MISSISSIPPI WHEAT & OAT

VARIETY TRIALS, 2021

Information Bulletin 560 • August 2021

MISSISSIPPI'S OFFICIAL VARIETY TRIALS

MISSISSIPPI STATE UNIVERSITY™
MS AGRICULTURAL AND
FORESTRY EXPERIMENT STATION

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MSU Extension Service
Grain Crops Specialist
Plant and Soil Sciences
Mississippi State University

Tom Allen
Plant Pathologist
Delta Research and Extension Center
Stoneville, Mississippi

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Mississippi State University

Wes Burger
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Mississippi State University

Keith Daniels
Superintendent
MAFES Research Centers
Mississippi State University

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, 2021

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

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

Kyle Lewis
Extension Agent
Hinds County Extension Service

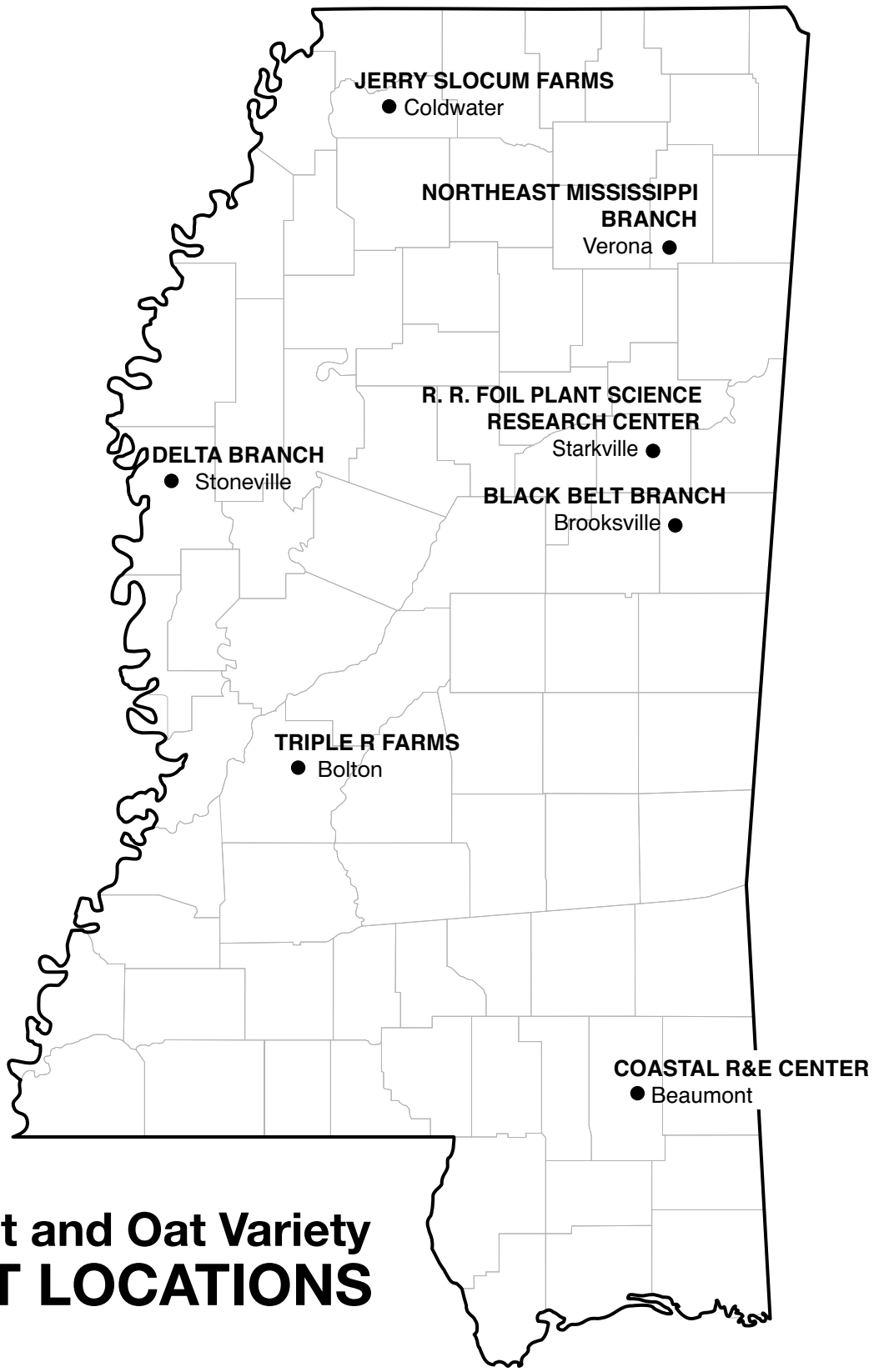
Justin McCoy
Assistant Professor
North Mississippi Research and Extension Center

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 Drew Nickels, 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

This document was approved for publication as Information Bulletin 560 of the Mississippi Agricultural and Forestry Experiment Station. It was published by the Office of Agricultural Communications, a unit of the Mississippi State University Division of Agriculture, Forestry, and Veterinary Medicine. It is a contribution of the Mississippi Agricultural and Forestry Experiment Station.

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



Wheat and Oat Variety
TEST LOCATIONS

Mississippi Wheat and Oat Variety Trials, 2021

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 2020–2120. 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 2020–21 MSU OVT wheat and oat locations and dates.

Location	Soil type	Planting date	Harvest date	Crop tested
Beaumont	McLaurin sandy loam	11/12/20	6/1/21	wheat
Bolton	Loring silt loam	11/6/20	6/15/21	wheat
Brooksville	Brooksville silty clay	11/9/20	6/24/21	wheat & oat
Coldwater	Calloway silt loam	11/13/20	6/23/21	wheat
Starkville	Marietta fine sandy loam	11/3/20	6/4/21	wheat & oat
Stoneville	Bosket very fine sandy loam	11/10/20	6/16/21	wheat & oat
Verona	Leeper silty clay	11/4/20	6/17/21	wheat & oat

Wheat and Oat Seed Sources

Table 2. Companies supplying wheat brands/varieties entered.

Company	Brand	Variety
AgriMAXX Wheat Company 7167 Highbanks Road Mascoutah, IL 62258	AgriMAXX AgriMAXX AgriMAXX AgriMAXX AgriMAXX AgriMAXX	473 503 505 513 514 516
Delta Grow Seed P.O. Box 219 England, AR 72406	Delta Grow Delta Grow Delta Grow Delta Grow	1000 1200 1500 3500
Dyna-Gro Seed 6221 Riverside Drive, Suite One Dublin, OH 43017	Dyna-Gro Dyna-Gro Dyna-Gro Dyna-Gro Dyna-Gro Dyna-Gro	9701 9811 9002 9172 9120 WX20738
Progeny Ag Products 1529 Highway 193 South Wynne, AR 72396	Progeny Ag Progeny Ag Progeny Ag Progeny Ag Progeny Ag Progeny Ag	#BULLET #TURBO #BUSTER PGX 19-10 PGX 19-12 #CHAD
UniSouth Genetics, Inc. 3205 C Highway 46 S Dickson, TN 37055	USG USG USG USG	3536 3640 3562 3472
Local Seed Company LLC 802 Rozelle Street Memphis, TN 38104	Local Seed Local Seed Local Seed Local Seed Local Seed	LW2169 (LWX20C) LW2148 LW2068 (LWX20A) LW2848 LW2026 (LWX20D)
Stratton Seed Company 1530 Highway 79 South Stuttgart, AR 72160	AGS AGS AGS AGS Go Wheat Go Wheat Go Wheat Go Wheat	2055 2024 2038 3040 2058 LA754 2032 6000 (TX-EL2)
Virginia Tech Eastern Virginia AREC 2229 Menokin Rd. Warsaw, VA 22572	VCIA VCIA	Liberty 5658 (DH12SRW056-058) 13VTK429-3

Continued.

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

Company	Brand	Variety
SunGrains	SunGrains	GA10127-18E26
	SunGrains	GA15VDH-FHB-MAS23-18LE43F
	SunGrains	GA15VDH-FHB-MA30-18ESc43F
	SunGrains	GA10407-17E8
	SunGrains	GA11656-17E11
	SunGrains	GA10268-17LE16
	SunGrains	LA12080LDH-72
	SunGrains	LA12275LDH-56
	SunGrains	LA15166-LDH272
	SunGrains	LA15203-LDH112
	SunGrains	LA15203-LDH200
	SunGrains	LA15203-LDH274
	SunGrains	AR06146E-1-4
	SunGrains	AR09137UC-17-2
	SunGrains	AR15V31-26-2285N
	SunGrains	AR11051-15-3

Table 3. Companies supplying oat brands/varieties entered.

Company	Brand	Variety	Seed treatment
Angelina Grain Company 16371 Highway 15 South Vidalia, LA 71373	Sweet Caroline	FL 0720	Nipsit Suite

Summaries of Wheat Yields

Table 4. 2020–21 summary of wheat variety trials in Mississippi.

