MISSISSIPPI WHEAT & OAT
VARIETY TRIALS, 2018

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MISSISSIPPI'S OFFICIAL VARIETY TRIALS

MISSISSIPPI STATE UNIVERSITY™
MS AGRICULTURAL AND
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, 2018

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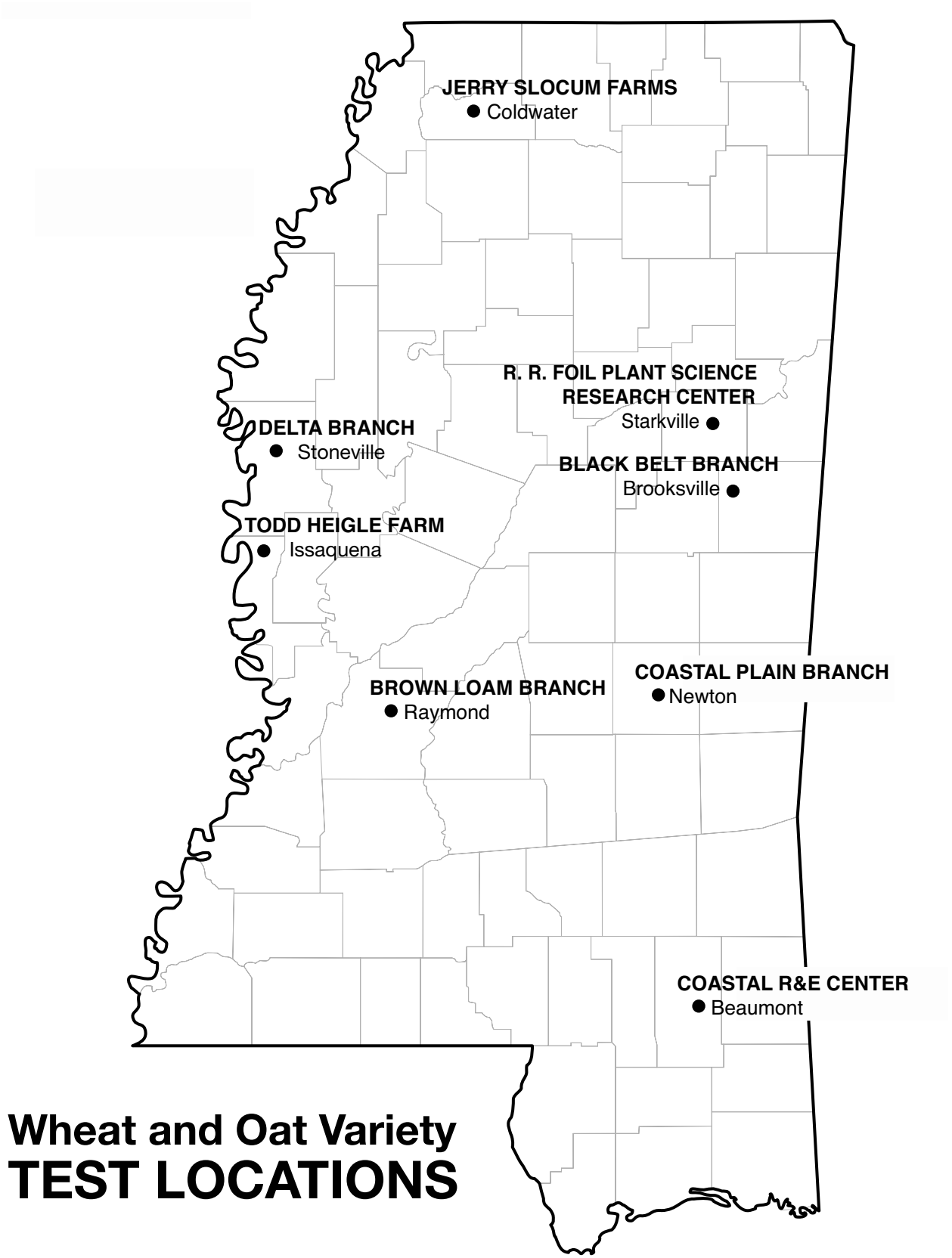
Find variety trial information online at ***mafes.msstate.edu/variety-trials***.



Wheat and Oat Variety
TEST LOCATIONS

Mississippi Wheat and Oat Variety Trials, 2018

Introduction

Small grains are grown throughout Mississippi. Wheat is the primary crop, followed by oats. Wheat variety trials were conducted at eight locations, while oat trials were conducted at four locations in Mississippi in 2017–2018. 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.

Wheat and Oat Seed Sources

Table 1. 2017–18 MSU wheat and oat planting dates.

Location	Soil type	Planting date	Harvest date	Crop tested
Beaumont	McLaurin sandy loam	11/14/17	5/29/18	Wheat
Brooksville	Brooksville silty clay	11/6/17	6/4/18	Wheat & Oat
Coldwater	Calloway silt loam	11/13/17	6/8/18	Wheat
Mayersville	Commerce silty clay loam/Robinsonville very fine sandy loam	11/16/17	6/6/18	Wheat
Newton	Prentiss very fine sandy loam	11/1/17	6/7/18	Wheat
Raymond	Loring silt loam	11/6/17	5/30/18	Wheat & Oat
Starkville	Leeper silty clay	11/3/17	5/31/18	Wheat & Oat
Stoneville	Bosket very fine sandy loam	11/2/17	6/5/18	Wheat & Oat

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 AgriMAXX AgriMAXX	415 475 473 474 480 EXP 1884	PRIME ST
AgSouth Genetics P.O. Box 72246 Albany, GA 31708	AGS AGS AGS AGS	2055 2038 2024 2040	CruiserMaxx + Vibrance Extreme
Armor Seed 183 S Pennsylvania Ave. Waldenburg, AR 72475	Armor Armor Armor Armor	Mayhem Lockdown ARW1718 Coastal	Vibrant Extreme + Nipsit
B&S Seed Co. Inc. 1283 Hwy. 444 Duncan, MS 38740	Dixie Bell	DB 700	Cruiser
Delta Grow Seed P.O. Box 219 England, AR 72406	Delta Grow Delta Grow	1000 3500	Dividend Extreme
U. of Georgia UGA-CAES-Griffin Campus 1109 Experiment St. Griffin, GA 30223	U. of Georgia U. of Georgia U. of Georgia U. of Georgia U. of Georgia U. of Georgia	GA07353-14E19 GA051207-14E53 GAJT 141-14E45 GA081446-15EL47 GA061471-15LE38 GA08535-15LE29	Dividend Extreme
Dyna-Gro Seed 6221 Riverside Dr., Suite One Dublin, OH 43017	Dyna-Gro Dyna-Gro Dyna-Gro Dyna-Gro	Savoy 9701 9811 TV8861	Foothold Virock
Louisiana State University SPESS 104 M.B. Sturgis Hall Baton Rouge, LA 70803	LSU LSU LSU LSU	LA01110D-150-241 LA01110D-150-625 LA08080C-31-1 LA09225C-33-3	Vibrance Extreme + Cruiser

Continued.

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

Company	Brand	Variety	Seed Treatment
Limagrain Cereal Seeds 257 E. Hail Bushnell, IL 61422	Limagrain Cereal Seed Limagrain Cereal Seed Limagrain Cereal Seed	Ammo L11538 L11544	F/I
Pioneer Hi-Bred Intl. 59 Greif Parkway, Suite 200 Delaware, OH 43015	Pioneer Pioneer Pioneer Pioneer Pioneer Pioneer	26R10 26R36 26R41 26R45 26R59 26R94	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	#BOSS #BULLET #TURBO #FURY #BLAZE PGX16-4 PGX16-7 PGX17-16 PGX17-20 PGX17-28	Evergol + Gaucho
UniSouth Genetics Inc. 3205 C Hwy. 46 S Dickson, TN 37055	USG USG USG USG	3536 3895 3118 3329	Vibrance Extreme + Cruiser
U. of Arkansas	U. of Arkansas	AR06146E-1-4	Vibrance Extreme + Gaucho

Table 3. Companies supplying oat brands/varieties entered.

Company	Brand	Variety	Seed Treatment
Clemson University	Clemson Clemson	Graham SCOP86-4	—
Stratton Seed Company 1530 Hwy. 79 South Stuttgart, AR 72160	Horizon	201	CruiserMaxx + Vibrance Extreme

Summaries of Wheat Yields

Table 4. 2017–18 yield summary of wheat variety trials in Mississippi.

