

MISSISSIPPI WHEAT & OAT VARIETY TRIALS, 2017

Information Bulletin 521 • August 2017



MISSISSIPPI'S OFFICIAL VARIETY TRIALS



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FORESTRY EXPERIMENT STATION

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This report contains data generated as part of the Mississippi Agricultural and Forestry Experiment Station research program. Joint sponsorship by the organizations listed on pages 4-5 is gratefully acknowledged.

Trade names of commercial products used in this report are included only for clarity and understanding. All available names (i.e., trade names, code numbers, chemical names, etc.) of varieties or products used in this research project are listed on pages 4-5.



Mississippi Wheat and Oat Variety Trials, 2017

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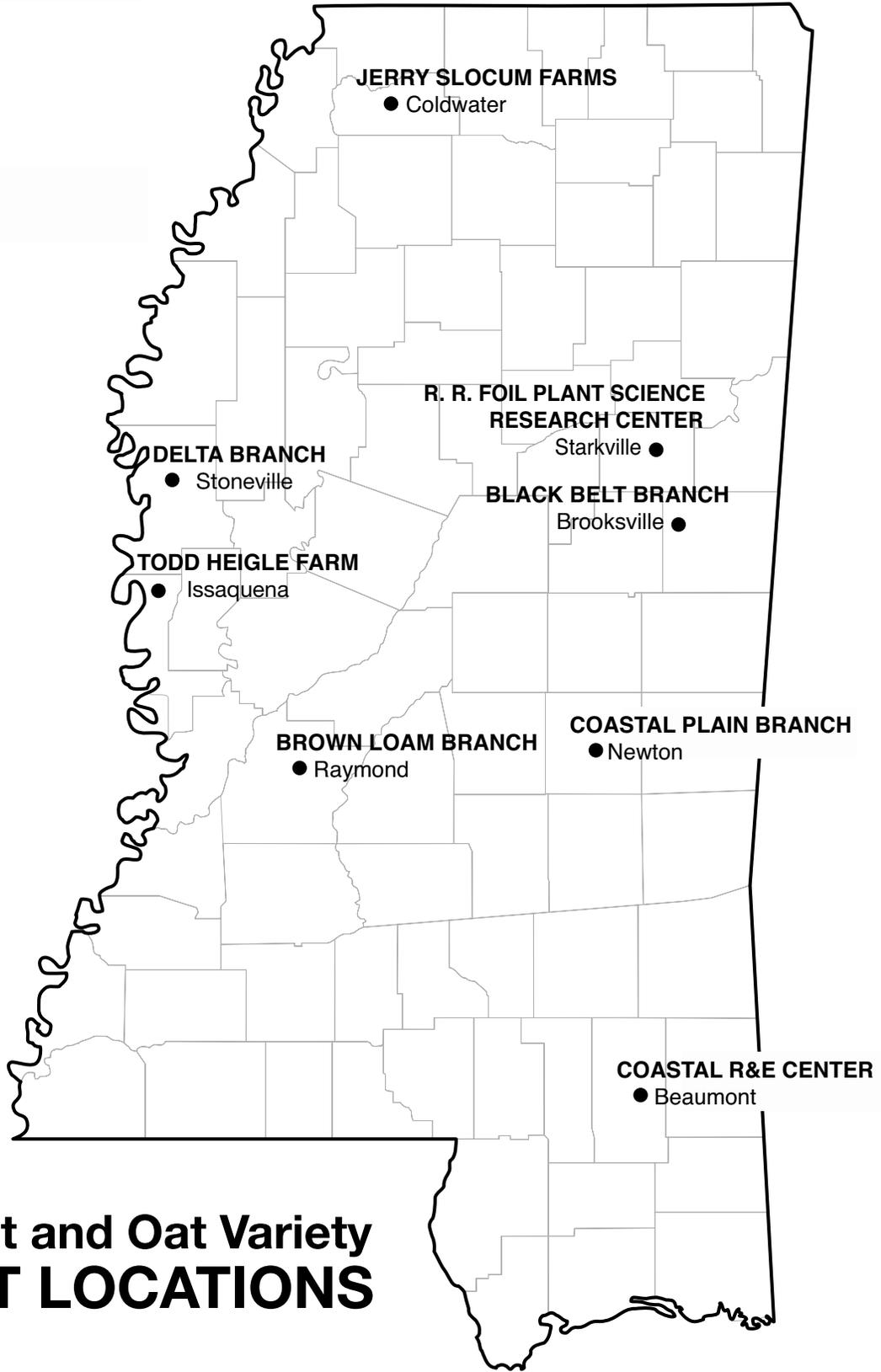
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This document was approved for publication as Information Bulletin 521 of the Mississippi Agricultural and Forestry Experiment Station. It was published by the Office of Agricultural Communications, a unit of the Mississippi State University Division of Agriculture, Forestry, and Veterinary Medicine. It is a contribution of the Mississippi Agricultural and Forestry Experiment Station.

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Find variety trial information online at mafes.msstate.edu/variety-trials.



Wheat and Oat Variety TEST LOCATIONS

Mississippi Wheat and Oat Variety Trials, 2017

INTRODUCTION

Small grains are grown throughout Mississippi. Wheat is the primary crop, followed by oats. Wheat variety trials were conducted at nine locations, while oat trials were conducted at five locations in Mississippi in 2016–2017. Wheat yields typically range from 40–60 bushels per acre and often produce 60–80 bushels per acre under good management and favorable weather conditions. Oat yields from 50–80 bushels per acre are common.

PROCEDURES

Experimental Design. Experimental design for each crop species at each location was a randomized complete block with four replications. Plots consisted of seven 15-foot rows spaced 7.5 inches apart.

Cultural Practices. Plots were limed and fertilized according to soil test recommendations. Foliar fungicides were not applied to most trial locations to insure that genetic performance of the varieties was evaluated under natural environmental conditions. Herbicides were applied as needed at each location for weed control.

Seed Source. Seeds of all private entries were supplied by participating companies. Seeds of all public varieties were breeder or foundation seed from the state that developed the variety.

Planting Rate. All seeds were packaged for planting at the rate of 20 seeds per foot of row for both crops. Plots were planted with a cone, spinner-divider planter.

Yield. A plot combine was used to harvest the total plot area after the plots were trimmed to a standard length. Harvested seed were converted to bushels per acre (60 pounds per bushel for wheat and 32 pounds per bushel for oats).

Heading Date. At most locations, the heading date for each variety was recorded. This is the date when 50% of the heads were extended above the flag leaf.

Plant Height. The height of plants was measured from the soil to the top of the spike or head.

Lodging. Lodging was rated on a 1–5 scale: 1 = almost all plants erect; 2 = all plants leaning slightly or only a few plants down; 3 = all plants leaning moderately or 25–50% of plants down; 4 = all plants leaning considerably or 50–80% of plants down; and 5 = all plants down.

Seed Test Weight. The test weight for each variety was determined from a composite sample from all replications.

Disease Ratings. All varieties were rated for development of leaf rust and Septoria leaf and Stagonospora glume blotch according to *James' Manual of Assessment Keys for Plant Diseases*. At growth stages 10.5 (spikes emerged) and 11.1 (milky ripe), 10 plants were selected at random from each plot. The percentage of leaf area affected by each disease on the flag leaf was recorded. From these data, an assessment was made of the overall disease response of each variety.

IMPORTANT FACTORS FOR PRODUCERS

Land Selection. Waterlogged soils often limit wheat productivity. Poorly drained, heavy soils of the Delta and bottomland areas of east Mississippi should be avoided.

Seeding Methods. Timely and proper seeding techniques insure rapid, successful establishment of small-grain seedlings. Planting into a moist weed-free seedbed with a grain drill is the preferred seeding method for small grains. Modern drills are capable of seeding in many unprepared (no tillage) as well as traditionally prepared seedbeds. The optimum seeding depth ranges from 1–1.5 inches, depending upon soil moisture status and soil type. Deep seeding is recommended when soil moisture is marginally dry, particularly on light, sandy soils. Producers who do not have grain drills may “rough in” small grains by broadcast sowing on recently tilled soil and covering the seed with a light tillage operation, such as a harrow, field cultivator, or shallow disking. Seeding rates should be increased approximately 25% when utilizing the “rough in” system to compensate for poorer establishment since seeding depth is random and no firming over the seed occurs with this method. When field conditions are too wet to permit tractor operations, or when over-seeding an existing crop, small grains may be aerially broadcast seeded. Seeding rates should be increased about 75% compared with drilled rates since surface establishment is extremely dependent upon ambient environmental conditions. Thus, aerial seeding is usually only recommended for late-planted small grains since evaporation rates are much lower late in the fall and little time remains to seed using normal planting methods.

Seeding Rates. Normal seeding rates for planting with a drill vary from 80–100 pounds of seed per acre, depending upon the variety and planting date. The low rate should be used when planting at the normal date and the higher rates when planting late or when planting conditions are poor. If seed is broadcast and covered with a disk or field cultivator, 100–120 pounds of seed per acre should be planted. When seeding aerially, about 150 pounds per acre should be applied. Seeding rates are similar for oats. This rate should result in final plant stands of approximately 25–30 plants per square foot.

Cold Requirements. Winter varieties of small grains require a certain amount of cold weather (less than 40°F) before the plants will form seed heads. This process is called vernalization. Most of the wheat varieties planted in Mississippi require low temperatures to reproduce; oats do

not. In some years, there is not enough cold weather in south Mississippi for some northern-adapted wheat varieties, resulting in little or no seed-head production. Normally, these varieties have late heading dates at south Mississippi locations. Check adaptation of unfamiliar varieties with an MSU Extension Service agent or seed company representative.

