MISSISSIPPI WHEAT & OAT
VARIETY TRIALS, 2019

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MISSISSIPPI'S OFFICIAL VARIETY TRIALS

MISSISSIPPI STATE UNIVERSITY™
MS AGRICULTURAL AND
FORESTRY EXPERIMENT STATION

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Darrin Dodds
Department Head
Plant and Soil Sciences
Mississippi State University

Josh White
Manager, Forage Variety Testing
Plant and Soil Sciences
Mississippi State University

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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, 2019

MAFES Official Variety Trial Contributors

Brad Burgess
Director, Variety Evaluations
Mississippi State University

Tom Allen
Associate Extension/Research Professor
Delta Research and Extension Center

Jake Bullard
Assistant Director, Variety Evaluations
Mississippi State University

Dan Haire
Extension Agent II
DeSoto County Extension Service

Erick Larson
Extension Grain Crops Specialist
Plant and Soil Sciences
Mississippi State University

Bisoondat Macoon
Associate Research Professor
and Interim Facilities Coordinator
Brown Loam Branch Experiment Station

Isaac Pickett
Research Associate I
Brown Loam Branch Experiment Station

Brett Rushing
Assistant Extension/Research Professor
Coastal Plain Branch Experiment Station

Dennis Reginelli
Regional Extension Specialist II
North Mississippi Research and
Extension Center

Josh White
Manager, Forage Variety Testing
Plant and Soil Sciences
Mississippi State University

For more information, contact Burgess at (662) 325-2390; email, Brad.Burgess@msstate.edu. Recognition is given to Jason Hillhouse, research technician for the Variety Trial Program, for his assistance in packaging, planting, harvesting, and recording plot data. This publication was prepared by Dixie Albright, office associate for MAFES Research Support Units. Josh White, manager of forage variety testing, performed statistical analyses

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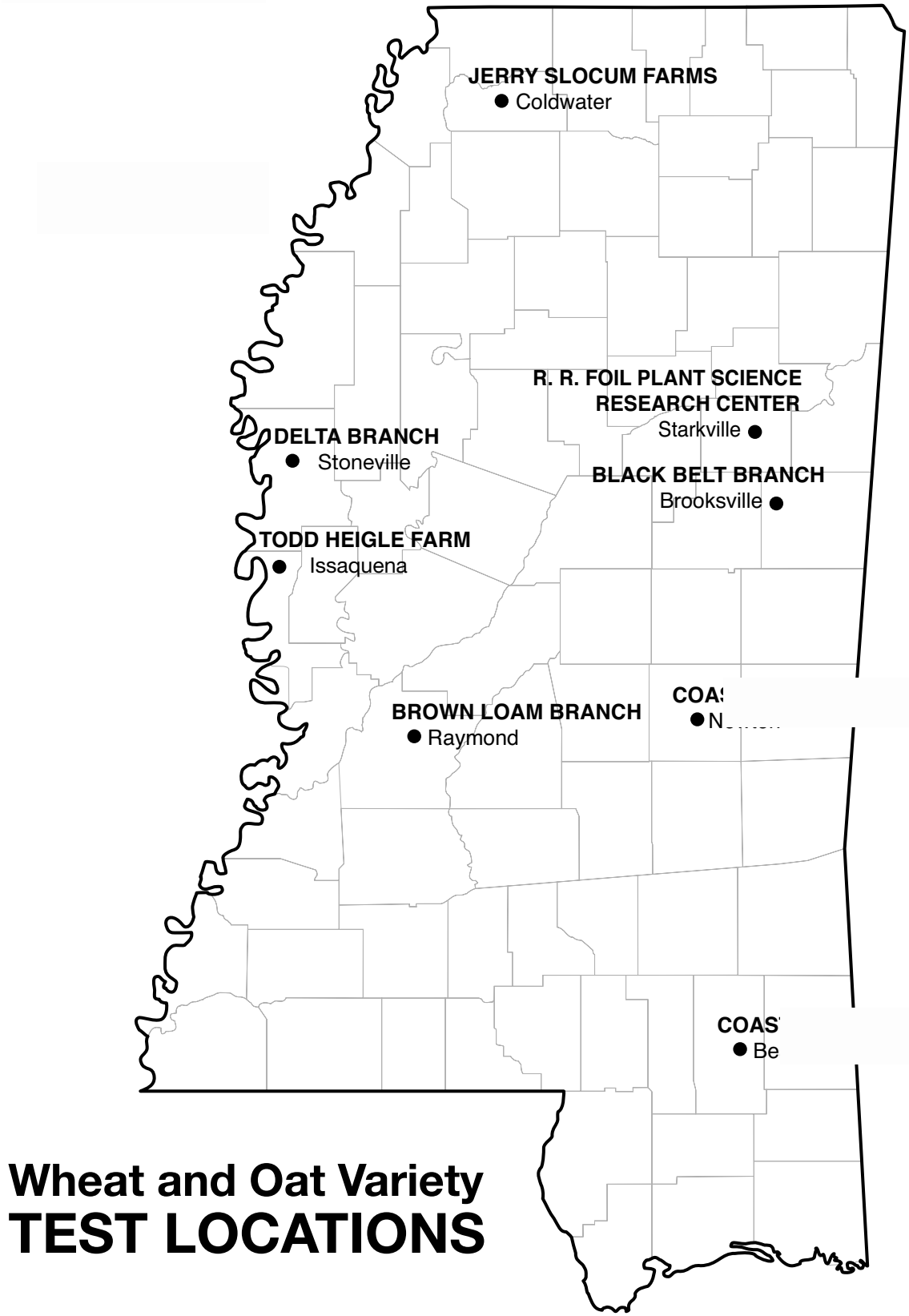
Find variety trial information online at ***mafes.msstate.edu/variety-trials***.



Wheat and Oat Variety
TEST LOCATIONS

Mississippi Wheat and Oat Variety Trials, 2019

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 2018–2019. 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-protected 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.

Table. 1 2018–19 MSU OVT wheat and oat locations and dates.

Location	Soil type	Planting date	Harvest date	Crop tested
Beaumont	McLaurin sandy loam	11/19/18	5/29/19	wheat
Brooksville	Brooksville silty clay	10/24/18	5/29/19	wheat & oat
Coldwater	Calloway silt loam	11/28/18	6/12/19	wheat
Newton	Prentiss very fine sandy loam	10/29/18	6/4/19	wheat
Raymond	Loring silt loam	10/29/18	5/31/19	wheat & oat
Starkville	Marietta fine sandy loam	11/20/18	5/30/19	wheat & oat
Stoneville	Bosket very fine sandy loam	10/30/18	6/3/19	wheat & oat
Verona	Leeper silty clay	11/23/18	6/4/19	wheat & oat

Wheat and Oat Seed Sources

Table 2. Companies supplying wheat brands/varieties entered.

Company	Brand	Variety	Seed treatment
AgriMAXX Wheat Company 7167 Highbanks Rd. Mascoutah, IL 62258	AgriMAXX AgriMAXX AgriMAXX AgriMAXX	481 415 473 EXP 1906	PRIME ST
Armor Seed 183 S Pennsylvania Ave. Waldenburg, AR 72475	Armor Armor Armor Armor	Mayhem Velocity Coastal ARW1819	Vibrance Extreme
B&S Seed Company 1283 Hwy. 444 Duncan, MS 38740	Dixie Bell	DB 700	Vibrance Extreme
CORTEVA Agriscience – Ag Division of DowDuPont 425 Abbeydale Way Columbia, SC 29229	Pioneer Pioneer Pioneer Pioneer Pioneer	26R36 26R41 26R45 26R59 26R94	Vibrance Extreme + Gaucho
Delta Grow Seed P.O. Box 219 England, AR 72406	Delta Grow Delta Grow Delta Grow	1000 3500 EXP 1400	Dividend Extreme
University of Georgia UGA-CAES-Griffin Campus 1109 Experiment St. Griffin, GA 30223	University of Georgia University of Georgia University of Georgia University of Georgia	GA071518-16E39 GA09129-16E55 GA09436-16LE12 GA09377-16LE18	Dividend Extreme
Dyna-Gro Seed 254 U.S. Hwy. 72 West Collierville, TN 38014	Dyna-Gro Dyna-Gro Dyna-Gro Dyna-Gro Dyna-Gro	9701 9811 TV8861 Plantation WX18416	Foothold Virock
Louisiana State University SPESS 104 M.B. Sturgis Hall Baton Rouge, LA 70803	LSU LSU LSU LSU	LA08080C-31-1 LA09225C-33-3 LA10191C-1 LA13235DH-19	VIBR-EXT + CRUISER
Limagrain Cereal Seeds 257 E. Hail Bushnell, IL 61422	LCS LCS LCS	L11718 L11713 L11814	Vibrance Extreme + Gaucho
Progeny Ag Products 1529 Hwy. 193 South Wynne, AR 72396	Progeny Ag Progeny Ag Progeny Ag Progeny Ag Progeny Ag Progeny Ag Progeny Ag Progeny Ag Progeny Ag Progeny Ag	#BLAZE #BULLET #Turbo #FURY PGX16-4 PGX 17-16 PGX18-2 PGX 18-7 PGX 18-8 PGX 18-11	Evergol Energy/Gaucho
UniSouth Genetics 3205 C Hwy. 46 S. Dickson, TN 37055	USG USG USG USG USG	3536 3895 3539 3329 3640	Vibrance Extreme
University of Arkansas	University of Arkansas University of Arkansas	AR7133C-19-4 AR6146E-1-4	Vibrance Extreme & Gaucho 600

Continued.

Table 2 (continued). Companies supplying wheat brands/varieties entered.

Company	Brand	Variety	Seed treatment
Local Seed Company LLC 802 Rozelle St. Memphis, TN 38104	Local Seed LWX19D LW 2958	LW2848	Local Wheat Radius Premium v 1.0
Stratton Seed Company 1530 Hwy. 79 South Stuttgart, AR 72160	AGS GoWheat GoWheat GoWheat AGS AGS AGS	2055 2058 2032 LA754 2038 2024 2040	CruiserMaxx + Vibrance Extreme
Texas A&M AgriLife Research 2600 S. Neal Commerce, TX 75429	Texas A&M Texas A&M Texas A&M Texas A&M Texas A&M	TX15D9579 TX15D9597 TX15D9608 TXLA140066DH-64 TXLA140066DH-88	CruiserMaxx + Vibrance
VA Tech Eastern Virginia AREC 2229 Menokin Rd. Warsaw, VA 22572	VA TECH	VA09MAS2-131-6-2	Foothold Virock

Table 3. Companies supplying oat brands/varieties entered.