Brand	Variety[1]	Brooksville	Coldwater	Starkville	North average	Beaumont	Newton	Raymond	South average	Mayersville	Stoneville	Delta average	Overall average
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
AgriMAXX	473	99.1	92.9	82.8	91.6	107.7	67.2	103.1	92.7	92.3	73.4	82.9	89.8
AgriMAXX	474	91.4	83.4	87.0	87.2	93.4	71.9	98.1	87.8	86.7	63.3	75.0	84.4
AgriMAXX	475	80.9	86.5	85.6	84.4	88.8	64.4	103.8	85.7	94.3	76.9	85.6	85.2
AgriMAXX	480	104.1	52.6	64.7	73.8	101.2	57.8	78.5	79.2	46.7	53.9	50.3	69.9
AgriMAXX	415	86.1	87.7	88.5	87.4	86.0	66.5	97.6	83.3	92.8	71.6	82.2	84.6
AgriMAXX	EXP 1884 *	91.6	94.0	77.1	87.6	80.4	66.7	99.9	82.4	94.5	70.7	82.6	84.4
AGS	2024	93.5	80.3	77.5	83.7	97.6	65.2	81.8	81.5	77.0	64.5	70.7	79.7
AGS	2038	86.5	72.7	84.2	81.1	89.8	66.0	97.4	84.4	91.7	76.3	84.0	83.1
AGS	2055	101.6	85.1	80.6	89.1	109.4	69.1	95.2	91.2	85.7	68.1	76.9	86.8
AGS	2040	74.9	66.9	57.6	66.5	62.3	50.6	55.8	56.2	39.2	34.5	36.9	55.2
Armor	ARW1718 *	93.8	95.7	81.5	90.3	99.6	69.7	101.2	90.2	93.6	69.0	81.3	88.0
Armor	Coastal	81.0	67.3	66.4	71.6	100.1	65.6	93.0	86.2	56.1	57.5	56.8	73.4
Armor	Lockdown	93.0	82.2	88.5	87.9	98.1	67.0	89.9	85.0	81.3	61.5	71.4	82.7
Armor	Mayhem	87.8	84.6	80.9	84.4	104.7	62.8	94.6	87.4	93.5	75.9	84.7	85.6
Delta Grow	DG 1000	91.5	83.6	81.1	85.4	97.4	66.0	94.4	85.9	90.8	72.9	81.9	84.7
Delta Grow	DG 3500	86.2	79.7	82.1	82.7	100.3	67.9	83.5	83.9	53.9	54.5	54.2	76.0
Dixie Bell	DB 700	101.0	89.8	79.1	90.0	96.1	71.2	100.1	89.1	96.7	69.9	83.3	88.0
Dyna-Gro	9701	104.4	95.2	88.8	96.1	98.2	64.3	97.5	86.7	95.8	70.6	83.2	89.4
Dyna-Gro	9811	94.8	87.1	84.4	88.8	108.9	74.4	97.5	93.6	86.7	70.2	78.5	88.0
Dyna-Gro	Savoy	82.6	82.1	57.0	73.9	77.1	65.9	54.4	65.8	44.6	38.3	41.5	62.7
Dyna-Gro	TV8861	79.2	90.9	93.1	87.7	96.7	76.7	99.8	91.1	89.9	71.3	80.6	87.2
Go Wheat	2059	84.7	84.7	79.1	82.9	94.1	61.6	85.4	80.4	69.5	56.4	63.0	77.0
Go Wheat	LA754	84.7	71.8	65.0	73.8	101.6	61.5	72.4	78.5	58.2	57.6	57.9	71.6
Go Wheat	2058	91.6	92.9	81.6	88.7	88.2	74.4	85.8	82.8	87.5	66.4	76.9	83.6
Limagrain Cereal Seeds	Ammo	87.1	84.7	80.9	84.2	90.8	64.7	75.7	77.1	71.2	53.0	62.1	76.0
Limagrain Cereal Seeds	L11544	82.4	75.9	78.2	78.8	102.8	70.8	71.2	81.6	56.0	61.1	58.5	74.8
Limagrain Cereal Seeds	L11538	102.0	90.5	83.1	91.9	97.0	66.0	92.5	85.2	92.0	69.9	80.9	86.6
LSU	LA08080C-31-1 *	95.8	93.0	87.5	92.1	103.3	63.2	90.5	85.7	84.2	67.9	76.1	85.7
LSU	LA09225C-33-3 *	87.3	88.7	83.3	86.4	84.8	63.1	91.3	79.7	91.9	70.7	81.3	82.6
LSU	LA 01110D-150-241 *	88.6	82.9	74.0	81.8	99.4	65.6	75.3	80.1	66.1	64.9	65.5	77.1
LSU	LA01110D-150-625 *	77.7	78.8	74.3	76.9	93.4	57.9	66.7	72.6	54.1	68.5	61.3	71.4
Pioneer	26R36	94.6	95.7	84.0	91.4	99.9	73.8	102.7	92.1	94.0	64.2	79.1	88.6
Pioneer	26R41	98.3	84.0	85.1	89.1	98.0	68.1	101.1	89.1	94.5	74.0	84.3	87.9
Pioneer	26R59	89.8	85.0	81.9	85.6	106.3	77.4	99.2	94.3	77.9	73.4	75.6	86.4
Pioneer	26R94	91.8	84.5	75.0	83.8	108.5	64.5	72.4	81.8	78.4	61.4	69.9	79.6
Pioneer	26R10	75.7	83.9	78.3	79.3	93.5	65.1	100.3	86.3	83.7	72.4	78.1	81.6
Pioneer	26R45	93.7	88.4	86.4	89.5	91.2	72.0	97.5	86.9	95.5	66.7	81.1	86.4
Progeny Ag	#BULLET	104.9	93.4	89.8	96.1	93.2	69.0	98.6	86.9	96.6	69.7	83.1	89.4
Progeny Ag	#TURBO	104.1	80.5	81.4	88.7	85.4	67.9	83.2	78.8	83.4	64.4	73.9	81.3
Progeny Ag	#BOSS	89.1	84.8	86.5	86.8	88.1	72.9	99.5	86.8	93.1	79.4	86.3	86.7
Progeny Ag	#FURY	99.2	96.9	78.5	91.6	101.3	68.1	83.5	84.3	60.1	55.8	57.9	80.4
Progeny Ag	#BLAZE	73.8	89.0	76.1	79.6	81.1	68.8	98.3	82.7	90.8	70.2	80.5	81.0
Progeny Ag	PGX16-4 *	97.2	82.3	69.5	83.0	82.4	63.7	73.9	73.3	41.5	67.6	54.5	72.3
Progeny Ag	PGX16-7 *	92.1	74.9	67.4	78.2	100.7	60.7	78.5	80.0	47.3	47.5	47.4	71.1
Progeny Ag	PGX17-16 *	85.9	84.0	70.9	80.3	83.6	62.7	96.9	81.1	85.0	68.9	76.9	79.7
Progeny Ag	PGX17-20 *	79.0	82.0	80.3	80.5	87.2	62.8	95.0	81.7	82.5	60.2	71.4	78.6
Progeny Ag	PGX17-28 *	101.2	87.2	77.4	88.6	88.7	69.6	84.1	80.8	67.4	59.8	63.6	79.4
U. of Arkansas	AR06146E-1-4 *	87.7	78.1	89.5	85.1	106.3	61.1	77.6	81.7	63.0	64.7	63.9	78.5
U. of Georgia	GA051207-14E53 *	85.4	88.6	79.0	84.4	96.6	64.2	78.5	79.8	62.8	61.2	62.0	77.1
U. of Georgia	GA061471-15LE38 *	83.9	88.8	76.3	83.0	93.4	60.1	83.2	78.9	78.1	57.5	67.8	77.7
U. of Georgia	GA07353-14E19 *	94.2	82.2	69.5	82.0	106.1	69.8	80.5	85.5	73.5	56.3	64.9	79.0
U. of Georgia	GA081446-15EL47 *	85.4	90.5	82.1	86.0	96.8	68.6	71.4	79.0	80.5	55.8	68.2	78.9
U. of Georgia	GA08535-15LE29 *	92.7	95.8	73.9	87.5	92.6	60.9	84.9	79.4	78.6	54.9	66.7	79.3
U. of Georgia	GAJT 141-14E45 *	82.1	81.9	66.6	76.9	84.2	61.5	66.5	70.7	53.1	52.7	52.9	68.6
USG	3118	93.3	78.3	72.9	81.5	85.6	58.8	75.9	73.4	65.3	50.9	58.1	72.6
USG	3329	85.2	77.1	93.3	85.2	93.5	68.9	98.4	86.9	86.4	72.4	79.4	84.4
USG	3536	93.6	87.4	84.3	88.4	99.2	68.4	96.9	88.2	92.2	67.0	79.6	86.1
USG	3895	90.0	85.1	80.3	85.2	105.8	75.6	101.9	94.5	92.0	67.7	79.8	87.3
Mean		90.2	84.4	79.2	84.6	94.8	66.4	88.0	83.1	77.8	64.1	70.9	80.6
CV		11.6	11.9	13.1		11.6	9.4	8.9		8.0	14.0		
LSD(0.05)		14.6	14.0	16.6		15.3	8.7	10.9		8.6	12.4		
R^2		41.9	47.6	54.4		48.6	61.0	77.3		91.1	64.6		
Error DF		178	178	119		171	178	178		178	178		

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

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

Brand	Variety[1]	Brooksville	Coldwater	Starkville	Newton	Raymond	Mayersville	Stoneville	Overall avg.
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
AgriMAXX	473	85.4	86.1	71.5	57.6	57.5	73.9	65.7	71.1
AgriMAXX	474	69.6	67.1	66.7	48.3	65.6	59.6	58.3	62.2
AgriMAXX	415	74.2	78.9	74.0	49.6	69.3	63.5	70.8	68.6
AGS	2024	80.6	82.9	79.5	57.0	65.8	51.7	72.9	70.1
AGS	2038	77.1	77.7	85.0	60.9	77.9	69.2	78.7	75.2
AGS	2055	89.6	87.8	75.5	59.1	81.3	68.2	75.7	76.7
Armor	Mayhem	80.5	84.4	75.2	48.6	65.6	75.0	71.1	71.5
Delta Grow	DG 1000	81.6	77.4	72.8	52.0	51.0	71.8	55.5	66.0
Delta Grow	DG 3500	76.7	80.6	85.4	57.7	73.7	36.3	72.4	69.0
Dyna-Gro	9701	88.1	86.4	78.3	52.2	55.0	75.4	54.1	69.9
Dyna-Gro	Savoy	63.4	82.4	64.8	53.7	43.0	29.1	54.6	55.9
Dyna-Gro	TV8861	67.2	73.9	70.2	49.3	62.9	60.1	61.2	63.6
Go Wheat	2059	68.0	79.4	74.3	56.0	58.6	53.0	47.5	62.4
Go Wheat	2058	82.4	82.6	71.7	57.1	60.5	67.7	63.7	69.4
Limagrain Cereal Seeds	L11538	85.9	86.1	79.0	54.2	69.7	73.2	76.8	75.0
LSU	LA01110D-150-625 *	62.6	82.8	79.2	48.6	47.3	36.2	71.1	61.1
Pioneer	26R41	86.9	76.5	76.3	56.3	77.2	76.4	70.3	74.3
Pioneer	26R59	69.8	74.2	58.8	52.8	68.1	55.8	65.5	63.6
Pioneer	26R94	80.5	89.7	82.4	56.1	54.7	48.3	76.0	69.7
Pioneer	26R10	54.1	64.4	60.2	45.2	59.7	59.5	61.8	57.8
Pioneer	26R45	76.1	80.1	72.9	52.8	60.5	70.0	58.7	67.3
Progeny Ag	#BULLET	90.1	86.2	76.2	55.9	53.4	74.8	49.6	69.4
Progeny Ag	#TURBO	89.8	81.1	86.7	62.1	78.2	71.7	60.9	75.8
Progeny Ag	#BOSS	74.6	71.8	68.9	47.2	63.4	67.3	69.4	66.1
Progeny Ag	#FURY	86.6	95.0	84.0	59.6	71.5	40.7	65.5	71.8
Progeny Ag	#BLAZE	59.5	74.4	57.4	46.9	54.9	60.8	57.6	58.8
Progeny Ag	PGX16-4 *	82.9	79.0	74.8	56.5	72.0	30.1	70.3	66.5
U. of Georgia	GA051207-14E53 *	71.5	87.4	82.9	57.2	63.6	45.3	58.1	66.6
U. of Georgia	GA07353-14E19 *	82.5	84.8	72.9	64.2	69.8	51.9	74.1	71.4
U. of Georgia	GA081446-15EL47 *	70.4	82.9	78.4	55.6	61.8	48.3	63.0	65.8
USG	3536	82.7	81.9	72.5	57.5	54.2	73.8	72.4	70.7
USG	3895	81.8	84.4	74.7	64.8	81.4	71.0	75.1	76.2
Overall Mean		77.3	80.9	74.5	54.8	64.0	59.7	65.6	68.1