Planting Dates. Planting before recommended planting dates often results in establishment difficulty, increased stress and pest problems (freeze injury, aphids, Hessian fly, and disease). Late planting may not expose wheat plants to cool temperatures long enough for proper development. Recommended planting dates vary according to the region:

North Mississippi	Oct. 1 to Nov. 5
Central Mississippi	Oct. 15 to Nov. 25
South Mississippi	Nov. 1 to Dec. 10

Disease Management. Several diseases may attack wheat and oat plants in Mississippi. Leaf rust, Stripe rust, and several head diseases are very common. Planting disease-resistant varieties is the most practical and economical method to manage diseases; however, chemical control may be required to control severe outbreaks.

Fertilization. Keep soil pH 6 or higher. Growers should test and apply lime, phosphate, and potash according to soil analysis recommendations. If soybeans follow a wheat crop on heavy soils (clays, clay loams, and silt loams), apply phosphate and potash for the soybean crop before planting the wheat. This practice is not recommended on sandy soils because potash may be leached away. Nitrogen rate recommendations vary from 90–160 pounds per acre depending primarily upon soil texture, with higher rates needed on clay soils. Split application of nitrogen fertilizer is strongly encouraged for wheat production to improve crop-fertilizer use efficiency. One-third or less of the total nitrogen should be applied when dormancy breaks in the spring on tillering wheat. Apply the balance of the nitrogen when wheat becomes strongly erect and stem elongation begins, which generally occurs from late February through mid-March.

Weed Control. Mississippi State University Extension Service Publication 1532, *Weed Control Guidelines for Mississippi*, provides detailed information for controlling weeds in wheat and oats. For more specific information, refer to MSU Extension Information Sheet 961, *Small Grains Production*.

Saving Seed. Many private and public wheat varieties are protected from unauthorized replanting by the Plant Variety Protection Act (PVPA) and/or United States patent. Seed produced from a **patented variety** cannot be planted for any purpose, including nontraditional uses. PVPA-protected seed cannot be sold, advertised, offered, delivered, consigned, exchanged, or exposed for sale without permission from the proprietary seed owner. In addition, no one can try to buy, transfer, or possess the variety in any way. It also is illegal to clean or condition such seed to sell for planting purposes. Retail dealers, seed cleaners, and consumers all are legally responsible for these violations. An exemption to the 1994 amended PVPA allows growers to collect and save seed produced from any legally purchased PVPA-pro-

tected variety. They can use this seed for their *own* future planting, but they cannot sell, trade, or transfer it to *others* for planting purposes. No one can replant a wheat variety that is **patented** for any reason. For further information please refer to these websites:

MSU Extension Service Information Sheet 1763:
<http://msucares.com/pubs/infosheets/is1763.pdf>

Plant Variety Protection Act
http://151.121.3.150/science/PVPO/PVPO_Act/whole2.pdf

Plant Variety Protection Office PVP Database
<http://www.ars-grin.gov/cgi-bin/npgs/html/pvplist.pl>

United States Patent Database
<http://www.uspto.gov/patft/index.html>

USE OF DATA TABLES AND SUMMARY STATISTICS

The yield potential of a given variety cannot be predicted with complete accuracy. Consequently, replicate plots of all varieties are evaluated for yield, and the yield of a given variety is estimated as the mean of all replicate plots of that variety. Yields vary somewhat from one replicate plot to another, which introduces a certain degree of error to the estimation of yield potential. This natural variation is often responsible for yield differences among different varieties. Thus, even if the mean yields of two varieties are numerically different, they are not necessarily significantly different in terms of yield potential. In other words, the ability to measure yield is not precise enough to determine whether such small differences are observed purely by chance or because of superior performance.

The least significant difference (LSD) is an estimate of the smallest difference between two varieties that can be declared to be the result of something other than random variation in a particular trial. Consider the following example for a given trial:

Variety	Yield
Abe	60 bu/A
Bill	55 bu/A
Charlie	51 bu/A
LSD	7 bu/A

The difference between variety Abe and variety Bill is 5 bushels per acre (60 - 55 = 5). This difference is **smaller** than the LSD (7 bushels per acre). Consequently, it is concluded

that variety Abe and variety Bill have the same yield potential since the observed difference occurred purely due to chance.

The difference between variety Abe and variety Charlie is 9 bushels per acre (60 - 51 = 9), which is **larger** than the LSD (7 bushels per acre). Therefore, it is concluded that the yield potential of variety Abe is superior to that of variety Charlie since the difference is larger than would be expected purely by chance.

The coefficient of variation (CV) is a measure of the relative precision of a given trial and is used to compare the relative precision of different trials. The CV is generally considered to be an estimate of the amount of unexplained variation in a given trial. This unexplained variation could be the result of variation between plots with respect to soil type, fertility, insects, diseases, weather stress, etc. In general, the higher the CV is, the lower the precision in a given trial.

The coefficient of determination (R^2) is another measure of the level of precision in a trial and is also used to compare the relative precision of different trials. The R^2 is a measure of the amount of variation that is explained, or accounted for, in a given trial. For example, an R^2 value of 90% indicates that 90% of the observed variation in the trial has been accounted for in the trial with the remaining 10% being unaccounted. The higher the R^2 value is, the more precise the trial. The R^2 is generally considered to be a better measure of precision than is the CV for comparison of different trials.

WHEAT AND OAT SEED SOURCES

Table 1. Companies supplying wheat brands/varieties entered.

Company	Brand	Variety	Seed Treatment
AgriMAXX Wheat Company 7167 Highbanks Road Mascoutah, IL 62258	AgriMAXX	415	CruiserMaxx, Vibrance Ext.
	AgriMAXX	444	
	AgriMAXX	473	
	AgriMAXX	474	
	AgriMAXX	Exp. 1786	
Armor 183 Pennsylvania Ave. Waldenburg, AR 72475	Armor	Ambush	Vibrance Extreme + Cruiser
	Armor	Mayhem	
	Armor	Menace	
Delta Grow Seed PO Box 219/220 NW 2nd England, AR 72046	Delta Grow	DG 1000	
	Delta Grow	DG 3500	
	Delta Grow	DG 7500	
B&S Seed Company Inc. 1283 Hwy. 444 Duncan, MS 38740	Dixie Bell	DB 500	Cruiser
	Dixie Bell	DB 600	
Dyna-Gro Seed 2660 Orr Road Bloomville, OH 44818	Dyna-Gro	Savoy	Foothold Virock
	Dyna-Gro	9701	
	Dyna-Gro	9750	
	Dyna-Gro	WX16722	
Limagrain Cereal Seed 7099 Parkbrook Lane Cordova, TN 38018	LCS	L11550	
	LCS	L11538	
Louisiana State University 104 MB Sturgis Hall Baton Rouge, LA 70803	LSU	LA01110D-150-625	Vibrance Extreme
	LSU	LA09264C-P5	
DuPont Pioneer 425 Abbeydale Way Columbia, SC 29229	Pioneer	26R10	Vibrance Extreme + Gaucho
	Pioneer	26R41	
	Pioneer	26R53	
	Pioneer	26R59	
	Pioneer	26R94	
	Pioneer	XW15C	
Erwin-Keith Inc. 1529 Hwy. 193 Wynne, AR 72396	Progeny Ag	#Boss	Evergol Energy + Gaucho
	Progeny Ag	P357	
	Progeny Ag	P243	
	Progeny Ag	PGX14-5	
	Progeny Ag	#Bullet	
	Progeny Ag	#Turbo	
	Progeny Ag	#Warrior	
	Progeny Ag	PGX16-3	
	Progeny Ag	PGX16-1	
Progeny Ag	PGX16-4		
Stratton Seed Company 1530 Hwy 79 South Stuttgart, AR 72160	AGS	2055	CruiserMaxx, Vibrance
	AGS	2038	
	AGS	2024	
	Go Wheat	2058	
	Go Wheat	2059	
Texas A&M AgriLife Research 2600 S Neal Commerce, TX 75429	Texas A&M	TX-EL2	Foothold Extra
U. of Georgia 1109 Experiment St. Griffin, GA 30223	Univ. of Georgia	GA0753-14E19	
	Univ. of Georgia	GA051207-14E53	
	Univ. of Georgia	GAJT 141-14E45	
	Univ. of Georgia	GA071012-14E6	
Continued.			

Table 1 (continued). Companies supplying wheat brands/varieties entered.

Company	Brand	Variety	Seed Treatment
UniSouth Genetics Inc. 3205 C Hwy. 46 S Dickson, TN 37055	USG USG USG USG USG USG	3197 3404 3536 3895 3448 Exp 3458 Exp 3228	Vibrance Extreme, Cruiser
VA TECH/VCIA 2229 Menokin Road Warsaw, VA 22572	VA TECH/VCIA VA TECH/VCIA VA TECH/VCIA	Hillard VA11W-108PA VA12W-72	Raxil-MD + Gaucho

Table 2. Companies supplying oat brands/varieties entered.

Company	Brand	Variety	Seed Treatment
Stratton Seed Company 1530 Hwy. 79 South Stuttgart, AR 72160	Horizon	201	CruiserMaxx, Vibrance
Louisiana State University 104 MB Sturgis Hall Baton Rouge, LA 70803	LSU LSU	LA07007SBSBSB-18 LA0884SBSBS-15	Vibrance Extreme

SUMMARIES OF WHEAT YIELDS

Table 3. 2016–17 yield summary of wheat variety trials in Mississippi.