Company	Brand	Variety	Seed treatment
Louisiana State University LSU-SPESS 104 MB Sturgis Hall Baton Rouge, LA 70803-2110	LSU LSU LSU LSU	LA10001SSBS-20-1 LA10044SSBS-1 LA11074SBSBSBSB-109 LA12068SBSB-58-1	Vibrance Extreme
Stratton Seed Company 1530 Hwy. 79 South Stuttgart, AR 72160	Horizon	201	CruiserMaxx + Vibrance Extreme
Angelina Grain Company 16371 Hwy. 15 South Vidalia, LA 71373	Sweet Caroline	FL 0720	Nipsit Suite

Summaries of Wheat Yields

Table 4. 2018–19 yield summary of wheat variety trials in Mississippi.

Brand	Variety[1]	Brooksville	Coldwater	Starkville	Verona	North average	Beaumont	Raymond	South average	Stoneville (delta)	Overall average
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
AgriMAXX	415	59.9	76.3	75.8	72.1	71.1	55.1	76.4	65.8	60.8	68.1
AgriMAXX	473	67.9	69.4	81.1	76.9	73.9	50.2	81.1	65.6	64.8	70.2
AgriMAXX	481	39.7	71.2	75.3	81.1	66.8	75.4	50.9	63.1	64.4	65.4
AgriMAXX	EXP 1906*	57.9	68.1	68.4	70.6	66.3	60.8	79.4	70.1	53.9	65.6
AGS	2040	51.7	63.2	72.7	75.6	65.8	23.5	41.7	32.6	43.6	53.1
AGS	2024	48.3	68.6	69.3	63.9	62.5	67.5	56.8	62.2	64.3	62.7
AGS	2038	39.8	61.8	72.6	57.4	57.9	71.5	38.3	54.9	57.2	56.9
AGS	2055	65.1	61.4	70.8	68.9	66.6	86.4	75.1	80.7	73.9	71.7
Armor	ARW1819*	63.7	68.9	85.9	76.4	73.7	53.0	72.2	62.6	50.0	67.2
Armor	Coastal	40.1	75.7	78.7	73.4	67.0	72.1	46.2	59.2	39.7	60.9
Armor	Mayhem	60.4	69.9	89.9	69.4	72.4	59.8	80.4	70.1	57.3	69.6
Armor	Velocity	54.6	81.6	82.7	79.9	74.7	83.9	73.9	78.9	53.6	72.9
B&S Seed	DB700	59.8	70.5	84.9	77.7	73.2	68.0	74.7	71.3	61.1	71.0
Delta Grow	DG 1000	63.8	70.8	82.7	66.4	70.9	60.9	76.7	68.8	56.1	68.2
Delta Grow	DG 3500	38.5	74.6	71.9	74.1	64.8	76.9	46.2	61.6	44.6	61.0
Delta Grow	EXP 1400*	67.2	68.4	80.1	63.0	69.7	49.5	75.3	62.4	63.9	66.8
Dyna-Gro	9701	64.4	70.7	92.0	72.2	74.8	66.6	76.9	71.7	60.8	71.9
Dyna-Gro	9811	64.7	71.3	68.4	68.9	68.3	45.9	73.8	59.9	57.6	64.4
Dyna-Gro	Plantation	40.2	71.1	78.4	76.7	66.6	68.4	53.4	60.9	41.6	61.4
Dyna-Gro	TV8861	61.7	72.9	79.4	61.9	69.0	44.7	71.8	58.3	55.6	64.0
Dyna-Gro	WX18416*	60.6	75.6	81.1	70.1	71.9	57.3	83.6	70.4	61.2	69.9
GoWheat	2032	48.1	80.6	84.6	74.7	72.0	89.2	53.7	71.4	65.2	70.9
GoWheat	2058	65.9	77.4	80.4	63.9	71.9	75.6	80.3	77.9	64.3	72.5
GoWheat	LA754	53.4	78.7	76.4	77.8	71.6	70.9	54.1	62.5	56.5	66.8
Limagrain Cereal Seeds	L11713	60.7	74.3	82.0	68.1	71.3	72.6	76.3	74.5	56.9	70.1
Limagrain Cereal Seeds	L11718	54.9	64.9	72.9	74.7	66.9	65.6	81.3	73.4	40.0	64.9
Limagrain Cereal Seeds	L11814	73.1	77.7	84.6	75.0	77.6	78.5	68.2	73.3	50.1	72.4
Local Seed Co.	LW 2848	65.6	75.6	86.8	72.3	75.1	60.8	79.1	70.0	59.4	71.4
Local Seed Co.	LWX 19B*	69.7	70.6	81.2	66.5	72.0	37.9	70.1	54.0	64.6	65.8
Local Seed Co.	LWX 19D*	62.9	70.8	79.9	80.3	73.5	57.7	73.3	65.5	39.3	66.3
LSU	LA08080C-31-1*	54.0	64.8	77.1	78.9	68.7	75.4	54.2	64.8	40.5	63.6
LSU	LA09225C-33-3*	63.7	67.1	82.9	73.9	71.9	68.2	62.7	65.5	72.0	70.1
LSU	LA1019C-1*	47.2	70.9	73.3	76.0	66.8	74.0	46.4	60.2	30.3	59.7
LSU	LA13235DH-19*	31.9	68.7	59.3	63.2	55.8	55.4	40.7	48.0	41.1	51.5
Pioneer	26R10	54.5	72.1	79.1	60.4	66.5	43.1	72.8	58.0	57.1	62.7
Pioneer	26R36	61.1	76.4	79.0	66.9	70.8	58.8	69.9	64.4	54.3	66.6
Pioneer	26R41	63.3	72.8	87.2	55.7	69.7	59.2	73.4	66.3	59.1	67.2
Pioneer	26R59	55.8	76.9	77.6	69.5	69.9	58.2	73.4	65.8	47.4	65.5
Pioneer	26R94	48.6	69.3	65.3	69.1	63.1	64.4	57.4	60.9	35.1	58.5
Pioneer	XW15C	69.0	79.4	86.8	75.7	77.7	41.6	83.3	62.4	61.6	71.1
Progeny AG	#Bullet	66.6	81.0	82.9	75.3	76.5	56.6	77.1	66.9	63.5	71.9
Progeny AG	#Turbo	54.8	55.3	74.9	80.5	66.4	82.5	81.0	81.8	37.3	66.6
Progeny Ag	#BLAZE	61.7	74.6	74.9	58.8	67.5	36.8	73.3	55.1	49.7	61.4
Progeny Ag	#FURY	55.0	68.1	72.9	70.3	66.6	83.3	59.2	71.2	55.1	66.3
Progeny Ag	PGX 18-11*	48.6	65.9	82.2	84.0	70.2	79.6	64.1	71.9	48.4	67.5
Progeny Ag	PGX 18-2*	60.2	66.3	81.3	70.0	69.4	66.5	75.6	71.1	58.8	68.4
Progeny Ag	PGX 18-7*	67.9	75.2	83.4	71.4	74.5	59.5	72.8	66.1	45.3	67.9
Progeny Ag	PGX 18-8*	62.7	61.3	81.5	63.9	67.3	46.5	69.7	58.1	31.2	59.5
Progeny Ag	PGX16-4*	51.6	73.1	81.0	76.5	70.5	77.2	63.7	70.5	58.4	68.8
Progeny Ag	PGX17-16*	68.9	73.1	73.4	64.4	69.9	30.5	67.5	49.0	52.9	61.5
Texas A&M	TX15D9579*	33.9	57.8	70.3	61.0	55.8	71.9	44.6	58.3	27.6	52.5
Texas A&M	TX15D9597*	43.4	73.9	73.0	67.6	64.5	73.5	48.9	61.2	50.8	61.6
Texas A&M	TX15D9608*	46.6	67.3	73.9	69.8	64.4	67.6	33.1	50.4	46.9	57.9
Texas A&M	TXLA140066DH-64*	53.9	69.4	74.9	84.6	70.7	59.6	42.7	51.1	50.1	62.2
Texas A&M	TXLA140066DH-88*	46.4	74.8	60.2	78.1	64.9	61.3	42.8	52.1	53.5	59.6
U. of Arkansas	AR06146E-1-4*	55.5	70.2	81.4	81.4	72.1	81.3	62.4	71.9	62.6	70.7
U. of Arkansas	AR07133C-19-4*	46.5	75.0	75.8	51.9	62.3	56.3	58.3	57.3	33.1	56.7
U. of Georgia	GA071518-16E39*	47.9	80.8	67.7	75.6	68.0	76.5	47.6	62.0	54.4	64.3
U. of Georgia	GA09129-16E55*	45.0	71.9	77.0	74.2	67.0	71.1	47.9	59.5	60.5	63.9

[1]Continued

Table 4 (cont.). 2018–19 yield summary of wheat variety trials in Mississippi.

Brand	Variety[1]	Brooksville	Coldwater	Starkville	Verona	North average	Beaumont	Raymond	South average	Stoneville (delta)	Overall average
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
U. of Georgia	GA09377-16LE18*	51.7	72.8	66.1	62.8	63.4	64.4	49.5	57.0	51.7	59.9
U. of Georgia	GA09436-16LE12*	43.3	71.4	60.8	53.4	57.2	71.8	33.3	52.5	43.2	53.9
USG	3329	55.2	74.5	81.1	64.7	68.9	45.7	72.3	59.0	55.6	64.2
USG	3536	70.4	69.4	92.0	70.1	75.5	58.7	81.5	70.1	64.4	72.4
USG	3539	63.3	60.2	86.0	56.6	66.5	43.1	72.2	57.7	58.0	62.8
USG	3895	57.4	57.3	73.2	68.3	64.0	66.3	59.1	62.7	31.8	59.0
USG	3640	43.5	81.1	68.8	71.7	66.2	76.2	35.8	56.0	61.5	62.6
VCIA/VA Tech	VA09MAS2-131-6-2*	52.0	78.4	54.0	60.0	61.1	53.1	68.2	60.7	22.9	55.5
Mean		55.6	71.2	77.1	70.2	68.5	63.0	63.9	63.4	52.4	64.8
CV		11.2	10.2	10.6	10.4		12.5	8.3		13.0	
LSD(0.05)		8.7	10.2	11.4	10.1		11.0	7.4		11.0	
R^2		77.6	51.6	59.4	66.7		80.9	90.8		80.4	
Error DF		198	198	198	198		198	198		198	

[1]Variety followed by an asterisk indicates an experimental entry.