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

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

Brand	Variety	Brooksville	Coldwater	Starkville	Newton	Raymond	Stoneville	Overall avg.
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
AgriMAXX	473	87.3	75.3	74.7	61.9	70.3	64.4	72.3
AgriMAXX	474	68.2	60.6	68.1	54.0	68.8	47.1	61.1
AgriMAXX	415	72.7	69.3	71.3	55.3	73.1	59.3	66.8
AGS	2024	85.0	73.4	75.1	60.3	72.3	67.3	72.2
AGS	2038	80.6	65.5	86.4	63.3	80.0	74.6	75.0
Armor	Mayhem	82.3	73.0	80.6	56.5	74.1	69.6	72.7
Delta Grow	DG 1000	79.8	66.5	76.1	58.2	60.2	57.5	66.4
Dyna-Gro	Savoy	68.7	73.8	67.6	51.4	50.1	46.7	59.7
Go Wheat	2058	85.2	71.7	76.1	64.5	72.0	57.7	71.2
Pioneer	26R41	86.4	68.1	79.5	60.2	80.0	62.9	72.8
Pioneer	26R59	67.2	72.3	61.5	55.3	70.0	52.2	63.1
Pioneer	26R94	81.7	80.8	77.3	59.8	65.1	72.0	72.8
Pioneer	26R10	56.4	64.2	59.5	50.2	66.7	48.6	57.6
Progeny Ag	#BULLET	79.7	59.1	68.2	51.5	64.1	56.3	63.2
Progeny Ag	#TURBO	83.7	66.8	83.5	60.8	81.8	63.3	73.3
USG	3536	84.0	70.3	74.7	59.0	58.4	65.1	68.6
Overall Mean		78.1	69.4	73.8	57.6	69.2	60.3	68.1

MAFES Black Belt Branch, Brooksville

Crop Summary

The wheat and oat plots were planted no-till into the residue of the previous soybean crop. Soil moisture at planting was adequate for germination. All plots emerged to a good stand. No problems were observed during the growing season. Harvest was completed in a timely manner without difficulties, and good yields were observed at this location.

Planting date .... November 6
Harvest date ..... June 4
Soil type ..... Brooksville silty clay
Soil pH 6.9
Soil fertility ..... P=M, K=M
Previous crop ... Soybean
Fertilizer ..... Preplant — 10-26-26 @ 265 lb/A
Topdress — N @ 54 lb/A (33-0-0-12S) on February 21; and N @ 74 lb/A (46-0-0) on March 16
Herbicide ..... Preemergence — Roundup Powermax @ 32 oz/A on November 6

Table 7. Yields of 58 wheat varieties at MAFES Black Belt Branch, Brooksville (Brooksville silty clay soil).

Brand	Variety[1]	2017–18 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
Progeny Ag	#BULLET	104.9	90.1	79.7	4/14	2	41
Dyna-Gro	9701	104.4	88.1	—	4/11	3	45
Progeny Ag	#TURBO	104.1	89.8	83.7	4/6	1	37
AgriMAXX	480	104.1	—	—	4/3	1	40
Limagrain Cereal Seeds	L11538	102.0	85.9	—	4/10	2	40
AGS	2055	101.6	89.6	—	4/11	1	40
Progeny Ag	PGX17-28 *	101.2	—	—	4/4	1	34
Dixie Bell	DB 700	101.0	—	—	4/10	1	40
Progeny Ag	#FURY	99.2	86.6	—	4/6	1	39
AgriMAXX	473	99.1	85.4	87.3	4/13	1	42
Pioneer	26R41	98.3	86.9	86.4	4/11	2	36
Progeny Ag	PGX16-4 *	97.2	82.9	—	4/5	2	39
LSU	LA08080C-31-1 *	95.8	—	—	4/11	1	34
Dyna-Gro	9811	94.8	—	—	4/8	1	46
Pioneer	26R36	94.6	—	—	4/14	1	38
U. of Georgia	GA07353-14E19 *	94.2	82.5	—	4/5	1	37
Armor	ARW1718 *	93.8	—	—	4/4	1	39
Pioneer	26R45	93.7	76.1	—	4/15	2	40
USG	3536	93.6	82.7	84.0	4/5	1	40
AGS	2024	93.5	80.6	85.0	4/7	2	37
USG	3118	93.3	—	—	4/1	1	32
Armor	Lockdown	93.0	—	—	4/6	1	43
U. of Georgia	GA08535-15LE29 *	92.7	—	—	4/5	1	36
Progeny Ag	PGX16-7 *	92.1	—	—	4/3	1	35
Pioneer	26R94	91.8	80.5	81.7	4/2	1	43
AgriMAXX	EXP 1884 *	91.6	—	—	4/16	1	40
Go Wheat	2058	91.6	82.4	85.2	4/11	1	35
Delta Grow	DG 1000	91.5	81.6	79.8	4/4	1	41
AgriMAXX	474	91.4	69.6	68.2	4/11	2	42
USG	3895	90.0	81.8	—	4/9	1	36
Pioneer	26R59	89.8	69.8	67.2	4/10	1	35
Progeny Ag	#BOSS	89.1	74.6	—	4/8	1	41
LSU	LA 01110D-150-241 *	88.6	—	—	4/7	1	38
Armor	Mayhem	87.8	80.5	82.3	4/6	1	40
U. of Arkansas	AR06146E-1-4 *	87.7	—	—	4/5	2	38
LSU	LA09225C-33-3 *	87.3	—	—	4/9	1	39
Limagrain Cereal Seeds	Ammo	87.1	—	—	4/10	1	36
AGS	2038	86.5	77.1	80.6	4/11	1	43
Delta Grow	DG 3500	86.2	76.7	—	4/3	1	37
AgriMAXX	415	86.1	74.2	72.7	4/10	1	39
Progeny Ag	PGX17-16 *	85.9	—	—	4/16	2	39
U. of Georgia	GA051207-14E53 *	85.4	71.5	—	4/4	1	34

Continued.

Table 7 (cont.). Yields of 58 wheat varieties at MAFES Black Belt Branch, Brooksville (Brooksville silty clay soil).

Brand	Variety[1]	2017–18 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
U. of Georgia	GA081446-15EL47 *	85.4	70.4	—	4/3	2	39
USG	3329	85.2	—	—	4/16	1	36
Go Wheat	2059	84.7	68.0	—	4/11	1	39
Go Wheat	LA754	84.7	—	—	4/7	3	33
U. of Georgia	GA061471-15LE38 *	83.9	—	—	4/10	2	36
Dyna-Gro	Savoy	82.6	63.4	68.7	4/4	2	39
Limagrain Cereal Seeds	L11544	82.4	—	—	4/12	3	35
U. of Georgia	GAJT 141-14E45 *	82.1	—	—	4/2	1	34
Armor	Coastal	81.0	—	—	4/6	3	38
AgriMAXX	475	80.9	—	—	4/11	1	39
Dyna-Gro	TV8861	79.2	67.2	—	4/15	3	42
Progeny Ag	PGX17-20 *	79.0	—	—	4/14	1	41
LSU	LA01110D-150-625 *	77.7	62.6	—	4/7	1	37
Pioneer	26R10	75.7	54.1	56.4	4/13	2	38
AGS	2040	74.9	—	—	4/2	1	36
Progeny Ag	#BLAZE	73.8	59.5	—	4/15	2	45
Mean		90.2					
CV		11.6					
LSD (0.05)		14.6					
R^2		41.9					
Error DF		178					

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

MSU Coastal R&E Center, Beaumont

Crop Summary

The wheat plots were planted into a freshly tilled seedbed that was disked and harrowed just before planting. All plots emerged to a good stand. Unusually cool weather occurred at this southern location, allowing for all varieties to successfully vernalize. Harvest was completed in a timely manner, and very good yields were observed at this location.

Planting date .... November 14
Harvest date .... May 29
Soil type ..... McLaurin sandy loam
Soil pH 6.0
Soil fertility ..... P=H, K=H
Previous crop ... Peanut
Fertilizer ..... Preplant — 13-13-13 @ 250 lb/A
Topdress — N @ 53 lb/A(33-0-0-12S) on February 16; and N @ 66 lb/A (33-0-0-12S) on March 8
Herbicide ..... Delayed Preemergence — Zidua SC @ 1.5 oz/A

Table 8. Yields of 58 wheat varieties at MSU Coastal R&E Center, Beaumont (McLaurin sandy loam soil).