Brand	Variety ¹	Brooksville	Coldwater	Starkville	Newton	Raymond	Issaquena	Stoneville	Overall avg.
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>
AgriMAXX	473	71.8	79.3	60.3	48.0	11.9	55.5	58.0	55.0
AgriMAXX	474	47.8	50.8	46.5	24.8	33.1	32.5	53.3	41.2
AgriMAXX	415	62.3	70.0	59.5	32.8	41.0	34.3	70.0	52.8
AgriMAXX	444	57.5	54.3	50.3	23.8	26.0	42.3	65.2	45.6
AgriMAXX	Exp. 1786 *	36.5	43.8	32.0	12.8	11.1	28.0	31.4	27.9
AGS	2024	67.8	85.5	81.5	48.8	49.8	26.5	81.3	63.0
AGS	2038	67.8	82.8	85.8	55.8	58.3	46.8	81.1	68.3
AGS	2055	77.5	90.5	70.5	49.0	67.4	50.8	83.4	69.9
Armor	Ambush	63.3	79.0	68.8	40.0	38.8	44.5	33.3	52.5
Armor	Mayhem	73.3	84.3	69.5	34.5	36.5	56.5	66.3	60.1
Armor	Menace	52.8	63.0	47.0	38.3	11.7	40.8	53.2	43.8
Delta Grow	DG 7500	49.8	58.8	60.5	28.3	47.0	37.3	53.6	47.9
Delta Grow	DG 1000	71.8	71.3	64.5	38.0	7.6	52.8	38.0	49.1
Delta Grow	DG 3500	67.3	81.5	88.8	47.5	63.9	18.8	90.3	65.4
Dixie Bell	DB 500	44.0	56.0	33.8	15.3	16.3	36.3	49.7	35.9
Dixie Bell	DB 600	43.8	60.3	46.8	23.0	10.5	37.8	64.3	40.9
Dyna-Gro	9701	71.8	77.5	67.8	40.0	12.5	55.0	37.6	51.7
Dyna-Gro	9750	45.0	83.8	60.5	34.0	28.5	37.5	40.5	47.1
Dyna-Gro	Savoy	44.3	82.8	72.5	41.5	31.7	13.5	70.9	51.0
Dyna-Gro	WX16722 *	55.3	57.0	47.3	22.0	26.0	30.3	51.1	41.3
Go Wheat	2059	51.3	74.0	69.5	50.5	31.9	36.5	38.6	50.3
Go Wheat	2058	73.3	72.3	61.8	39.8	35.1	48.0	61.0	55.9
Limagrain Cereal Seeds	L11538 *	69.8	81.8	75.0	42.5	46.9	54.5	83.7	64.9
Limagrain Cereal Seeds	L11550 *	55.8	81.5	65.8	41.3	19.1	61.0	67.8	56.0
LSU	LA09264C-P5 *	49.0	75.8	79.8	37.3	41.6	18.8	75.7	54.0
LSU	LA01110D-150-625 *	47.5	86.8	84.0	39.3	27.9	18.3	73.8	53.9
Pioneer	26R41	75.5	69.0	67.5	44.5	53.4	58.3	66.6	62.1
Pioneer	26R53	53.3	71.0	48.0	32.3	31.4	46.0	65.6	49.7
Pioneer	26R59	49.8	63.5	35.8	28.3	37.0	33.8	57.5	43.6
Pioneer	26R94	69.3	95.0	89.8	47.8	37.1	18.3	90.7	64.0
Pioneer	26R10	32.5	45.0	42.0	25.3	19.0	35.3	51.3	35.8
Pioneer	XW15C	58.5	71.8	59.5	33.5	23.6	44.5	50.8	48.9
Progeny	P243	49.0	58.0	60.8	24.3	7.3	25.5	54.6	39.9
Progeny	P357	25.8	31.3	21.3	12.8	11.3	18.5	22.6	20.5
Progeny	PGX14-5 *	55.3	74.0	60.0	26.3	29.7	35.5	32.2	44.7
Progeny	#Bullet	75.3	79.0	62.5	42.8	8.1	53.0	29.5	50.0
Progeny	#Turbo	75.5	81.8	92.0	56.3	73.2	60.0	57.5	70.9
Progeny	#Warrior	49.5	56.8	46.8	25.3	33.4	28.5	57.9	42.6
Progeny Ag	#BOSS	60.0	58.8	51.3	21.5	27.4	41.5	59.3	45.7
Progeny Ag	PGX16-1 *	74.0	93.0	89.5	51.0	59.6	21.3	75.3	66.2
Progeny Ag	PGX16-3 *	45.3	59.8	38.8	25.0	11.5	30.8	44.9	36.6
Progeny Ag	PGX16-4 *	68.5	75.8	80.0	49.3	70.1	18.8	73.0	62.2
Texas A&M	TX-EL2 *	56.3	93.3	89.5	59.0	48.7	24.3	86.0	65.3
U. of Georgia	GA051207-14E53 *	57.5	86.3	86.8	50.3	48.7	27.8	55.1	58.9
U. of Georgia	GA071012-14E6 *	52.8	94.0	90.0	57.8	33.9	22.0	95.5	63.7
U. of Georgia	GA07353-14E19 *	70.8	87.5	76.3	58.5	59.1	30.3	91.9	67.8
U. of Georgia	GAJT 141-14E45 *	55.5	75.3	74.8	42.5	52.1	16.0	70.3	55.2
USG	3197	63.0	74.3	62.5	33.3	44.8	28.3	63.4	52.8
USG	3448	55.3	60.0	52.5	38.8	8.9	41.5	49.5	43.8
USG	3536	71.8	76.5	60.8	46.5	11.5	55.5	77.8	57.2
USG	3895	73.5	83.8	69.0	54.0	60.9	50.0	82.5	67.7
USG	EXP 3228 *	49.0	75.5	67.5	41.3	40.8	35.8	40.6	50.1
USG	EXP 3458 *	56.3	51.8	48.8	26.5	20.3	34.3	48.2	40.9
USG	3404	56.3	60.3	41.5	26.5	18.6	42.5	58.1	43.4
VA Tech	HILLIARD	80.8	76.0	76.8	36.5	48.3	48.8	72.2	62.8
VA Tech	VA11W-108P *	84.8	83.5	79.5	37.8	58.8	48.8	88.5	68.8
Virginia Tech	VA12W-72 *	66.8	88.5	84.5	58.3	58.9	15.5	85.6	65.4
Mean		59.1	72.4	64.2	37.7	35.1	36.6	62.0	52.5
CV		12.0	9.6	11.5	16.3	18.9	15.2	10.7	
LSD (0.05)		9.9	9.7	10.2	8.6	10.6	7.8	13.3	
R2		82.8	84.8	88.1	84.2	92.3	88.3	93.8	
Error DF		168.0	168.0	168.0	168.0	112.0	168.0	56.0	

¹Variety followed by an asterisk indicates an experimental entry.

Table 4. Two-year summary of wheat variety trials in Mississippi.

Brand	Variety ¹	Brooksville	Coldwater	Starkville	Newton	Raymond	Overall avg.
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>
AgriMAXX	415	66.1	60.1	62.6	50.1	60.9	60.0
AgriMAXX	473	81.4	66.5	70.7	59.3	53.9	66.3
AgriMAXX	474	56.6	49.3	58.6	45.0	54.1	52.7
AgriMAXX	444	64.6	57.5	60.8	44.0	51.2	55.6
AGS	2024	80.8	70.0	73.9	57.8	67.5	70.0
AGS	2038	77.6	61.8	87.5	61.9	71.3	72.0
AGS	2055	85.4	64.1	77.3	59.3	71.3	71.5
Armor	Menace	57.5	55.1	60.6	50.6	45.3	53.8
Armor	Mayhem	79.6	67.2	80.4	53.4	63.9	68.9
Delta Grow	DG 7500	60.4	48.6	65.0	46.1	67.1	57.4
Delta Grow	DG 1000	74.0	57.9	73.6	54.3	43.1	60.6
Dixie Bell	DB 500	54.8	60.2	49.8	38.5	45.6	49.8
Dixie Bell	DB 600	54.1	57.6	57.0	39.2	41.9	50.0
Dyna-Gro	Savoy	61.8	69.6	72.8	44.2	47.9	59.3
Go Wheat	2058	82.0	61.1	73.4	59.5	65.1	68.2
Pioneer	26R41	80.4	60.1	76.6	56.3	69.5	68.6
Pioneer	26R53	58.5	63.8	61.6	47.9	56.6	57.7
Pioneer	26R59	55.9	65.9	51.3	44.3	55.4	54.6
Pioneer	26R94	76.6	78.9	78.4	57.5	61.4	70.6
Pioneer	26R10	46.7	54.4	50.1	42.7	49.8	48.8
Progeny Ag	P243	57.3	48.1	69.3	46.6	38.9	52.0
Progeny Ag	P357	33.5	43.9	31.0	28.4	34.0	34.2
Progeny Ag	#Bullet	81.2	61.3	74.2	57.5	47.4	64.3
Progeny Ag	#Turbo	83.3	52.6	91.0	62.5	81.1	74.1
Progeny Ag	#Warrior	55.0	47.7	55.4	45.6	50.9	50.9
USG	3536	79.4	66.3	75.6	59.1	49.6	66.0
USG	3404	62.8	64.3	56.1	44.5	45.8	54.7
VA Tech/VCIA	HILLIARD	85.0	67.2	81.0	52.0	69.6	71.0
VA Tech/VCIA	VA12W-72 *	73.6	68.4	86.3	60.6	78.9	73.6
Mean		67.9	60.3	67.8	50.7	56.4	60.6

¹Variety followed by an asterisk indicates an experimental entry.

Table 5. Three-year summary of wheat variety trials in Mississippi.