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

Brand	Variety[1]	Beaumont	Brooksville	Coldwater	Raymond	Starkville	Stoneville	Overall average
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
AgriMAXX	415	70.5	73.0	82.0	87.0	82.2	66.2	76.8
AgriMAXX	473	78.9	83.5	81.2	92.1	82.0	69.1	81.1
AGS	2024	82.6	70.9	74.4	69.3	73.4	64.4	72.5
AGS	2038	80.7	63.1	67.2	67.9	78.4	66.7	70.7
AGS	2040	42.9	63.3	65.1	48.8	65.1	39.1	54.1
AGS	2055	97.9	83.4	73.3	85.1	75.7	71.0	81.1
Armor	Mayhem	82.3	74.1	77.2	87.5	85.4	66.6	78.8
B&S Seed	DB700	82.0	80.4	80.1	87.4	82.0	65.5	79.6
Delta Grow	DG 1000	79.2	77.7	77.2	85.5	81.9	64.5	77.7
Delta Grow	DG 3500	88.6	62.3	77.2	64.9	77.0	49.6	69.9
Dyna-Gro	9701	82.4	84.4	83.0	87.2	90.4	65.7	82.2
Dyna-Gro	9811	77.4	79.8	79.2	85.7	76.4	63.9	77.1
Dyna-Gro	TV8861	70.7	70.4	81.9	85.8	86.2	63.4	76.4
GoWheat	2058	81.9	78.7	85.2	83.1	81.0	65.3	79.2
GoWheat	LA754	86.2	69.0	75.3	63.3	70.7	57.0	70.3
LSU	LA08080C-31-1*	89.4	74.9	78.9	72.4	82.3	54.2	75.3
LSU	LA09225C-33-3*	76.5	75.5	77.9	77.0	83.1	71.4	76.9
Pioneer	26R10	68.3	65.1	78.0	86.5	78.7	64.8	73.6
Pioneer	26R36	79.4	77.8	86.1	86.3	81.5	59.3	78.4
Pioneer	26R41	78.6	80.8	78.4	87.3	86.1	66.6	79.6
Pioneer	26R59	82.3	72.8	80.9	86.3	79.8	60.4	77.1
Pioneer	26R94	86.5	70.2	76.9	64.9	70.1	48.2	69.5
Progeny	#Bullet	74.9	85.8	87.2	87.9	86.4	66.6	81.5
Progeny	#Turbo	83.9	79.5	67.9	82.1	78.2	50.9	73.7
Progeny Ag	#BLAZE	59.0	67.7	81.8	85.8	75.5	60.0	71.6
Progeny Ag	#FURY	92.3	77.1	82.5	71.3	75.7	55.4	75.7
Progeny Ag	PGX16-4*	79.8	74.4	77.7	68.8	75.3	63.0	73.2
Progeny Ag	PGX17-16*	57.0	77.4	78.5	82.2	72.2	60.9	71.4
U. of Arkansas	AR06146E-1-4*	93.8	71.6	74.1	70.0	85.5	63.7	76.5
USG	3640	84.4	68.1	88.4	60.4	71.3	58.2	71.8
USG	3536	79.0	82.0	78.4	89.2	88.2	65.7	80.4
USG	3895	86.0	73.7	71.2	80.5	76.8	49.7	73.0
Overall Mean		79.2	74.6	78.3	78.7	79.2	61.2	75.2

[1]Variety followed by an asterisk indicates an experimental entry.

Table 6. Three-year summary of wheat variety trials in Mississippi.

Brand	Variety[1]	Brooksville	Coldwater	Raymond	Starkville	Stoneville	Overall avg.	
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	
AgriMAXX	473	79.6	80.5	65.4	74.7	65.4	73.1	
AGS	2024	69.8	78.1	62.8	76.1	70.1	71.4	
AGS	2038	64.7	72.4	64.7	80.8	71.5	70.8	
AGS	2055	81.4	79.0	79.2	74.0	75.1	77.7	
Armor	Mayhem	73.8	79.6	70.5	80.1	66.5	74.1	
Delta Grow	DG 1000	75.7	75.2	59.5	76.1	55.7	68.4	
Delta Grow	DG 3500	64.0	78.6	64.5	80.9	63.1	70.2	
Dyna-Gro	9701	80.2	81.2	62.3	82.8	56.3	72.6	
GoWheat	2058	76.9	80.9	67.1	74.6	63.9	72.7	
Pioneer	26R10	54.2	67.0	64.0	66.5	60.3	62.4	
Pioneer	26R41	79.0	75.2	76.0	79.9	66.6	75.3	
Pioneer	26R59	65.1	75.1	69.9	65.1	59.4	66.9	
Pioneer	26R94	69.9	82.9	55.6	76.7	62.4	69.5	
Progeny Ag	#BLAZE	60.2	74.4	61.0	63.3	54.9	62.8	
Progeny Ag	#FURY	76.1	86.0	67.4	80.3	62.1	74.4	
Progeny Ag	PGX16-4*	72.4	77.0	69.2	76.8	66.3	72.4	
USG	3536	78.6	77.8	63.3	79.0	69.7	73.7	
USG	3895	73.6	75.4	74.0	74.2	60.7	71.6	
Overall Mean		72.0	77.6	66.5	75.7	63.9	71.1	

[1]Variety followed by an asterisk indicates an experimental entry.

MAFES Black Belt Branch, Brooksville

Crop Summary

The wheat and oat plots were planted no-till into soybean residue from the previous crop. Soil temperature and moisture were ideal at planting for germination. All plots emerged to a good stand. After emergence. the plots received large amounts of rainfall throughout the winter and spring of the growing season. The waterlogged soil conditions seemed to limit the plots' growth somewhat, therefore reducing the yield potential at this location. A warm, dry period in late May allowed for optimum harvest conditions. All plots were harvested in a timely manner.

Planting date . . . . . **October 24**
Harvest date . . . . . **May 29**
Soil type . . . . . **Brooksville silty clay**
Soil pH **6.8**
Soil fertility . . . . . **P=M, K=M**
Previous crop . . . . . **Soybean**
Fertilizer added . . . . . **Preplant — 0-26-26 @ 225 lb/A**
Topdress — 21-0-0-24S @ 100 lb/A on January 28; 46-0-0 @ 120 lb/A on February 27; and 46-0-0 @ 125 lb/A on March 19
Herbicide application . . . . **Preemergence — Gramoxone @ 32 oz/A on October 24 and Zidua @ 1.75 oz/A delayed pre**

Table 7. Yields of 67 wheat varieties at MAFES Black Belt Branch, Brooksville (Brooksville silty clay soil).

Brand	Variety[1]	2018–19 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
Limagrain Cereal Seeds	L11814	73.1	—	—	4/12	1	31
USG	3536	70.4	82.0	78.6	4/18	1	37
Local Seed Co.	LW 2958	69.7	—	—	4/16	1	33
Pioneer	XW15C	69.0	—	—	4/17	1	36
Progeny Ag	PGX17-16*	68.9	77.4	—	4/17	1	33
AgriMAXX	473	67.9	83.5	79.6	4/17	1	36
Progeny Ag	PGX 18-7*	67.9	—	—	4/15	1	37
Delta Grow	EXP 1400*	67.2	—	—	4/18	1	33
Progeny	#Bullet	66.6	85.8	—	4/15	1	30
GoWheat	2058	65.9	78.7	76.9	4/13	1	32
Local Seed Co.	LW 2848	65.6	—	—	4/17	1	38
AGS	2055	65.1	83.4	81.4	4/14	1	37
Dyna-Gro	9811	64.7	79.8	—	4/20	1	35
Dyna-Gro	9701	64.4	84.4	80.2	4/19	1	37
Delta Grow	DG 1000	63.8	77.7	75.7	4/18	1	37
LSU	LA09225C-33-3*	63.7	75.5	—	4/14	1	31
Armor	ARW1819*	63.7	—	—	4/16	1	32
USG	3539	63.3	—	—	4/20	1	37
Pioneer	26R41	63.3	80.8	79.0	4/16	1	35
Local Seed Co.	LWX 19D*	62.9	—	—	4/15	1	36
Progeny Ag	PGX 18-8*	62.7	—	—	4/19	1	34
Progeny Ag	#BLAZE	61.7	67.7	60.2	4/18	1	36
Dyna-Gro	TV8861	61.7	70.4	—	4/19	1	35
Pioneer	26R36	61.1	77.8	—	4/18	1	32
Limagrain Cereal Seeds	L11713	60.7	—	—	4/12	1	34
Dyna-Gro	WX18416*	60.6	—	—	4/14	1	37
Armor	Mayhem	60.4	74.1	73.8	4/18	1	35
Progeny Ag	PGX 18-2*	60.2	—	—	4/13	1	31
AgriMAXX	415	59.9	73.0	—	4/14	1	35
B&S Seed	DB700	59.8	80.4	—	4/16	1	34
AgriMAXX	EXP 1906*	57.9	—	—	4/14	1	31
USG	3895	57.4	73.7	73.6	4/20	1	38
Pioneer	26R59	55.8	72.8	65.1	4/14	1	31
U. of Arkansas	AR06146E-1-4*	55.5	71.6	—	4/11	1	35
USG	3329	55.2	—	—	4/20	1	37
Progeny Ag	#FURY	55.0	77.1	76.1	4/14	1	32

Continued.

Table 7 (cont.). Yields of 67 wheat varieties at MAFES Black Belt Branch, Brooksville (Brooksville silty clay soil).

Brand	Variety[1]	2018–19 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
Limagrain Cereal Seeds	L11718	54.9	—	—	4/15	1	35
Progeny	#Turbo	54.8	79.5	—	4/16	1	31
Armor	Velocity	54.6	—	—	4/14	1	33
Pioneer	26R10	54.5	65.1	54.2	4/17	1	33
LSU	LA08080C-31-1*	54.0	74.9	—	4/13	1	36
Texas A&M	TXLA140066DH-64*	53.9	—	—	4/11	1	34
GoWheat	LA754	53.4	69.0	—	4/15	1	32
VCIA/VA Tech	VA09MAS2-131-6-2*	52.0	—	—	4/11	1	33
U. of Georgia	GA09377-16LE18*	51.7	—	—	4/11	1	34
AGS	2040	51.7	63.3	—	4/18	1	36
Progeny Ag	PGX16-4*	51.6	74.4	72.4	4/13	1	34
Pioneer	26R94	48.6	70.2	69.9	4/14	1	29
Progeny Ag	PGX 18-11*	48.6	—	—	4/15	1	30
AGS	2024	48.3	70.9	69.8	4/13	1	28
GoWheat	2032	48.1	—	—	4/15	1	36
U. of Georgia	GA071518-16E39*	47.9	—	—	4/11	1	31
LSU	LA1019C-1*	47.2	—	—	4/12	1	31
Texas A&M	TX15D9608*	46.6	—	—	4/18	1	29
U. of Arkansas	AR07133C-19-4*	46.5	—	—	4/17	1	34
Texas A&M	TXLA140066DH-88*	46.4	—	—	4/12	1	28
U. of Georgia	GA09129-16E55*	45.0	—	—	4/11	1	31
USG	3640	43.5	68.1	—	4/11	1	36
Texas A&M	TX15D9597*	43.4	—	—	4/14	1	26
U. of Georgia	GA09436-16LE12*	43.3	—	—	4/12	1	35
Dyna-Gro	Plantation	40.2	—	—	4/14	1	29
Armor	Coastal	40.1	—	—	4/14	1	28
AGS	2038	39.8	63.1	64.7	4/11	1	35
AgriMAXX	481	39.7	—	—	4/14	1	32
Delta Grow	DG 3500	38.5	62.3	64.0	4/12	1	34
Texas A&M	TX15D9579*	33.9	—	—	4/14	1	31
LSU	LA13235DH-19*	31.9	—	—	4/14	1	30
Mean		55.6					
CV		11.2					
LSD(0.05)		8.7					
R^2		77.6					
Error DF		198					

[1]Variety followed by an asterisk indicates an experimental entry.

