

Performance of Grain Sorghum Hybrids in Louisiana 2016



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Performance of Grain Sorghum Hybrids in Louisiana, 2016

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Performance of grain sorghum hybrids is annually evaluated by Louisiana Agricultural Experiment Station (LAES) researchers in Official Variety Trials (OVT's). The purpose of these trials is to provide to Louisiana growers, seedsmen, county agents of the Louisiana Cooperative Extension Service (LCES), and other interested individuals and organizations with unbiased performance data for commercial grain sorghum hybrids submitted for evaluation by private agencies.

The cooperating LAES units in 2016 were: Rice Research Station, Crowley; Central Research Station, Baton Rouge; Dean Lee Research Station, Alexandria; Red River Research Station, Bossier City; Northeast Research Station, St. Joseph; and Macon Ridge Research Station, Winnsboro.

PROCEDURES

In 2016, twenty-seven grain sorghum hybrids were entered in the LAES yield trials. Soil type, cultural practices, location summaries, and weather graphs are listed prior to data tables for each location. In weather graphs, maximum and minimum temperatures are weekly averages and rainfall weekly totals. Only the St. Joseph trial was irrigated. The Baton Rouge trial was lost to excessive summer rains.

The experimental design at each location was a randomized complete block design with four or five replications. Traits measured and rating scales are listed in Table 1. Traits not listed in Table 1 are footnoted at the base of the respective table. Analysis of variance and least significant differences (LSD) were computed using SAS (Statistical Analysis System). We used the protected F-test, which means LSD's were calculated only if differences among hybrids existed at the 90% confidence level. If differences were significant, an LSD at the 10% probability level was calculated. If the LSD (0.10) for yield in a trial is 400 lb/acre, there is a 10% chance that two hybrids with a reported yield difference of 400 lb/acre are genetically equal and a 90% probability they have differences in genetic potential in that particular environment. LSD values are influenced by how well soil fertility, stand establishment, plot length, harvest efficiency, and other variables are controlled and by number of replications for each hybrid. The letters NS are used in the text and tables to indicate lack of significance (not significantly different) at the 10% probability level. The coefficient of variation (CV) reflects

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the magnitude of experimental error (random variation not accounted for by hybrids and replications) in relation to the trial mean. A high CV means that relative differences among hybrids were not consistent among replications, which reduces the precision of the test.

Table 1. Traits and rating scales for LAES grain sorghum official variety trials.

Trait	Abbreviation	Description
Yield	Yield	Grain yield @ 14.0% harvest grain moisture, lb/a (2016)
2-year yield average	2- Yr avg	Average grain yield for 2015 and 2016, bu/acre
Grain moisture	Gr mo	Grain moisture at harvest, %
Test weight	Test wt	Volume weight of grain, lb/bu
Heading date	Mid-head	Date of head emergence in 50% of plants, days after planting (DAP)
Plant height	Plt ht	Height from ground to top of head, inches (in)
Head type	Head type	Head type is a measure of head architecture, with ratings of 1-5; 1-closed, 3-intermediate, and 5-open
Head exertion	Head exert	Distance from flag leaf to base of head, in
Midge damage	Midge	Average percent of head damaged, %
Bird damage	Bird	Average percent of head damaged, %

RESULTS

Yield data for 2016 and two-year averages (2015 and 2016) and other agronomic data for each location are presented in Tables 2-6. Yields for the hybrids in the highest-yielding group for 2016 (yields falling within one LSD value) are in bold print. Hybrids in bold print with a single asterisk are in the highest-yielding group for both years, 2015 and 2016. A summary of yield performance for twenty-seven hybrids at five locations is presented in Table 7. In Table 8, participating seed companies are listed. There were six seed companies that participated in the 2016 grain sorghum official variety trials.