Brand	Variety	Brooksville	Coldwater	Newton	Raymond	Overall avg.
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>
AgriMAXX	415	55.4	67.7	50.0	59.3	58.1
AgriMAXX	444	56.1	70.0	46.1	51.2	55.8
AGS	2038	62.5	69.1	52.1	65.2	62.2
AGS	2055	70.2	71.4	54.2	63.1	64.7
Delta Grow	DG 7500	51.9	56.6	46.1	63.5	54.5
Dixie Bell	DB 500	47.2	68.7	43.7	48.6	52.0
Dyna-Gro	Savoy	52.9	73.1	37.2	43.4	51.6
Go Wheat	2058	69.3	68.0	58.0	64.6	65.0
Pioneer	26R10	42.9	65.1	47.5	46.6	50.5
Pioneer	26R41	65.2	64.1	57.6	67.8	63.7
Pioneer	26R53	52.7	69.4	48.8	56.8	56.9
Pioneer	26R59	49.9	69.4	47.0	53.2	54.9
Pioneer	26R94	60.8	79.3	51.5	57.0	62.2
Progeny Ag	P243	51.1	59.3	48.5	40.5	49.8
Progeny Ag	P357	33.6	55.1	34.2	34.6	39.4
USG	3404	53.4	71.4	50.0	47.4	55.6
VA Tech/VCIA	HILLIARD	67.6	72.4	49.7	65.6	63.8
Mean		54.5	67.4	47.9	53.7	55.9

MAFES BLACK BELT BRANCH, BROOKSVILLE

Crop Summary

Wheat and oat plots were planted no-till into a field of soybean stubble. Soil moisture at planting was adequate to allow for quick germination of all plots. The weather was exceptionally dry into November, and rainfall was less than normal all winter. Therefore, emergence was delayed and fall growth was restricted from the drought. Winter temperatures were much higher than normal. Frequent rainfall after maturity delayed harvest slightly, but all plots were still harvested in a timely manner without difficulties.

Planting date October 27
Harvest date June 3
Soil type Brooksville silty clay
Soil pH 6.9
Soil fertility P=L, K=L
Previous crop Soybean
Fertilizer added Preplant — 0-20-20 @ 300 and 13-13-13 @ 250 lb/A
Topdress — 35 lb/A N (32% UAN) on February 10; 17 lb/A N and 19 lb/A S (21-0-0-24S) on February 15; and 74 lb/A N and 12 lb/A S (33-0-0-12S) on February 24
Herbicide application ... Postemergence — Harmony Extra SG @ 0.9 oz/A on February 10 (wheat and oats); Axial XL @ 16.4 oz/A on February 15 (wheat)

Table 6. Yields of 57 wheat varieties at MAFES Black Belt Branch, Brooksville (Brooksville silty clay soil).

Brand	Variety ¹	2016-17 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>		(1-5)	<i>in</i>
VA Tech/VCIA	VA11W-108P *	84.8	—	—	4/11	1	38
VA Tech/VCIA	HILLIARD	80.8	85.0	—	4/14	1	39
AGS	2055	77.5	85.4	70.2	4/11	1	33
Pioneer	26R41	75.5	80.4	65.2	4/11	1	38
Progeny Ag	#Turbo	75.5	83.3	—	4/12	1	36
Progeny Ag	#Bullet	75.3	81.2	—	4/15	1	42
Progeny Ag	PGX16-1 *	74.0	—	—	4/16	2	33
USG	3895	73.5	—	—	4/14	2	32
Armor	Mayhem	73.3	79.6	—	4/14	1	41
Go Wheat	2058	73.3	82.0	69.3	4/5	1	29
Delta Grow	DG 1000	71.8	74.0	—	4/12	1	42
USG	3536	71.8	79.4	—	4/14	2	41
Dyna-Gro	9701	71.8	—	—	4/14	1	38
AgriMAXX	473	71.8	81.4	—	4/14	2	38
U. of Georgia	GA07353-14E19 *	70.8	—	—	3/23	1	29
Limagrain Cereal Seeds	L11538 *	69.8	—	—	4/16	3	36
Pioneer	26R94	69.3	76.6	60.8	3/30	1	36
Progeny Ag	PGX16-4 *	68.5	—	—	4/11	2	34
AGS	2038	67.8	77.6	62.5	3/30	1	32
AGS	2024	67.8	80.8	—	3/31	2	30
Delta Grow	DG 3500	67.3	—	—	4/1	1	33
VA Tech/VCIA	VA12W-72 *	66.8	73.6	—	4/10	2	32
Armor	Ambush	63.3	—	—	4/14	1	38
USG	3197	63.0	—	—	4/15	3	35
AgriMAXX	415	62.3	66.1	55.4	4/16	2	37
Progeny Ag	#BOSS	60.0	—	—	4/14	1	33
Pioneer	XW15C	58.5	—	—	4/14	2	29
U. of Georgia	GA051207-14E53 *	57.5	—	—	4/7	1	33
AgriMAXX	444	57.5	64.6	56.1	4/14	1	40
Texas A&M	TX-EL2 *	56.3	—	—	4/2	1	35
USG	3404	56.3	62.8	—	4/14	1	38
USG	3458 *	56.3	—	—	4/14	2	34
Limagrain Cereal Seeds	L11550 *	55.8	—	—	4/17	3	37
U. of Georgia	GAJT 141-14E45 *	55.5	—	—	3/31	1	30
Progeny Ag	PGX14-5 *	55.3	—	—	4/16	2	43
Dyna-Gro	WX16722 *	55.3	—	—	4/15	3	34
USG	3448	55.3	—	—	4/15	3	37

Continued.

Table 6 (cont.). Yields of 57 wheat varieties at MAFES Black Belt Branch, Brooksville (Brooksville silty clay soil).

Brand	Variety ¹	2016–17 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>		(1-5)	<i>in</i>
Pioneer	26R53	53.3	58.5	52.7	4/16	1	35
U. of Georgia	GA071012-14E6 *	52.8	—	—	3/25	1	29
Armor	Menace	52.8	57.5	—	4/16	3	38
Go Wheat	2059	51.3	—	—	4/16	1	32
Delta Grow	DG 7500	49.8	60.4	51.9	4/9	3	34
Pioneer	26R59	49.8	55.9	49.9	4/17	1	35
Progeny Ag	#Warrior	49.5	55.0	—	4/14	1	34
LSU	LA09264C-P5 *	49.0	—	—	3/30	1	33
Progeny Ag	P243	49.0	57.3	51.1	4/14	2	32
USG	3228 *	49.0	—	—	4/15	4	35
AgriMAXX	474	47.8	56.6	—	4/15	2	35
LSU	LA01110D-150-625 *	47.5	—	—	3/26	1	38
Progeny Ag	PGX16-3 *	45.3	—	—	4/17	1	39
Dyna-Gro	9750	45.0	—	—	4/16	3	33
Dyna-Gro	Savoy	44.3	61.8	52.9	3/21	1	34
Dixie Bell	DB 500	44.0	54.8	47.2	4/16	1	36
Dixie Bell	DB 600	43.8	54.1	—	4/15	1	37
AgriMAXX	Exp. 1786 *	36.5	—	—	4/17	2	37
Pioneer	26R10	32.5	46.7	42.9	4/12	2	33
Progeny Ag	P357	25.8	33.5	33.6	4/17	1	33
Mean		59.1					
CV		12.0					
LSD (0.05)		9.9					
R ²		82.8					
Error DF		168.0					

¹Variety followed by an asterisk indicates an experimental entry.

JERRY SLOCUM FARMS, COLDWATER

Crop Summary

Wheat plots were planted into a well-prepared seedbed that had been disked, ripped and harrowed smooth prior to planting. Planting at this location was initially delayed due to extremely dry soil conditions and then was further delayed after heavy rains saturated the soil to the point that planning still could not occur. Plots were planted in early December into soil with plenty of moisture for germination. Following germination, all plots emerged to a good stand. No apparent issues were observed during the growing season. Harvest was completed in a timely manner and good yields were observed at this location.

Planting date December 2
 Harvest date June 12
 Soil type Calloway silt loam
 Soil pH 6.1
 Soil fertility P=M, K=M
 Previous crop Corn
 Fertilizer added Preplant — 19-50-150-15S
 Topdress — N @ 35 lb/A (32% UAN)
 on February 20 and N @ 70 lb/A
 (32% UAN) on March 22
 Herbicide application Preplant — Gramoxone @ 24 oz/A
 Postemergence — Zidua @ 1 oz/A
 (early post); Harmony Extra
 SG @ 0.9 oz/A on February 23;
 Axial XL at 16.4 oz/A on April 4
 Fungicide application Vibe (tebuconazole) @ 4 oz/A on
 April 25
 Insecticide application ... Ravage (Lambda-cyhalothrin)
 @ 2.67 oz/A on February 20

Table 7. Yields of 57 wheat varieties at Jerry Slocum Farms, Coldwater (Calloway silt loam soil).