MSU Coastal R&E Center, Beaumont

Crop Summary

The plots were planted in a field that had been disked and harrowed smooth early in the fall. A burndown application of Roundup PowerMAX was applied prior to planting to ensure that there was no weed pressure for the wheat crop. Plots were planted into soil with adequate moisture for germination. Plots had to endure excessive rainfall throughout much of the fall and winter after emergence. Warmer, dryer weather arrived in midspring and finally allowed the plots to begin growing and greening up after nitrogen applications. Harvest conditions were warm and dry, allowing for a timely harvest.

Planting date . . . . . **November 19**
Harvest date . . . . . **May 29**
Soil type . . . . . **McLaurin sandy loam**
Soil pH **6.0**
Soil fertility . . . . . **P=M, K=M**
Previous crop . . . . . **Fallow**
Fertilizer added . . . . . **Preplant — 13-13-13 @ 250 lb/A**
Topdress — 46-0-0 @ 100 lb/A on February 15 and 33-0-0-12S @ 250 lb/A on March 8
Herbicide application . . . . **Burndown — Roundup PowerMAX @ 32 oz/A**
Preemergence — Zidua @ 1.5 oz/A delayed pre

Table 8. Yields of 67 wheat varieties at MSU Coastal R&E Center, Beaumont.

Brand	Variety[1]	2018–19 yield	2-year avg.	3-year avg.[2]	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in*
GoWheat	2032	89.2	—	—	2	36
AGS	2055	86.4	97.9	—	1	41
Armor	Velocity	83.9	—	—	1	38
Progeny Ag	#FURY	83.3	92.3	—	1	36
Progeny	#Turbo	82.5	83.9	—	1	35
U. of Arkansas	AR06146E-1-4*	81.3	93.8	—	1	39
Progeny Ag	PGX 18-11*	79.6	—	—	1	38
Limagrain Cereal Seeds	L11814	78.5	—	—	1	34
Progeny Ag	PGX16-4*	77.2	79.8	—	1	38
Delta Grow	DG 3500	76.9	88.6	—	1	30
U. of Georgia	GA071518-16E39*	76.5	—	—	3	34
USG	3640	76.2	84.4	—	1	36
GoWheat	2058	75.6	81.9	—	1	34
LSU	LA08080C-31-1*	75.4	89.4	—	1	33
AgriMAXX	481	75.4	—	—	1	32
LSU	LA1019C-1*	74.0	—	—	1	32
Texas A&M	TX15D9597*	73.5	—	—	1	33
Limagrain Cereal Seeds	L11713	72.6	—	—	1	41
Armor	Coastal	72.1	—	—	1	31
Texas A&M	TX15D9579*	71.9	—	—	1	32
U. of Georgia	GA09436-16LE12*	71.8	—	—	2	38
AGS	2038	71.5	80.7	—	1	41
U. of Georgia	GA09129-16E55*	71.1	—	—	2	32
GoWheat	LA754	70.9	86.2	—	1	33
Dyna-Gro	Plantation	68.4	—	—	1	35
LSU	LA09225C-33-3*	68.2	76.5	—	2	36
B&S Seed	DB700	68.0	82.0	—	2	41
Texas A&M	TX15D9608*	67.6	—	—	1	29
AGS	2024	67.5	82.6	—	2	38
Dyna-Gro	9701	66.6	82.4	—	1	39
Progeny Ag	PGX 18-2*	66.5	—	—	1	35
USG	3895	66.3	86.0	—	1	35
Limagrain Cereal Seeds	L11718	65.6	—	—	1	37
Pioneer	26R94	64.4	86.5	—	1	35
U. of Georgia	GA09377-16LE18*	64.4	—	—	2	32

Continued.

Table 8 (cont.). Yields of 67 wheat varieties at MSU Coastal R&E Center, Beaumont.

Brand	Variety[1]	2018–19 yield	2-year avg.	3-year avg.[2]	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in*
Texas A&M	TXLA140066DH-88*	61.3	—	—	1	33
Delta Grow	DG 1000	60.9	79.2	—	1	38
Local Seed Co.	LW 2848	60.8	—	—	1	39
AgriMAXX	EXP 1906*	60.8	—	—	1	40
Armor	Mayhem	59.8	82.3	—	2	42
Texas A&M	TXLA140066DH-64*	59.6	—	—	1	27
Progeny Ag	PGX 18-7*	59.5	—	—	1	37
Pioneer	26R41	59.2	78.6	—	3	37
Pioneer	26R36	58.8	79.4	—	3	38
USG	3536	58.7	79.0	—	1	41
Pioneer	26R59	58.2	82.3	—	1	36
Local Seed Co.	LWX 19D*	57.7	—	—	1	34
Dyna-Gro	WX18416*	57.3	—	—	1	38
Progeny	#Bullet	56.6	74.9	—	1	39
U. of Arkansas	AR07133C-19-4*	56.3	—	—	1	40
LSU	LA13235DH-19*	55.4	—	—	1	33
AgriMAXX	415	55.1	70.5	—	1	37
VCIA/VA Tech	VA09MAS2-131-6-2*	53.1	—	—	1	33
Armor	ARW1819*	53.0	—	—	1	34
AgriMAXX	473	50.2	78.9	—	1	38
Delta Grow	EXP 1400*	49.5	—	—	1	37
Progeny Ag	PGX 18-8*	46.5	—	—	1	32
Dyna-Gro	9811	45.9	77.4	—	1	41
USG	3329	45.7	—	—	2	42
Dyna-Gro	TV8861	44.7	70.7	—	1	37
Pioneer	26R10	43.1	68.3	—	2	39
USG	3539	43.1	—	—	2	39
Pioneer	XW15C	41.6	—	—	3	39
Local Seed Co.	LW 2958	37.9	—	—	1	38
Progeny Ag	#BLAZE	36.8	59.0	—	2	41
Progeny Ag	PGX17-16*	30.5	57.0	—	1	38
AGS	2040	23.5	42.9	—	1	30
Mean		63.0				
CV		12.5				
LSD(0.05)		11.0				
R^2		80.9				
Error DF		198				

[1]Variety followed by an asterisk indicates an experimental entry.
[2]No 3-year average.

Jerry Slocum Farms, Coldwater

Crop Summary

The wheat plots were planted in late November into the residue from the previous soybean crop. This was the first opportunity to plant due to the rainy conditions that persisted during the fall planting season. The wet weather continued after planting and on into early spring. Favorable weather finally allowed for nitrogen application, which promoted greenup and tillering. Late May consisted of some warm, dry weather that allowed for good harvest conditions. Harvest was completed in a timely manner and good yields were observed.

Planting date . . . . . **November 28**
Harvest date . . . . . **June 12**
Soil type . . . . . **Calloway silt loam**
Soil pH **6.1**
Soil fertility . . . . . **P=M, K=M**
Previous crop . . . . . **Soybeans**
Fertilizer added . . . . . **Topdress — N @ 35 lb/A (32% UAN) on February 27 and N @ 70 lb/A (32% UAN) on March 22**
Herbicide application . . . **Preemergence — Gramoxone @ 32 oz/A + Zidua @ 1.5 oz/A on December 3**
Postemergence — Harmony @ 0.5 oz/A + 2,4DLV @ 8 oz/A on February 27
Insecticide application . . . **Lambda cyhalothrin @ 3.2 oz/A on February 27**

Table 9. Yields of 67 wheat varieties at Jerry Slocum Farms, Coldwater (Calloway silt loam soil).

Brand	Variety[1]	2018–19 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
Armor	Velocity	81.6	—	—	4/29	1	35
USG	3640	81.1	88.4	—	4/18	1	35
Progeny	#Bullet	81.0	87.2	—	4/18	1	35
U. of Georgia	GA071518-16E39*	80.8	—	—	4/18	1	33
GoWheat	2032	80.6	—	—	4/24	1	33
Pioneer	XW15C	79.4	—	—	4/24	1	36
GoWheat	LA754	78.7	75.3	—	4/18	1	37
VCIA/VA Tech	VA09MAS2-131-6-2*	78.4	—	—	4/18	1	28
Limagrain Cereal Seeds	L11814	77.7	—	—	4/24	2	30
GoWheat	2058	77.4	85.2	80.9	4/18	1	31
Pioneer	26R59	76.9	80.9	75.1	4/24	1	30
Pioneer	26R36	76.4	86.1	—	4/26	1	33
AgriMAXX	415	76.3	82.0	—	4/22	1	33
Armor	Coastal	75.7	—	—	4/26	2	33
Local Seed Co.	LW 2848	75.6	—	—	4/26	1	35
Dyna-Gro	WX18416*	75.6	—	—	4/24	1	36
Progeny Ag	PGX 18-7*	75.2	—	—	4/22	1	33
U. of Arkansas	AR07133C-19-4*	75.0	—	—	4/24	1	35
Texas A&M	TXLA140066DH-88*	74.8	—	—	4/16	1	30
Delta Grow	DG 3500	74.6	77.2	78.6	4/29	1	31
Progeny Ag	#BLAZE	74.6	81.8	74.4	4/22	1	33
USG	3329	74.5	—	—	4/26	1	35
Limagrain Cereal Seeds	L11713	74.3	—	—	4/26	1	33
Texas A&M	TX15D9597*	73.9	—	—	4/22	1	35
Progeny Ag	PGX17-16*	73.1	78.5	—	4/22	1	35
Progeny Ag	PGX16-4*	73.1	77.7	77.0	4/22	1	33
Dyna-Gro	TV8861	72.9	81.9	—	4/29	1	32
Pioneer	26R41	72.8	78.4	75.2	4/26	1	31
U. of Georgia	GA09377-16LE18*	72.8	—	—	4/22	1	33
Pioneer	26R10	72.1	78.0	67.0	4/26	1	32
U. of Georgia	GA09129-16E55*	71.9	—	—	4/16	2	34
U. of Georgia	GA09436-16LE12*	71.4	—	—	4/16	1	35
Dyna-Gro	9811	71.3	79.2	—	4/22	1	34
AgriMAXX	481	71.2	—	—	4/18	1	31
Dyna-Gro	Plantation	71.1	—	—	4/18	1	31
LSU	LA1019C-1*	70.9	—	—	4/26	1	35
Delta Grow	DG 1000	70.8	77.2	75.2	4/22	1	33
Local Seed Co.	LWX 19D*	70.8	—	—	4/29	1	32

Continued.