For additional information on grain sorghum trials, please contact Dr. Rick Mascagni, NERS (Ph: 318-766-3769); e:mail: hmascagni@agcenter.lsu.edu) or Dr. Dan Fromme, DLRS (Ph:318-427-4424; e:mail: dfromme@agcenter.lsu.edu)

Grain Sorghum Hybrid Performance Trial at the Dean Lee Research Station – Alexandria

Location Summary

Rainfall was well distributed during the growing season (see below). Grain yields were excellent ranging from 78.1 to 134.2 bu/acre with a trial average of 114.0 bu/acre (Table 2). Plant population was much less (trial average of 54,010 plants/acre) than the seeding rate of 80,000 seed/acre. Even at this relatively low plant population yields were still excellent. All but three varieties had yields greater than 100 bu/acre. There were seven hybrids that fell in the 2016 highest-yielding group and two hybrids that fell in the high yield range for both years, 2015 and 2106.

Soil type	Coushatta silt loam
Row spacing	38 inches
Seeding rate	80,000 seed/acre (5.8 seed/ft)
Previous crop	Soybean
Planting date	April 4
Fertilization	<i>Fall:</i> 0-32-64 <i>Sidedress:</i> 150 -0-0-10 (4/29);
Pesticides	<i>Preemerg:</i> 1.3 qt Atrazine/acre plus 1 pt Medal II/acre (4/6); <i>Pre-harvest:</i> 1 qt Roundup/acre plus 1 oz Aim/acre (7/21); <i>Insecticides:</i> 5 oz Savanto/acre (6/8); 14 oz Prevathon/acre plus 1.6 oz Karate/acre (7/21);
Harvest date	August 1