Brand	Variety ¹	2016–17 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>		(1-5)	<i>in</i>
Pioneer	26R94	95.0	78.9	79.3	4/7	1	37
U. of Georgia	GA071012-14E6 *	94.0	—	—	4/7	1	32
Texas A&M	TX-EL2 *	93.3	—	—	4/14	1	32
Progeny Ag	PGX16-1 *	93.0	—	—	4/7	1	33
AGS	2055	90.5	64.1	71.4	4/4	1	33
VA Tech/VCIA	VA12W-72 *	88.5	68.4	—	4/14	1	34
U. of Georgia	GA07353-14E19 *	87.5	—	—	4/4	1	32
LSU	LA01110D-150-625 *	86.8	—	—	4/7	1	34
U. of Georgia	GA051207-14E53 *	86.3	—	—	4/7	1	36
AGS	2024	85.5	70.0	—	4/7	1	24
Armor	Mayhem	84.3	67.2	—	4/24	1	36
Dyna-Gro	9750	83.8	—	—	4/19	1	33
USG	3895	83.8	—	—	4/14	1	32
VA Tech/VCIA	VA11W-108P *	83.5	—	—	4/14	1	34
AGS	2038	82.8	61.8	69.1	4/11	1	37
Dyna-Gro	Savoy	82.8	69.6	73.1	4/4	1	30
Progeny Ag	#Turbo	81.8	52.6	—	4/14	1	30
Limagrain Cereal Seeds	L11538 *	81.8	—	—	4/19	1	34
Delta Grow	DG 3500	81.5	—	—	4/4	1	30
Limagrain Cereal Seeds	L11550 *	81.5	—	—	4/14	1	32
AgriMAXX	473	79.3	66.5	—	4/19	1	37
Progeny Ag	#Bullet	79.0	61.3	—	4/24	1	36
Armor	Ambush	79.0	—	—	4/19	1	34
Dyna-Gro	9701	77.5	—	—	4/24	1	37
USG	3536	76.5	66.3	—	4/24	1	39
VA Tech/VCIA	HILLIARD	76.0	67.2	—	4/14	1	35
LSU	LA09264C-P5 *	75.8	—	—	4/7	1	29
Progeny Ag	PGX16-4 *	75.8	—	—	4/7	1	32
USG	3228 *	75.5	—	—	4/19	1	34
U. of Georgia	GAJT 141-14E45 *	75.3	—	—	4/7	1	30
USG	3197	74.3	—	—	4/19	1	37
Go Wheat	2059	74.0	—	—	4/14	1	30
Progeny Ag	PGX14-5 *	74.0	—	—	4/19	1	41

Continued.

Table 7 (cont.). Yields of 57 wheat varieties at Jerry Slocum Farms, Coldwater (Calloway silt loam soil).

Brand	Variety ¹	2016-17 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>		<i>(1-5)</i>	<i>in</i>
Go Wheat	2058	72.3	61.1	68.0	4/24	1	30
Pioneer	XW15C	71.8	—	—	4/24	1	38
Delta Grow	DG 1000	71.3	57.9	—	4/27	1	34
Pioneer	26R53	71.0	63.8	69.4	4/19	1	31
AgriMAXX	415	70.0	60.1	67.7	4/19	1	41
Pioneer	26R41	69.0	60.1	64.1	4/24	1	33
Pioneer	26R59	63.5	65.9	69.4	4/19	1	31
Armor	Menace	63.0	55.1	—	4/19	1	33
USG	3404	60.3	64.3	—	4/24	1	34
Dixie Bell	DB 600	60.3	57.6	—	4/24	1	32
USG	3448	60.0	—	—	4/19	1	32
Progeny Ag	PGX16-3 *	59.8	—	—	4/19	1	34
Delta Grow	DG 7500	58.8	48.6	56.6	4/19	1	31
Progeny Ag	#BOSS	58.8	—	—	4/24	1	31
Progeny Ag	P243	58.0	48.1	59.3	4/19	1	40
Dyna-Gro	WX16722 *	57.0	—	—	4/19	1	32
Progeny Ag	#Warrior	56.8	47.7	—	4/19	1	33
Dixie Bell	DB 500	56.0	60.2	68.7	4/24	1	31
AgriMAXX	444	54.3	57.5	70.0	4/14	1	34
USG	3458 *	51.8	—	—	4/19	1	32
AgriMAXX	474	50.8	49.3	—	4/19	1	34
Pioneer	26R10	45.0	54.4	65.1	4/24	1	31
AgriMAXX	Exp. 1786 *	43.8	—	—	4/24	1	36
Progeny Ag	P357	31.3	43.9	55.1	4/24	1	31
Mean		72.4					
CV		9.6					
LSD (0.05)		9.7					
R ²		84.8					
Error DF		168.0					

¹Variety followed by an asterisk indicates an experimental entry.

R. R. FOIL PLANT SCIENCE RESEARCH CENTER, STARKVILLE

Crop Summary

Wheat plots were planted into a seedbed that had been prepared by disking and harrowing just before planting. There was insufficient soil moisture at planting for germination. Approximately 1 week after planting, the plot area received 1.2 inches of rainfall. All plots emerged to a good stand. Rainfall was frequent throughout the remainder of the growing season. Wheat varieties headed over a considerably longer period than normal in the spring, indicating vernalization issues, particularly for late-maturing varieties. Harvest was completed in a timely manner.

Planting date November 21
 Harvest date June 9
 Soil type Marietta fine sandy loam
 Soil pH 7.6
 Soil fertility P=H, K=H
 Previous crop Soybean
 Fertilizer added N @ 61 lb/A (34-0-0) on February 1; N @ 33 lb/A and S @ 12 lb/A (33-0-0-12S) on February 14; and N @ 59 lb/A and S @ 22 lb/A (33-0-0-12S) on March 17
 Herbicide application Harmony Extra SG @ 0.75 oz/A and Axial XL @ 16.4 oz/A on February 13
 Insecticide application ... Baythroid @ 2 oz/A on February 13

Table 8. Yields of 57 wheat varieties at MAFES Research Center, Starkville (Marietta fine sandy loam soil).

Brand	Variety ¹	2016–17 yield	2-year avg.	3-year avg. ²	Date headed	Lodging score	Plant height
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>		(1-5)	<i>in</i>
Progeny Ag	#Turbo	92.0	91.0	—	4/15	1	38
University of Georgia	GA071012-14E6 *	90.0	—	—	4/19	2	33
Pioneer	26R94	89.8	78.4	—	4/8	2	37
Texas A&M	TX-EL2 *	89.5	—	—	4/25	1	37
Progeny Ag	PGX16-1 *	89.5	—	—	4/22	1	35
Delta Grow	DG 3500	88.8	—	—	4/8	1	33
University of Georgia	GA051207-14E53 *	86.8	—	—	4/27	1	39
AGS	2038	85.8	87.5	—	5/1	2	40
VA Tech/VCIA	VA12W-72 *	84.5	86.3	—	4/26	2	36
LSU	LA01110D-150-625 *	84.0	—	—	4/20	2	35
AGS	2024	81.5	73.9	—	4/29	3	33
Progeny Ag	PGX16-4 *	80.0	—	—	4/8	1	36
LSU	LA09264C-P5 *	79.8	—	—	4/30	2	34
VA Tech/VCIA	VA11W-108P *	79.5	—	—	4/24	2	38
VA Tech/VCIA	HILLIARD	76.8	81.0	—	4/25	1	36
University of Georgia	GA07353-14E19 *	76.3	—	—	4/29	2	32
Limagrain Cereal Seeds	L11538 *	75.0	—	—	4/18	1	33
University of Georgia	GAJT 141-14E45 *	74.8	—	—	4/7	2	31
Dyna-Gro	Savoy	72.5	72.8	—	4/29	3	33
AGS	2055	70.5	77.3	—	4/14	1	43
Go Wheat	2059	69.5	—	—	4/20	1	37
Armor	Mayhem	69.5	80.4	—	4/27	2	38
USG	3895	69.0	—	—	4/22	3	35
Armor	Ambush	68.8	—	—	4/23	1	38
Dyna-Gro	9701	67.8	—	—	4/30	2	39
USG	3228 *	67.5	—	—	4/10	1	37
Pioneer	26R41	67.5	76.6	—	4/26	1	31
Limagrain Cereal Seeds	L11550 *	65.8	—	—	4/29	1	34
Delta Grow	DG 1000	64.5	73.6	—	4/12	1	39
USG	3197	62.5	—	—	4/26	2	39
Progeny Ag	#Bullet	62.5	74.2	—	4/22	2	37
Go Wheat	2058	61.8	73.4	—	4/14	2	31
USG	3536	60.8	75.6	—	4/25	1	40
Progeny Ag	P243	60.8	69.3	—	4/25	2	38
Dyna-Gro	9750	60.5	—	—	4/11	2	35

Continued.

Table 8 (cont.). Yields of 57 wheat varieties at MAFES Research Center, Starkville (Marietta fine sandy loam soil).

Brand	Variety ¹	2016-17 yield	2-year avg.	3-year avg. ²	Date headed	Lodging score	Plant height
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>		(1-5)	<i>in</i>
Delta Grow	DG 7500	60.5	65.0	—	4/8	1	39
AgriMAXX	473	60.3	70.7	—	4/16	1	37
Progeny Ag	PGX14-5 *	60.0	—	—	4/6	3	45
Pioneer	XW15C	59.5	—	—	4/23	4	36
AgriMAXX	415	59.5	62.6	—	4/22	2	37
USG	3448	52.5	—	—	4/11	2	33
Progeny Ag	#BOSS	51.3	—	—	4/24	1	34
AgriMAXX	444	50.3	60.8	—	4/22	1	33
USG	3458 *	48.8	—	—	4/14	2	31
Pioneer	26R53	48.0	61.6	—	4/21	3	33
Dyna-Gro	WX16722 *	47.3	—	—	4/11	3	33
Armor	Menace	47.0	60.6	—	4/8	2	33
Progeny Ag	#Warrior	46.8	55.4	—	4/22	3	30
Dixie Bell	DB 600	46.8	57.0	—	4/11	1	40
AgriMAXX	474	46.5	58.6	—	4/16	3	34
Pioneer	26R10	42.0	50.1	—	4/22	2	35
USG	3404	41.5	56.1	—	4/22	1	39
Progeny Ag	PGX16-3 *	38.8	—	—	4/19	2	34
Pioneer	26R59	35.8	51.3	—	4/21	4	31
Dixie Bell	DB 500	33.8	49.8	—	4/8	1	32
AgriMAXX	Exp. 1786 *	32.0	—	—	4/7	2	36
Progeny Ag	P357	21.3	31.0	—	4/17	4	32
Mean		64.2					
CV		11.5					
LSD (0.05)		10.2					
R ²		88.1					
Error DF		168.0					
¹ Variety followed by an asterisk indicates an experimental entry.							
² No 3-year average.							