Brand	Variety[1]	Brooksville	Coldwater	Starkville	Verona	North avg.	Beaumont	Bolton	South avg.	Stoneville (Delta)	Overall avg.
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
AgriMAXX	473	97.7	83.2	97.7	94.0	93.1	79.6	84.7	82.1	95.4	90.3
AgriMAXX	503	94.8	101.2	105.6	106.2	102.0	72.1	75.8	74.0	103.1	94.1
AgriMAXX	505	92.5	93.8	81.7	86.8	88.7	73.5	84.9	79.2	86.7	85.7
AgriMAXX	513	100.1	88.2	99.1	95.5	95.7	66.0	86.3	76.2	89.3	89.2
AgriMAXX	514	100.6	100.0	109.2	93.8	100.9	70.2	80.1	75.2	104.1	94.0
AgriMAXX	516	102.9	91.8	104.7	88.7	97.0	79.0	83.4	81.2	98.8	92.8
AGS	2024	94.3	84.0	89.5	95.5	90.8	67.2	76.5	71.9	86.2	84.8
AGS	2038	95.4	91.2	82.6	88.7	89.5	70.6	82.8	76.7	83.5	85.0
AGS	2055	87.8	90.0	88.7	99.6	91.5	85.8	89.7	87.8	91.9	90.5
AGS	3040	93.0	97.0	108.0	93.9	98.0	84.4	81.9	83.1	85.2	91.9
Delta Grow	1000	91.9	71.8	86.8	95.6	86.5	78.7	80.0	79.4	89.9	85.0
Delta Grow	3500	101.4	86.7	96.5	95.8	95.1	75.5	86.7	81.1	82.3	89.2
Delta Grow	1200	103.6	84.2	98.9	99.9	96.7	76.6	86.8	81.7	106.8	93.8
Delta Grow	1500	98.3	91.9	98.3	95.5	96.0	63.4	89.0	76.2	97.9	90.6
Dyna-Gro	9002 (WX18416)	95.3	88.6	102.5	99.5	96.5	66.3	89.8	78.0	95.3	91.0
Dyna-Gro	9701	91.9	86.4	96.3	86.4	90.3	81.1	87.5	84.3	91.4	88.7
Dyna-Gro	9811	106.8	85.9	89.9	88.8	92.8	93.4	89.9	91.6	87.1	91.7
Dyna-Gro	9172 (WX20731)	101.8	81.9	103.5	105.4	98.2	85.8	92.5	89.1	102.9	96.2
Dyna-Gro	9120 (WX20737)	109.6	82.9	101.8	97.7	98.0	78.6	85.7	82.2	97.7	93.4
Dyna-Gro	WX20738	101.0	76.2	105.9	86.1	92.3	85.2	74.9	80.0	82.2	87.3
Go Wheat	6000	104.8	93.0	96.0	103.3	99.3	78.7	80.1	79.4	87.5	91.9
Go Wheat	LA754	82.5	79.4	90.0	87.6	84.9	80.3	71.8	76.1	65.8	79.6
GoWheat	2032	99.8	83.8	96.9	100.5	95.2	75.8	76.2	76.0	83.0	88.0
GoWheat	2058	92.1	86.2	98.9	94.4	92.9	88.1	87.8	88.0	87.0	90.6
Local Seed	LW2026	81.8	88.9	89.2	74.1	83.5	63.0	74.9	68.9	79.0	78.7
Local Seed	LW2068	83.7	94.7	93.5	91.9	91.0	71.7	91.7	81.7	88.7	88.0
Local Seed	LW 2848	96.9	76.6	86.2	92.1	87.9	82.8	80.9	81.8	93.5	87.0
Local Seed	LW2148	102.0	89.0	99.8	102.7	98.4	72.1	88.6	80.4	102.8	93.8
Local Seed	LW2169	109.0	90.7	100.9	100.6	100.3	86.6	95.6	91.1	97.4	97.3
Progeny Ag	#Bullet	90.7	75.2	90.8	95.0	87.9	72.6	80.5	76.6	97.3	86.0
Progeny Ag	#Turbo	96.3	84.0	92.6	81.9	88.7	86.0	81.1	83.6	85.8	86.8
Progeny Ag	PGX19-12 *	101.6	88.8	105.2	94.9	97.6	76.4	90.0	83.2	107.3	94.9
Progeny Ag	#CHAD	102.9	94.0	98.3	105.2	100.1	78.4	85.2	81.8	94.2	94.0
Progeny Ag	#BUSTER	98.1	99.0	97.1	91.6	96.5	80.7	94.9	87.8	94.5	93.7
Progeny Ag	PGX 19-10 *	89.9	87.7	80.3	75.8	83.4	72.6	87.3	80.0	84.5	82.6
SunGrains	AR06146E-1-4 *	85.3	74.6	92.7	86.6	84.8	89.0	85.2	87.1	81.2	85.0
SunGrains	AR09137UC-17-2 *	91.9	82.4	97.1	90.0	90.3	72.6	79.7	76.1	86.9	85.8
SunGrains	AR11051-15-3 *	88.1	81.8	98.0	96.3	91.1	67.5	79.4	73.5	83.1	84.9
SunGrains	AR15V31-26-2285N *	91.7	84.1	88.3	97.9	90.5	75.5	78.0	76.7	76.6	84.6
SunGrains	GA10127-18E26 *	103.9	97.0	89.9	108.5	99.8	71.0	87.6	79.3	98.4	93.8
SunGrains	GA10268-17LE16 *	106.4	104.8	89.4	97.2	99.4	70.2	74.9	72.6	99.6	91.8
SunGrains	GA10407-17E8 *	102.1	85.1	84.1	100.9	93.0	76.5	77.8	77.1	83.5	87.1
SunGrains	GA11656-17E11 *	94.1	92.8	79.8	99.0	91.4	76.0	80.6	78.3	88.9	87.3
SunGrains	GA15VDH-FHB-MA30-18ESc43F *	82.8	75.0	82.9	89.6	82.6	81.1	67.2	74.2	77.3	79.4
SunGrains	GA15VDH-FHB-MAS23-18LE43F *	93.1	80.6	101.1	104.3	94.8	87.8	73.3	80.6	85.3	89.4
SunGrains	LA12080LDH-72 *	94.3	85.7	98.0	92.1	92.5	73.5	75.0	74.2	87.8	86.6
SunGrains	LA12275LDH-56 *	95.2	84.1	88.7	87.1	88.8	80.1	75.2	77.6	87.5	85.4
SunGrains	LA15166-LDH272 *	90.3	74.6	92.2	91.8	87.2	84.8	78.9	81.8	79.4	84.6
SunGrains	LA15203-LDH112 *	84.8	80.9	94.6	87.4	86.9	75.0	86.2	80.6	80.4	84.2
SunGrains	LA15203-LDH200 *	92.8	82.4	90.9	90.7	89.2	68.7	81.2	75.0	89.9	85.2
SunGrains	LA15203-LDH274 *	90.2	83.9	90.2	83.7	87.0	59.9	76.4	68.1	80.7	80.7
USG	3472	96.9	86.0	102.8	93.7	94.8	66.1	87.4	76.8	102.5	90.8
USG	3536	98.5	84.0	91.1	89.1	90.7	77.9	90.2	84.0	99.3	90.0
USG	3640	101.3	96.3	85.6	87.3	92.6	72.9	84.9	78.9	84.1	87.5
USG	USG 3562	88.8	87.9	96.1	100.8	93.4	57.5	95.9	76.7	88.8	88.0
VA Tech	Liberty 5658 (DH12SRW056-058)	87.0	84.4	82.5	86.7	85.1	102.7	74.5	88.6	86.7	86.3
VCIA	13VTK429-3 *	103.9	98.1	90.6	105.7	99.6	80.8	82.2	81.5	108.2	95.7

[1]Continued

Table 4 (continued). 2020–21 summary of wheat variety trials in Mississippi.

Brand	Variety[1]	Brooksville	Coldwater	Starkville	Verona	North avg.	Beaumont	Bolton	South avg.	Stoneville (Delta)	Overall avg.
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
Mean		95.7	86.9	94.2	93.9	92.7	76.6	82.9	79.8	90.2	88.6
CV		7.3	9.4	10.5	10.0		11.0	11.7		7.6	
LSD (0.05)		9.8	11.4	13.8	13.1		11.8	13.6		9.6	
R2		60	51	58	54		57	37		74	
Error DF		168	168	168	168		168	168		168	

[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	Verona	Beaumont	Bolton	Stoneville	Overall average
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
AgriMAXX	473	91.2	77.5	83.9	76.1	78.4	87.2	82.4
AgriMAXX	503	86.9	65.7	90.3	61.8	68.8	86.4	76.7
AGS	2024	82.8	72.0	82.8	57.3	72.1	70.4	72.9
AGS	2038	74.3	81.3	81.8	71.3	73.7	75.6	76.3
AGS	2055	74.0	82.8	88.0	77.6	75.2	78.4	79.3
AGS	3040	75.2	82.6	86.6	79.0	72.6	76.2	78.7
Delta Grow	1000	92.0	72.5	84.3	77.7	77.9	88.9	82.2
Delta Grow	3500	83.5	71.6	78.0	66.8	77.2	58.8	72.6
Dyna-Gro	9701	90.4	80.5	82.1	77.5	76.5	86.8	82.3
Dyna-Gro	9811	94.3	80.7	82.7	81.2	85.1	81.1	84.2
Dyna-Gro	WX20731	90.6	78.1	91.7	81.0	82.4	85.8	84.9
Dyna-Gro	WX20737	93.6	76.6	88.7	70.1	81.4	80.9	81.9
Go Wheat	6000	85.5	77.5	88.7	67.3	68.5	65.8	75.6
Go Wheat	LA754	63.0	69.9	80.5	70.8	52.9	49.2	64.4
GoWheat	2032	81.0	70.0	85.0	60.3	70.6	65.9	72.1
GoWheat	2058	79.3	81.1	86.1	85.1	80.7	83.3	82.6
Local Seed	LW2026	66.6	75.6	69.6	56.6	64.2	62.0	65.8
Local Seed	LW2068	81.7	88.6	82.7	64.0	68.3	81.5	77.8
Local Seed	LW 2848	89.3	73.8	84.7	79.1	76.0	89.8	82.1
Local Seed	LW2169	98.9	82.9	90.2	71.5	78.7	84.7	84.5
Progeny Ag	#BULLET	86.8	73.4	83.7	73.8	81.0	88.6	81.2
Progeny Ag	#TURBO	76.4	74.5	74.7	78.4	76.5	71.7	75.4
Progeny Ag	PGX19-12 *	93.6	84.0	87.9	75.1	79.3	88.0	84.6
Progeny Ag	#CHAD	93.7	75.3	95.2	77.2	80.5	69.5	81.9
Progeny Ag	#BUSTER	94.1	85.4	84.8	75.4	92.8	80.7	85.5
SunGrains	AR06146E-1-4 *	64.3	68.0	77.9	69.4	75.6	65.7	70.1
SunGrains	AR09137UC-17-2 *	80.0	71.7	82.0	62.7	81.2	67.2	74.1
SunGrains	GA10268-17LE16 *	93.3	85.7	87.7	62.5	73.4	83.9	81.1
SunGrains	GA11656-17E11 *	77.2	75.2	88.0	62.4	70.9	74.4	74.7
SunGrains	LA12080LDH-72 *	83.5	71.8	81.2	70.0	72.9	68.3	74.6
SunGrains	LA15166-LDH272 *	76.7	65.3	79.6	79.1	70.6	61.0	72.1
USG	3536	85.4	77.4	77.0	77.5	79.9	85.3	80.4
USG	3640	79.4	81.0	74.4	68.4	69.7	61.3	72.4
VCIA	Liberty 5658	78.0	75.2	83.9	88.6	66.9	74.3	77.8
Overall Mean		83.5	76.6	83.5	72.1	75.1	75.9	77.8

