MISSISSIPPI GRAIN SORGHUM

HYBRID TRIALS, 2021

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MISSISSIPPI'S OFFICIAL VARIETY TRIALS

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NOTE TO USER

This Mississippi Agricultural and Forestry Experiment Station information bulletin is a summary of research conducted under project number MIS 1414 at locations shown on the map on the second page. It is intended for colleagues, cooperators, and sponsors. The interpretation of data presented in this report may change after additional experimentation. Information included is not to be construed as a recommendation for use or as an endorsement of a specific product by Mississippi State University or the Mississippi Agricultural and Forestry Experiment Station.

This report contains data generated as part of the Mississippi Agricultural and Forestry Experiment Station research program. Joint sponsorship by the organizations listed on page 2 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, chemical names, etc.) of products used in this research project are listed on page 2.

Mississippi Grain Sorghum Hybrid Trials, 2021

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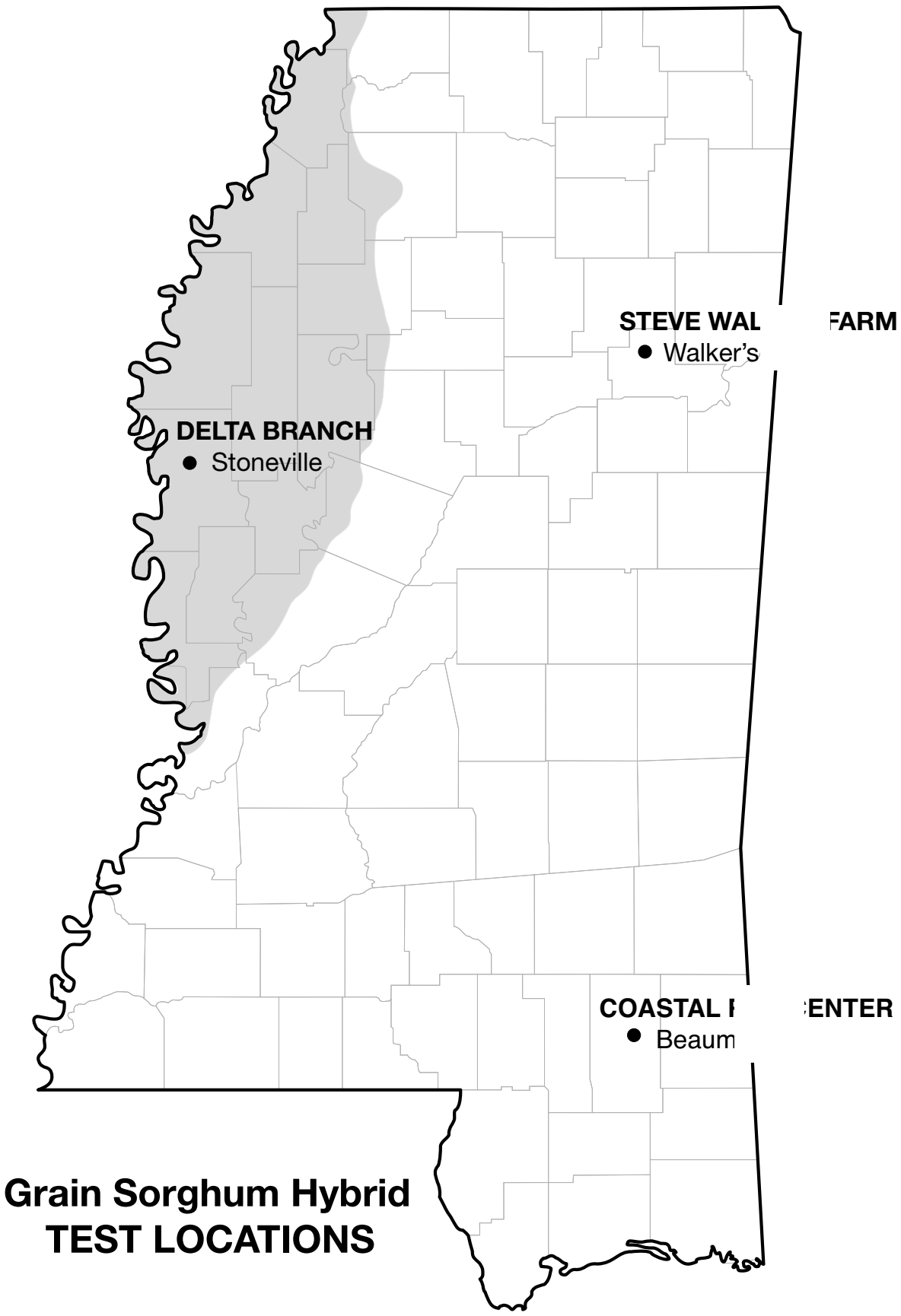
Our website address is ***mafes.msstate.edu/variety-trials***.



Grain Sorghum Hybrid
TEST LOCATIONS

Mississippi Grain Sorghum Hybrid Trials, 2021

PROCEDURES

Trials were conducted on Experiment Station land and on grower-cooperator fields in two geographical areas in Mississippi: Area I, located in the hill region of Mississippi; and Area II, located in the Delta region of Mississippi (see map). Commercial seed companies were given the opportunity to enter hybrids in the trial.