DELTA BRANCH EXPERIMENT STATION, STONEVILLE

Crop Summary

Wheat and oat plots were planted into a seedbed that was disked and harrowed smooth just before planting. Soil moisture at planting was sufficient for germination, and all plots quickly emerged to a good stand. This location received some pressure from bird feeding that was contained within one replication of the trial. Therefore, only data from the remaining, undamaged replications were utilized from this location after harvest. Harvest was completed in a timely manner.

Planting date November 22
 Harvest date June 7
 Soil type Bosket very fine sandy loam
 Soil fertility P=H, K=H
 Previous crop Cotton
 Fertilizer added N @ 88 lb/A (Urea) on February 16 and N @ 50 lb/A (Urea) on March 17
 Herbicide application ... Harmony Extra SG @ 0.75 oz/A on February 13 (wheat and oats); Axial XL @ 16.4 oz/A on February 13 (wheat)

Table 9. Yields of 57 wheat varieties at MAFES Delta Branch, Stoneville (Bosket very fine sandy loam soil).

Brand	Variety ¹	2016-17 yield	2-year avg. ²	3-year avg. ³	Date headed ⁴	Lodging score	Plant height
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>		<i>(1-5)</i>	<i>in</i>
U. of Georgia	GA071012-14E6 *	95.5	—	—	—	1	36
U. of Georgia	GA07353-14E19 *	91.9	—	—	—	1	34
Pioneer	26R94	90.7	—	—	—	1	35
Delta Grow	DG 3500	90.3	—	—	—	1	31
VA Tech/VCIA	VA11W-108P *	88.5	—	—	—	1	41
Texas A&M	TX-EL2 *	86.0	—	—	—	1	38
VA Tech/VCIA	VA12W-72 *	85.6	—	—	—	1	33
Limagrain Cereal Seeds	L11538 *	83.7	—	—	—	2	37
AGS	2055	83.4	—	—	—	1	26
USG	3895	82.5	—	—	—	1	32
AGS	2024	81.3	—	—	—	1	34
AGS	2038	81.1	—	—	—	1	38
USG	3536	77.8	—	—	—	1	38
LSU	LA09264C-P5 *	75.7	—	—	—	1	33
Progeny Ag	PGX16-1 *	75.3	—	—	—	1	33
LSU	LA01110D-150-625 *	73.8	—	—	—	1	34
Progeny Ag	PGX16-4 *	73.0	—	—	—	2	31
VA Tech/VCIA	HILLIARD	72.2	—	—	—	1	38
Dyna-Gro	Savoy	70.9	—	—	—	1	31
U. of Georgia	GAJT 141-14E45 *	70.3	—	—	—	1	29
AgriMAXX	415	70.0	—	—	—	1	35
Limagrain Cereal Seeds	L11550 *	67.8	—	—	—	2	34
Pioneer	26R41	66.6	—	—	—	1	37
Armor	Mayhem	66.3	—	—	—	1	36
Pioneer	26R53	65.6	—	—	—	1	32
AgriMAXX	444	65.2	—	—	—	1	34
Dixie Bell	DB 600	64.3	—	—	—	1	35
USG	3197	63.4	—	—	—	1	38
Go Wheat	2058	61.0	—	—	—	1	33
Progeny Ag	#BOSS	59.3	—	—	—	1	32
USG	3404	58.1	—	—	—	1	35
AgriMAXX	473	58.0	—	—	—	1	39
Progeny Ag	#Warrior	57.9	—	—	—	1	32
Pioneer	26R59	57.5	—	—	—	2	32
Progeny Ag	#Turbo	57.5	—	—	—	1	24
U. of Georgia	GA051207-14E53 *	55.1	—	—	—	1	37
Progeny Ag	P243	54.6	—	—	—	4	36
Delta Grow	DG 7500	53.6	—	—	—	2	43
AgriMAXX	474	53.3	—	—	—	2	33
Armor	Menace	53.2	—	—	—	3	36
Pioneer	26R10	51.3	—	—	—	3	35

Continued.

Table 9 (cont.). Yields of 57 wheat varieties at MAFES Delta Branch, Stoneville (Bosket very fine sandy loam soil).

Brand	Variety ¹	2016–17 yield	2-year avg. ²	3-year avg. ³	Date headed ⁴	Lodging score	Plant height
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>		(1-5)	<i>in</i>
Dyna-Gro	WX16722 *	51.1	—	—	—	2	35
Pioneer	XW15C	50.8	—	—	—	2	37
Dixie Bell	DB 500	49.7	—	—	—	2	33
USG	3448	49.5	—	—	—	2	35
USG	3458 *	48.2	—	—	—	1	34
Progeny Ag	PGX16-3 *	44.9	—	—	—	1	35
USG	3228 *	40.6	—	—	—	1	32
Dyna-Gro	9750	40.5	—	—	—	2	33
Go Wheat	2059	38.6	—	—	—	1	31
Delta Grow	DG 1000	38.0	—	—	—	1	37
Dyna-Gro	9701	37.6	—	—	—	1	38
Armor	Ambush	33.3	—	—	—	1	37
Progeny Ag	PGX14-5 *	32.2	—	—	—	1	36
AgriMAXX	Exp. 1786 *	31.4	—	—	—	2	35
Progeny Ag	#Bullet	29.5	—	—	—	1	29
Progeny Ag	P357	22.6	—	—	—	3	36
Mean		60.2					
CV		10.7					
LSD (0.05)		13.3					
R ²		93.8					
Error DF		56.0					
¹ Variety followed by an asterisk indicates an experimental entry. ² No 2-year average. ³ No 3-year average. ⁴ No heading dates recorded.							

MAFES BROWN LOAM BRANCH, RAYMOND

Crop Summary

Wheat plots were planted into a seedbed that had been disked and harrowed smooth before planting. There was adequate soil moisture at planting for seed to germinate. Plots quickly emerged to a good stand. Winter temperatures were much higher than normal, which contributed to vernalization issues, particularly for medium- to late-maturing varieties. Some lodging was observed after the plots began to head. Late-season wind and rain before harvest caused severe lodging of many varieties. Harvest was completed in a timely manner, but the amount of lodging within the trial made harvest difficult. This resulted in below-average yields for this location.

Planting date November 11
 Harvest date June 8
 Soil type Loring silt loam
 Soil pH 5.6
 Soil fertility P=M, K=M
 Previous crop Corn
 Fertilizer added Preplant — 13-13-13 @ 250 lb/A
 Topdress — N @ 32 lb/A and S @ 36 lb/A (21-0-0-24S) on February 1; N @ 64 lb/A (46-0-0) on March 3; and N @ 44 lb/A and S @ 16 lb/A (33-0-0-12S) on March 15
 Herbicide application ... Harmony Extra SG @ 0.9 oz/A and Axial XL at 16.4 oz/A on February 1

Table 10. Yields of 57 wheat varieties at MAFES Brown Loam Branch, Raymond (Loring silt loam soil).

Brand	Variety ¹	2016-17 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>		(1-5)	<i>in</i>
Progeny Ag	#Turbo	73.2	81.1	—	3/29	3	34
Progeny Ag	PGX16-4 *	70.1	—	—	3/29	4	33
AGS	2055	67.4	71.3	63.1	3/29	4	35
Delta Grow	DG 3500	63.9	—	—	4/3	3	33
USG	3895	60.9	—	—	4/7	4	32
Progeny Ag	PGX16-1 *	59.6	—	—	3/29	3	31
U. of Georgia	GA07353-14E19 *	59.1	—	—	3/29	3	33
VA Tech/VCIA	VA12W-72 *	58.9	78.9	—	3/29	5	35
VA Tech/VCIA	VA11W-108P *	58.8	—	—	3/29	4	36
AGS	2038	58.3	71.3	65.2	3/29	3	39
Pioneer	26R41	53.4	69.5	67.8	4/5	4	32
U. of Georgia	GAJT 141-14E45 *	52.1	—	—	3/29	3	34
AGS	2024	49.8	67.5	—	3/29	2	33
U. of Georgia	GA051207-14E53 *	48.7	—	—	3/29	3	36
Texas A&M	TX-EL2 *	48.7	—	—	3/29	3	36
VA Tech/VCIA	HILLIARD	48.3	69.6	—	4/7	4	35
Delta Grow	DG 7500	47.0	67.1	63.5	3/29	4	38
Limagrain Cereal Seeds	L11538 *	46.9	—	—	3/29	3	27
USG	3197	44.8	—	—	3/29	3	37
LSU	LA09264C-P5 *	41.6	—	—	3/29	3	35
AgriMAXX	415	41.0	60.9	59.3	4/3	2	34
USG	3228 *	40.8	—	—	4/7	3	30
Armor	Ambush	38.8	—	—	4/3	5	43
Pioneer	26R94	37.1	61.4	57.0	4/7	3	30
Pioneer	26R59	37.0	55.4	53.2	3/31	3	37
Armor	Mayhem	36.5	63.9	—	4/7	2	38
Go Wheat	2058	35.1	65.1	64.6	4/7	3	30
U. of Georgia	GA071012-14E6 *	33.9	—	—	3/29	2	39
Progeny Ag	#Warrior	33.4	50.9	—	4/3	4	27
AgriMAXX	474	33.1	54.1	—	4/3	4	29
Go Wheat	2059	31.9	—	—	4/3	4	32
Dyna-Gro	Savoy	31.7	47.9	43.4	3/31	3	33
Pioneer	26R53	31.4	56.6	56.8	4/7	4	52
Progeny Ag	PGX14-5 *	29.7	—	—	4/10	3	37
Dyna-Gro	9750	28.5	—	—	4/7	3	34
LSU	LA01110D-150-625 *	27.9	—	—	3/29	3	38

Continued.