[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	Verona	Beaumont	Bolton	Stoneville	Overall average
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*	*bu/A*
AgriMAXX	473	83.4	74.8	81.6	67.5	79.3	79.7	77.7
AGS	2024	71.3	70.9	76.5	60.7	67.0	68.4	69.1
AGS	2038	62.8	74.8	73.7	71.4	61.9	69.5	69.0
AGS	2055	71.0	75.6	81.6	80.5	75.1	76.9	76.8
Delta Grow	1000	82.6	71.9	78.3	72.1	77.5	77.9	76.7
Delta Grow	3500	68.5	72.6	76.7	70.2	66.9	54.0	68.1
Dyna-Gro	9701	81.7	77.2	78.8	73.9	76.7	78.2	77.7
Dyna-Gro	9811	84.4	77.6	78.1	69.5	81.4	73.3	77.4
Go Wheat	LA754	59.8	72.8	79.6	70.8	53.3	51.7	64.7
GoWheat	2032	70.0	73.5	81.6	69.9	65.0	65.7	71.0
GoWheat	2058	74.9	79.9	78.7	81.9	80.6	76.9	78.8
Local Seed	LW 2848	81.4	74.4	80.6	73.0	77.0	79.7	77.7
Progeny Ag	#BULLET	80.1	75.9	80.9	68.1	79.7	80.2	77.5
Progeny Ag	#TURBO	69.2	68.1	76.7	79.7	78.0	60.3	72.0
Progeny Ag	#BUSTER	85.4	82.0	80.3	70.1	86.1	68.9	78.8
SunGrains	AR06146E-1-4 *	61.4	68.7	79.1	73.3	71.2	64.6	69.7
USG	3536	80.4	74.7	74.7	71.3	80.4	78.3	76.6
Mean		74.6	74.4	78.7	72.0	73.9	70.8	74.1

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

MSU Coastal R&E Center, Beaumont

Crop Summary

The wheat plots were planted in mid-November following a cover crop of iron clay peas. Soil moisture at planting was adequate for germination, and all plots quickly emerged to a good stand. Above-average rainfall was observed at this location. Harvest was completed in a timely manner without difficulty.

Planting date . . .November 12
Harvest date . . . .June 1
Soil type . . . . . .McLaurin sandy loam
Soil pH 6.2
Soil fertility . . . . .P=M, K=M
Previous crop . . .Iron clay pea
Fertilizer . . . . . .Preplant — 13-13-13 @ 250 lb/A
Topdress — N @ 66 lb/A (33-0-0-12S) on February 4; N @ 66 lb/A (33-0-0-12S) on March 4
Herbicide . . . . . .Preemergence — Gramoxone @ 32 oz/A on November 12 and Zidua @ 1.75 oz/A delayed PRE

Table 7. Yields of 57 wheat varieties at MSU Coastal R&E Center, Beaumont (McLaurin sandy loam).

Brand	Variety[1]	2020–21 yield	2-year avg.	3-year avg.	Lodging score	Plant height	Date headed
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in*	
VCIA	Liberty 5658	102.7	88.6	—	1	38	4/24
Dyna-Gro	9811	93.4	81.2	69.5	1	38	4/30
SunGrains	AR06146E-1-4 *	89.0	69.4	73.3	1	40	4/24
GoWheat	2058	88.1	85.1	81.9	3	35	3/2
SunGrains	GA15VDH-FHB-MAS23-18LE43F *	87.8	—	—	3	32	4/23
Local Seed	LW2169	86.6	71.5	—	2	37	3/4
Progeny Ag	#TURBO	86.0	78.4	79.7	4	38	4/28
AGS	2055	85.8	77.6	80.5	3	43	4/29
Dyna-Gro	9172	85.8	81.0	—	1	39	3/6
Dyna-Gro	WX20738	85.2	—	—	1	41	4/26
SunGrains	LA15166-LDH272 *	84.8	79.1	—	2	37	4/27
AGS	3040	84.4	79.0	—	4	38	4/24
Local Seed	LW 2848	82.8	79.1	73.0	1	41	3/4
Dyna-Gro	9701	81.1	77.5	73.9	1	41	3/5
SunGrains	GA15VDH-FHB-MA30-18ESc43F *	81.1	—	—	3	33	4/21
VCIA	13VTK429-3 *	80.8	—	—	2	39	3/2
Progeny Ag	#BUSTER	80.7	75.4	70.1	2	36	4/30
Go Wheat	LA754	80.3	70.8	70.8	3	38	4/24
SunGrains	LA12275LDH-56 *	80.1	—	—	4	39	4/28
AgriMAXX	473	79.6	76.1	67.5	1	42	3/8
AgriMAXX	516	79.0	—	—	1	38	3/8
Go Wheat	6000	78.7	67.3	—	1	36	4/24
Delta Grow	1000	78.7	77.7	72.1	2	39	3/4
Dyna-Gro	9120	78.6	70.1	—	1	39	3/5
Progeny Ag	#CHAD	78.4	77.2	—	1	30	4/22
USG	3536	77.9	77.5	71.3	2	38	3/3
Delta Grow	1200	76.6	—	—	2	39	3/5
SunGrains	GA10407-17E8 *	76.5	—	—	2	36	4/22
Progeny Ag	PGX19-12 *	76.4	75.1	—	3	36	3/3
SunGrains	GA11656-17E11 *	76.0	62.4	—	3	40	4/24
GoWheat	2032	75.8	60.3	69.9	1	35	4/24
SunGrains	AR15V31-26-2285N *	75.5	—	—	1	42	4/28
Delta Grow	3500	75.5	66.8	70.2	4	34	4/21
SunGrains	LA15203-LDH112 *	75.0	—	—	3	38	4/29
AgriMAXX	505	73.5	—	—	1	37	3/6
SunGrains	LA12080LDH-72 *	73.5	70.0	—	22	35	4/22
USG	3640	72.9	68.4	—	2	37	4/23
Progeny Ag	PGX 19-10 *	72.6	—	—	1	38	4/29
Progeny Ag	#BULLET	72.6	73.8	68.1	1	41	3/9
SunGrains	AR09137UC-17-2 *	72.6	62.7	—	4	38	4/25
AgriMAXX	503	72.1	61.8	—	3	40	3/7
Local Seed	LW2148	72.1	—	—	1	42	3/7

Continued

Table 7 (continued). Yields of 57 wheat varieties at MSU Coastal R&E Center, Beaumont (McLaurin sandy loam).

Brand	Variety[1]	2020–21 yield	2-year avg.	3-year avg.	Lodging score	Plant height	Date headed
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in*	
Local Seed	LW2068	71.7	64.0	—	1	40	3/6
SunGrains	GA10127-18E26 *	71.0	—	—	3	36	4/26
AGS	2038	70.6	71.3	71.4	1	41	4/27
SunGrains	GA10268-17LE16 *	70.2	62.5	—	3	39	4/27
AgriMAXX	514	70.2	—	—	1	37	3/4
SunGrains	LA15203-LDH200 *	68.7	—	—	3	39	3/3
SunGrains	AR11051-15-3 *	67.5	—	—	4	43	4/20
AGS	2024	67.2	57.3	60.7	3	36	4/27
Dyna-Gro	9002	66.3	—	—	2	39	3/1
USG	3472	66.1	—	—	2	38	3/4
AgriMAXX	513	66.0	—	—	1	37	3/4
Delta Grow	1500	63.4	—	—	1	39	3/8
Local Seed	LW2026	63.0	56.6	—	1	38	4/22
SunGrains	LA15203-LDH274 *	59.9	—	—	3	36	4/20
USG	USG 3562	57.5	—	—	2	42	3/4
Mean		76.6					
CV		11.0					
LSD (0.05)		11.8					
R2		57					
Error DF		168					

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

Triple R Farms, Bolton

Crop Summary

The plots were planted into a well-prepared seedbed that had been residue on the existing 76-inch raised beds. These raised beds were beneficial in a season when above-average rainfall was recorded. Timely fertilizer applications and raised seedbeds allowed for decent yields, despite the excessive rainfall. Harvest was completed in a timely manner.

Planting date . . .November 6
Harvest date . . . .June 15
Soil type . . . . . .Loring silt loam
Soil pH 6.5
Soil fertility . . . . . .P=M, K=M
Previous crop . . .Sunflower
Fertilizer . . . . . .Preplant — 10.9-13.1-26.3-6.5S @ 228 lb/A
Topdress — N @ 33 lb/A (33-0-0-12S) on February 25; N @ 100 lb/A (30-0-0-2S) on March 15
Herbicide . . . . . .Preemergence — Gramoxone @ 32 oz/A on November 6 and Zidua @ 1.75 oz/A delayed PRE
Postemergence — Metribuzin @ 2 oz/A and Powerflex @ 2 oz/A on February 3

Table 8. Yields of 57 wheat varieties at Triple R Farms, Bolton (Loring silt loam).