Table 9 (cont.). Yields of 67 wheat varieties at Jerry Slocum Farms, Coldwater (Calloway silt loam soil).

Brand	Variety[1]	2018–19 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
Dyna-Gro	9701	70.7	83.0	81.2	4/26	1	35
Local Seed Co.	LW 2958	70.6	—	—	4/26	1	34
B&S Seed	DB700	70.5	80.1	—	4/26	1	32
U. of Arkansas	AR06146E-1-4*	70.2	74.1	—	4/24	1	41
Armor	Mayhem	69.9	77.2	79.6	4/29	1	36
AgriMAXX	473	69.4	81.2	80.5	4/29	1	34
Texas A&M	TXLA140066DH-64*	69.4	—	—	4/16	1	31
USG	3536	69.4	78.4	77.8	4/26	1	35
Pioneer	26R94	69.3	76.9	82.9	4/22	1	34
Armor	ARW1819*	68.9	—	—	4/18	1	30
LSU	LA13235DH-19*	68.7	—	—	4/18	1	34
AGS	2024	68.6	74.4	78.1	4/26	1	32
Delta Grow	EXP 1400*	68.4	—	—	4/16	1	33
AgriMAXX	EXP 1906*	68.1	—	—	4/22	1	34
Progeny Ag	#FURY	68.1	82.5	86.0	4/29	1	34
Texas A&M	TX15D9608*	67.3	—	—	4/22	1	31
LSU	LA09225C-33-3*	67.1	77.9	—	4/22	1	35
Progeny Ag	PGX 18-2*	66.3	—	—	4/26	1	32
Progeny Ag	PGX 18-11*	65.9	—	—	4/18	1	30
Limagrain Cereal Seeds	L11718	64.9	—	—	4/22	1	32
LSU	LA08080C-31-1*	64.8	78.9	—	4/18	1	32
AGS	2040	63.2	65.1	—	4/26	1	32
AGS	2038	61.8	67.2	72.4	4/24	1	39
AGS	2055	61.4	73.3	79.0	4/24	1	36
Progeny Ag	PGX 18-8*	61.3	—	—	4/26	1	30
USG	3539	60.2	—	—	4/26	1	35
Texas A&M	TX15D9579*	57.8	—	—	4/22	1	33
USG	3895	57.3	71.2	75.4	4/26	1	31
Progeny	#Turbo	55.3	67.9	—	4/29	1	32
Mean		71.2					
CV		10.2					
LSD(0.05)		10.2					
R^2		51.6					
Error DF		198					

[1]Variety followed by an asterisk indicates an experimental entry.

MAFES Brown Loam Branch, Raymond

Crop Summary

The plots were planted in late October utilizing a stale, raised seedbed from the previous soybean crop that had been recently harvested. Soil moisture was adequate at planting for germination and all plots quickly emerged to a good stand. Rainfall was very plentiful throughout the majority of the growing season, but planting on a raised bed allowed the plots to survive the excessive rains. All plots were harvested in a timely manner without difficulties.

Planting date .....October 29
Harvest date .....May 31
Soil type .....Loring silt loam
Soil pH 6.2
Soil fertility .....P=M, K=M
Previous crop .....Soybean
Fertilizer added .....Preplant — 13-13-13 @ 225 lb/A
Topdress — 21-0-0-24S @ 135 lb/A on February 1 and 46-0-0 @ 205 lb/A on March 5
Herbicide application . . .Burndown — Roundup PowerMAX @ 32 oz/A
Preemergence — Zidua @ 1.75 oz/A delayed pre
Postemergence — Harmony @ 0.9 oz/A on March 5

Table 10. Yields of 67 wheat varieties at MAFES Brown Loam Branch, Raymond (Loring silt loam soil).

Brand	Variety[1]	2018–19 yield	2-year avg.	3-year avg.	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in*
Dyna-Gro	WX18416*	83.6	—	—	2	36
Pioneer	XW15C	83.3	—	—	2	36
USG	3536	81.5	89.2	63.3	2	39
Limagrain Cereal Seeds	L11718	81.3	—	—	1	36
AgriMAXX	473	81.1	92.1	65.4	1	39
Progeny	#Turbo	81.0	82.1	—	1	38
Armor	Mayhem	80.4	87.5	70.5	1	40
GoWheat	2058	80.3	83.1	67.1	1	35
AgriMAXX	EXP 1906*	79.4	—	—	1	39
Local Seed Co.	LW 2848	79.1	—	—	1	37
Progeny	#Bullet	77.1	87.9	—	1	42
Dyna-Gro	9701	76.9	87.2	62.3	1	39
Delta Grow	DG 1000	76.7	85.5	59.5	1	40
AgriMAXX	415	76.4	87.0	—	1	35
Limagrain Cereal Seeds	L11713	76.3	—	—	1	38
Progeny Ag	PGX 18-2*	75.6	—	—	2	35
Delta Grow	EXP 1400*	75.3	—	—	1	38
AGS	2055	75.1	85.1	79.2	1	35
B&S Seed	DB700	74.7	87.4	—	2	36
Armor	Velocity	73.9	—	—	1	37
Dyna-Gro	9811	73.8	85.7	—	1	37
Pioneer	26R41	73.4	87.3	76.0	1	38
Pioneer	26R59	73.4	86.3	69.9	1	34
Progeny Ag	#BLAZE	73.3	85.8	61.0	1	36
Local Seed Co.	LWX 19D*	73.3	—	—	1	37
Pioneer	26R10	72.8	86.5	64.0	2	36
Progeny Ag	PGX 18-7*	72.8	—	—	2	33
USG	3329	72.3	—	—	2	37
USG	3539	72.2	—	—	2	42
Armor	ARW1819*	72.2	—	—	1	37
Dyna-Gro	TV8861	71.8	85.8	—	1	34
Local Seed Co.	LW 2958	70.1	—	—	1	38
Pioneer	26R36	69.9	86.3	—	1	37
Progeny Ag	PGX 18-8*	69.7	—	—	1	34
VCIA/VA Tech	VA09MAS2-131-6-2*	68.2	—	—	2	30
Limagrain Cereal Seeds	L11814	68.2	—	—	2	34
Progeny Ag	PGX17-16*	67.5	82.2	—	1	40
Progeny Ag	PGX 18-11*	64.1	—	—	3	33
Progeny Ag	PGX16-4*	63.7	68.8	69.2	1	36

Continued.

Table 10 (cont.). Yields of 67 wheat varieties at MAFES Brown Loam Branch, Raymond (Loring silt loam soil).

Brand	Variety[1]	2018–19 yield	2-year avg.	3-year avg.	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in*
LSU	LA09225C-33-3*	62.7	77.0	—	2	35
U. of Arkansas	AR06146E-1-4*	62.4	70.0	—	1	39
Progeny Ag	#FURY	59.2	71.3	67.4	1	35
USG	3895	59.1	80.5	74.0	2	32
U. of Arkansas	AR07133C-19-4*	58.3	—	—	1	40
Pioneer	26R94	57.4	64.9	55.6	1	34
AGS	2024	56.8	69.3	62.8	1	32
LSU	LA08080C-31-1*	54.2	72.4	—	1	30
GoWheat	LA754	54.1	63.3	—	2	35
GoWheat	2032	53.7	—	—	1	34
Dyna-Gro	Plantation	53.4	—	—	2	32
AgriMAXX	481	50.9	—	—	2	29
U. of Georgia	GA09377-16LE18*	49.5	—	—	1	33
Texas A&M	TX15D9597*	48.9	—	—	2	33
U. of Georgia	GA09129-16E55*	47.9	—	—	1	33
U. of Georgia	GA071518-16E39*	47.6	—	—	1	34
LSU	LA1019C-1*	46.4	—	—	2	33
Delta Grow	DG 3500	46.2	64.9	64.5	2	31
Armor	Coastal	46.2	—	—	3	32
Texas A&M	TX15D9579*	44.6	—	—	1	32
Texas A&M	TXLA140066DH-88*	42.8	—	—	1	33
Texas A&M	TXLA140066DH-64*	42.7	—	—	1	34
AGS	2040	41.7	48.8	—	1	30
LSU	LA13235DH-19*	40.7	—	—	1	32
AGS	2038	38.3	67.9	64.7	3	34
USG	3640	35.8	60.4	—	4	35
U. of Georgia	GA09436-16LE12*	33.3	—	—	3	33
Texas A&M	TX15D9608*	33.1	—	—	1	30
Mean		63.9				
CV		8.3				
LSD(0.05)		7.4				
R^2		90.8				
Error DF		198				

[1]Variety followed by an asterisk indicates an experimental entry.

R. R. Foil Plant Science Research Center, Starkville

Crop Summary

The wheat and oat plots were planted beyond the desired planting date due to the frequency and volume of rainfall experienced during the fall. The plots were planted into a seedbed that was tilled just prior to planting. Extra tillage practices were performed to try and dry out the soil enough to make the soil suitable for planting. Excessive rainfall throughout the winter and spring delayed spring greenup and tillering. Timely fertilizer applications and somewhat drier weather finally allowed for good growing conditions, and decent yields were recorded at this location. Warm, dry weather in late May allowed for good harvest conditions and harvest was able to be completed in a timely manner.

Planting date . . . . . **November 20**
Harvest date . . . . . **May 30**
Soil type . . . . . **Marietta fine sandy loam**
Soil pH **6.5**
Soil fertility . . . . . **P=M, K=M**
Previous crop . . . . . **Soybean**
Fertilizer added . . . . . **Preplant — 13-13-13 @ 150 lb/A Topdress — 46-0-0 @ 65 lb/A and 0-20-20 @ 150 lb/A on January 28; 33-0-0-12S @ 165 lb/A and 0-20-20 @ 125 lb/A on February 27; and 46-0-0 @ 125 lb/A on March 19**
Herbicide application . . . . **Preemergence — Gramoxone @ 32 oz/A on November 20 and Zidua @ 1.75 oz/A delayed pre**

Table 11. Yields of 67 wheat varieties at MAFES Research Center, Starkville (Leeper silty clay soil).