Plots consisted of various row patterns, depending on the location. Plot sizes were one of the following: (1) two 40-inch-wide, 16-foot-long rows; or (2) three 19-inch-wide, 16-foot-long rows. These planting patterns were used to accommodate the producer at each location.

Weeds were controlled by cultivation and/or herbicides. Only herbicides currently registered for use on grain sorghum were used in these studies, with strict adherence to all label instructions.

Experimental design was a randomized complete block with four replications at each location.

Seed of all entries were supplied by participating companies. All seed were packaged for planting at seeding rates suggested by the participating company and planted with a cone planter. Fertilizer was applied according to soil test recommendations.

Grain Sorghum Performance Measurements

Yield: An Almaco plot combine was used to harvest the total area of each plot. Harvested grain was weighed, moisture was determined, and yields were converted to bushels per acre at 14% moisture.

Head Exertion: This measurement is the average distance in inches from the flag leaf to the base of the panicle.

Grain Moisture: This measurement is expressed as a percent moisture of grain at harvest.

Plant Height: This measurement is the average height in inches from the soil surface to the top of the grain head.

Head Compactness: This variable was measured on a 1–5 scale: 1 = head short and oval; 2 = head long and slender; 3 = head elongated and oval; 4 = head elongated and rectangular; and 5 = head elongated and open.

USE OF DATA TABLES AND SUMMARY STATISTICS

The yield potential of a given hybrid cannot be measured with complete accuracy. Consequently, replicate plots of all hybrids are evaluated for yield, and the yield of a given hybrid is estimated as the mean of all replicate plots of that hybrid. Yields vary somewhat from one replicate plot to another, which introduces a certain degree of error to the value. As a result, although the mean yields of some hybrids are numerically different, the two hybrids may not be significantly different from each other within the range of natural variation. That is, the ability to measure yield is not precise enough to determine what the small differences are, other than what might be observed purely by chance.

The least significant difference (LSD) is an estimate of the smallest difference between two hybrids 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:

Hybrid	Yield
A	90 bu/A
B	85 bu/A
C	81 bu/A
LSD	7 bu/A

The difference between hybrid A and hybrid B is 5 bu/A (i.e., 90 - 85 = 5). This difference is smaller than the LSD (7 bu/A). Consequently, we would conclude that hybrid A and hybrid B have the same yield potential, since we are unable to say that the observed difference did not occur purely due to chance. However, the difference between hybrid A and hybrid C is 9 bu/A (i.e., 90 - 81 = 9), which is larger than the LSD (7 bu/A). We would therefore conclude that the yield potential of hybrid A is superior to that of hybrid C.

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 an estimate of the amount of unexplained variation in a given trial. This unexplained variation can be the result of variation between plots with respect to soil type, fertility, insects, diseases, moisture stress, etc. Overall, as the CV increases, the precision of a given trial decreases.

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 percent indicates that 90 percent of the observed variation in the trial has been accounted for in the trial, with the remaining 10 percent being unaccounted for. The higher the R^2 value, the more precise the trial. The R^2 is generally considered a better measure of precision than the CV for comparison of different trials.

Table 1. 2021 grain sorghum hybrid trial location summary.

Location	Irrigation	Soil type	Planting date	Harvest date	Row spacing
Beaumont, Coastal R&E Center	Not Irrigated	McLaurin sandy loam	5/17	10/7	38”
Stoneville, Delta Branch	Not Irrigated	Bosket very fine sandy loam	5/14	10/6	40’
Walker’s Gin, Steve Walker Farm	Not Irrigated	Mathiston silt loam	5/24	10/13	38”

Table 2. Hybrids entered in the Mississippi grain sorghum hybrid trials, 2021.

Brand	Hybrid[1]	Seed treatment	Plant population (x1000)
DEKALB	DKS45-60	Concep/Poncho	120k
DEKALB	DKS50-07	Concep/Poncho	120k
DEKALB	DKS51-01	Concep/Poncho	120k
DEKALB	DKS54-07	Concep/Poncho	120k
Dyna-Gro	GX20970 *	Safened+Imidacloprid	85k
Dyna-Gro	GX20987 *	Safened+Imidacloprid	85k
Dyna-Gro	GX21963 *	Safened+Imidacloprid	85k
Dyna-Gro	GX21965	Safened+Imidacloprid	85k
Dyna-Gro	M60GB31	Safened+Imidacloprid	85K
Dyna-Gro	M71GR91	Safened+Imidacloprid	85k
Dyna-Gro	M72GB71	Safened+Imidacloprid	85k
Gaylon Ward	18057	—	80k
Gaylon Ward	18102	—	80k
Gaylon Ward	18103	—	80k
Gaylon Ward	18362	—	80k
Gaylon Ward	19001	—	80k
Gaylon Ward	19005	—	80k
Gaylon Ward	19016	—	80k
Gaylon Ward	19017	—	80k
Gaylon Ward	20156	—	80k
Gaylon Ward	20313	—	80k
Gaylon Ward	20410	—	80k
Gaylon Ward	20483	—	80k
Gaylon Ward	20487	—	80k
Gaylon Ward	20488	—	80k
Local Seed	LGS 06B19	—	95k
Local Seed	LGS 12R19	—	95k
Local Seed	LGS 15W20	—	95k
Local Seed	LGS 99W20	—	95k
Pioneer	83G19	Concept/IST	70K
Pioneer	83P11	Concept/IST	70K
Pioneer	84P80	Concept/IST	70K
Sorghum Partners	SP7715	Concep III + Cruiser	80K
Sorghum Partners	SPSA308	Concep III + Cruiser	80K
Sorghum Partners	SPSA411	Concep III + Cruiser	80K
Sorghum Partners	SPSC343	Concep III + Cruiser	80K
Sorghum Partners	SPSC344	Concep III + Cruiser	80K