Brand	Variety[1]	2017–18 yield	2-year avg.[2]	3-year avg.[3]	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
AGS	2055	109.4	—	—	3/26	3	37
Dyna-Gro	9811	108.9	—	—	3/27	1	40
Pioneer	26R94	108.5	—	—	3/19	2	38
AgriMAXX	473	107.7	—	—	4/1	1	41
U. of Arkansas	AR06146E-1-4 *	106.3	—	—	3/22	3	44
Pioneer	26R59	106.3	—	—	3/28	1	34
U. of Georgia	GA07353-14E19 *	106.1	—	—	3/19	2	39
USG	3895	105.8	—	—	3/26	2	36
Armor	Mayhem	104.7	—	—	4/2	1	44
LSU	LA08080C-31-1 *	103.3	—	—	3/23	2	36
Limagrain Cereal Seeds	L11544	102.8	—	—	3/19	2	36
Go Wheat	LA754	101.6	—	—	3/18	3	35
Progeny Ag	#FURY	101.3	—	—	3/24	1	37
AgriMAXX	480	101.2	—	—	3/24	1	40
Progeny Ag	PGX16-7 *	100.7	—	—	3/25	2	37
Delta Grow	DG 3500	100.3	—	—	3/17	1	39
Armor	Coastal	100.1	—	—	3/21	3	37
Pioneer	26R36	99.9	—	—	4/1	1	38
Armor	ARW1718 *	99.6	—	—	3/30	2	40
LSU	LA 01110D-150-241 *	99.4	—	—	3/21	4	36
USG	3536	99.2	—	—	4/2	1	38
Dyna-Gro	9701	98.2	—	—	4/2	1	42
Armor	Lockdown	98.1	—	—	3/25	3	43
Pioneer	26R41	98.0	—	—	3/29	1	34
AGS	2024	97.6	—	—	3/22	3	38
Delta Grow	DG 1000	97.4	—	—	4/1	1	39
Limagrain Cereal Seeds	L11538	97.0	—	—	3/29	2	39
U. of Georgia	GA081446-15EL47 *	96.8	—	—	3/20	1	39
Dyna-Gro	TV8861	96.7	—	—	3/27	2	39
U. of Georgia	GA051207-14E53 *	96.6	—	—	3/22	1	40
Dixie Bell	DB 700	96.1	—	—	3/30	1	40
Go Wheat	2059	94.1	—	—	3/27	2	39
USG	3329	93.5	—	—	4/1	1	35
Pioneer	26R10	93.5	—	—	3/30	1	34
U. of Georgia	GA061471-15LE38 *	93.4	—	—	3/23	3	43
AgriMAXX	474	93.4	—	—	3/28	3	36
LSU	LA01110D-150-625 *	93.4	—	—	3/19	4	40
Progeny Ag	#BULLET	93.2	—	—	4/2	1	42
U. of Georgia	GA08535-15LE29 *	92.6	—	—	3/21	2	40
Pioneer	26R45	91.2	—	—	4/1	4	39
Limagrain Cereal Seeds	Ammo	90.8	—	—	3/23	3	39
AGS	2038	89.8	—	—	3/23	3	44

Continued.

Table 8 (cont.). Yields of 58 wheat varieties at MSU Coastal R&E Center, Beaumont (McLaurin sandy loam soil).

Brand	Variety[1]	2017–18 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	475	88.8	—	—	4/2	1	41
Progeny Ag	PGX17-28 *	88.7	—	—	3/19	1	40
Go Wheat	2058	88.2	—	—	3/28	3	38
Progeny Ag	#BOSS	88.1	—	—	3/29	1	36
Progeny Ag	PGX17-20 *	87.2	—	—	4/2	1	42
AgriMAXX	415	86.0	—	—	3/28	1	41
USG	3118	85.6	—	—	3/25	2	35
Progeny Ag	#TURBO	85.4	—	—	3/25	1	42
LSU	LA09225C-33-3 *	84.8	—	—	3/25	3	38
U. of Georgia	GAJT 141-14E45 *	84.2	—	—	3/16	2	37
Progeny Ag	PGX17-16 *	83.6	—	—	4/5	1	37
Progeny Ag	PGX16-4 *	82.4	—	—	3/24	3	41
Progeny Ag	#BLAZE	81.1	—	—	3/30	2	35
AgriMAXX	EXP 1884 *	80.4	—	—	4/6	1	39
Dyna-Gro	Savoy	77.1	—	—	3/13	1	34
AGS	2040	62.3	—	—	3/13	1	36
Mean		94.3					
CV		11.6					
LSD (0.05)		15.3					
R^2		48.6					
Error DF		171					

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

Jerry Slocum Farms, Coldwater

Crop Summary

The wheat plots were planted no-till after the previous crop of soybeans. Soil moisture at planting was adequate for germination and emergence to occur. All plots emerged to a good stand. This location experienced more than 20 inches of rainfall during February. Fortunately, the plot area was in a well-drained site, and this excessive rainfall did not seem to hurt the plots. After the fertilizer was applied, the plots grew off well and showed good yield potential. Harvest was completed on time, and good yields were recorded from this location.

Planting date .... November 13
Harvest date ..... June 8
Soil type ..... Calloway silt loam
Soil pH 6.1
Soil fertility ..... P=H, K=H
Previous crop ... Soybean
Fertilizer ..... Preplant — 29-78-78-15S-1Zn
Topdress — N @ 35 lb/A (32% UAN) on March 9; and N @ 92 lb/A (46-0-0) on April 5
Herbicide ..... Delayed Preemergence — Zidua @ 1.5 oz/A
Insecticide ..... Lambda-cyhalothrin @ 2.8 oz/A on March 9

Table 9. Yields of 58 wheat varieties at Jerry Slocum Farms, Coldwater (Calloway silt loam soil).

Brand	Variety[1]	2017–18 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
Progeny Ag	#FURY	96.9	95.0	—	4/17	1	32
U. of Georgia	GA08535-15LE29 *	95.8	—	—	4/23	1	38
Pioneer	26R36	95.7	—	—	4/20	1	33
Armor	ARW1718 *	95.7	—	—	4/13	1	38
Dyna-Gro	9701	95.2	86.4	—	4/20	1	34
AgriMAXX	EXP 1884 *	94.0	—	—	4/17	1	33
Progeny Ag	#BULLET	93.4	86.2	59.1	4/13	1	37
LSU	LA08080C-31-1 *	93.0	—	—	4/17	1	36
Go Wheat	2058	92.9	82.6	71.7	4/17	1	32
AgriMAXX	473	92.9	86.1	75.3	4/17	1	35
Dyna-Gro	TV8861	90.9	73.9	—	4/20	2	36
U. of Georgia	GA081446-15EL47 *	90.5	82.9	—	4/17	1	37
Limagrain Cereal Seeds	L11538	90.5	86.1	—	4/17	1	35
Dixie Bell	DB 700	89.8	—	—	4/13	1	35
Progeny Ag	#BLAZE	89.0	74.4	—	4/17	1	32
U. of Georgia	GA061471-15LE38 *	88.8	—	—	4/13	1	42
LSU	LA09225C-33-3 *	88.7	—	—	4/17	2	39
U. of Georgia	GA051207-14E53 *	88.6	87.4	—	4/13	1	35
Pioneer	26R45	88.4	80.1	—	4/20	2	36
AgriMAXX	415	87.7	78.9	69.3	4/17	1	37
USG	3536	87.4	81.9	70.3	4/13	1	35
Progeny Ag	PGX17-28 *	87.2	—	—	4/23	1	33
Dyna-Gro	9811	87.1	—	—	4/20	1	32
AgriMAXX	475	86.5	—	—	4/20	1	34
AGS	2055	85.1	87.8	—	4/17	1	33
USG	3895	85.1	84.4	—	4/17	1	33
Pioneer	26R59	85.0	74.2	72.3	4/20	1	30
Progeny Ag	#BOSS	84.8	71.8	—	4/17	1	29
Go Wheat	2059	84.7	79.4	—	4/20	1	32
Limagrain Cereal Seeds	Ammo	84.7	—	—	4/17	1	32
Armor	Mayhem	84.6	84.4	73.0	4/20	1	35
Pioneer	26R94	84.5	89.7	80.8	4/20	1	37
Progeny Ag	PGX17-16 *	84.0	—	—	4/17	2	34
Pioneer	26R41	84.0	76.5	68.1	4/17	1	29
Pioneer	26R10	83.9	64.4	64.2	4/20	1	33
Delta Grow	DG 1000	83.6	77.4	66.5	4/17	1	34
AgriMAXX	474	83.4	67.1	60.6	4/13	1	33
LSU	LA 01110D-150-241 *	82.9	—	—	4/17	1	36

Continued.

Table 9 (cont.). Yields of 58 wheat varieties at Jerry Slocum Farms, Coldwater (Calloway silt loam soil).

Brand	Variety[1]	2017–18 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
Progeny Ag	PGX16-4 *	82.3	79.0	—	4/17	2	36
Armor	Lockdown	82.2	—	—	4/13	1	36
U. of Georgia	GA07353-14E19 *	82.2	84.8	—	4/20	1	36
Dyna-Gro	Savoy	82.1	82.4	73.8	4/20	1	32
Progeny Ag	PGX17-20 *	82.0	—	—	4/23	2	34
U. of Georgia	GAJT 141-14E45 *	81.9	—	—	4/17	1	35
Progeny Ag	#TURBO	80.5	81.1	66.8	4/20	1	29
AGS	2024	80.3	82.9	73.4	4/13	1	34
Delta Grow	DG 3500	79.7	80.6	—	4/20	1	33
LSU	LA01110D-150-625 *	78.8	82.8	—	4/17	1	36
USG	3118	78.3	—	—	4/17	1	34
U. of Arkansas	AR06146E-1-4 *	78.1	—	—	4/17	1	33
USG	3329	77.1	—	—	4/23	1	37
Limagrain Cereal Seeds	L11544	75.9	—	—	4/17	2	36
Progeny Ag	PGX16-7 *	74.9	—	—	4/17	1	32
AGS	2038	72.7	77.7	65.5	4/17	1	40
Go Wheat	LA754	71.8	—	—	4/17	1	33
Armor	Coastal	67.3	—	—	4/13	2	31
AGS	2040	66.9	—	—	4/17	1	33
AgriMAXX	480	52.6	—	—	4/13	1	35
Mean		84.4					
CV		11.9					
LSD (0.05)		14.0					
R^2		47.6					
Error DF		178					

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

Todd Heigle Farms, Mayersville

Crop Summary

The wheat plots were planted into a field that had been disked and harrowed smooth just before planting. Soil moisture was adequate for the wheat seed to germinate. All plots quickly emerged to a good stand. Before harvest, damage was observed in some plots as a result of bird feeding. This damage was primarily observed on early-maturing, awnless varieties. These varieties lost some yield potential because of the bird feeding. Plots were harvested in a timely manner without difficulty.