Brand	Variety[1]	2018–19 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
USG	3536	92.0	88.2	79.0	4/22	1	43
Dyna-Gro	9701	92.0	90.4	82.8	4/26	1	42
Armor	Mayhem	89.9	85.4	80.1	4/23	1	40
Pioneer	26R41	87.2	86.1	79.9	4/22	1	40
Pioneer	XW15C	86.8	—	—	4/22	1	41
Local Seed Co.	LW 2848	86.8	—	—	4/26	1	40
USG	3539	86.0	—	—	4/23	1	37
Armor	ARW1819*	85.9	—	—	4/24	1	33
B&S Seed	DB700	84.9	82.0	—	4/23	1	40
Limagrain Cereal Seeds	L11814	84.6	—	—	4/15	1	31
GoWheat	2032	84.6	—	—	4/11	1	35
Progeny Ag	PGX 18-7*	83.4	—	—	4/21	1	36
Progeny	#Bullet	82.9	86.4	—	4/20	1	37
LSU	LA09225C-33-3*	82.9	83.1	—	4/20	1	40
Armor	Velocity	82.7	—	—	4/23	1	35
Delta Grow	DG 1000	82.7	81.9	76.1	4/23	1	37
Progeny Ag	PGX 18-11*	82.2	—	—	4/10	1	36
Limagrain Cereal Seeds	L11713	82.0	—	—	4/12	1	36
Progeny Ag	PGX 18-8*	81.5	—	—	4/22	1	33
U. of Arkansas	AR06146E-1-4*	81.4	85.5	—	4/10	1	39
Progeny Ag	PGX 18-2*	81.3	—	—	4/24	1	33
Local Seed Co.	LW 2958	81.2	—	—	4/23	1	40
AgriMAXX	473	81.1	82.0	74.7	4/26	1	41
Dyna-Gro	WX18416*	81.1	—	—	4/18	1	37
USG	3329	81.1	—	—	4/15	1	41
Progeny Ag	PGX16-4*	81.0	75.3	76.8	4/12	1	35
GoWheat	2058	80.4	81.0	74.6	4/21	1	34
Delta Grow	EXP 1400*	80.1	—	—	4/23	1	39
Local Seed Co.	LWX 19D*	79.9	—	—	4/26	1	33
Dyna-Gro	TV8861	79.4	86.2	—	4/18	1	36
Pioneer	26R10	79.1	78.7	66.5	4/22	1	37
Pioneer	26R36	79.0	81.5	—	4/23	1	38
Armor	Coastal	78.7	—	—	4/12	1	35
Dyna-Gro	Plantation	78.4	—	—	4/18	1	32
Pioneer	26R59	77.6	79.8	65.1	4/22	1	33

Continued.

Table 11 (cont.). Yields of 67 wheat varieties at MAFES Research Center, Starkville (Leeper silty clay soil).

Brand	Variety[1]	2018–19 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
LSU	LA08080C-31-1*	77.1	82.3	—	4/10	1	34
U. of Georgia	GA09129-16E55*	77.0	—	—	4/13	1	38
GoWheat	LA754	76.4	70.7	—	4/11	1	34
AgriMAXX	415	75.8	82.2	—	4/25	1	36
U. of Arkansas	AR07133C-19-4*	75.8	—	—	4/24	1	42
AgriMAXX	481	75.3	—	—	4/9	1	32
Progeny	#Turbo	74.9	78.2	—	4/22	1	34
Progeny Ag	#BLAZE	74.9	75.5	63.3	4/23	1	40
Texas A&M	TXLA140066DH-64*	74.9	—	—	4/9	1	32
Texas A&M	TX15D9608*	73.9	—	—	4/10	1	36
Progeny Ag	PGX17-16*	73.4	72.2	—	4/10	1	36
LSU	LA1019C-1*	73.3	—	—	4/12	1	33
USG	3895	73.2	76.8	74.2	4/25	1	35
Texas A&M	TX15D9597*	73.0	—	—	4/15	1	36
Limagrain Cereal Seeds	L11718	72.9	—	—	4/16	1	35
Progeny Ag	#FURY	72.9	75.7	80.3	4/13	1	33
AGS	2040	72.7	—	—	4/9	1	34
AGS	2038	72.6	78.4	80.8	4/23	1	40
Delta Grow	DG 3500	71.9	77.0	80.9	4/10	1	34
AGS	2055	70.8	75.7	74.0	4/24	1	34
Texas A&M	TX15D9579*	70.3	—	—	4/15	1	37
AGS	2024	69.3	73.4	76.1	4/16	1	34
USG	3640	68.8	71.3	—	4/15	1	36
AgriMAXX	EXP 1906*	68.4	—	—	4/10	1	36
Dyna-Gro	9811	68.4	76.4	—	4/26	1	37
U. of Georgia	GA071518-16E39*	67.7	—	—	4/10	1	35
U. of Georgia	GA09377-16LE18*	66.1	—	—	4/15	1	37
Pioneer	26R94	65.3	70.1	76.7	4/16	1	35
U. of Georgia	GA09436-16LE12*	60.8	—	—	4/15	1	39
Texas A&M	TXLA140066DH-88*	60.2	—	—	4/13	1	32
LSU	LA13235DH-19*	59.3	—	—	4/8	1	31
VCIA/VA Tech	VA09MAS2-131-6-2*	54.0	—	—	4/15	1	32
Mean		77.1					
CV		10.6					
LSD(0.05)		11.4					
R^2		59.4					
Error DF		198					

[1]Variety followed by an asterisk indicates an experimental entry.

MAFES Delta Branch, Stoneville

Crop Summary

The wheat and oat plots were planted in late October. This was the first opportunity to make an attempt at planting due to the frequency of rainfall during the fall planting season. This location received heavy rainfall the same night the plots were planted. This pattern of rainfall continued from planting throughout early spring. The plants never appeared to tiller as they should, resulting in stands that seemed to be thin. Warm, dry weather at harvest time allowed for harvest to be completed in a timely manner.

Planting date . . . . . **October 30**
Harvest date . . . . . **June 3**
Soil type . . . . . **Bosket very fine sandy loam**
Soil pH **6.2**
Soil fertility . . . . . **P=H, K=H**
Previous crop . . . . . **Soybeans**
Fertilizer added . . . . . **Topdress — 46-0-0 @ 170 lb/A on February 15 and 46-0-0 @ 65 lb/A on March 20**
Herbicide application . . . . **Preemergence — Zidua @ 1.75 oz/A delayed pre**

Table 12. Yields of 67 wheat varieties at MAFES Delta Branch, Stoneville (Bosket very fine sandy loam soil).

Brand	Variety[1]	2018–19 yield	2-year avg.	3-year avg.	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in*
AGS	2055	73.9	71.0	75.1	2	39
LSU	LA09225C-33-3*	72.0	71.4	—	1	38
GoWheat	2032	65.2	—	—	3	32
AgriMAXX	473	64.8	69.1	65.4	1	38
Local Seed Co.	LW 2958	64.6	—	—	1	40
AgriMAXX	481	64.4	—	—	3	32
USG	3536	64.4	65.7	69.7	1	39
AGS	2024	64.3	64.4	70.1	2	34
GoWheat	2058	64.3	65.3	63.9	1	32
Delta Grow	EXP 1400*	63.9	—	—	2	34
Progeny	#Bullet	63.5	66.6	—	1	39
U. of Arkansas	AR06146E-1-4*	62.6	63.7	—	1	38
Pioneer	XW15C	61.6	—	—	2	37
USG	3640	61.5	58.2	—	1	36
Dyna-Gro	WX18416*	61.2	—	—	1	35
B&S Seed	DB700	61.1	65.5	—	1	39
AgriMAXX	415	60.8	66.2	—	1	36
Dyna-Gro	9701	60.8	65.7	56.3	1	41
U. of Georgia	GA09129-16E55*	60.5	—	—	2	35
Local Seed Co.	LW 2848	59.4	—	—	1	40
Pioneer	26R41	59.1	66.6	66.6	2	35
Progeny Ag	PGX 18-2*	58.8	—	—	2	31
Progeny Ag	PGX16-4*	58.4	63.0	66.3	3	30
USG	3539	58.0	—	—	1	39
Dyna-Gro	9811	57.6	63.9	—	1	39
Armor	Mayhem	57.3	66.6	66.5	1	36
AGS	2038	57.2	66.7	71.5	1	39
Pioneer	26R10	57.1	64.8	60.3	1	35
Limagrain Cereal Seeds	L11713	56.9	—	—	2	33
GoWheat	LA754	56.5	57.0	—	3	35
Delta Grow	DG 1000	56.1	64.5	55.7	1	39
Dyna-Gro	TV8861	55.6	63.4	—	1	43
USG	3329	55.6	—	—	1	39
Progeny Ag	#FURY	55.1	55.4	62.1	3	32
U. of Georgia	GA071518-16E39*	54.4	—	—	3	34
Pioneer	26R36	54.3	59.3	—	1	36
AgriMAXX	EXP 1906*	53.9	—	—	1	37
Armor	Velocity	53.6	—	—	1	39
Texas A&M	TXLA140066DH-88*	53.5	—	—	2	32
Progeny Ag	PGX17-16*	52.9	60.9	—	1	39

Continued.

Table 12 (cont.). Yields of 67 wheat varieties at MAFES Delta Branch, Stoneville (Bosket very fine sandy loam soil).

Brand	Variety[1]	2018–19 yield	2-year avg.	3-year avg.	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in*
U. of Georgia	GA09377-16LE18*	51.7	—	—	1	38
Texas A&M	TX15D9597*	50.8	—	—	2	32
Texas A&M	TXLA140066DH-64*	50.1	—	—	3	27
Limagrain Cereal Seeds	L11814	50.1	—	—	1	31
Armor	ARW1819*	50.0	—	—	1	32
Progeny Ag	#BLAZE	49.7	60.0	54.9	1	36
Progeny Ag	PGX 18-11*	48.4	—	—	2	32
Pioneer	26R59	47.4	60.4	59.4	1	35
Texas A&M	TX15D9608*	46.9	—	—	3	31
Progeny Ag	PGX 18-7*	45.3	—	—	1	31
Delta Grow	DG 3500	44.6	49.6	63.1	3	28
AGS	2040	43.6	39.1	—	3	36
U. of Georgia	GA09436-16LE12*	43.2	—	—	1	36
Dyna-Gro	Plantation	41.6	—	—	2	30
LSU	LA13235DH-19*	41.1	—	—	3	33
LSU	LA08080C-31-1*	40.5	54.2	—	1	35
Limagrain Cereal Seeds	L11718	40.0	—	—	1	37
Armor	Coastal	39.7	—	—	3	30
Local Seed Co.	LWX 19D*	39.3	—	—	1	35
Progeny	#Turbo	37.3	50.9	—	1	30
Pioneer	26R94	35.1	48.2	62.4	2	36
U. of Arkansas	AR07133C-19-4*	33.1	—	—	1	37
USG	3895	31.8	49.7	60.7	1	32
Progeny Ag	PGX 18-8*	31.2	—	—	1	38
LSU	LA1019C-1*	30.3	—	—	3	32
Texas A&M	TX15D9579*	27.6	—	—	1	29
VCIA/VA Tech	VA09MAS2-131-6-2*	22.9	—	—	1	27
Mean		52.4				
CV		13.0				
LSD(0.05)		11.0				
R^2		80.4				
Error DF		198				

[1]Variety followed by an asterisk indicates an experimental entry.

