

# PERFORMANCE OF GRAIN SORGHUM IN ALABAMA, 2021

DEPT. SERIES NO. CSES2021: GRAIN SORGHUM  
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## MISSION

The mission of the Alabama Variety Testing Program is to provide research-based, unbiased results on the performance of various crop hybrids, cultivars, and varieties to the agricultural community in our state. We are intent on conducting these trials in a manner that will result in maximum biological yield through methods common to the top-producing farms in Alabama. We are committed to providing this information in a rapid, timely manner for its use during the decision-making process. The success of the program rests upon our ability to help Alabama producers provide a safe, dependable source of food and fiber for all families as well as economic sustainability for theirs.

## HOW TO INTERPRET RESULTS

The purpose of the variety trial data is to determine whether differences are due to genetic performance. These differences cannot be measured absolutely due to environmental field conditions (rainfall, temperatures, soil fertility, soil type, disease, insects, etc.). Yields may differ between plots of the same entry. This variation is accounted for using experimental design and statistics.

The least significant difference (LSD) is used to determine whether the observed differences between entries are real or are caused by random variation. When using the LSD, two entries may have numerically different values but the values are not statistically different. When two entries are compared and the observed difference is larger than the LSD, the entries are considered statistically different. An alpha level of 0.10 is used, meaning that the differences observed are expected to be real 90% of the time.

The coefficient of variation (CV) is a measure used to compare the amount of random variation within a data set. The lower the CV, the more precise the data set.

Each table is organized in a manner that it is easy to read. The data is sorted from highest yielding to lowest. The bolded values are not statistically different from the highest yielding value.

A dark line in the table visually represents the test average. Any value above the line is equal to or greater than the test average. The numeric value for the test average is at the bottom of the tables.

**Results do not imply endorsement or recommendation by the Auburn University Variety Testing Program.**



# ACKNOWLEDGEMENT

**DR. PAUL PATTERSON, DEAN AND DIRECTOR  
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## MANAGEMENT

The trial is seeded at 80,000 seed per acre in 4-row plots and are planted using minimal tillage. Moisture is recorded at the time of harvest and yields are standardized to 14.0% moisture for head-to-head comparisons.

**TABLE 1 – MANAGEMENT**

<b>Research Center</b>	<b>Wiregrass Research and Extension Center</b>
<b>Location</b>	Headland
<b>Trial Type</b>	Non-Irrigated
<b>Row Spacing</b>	36 inches
<b>Soil Type</b>	Dothan Sandy Loam
<b>Planting Date</b>	June 10
<b>Harvest Date</b>	September 22
<b>Irrigation</b>	0.75 inches
<b>Fertilization</b>	120N-0P-80K-10S
<b>Herbicides</b>	Basagran Dual Roundup (hooded sprayer)
<b>Insecticides</b>	Sivanto Delta Gold
<b>Fungicides</b>	None
<b>Test Conducted By</b>	C. Parker

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**TABLE 3 – RAINFALL IN INCHES**

	<b>WREC</b>
<b>June</b>	2.53
<b>July</b>	8.61
<b>August</b>	6.12
<b>September</b>	2.77
<b>Season Total</b>	20.03

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# SEED SOURCES

**TABLE 4 – SEED SOURCE, VARIETY NAME, AND MATURITY**

Source	Variety
Sorghum Partners	SP7715
	SPSA308
	SPSC343
	SPSC344
Dyna-Gro Seeds	GX20970
	GX20973
	GX20998
	GX21965
	M59GB94
	M60GB31
	M60GB88
	M63GB78
	M67GB87
	M71GR91
M72GB71	

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**NON-IRRIGATED GRAIN SORGHUM  
WIREGRASS RESEARCH AND EXTENSION CENTER  
HEADLAND, AL**