Planting date .... November 16
Harvest date ..... June 6
Soil type ..... Commerce silty clay loam and Robinsville very fine sandy loam
Soil pH 6.3
Soil fertility ..... P=H, K=H
Previous crop ... Corn
Fertilizer ..... Preplant — DAP @ 100 lb/A
Topdress — N @ 48 lb/A (40-0-0-15S) on March 4; N @ 27 lb/A (46-0-0) on March 15; and N @ 60 lb/A (46-0-0) on April 3

Table 10. Yields of 58 wheat varieties at Todd Heigle Farms, Mayersville (Commerce silty clay loam and Robinsville very fine sandy loam).

Brand	Variety[1]	2017–18 yield	2-year avg.	3-year avg.[2]	Date headed[3]	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
Dixie Bell	DB 700	96.7	—	—	—	2	33
Progeny Ag	#BULLET	96.6	74.8	—	—	1	34
Dyna-Gro	9701	95.8	75.4	—	—	1	33
Pioneer	26R45	95.5	70.0	—	—	1	32
Pioneer	26R41	94.5	76.4	—	—	1	31
AgriMAXX	EXP 1884 *	94.5	—	—	—	1	31
AgriMAXX	475	94.3	—	—	—	2	33
Pioneer	26R36	94.0	—	—	—	1	32
Armor	ARW1718 *	93.6	—	—	—	2	39
Armor	Mayhem	93.5	75.0	—	—	1	37
Progeny Ag	#BOSS	93.1	67.3	—	—	1	29
AgriMAXX	415	92.8	63.5	—	—	1	32
AgriMAXX	473	92.3	73.9	—	—	1	37
USG	3536	92.2	73.8	—	—	1	35
USG	3895	92.0	71.0	—	—	1	30
Limagrain Cereal Seeds	L11538	92.0	73.2	—	—	1	30
LSU	LA09225C-33-3 *	91.9	—	—	—	1	34
AGS	2038	91.7	69.2	—	—	1	36
Delta Grow	DG 1000	90.8	71.8	—	—	1	35
Progeny Ag	#BLAZE	90.8	60.8	—	—	1	33
Dyna-Gro	TV8861	89.9	60.1	—	—	2	30
Go Wheat	2058	87.5	67.7	—	—	1	28
Dyna-Gro	9811	86.7	—	—	—	1	32
AgriMAXX	474	86.7	59.6	—	—	1	32
USG	3329	86.4	—	—	—	2	32
AGS	2055	85.7	68.2	—	—	1	32
Progeny Ag	PGX17-16 *	85.0	—	—	—	1	33
LSU	LA08080C-31-1 *	84.2	—	—	—	1	31
Pioneer	26R10	83.7	59.5	—	—	1	30
Progeny Ag	#TURBO	83.4	71.7	—	—	1	35
Progeny Ag	PGX17-20 *	82.5	—	—	—	1	35
Armor	Lockdown	81.3	—	—	—	1	37
U. of Georgia	GA081446-15EL47 *	80.5	48.3	—	—	1	33
U. of Georgia	GA08535-15LE29 *	78.6	—	—	—	1	36
Pioneer	26R94	78.4	48.3	—	—	1	34
U. of Georgia	GA061471-15LE38 *	78.1	—	—	—	1	35
Pioneer	26R59	77.9	55.8	—	—	1	28
AGS	2024	77.0	51.7	—	—	1	27
U. of Georgia	GA07353-14E19 *	73.5	51.9	—	—	2	34
Limagrain Cereal Seeds	Ammo	71.2	—	—	—	1	27
Go Wheat	2059	69.5	53.0	—	—	1	32
Progeny Ag	PGX17-28 *	67.4	—	—	—	1	29
LSU	LA 01110D-150-241 *	66.1	—	—	—	2	34

Continued.

Table 10. Yields of 58 wheat varieties at Todd Heigle Farms, Mayersville (Commerce silty clay loam and Robinsville very fine sandy loam).

Brand	Variety[1]	2017–18 yield	2-year avg.	3-year avg.[2]	Date headed[3]	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
USG	3118	65.3	—	—	—	1	28
U. of Arkansas	AR06146E-1-4 *	63.0	—	—	—	1	35
U. of Georgia	GA051207-14E53 *	62.8	45.3	—	—	2	35
Progeny Ag	#FURY	60.1	40.7	—	—	1	28
Go Wheat	LA754	58.2	—	—	—	1	34
Armor	Coastal	56.1	—	—	—	1	25
Limagrain Cereal Seeds	L11544	56.0	—	—	—	1	31
LSU	LA01110D-150-625 *	54.1	36.2	—	—	1	28
Delta Grow	DG 3500	53.9	36.3	—	—	1	24
U. of Georgia	GAJT 141-14E45 *	53.1	—	—	—	1	32
Progeny Ag	PGX16-7 *	47.3	—	—	—	1	28
AgriMAXX	480	46.7	—	—	—	1	31
Dyna-Gro	Savoy	44.6	29.1	—	—	1	29
Progeny Ag	PGX16-4 *	41.5	30.1	—	—	1	34
AGS	2040	39.2	—	—	—	1	29
Mean		77.8					
CV		8.0					
LSD (0.05)		8.6					
R^2		91.1					
Error DF		178					

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

MAFES Coastal Plain Branch, Newton

Crop Summary

The wheat plots were planted into a seedbed that had been disked and harrowed just before planting. Soil moisture was adequate at planting for germination, and all plots emerged to a good stand. No issues were observed during the growing season. Timely fertilizer applications were applied, and good yields were observed for this location. Harvest was completed in a timely manner without difficulty.

Planting date .... November 1
Harvest date .... June 7
Soil type ..... Prentiss very fine sandy loam
Soil pH 6.9
Soil fertility ..... P=H+, K=H
Previous crop ... Wheat
Fertilizer ..... N @ 50 lb/A (15-5-10) on November 7; N @ 50 lb/A (33-0-0-12S) on December 14; and N @ 50 lb/A (34-0-0) on February 1
Herbicide ..... Osprey @ 4.75 oz/A + MSO @ 1.5 pt/A on February 23

Table 11. Yields of 58 wheat varieties at MAFES Coastal Plain Branch, Newton (Prentiss very fine sandy loam soil).

Brand	Variety[1]	2017–18 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
Pioneer	26R59	77.4	52.8	55.3	4/6	2	35
Dyna-Gro	TV8861	76.7	49.3	—	4/6	1	34
USG	3895	75.6	64.8	—	4/6	1	33
Go Wheat	2058	74.4	57.1	64.5	4/6	1	33
Dyna-Gro	9811	74.4	—	—	4/6	1	36
Pioneer	26R36	73.8	—	—	4/6	1	39
Progeny Ag	#BOSS	72.9	47.2	—	4/6	2	35
Pioneer	26R45	72.0	52.8	—	4/6	1	39
AgriMAXX	474	71.9	48.3	54.0	3/9	2	37
Dixie Bell	DB 700	71.2	—	—	3/9	2	35
Limagrain Cereal Seeds	L11544	70.8	—	—	3/9	1	36
U. of Georgia	GA07353-14E19 *	69.8	64.2	—	4/6	2	34
Armor	ARW1718 *	69.7	—	—	3/9	1	33
Progeny Ag	PGX17-28 *	69.6	—	—	3/9	2	36
AGS	2055	69.1	59.1	—	4/6	1	39
Progeny Ag	#BULLET	69.0	55.9	51.5	4/6	4	41
USG	3329	68.9	—	—	4/6	1	38
Progeny Ag	#BLAZE	68.8	46.9	—	4/6	1	38
U. of Georgia	GA081446-15EL47 *	68.6	55.6	—	3/9	1	35
USG	3536	68.4	57.5	59.0	4/6	1	35
Progeny Ag	#FURY	68.1	59.6	—	4/6	2	33
Pioneer	26R41	68.1	56.3	60.2	4/6	1	33
Progeny Ag	#TURBO	67.9	62.1	60.8	4/6	1	33
Delta Grow	DG 3500	67.9	57.7	—	4/6	2	34
AgriMAXX	473	67.2	57.6	61.9	4/6	1	36
Armor	Lockdown	67.0	—	—	3/9	1	37
AgriMAXX	EXP 1884 *	66.7	—	—	3/9	1	37
AgriMAXX	415	66.5	49.6	55.3	4/6	1	32
Delta Grow	DG 1000	66.0	52.0	58.2	4/6	1	38
AGS	2038	66.0	60.9	63.3	4/6	2	39
Limagrain Cereal Seeds	L11538	66.0	54.2	—	4/6	2	35
Dyna-Gro	Savoy	65.9	53.7	51.4	4/6	1	37
Armor	Coastal	65.6	—	—	3/9	1	35
LSU	LA 01110D-150-241 *	65.6	—	—	4/6	1	38
AGS	2024	65.2	57.0	60.3	4/6	2	34
Pioneer	26R10	65.1	45.2	50.2	4/6	1	38
Limagrain Cereal Seeds	Ammo	64.7	—	—	4/6	2	34
Pioneer	26R94	64.5	56.1	59.8	4/6	1	38
AgriMAXX	475	64.4	—	—	4/6	1	32
Dyna-Gro	9701	64.3	52.2	—	4/6	1	36
U. of Georgia	GA051207-14E53 *	64.2	57.2	—	3/9	1	34
Progeny Ag	PGX16-4 *	63.7	56.5	—	4/6	2	38
LSU	LA08080C-31-1 *	63.2	—	—	4/6	1	35

Continued.