Alexandria Weekly Weather

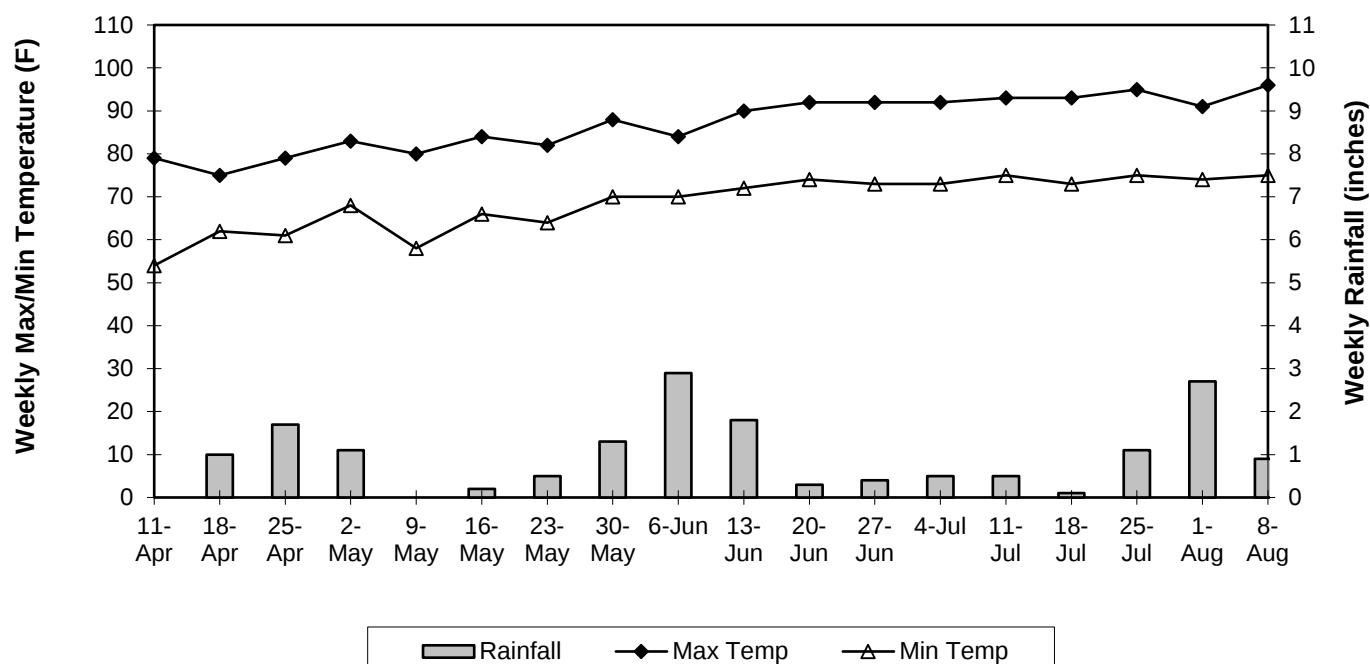


Table 2. Performance of grain sorghum hybrids at Alexandria, 2016.

Brand/hybrid	2016 Yield ¹ bu/a	2-Yr avg ² bu/a	Gr mo %	Test wt lb/bu	Plants ³ no/a	Mid- head DAP	Plt ht in	Head type 1-5
DEKALB Brand DKS53-53	134.2	-	13.6	57.6	58,910	68	57	3
Terral Seed REV®9924™	131.4	118.8	12.9	56.7	59,080	66	58	3
DEKALB Brand DKS51-01*	131.4	131.0	14.2	57.3	53,740	68	58	4
Dyna-Gro 765B	127.0	119.1	14.3	58.8	49,440	69	60	3
Pioneer 84P80	126.2	111.6	13.5	58.7	60,980	68	56	3
Dyna-Gro GX15672*	124.6	121.8	13.7	59.3	50,990	66	57	3
Pioneer 83P99	124.3	112.8	13.6	58.2	61,840	71	53	3
Terral Seed REV®9562™	121.7	120.3	13.1	58.7	57,360	66	54	3
Pioneer 83P17	121.4	118.1	14.1	56.7	50,810	68	60	3
Dyna-Gro GX15371	119.8	-	14.6	58.7	61,490	67	56	3
Dyna-Gro GX15484	116.0	-	14.0	57.7	52,360	69	57	4
Dyna-Gro GX16968	115.7	-	13.7	56.6	63,220	67	54	2
Dyna-Gro GX15561	115.6	109.6	13.2	59.2	55,290	69	57	3
Terral Seed REV®9782™	115.1	117.0	13.4	58.3	57,190	67	52	3
Alta Seeds AG3201	113.9	105.4	13.8	56.9	51,850	67	56	3
Chromatin CHROL2042	112.4	-	14.5	57.8	49,950	70	56	3
Alta Seeds AG2105	112.1	113.2	13.6	57.4	50,640	67	57	4
Alta Seeds AG1203	109.8	106.4	13.2	57.8	65,970	66	50	2
Dyna-Gro GX16970	109.0	-	13.4	57.2	66,660	65	54	3
Alta Seeds AG2103	107.4	101.9	13.5	58.2	53,570	65	51	2
Sorghum Partners NK6638	107.2	98.9	13.4	55.8	57,020	67	54	3
Sorghum Partners SP7715	106.1	102.6	14.1	57.7	53,400	69	56	4
ChromatinCHROL0029	102.3	-	14.2	56.0	48,580	70	54	3
Dyna-Gro M75GR47	101.3	-	12.5	56.1	52,710	65	52	3
Dyna-Gro GX16675	97.4	-	14.8	59.3	51,850	71	69	4
Sorghum Partners SP78M30	96.7	-	13.7	55.5	35,310	71	53	3
Sorghum Partners SP7868	78.1	88.5	14.8	58.8	28,080	70	57	4
Average	114.0	-	13.7	57.7	54,010	68	56	3
CV, %	8	-	3	2	16	2	4	18
LSD (0.10)	10.6	-	0.6	1.6	10,210	2	3	1

¹Yields in bold denote hybrids that were in the highest-yielding group in 2016.

²Hybrids in bold with an asterisk (*) were in the highest-yielding group for both years, 2015 and 2016.

