-9	Crown Rust %	Stem Rust 0-9	Pheno Type 0-9
LA12068SBSB-58-1	93.5	28.6	5.5	4.5	4.0	15	0.3	5.5
LA09015SBS-U4	87.6	29.8	5.5	4.0	5.5	0	0.3	5.0
LA09015SBS-U1	84.4	25.5	5.0	4.3	5.0	0	0.3	4.0
FL0941-U1	80.4	23.5	7.0	4.8	4.5	3	0.8	4.5
FL0720	73.9	23.3	6.0	4.0	4.0	8	0.3	5.5
LA08084BS-T2	72.1	25.2	5.5	4.5	4.0	0	2.0	4.5
TX14OCS5075	71.8	23.0	6.0	3.3	4.5	40	2.5	5.0
TX09CS049	66.3	25.2	6.5	4.3	5.5	20	0.5	4.5
LA07007SBSBSB-18	63.4	26.0	5.0	5.3	4.0	0	0.8	5.0
LA09015SBS-U2	62.3	24.6	4.5	4.3	4.5	0	0.3	5.0
LA09066SBS-U5	60.2	24.6	3.0	3.5	4.5	8	0.3	5.0
LA09044SBS-U1	58.8	26.6	4.5	3.0	5.0	0	2.0	3.5
LA08084SBSBS-15	55.2	25.4	5.0	4.0	4.0	5	1.3	4.5
LA99016	54.3	26.1	4.5	4.0	6.0	45	1.8	5.0
FL0914-U2	51.1	23.2	4.0	4.8	4.5	3	1.5	4.5
TX14OCS5131	49.1	23.2	4.5	4.3	5.0	23	1.0	4.5
LA07048SBSB-5	45.5	24.5	3.5	4.3	4.5	35	2.5	4.0
LA09045SBS-U4	45.3	24.2	5.0	4.3	4.5	8	0.5	5.0
Horizon 201	43.9	22.6	3.5	4.3	6.0	45	1.0	4.0
TX07CS1948	43.4	24.1	4.0	4.8	4.5	23	0.3	6.0
LA09030SBS-U3	41.1	24.2	5.0	4.3	4.5	15	2.3	4.5
TX07CS2257	40.5	27.2	4.5	3.0	5.0	40	1.3	4.0
LA99017	39.6	22.8	3.0	5.3	5.0	40	1.3	5.5
HORIZON 270	36.4	22.3	3.5	3.8	4.5	45	1.0	4.0
LA09103SBS-U5	35.9	25.3	4.0	3.5	4.5	13	1.3	4.5
LA07048SBSB-28	34.6	20.7	4.0	3.8	5.5	38	1.8	4.5
HORIZON 306	26.7	18.4	3.0	3.8	5.5	48	1.0	5.0
BROOKS	25.3	17.8	2.5	4.5	4.5	78	0.5	2.0
Mean	55.1	24.2	4.5	4.1	4.8	21	1.1	4.6
CV (%)	29	9	15	18	21	37	86	
LSD (0.05)	29.5	3.8	1.2	NS	NS	13	NS	

Data from Macon Ridge Research Station at Winnsboro, LA.

Cultural and site: Very warm and wet winter. Crown rust ad stem rust pressure were high. All plots were severely lodged and only two reps were harvested. Followed cotton. Planted mid November. 50-0-0+S topdress in early February followed by 25-0-0+S in late February.



Table 20 . Oat Variety Trial Across Louisiana for three and two years.

Brand / variety	Grain Yield bu/A	Test Wt lbs/bu	Growth Habit 0-9	Leaf iness 0-9	Head Date of yr	Lod Score 0-9	Crown Rust %	Stem Rust 0-9	Pheno type 0-9
TWO-YEARS									
LA07007SBSBSB-18	87.4	30.0	4.4	4.4	84.3	3.8	0	0.9	4.8
HORIZON 270	76.1	27.3	3.9	4.7	88.0	4.0	16	0.8	4.6
LA08084SBSBS-15	73.3	30.0	4.4	4.5	88.5	5.0	2	1.1	4.9
FL0720	72.8	27.6	4.1	5.2	93.8	4.4	3	0.4	5.0
TX07CS2257	71.1	29.6	4.6	4.9	84.5	4.8	15	0.9	4.6
TX09CS049	67.4	26.3	5.8	5.4	100.8	4.6	7	0.5	4.2
TX07CS1948	67.0	27.6	6.2	5.0	91.8	5.6	8	0.4	4.9
LA99016	59.5	27.9	5.3	5.5	95.0	4.8	17	1.4	5.0
HORIZON 306	59.0	24.4	4.1	5.5	95.5	5.4	22	0.8	4.7
BROOKS	24.2	21.6	4.4	4.9	92.5	8.4	83	0.3	2.5
Mean	65.8	27.4	4.7	5.0	91.5	5.1	17	0.7	4.5
CV (%)	15	4	11	10	1	20	31	82	10
LSD (0.05)	17.6	2.9	1.0	0.7	5.9	NS	17	0.5	0.5
THREE-YEARS									
LA07007SBSBSB-18	82.2	29.8	4.2	4.4	85.2	3.8	0	0.9	4.9
HORIZON 270	81.7	28.3	3.9	4.7	89.5	4.0	16	0.8	4.9
LA08084SBSBS-15	76.1	29.8	4.6	4.5	88.2	5.0	2	1.1	4.9
FL0720-R6	75.8	28.8	4.3	5.2	94.7	4.4	3	0.4	4.9
TX07CS1948	66.5	28.2	6.5	5.0	91.8	5.6	8	0.4	5.1
HORIZON 306	66.2	27.0	4.3	5.5	95.3	5.4	22	0.8	5.0
LA99016	63.6	28.9	5.9	5.5	95.0	4.8	17	1.4	5.0
BROOKS	34.4	23.2	4.6	4.9	93.3	8.4	83	0.3	3.0
Mean	68.3	28.1	4.8	5.0	91.6	5.2	19	0.8	4.7
CV (%)	14	4	14	11	1	21	32	90	10
LSD (0.05)	21.3	2.7	0.9	0.6	3.4	2.2	18	0.6	0.7