Table 11 (cont.). Yields of 58 wheat varieties at MAFES Coastal Plain Branch, Newton (Prentiss very fine sandy loam soil).

Brand	Variety[1]	2017–18 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
LSU	LA09225C-33-3 *	63.1	—	—	4/6	1	36
Progeny Ag	PGX17-20 *	62.8	—	—	3/9	1	37
Armor	Mayhem	62.8	48.6	56.5	4/6	1	38
Progeny Ag	PGX17-16 *	62.7	—	—	3/9	1	36
Go Wheat	2059	61.6	56.0	—	4/6	3	34
Go Wheat	LA754	61.5	—	—	4/6	2	40
U. of Georgia	GAJT 141-14E45 *	61.5	—	—	4/6	1	34
U. of Arkansas	AR06146E-1-4 *	61.1	—	—	4/6	1	40
U. of Georgia	GA08535-15LE29 *	60.9	—	—	4/6	1	36
Progeny Ag	PGX16-7 *	60.7	—	—	4/6	2	33
U. of Georgia	GA061471-15LE38 *	60.1	—	—	3/9	1	39
USG	3118	58.8	—	—	4/6	1	32
LSU	LA01110D-150-625 *	57.9	48.6	—	4/6	1	34
AgriMAXX	480	57.8	—	—	4/6	2	36
AGS	2040	50.6	—	—	4/6	1	34
Mean		66.4					
CV		9.4					
LSD (0.05)		8.7					
R^2		61.0					
Error DF		178					

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

MAFES Brown Loam Branch, Raymond

Crop Summary

The wheat plots were planted into a field that had been disked and harrowed after the previous corn harvest. Rainfall delayed planting until early November. After planting, an application of RoundupPowerMAX was applied to assist in removing any weed competition before emergence. All plots emerged to a good stand. Harvest was completed in a timely manner, and good yields were observed.

Planting date .... November 6
Harvest date ..... May 30
Soil type ..... Loring silt loam
Soil pH 5.8
Soil fertility ..... P=M, K=M
Previous crop ... Corn
Fertilizer ..... Preplant — 13-13-13 @ 230 lb/A
Topdress — N @ 66 lb/A(33-0-0-12S) on February 23; and N @ 74 lb/A (46-0-0) on March 15
Herbicide ..... Preemergence — Roundup Powermax @ 32 oz/A on November 6
Postemergence — Osprey @ 4.75 oz/A + MSO @ 1.5 pt/A on February 23

Table 12. Yields of 58 wheat varieties at MAFES Brown Loam Branch, Raymond (Loring silt loam soil).

Brand	Variety[1]	2017–18 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
AgriMAXX	475	103.8	—	—	4/6	1	34
AgriMAXX	473	103.1	57.5	70.3	4/6	1	34
Pioneer	26R36	102.7	—	—	4/6	1	38
USG	3895	101.9	81.4	—	4/6	1	30
Armor	ARW1718 *	101.2	—	—	4/6	1	34
Pioneer	26R41	101.1	77.2	80.0	4/6	1	31
Pioneer	26R10	100.3	59.7	66.7	4/6	1	35
Dixie Bell	DB 700	100.1	—	—	4/6	1	33
AgriMAXX	EXP 1884 *	99.9	—	—	4/10	1	36
Dyna-Gro	TV8861	99.8	62.9	—	4/6	1	30
Progeny Ag	#BOSS	99.5	63.4	—	4/6	1	32
Pioneer	26R59	99.2	68.1	70.0	4/6	1	30
Progeny Ag	#BULLET	98.6	53.4	64.1	4/6	1	33
USG	3329	98.4	—	—	4/6	1	32
Progeny Ag	#BLAZE	98.3	54.9	—	4/6	1	35
AgriMAXX	474	98.1	65.6	68.8	3/29	1	33
AgriMAXX	415	97.6	69.3	73.1	4/6	1	34
Dyna-Gro	9811	97.5	—	—	4/6	1	36
Pioneer	26R45	97.5	60.5	—	4/10	1	37
Dyna-Gro	9701	97.5	55.0	—	4/6	1	33
AGS	2038	97.4	77.9	80.0	4/6	1	38
USG	3536	96.9	54.2	58.4	4/10	1	36
Progeny Ag	PGX17-16 *	96.9	—	—	4/10	1	39
AGS	2055	95.2	81.3	—	4/6	1	35
Progeny Ag	PGX17-20 *	95.0	—	—	4/10	1	33
Armor	Mayhem	94.6	65.6	74.1	4/6	1	36
Delta Grow	DG 1000	94.4	51.0	60.2	4/6	1	37
Armor	Coastal	93.0	—	—	4/6	1	32
Limagrain Cereal Seeds	L11538	92.5	69.7	—	4/6	1	36
LSU	LA09225C-33-3 *	91.3	—	—	4/6	1	37
LSU	LA08080C-31-1 *	90.5	—	—	4/6	1	32
Armor	Lockdown	89.9	—	—	4/6	1	37
Go Wheat	2058	85.8	60.5	72.0	4/6	1	30
Go Wheat	2059	85.4	58.6		4/6	1	35
U. of Georgia	GA08535-15LE29 *	84.9	—	—	4/6	1	35
Progeny Ag	PGX17-28 *	84.1	—	—	4/6	1	31
Delta Grow	DG 3500	83.5	73.7	—	4/6	1	34
Progeny Ag	#FURY	83.5	71.5	—	4/6	1	36
Progeny Ag	#TURBO	83.2	78.2	81.8	3/29	1	35
U. of Georgia	GA061471-15LE38 *	83.2	—	—	4/6	1	35
AGS	2024	81.8	65.8	72.3	4/6	1	28

Continued.

Table 12 (cont.). Yields of 58 wheat varieties at MAFES Brown Loam Branch, Raymond (Loring silt loam soil).

Brand	Variety[1]	2017–18 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
U. of Georgia	GA07353-14E19 *	80.5	69.8	—	4/6	1	31
AgriMAXX	480	78.5	—	—	4/6	1	33
U. of Georgia	GA051207-14E53 *	78.5	63.6	—	4/6	1	34
Progeny Ag	PGX16-7 *	78.5	—	—	4/6	1	35
U. of Arkansas	AR06146E-1-4 *	77.6	—	—	3/29	1	32
USG	3118	75.9	—	—	4/6	1	31
Limagrain Cereal Seeds	Ammo	75.7	—	—	4/6	1	34
LSU	LA 01110D-150-241 *	75.3	—	—	4/6	1	36
Progeny Ag	PGX16-4 *	73.9	72.0	—	3/29	1	33
Go Wheat	LA754	72.4	—	—	4/10	1	33
Pioneer	26R94	72.4	54.7	65.1	4/6	1	35
U. of Georgia	GA081446-15EL47 *	71.4	61.8	—	4/6	1	36
Limagrain Cereal Seeds	L11544	71.2	—	—	4/6	1	37
LSU	LA01110D-150-625 *	66.7	47.3	—	4/6	1	36
U. of Georgia	GAJT 141-14E45 *	66.5	—	—	4/6	1	31
AGS	2040	55.8	—	—	4/10	1	32
Dyna-Gro	Savoy	54.4	43.0	50.1	4/6	1	32
Mean		88.0					
CV		8.9					
LSD (0.05)		10.9					
R^2		77.3					
Error DF		178					

[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 into a well-prepared seedbed that had been tilled and do-alled before planting. All plots emerged to a good stand. The plots experienced frequent rainfall during the early spring. These rains appeared to have no significant effects on the wheat as it began spring green-up. Plots were harvested in a timely manner.

Planting date . . . November 3
Harvest date . . . . May 31
Soil type . . . . . Leeper silty clay
Soil pH 6.3
Soil fertility . . . . . P=H, K=H
Previous crop . . . Soybean
Fertilizer . . . . . Preplant — 13-13-13 @ 225 lb/A
Topdress — N @ 50 lb/A (21-0-0-24S) on February 21; N @ 74 lb/A (46-0-0) on March 16; and N @ 30 lb/A (46-0-0) on March 28
Herbicide . . . . . Osprey @ 4.75 oz/A + MSO @ 1.5 pt/A on February 21

Table 13. Yields of 58 wheat varieties at MAFES Research Center, Starkville (Leeper silty clay soil).