Brand	Variety[1]	2020–21 yield	2-year avg.	3-year avg.	Lodging score	Plant height	Date headed
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in*	
USG	USG 3562	95.9	—	—	1	34	4/12
Local Seed	LW2169	95.6	78.7	—	1	34	4/5
Progeny Ag	#BUSTER	94.9	92.8	86.1	1	32	4/5
Dyna-Gro	9172	92.5	82.4	—	1	35	4/5
Local Seed	LW2068	91.7	68.3	—	3	33	4/5
USG	3536	90.2	79.9	80.4	1	36	4/12
Progeny Ag	PGX19-12 *	90.0	79.3	—	1	30	4/5
Dyna-Gro	9811	89.9	85.1	81.4	1	37	3/29
Dyna-Gro	9002	89.8	—	—	1	34	4/5
AGS	2055	89.7	75.2	75.1	1	29	4/5
Delta Grow	1500	89.0	—	—	1	32	4/5
Local Seed	LW2148	88.6	—	—	1	36	4/12
GoWheat	2058	87.8	80.7	80.6	1	26	4/5
SunGrains	GA10127-18E26 *	87.6	—	—	1	29	4/5
Dyna-Gro	9701	87.5	76.5	76.7	1	38	4/5
USG	3472	87.4	—	—	1	30	4/5
Progeny Ag	PGX 19-10 *	87.3	—	—	1	31	4/12
Delta Grow	1200	86.8	—	—	1	30	4/5
Delta Grow	3500	86.7	77.2	66.9	1	29	3/29
AgriMAXX	513	86.3	—	—	1	36	4/12
SunGrains	LA15203-LDH112 *	86.2	—	—	1	30	4/5
Dyna-Gro	9120	85.7	81.4	—	1	32	4/5
SunGrains	AR06146E-1-4 *	85.2	75.6	71.2	1	37	3/29
Progeny Ag	#CHAD	85.2	80.5	—	1	26	3/29
USG	3640	84.9	69.7	—	1	34	4/5
AgriMAXX	505	84.9	—	—	1	36	4/5
AgriMAXX	473	84.7	78.4	79.3	1	34	4/5
AgriMAXX	516	83.4	—	—	1	34	4/5
AGS	2038	82.8	73.7	61.9	1	32	4/5
VCIA	13VTK429-3 *	82.2	—	—	1	28	4/5
AGS	3040	81.9	72.6	—	2	27	3/29
SunGrains	LA15203-LDH200 *	81.2	—	—	1	37	4/5
Progeny Ag	#TURBO	81.1	76.5	78.0	1	30	3/29
Local Seed	LW 2848	80.9	76.0	77.0	1	37	4/5
SunGrains	GA11656-17E11 *	80.6	70.9	—	1	32	3/29
Progeny Ag	#BULLET	80.5	81.0	79.7	1	34	4/5
AgriMAXX	514	80.1	—	—	1	33	4/5
Go Wheat	6000	80.1	68.5	—	1	27	3/29
Delta Grow	1000	80.0	77.9	77.5	1	36	3/29
SunGrains	AR09137UC-17-2 *	79.7	81.2	—	1	33	4/5

Continued.

Table 8 (continued). Yields of 57 wheat varieties at Triple R Farms, Bolton (Loring silt loam).

Brand	Variety[1]	2020–21 yield	2-year avg.	3-year avg.	Lodging score	Plant height	Date headed
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in*	
SunGrains	AR11051-15-3 *	79.4	—	—	1	33	4/5
SunGrains	LA15166-LDH272 *	78.9	70.6	—	1	26	4/5
SunGrains	AR15V31-26-2285N *	78.0	—	—	1	34	4/5
SunGrains	GA10407-17E8 *	77.8	—	—	1	26	3/29
AGS	2024	76.5	72.1	67.0	1	26	3/29
SunGrains	LA15203-LDH274 *	76.4	—	—	1	29	4/5
GoWheat	2032	76.2	70.6	65.0	5	28	3/29
AgriMAXX	503	75.8	68.8	—	1	33	4/12
SunGrains	LA12275LDH-56 *	75.2	—	—	1	32	3/29
SunGrains	LA12080LDH-72 *	75.0	72.9	—	1	31	4/5
SunGrains	GA10268-17LE16 *	74.9	73.4	—	1	32	3/29
Dyna-Gro	WX20738	74.9	—	—	3	31	3/29
Local Seed	LW2026	74.9	64.2	—	1	33	3/29
VCIA	Liberty 5658	74.5	66.9	—	1	28	4/5
SunGrains	GA15VDH-FHB-MAS23-18LE43F *	73.3	—	—	1	25	3/29
Go Wheat	LA754	71.8	52.9	53.3	2	27	3/29
SunGrains	GA15VDH-FHB-MA30-18ESc43F *	67.2	—	—	1	28	3/29
Mean		82.9					
CV		11.7					
LSD (0.05)		13.6					
R2		37					
Error DF		168					

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

MAFES Black Belt Branch, Brooksville

Crop Summary

The plots were planted no-till into the previous season's soybean residue on the existing 76-inch raised beds. These raised beds were beneficial in a season when above-average rainfall was recorded. Timely fertilizer applications and raised seedbeds allowed for very good yields, despite the excessive rainfall. Harvest was delayed due to rainfall in early June but was otherwise completed in a timely manner without difficulty.

Planting date . . . .November 9
Harvest date . . . .June 24
Soil type . . . . . .Brooksville silty clay
Soil pH 6.7
Soil fertility . . . . . .P=M, K=M
Previous crop . . .Soybean
Fertilizer . . . . . .Preplant — 0-20-20 @ 200 lb/A
Topdress — N @ 33 lb/A (33-0-0-12S) on February 10; N @ 56 lb/A (33-0-0-12S) on March 19; N @ 50 lb/A (33-0-0-12S) on April 5
Herbicide . . . . . .Preemergence — Gramoxone @ 32 oz/A on November 9; Zidua @ 1.75 oz/A, delayed PRE
Postemergence — Harmony @ 0.9 oz/A and Axial XL @ 16.4 oz/A on February 10

Table 9. Yields of 57 wheat varieties at MAFES Black Belt Branch, Brooksville (Brooksville silty clay soil).

Brand	Variety[1]	2020–21 yield	2-year avg.	3-year avg.	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in*
Dyna-Gro	9120	109.6	93.6	—	1	37
Local Seed	LW2169	109.0	98.9	—	1	40
Dyna-Gro	9811	106.8	94.3	84.4	1	38
SunGrains	GA10268-17LE16 *	106.4	93.3	—	1	40
Go Wheat	6000	104.8	85.5	—	1	34
VCIA	13VTK429-3 *	103.9	—	—	1	35
SunGrains	GA10127-18E26 *	103.9	—	—	1	36
Delta Grow	1200	103.6	—	—	1	40
AgriMAXX	516	102.9	—	—	1	38
Progeny Ag	#CHAD	102.9	93.7	—	1	34
SunGrains	GA10407-17E8 *	102.1	—	—	1	37
Local Seed	LW2148	102.0	—	—	1	35
Dyna-Gro	9172	101.8	90.6	—	1	38
Progeny Ag	PGX19-12 *	101.6	93.6	—	1	35
Delta Grow	3500	101.4	83.5	68.5	1	37
USG	3640	101.3	79.4	—	1	40
Dyna-Gro	WX20738	101.0	—	—	1	36
AgriMAXX	514	100.6	—	—	1	38
AgriMAXX	513	100.1	—	—	1	36
GoWheat	2032	99.8	81.0	70.0	1	39
USG	3536	98.5	85.4	80.4	1	40
Delta Grow	1500	98.3	—	—	1	34
Progeny Ag	#BUSTER	98.1	94.1	85.4	1	34
AgriMAXX	473	97.7	91.2	83.4	1	35
Local Seed	LW 2848	96.9	89.3	81.4	1	40
USG	3472	96.9	—	—	1	30
Progeny Ag	#TURBO	96.3	76.4	69.2	1	40
AGS	2038	95.4	74.3	62.8	1	38
Dyna-Gro	9002	95.3	—	—	1	37
SunGrains	LA12275LDH-56 *	95.2	—	—	1	40
AgriMAXX	503	94.8	86.9	—	1	35
AGS	2024	94.3	82.8	71.3	1	36
SunGrains	LA12080LDH-72 *	94.3	83.5	—	1	40
SunGrains	GA11656-17E11 *	94.1	77.2	—	1	40
SunGrains	GA15VDH-FHB-MAS23-18LE43F *	93.1	—	—	1	29
AGS	3040	93.0	75.2	—	1	43
SunGrains	LA15203-LDH200 *	92.8	—	—	1	39

Continued.

Table 9 (continued). Yields of 57 wheat varieties at MAFES Black Belt Branch, Brooksville (Brooksville silty clay soil).