MAFES Northeast Mississippi Branch, Verona

Crop Summary

A very wet fall delayed planting of wheat plots until after Thanksgiving. The fall rains persisted into the spring, never allowing for very favorable growing conditions for wheat. Fortunately, prior to planting, the field was prepared using a wide bedder, which formed a 76-inch bed. These beds were formed and rolled, providing the wheat plots a raised area to keep the majority of rainfall from sitting on the planted area. These raised beds allowed the plots to survive the repeated rains. Timely fertilizer applications and more favorable growing conditions later in the spring allowed for good growth and tillering. As harvest time approached, the weather was hot and dry, allowing for good harvest conditions, and harvest was completed in a timely manner.

Planting date . . . . . **November 23**
Harvest date . . . . . **June 4**
Soil type . . . . . **Leeper silty clay loam**
Soil pH **6.3**
Soil fertility . . . . . **P=M, K=M**
Previous crop . . . . . **Corn**
Fertilizer added . . . . . **Preplant — 13-13-13 @ 150 lb/A**
Topdress — 33-0-0-12S @ 100 lb/A on January 28; 46-0-0 @ 175 lb/A on February 27; and 46-0-0 @ 55 lb/A on March 22
Herbicide application . . . . **Preemergence — Gramoxone @ 32 oz/A + Zidua @ 1.75 oz/A**

Table 13. Yields of 67 wheat varieties at MAFES Northeast Mississippi Branch, Verona.

Brand	Variety[1]	2018–19 yield	2-year avg.[2]	3-year avg.[3]	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
Texas A&M	TXLA140066DH-64*	84.6	—	—	4/20	1	32
Progeny Ag	PGX 18-11*	84.0	—	—	4/21	1	38
U. of Arkansas	AR06146E-1-4*	81.4	—	—	4/20	1	46
AgriMAXX	481	81.1	—	—	4/16	1	33
Progeny	#Turbo	80.5	—	—	4/22	1	37
Local Seed Co.	LWX 19D*	80.3	—	—	4/26	1	34
Armor	Velocity	79.9	—	—	4/24	1	40
LSU	LA08080C-31-1*	78.9	—	—	4/22	1	40
Texas A&M	TXLA140066DH-88*	78.1	—	—	4/16	1	35
GoWheat	LA754	77.8	—	—	4/23	1	40
B&S Seed	DB700	77.7	—	—	4/24	1	39
AgriMAXX	473	76.9	—	—	4/28	1	40
Dyna-Gro	Plantation	76.7	—	—	4/16	1	38
Progeny Ag	PGX16-4*	76.5	—	—	4/20	1	40
Armor	ARW1819*	76.4	—	—	4/26	1	38
LSU	LA1019C-1*	76.0	—	—	4/23	1	35
Pioneer	XW15C	75.7	—	—	4/26	1	39
AGS	2040	75.6	—	—	4/20	1	38
U. of Georgia	GA071518-16E39*	75.6	—	—	4/21	1	37
Progeny	#Bullet	75.3	—	—	4/28	1	41
Limagrain Cereal Seeds	L11814	75.0	—	—	4/23	1	33
Limagrain Cereal Seeds	L11718	74.7	—	—	4/26	1	39
GoWheat	2032	74.7	—	—	4/20	1	39
U. of Georgia	GA09129-16E55*	74.2	—	—	4/22	1	38
Delta Grow	DG 3500	74.1	—	—	4/21	1	34
LSU	LA09225C-33-3*	73.9	—	—	4/26	1	40
Armor	Coastal	73.4	—	—	4/21	1	34
Local Seed Co.	LW 2848	72.3	—	—	4/27	1	42
Dyna-Gro	9701	72.2	—	—	4/27	1	38

Continued.

Table 13 (cont.). Yields of 67 wheat varieties at MAFES Northeast Mississippi Branch, Verona.

Brand	Variety[1]	2018–19 yield	2-year avg.[2]	3-year avg.[3]	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
AgriMAXX	415	72.1	—	—	4/23	1	39
USG	3640	71.7	—	—	4/21	1	44
Progeny Ag	PGX 18-7*	71.4	—	—	4/24	1	41
AgriMAXX	EXP 1906*	70.6	—	—	4/26	1	39
Progeny Ag	#FURY	70.3	—	—	4/23	1	36
Dyna-Gro	WX18416*	70.1	—	—	4/24	1	35
USG	3536	70.1	—	—	4/28	1	37
Progeny Ag	PGX 18-2*	70.0	—	—	4/20	1	39
Texas A&M	TX15D9608*	69.8	—	—	4/21	1	39
Pioneer	26R59	69.5	—	—	4/25	1	34
Armor	Mayhem	69.4	—	—	4/24	1	37
Pioneer	26R94	69.1	—	—	4/22	1	36
Dyna-Gro	9811	68.9	—	—	4/24	1	39
AGS	2055	68.9	—	—	4/24	1	41
USG	3895	68.3	—	—	4/24	1	33
Limagrain Cereal Seeds	L11713	68.1	—	—	4/22	1	37
Texas A&M	TX15D9597*	67.6	—	—	4/23	1	36
Pioneer	26R36	66.9	—	—	4/26	1	38
Local Seed Co.	LW 2958	66.5	—	—	4/26	1	38
Delta Grow	DG 1000	66.4	—	—	4/22	1	40
USG	3329	64.7	—	—	4/25	1	39
Progeny Ag	PGX17-16*	64.4	—	—	4/28	1	39
AGS	2024	63.9	—	—	5/1	1	34
GoWheat	2058	63.9	—	—	4/30	1	35
Progeny Ag	PGX 18-8*	63.9	—	—	4/25	1	33
LSU	LA13235DH-19*	63.2	—	—	4/21	1	33
Delta Grow	EXP 1400*	63.0	—	—	4/28	1	37
U. of Georgia	GA09377-16LE18*	62.8	—	—	4/22	1	39
Dyna-Gro	TV8861	61.9	—	—	4/24	1	35
Texas A&M	TX15D9579*	61.0	—	—	4/23	1	36
Pioneer	26R10	60.4	—	—	4/23	1	37
VCIA/VA Tech	VA09MAS2-131-6-2*	60.0	—	—	4/24	1	33
Progeny Ag	#BLAZE	58.8	—	—	4/28	1	38
AGS	2038	57.4	—	—	4/23	1	41
USG	3539	56.6	—	—	4/27	1	38
Pioneer	26R41	55.7	—	—	4/29	1	32
U. of Georgia	GA09436-16LE12*	53.4	—	—	4/23	1	38
U. of Arkansas	AR07133C-19-4*	51.9	—	—	4/28	1	36
Mean		70.2					
CV		10.4					
LSD(0.05)		10.1					
R^2		66.7					
Error DF		198					

[1]Variety followed by an asterisk indicates an experimental entry.
[2]No 2-year data
[3]No 3-year data

Wheat and Oat Seeds per Pound

Table 14. Average number of wheat seeds per pound.

Brand	Variety	2018–19
AgriMAXX	481	11,000
AgriMAXX	415	14,900
AgriMAXX	473	14,800
AgriMAXX	EXP 1906	14,300
AGS	2055	—
AGS	2038	—
AGS	2024	—
AGS	2040	—
Armor	Mayhem	—
Armor	Voodoo	—
Armor	Coastal	—
Armor	ARW1819	—
Delta Grow	1000	—
Delta Grow	3500	—
Delta Grow	EXP 1400	—
Dixie Bell	DB 700	11,756
Dyna-Gro	9701	—
Dyna-Gro	9811	—
Dyna-Gro	TV8861	—
Dyna-Gro	Plantation	—
Dyna-Gro	WX18416	—
GoWheat	2058	—
GoWheat	2032	—
GoWheat	LA754	—
LCS	L11718	—
LCS	L11713	—
LCS	L11814	—
Local Seed	LW2848	15,100
Local Seed	LWX19D	10,450
Local Seed	LW 2958	13,000
LSU	LA08080C-31-1	—
LSU	LA09225C-33-3	—
LSU	LA10191C-1	—
LSU	LA13235DH-19	—
Pioneer	26R10	—
Pioneer	26R36	—
Pioneer	26R41	—
Pioneer	26R45	—
Pioneer	26R59	—
Pioneer	26R94	—
Progeny Ag	#BLAZE	13,250
Progeny Ag	#BULLET	13,000
Progeny Ag	#Turbo	14,200
Progeny Ag	#FURY	12,300
Progeny Ag	PGX16-4	12,200
Progeny Ag	PGX 17-16	—
Progeny Ag	PGX18-2	—
Progeny Ag	PGX 18-7	—
Progeny Ag	PGX 18-8	—
Progeny Ag	PGX 18-11	—
Texas A&M	TX15D9579	—
Texas A&M	TX15D9597	—
Texas A&M	TX15D9608	—
Texas A&M	TXLA140066DH-64	—
Texas A&M	TXLA140066DH-88	—
U. of Arkansas	AR7133C-19-4	—
U. of Arkansas	AR6146E-1-4	—
U. of Georgia	GA071518-16E39	—
U. of Georgia	GA09129-16E55	—
U. of Georgia	GA09436-16LE12	—
U. of Georgia	GA09377-16LE18	—
USG	3640	—
USG	3536	13,400
USG	3895	14,500
USG	3539	—
USG	3329	14,200
VA TECH	VA09MAS2-131-6-2	—

Table 15. Average number of oat seeds per pound.		
Brand	**Variety**	**2018–19**
Horizon	201	—
LSU	LA10001SSBS-20-1	—
LSU	LA10044SSBS-1	—
LSU	LA11074SBSBSBSB-109	—
LSU	LA12068SBSB-58-1	—
Sweet Caroline	FL 0720	—

Summaries of Oat Yields

Table 16. 2018-19 yield summary of oat official variety trials in Mississippi.

Brand	Variety[1]	Brooksville	Raymond	Stoneville	Starkville	Verona	Overall average
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
Horizon	201	76.5	91.1	36.5	113.5	56.8	74.9
LSU	LA10001SSBS-20-1	61.1	54.2	52.0	96.4	43.9	61.5
LSU	LA10044SSBS-1	69.2	102.1	47.8	101.6	56.8	75.5
LSU	LA11074SBSBSBSB-109	83.4	101.9	61.2	121.6	51.5	83.9
LSU	LA12068SBSB-58-1	63.0	105.8	39.8	76.3	58.2	68.6
Sweet Caroline	FL 0720	48.0	62.6	52.1	115.8	56.9	67.1
Mean		66.9	86.3	48.2	104.2	54.0	71.9
CV		15.9	14.4	23.6	27.5	19.9	
LSD(0.05)		16.0	18.7	NS	NS	NS	
R^2		80.2	84.5	58.7	35.4	38.6	
Error DF		15	15	15	15	15	

[1]Variety followed by an asterisk indicates an experimental entry.

Table 17. Two-year summary of oat variety trials in Mississippi.

Brand	Variety	Brooksville	Raymond	Starkville	Stoneville	Overall avg.
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*
Horizon	201	91.4	93.9	128.7	40.2	88.5

Table 18. Three-year summary of oat variety trials in Mississippi.