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

Table 3. 2021 yield summary of grain sorghum hybrid trials in Mississippi.

Brand	Hybrid	Beaumont Hills (loam)	Stoneville Delta (loam)	Walker's Gin Hills (loam)	Overall avg.
		bu/A	*bu/A*	*bu/A*	*bu/A*
Dekalb	DKS45-60	85.6	130.3	91.7	102.6
Dekalb	DKS50-07	62.2	141.4	95.0	99.6
Dekalb	DKS51-01	60.9	132.1	89.4	94.1
Dekalb	DKS54-07	64.4	112.5	90.5	89.1
Dyna-Gro	GX20970	75.4	128.0	80.0	94.5
Dyna-Gro	GX20987	73.9	141.8	92.2	102.6
Dyna-Gro	GX21963	69.8	117.2	87.4	91.4
Dyna-Gro	GX21965	59.2	128.5	99.9	95.9
Dyna-Gro	M60GB31	63.3	100.8	83.8	82.6
Dyna-Gro	M71GR91	59.5	119.8	95.0	91.4
Dyna-Gro	M72GB71	64.3	108.8	90.2	87.7
Gaylon Ward	18057	69.4	115.6	73.4	86.1
Gaylon Ward	18102	44.5	138.4	90.5	91.1
Gaylon Ward	18103	74.2	125.3	89.0	96.1
Gaylon Ward	18362	85.5	113.7	85.9	95.0
Gaylon Ward	19001	55.6	95.6	71.2	74.1
Gaylon Ward	19005	85.3	142.8	83.9	104.0
Gaylon Ward	19016	70.4	106.1	81.9	86.1
Gaylon Ward	19017	69.8	111.4	83.8	88.3
Gaylon Ward	20156	63.1	111.2	72.9	82.4
Gaylon Ward	20313	54.4	114.9	75.9	81.8
Gaylon Ward	20410	73.8	133.6	76.0	94.5
Gaylon Ward	20483	61.2	123.7	73.0	86.0
Gaylon Ward	20487	73.4	125.7	69.5	89.5
Gaylon Ward	20488	56.6	103.3	67.2	75.7
Local Seed	LGS 06B19	69.4	121.9	82.2	91.1
Local Seed	LGS 12R19	82.5	137.9	90.4	103.6
Local Seed	LGS 15W20	65.1	113.4	57.5	78.6
Local Seed	LGS 99W20	54.0	82.2	58.0	64.8
Pioneer	83G19	54.9	129.4	86.9	90.4
Pioneer	83P11	70.3	116.5	89.5	92.1
Pioneer	84P80	73.4	122.4	88.0	94.6
Sorghum Partners	SP7715	80.0	100.8	84.8	88.5
Sorghum Partners	SPSA308	61.9	95.2	80.8	79.3
Sorghum Partners	SPSA411	77.3	107.3	85.9	90.1
Sorghum Partners	SPSC343	61.2	74.7	70.9	68.9
Sorghum Partners	SPSC344	59.9	82.6	87.2	76.6
Mean		67.2	116.4	82.5	88.7
CV		15.7	13.0	14.4	
R^2		53.0	61.0	47.0	
LSD (0.05)		14.5	21.4	16.6	
Error df		111.0	111.0	111.0	

Table 4. Two-year summary of grain sorghum hybrid trials in Mississippi.

Brand	Hybrid	Stoneville Delta (loam)	Walker's Gin Hills (loam)	Overall avg.
		bu/A	*bu/A*	*bu/A*
Dekalb	DKS51-01	127.5	100.2	113.9
Dekalb	DKS54-07	117.3	89.1	103.2
Dyna-Gro	M60GB31	107.2	82.2	94.7
Dyna-Gro	M71GR91	110.2	94.1	102.2
Dyna-Gro	M72GB71	114.1	95.8	104.9
Gaylon Ward	18102	122.4	78.7	100.5
Gaylon Ward	19001	110.9	66.9	88.9
Gaylon Ward	19016	110.5	75.5	93.0
Gaylon Ward	19017	111.6	75.7	93.6
Gaylon Ward	20313	123.1	78.9	101.0
Local Seed	LGS 06B19	117.2	92.4	104.8
Local Seed	LGS 12R19	127.6	98.5	113.1
Local Seed	LGS 99W20	92.7	69.9	81.3
Pioneer	83G19	128.4	82.7	105.5
Pioneer	84P80	122.0	92.1	107.0
Sorghum Partners	SP7715	107.5	82.5	95.0
Overall Mean		115.6	84.7	99.3

Table 5. Three-year average of grain sorghum hybrid trials in Mississippi.