Brand	Variety[1]	2020–21 yield	2-year avg.	3-year avg.	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in*
AgriMAXX	505	92.5	—	—	1	37
GoWheat	2058	92.1	79.3	74.9	1	37
Dyna-Gro	9701	91.9	90.4	81.7	1	35
Delta Grow	1000	91.9	92.0	82.6	1	38
SunGrains	AR09137UC-17-2 *	91.9	80.0	—	1	36
SunGrains	AR15V31-26-2285N *	91.7	—	—	1	38
Progeny Ag	#BULLET	90.7	86.8	80.1	1	36
SunGrains	LA15166-LDH272 *	90.3	76.7	—	1	46
SunGrains	LA15203-LDH274 *	90.2	—	—	1	39
Progeny Ag	PGX 19-10 *	89.9	—	—	1	35
USG	USG 3562	88.8	—	—	1	37
SunGrains	AR11051-15-3 *	88.1	—	—	1	37
AGS	2055	87.8	74.0	71.0	1	35
VCIA	Liberty 5658	87.0	78.0	—	1	36
SunGrains	AR06146E-1-4 *	85.3	64.3	61.4	1	37
SunGrains	LA15203-LDH112 *	84.8	—	—	1	37
Local Seed	LW2068	83.7	81.7	—	1	42
SunGrains	GA15VDH-FHB-MA30-18ESc43F *	82.8	—	—	1	33
Go Wheat	LA754	82.5	63.0	59.8	1	31
Local Seed	LW2026	81.8	66.6	—	1	38
Mean		95.7				
CV		7.3				
LSD (0.05)		9.8				
R2		60				
Error DF		168				

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

Jerry Slocum Farms, Coldwater

Crop Summary

The wheat plots were planted into soybean residue following the previous season's crop. Plots were planted in mid-November into soil with adequate moisture for germination. All plots quickly emerged to a good stand. Above-average rainfall in early June delayed harvest about 2 weeks. The plots did not show signs of excessive lodging or weathering due to the harvest delays. Harvest was completed without difficulty, and good yields were observed.

Planting date . . .November 13
Harvest date . . . .June 23
Soil type . . . . . .Calloway silt loam
Soil pH 6.3
Soil fertility . . . . .P=M, K=M
Previous crop . . .Soybean
Fertilizer . . . . . .Preplant — 23-63-106-10S-0.5/Zn
Topdress — N@35 lb/A (32% UAN) on March 6; N @ 75 lb/A (33-0-0-12S) on April 12
Herbicide . . . . . .Preemergence — Parazone 3SL @ 32 oz/A and Zidua SC @ 2 oz/A on November 16
Postemergence — Harmony @ 0.9 oz/A and Axial XL @ 16.4 oz/A on April 12

Table 10. Yields of 57 wheat varieties at Jerry Slocum Farms, Coldwater (Callaway silt loam).

Brand	Variety[1]	2020–21 yield	2-year avg.	3-year avg.	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in*
SunGrains	GA10268-17LE16 *	104.8	85.7	—	4	38
AgriMAXX	503	101.2	65.7	—	2	35
AgriMAXX	514	100.0	—	—	3	31
Progeny Ag	#BUSTER	99.0	85.4	82.0	1	32
VCIA	13VTK429-3 *	98.1	—	—	1	36
SunGrains	GA10127-18E26 *	97.0	—	—	1	33
AGS	3040	97.0	82.6	—	1	34
USG	3640	96.3	81.0	—	1	37
Local Seed	LW2068	94.7	88.6	—	1	34
Progeny Ag	#CHAD	94.0	75.3	—	1	28
AgriMAXX	505	93.8	—	—	1	35
Go Wheat	6000	93.0	77.5	—	2	32
SunGrains	GA11656-17E11 *	92.8	75.2	—	1	36
Delta Grow	1500	91.9	—	—	1	30
AgriMAXX	516	91.8	—	—	1	32
AGS	2038	91.2	81.3	74.8	1	38
Local Seed	LW2169	90.7	82.9	—	1	30
AGS	2055	90.0	82.8	75.6	1	32
Local Seed	LW2148	89.0	—	—	1	36
Local Seed	LW2026	88.9	75.6	—	1	36
Progeny Ag	PGX19-12 *	88.8	84.0	—	1	33
Dyna-Gro	9002	88.6	—	—	2	34
AgriMAXX	513	88.2	—	—	1	33
USG	USG 3562	87.9	—	—	1	35
Progeny Ag	PGX 19-10 *	87.7	—	—	1	30
Delta Grow	3500	86.7	71.6	72.6	2	31
Dyna-Gro	9701	86.4	80.5	77.2	1	33
GoWheat	2058	86.2	81.1	79.9	1	25
USG	3472	86.0	—	—	1	29
Dyna-Gro	9811	85.9	80.7	77.6	1	33
SunGrains	LA12080LDH-72 *	85.7	71.8	—	2	34
SunGrains	GA10407-17E8 *	85.1	—	—	1	32
VCIA	Liberty 5658	84.4	75.2	—	1	34
Delta Grow	1200	84.2	—	—	1	32
SunGrains	LA12275LDH-56 *	84.1	—	—	1	35
SunGrains	AR15V31-26-2285N *	84.1	—	—	1	34
Progeny Ag	#TURBO	84.0	74.5	68.1	1	30
USG	3536	84.0	77.4	74.7	1	33
AGS	2024	84.0	72.0	70.9	1	27

Continued.

Table 10 (continued). Yields of 57 wheat varieties at Jerry Slocum Farms, Coldwater (Callaway silt loam).

Brand	Variety[1]	2020–21 yield	2-year avg.	3-year avg.	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in*
SunGrains	LA15203-LDH274 *	83.9	—	—	2	33
GoWheat	2032	83.8	70.0	73.5	1	31
AgriMAXX	473	83.2	77.5	74.8	1	33
Dyna-Gro	9120	82.9	76.6	—	1	30
SunGrains	AR09137UC-17-2 *	82.4	71.7	—	1	35
SunGrains	LA15203-LDH200 *	82.4	—	—	2	35
Dyna-Gro	9172	81.9	78.1	—	1	31
SunGrains	AR11051-15-3 *	81.8	—	—	1	35
SunGrains	LA15203-LDH112 *	80.9	—	—	1	33
SunGrains	GA15VDH-FHB-MAS23-18LE43F *	80.6	—	—	4	28
Go Wheat	LA754	79.4	69.9	72.8	2	35
Local Seed	LW 2848	76.6	73.8	74.4	1	33
Dyna-Gro	WX20738	76.2	—	—	4	32
Progeny Ag	#BULLET	75.2	73.4	75.9	1	35
SunGrains	GA15VDH-FHB-MA30-18ESc43F *	75.0	—	—	1	30
SunGrains	AR06146E-1-4 *	74.6	68.0	68.7	1	36
SunGrains	LA15166-LDH272 *	74.6	65.3	—	1	33
Delta Grow	1000	71.8	72.5	71.9	1	35
Mean		86.9				
CV		9.4				
LSD (0.05)		11.4				
R2		51				
Error DF		168				

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

R. R. Foil Plant Science Research Center, Starkville

Crop Summary

The plots were planted into a seedbed that had been disked and harrowed prior to planting. Plots emerged to a good stand following planting. Above-average rainfall was observed at this location, but having a well-drained location did not appear to reduce yield potential. Harvest was completed in a timely manner.

Planting date . . . .November 3
Harvest date . . . . .June 4
Soil type . . . . . .Marietta fine sandy loam
Soil pH 6.4
Soil fertility . . . . . .P=M, K=M
Previous crop . . . .Grain sorghum
Fertilizer . . . . . .Topdress — N @ 33 lb/A (33-0-0-12S) on February 9; N @ 50 lb/A (33-0-0-12S) on March 2; N @ 50 lb/A (33-0-0-12S) on April 5
Herbicide . . . . . .Preemergence — Gramoxone @ 32 oz/A on November 3; Zidua @ 1.75 oz/A delayed PRE
Postemergence — Harmony @ 0.9 oz/A and Axial XL @ 16.4 oz/A on February 9

Table 11. Yields of 57 wheat varieties at R. R. Foil Plant Science Research Center, Starkville (Marietta fine sandy loam).

Brand	Variety[1]	2020–21 yield	2-year avg.[2]	3-year avg.[3]	Lodging score	Plant height	Date headed
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in*	
AgriMAXX	514	109.2	—	—	1	39	4/16
AGS	3040	108.0	—	—	1	40	4/16
Dyna-Gro	WX20738	105.9	—	—	1	39	4/14
AgriMAXX	503	105.6	—	—	1	39	4/16
Progeny Ag	PGX19-12 *	105.2	—	—	1	37	4/16
AgriMAXX	516	104.7	—	—	1	37	4/16
Dyna-Gro	9172	103.5	—	—	1	39	4/14
USG	3472	102.8	—	—	1	40	4/16
Dyna-Gro	9002	102.5	—	—	1	40	4/14
Dyna-Gro	9120	101.8	—	—	1	38	4/14
SunGrains	GA15VDH-FHB-MAS23-18LE43F *	101.1	—	—	1	33	4/16
Local Seed Co.	LW2169	100.9	—	—	1	38	4/5
Local Seed Co.	LW2148	99.8	—	—	1	41	4/16
AgriMAXX	513	99.1	—	—	1	37	4/16
Delta Grow	1200	98.9	—	—	1	42	4/16
GW	2058	98.9	—	—	1	37	4/13
Delta Grow	1500	98.3	—	—	1	37	4/16
Progeny Ag	#CHAD	98.3	—	—	1	34	4/13
SunGrains	LA12080LDH-72 *	98.0	—	—	1	42	4/12
SunGrains	AR11051-15-3 *	98.0	—	—	1	42	4/12
AgriMAXX	473	97.7	—	—	1	42	4/12
Progeny Ag	#BUSTER	97.1	—	—	1	41	4/5
SunGrains	AR09137UC-17-2 *	97.1	—	—	1	42	4/5
GoWheat	2032	96.9	—	—	1	37	4/5
Delta Grow	3500	96.5	—	—	1	40	4/16
Dyna-Gro	9701	96.3	—	—	1	41	4/16
USG	USG 3562	96.1	—	—	1	42	4/16
Go Wheat	6000	96.0	—	—	1	37	4/7
SunGrains	LA15203-LDH112 *	94.6	—	—	1	38	4/12
Local Seed	LW2068	93.5	—	—	1	39	4/16
SunGrains	AR06146E-1-4 *	92.7	—	—	1	42	4/12
Progeny Ag	#Turbo	92.6	—	—	1	36	4/16
SunGrains	LA15166-LDH272 *	92.2	—	—	1	37	4/12
USG	3536	91.1	—	—	1	42	4/13
SunGrains	LA15203-LDH200 *	90.9	—	—	1	38	4/13
Progeny Ag	#Bullet	90.8	—	—	1	42	4/16
VCIA	13VTK429-3 *	90.6	—	—	1	39	4/16

Continued.