Brand	Variety	Stoneville	Overall avg.
		bu/A	*bu/A*
Horizon	201	49.3	49.3

MAFES Black Belt Branch, Brooksville

Crop Summary

The wheat and oat plots were planted no-till into soybean residue from the previous crop. Soil temperature and moisture were ideal at planting for germination. All plots emerged to a good stand. After emergence, the plots received large amounts of rainfall throughout the winter and spring portion of the growing season. The waterlogged soil conditions seemed to limit the plots growth somewhat, therefore reducing the yield potential at this location. A warm, dry period in late May allowed for optimum harvest conditions. All plots were harvested in a timely manner.

Planting date . . . . . .October 24
Harvest date . . . . . .May 29
Soil type . . . . . .Brooksville silty clay
Soil pH 6.8
Soil fertility . . . . . .P=M, K=M
Previous crop . . . . . .Soybean
Fertilizer added . . . . . .Preplant — 0-26-26 @ 225 lb/A
Topdress — 21-0-0-24S @ 100 lb/A on January 28; 46-0-0 @ 120 lb/A on February 27; and 46-0-0 @ 125 lb/A on March 19
Herbicide application . . . .Preemergence — Gramoxone @ 32 oz/A on October 24

Table 19. Yields of six oat varieties at MAFES Black Belt Branch, Brooksville (Brooksville silty clay soil).

Brand	Variety[1]	2018-19 yield	2-Year avg.	3-Year[2] avg.	Date Headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in.*
LSU	LA11074SBSBSBSB-109*	83.4	—	—	4/16	1	40
Horizon	201	76.5	91.3	—	4/17	1	43
LSU	LA10044SSBS-1*	69.2	—	—	4/17	1	32
LSU	LA12068SBSB-58-1*	63.0	—	—	4/18	1	34
LSU	LA10001SSBS-20-1*	61.1	—	—	4/18	1	47
Sweet Caroline	FL 0720	48.0	—	—	4/21	1	39
Mean		66.9					
CV		15.9					
LSD(0.05)		16.0					
R^2		80.2					
Error DF		15					

[1]Variety followed by an asterisk indicates an experimental entry.
[2]No 3-year average.

MAFES Brown Loam Branch, Raymond

Crop Summary

The plots were planted in late October utilizing a stale, raised seedbed from the previous soybean crop that had been recently harvested. Soil moisture was adequate at planting for germination, and all plots quickly emerged to a good stand. Rainfall was very plentiful throughout the majority of the growing season, but planting on a raised bed allowed the plots to survive the excessive rains. All plots were harvested in a timely manner without difficulties.

Planting date . . . . . .October 29
Harvest date . . . . . .May 31
Soil type . . . . . .Loring silt loam
Soil pH 6.2
Soil fertility . . . . . .P=M, K=M
Previous crop . . . . . .Soybean
Herbicide application . . . .Burndown — Roundup PowerMAX @ 32 oz/A
Postemergence — Harmony @ 0.9 oz/A on March 5
Fertilizer added . . . . . .Preplant — 13-13-13 @ 225 lb/A
Topdress — 21-0-0-24S @ 135 lb/A on February 1 and 46-0-0 @ 205 lb/A on March 5

Table 20. Yields of six oat varieties at MAFES Brown Loam Branch, Raymond.

Brand	Variety[1]	2018-19 yield	2-Year avg.	3-Year[2] avg.	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in.*
LSU	LA12068SBSB-58-1*	105.8	—	—	1	43
LSU	LA10044SSBS-1*	102.1	—	—	2	43
LSU	LA11074SBSBSBSB-109*	101.9	—	—	1	49
Horizon	201	91.1	93.9	—	2	50
Sweet Caroline	FL 0720	62.6	—	—	1	53
LSU	LA10001SSBS-20-1*	54.2	—	—	3	48
Mean		86.3				
CV		14.4				
LSD(0.05)		18.7				
R^2		84.5				
Error DF		15				

[1]Variety followed by an asterisk indicates an experimental entry.
[2]No 3-year average.

R. R. Foil Plant Science Research Center, Starkville

Crop Summary

The wheat and oat plots were planted beyond the desired planting date due to the frequency and volume of rainfall experienced during the fall. The plots were planted into a seedbed that was tilled just prior to planting. Extra tillage practices were performed to try and dry out the soil enough to make the soil suitable for planting. Excessive rainfall throughout the winter and spring delayed spring greenup and tillering. Timely fertilizer applications and somewhat drier weather finally allowed for good growing conditions, and decent yields were recorded at this location. Warm, dry weather in late May allowed for good harvest conditions, and harvest was able to be completed in a timely manner.

Planting date . . . . . **November 20**
Harvest date . . . . . **May 30**
Soil type . . . . . **Marietta fine sandy loam**
Soil pH **6.5**
Soil fertility . . . . . **P=M, K=M**
Previous crop . . . . . **Soybean**
Fertilizer added . . . . . **Preplant — 13-13-13 @ 150 lb/A**
Topdress — 46-0-0 @ 65 lb/A and 0-20-20 @ 150 lb/A on January 28; 33-0-0-12S @ 165 lb/A and 0-20-20 @ 125 lb/A on February 27; and 46-0-0 @ 125 lb/A on March 19
Herbicide application . . . . **Preemergence — Gramoxone @ 32 oz/A on November 20**

Table 21. Yields of six oat varieties at MAFES Research Center, Starkville.

Brand	Variety[1]	2018-19 yield	2-Year avg.	3-Year[2] avg.	Date Headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in.*
LSU	LA11074SBSBSBSB-109*	121.6	—	—	4/22	1	51
Sweet Caroline	FL 0720	115.8	—	—	4/25	2	56
Horizon	201	113.5	128.7	—	4/15	2	54
LSU	LA10044SSBS-1*	101.6	—	—	4/15	1	52
LSU	LA10001SSBS-20-1*	96.4	—	—	4/17	1	54
LSU	LA12068SBSB-58-1*	76.3	—	—	4/22	1	45
Mean		104.2					
CV		27.5					
LSD(0.05)		NS					
R^2		35.4					
Error DF		15					

[1]Variety followed by an asterisk indicates an experimental entry.
[2]No 3-year average.

MAFES Delta Branch, Stoneville

Crop Summary

The wheat and oat plots were planted in late October. This was the first opportunity to make an attempt at planting due to the frequency of rainfall during the fall planting season. This location received a heavy rainfall event the same night the plots were planted. This pattern of rainfall continued from planting throughout early spring. The plants never appeared to tiller as they should, resulting in stands that seemed to be thin. Warm, dry weather at harvest time allowed for harvest to be completed in a timely manner.

Planting date . . . . . .October 30
Harvest date . . . . . .June 3
Soil type . . . . . .Bosket very fine sandy loam
Soil pH 6.2
Soil fertility . . . . . .P=H, K=H
Previous crop . . . . . .Soybeans
Fertilizer added . . . . . .Topdress — 46-0-0 @ 170 lb/A on February 15 and 46-0-0 @ 65 lb/A on March 20

Table 22. Yield of six oat varieties at MAFES Delta Branch, Stoneville.

Brand	Variety[1]	2018-19 yield	2-Year avg.	3-Year[2] avg.	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in.*
LSU	LA11074SBSBSBSB-109*	61.2	—	—	1	51
Sweet Caroline	FL 0720	52.1	—	—	2	54
LSU	LA10001SSBS-20-1*	52.0	—	—	1	54
LSU	LA10044SSBS-1*	47.8	—	—	2	41
LSU	LA12068SBSB-58-1*	39.8	—	—	1	48
Horizon	201	36.5	40.2	49.3	3	50
Mean		45.6				
CV		23.6				
LSD(0.05)		NS				
R^2		58.7				
Error DF		15				

[1]Variety followed by an asterisk indicates an experimental entry.

MAFES Northeast Mississippi Branch, Verona

Crop Summary

A very wet fall delayed planting of wheat plots until after Thanksgiving. The fall rains persisted into the spring, never allowing for very favorable growing conditions for wheat. Fortunately, prior to planting, the field was prepared using a wide bedder, which formed a 76-inch bed. These beds were formed and rolled, providing the wheat plots a raised area to keep the majority of rainfall from sitting on the planted area. These raised beds allowed the plots to survive the repeated rains. Timely fertilizer applications and more favorable growing conditions later in the spring allowed for good growth and tillering. As harvest time approached, the weather was hot and dry, allowing for good harvest conditions, and harvest was completed in a timely manner.

Planting date . . . . . **November 23**
Harvest date . . . . . **June 4**
Soil type . . . . . **Leeper silty clay loam**
Soil pH **6.3**
Soil fertility . . . . . **P=M, K=M**
Previous crop . . . . . **Corn**
Fertilizer added . . . . . **Preplant — 13-13-13 @ 150 lb/A**
Topdress — 33-0-0-12S @ 100 lb/A on January 28; 46-0-0 @ 175 lb/A on February 27; and 46-0-0 @ 55 lb/A on March 22
Herbicide application . . . . **Preemergence — Gramoxone @ 32 oz/A**

Table 23. Yield of six oat varieties at the MAFES Northeast Mississippi Branch, Verona.

Brand	Variety[1]	2018-19 yield	2-Year avg.[2]	3-Year avg.[2]	Date Headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in.*
LSU	LA12068SBSB-58-1*	58.2	—	—	4/26	1	63
Sweet Caroline	FL 0720	56.9	—	—	4/24	2	43
Horizon	201	56.8	—	—	4/25	1	53
LSU	LA10044SSBS-1*	56.8	—	—	4/23	2	53
LSU	LA11074SBSBSBSB-109*	51.5	—	—	4/26	1	60
LSU	LA10001SSBS-20-1*	43.9	—	—	4/22	1	57
Mean		54.0					
CV		19.9					
LSD(0.05)		NS					
R^2		38.6					
Error DF		15					

[1]Variety followed by an asterisk indicates an experimental entry.
[2]No 2- or 3-year average.

Data Not Reported

Todd Heigle Farm, Issaquena County

No data were reported from this location due to the flood that occurred during the planting season and persisted throughout the remainder of the season at this south Delta location and prevented planting.

Coastal Plain Branch Experiment Station, Newton

No data were reported from this location due to yields that were uncharacteristically low. These low yields might have been the result of the winter nitrogen applications that likely experienced considerable loss due to rainfall and therefore had a difficult time providing nitrogen needed for spring crop utilization. Also, the use of the herbicide Osprey might have presented some unique crop tolerance issues, resulting in negative impact on yield.

MS AGRICULTURAL AND
FORESTRY EXPERIMENT STATION

The mission of the Mississippi Agricultural and Forestry Experiment Station and the College of Agriculture and Life Sciences is to advance agriculture and natural resources through teaching and learning, research and discovery, service and engagement which will enhance economic prosperity and environmental stewardship, to build stronger communities and improve the health and well-being of families, and to serve people of the state, the region and the world.

George M. Hopper, Director **www.mafes.msstate.edu**