Brand	Hybrid	Stoneville Delta (loam)	Walker's Gin Hills (loam)	Overall avg.
		bu/A	*bu/A*	*bu/A*
Dekalb	DKS51-01	137.8	98.4	118.1
Dyna-Gro	M60GB31	104.7	90.5	97.6
Pioneer	84P80	124.0	95.6	109.8
Sorghum Partners	SP7715	119.0	84.4	101.7
Overall Mean		121.4	92.2	106.8

Table 6. 2021 grain sorghum plant heights, head exertion, and head compactness.

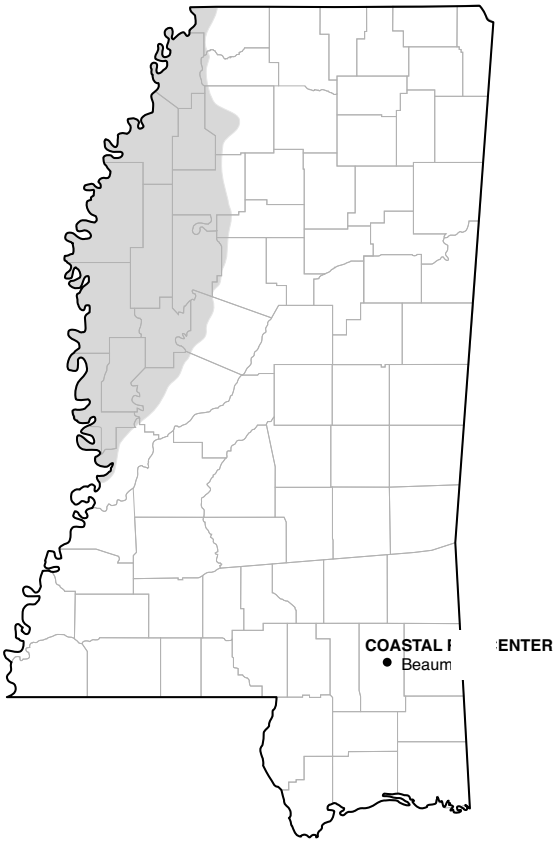
Brand	Variety	Beaumont			Stoneville			Walker's Gin		
		Plant height	Head exertion	Head compact.	Plant height	Head exertion	Head compact.	Plant height	Head exertion	Head compact.
Dekalb	DKS54-07	65	8	5	62	6	2	66	3	2
Dekalb	DKS51-01	64	8	5	64	3	3	61	5	1
Dekalb	DKS50-07	60	5	3	52	3	3	59	6	1
Dekalb	DKS45-60	63	8	3	57	7	4	61	10	2
Dyna-Gro	GX20970	55	7	3	53	2	4	53	3	1
Dyna-Gro	M60GB31	54	3	4	48	2	5	57	3	3
Dyna-Gro	M71GR91	57	3	4	60	10	3	62	2	1
Dyna-Gro	M72GB71	59	4	2	57	4	2	52	12	2
Dyna-Gro	GX21965	60	7	5	61	2	2	53	1	4
Dyna-Gro	GX20987	68	8	2	56	4	3	60	4	1
Dyna-Gro	GX21963	54	3	5	57	2	3	55	5	3
Sorghum Partners	SP7715	64	5	2	54	4	2	57	7	1
Sorghum Partners	SPSA308	64	4	4	55	7	2	55	5	2
Sorghum Partners	SPSC343	63	8	2	53	4	1	57	5	1
Sorghum Partners	SPSA411	68	4	1	54	3	2	58	8	1
Pioneer	84P80	60	7	5	51	2	4	57	5	4
Pioneer	83P11	59	2	5	58	3	3	52	1	2
Pioneer	83G19	61	5	5	53	7	3	52	2	4
Local Seed	LGS 99W20	53	4	2	55	3	1	53	3	1
Local Seed	LGS 15W20	77	6	4	70	2	1	66	3	2
Local Seed	LGS 12R19	62	8	3	59	9	2	60	3	1
Local Seed	LGS 06B19	62	3	1	58	3	3	59	3	1
Gaylon Ward	18102	64	5	5	62	3	2	60	4	3
Gaylon Ward	19001	57	6	5	54	7	1	49	3	3
Gaylon Ward	19016	60	3	3	57	3	1	57	2	1
Gaylon Ward	19017	59	5	2	58	2	1	53	2	1
Gaylon Ward	20313	60	7	5	51	3	2	51	4	4
Gaylon Ward	20483	58	8	5	54	3	1	57	3	3
Gaylon Ward	20488	48	5	5	54	9	1	52	5	2
Gaylon Ward	20487	58	4	5	57	2	1	58	2	4
Gaylon Ward	18057	58	7	2	56	7	3	56	11	1
Gaylon Ward	20410	55	8	3	48	3	3	55	3	2
Gaylon Ward	18103	54	3	3	54	3	2	58	6	1
Gaylon Ward	18362	53	3	4	51	3	1	56	4	1
Gaylon Ward	19005	62	5	3	51	8	1	66	8	1
Gaylon Ward	20156	56	3	5	51	5	1	59	1	2
Sorghum Partners	SPSC344	57	5	5	46	6	1	60	3	2