Table 11 (cont.). Yields of 57 wheat varieties at R. R. Foil Plant Science Research Center, Starkville (Marietta fine sandy loam).

Brand	Variety[1]	2020–21 yield	2-year avg.[2]	3-year avg.[3]	Lodging score	Plant height	Date headed
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in*	
SunGrains	LA15203-LDH274 *	90.2	—	—	1	36	4/16
Go Wheat	LA754	90.0	—	—	1	37	4/16
SunGrains	GA10127-18E26 *	89.9	—	—	1	39	4/16
Dyna-Gro	9811	89.9	—	—	1	39	4/12
AGS	2024	89.5	—	—	1	40	4/16
SunGrains	GA10268-17LE16 *	89.4	—	—	1	43	4/16
Local Seed	LW2026	89.2	—	—	1	40	4/16
SunGrains	LA12275LDH-56 *	88.7	—	—	1	44	4/12
AGS	2055	88.7	—	—	1	38	4/16
SunGrains	AR15V31-26-2285N *	88.3	—	—	1	40	4/12
Delta Grow	1000	86.8	—	—	1	41	4/5
Local Seed Co.	LW 2848	86.2	—	—	1	42	4/16
USG	3640	85.6	—	—	1	40	4/10
SunGrains	GA10407-17E8 *	84.1	—	—	1	39	4/10
SunGrains	GA15VDH-FHB-MA30-18ESc43F *	82.9	—	—	1	33	4/12
AGS	2038	82.6	—	—	1	44	4/16
VA Tech	Liberty 5658	82.5	—	—	1	37	4/12
AgriMAXX	505	81.7	—	—	1	41	4/16
Progeny Ag	PGX 19-10 *	80.3	—	—	1	35	4/14
SunGrains	GA11656-17E11 *	79.8	—	—	1	38	4/12
Mean		94.2					
CV		10.5					
LSD (0.05)		13.8					
R2		58					
Error DF		168					

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

MAFES Delta Branch, Stoneville

Crop Summary

The wheat plots were planted in a well-prepared seedbed that had been disked and harrowed just prior to planting. Soil moisture at planting was ideal for germination, and the plots quickly emerged to a good stand. Rainfall during early June delayed harvest but appeared to not reduce yield potential at this location. Harvest was completed without difficulty, and good yields were observed at this location.

Planting date . . . .November 10
Harvest date . . . .June 16
Soil type . . . . . .Bosket very fine sandy loam
Soil pH 6.2
Soil fertility . . . . . .P=H, K=H
Previous crop . . .Soybeans
Fertilizer . . . . . .Preplant — 19-19-19 @ 140 lb/A on November 3
Topdress — N @ 34 lb/A (46-0-0) on February 24; N @ 48 lb/A (46-0-0) on March 31
Herbicide . . . . . .Preemergence — Gramoxone @ 32 oz/A on November 10; Zidua @ 1.75 oz/A delayed PRE

Table 12. Yields of 57 wheat varieties at Delta Branch Experiment Station, Stoneville (Bosket very fine sandy loam soil).

Brand	Variety[1]	2020–21 yield	2-year avg.	3-year avg.	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in*
VCIA	13VTK429-3 *	108.2	—	—	1	37
Progeny Ag	PGX19-12 *	107.3	88.0	—	1	34
Delta Grow	1200	106.8	—	—	1	34
AgriMAXX	514	104.1	—	—	1	34
AgriMAXX	503	103.1	86.4	—	1	34
Dyna-Gro	9172	102.9	85.8	—	1	35
Local Seed	LW2148	102.8	—	—	1	34
USG	3472	102.5	—	—	1	32
SunGrains	GA10268-17LE16 *	99.6	83.9	—	1	40
USG	3536	99.3	85.3	78.3	1	34
AgriMAXX	516	98.8	—	—	1	35
SunGrains	GA10127-18E26 *	98.4	—	—	1	38
Delta Grow	1500	97.9	—	—	1	36
Dyna-Gro	9120	97.7	80.9	—	1	35
Local Seed	LW2169	97.4	84.7	—	1	37
Progeny Ag	#BULLET	97.3	88.6	80.2	1	35
AgriMAXX	473	95.4	87.2	79.7	1	32
Dyna-Gro	9002	95.3	—	—	1	36
Progeny Ag	#BUSTER	94.5	80.7	68.9	1	35
Progeny Ag	#CHAD	94.2	69.5	—	1	33
Local Seed	LW 2848	93.5	89.8	79.7	1	32
AGS	2055	91.9	78.4	76.9	1	32
Dyna-Gro	9701	91.4	86.8	78.2	1	34
SunGrains	LA15203-LDH200 *	89.9	—	—	1	36
Delta Grow	1000	89.9	88.9	77.9	1	37
AgriMAXX	513	89.3	—	—	1	36
SunGrains	GA11656-17E11 *	88.9	74.4	—	3	37
USG	USG 3562	88.8	—	—	1	33
Local Seed	LW2068	88.7	81.5	—	3	34
SunGrains	LA12080LDH-72 *	87.8	68.3	—	1	35
Go Wheat	6000	87.5	65.8	—	1	33
SunGrains	LA12275LDH-56 *	87.5	—	—	1	43
Dyna-Gro	9811	87.1	81.1	73.3	1	36
GoWheat	2058	87.0	83.3	76.9	1	31
SunGrains	AR09137UC-17-2 *	86.9	67.2	—	1	36
AgriMAXX	505	86.7	—	—	1	34
VCIA	Liberty 5658	86.7	74.3	—	1	34
AGS	2024	86.2	70.4	68.4	1	34
Progeny Ag	#TURBO	85.8	71.7	60.3	1	34
SunGrains	GA15VDH-FHB-MAS23-18LE43F *	85.3	—	—	1	30

Continued.

Table 12 (cont.). Yields of 57 wheat varieties at Delta Branch Experiment Station, Stoneville (Bosket very fine sandy loam soil).

Brand	Variety[1]	2020–21 yield	2-year avg.	3-year avg.	Lodging score	Plant height
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in*
AGS	3040	85.2	76.2	—	1	33
Progeny Ag	PGX 19-10 *	84.5	—	—	1	31
USG	3640	84.1	61.3	—	1	33
AGS	2038	83.5	75.6	69.5	1	38
SunGrains	GA10407-17E8 *	83.5	—	—	1	33
SunGrains	AR11051-15-3 *	83.1	—	—	1	34
GoWheat	2032	83.0	65.9	65.7	1	31
Delta Grow	3500	82.3	58.8	54.0	1	32
Dyna-Gro	WX20738	82.2	—	—	1	34
SunGrains	AR06146E-1-4 *	81.2	65.7	64.6	1	33
SunGrains	LA15203-LDH274 *	80.7	—	—	1	35
SunGrains	LA15203-LDH112 *	80.4	—	—	1	34
SunGrains	LA15166-LDH272 *	79.4	61.0	—	1	31
Local Seed	LW2026	79.0	62.0	—	1	34
SunGrains	GA15VDH-FHB-MA30-18ESc43F *	77.3	—	—	1	31
SunGrains	AR15V31-26-2285N *	76.6	—	—	1	36
Go Wheat	LA754	65.8	49.2	51.7	1	34
Mean		90.2				
CV		7.6				
LSD (0.05)		9.6				
R2		74				
Error DF		168				

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

MAFES Northeast Mississippi Branch, Verona

Crop Summary

The plots were planted into the previous season's soybean residue on the existing 76-inch raised beds. These raised beds were beneficial in a season where above-average rainfall was recorded. Timely fertilizer applications and raised seedbeds allowed for good yields, despite the excessive rainfall. Harvest was delayed due to rainfall in early June but was completed without any problems.

Planting date . . .November 4
Harvest date . . . .June 17
Soil type . . . . . .Leeper silty clay
Soil pH 6.4
Soil fertility . . . . .P=M, K=M
Previous crop . . .Soybean
Fertilizer . . . . . .Topdress — N @ 33 lb/A (33-0-0-12S) on February 10; N @ 50 lb/A (33-0-0-12S) on March 2; N @ 50 lb/A (33-0-0-12S) on April 5
Herbicide . . . . . .Preemergence — Gramoxone @ 32 oz/A on November 4; Zidua @ 1.75 oz/A delayed PRE; Harmony @ 0.9 oz/A and Axial XL at 16.4 oz/A on February 10

Table 13. Yields of 57 wheat varieties at MAFES Northeast Mississippi Branch, Verona.