³Plants=Plant population, plants/acre

Grain Sorghum Hybrid Performance Trial at the Red River Research Station – Bossier City

Location Summary

Rainfall was well distributed during the growing season, except for July (see below). Grain yields ranged from 60.4 to 106.6 bu/acre (Table 3). Only one hybrid had yields greater than 100 bu/acre. There were only three hybrids in the high-yielding group for 2016 and only one hybrid for both years, 2015 and 2016. Bird and midge damage may have detrimentally affected yield (Table 3). Test weights were excellent ranging from 56.2 to 59.4 lb/bu and with a trial average of 58.2 lb/bu.

Soil type	Latanier clay
Row spacing	40 inches
Seeding rate	80,000 seed/acre (6.1 seed/ft)
Previous crop	Cotton
Planting date	April 26
Fertilization	<i>Sidedress</i> : 130 lb N/acre (30-0-0-2)
Pesticides	<i>Preemergence</i> : 2.1 gt Bicep II Magnum (4/26); <i>Postemergence</i> : 0.67 oz Halomax/acre plus Crop Oil (6/23); <i>Insecticides</i> : 1.68 oz Baythroid/acre (6/30); 2 oz Karate/acre plus 0.25 lb Orthene/acre (7/12);
Harvest date	August 12

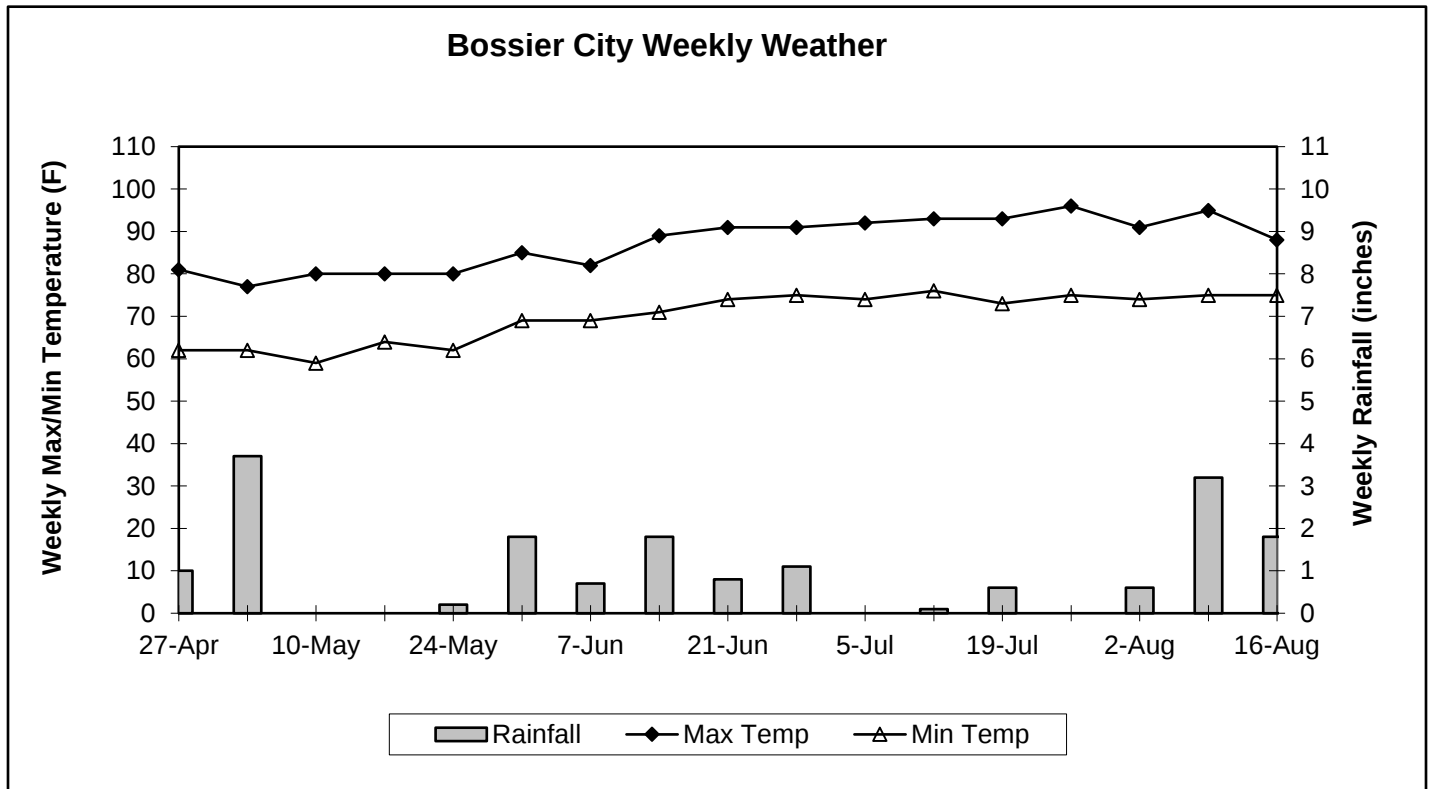


Table 3. Performance of grain sorghum hybrids at Bossier City, 2016.

Brand/hybrid	2016 Yield ¹ bu/a	2-Yr avg ² bu/a	Gr mo %	Test wt lb/bu	Mid- head DAP	Head exert in	Midge %	Bird %
DEKALB Brand DKS51-01*	106.6	130.8	15.4	59.0	58	9	10	10