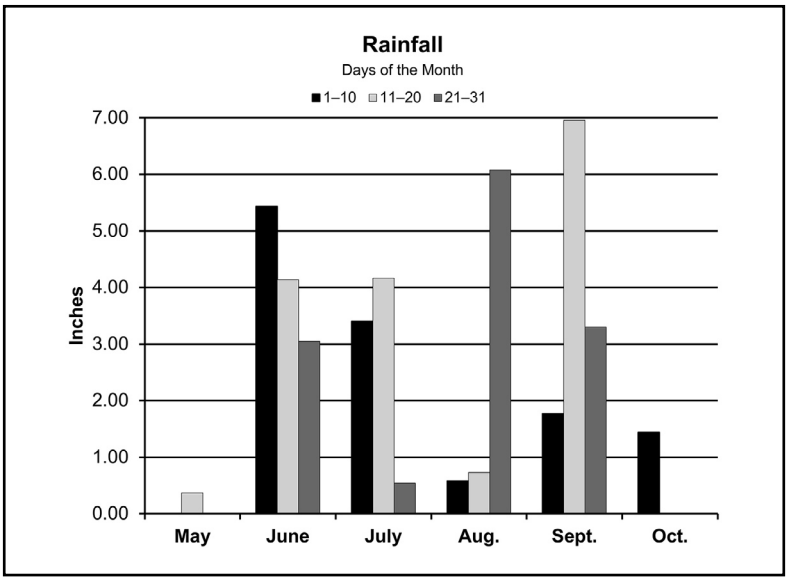
COASTAL R&E CENTER, BEAUMONT

Crop Summary

The sorghum plots were planted in mid-May into a flat seedbed with adequate soil moisture for germination. All plots emerged to a good stand. Timely rainfall during the growing season allowed for ample soil moisture throughout the season. However, late-season rains delayed harvest several weeks, which decreased the crop's yield potential at this location.

Planting date . . . .May 17
Harvest date . . . .October 7
Soil type . . . . . .McLaurin sandy loam
Soil pH 6.0
Soil fertility . . . . .P=M; K=M
Fertilizer . . . . . .Preplant — 13-13-13 @ 150 lb/A
Topdress — N @ 104 lb/A (33-0-0-12S) on June 14
Herbicides . . . . . .Preemergence — Lexar @ 1.5 qt/A and Gramoxone @ 1 qt/A on May 17
Postemergence — Atrazine 1 qt/A and Dual II Magnum @ 16 oz/A on June 14
Insecticides . . . . .Prevathon @ 14 oz/A, Sivanto @ 6 oz/A, and Grizzly @ 1.5 oz/A on July 19
Previous crop . . .Peanuts





Rainfall Summary

	Inches
May	0.37
June	12.62
July	8.11
August	7.39
September	12.02
October	1.44
Total	41.95

Table 7. Performance results of 36 hybrids grown at the Coastal R&E Center, Beaumont, 2021.

Brand	Hybrid	2021 yield	2-year average[1]	3-year average[1]	Plant height	Head exertion	Head compactness
		bu/A	*bu/A*	*bu/A*	*in*	*in*	*(1-5)*
Dekalb	DKS45-60	85.6	—	—	63	8	3
Gaylon Ward	18362	85.5	—	—	53	3	4
Gaylon Ward	19005	85.3	—	—	62	5	3
Local Seed	LGS 12R19	82.5	—	—	62	8	3
Sorghum Partners	SP7715	80.0	—	—	64	5	2
Sorghum Partners	SPSA411	77.3	—	—	68	4	1
Dyna-Gro	GX20970	75.4	—	—	55	7	3
Gaylon Ward	18103	74.2	—	—	54	3	3
Dyna-Gro	GX20987	73.9	—	—	68	8	2
Gaylon Ward	20410	73.8	—	—	55	8	3
Pioneer	84P80	73.4	—	—	60	7	5
Gaylon Ward	20487	73.4	—	—	58	4	5
Gaylon Ward	19016	70.4	—	—	60	3	3
Pioneer	83P11	70.3	—	—	59	2	5
Dyna-Gro	GX21963	69.8	—	—	54	3	5
Gaylon Ward	19017	69.8	—	—	59	5	2
Local Seed	LGS 06B19	69.4	—	—	62	3	1
Gaylon Ward	18057	69.4	—	—	58	7	2
Local Seed	LGS 15W20	65.1	—	—	77	6	4
Dekalb	DKS54-07	64.4	—	—	65	8	5
Dyna-Gro	M72GB71	64.3	—	—	59	4	2
Dyna-Gro	M60GB31	63.3	—	—	54	3	4
Gaylon Ward	20156	63.1	—	—	56	3	5
Dekalb	DKS50-07	62.2	—	—	60	5	3
Sorghum Partners	SPSA308	61.9	—	—	64	4	4
Sorghum Partners	SPSC343	61.2	—	—	63	8	2
Gaylon Ward	20483	61.2	—	—	58	8	5
Dekalb	DKS51-01	60.9	—	—	64	8	5
Sorghum Partners	SPSC344	59.9	—	—	57	5	5
Dyna-Gro	M71GR91	59.5	—	—	57	3	4
Dyna-Gro	GX21965	59.2	—	—	60	7	5
Gaylon Ward	20488	56.6	—	—	48	5	5
Gaylon Ward	19001	55.6	—	—	57	6	5
Pioneer	83G19	54.9	—	—	61	5	5
Gaylon Ward	20313	54.4	—	—	60	7	5
Local Seed	LGS 99W20	54.0	—	—	53	4	2
Gaylon Ward	18102	44.5	—	—	64	5	5
Mean		67.2					
CV		15.7					
R^2		53.0					
LSD (0.05)		14.5					
Error df		111.0					