Brand	Variety[1]	2020–21 yield	2-year avg.	3-year avg.	Lodging score	Plant height	Date headed
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in*	
SunGrains	GA10127-18E26 *	108.5	—	—	1	37	4/19
AgriMAXX	503	106.2	90.3	—	1	38	4/26
VCIA	13VTK429-3 *	105.7	—	—	1	39	4/25
Dyna-Gro	9172	105.4	91.7	—	1	35	4/26
Progeny Ag	#CHAD	105.2	95.2	—	1	36	4/20
SunGrains	GA15VDH-FHB-MAS23-18LE43F *	104.3		—	1	35	4/23
Go Wheat	6000	103.3	88.7	—	1	37	4/20
Local Seed	LW2148	102.7	—	—	1	40	4/26
SunGrains	GA10407-17E8 *	100.9	—	—	4	38	4/16
USG	USG 3562	100.8	—	—	1	35	4/29
Local Seed	LW2169	100.6	90.2	—	1	40	4/22
GoWheat	2032	100.5	85.0	81.6	5	37	4/20
Delta Grow	1200	99.9	—	—	2	34	4/27
AGS	2055	99.6	88.0	81.6	1	34	4/25
Dyna-Gro	9002	99.5	—	—	1	38	4/26
SunGrains	GA11656-17E11 *	99.0	88.0	—	1	41	4/19
SunGrains	AR15V31-26-2285N *	97.9	—	—	2	41	4/16
Dyna-Gro	9120	97.7	88.7	—	1	32	4/27
SunGrains	GA10268-17LE16 *	97.2	87.7	—	1	41	4/29
SunGrains	AR11051-15-3 *	96.3	—	—	1	41	4/29
Delta Grow	3500	95.8	78.0	76.7	1	32	4/13
Delta Grow	1000	95.6	84.3	78.3	1	40	4/19
Delta Grow	1500	95.5	—	—	5	35	4/26
AgriMAXX	513	95.5	—	—	1	36	4/26
AGS	2024	95.5	82.8	76.5	1	39	4/26
Progeny Ag	#BULLET	95.0	83.7	80.9	1	39	4/26
Progeny Ag	PGX19-12 *	94.9	87.9	—	1	38	4/25
GoWheat	2058	94.4	86.1	78.7	1	34	4/26
AgriMAXX	473	94.0	83.9	81.6	1	42	4/26
AGS	3040	93.9	86.6	—	2	44	4/19
AgriMAXX	514	93.8	—	—	1	32	4/29
USG	3472	93.7	—	—	1	37	4/26
SunGrains	LA12080LDH-72 *	92.1	81.2	—	1	39	4/19
Local Seed	LW 2848	92.1	84.7	80.6	2	42	4/26
Local Seed	LW2068	91.9	82.7	—	2	40	4/26
SunGrains	LA15166-LDH272 *	91.8	79.6	—	1	35	4/23
Progeny Ag	#BUSTER	91.6	84.8	80.3	2	38	4/20
SunGrains	LA15203-LDH200 *	90.7	—	—	3	36	4/26
SunGrains	AR09137UC-17-2 *	90.0	82.0	—	1	41	4/26
SunGrains	GA15VDH-FHB-MA30-18ESc43F *	89.6	—	—	1	35	4/23

Continued.

Table 13 (continued). Yields of 57 wheat varieties at MAFES Northeast Mississippi Branch, Verona.

Brand	Variety[1]	2020–21 yield	2-year avg.	3-year avg.	Lodging score	Plant height	Date headed
		bu/A	*bu/A*	*bu/A*	*(1-5)*	*in*	
USG	3536	89.1	77.0	74.7	1	37	4/29
Dyna-Gro	9811	88.8	82.7	78.1	1	37	4/26
AGS	2038	88.7	81.8	73.7	1	46	4/25
AgriMAXX	516	88.7	—	—	1	33	4/26
Go Wheat	LA754	87.6	80.5	79.6	2	37	4/16
SunGrains	LA15203-LDH112 *	87.4	—	—	5	32	4/25
USG	3640	87.3	74.4	—	2	37	4/26
SunGrains	LA12275LDH-56 *	87.1	—	—	2	39	4/29
AgriMAXX	505	86.8	—	—	1	38	4/26
VCIA	Liberty 5658	86.7	83.9	—	1	38	4/13
SunGrains	AR06146E-1-4 *	86.6	77.9	79.1	1	37	4/19
Dyna-Gro	9701	86.4	82.1	78.8	1	37	4/26
Dyna-Gro	WX20738	86.1	—	—	3	31	4/27
SunGrains	LA15203-LDH274 *	83.7	—	—	4	35	4/13
Progeny Ag	#TURBO	81.9	74.7	76.7	5	35	4/25
Progeny Ag	PGX 19-10 *	75.8	—	—	1	36	4/26
Local Seed	LW2026	74.1	69.6	—	1	33	4/26
Mean		93.9					
CV		10.0					
LSD (0.05)		13.1					
R2		54					
Error DF		168					

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

Wheat and Oat Seeds per Pound

Table 14. Average number of wheat seeds per pound.

Brand	Variety	Seed/lb	Fungicide and/or Insecticide
AgriMAXX	473	12,700	Prime ST
AgriMAXX	503	12,500	Prime ST
AgriMAXX	505	12,000	Prime ST
AgriMAXX	513	12,500	Prime ST
AgriMAXX	514	11,000	Prime ST
AgriMAXX	516	11,400	Prime ST
AGS	2055	12,640	CruiserMaxx + Vibrance Extreme
AGS	2024	16,500	CruiserMaxx + Vibrance Extreme
AGS	2038	10,930	CruiserMaxx + Vibrance Extreme
AGS	3040	10,637	CruiserMaxx + Vibrance Extreme
Delta Grow	1000	13,150	Dividend Extreme
Delta Grow	1200	13,770	CruiserMaxx
Delta Grow	1500	13,334	CruiserMaxx
Delta Grow	3500	9,235	CruiserMaxx
Dyna-Gro	9701	11,859	Foothold Virock/Awaken ST
Dyna-Gro	9811	10,685	Foothold Virock/Awaken ST
Dyna-Gro	9002	9,275	Foothold Virock/Awaken ST
Dyna-Gro	9172	13,592	Foothold Virock/Awaken ST
Dyna-Gro	9120	14,640	Foothold Virock/Awaken ST
Dyna-Gro	WX20738	11,795	Foothold Virock/Awaken ST
Go Wheat	2058	10,840	CruiserMaxx + Vibrance Extreme
Go Wheat	LA754	10,190	CruiserMaxx + Vibrance Extreme
Go Wheat	2032	10,900	CruiserMaxx + Vibrance Extreme
Go Wheat	6000 (TX-EL2)	11,270	CruiserMaxx + Vibrance Extreme
Local Seed Co.	LW2169 (LWX20C)	11,000	Radius Premium
Local Seed Co.	LW2148	11,200	Radius Premium
Local Seed Co.	LW2068 (LWX20A)	11,250	Radius Premium
Local Seed Co.	LW2848	11,700	Radius Premium
Local Seed Co.	LW2026 (LWX20D)	12,530	Radius Premium
Progeny Ag.	#BULLET	11,620	Evergol Energy + Gaucho
Progeny Ag.	#TURBO	11,096	Evergol Energy + Gaucho
Progeny Ag.	#BUSTER	13,700	Evergol Energy + Gaucho
Progeny Ag.	PGX 19-10	15,250	Evergol Energy + Gaucho
Progeny Ag.	PGX 19-12	11,540	Evergol Energy + Gaucho
Progeny Ag.	#CHAD	16,430	Evergol Energy + Gaucho
SunGrains	GA10127-18E26	14,970	Dividend Extreme
SunGrains	GA15VDH-FHB-MAS23-18LE43F	14,040	Dividend Extreme
SunGrains	GA15VDH-FHB-MA30-18ESc43F	12,745	Dividend Extreme
SunGrains	GA10407-17E8	10,665	Dividend Extreme
SunGrains	GA11656-17E11	10,145	Dividend Extreme
SunGrains	GA10268-17LE16	10,675	Dividend Extreme
SunGrains	LA12080LDH-72	13,700	CruiserMaxx Vibrance
SunGrains	LA12275LDH-56	11,300	CruiserMaxx Vibrance
SunGrains	LA15166-LDH272	14,300	CruiserMaxx Vibrance
SunGrains	LA15203-LDH112	12,400	CruiserMaxx Vibrance
SunGrains	LA15203-LDH200	11,720	CruiserMaxx Vibrance
SunGrains	LA15203-LDH274	11,170	CruiserMaxx Vibrance
SunGrains	AR06146E-1-4	12,400	Vibrance Extreme + Gaucho 600
SunGrains	AR09137UC-17-2	12,060	Vibrance Extreme + Gaucho 600
SunGrains	AR15V31-26-2285N	11,345	Vibrance Extreme + Gaucho 600
SunGrains	AR11051-15-3	10,520	Vibrance Extreme + Gaucho 600
USG	3536	10,445	Ipconazole + Metalaxyl + Imidicloprid
USG	3640	11,095	Ipconazole + Metalaxyl + Imidicloprid
USG	3562	12,265	Ipconazole + Metalaxyl + Imidicloprid
USG	3472	11,085	Ipconazole + Metalaxyl + Imidicloprid
VCIA	Liberty 5658 (DH12SRW056-058)	11,500	CruiserMaxx Vibrance Cereals + Cruiser 5FS
VCIA	13VTK429-3	11,580	CruiserMaxx Vibrance Cereals + Cruiser 5FS

Table 15. Average number of oat seeds per pound.

Brand	Variety	2020–21
Sweet Caroline	FL 0720	14,790

Summaries of Oat Yields

Table 16. 2020–21 yield summary of oat official variety trials in Mississippi.

Brand	Variety	Brooksville	Starkville	Verona	Stoneville	Overall average	
		bu/A	*bu/A*	*bu/A*	*bu/A*	*bu/A*	
Sweet Caroline	FL 0720	89.1	142.4	59.1	122.0	103.2	
Overall mean		89.1	142.4	59.1	122	103.2	

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

Brand	Variety	Brooksville	Starkville	Verona	Overall average	
		bu/A	*bu/A*	*bu/A*	*bu/A*	
Sweet Caroline	FL 0720	45.3	74.3	50.6	56.7	

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

Brand	Variety	Brooksville	Starkville	Verona	Overall average	
		bu/A	*bu/A*	*bu/A*	*bu/A*	
Sweet Caroline	FL 0720	59.9	97.0	53.4	70.1	

MAFES Black Belt Branch, Brooksville

Crop Summary

The plots were planted no-till into the previous season's soybean residue on the existing 76-inch raised beds. These raised beds were beneficial in a season when above-average rainfall was recorded. Timely fertilizer applications and raised seedbeds allowed for very good yields, despite the excessive rainfall. Harvest was delayed due to rainfall in early June but was otherwise completed in a timely manner without difficulty.