**TABLE 5 – LOCATION SPECIFIC DATA**

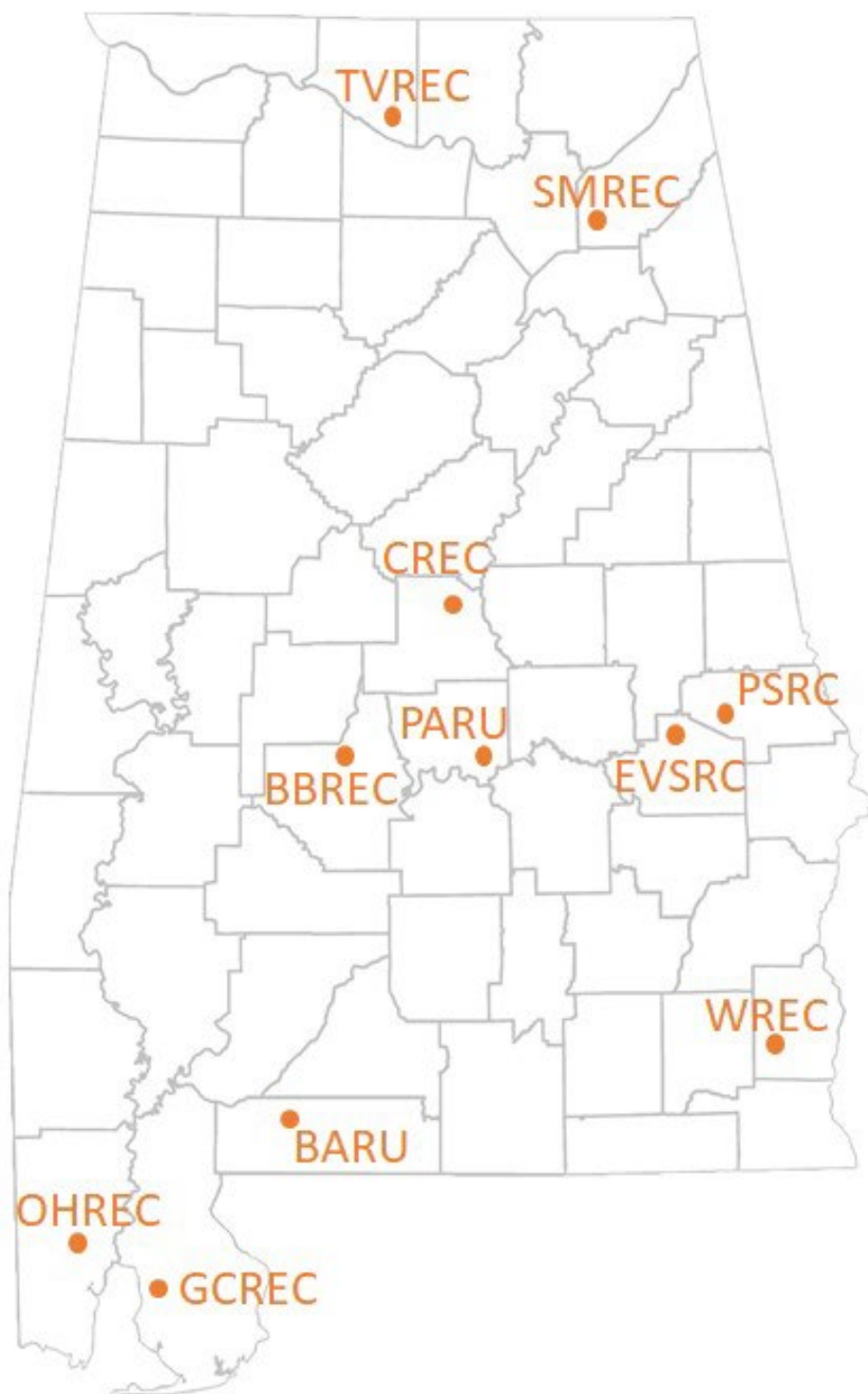
Variety	Yield bushels per acre	Test Weight pounds per bushel	50% Bloom	Plant Height inches
SP7715	<b>88</b>	53.1	9-Aug	54
GX21965	<b>80</b>	41.7	10-Aug	54
SPSC343	73	53.4	7-Aug	53
M72GB71	71	43.0	11-Aug	56
M71GR91	70	42.8	8-Aug	58
M67GB87	66	43.9	12-Aug	49
GX20998	65	44.3	10-Aug	50
M63GB78	64	46.2	8-Aug	49
GX20973	64	49.5	8-Aug	52
SPSC344	64	38.9	8-Aug	52
GX20970	61	42.1	9-Aug	53
M59GB94	60	42.6	6-Aug	52
M60GB88	57	41.2	8-Aug	49
SPSA308	48	39.0	12-Aug	51
M60GB31	45	32.6	10-Aug	51
Average	65	43.6	9-Aug	52
LSD @ 10% level	13	4.1	N.S.	N.S.
CV	27	14	1	9
Model R-Square	0.71	0.76	0.51	0.51

**Bolded yields** are NOT statistically different from the highest yielding entry.

**Bolded line** in table indicates test average.

**N.S.** –differences are statistically non-significant.

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