Appendix A. Entries in the 2017 Louisiana Agricultural Experiment Station Small Grain Performance Trials.

<u>Brand</u>	<u>Line/Variety</u>	<u>Originating Agency</u>
<u>WHEAT</u>		
AGS	AGS 2024, 2035, 2038, 2040, 2055, 3000.....	AGSouth Genetics P.O. Box 72246 Albany, GA 31708
AgriMAXX	AgriMAXX 415, 444, 473, Exp. 1786.....	AgriMAXX Wheat Company 7167 Highbanks Road Mascoutah, IL 62258
Delta Grow	Delta Grow 1000, 3500.....	Delta Grow Seed 220 N W 2nd England, AR 72046
Dyna-Gro	Dyna-Gro 9701, 9750, Savoy, WX16772.....	Dyna-Gro Seed 11 Gin Road Rayville, LA 71269
GA	All numbered GA/UGA lines.....	Georgia Agric. Experiment Stn. Crop & Soil Science - UGA 1109 Experiment St. Griffin, GA 30223
JoMar	EXP 1096.....	JoMar Seeds, Inc. 3540 S. US 231 Greencastle, IN 46135
LA	All numbered LA lines,.....	Louisiana Agric. Experiment Stn. SPESS - LSU Baton Rouge, LA 70803
NC State	All numbered NC lines.....	North Carolina Agric. Expt. Stn. Crop Science Department North Carolina State University Raleigh, NC 27695Dupont
Pioneer	26R41, 26R53, 26R59, 26R94, XW15C.....	Dupont Pioneer 59 Greif Parkway, Suite 200 Delaware, OH 43015

Appendix A. Entries in the 2017 Louisiana Agricultural Experiment Station Small Grain Performance Trials.

<u>Brand</u>	<u>Line/Variety</u>	<u>Originating Agency</u>
<u>WHEAT</u>		
Progeny	Progeny AG #BOSS, BULLET, TURBO, WARRIOR, 243, 357, PGX14-5, 16-1, 16-3, 16-4	Progeny Ag Products 1529 Hwy. 193 South Wynne, AR 72396
Syngenta	Cypress, Harrison, Viper, SX1790, 3051, 3189..... 4435, 4537, 4591	Syngenta 7099 Parkbrook Ln Cordova, TN 38018
TX	All numbered TX lines.....	Texas AgriLife Research TAMU - Commerce Dept. of Ag Science Commerce, TX 75429
USG	USG 3228, 3448, 3536.....	UniSouth Genetics, Inc. 3205-C HWY 46 S Dickson, TN 37055
VA	Hilliard, VA112-108PA, 12W-68, 12W-72.....	Virginia PI & State University EVAREC 2229 Menokin Road Warsaw, VA 22572

Appendix A. Entries in the 2017 Louisiana Agricultural Experiment Station Small Grain Performance Trials.

<u>Brand</u>	<u>Line/Variety</u>	<u>Originating Agency</u>
<u>OATS</u>		
FL	All Numbered FL lines.....	North Florida Res. & Education Center 155 Research Road Quincy, FL 32351
LA	All Numbered LA lines.....	Louisiana Agric. Experiment Station SPESS - LSU Baton Rouge, LA 70803
NC State	Brooks.....	North Carolina Agric. Expt. Station Crop Science Department North Carolina State University Raleigh, NC 27695
Plantation	Horizon 270, 306.....	Plantation Seed P.O. Box 398 Newton, GA 39870
Plot Spike	LA 99016.....	Ragan & Massey, Inc. 101 Ponchatoula Parkway Ponchatoula, LA 70454
TAMO/TX	All numbered TAMO/TX lines.....	Texas AgriLife Research TAMU - Commerce Dept. of Ag Science Commerce, TX 75429