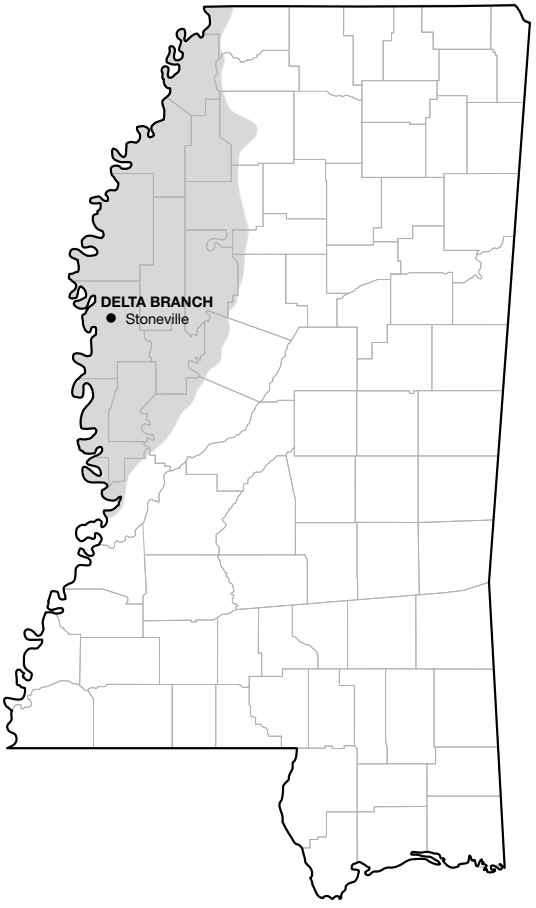
[1]No 2 or 3-year average

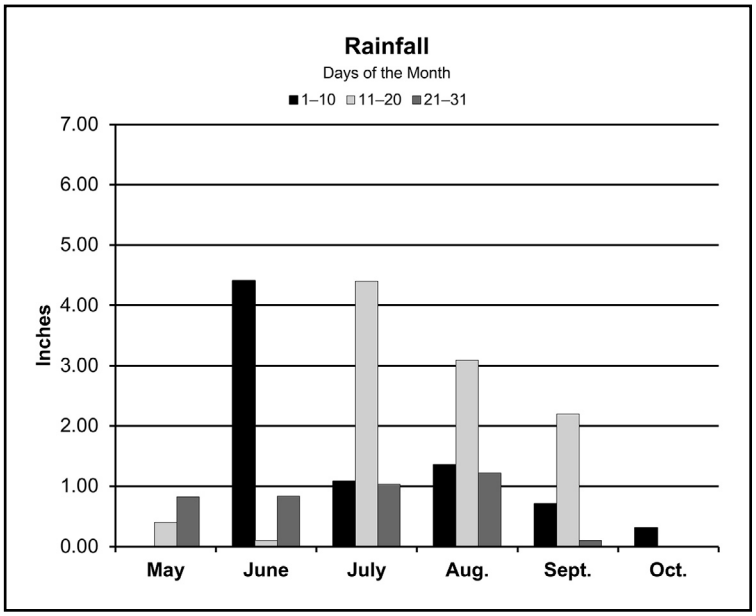
MAFES DELTA BRANCH, STONEVILLE

Crop Summary

The sorghum plots were planted on May 14 into a seedbed that had been harrowed just prior to planting. Soil moisture at planting was ideal for germination and emergence. All plots emerged to a good stand. Timely fertilizer and insecticide applications, in combination with ample rainfall throughout the growing season, allowed for good yield potential. Harvest was completed in a timely manner following desiccation of the sorghum plots.

Planting date . . . .May 14
Harvest date . . . .October 6
Soil type . . . . . .Bosket very fine sandy loam
Soil pH 6.7
Soil fertility . . . . . .P=H; K=H
Fertilizer . . . . . .N @ 120 lb/A (32% UAN) on June 4
Herbicides . . . . . .Preemergence — Atrazine @ 1 qt/A and Dual II Magnum @ 1.33 pt/A on May 14
Postemergence — Atrazine @ 1 qt/A and Dual II Magnum @ 1 pt/A on June 4
Insecticides . . . . .Karate Z @ 2 oz/A and Silvanto @ 4 oz/A on July 14 and July 26
Previous crop . . .Cotton





Rainfall Summary

	Inches
May	1.22
June	5.35
July	6.52
August	5.67
September	3.01
October	0.31
Total	22.08

Table 8. Performance results of 32 hybrids grown at MAFES Delta Branch, Stoneville, 2021.