Brand	Variety[1]	2017–18 yield	2-year avg.	3-year avg.	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
USG	3329	93.3	—	—	4/7	1	43
Dyna-Gro	TV8861	93.1	70.2	—	4/8	1	40
Progeny Ag	#BULLET	89.8	76.2	68.2	4/10	1	40
U. of Arkansas	AR06146E-1-4 *	89.5	—	—	4/5	2	41
Dyna-Gro	9701	88.8	78.3	—	4/8	1	42
Armor	Lockdown	88.5	—	—	4/5	1	42
AgriMAXX	415	88.5	74.0	71.3	4/7	1	36
LSU	LA08080C-31-1 *	87.5	—	—	4/5	1	38
AgriMAXX	474	87.0	66.7	68.1	4/6	1	36
Progeny Ag	#BOSS	86.5	68.9	—	4/5	1	35
Pioneer	26R45	86.4	72.9	—	4/7	1	39
AgriMAXX	475	85.6	—	—	4/7	1	36
Pioneer	26R41	85.1	76.3	79.5	4/6	1	32
Dyna-Gro	9811	84.4	—	—	4/6	1	38
USG	3536	84.3	72.5	74.7	4/10	1	41
AGS	2038	84.2	85.0	86.4	4/7	1	44
Pioneer	26R36	84.0	—	—	4/13	1	38
LSU	LA09225C-33-3 *	83.3	—	—	4/6	1	43
Limagrain Cereal Seeds	L11538	83.1	79.0	—	4/7	1	44
AgriMAXX	473	82.8	71.5	74.7	4/10	1	40
Delta Grow	DG 3500	82.1	85.4	—	4/2	1	35
U. of Georgia	GA081446-15EL47 *	82.1	78.4	—	4/3	1	39
Pioneer	26R59	81.9	58.8	61.5	4/7	1	34
Go Wheat	2058	81.6	71.7	76.1	4/7	2	34
Armor	ARW1718 *	81.5	—	—	4/6	1	45
Progeny Ag	#TURBO	81.4	86.7	83.5	4/5	2	35
Delta Grow	DG 1000	81.1	72.8	76.1	4/7	1	36
Limagrain Cereal Seeds	Ammo	80.9	—	—	4/6	1	38
Armor	Mayhem	80.9	75.2	80.6	4/11	1	42
AGS	2055	80.6	75.5	—	4/11	1	38
USG	3895	80.3	74.7	—	4/7	1	34
Progeny Ag	PGX17-20 *	80.3	—	—	4/13	1	38
Go Wheat	2059	79.1	74.3	—	4/6	1	34
Dixie Bell	DB 700	79.1	—	—	4/7	2	44
U. of Georgia	GA051207-14E53 *	79.0	82.9	—	4/5	1	40
Progeny Ag	#FURY	78.5	84.0	—	4/6	2	36
Pioneer	26R10	78.3	60.2	59.5	4/12	1	34
Limagrain Cereal Seeds	L11544	78.2	—	—	4/3	1	38
AGS	2024	77.5	79.5	75.1	4/4	1	38
Progeny Ag	PGX17-28 *	77.4	—	—	4/5	2	35
AgriMAXX	EXP 1884 *	77.1	—	—	4/13	1	35

Continued.

Table 13 (cont.). Yields of 58 wheat varieties at MAFES Research Center, Starkville (Leeper silty clay soil).

Brand	Variety[1]	2017–18 yield	2-year avg.	3-year avg.[2]	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
U. of Georgia	GA061471-15LE38 *	76.3	—	—	4/5	1	45
Progeny Ag	#BLAZE	76.1	57.4	—	4/13	1	39
Pioneer	26R94	75.0	82.4	77.3	3/30	1	41
LSU	LA01110D-150-625 *	74.3	79.2	—	4/3	1	39
LSU	LA 01110D-150-241 *	74.0	—	—	4/3	1	43
U. of Georgia	GA08535-15LE29 *	73.9	—	—	4/5	1	40
USG	3118	72.9	—	—	4/3	1	34
Progeny Ag	PGX17-16 *	70.9	—	—	4/15	1	36
Progeny Ag	PGX16-4 *	69.5	74.8	—	4/6	1	36
U. of Georgia	GA07353-14E19 *	69.5	72.9	—	4/3	2	35
Progeny Ag	PGX16-7 *	67.4	—	—	4/3	2	34
U. of Georgia	GAJT 141-14E45 *	66.6	—	—	4/5	2	34
Armor	Coastal	66.4	—	—	4/5	1	35
Go Wheat	LA754	65.0	—	—	4/4	1	42
AgriMAXX	480	64.7	—	—	3/30	1	41
AGS	2040	57.6	—	—	4/2	2	36
Dyna-Gro	Savoy	57.0	64.8	67.6	3/30	2	35
Mean		79.2					
CV		13.1					
LSD (0.05)		16.6					
R^2		54.4					
Error DF		119					

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

Delta Branch Experiment Station, Stoneville

Crop Summary

The wheat and oat plots were planted in early November after the previous crop of soybeans. The soil had been disked and harrowed smooth, just before planting. This seedbed provided excellent seed-to-soil contact for optimum germination. All plots emerged to a stand. Frequent spring rains delayed nitrogen application. After the crop matured, some bird damage was observed before harvest. This damage was primarily observed on early-maturing, awnless varieties. These varieties lost some yield potential because of the bird feeding. Harvest was completed in a timely manner without difficulties.

Planting date . . . . November 2
Harvest date . . . . June 5
Soil type . . . . . Bosket very fine sandy loam
Soil pH 6.8
Soil fertility . . . . . P=H, K=H
Previous crop . . . Soybean
Fertilizer . . . . . N @ 101 lb/A (46-0-0) on March 9
Herbicide . . . . . Harmony Extra @ 0.9 oz/A and Axial XL @ 16.4 oz on March 9

Table 14. Yields of 58 wheat varieties at MAFES Delta Branch, Stoneville (Bosket very fine sandy loam soil).

Brand	Variety[1]	2017–18 yield	2-year avg.	3-year avg.	Date headed[2]	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
Progeny Ag	#BOSS	79.4	69.4	—	—	1	33
AgriMAXX	475	76.9	—	—	—	1	34
AGS	2038	76.3	78.7	74.6	—	1	40
Armor	Mayhem	75.9	71.1	69.6	—	1	36
Pioneer	26R41	74.0	70.3	62.9	—	1	33
AgriMAXX	473	73.4	65.7	64.4	—	1	35
Pioneer	26R59	73.4	65.5	52.2	—	1	30
Delta Grow	DG 1000	72.9	55.5	57.5	—	1	34
Pioneer	26R10	72.4	61.8	48.6	—	1	31
USG	3329	72.4	—	—	—	1	34
AgriMAXX	415	71.6	70.8	59.3	—	1	33
Dyna-Gro	TV8861	71.3	61.2	—	—	1	33
LSU	LA09225C-33-3 *	70.7	—	—	—	1	40
AgriMAXX	EXP 1884 *	70.7	—	—	—	1	33
Dyna-Gro	9701	70.6	54.1	—	—	1	34
Dyna-Gro	9811	70.2	—	—	—	1	36
Progeny Ag	#BLAZE	70.2	57.6	—	—	1	35
Dixie Bell	DB 700	69.9	—	—	—	1	34
Limagrain Cereal Seeds	L11538	69.9	76.8	—	—	1	35
Progeny Ag	#BULLET	69.7	49.6	56.3	—	1	32
Armor	ARW1718 *	69.0	—	—	—	1	37
Progeny Ag	PGX17-16 *	68.9	—	—	—	1	33
LSU	LA01110D-150-625 *	68.5	71.1	—	—	1	34
AGS	2055	68.1	75.7	—	—	1	35
LSU	LA08080C-31-1 *	67.9	—	—	—	1	33
USG	3895	67.7	75.1	—	—	1	32
Progeny Ag	PGX16-4 *	67.6	70.3	—	—	1	32
USG	3536	67.0	72.4	65.1	—	1	36
Pioneer	26R45	66.7	58.7	—	—	1	36
Go Wheat	2058	66.4	63.7	57.7	—	1	30
LSU	LA 01110D-150-241 *	64.9	—	—	—	1	35
U. of Arkansas	AR06146E-1-4 *	64.7	—	—	—	1	36
AGS	2024	64.5	72.9	67.3	—	1	33
Progeny Ag	#TURBO	64.4	60.9	63.3	—	1	34
Pioneer	26R36	64.2	—	—	—	1	34
AgriMAXX	474	63.3	58.3	47.1	—	1	34
Armor	Lockdown	61.5	—	—	—	1	35
Pioneer	26R94	61.4	76.0	72.0	—	1	37
U. of Georgia	GA051207-14E53 *	61.2	58.1	—	—	1	35

Continued.

Table 14 (cont.). Yields of 58 wheat varieties at MAFES Delta Branch, Stoneville (Bosket very fine sandy loam soil).

Brand	Variety[1]	2017–18 yield	2-year avg.	3-year avg.	Date headed[2]	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
Limagrain Cereal Seeds	L11544	61.1	—	—	—	1	31
Progeny Ag	PGX17-20 *	60.2	—	—	—	1	35
Progeny Ag	PGX17-28 *	59.8	—	—	—	1	33
Go Wheat	LA754	57.6	—	—	—	1	32
Armor	Coastal	57.5	—	—	—	1	33
U. of Georgia	GA061471-15LE38 *	57.5	—	—	—	1	37
Go Wheat	2059	56.4	47.5	—	—	1	30
U. of Georgia	GA07353-14E19 *	56.3	74.1	—	—	1	33
U. of Georgia	GA081446-15EL47 *	55.8	63.0	—	—	1	32
Progeny Ag	#FURY	55.8	65.5	—	—	1	33
U. of Georgia	GA08535-15LE29 *	54.9	—	—	—	1	33
Delta Grow	DG 3500	54.5	72.4	—	—	1	34
AgriMAXX	480	53.9	—	—	—	1	35
Limagrain Cereal Seeds	Ammo	53.0	—	—	—	1	30
U. of Georgia	GAJT 141-14E45 *	52.7	—	—	—	1	30
USG	3118	50.9	—	—	—	1	31
Progeny Ag	PGX16-7 *	47.5	—	—	—	1	32
Dyna-Gro	Savoy	38.3	54.6	46.7	—	1	31
AGS	2040	34.5	—	—	—	1	31
Mean		64.1					
CV		14.0					
LSD (0.05)		12.4					
R^2		64.6					
Error DF		178					

[1]Variety followed by an asterisk indicates an experimental entry.
[2]No heading dates recorded.

Wheat and Oat Seeds per Pound

Table 15. Average number of wheat seeds per pound.