Table 10 (cont.). Yields of 57 wheat varieties at MAFES Brown Loam Branch, Raymond (Loring silt loam soil).

Brand	Variety ¹	2016–17 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>		(1-5)	<i>in</i>
Progeny Ag	#BOSS	27.4	—	—	4/10	4	31
AgriMAXX	444	26.0	51.2	51.2	4/7	5	34
Dyna-Gro	WX16722 *	26.0	—	—	4/10	4	34
Pioneer	XW15C	23.6	—	—	4/10	3	30
USG	3458 *	20.3	—	—	4/7	5	32
Limagrain Cereal Seeds	L11550 *	19.1	—	—	4/3	5	30
Pioneer	26R10	19.0	49.8	46.6	4/7	4	37
USG	3404	18.6	45.8	—	4/7	4	34
Dixie Bell	DB 500	16.3	45.6	48.6	4/13	4	42
Dyna-Gro	9701	12.5	—	—	3/29	4	34
AgriMAXX	473	11.9	53.9	—	4/10	4	33
Armor	Menace	11.7	45.3	—	4/3	4	36
Progeny Ag	PGX16-3 *	11.5	—	—	4/7	4	36
USG	3536	11.5	49.6	—	4/10	4	30
Progeny Ag	P357	11.3	34.0	34.6	4/10	4	35
AgriMAXX	Exp. 1786 *	11.1	—	—	4/13	4	30
Dixie Bell	DB 600	10.5	41.9	—	3/29	4	38
USG	3448	8.9	—	—	4/7	4	33
Progeny Ag	#Bullet	8.1	47.4	—	4/7	5	37
Delta Grow	DG 1000	7.6	43.1	—	4/10	4	30
Progeny Ag	P243	7.3	38.9	40.5	3/29	5	35
Mean		35.1					
CV		18.9					
LSD (0.05)		10.6					
R ²		92.3					
Error DF		112.0					

¹Variety followed by an asterisk indicates an experimental entry.

MAFES COASTAL PLAIN BRANCH, NEWTON

Crop Summary

Wheat plots were planted into a seedbed that had just been disked and harrowed. There was adequate moisture in the soil at the time of planting for germination. All plots emerged to a stand. Spring weather consisted of abundant rainfall. All plots were harvested in a timely manner without difficulties.

Planting date November 17
 Harvest date June 8
 Soil type Prentiss very fine sandy loam
 Soil pH 6.8
 Soil fertility P=M, K=M
 Previous crop Wheat
 Fertilizer added Preplant — 0-20-20 @ 150 lb/A
 Topdress — N @ 50 lb/A and S @ 18 lb/A (33-0-0-12S) on December 9; and N @ 82 lb/A and S @ 30 lb/A (33-0-0-12S) on January 30
 Herbicide application ... Harmony Extra SG @ 0.9 oz/A and Axial XL at 16.4 oz/A on February 1

Table 11. Yields of 57 wheat varieties at MAFES Costal Plains Branch, Newton (Prentiss very fine sandy loam soil).

Brand	Variety ¹	2016–17 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>		(1-5)	<i>in</i>
Texas A&M	TX-EL2 *	59.0	—	—	4/18	3	31
University of Georgia	GA07353-14E19 *	58.5	—	—	3/27	3	35
VA Tech/VCIA	VA12W-72 *	58.3	60.6	—	4/4	3	33
University of Georgia	GA071012-14E6 *	57.8	—	—	3/27	2	36
Progeny Ag	#Turbo	56.3	62.5	—	4/18	2	33
AGS	2038	55.8	61.9	52.1	3/27	2	33
USG	3895	54.0	—	—	4/18	2	35
Progeny Ag	PGX16-1 *	51.0	—	—	4/18	1	35
Go Wheat	2059	50.5	—	—	4/18	2	33
University of Georgia	GA051207-14E53 *	50.3	—	—	4/4	3	37
Progeny Ag	PGX16-4 *	49.3	—	—	3/27	1	39
AGS	2055	49.0	59.3	54.2	4/10	3	33
AGS	2024	48.8	57.8	—	4/4	4	32
AgriMAXX	473	48.0	59.3	—	4/10	1	33
Pioneer	26R94	47.8	57.5	51.5	4/18	2	37
Delta Grow	Delta 3500	47.5	—	—	4/18	3	29
USG	3536	46.5	59.1	—	4/18	1	34
Pioneer	26R41	44.5	56.3	57.6	4/18	1	34
Progeny Ag	#Bullet	42.8	57.5	—	4/18	2	35
Limagrain Cereal Seeds	L11538 *	42.5	—	—	4/18	1	35
University of Georgia	GAJT 141-14E45 *	42.5	—	—	3/27	3	32
Dyna-Gro	Savoy	41.5	44.2	37.2	3/27	3	27
Limagrain Cereal Seeds	L11550 *	41.3	—	—	4/10	1	36
USG	3228 *	41.3	—	—	4/18	1	33
Armor	Ambush	40.0	—	—	4/18	2	32
Dyna-Gro	9701	40.0	—	—	4/18	1	32
Go Wheat	2058	39.8	59.5	58.0	4/10	1	32
LSU	LA01110D-150-625 *	39.3	—	—	3/27	4	35
USG	3448	38.8	—	—	4/10	2	31
Armor	Menace	38.3	50.6	—	4/18	1	28
Delta Grow	DG 1000	38.0	54.3	—	4/18	1	32
VA Tech/VCIA	VA11W-108P *	37.8	—	—	4/10	3	34
LSU	LA09264C-P5 *	37.3	—	—	4/18	4	31
VA Tech/VCIA	HILLIARD	36.5	52.0	49.7	4/10	1	33
Armor	Mayhem	34.5	53.4	—	4/18	1	33
Dyna-Gro	9750	34.0	—	—	4/10	3	33
Pioneer	XW15C	33.5	—	—	4/18	2	34
USG	3197	33.3	—	—	4/18	2	32
AgriMAXX	415	32.8	50.1	50.0	4/18	1	31

Continued.

Table 11 (cont.). Yields of 57 wheat varieties at MAFES Costal Plains Branch, Newton (Prentiss very fine sandy loam soil).

Brand	Variety ¹	2016-17 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>		<i>(1-5)</i>	<i>in</i>
Pioneer	26R53	32.3	47.9	48.8	3/27	2	29
Delta Grow	DG 7500	28.3	46.1	46.1	4/4	2	36
Pioneer	26R59	28.3	44.3	47.0	4/18	1	31
USG	3404	26.5	44.5	50.0	4/18	1	32
USG	3458 *	26.5	—	—	4/10	2	32
Progeny Ag	PGX14-5 *	26.3	—	—	4/10	4	34
Pioneer	26R10	25.3	42.7	47.5	4/18	3	33
Progeny Ag	#Warrior	25.3	45.6	—	4/10	2	31
Progeny Ag	PGX16-3 *	25.0	—	—	4/10	2	35
AgriMAXX	474	24.8	45.0	—	4/18	3	30
Progeny Ag	P243	24.3	46.6	48.5	4/10	4	42
AgriMAXX	444	23.8	44.0	46.1	4/18	2	37
Dixie Bell	DB 600	23.0	39.2	—	4/18	3	34
Dyna-Gro	WX16722 *	22.0	—	—	4/10	2	31
Progeny Ag	#BOSS	21.5	—	—	4/18	2	30
Dixie Bell	DB 500	15.3	38.5	43.7	4/18	1	32
AgriMAXX	Exp. 1786 *	12.8	—	—	4/24	2	34
Progeny Ag	P357	12.8	28.4	34.2	4/18	4	29
Mean		37.7					
CV		16.3					
LSD (0.05)		8.6					
R ²		84.2					
Error DF		168.0					

¹Variety followed by an asterisk indicates an experimental entry.

TODD HEIGLE FARMS, ISSAQUENA COUNTY

Crop Summary

Wheat plots were planted into a seedbed that had been disked and field cultivated just before planting. At the time of planting, there was not sufficient soil moisture to allow for germination. Plots were planted at a shallow soil depth and remained there until the next significant rainfall. The plot area received rain a couple of weeks after planting and emerged to a good stand. The growing season was much warmer than normal, and some varieties appeared to experience difficulty with vernalization. Above-average rainfall was observed in the spring. Plots were harvested in a timely manner.

Planting date October 26
 Harvest date June 9
 Soil type Sharkey silt loam
 Soil pH 6.1
 Soil fertility P=H, K=H
 Previous crop Corn
 Fertilizer added Preplant — 21-0-0-24S @ 50 lb/A
 Topdress — N @ 60 lb/A (46-0-0)
 on January 16 and February 17
 Herbicide application ... Harmony Extra XP @ 0.3 oz/A
 on January 30

Table 12. Yields of 57 wheat varieties at Todd Heigle Farms, Issaquena (Sharkey silt loam soil).