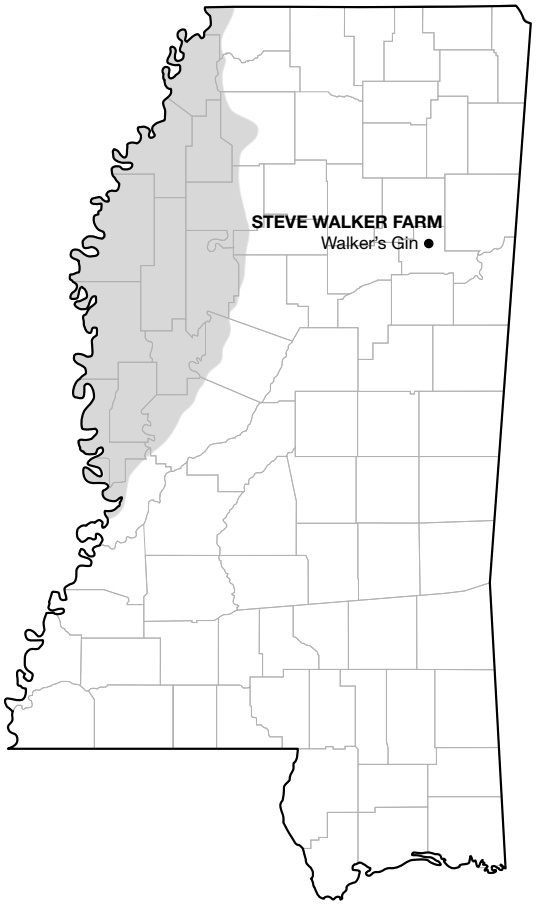
Brand	Hybrid	2021 yield	2-year average	3-year average	Plant height	Head exertion	Head compactness
		bu/A	*bu/A*	*bu/A*	*in*	*in*	*(1-5)*
Gaylon Ward	19005	142.8	—	—	51	8	1
Dyna-Gro	GX20987	141.8	—	—	56	4	3
Dekalb	DKS50-07	141.4	—	—	52	3	3
Gaylon Ward	18102	138.4	122.4	—	62	3	2
Local Seed	LGS 12R19	137.9	127.6	—	59	9	2
Gaylon Ward	20410	133.6	—	—	48	3	3
Dekalb	DKS51-01	132.1	127.5	137.8	64	3	3
Dekalb	DKS45-60	130.3	—	—	57	7	4
Pioneer	83G19	129.4	128.4	—	53	7	3
Dyna-Gro	GX21965	128.5	—	—	61	2	2
Dyna-Gro	GX20970	128.0	—	—	53	2	4
Gaylon Ward	20487	125.7	—	—	57	2	1
Gaylon Ward	18103	125.3	—	—	54	3	2
Gaylon Ward	20483	123.7	—	—	54	3	1
Pioneer	84P80	122.4	122.0	124.0	51	2	4
Local Seed	LGS 06B19	121.9	117.2	—	58	3	3
Dyna-Gro	M71GR91	119.8	110.2	—	60	10	3
Dyna-Gro	GX21963	117.2	—	—	57	2	3
Pioneer	83P11	116.5	—	—	58	3	3
Gaylon Ward	18057	115.6	—	—	56	7	3
Gaylon Ward	20313	114.9	123.1	—	51	3	2
Gaylon Ward	18362	113.7	—	—	51	3	1
Local Seed	LGS 15W20	113.4	—	—	70	2	1
Dekalb	DKS54-07	112.5	117.3	—	62	6	2
Gaylon Ward	19017	111.4	111.6	—	58	2	1
Gaylon Ward	20156	111.2	—	—	51	5	1
Dyna-Gro	M72GB71	108.8	114.1	—	57	4	2
Sorghum Partners	SPSA411	107.3	—	—	54	3	2
Gaylon Ward	19016	106.1	110.5	—	57	3	1
Gaylon Ward	20488	103.3	—	—	54	9	1
Sorghum Partners	SP7715	100.8	107.5	119.0	54	4	2
Dyna-Gro	M60GB31	100.8	107.2	104.7	48	2	5
Gaylon Ward	19001	95.6	110.9	—	54	7	1
Sorghum Partners	SPSA308	95.2	—	—	55	7	2
Sorghum Partners	SPSC344	82.6	—	—	46	6	1
Local Seed	LGS 99W20	82.2	92.7	—	55	3	1
Sorghum Partners	SPSC343	74.7	—	—	53	4	1
Mean		116.4					
CV		13.0					
R^2		61.0					
LSD (0.05)		21.4					
Error df		111.0					