Brand	Variety	2017–18	Brand	Variety	2017–18
AgriMAXX	415	12,600	LSU	LA08080C-31-1	13,713
AgriMAXX	475	11,900	LSU	LA09225C-33-3	11,682
AgriMAXX	473	11,000	Pioneer	26R10	11,145
AgriMAXX	474	12,700	Pioneer	26R36	11,213
AgriMAXX	480	11,980	Pioneer	26R41	11,471
AgriMAXX	EXP 1884	11,050	Pioneer	26R45	14,088
AGS	2055	11,008	Pioneer	26R59	12,025
AGS	2038	11,340	Pioneer	26R94	11,023
AGS	2024	13,664	Progeny Ag	#BOSS	14,500
AGS	2040	12,232	Progeny Ag	#BULLET	12,900
Armor	Mayhem	12,300	Progeny Ag	#TURBO	14,200
Armor	Lockdown	10,900	Progeny Ag	#FURY	10,881
Armor	ARW1718	10,468	Progeny Ag	#BLAZE	14,150
Armor	Coastal	13,480	Progeny Ag	PGX16-4	12,531
Delta Grow Seed	DG 1000	11,794	Progeny Ag	PGX16-7	10,167
Delta Grow Seed	DG 3500	14,515	Progeny Ag	PGX17-16	11,968
Dixie Bell	DB 700	10,275	Progeny Ag	PGX17-20	11,597
Dyna-Gro	Savoy	13,560	Progeny Ag	PGX17-28	12,784
Dyna-Gro	9701	12,515	U. of Arkansas	ARO6146E-1-4	13,597
Dyna-Gro	9811	12,260	U. of Georgia	GA07353-14E19	12,259
Dyna-Gro	TV8861	13,035	U. of Georgia	GA051207-14E53	12,135
GO Wheat	2058	12,271	U. of Georgia	GAJT 141-14E45	15,993
GO Wheat	2059	14,026	U. of Georgia	GA081446-15EL47	11,124
GO Wheat	LA754	10,734	U. of Georgia	GA061471-15LE38	9,907
Limagrain Cereal Seed	Ammo	13,184	U. of Georgia	GA08535-15LE29	9,655
Limagrain Cereal Seed	L11538	10,513	USG	3536	11,500
Limagrain Cereal Seed	L11544	11,250	USG	3895	11,500
LSU	LA01110D-150-241	10,634	USG	3118	12,000
LSU	LA01110D-150-625	10,370	USG	3329	11,500

Table 16. Average number of oat seeds per pound.

Brand	Variety	2017–18
Clemson University	Graham	13,400
Clemson University	SCOP86-4	14,086
Horizon	201	13,464

Summary of Oat Yields

Table 17. 2017–18 yield 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	106.2	96.7	143.8	44.0	97.7
S. Carolina CIA	Graham	131.7	110.8	151.9	80.0	118.6
S. Carolina CIA	SCOP 86-4	102.2	83.7	116.5	71.6	93.5
Mean		113.4	97.1	137.4	65.2	103.3
CV		8.5	15.3	15.3	10.4	
LSD (0.05)		16.9	NS	NS	11.7	
R^2		82.6	82.6	73.6	91.4	
Error DF		6	6	6	6	

MAFES Black Belt Branch, Brooksville

Crop Summary

The wheat and oat plots were planted no-till into the residue of the previous soybean crop. Soil moisture at planting was adequate for germination. All plots emerged to a good stand. No problems were observed during the growing season. Harvest was completed in a timely manner without difficulties, and good yields were observed at this location.

Planting date .... November 6
Harvest date ..... June 4
Soil type ..... Brooksville silty clay
Soil pH 6.9
Soil fertility ..... P=M, K=M
Previous crop ... Soybean
Fertilizer ..... Preplant — 10-26-26 @ 265 lb/A
Topdress — N @ 54 lb/A (33-0-0-12S) on February 21; and N @ 74 lb/A (46-0-0) on March 16
Herbicide ..... Preemergence — Roundup Powermax @ 32 oz/A on November 6

Table 18. Yields of three oat varieties at MAFES Black Belt Branch, Brooksville (Brooksville silty clay soil).

Brand	Variety	2017–18 yield	2-year avg.[1]	3-year avg.[2]	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
Graham	S. Carolina CIA	131.7	—	—	4/13	1	46
201	Horizon	106.2	—	—	4/14	2	56
SCOP 86-4	S. Carolina CIA	102.2	—	—	4/16	1	52
Mean		113.4					
CV		8.5					
LSD (0.05)		16.9					
R^2		82.6					
Error DF		6					

[1]No 2-year average.
[2]No 3-year average.

MAFES Brown Loam Branch, Raymond

Crop Summary

The oat plots were planted into a field that had been disked and harrowed after the previous corn harvest. Rainfall delayed planting until early November. After planting, an application of RoundupPowerMAX was applied to assist in removing any weed competition before emergence. All plots emerged to a good stand. Harvest was completed in a timely manner, and good yields were observed.

Planting date .... November 6
Harvest date .... May 30
Soil type ..... Loring silt loam
Soil pH 5.8
Soil fertility ..... P=M, K=M
Previous crop ... Corn
Fertilizer ..... Preplant — 13-13-13 @ 230 lb/A
Topdress — N @ 66 lb/A(33-0-0-12S) on February 23; and N @ 74 lb/A (46-0-0) on March 15
Herbicide ..... Preemergence — Roundup Powermax @ 32 oz/A on November 6

Table 19. Yields of three oat varieties at MAFES Brown Loam Branch, Raymond.

Brand	Variety	2017–18 yield	2-year avg.[1]	3-year avg.[2]	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
S. Carolina CIA	Graham	110.8	—	—	4/13	1	39
Horizon	201	96.7	—	—	4/10	1	49
S. Carolina CIA	SCOP 86-4	83.7	—	—	4/10	1	46
Mean		97.1					
CV		15.3					
LSD (0.05)		NS					
R^2		82.6					
Error DF		6					

[1]No 2-year average.
[2]No 3-year average.

R. R. Foil Plant Science Research Center, Starkville

Crop Summary

The oat plots were planted into a well-prepared seedbed that had been tilled and do-alled before planting. All plots emerged to a good stand. The plots experienced frequent rainfall during the early spring. These rains appeared to have no significant effects on the wheat as it began spring green-up. Plots were harvested in a timely manner.

Planting date .... November 3
Harvest date ..... May 31
Soil type ..... Leeper silty clay
Soil pH 6.3
Soil fertility ..... P=H, K=H
Previous crop ... Soybean
Fertilizer ..... Preplant — 13-13-13 @ 225 lb/A
Topdress — N @ 50 lb/A (21-0-0-24S) on February 21; N @ 74 lb/A (46-0-0) on March 16; and N @ 30 lb/A (46-0-0) on March 28

Table 20. Yields of three oat varieties at MAFES Research Center, Starkville.

Brand	Variety	2017–18 yield	2-year avg.[1]	3-year avg.[2]	Date headed	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
S. Carolina CIA	Graham	151.9	—	—	4/14	1	45
Horizon	201	143.8	—	—	4/12	1	51
S. Carolina CIA	SCOP 86-4	116.5	—	—	4/8	1	52
Mean		137.4					
CV		15.3					
LSD (0.05)		NS					
R^2		73.6					
Error DF		6					

[1]No 2-year average.
[2]No 3-year average.

Delta Branch Experiment Station, Stoneville

Crop Summary

The wheat and oat plots were planted in early November after the previous crop of soybeans. The soil had been disked and harrowed smooth, just before planting. This seedbed provided excellent seed-to-soil contact for optimum germination. All plots emerged to a stand. Frequent spring rains delayed nitrogen application. After the crop matured, bird damage before harvest reduced yield potential for oats at this location. Harvest was completed in a timely manner without difficulties.

Planting date . . . . November 2
Harvest date . . . . June 5
Soil type . . . . . Bosket very fine sandy loam
Soil pH 6.8
Soil fertility . . . . . P=H, K=H
Previous crop . . . Soybean
Fertilizer . . . . . N @ 101 lb/A (46-0-0) on March 9
Herbicide . . . . . Harmony Extra @ 0.9 oz/A

Table 21. Yield of three oat varieties at Delta Branch Experiment Station, Stoneville.

Brand	Variety	2017–18 yield	2-year avg.	3-year avg.[1]	Date headed[2]	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*		*(1-5)*	*in*
S. Carolina CIA	Graham	80.0	—	—	—	2	41
S. Carolina CIA	SCOP 86-4	71.6	—	—	—	2	44
Horizon	201	44.0	55.8	—	—	2	47
Mean		65.2					
CV		10.4					
LSD (0.05)		11.7					
R^2		91.4					
Error DF		6					

[1]No 3-year average.
[2]No heading dates taken.

Interpretation of Disease Reaction Values

All eight locations were evaluated for the presence of foliar and stem diseases. Keep in mind that disease incidence and severity differed at each location, so, in some cases, the diseases evaluated at each location differed. In addition, no consistent diseases were present to include the disease evaluations from the 2018 locations.

For the purposes of evaluating wheat diseases, plant pathologists use a visual rating scale (*James' Manual of Assessment of Plant Diseases*) that has templates to guide evaluations on foliar diseases. Leaf rust and stripe rust have diagrammatic representations of the amount of leaf area affected by each disease. The pictorial guides are utilized to aid in making visual assessments of how much of the flag leaf of a wheat plant contains observable symptoms or rust pustule or fungal/bacterial lesion development. Values can range from 0% (no symptoms present) up to approximately 50% (most of the leaf diseased).

Many factors contribute to the amount of disease present at a particular location and on a certain variety. These factors include stage of plant growth, rainfall amounts, humidity, temperature, inoculum (or spore load), varietal susceptibility, and a host of other environmental/varietal interactions that coincide with disease incidence (the percentage of plants with symptoms) and severity (the amount of leaf area affected on those plants).

Growers should pay attention to the varietal disease reactions over several years and base their preference for a particular variety on a running average, along with yield potential and their own farm history of foliar wheat diseases. Variety trials are conducted without any fungicide applications to allow for assessment of varietal performance based only on environmental growing conditions and varietal genetics.

As a summary of the locations evaluated: Fusarium head blight (or scab) was not present at any of the locations evaluated. Additional diseases present throughout the variety trials and not evaluated at every location included downy mildew, bacterial leaf streak, Barley yellow dwarf virus, Stagonospora leaf and glume blotch, and extremely limited amounts of leaf rust (in some cases, as few as two varieties at a single location), and stripe rust (one variety at one location).

We suggest that you contact your small-grain specialist or county agent to help in making variety decisions on your farm.

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**