Brand	Variety ¹	2016–17 yield	2-year avg. ²	3-year avg. ³	Date headed	Lodging score	Plant height
		bu/A	bu/A	bu/A		(1-5)	in
Limagrain Cereal Seeds	L11550 *	61.0	—	—	3/22	3	32
Progeny Ag	#Turbo	60.0	—	—	3/8	2	33
Pioneer	26R41	58.3	—	—	3/22	1	29
Armor	Mayhem	56.5	—	—	3/8	1	31
USG	3536	55.5	—	—	3/15	1	34
AgriMAXX	473	55.5	—	—	3/22	1	32
Dyna-Gro	9701	55.0	—	—	3/8	3	32
Limagrain Cereal Seeds	L11538 *	54.5	—	—	3/22	2	36
Progeny Ag	#Bullet	53.0	—	—	3/22	1	34
Delta Grow	DG 1000	52.8	—	—	3/8	1	36
AGS	2055	50.8	—	—	3/15	1	31
USG	3895	50.0	—	—	3/22	1	32
VA Tech/VCIA	HILLIARD	48.8	—	—	3/22	1	32
VA Tech/VCIA	VA11W-108P *	48.8	—	—	3/8	1	31
Go Wheat	2058	48.0	—	—	3/22	1	31
AGS	2038	46.8	—	—	3/22	1	35
Pioneer	26R53	46.0	—	—	3/15	1	30
Pioneer	XW15C	44.5	—	—	3/8	1	32
Armor	Ambush	44.5	—	—	3/29	1	36
USG	3404	42.5	—	—	3/15	1	32
AgriMAXX	444	42.3	—	—	3/22	2	32
Progeny Ag	#BOSS	41.5	—	—	3/29	4	33
USG	3448	41.5	—	—	3/15	1	28
Armor	Menace	40.8	—	—	3/15	1	34
Dixie Bell	DB 600	37.8	—	—	3/15	1	37
Dyna-Gro	9750	37.5	—	—	3/22	3	30
Delta Grow	DG 7500	37.3	—	—	3/22	1	36
Go Wheat	2059	36.5	—	—	3/29	1	30
Dixie Bell	DB 500	36.3	—	—	3/15	1	28
USG	3228 *	35.8	—	—	3/22	1	35
Progeny Ag	PGX14-5 *	35.5	—	—	3/22	1	35
Pioneer	26R10	35.3	—	—	3/15	3	35
AgriMAXX	415	34.3	—	—	3/8	1	32
USG	3458 *	34.3	—	—	3/22	3	31
Pioneer	26R59	33.8	—	—	3/22	1	30
AgriMAXX	474	32.5	—	—	3/29	1	28
Progeny Ag	PGX16-3 *	30.8	—	—	3/15	1	32
University of Georgia	GA07353-14E19 *	30.3	—	—	3/29	1	34

Continued.

Table 12 (cont.). Yields of 57 wheat varieties at Todd Heigle Farms, Issaquena (Sharkey silt loam soil).

Brand	Variety ¹	2016–17 yield	2-year avg. ²	3-year avg. ³	Date headed	Lodging score	Plant height
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>		(1-5)	<i>in</i>
Dyna-Gro	WX16722 *	30.3	—	—	3/22	1	30
Progeny Ag	#Warrior	28.5	—	—	3/15	1	29
USG	3197	28.3	—	—	3/15	1	29
AgriMAXX	Exp. 1786 *	28.0	—	—	3/22	1	34
University of Georgia	GA051207-14E53 *	27.8	—	—	3/29	1	35
AGS	2024	26.5	—	—	3/15	1	32
Progeny Ag	P243	25.5	—	—	3/15	1	33
Texas A&M	TX-EL2 *	24.3	—	—	3/22	2	33
University of Georgia	GA071012-14E6 *	22.0	—	—	3/15	1	31
Progeny Ag	PGX16-1 *	21.3	—	—	3/22	1	32
LSU	LA09264C-P5 *	18.8	—	—	3/22	1	33
Delta Grow	DG 3500	18.8	—	—	3/22	1	32
Progeny Ag	PGX16-4 *	18.8	—	—	3/22	2	33
Progeny Ag	P357	18.5	—	—	3/8	1	34
LSU	LA01110D-150-625 *	18.3	—	—	3/15	1	34
Pioneer	26R94	18.3	—	—	3/22	1	38
University of Georgia	GAJT 141-14E45 *	16.0	—	—	3/22	1	31
VA Tech/VCIA	VA12W-72 *	15.5	—	—	3/15	1	26
Dyna-Gro	Savoy	13.5	—	—	3/15	1	34
Mean		35.7					
CV		15.2					
LSD (0.05)		7.8					
R ²		88.3					
Error DF		168.0					

¹Variety followed by an asterisk indicates an experimental entry.

²No 2-year average.

³No 3-year average.

WHEAT AND OAT SEEDS PER POUND

Table 13. Average number of wheat seeds per pound.

Brand	Variety	2016-17	Brand	Variety	2016-17
AgriMAXX	415	11,100	Progeny Ag	P243	13,938
AgriMAXX	444	11,800	Progeny Ag	PGX14-5	13,953
AgriMAXX	473	12,600	Progeny Ag	#Bullet	12,493
AgriMAXX	474	14,100	Progeny Ag	#Turbo	12,217
AgriMAXX	Exp. 1786	11,912	Progeny Ag	#Warrior	14,109
Armor	Ambush	12,600	Progeny Ag	PGX16-3	13,567
Armor	Mayhem	12,194	Progeny Ag	PGX16-1	10,715
Armor	Menace	12,250	Progeny Ag	PGX16-4	11,862
Delta Grow	DG 1000	11,186	AGS	2055	12,165
Delta Grow	DG 3500	10,850	AGS	2038	12,815
Delta Grow	DG 7500	14,014	AGS	2024	13,345
Dixie Bell	DB 500	17,721	Go Wheat	2058	13,128
Dixie Bell	DB 600	13,967	Go Wheat	2059	12,354
Dyna-Gro	Savoy	11,854	Texas A&M	TX-EL2	12,169
Dyna-Gro	9701	13,870	Univ. of Georgia	GA0753-14E19	11,782
Dyna-Gro	9750	12,188	Univ. of Georgia	GA051207-14E53	12,096
Dyna-Gro	WX16722	13,738	Univ. of Georgia	GAJT 141-14E45	15,452
LCS	L11550	13,710	Univ. of Georgia	GA071012-14E6	10,763
LCS	L11538	11,496	USG	3197	13,000
LSU	LA01110D-150-625	9,626	USG	3404	12,000
LSU	LA09264C-P5	12,949	USG	3536	11,500
Pioneer	26R10	11,524	USG	3895	11,500
Pioneer	26R41	11,520	USG	3448	12,250
Pioneer	26R53	12,632	USG	Exp 3228	12,000
Pioneer	26R59	12,622	USG	Exp 3228	12,500
Pioneer	26R94	11,023	VA TECH/VCIA	Hillard	13,868
Pioneer	XW15C	14,088	VA TECH/VCIA	VA11W-108PA	13,938
Progeny Ag	#Boss	13,000	VA TECH/VCIA	VA12W-72	10,397
Progeny Ag	P357	11,000			

Table 14. Average number of oat seeds per pound.

Brand	Variety	2016-17
Horizon	201	17,254
LSU	LA07007SBSBSB-18	17,336
LSU	LA08084SBSBS-15	14,625

SUMMARIES OF OAT YIELDS

Table 15. 2016-17 yield summary of oat variety trials in Mississippi.

Brand	Variety'	Stoneville
		<i>bu/A</i>
Horizon	201	67.5
LSU	LA 08084SBSBS-15 *	72.8
LSU	LA07007SBSBSB-18 *	89.3
Mean		81.0
CV		11.4
LSD (0.05)		15.1
R ²		86.1
Error DF		6.0

ⁱVariety followed by an asterisk indicates an experimental entry.

DELTA BRANCH EXPERIMENT STATION, STONEVILLE

Crop Summary

Oat plots were planted into a seedbed that was disked and harrowed smooth just before planting. Soil moisture at planting was sufficient for germination, and all plots quickly emerged to a good stand. This location received some pressure from bird feeding that was contained within one replication of the trial. Therefore, only data from the remaining, undamaged replications were utilized from this location following harvest. Harvest was completed in a timely manner.

Planting date November 22
 Harvest date June 7
 Soil type Bosket very fine sandy loam
 Soil fertility P=H, K=H
 Previous crop Cotton
 Fertilizer added N @ 88 lb/A (Urea) on February 16 and N @ 50 lb/A (Urea) on March 17
 Herbicide application ... Harmony Extra SG @ 0.75 oz/A on February 13

Table 15. Yields of three oat varieties at MAFES Delta Branch, Stoneville (Bosket very fine sandy loam soil).

Brand	Variety ¹	2016-17 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		<i>bu/A</i>	<i>bu/A</i>	<i>bu/A</i>		(1-5)	<i>in</i>
Horizon	201	67.5	—	—	—	1	45
LSU	LA 08084SBSBS-15 *	72.8	—	—	—	1	41
LSU	LA07007SBSBSB-18 *	89.3	—	—	—	1	39
Mean		81.0					
CV		11.4					
LSD (0.05)		15.1					
R ²		86.1					
Error DF		6.0					

¹Variety followed by an asterisk indicates an experimental entry.
²No 2-year average.
³No 3-year average.
⁴No heading dates recorded.

MSU COASTAL R&E CENTER, BEAUMONT

Data Not Reported Due to Poor Vernalization

Wheat harvest data and variety yield performance were not published from the Beaumont location due to the lack of vernalization of many wheat varieties. The lack of cool weather required to vernalize wheat caused extreme variability within the trial and resulted

in yields that were very erratic, even within the same variety of different replications. As a result of substantial variability, the decision was made not to publish data from this location.



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George M. Hopper, Director

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