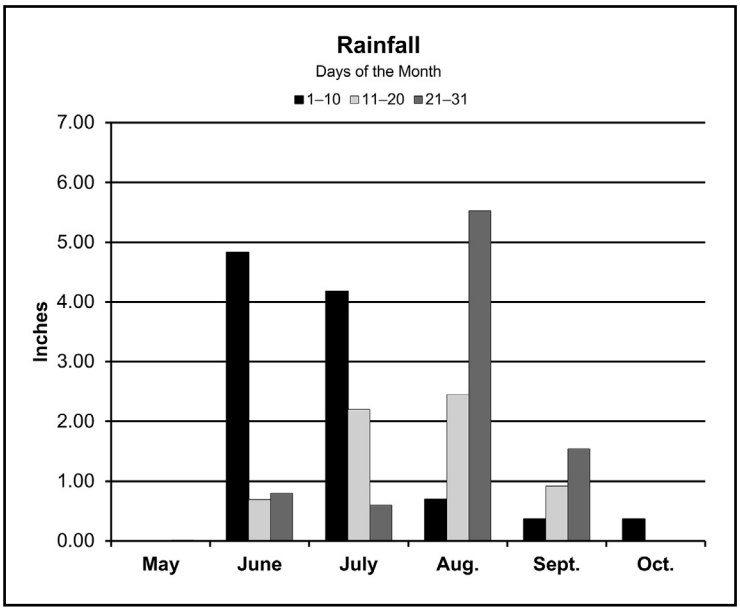
STEVE WALKER FARM, WALKER'S GIN

Crop Summary

The plots were planted into a conventional seedbed that was hipped and do-alled just prior to planting. Soil moisture at planting was adequate for germination. All plots emerged to a good stand. This location experienced timely rainfall during the growing season, which allowed for good yield potential. All plots were harvested in a timely manner without any difficulties or delays.

Planting date . . . .May 24
Harvest date . . . .October 13
Soil Type . . . . . .Mathiston silt loam
Soil pH 6.1
Soil fertility . . . . .P=M; K=M
Fertilizer . . . . . .Topdress — N @ 70 lb/A (33-0-0-12S) on June 30 and N @ 35 lb/A (33-0-0-12S) on July 16
Herbicides . . . . . .Preemergence — Atrazine @ 32 oz/A and Dual II Magnum @ 32 oz/A
Postemergence — Atrazine @ 32 oz/A, Huskie @ 16 oz/A, and NIS @ 0.25% on July 1
Insecticides . . . . .Sivanto @ 6 oz/A and Mustang Max @ 4 oz/A on July 26
Previous crop . . .Soybean





Rainfall Summary

	Inches
May	0.01
June	6.32
July	6.98
August	8.67
September	2.83
October	0.37
Total	25.18

Table 9. Performance results of 32 hybrids grown at Steve Walker Farm, Walker's Gin, 2021.

Brand	Hybrid	2021 yield	2-year average	3-year average	Plant height	Head exertion	Head compactness
		bu/A	*bu/A*	*bu/A*	*in*	*in*	*(1-5)*
Dyna-Gro	GX21965	99.9	—	—	53	1	4
Dekalb	DKS50-07	95.0	—	—	59	6	1
Dyna-Gro	M71GR91	95.0	94.1	—	62	2	1
Dyna-Gro	GX20987	92.2	—	—	60	4	1
Dekalb	DKS45-60	91.7	—	—	61	10	2
Dekalb	DKS54-07	90.5	89.1	—	66	3	2
Gaylon Ward	18102	90.5	78.7	—	60	4	3
Local Seed	LGS 12R19	90.4	98.5	—	60	3	1
Dyna-Gro	M72GB71	90.2	95.8	—	52	12	2
Pioneer	83P11	89.5	—	—	52	1	2
Dekalb	DKS51-01	89.4	100.2	98.4	61	5	1
Gaylon Ward	18103	89.0	—	—	58	6	1
Pioneer	84P80	88.0	92.1	95.6	57	5	4
Dyna-Gro	GX21963	87.4	—	—	55	5	3
Sorghum Partners	SPSC344	87.2	—	—	60	3	2
Pioneer	83G19	86.9	82.7	—	52	2	4
Gaylon Ward	18362	85.9	—	—	56	4	1
Sorghum Partners	SPSA411	85.9	—	—	58	8	1
Sorghum Partners	SP7715	84.8	82.5	84.4	57	7	1
Gaylon Ward	19005	83.9	—	—	66	8	1
Gaylon Ward	19017	83.8	75.7	—	53	2	1
Dyna-Gro	M60GB31	83.8	82.2	90.5	57	3	3
Local Seed	LGS 06B19	82.2	92.4	—	59	3	1
Gaylon Ward	19016	81.9	75.5	—	57	2	1
Sorghum Partners	SPSA308	80.8	—	—	55	5	2
Dyna-Gro	GX20970	80.0	—	—	53	3	1
Gaylon Ward	20410	76.0	—	—	55	3	2
Gaylon Ward	20313	75.9	78.9	—	51	4	4
Gaylon Ward	18057	73.4	—	—	56	11	1
Gaylon Ward	20483	73.0	—	—	57	3	3
Gaylon Ward	20156	72.9	—	—	59	1	2
Gaylon Ward	19001	71.2	66.9	—	49	3	3
Sorghum Partners	SPSC343	70.9	—	—	57	5	1
Gaylon Ward	20487	69.5	—	—	58	2	4
Gaylon Ward	20488	67.2	—	—	52	5	2
Local Seed	LGS 99W20	58.0	69.9	—	53	3	1
Local Seed	LGS 15W20	57.5	—	—	66	3	2
Mean		82.5					
CV		14.4					
R^2		47.0					
LSD (0.05)		16.6					
Error df		111.0					

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**