Planting date . . .November 9
Harvest date . . . .June 24
Soil type . . . . . .Brooksville silty clay
Soil pH 6.7
Soil fertility . . . . .P=M, K=M
Previous crop . . .Soybean
Fertilizer . . . . . .Preplant — 0-20-20 @ 200 lb/A
Topdress — N @ 33 lb/A (33-0-0-12S) on February 10; N @ 56 lb/A (33-0-0-12S) on March 19; N @ 50 lb/A (33-0-0-12S) on April 5
Herbicides . . . . . .Preemergence — Gramoxone @ 32 oz/A on November 9
Postemergence — Harmony @ 0.9 oz/A on February 10

Table 19. Yield of one oat variety at MAFES Black Belt Branch, Brooksville (Brooksville silty clay soil).

Brand	Variety	2020–21 yield	2-year avg.	3-year avg.
		bu/A	*bu/A*	*bu/A*
Sweet Caroline	FL 0720	89.1	45.3	59.9
Mean		89.1		

R. R. Foil Plant Science Research Center, Starkville

Crop Summary

The plots were planted into a seedbed that had been disked and harrowed prior to planting. The plots emerged to a good stand following planting. Above-average rainfall was observed at this location, but having a well-drained location did not appear to reduce yield potential. Harvest was completed in a timely manner.

Planting date . . .November 3
Harvest date . . . .June 4
Soil type . . . . . .Marietta fine sandy loam
Soil pH 6.4
Soil fertility . . . . .P=M, K=M
Previous crop . . .Grain sorghum
Fertilizer . . . . . .Topdress — N @ 33 lb/A (33-0-0-12S) on February 9; N @ 50 lb/A (33-0-0-12S) on March 2; N @ 50 lb/A (33-0-0-12S) on April 5
Herbicide . . . . . .Preemergence — Gramoxone @ 32 oz/A on November 3
Postemergence — Harmony @ 0.9 oz/A on February 9

Table 20. Yield of one oat variety at R.R. Foil Plant Science Research Center, Starkville.

Brand	Variety	2020–21 yield	2-year avg.	3-year avg.
		bu/A	*bu/A*	*bu/A*
Sweet Caroline	FL 0720	142.4	74.3	97.0
Mean		142.4		

MAFES Northeast Mississippi Branch, Verona

Crop Summary

The plots were planted into the previous season's soybean residue on the existing 76-inch raised beds. These raised beds were beneficial in a season where above-average rainfall was recorded. Timely fertilizer applications and raised seedbeds allowed for decent yields, despite the excessive rainfall. Harvest was delayed due to rainfall in early June but was completed without any problems.

Planting date . . . .November 4
Harvest date . . . .June 17
Soil type . . . . . .Leeper silty clay
Soil pH 6.4
Soil fertility . . . . . .P=M, K=M
Previous crop . . .Soybean
Fertilizer . . . . . .Topdress — N @ 33 lb/A (33-0-0-12S) on February 10; N @ 50 lb/A (33-0-0-12S) on March 2; N @ 50 lb/A (33-0-0-12S) on April 5
Herbicide . . . . . .Preemergence — Gramoxone @ 32 oz/A on November 4; Harmony @ 0.9 oz/A on February 10

Table 21. Yield of one oat variety at MAFES Northeast Mississippi Branch, Verona.

Brand	Variety	2020–21 yield	2-year avg.	3-year avg.
		bu/A	*bu/A*	*bu/A*
Sweet Caroline	FL 0720	59.1	50.6	53.4
Mean		59.1		

Table 22. Severity of reaction to diseases (0–100%).

Brand/Variety	Leaf rust	Stripe rust		FHB[1]	Bacterial leaf streak	
	Starkville	Bolton	Stoneville	Bolton	Starkville	Stoneville
AgriMAXX 473	0.3	1.3	0.0	1.8	11.0	14.5
AgriMAXX 503	1.5	0.0	0.0	0.5	0.3	26.3
AgriMAXX 505	2.0	0.0	0.0	0.0	12.0	12.5
AgriMAXX 513	0.8	0.8	0.0	0.0	2.3	27.5
AgriMAXX 514	0.0	0.0	0.0	0.0	8.8	25.0
AgriMAXX 516	2.0	0.0	0.0	0.0	3.0	10.0
AGS 2024	0.0	1.0	1.3	1.5	10.0	13.8
AGS 2038	0.0	0.0	0.0	0.0	4.0	23.3
AGS 2055	0.8	0.5	0.0	0.5	6.5	18.8
AGS 3040	0.8	1.3	6.3	0.0	2.0	10.0
Delta Grow 1000	0.5	0.0	0.0	0.0	1.8	9.3
Delta Grow 1200	0.8	0.0	0.5	0.3	9.3	25.0
Delta Grow 1500	0.0	1.3	0.0	0.0	3.8	31.3
Delta Grow 3500	1.5	3.0	3.8	1.3	0.5	20.0
Dyna-Gro 9002 (WX18416)	0.3	0.0	0.0	3.8	6.3	24.3
Dyna-Gro 9120 (WX20737)	1.0	0.0	0.0	0.0	1.3	30.0
Dyna-Gro 9172 (WX20731)	3.8	0.0	0.0	0.0	1.5	21.5
Dyna-Gro 9701	0.5	0.0	0.0	0.0	1.3	22.5
Dyna-Gro 9811	0.0	0.0	2.5	0.0	7.5	18.3
Dyna-Gro WX20738	2.8	0.0	0.0	0.0	2.3	17.5
Go Wheat 2032	0.0	0.0	0.0	2.0	1.8	12.5
Go Wheat 2058	0.0	0.0	0.0	0.0	2.0	31.3
Go Wheat 6000 (TX-EL2)	0.3	0.0	0.0	0.5	4.0	32.5
Go Wheat LA754	1.3	0.0	0.0	0.0	1.5	18.8
Local Seed Co. LW2026 (LWX20D)	0.0	0.3	0.0	0.0	1.3	20.0
Local Seed Co. LW2068 (LWX20A)	2.3	0.0	0.0	0.0	1.3	22.5
Local Seed Co. LW2148	0.0	0.8	0.0	2.5	4.0	23.8
Local Seed Co. LW2169 (LWX20C)	2.0	2.0	0.0	0.0	1.3	21.3
Local Seed Co. LW2848	0.0	0.0	0.0	0.0	1.5	23.8
Progeny Ag. #BULLET	0.0	5.0	0.8	2.5	8.3	25.8
Progeny Ag. #TURBO	0.3	0.8	0.5	0.0	6.3	12.5
Progeny Ag. PGX 18-7	1.3	3.8	0.0	0.0	0.3	16.3
Progeny Ag. PGX 19-10	0.0	0.0	1.3	0.0	3.5	18.8
Progeny Ag. PGX 19-12	1.0	1.0	0.0	0.0	5.0	20.0
Progeny Ag. PGX 19-17	1.0	0.0	0.0	0.5	1.3	15.0
SunGrains GA10127-18E26	0.0	1.3	2.5	0.5	5.5	16.3
SunGrains GA10268-17LE16	0.5	0.0	0.0	0.0	9.3	12.5
SunGrains GA10407-17E8	0.5	0.0	0.5	0.3	5.8	13.8
SunGrains GA11656-17E11	0.0	0.0	0.0	4.5	4.3	13.8
SunGrains GA15VDH-FHB-MA30-18ESc43F	0.0	0.0	2.0	0.0	3.0	19.3
SunGrains GA15VDH-FHB-MAS23-18LE43F	0.0	0.0	0.0	0.0	13.0	26.3
SunGrains LA12080LDH-72	0.5	0.0	0.0	0.0	5.0	26.3
SunGrains LA12275LDH-56	0.0	0.0	0.0	0.0	2.8	20.5
SunGrains LA15166-LDH272	0.8	0.0	5.0	0.0	1.0	20.0
SunGrains LA15203-LDH112	0.0	0.0	0.0	0.0	9.3	28.8
SunGrains LA15203-LDH200	0.0	0.0	0.0	0.0	3.8	11.3
SunGrains LA15203-LDH274	0.3	0.0	0.0	0.3	8.0	18.0
Univ of Arkansas AR06146E-1-4	0.8	0.0	0.0	0.0	4.0	21.3
Univ of Arkansas AR09137UC-17-2	0.0	0.0	0.0	2.8	2.8	40.0
Univ of Arkansas AR11051-15-3	3.8	0.5	0.0	0.0	5.8	17.0
Univ of Arkansas AR15V31-26-2285N	0.3	4.0	0.0	0.0	7.0	40.0
USG 3472	0.3	0.0	0.0	0.3	2.3	17.5
USG 3536	2.0	0.5	0.0	0.0	6.3	20.8
USG 3562	0.3	0.0	0.0	0.0	6.3	13.8
USG 3640	0.0	3.0	6.3	0.0	7.3	23.8
VCIA 13VTK429-3	0.0	0.0	1.3	0.0	1.0	18.8
VCIA Liberty 5658 (DH12SRW056-058)	0.0	0.0	4.0	0.8	0.5	21.3
MSE	3.9	5.5	6.9	2.9	53.8	198.8
CV	298.2	421.6	390.3	365.8	166.3	68.3
p-value	0.7525	0.6559	0.0723	0.0849	0.8446	0.6485

[1]FHB = Fusarium head blight (or scab)

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.

Keith Coble, Interim Director **www.mafes.msstate.edu**