DEKALB Brand DKS53-53	97.2	-	15.9	58.7	59	6	10	5
Sorghum Partners NK6638	94.5	107.0	14.5	57.5	58	7	5	10
Alta Seeds AG2103	92.7	93.1	15.2	58.6	56	8	10	15
Dyna-Gro GX15484	91.9	-	16.9	57.4	61	7	15	5
Terral Seed REV®9562™	88.7	104.7	14.1	59.2	57	6	10	5
Alta Seeds AG1203	88.7	100.5	14.6	58.2	57	8	10	10
Sorghum Partners SP7715	88.4	104.0	17.8	59.4	62	9	10	10
Pioneer 83P17	87.1	111.5	16.6	56.2	60	5	10	10
Pioneer 84P80	86.9	97.4	15.8	59.2	59	5	15	10
Alta Seeds AG2105	86.1	99.4	15.5	58.9	58	8	10	10
Dyna-Gro GX16968	85.1	-	15.2	56.4	59	9	10	10
Alta Seeds AG3201	84.8	100.7	14.7	57.0	58	7	10	15
Dyna-Gro GX16675	84.2	-	17.0	58.0	62	11	5	5
Pioneer 83P99	83.8	104.2	15.5	58.4	61	6	15	10
Terral Seed REV®9924™	83.6	105.3	14.2	59.2	60	7	10	5
Sorghum Partners SP78M30	82.3	-	15.5	56.8	60	6	15	5
Dyna-Gro M75GR47	81.1	-	14.1	56.6	56	9	15	10
Dyna-Gro 765B	81.0	93.0	17.2	57.8	60	6	10	10
Chromatin CHROL2042	80.4	-	15.8	59.0	59	9	10	10
Terral Seed REV®9782™	79.3	103.5	15.0	59.4	55	6	10	10
ChromatinCHROL0029	76.7	-	15.8	57.4	60	6	10	10
Dyna-Gro GX15371	76.6	-	15.2	59.1	60	3	10	10
Dyna-Gro GX15672	75.3	96.2	14.3	59.0	57	9	10	15
Dyna-Gro GX16970	71.6	-	15.0	57.6	58	8	20	15
Sorghum Partners SP7868	70.5	94.0	18.3	58.5	62	9	5	0
Dyna-Gro GX15561	60.4	93.8	15.4	58.9	59	6	10	15
Average	83.9	-	15.6	58.2	59	7	10	10
CV, %	16	-	4	2	2	33	74	64
LSD (0.10)	13.7	-	0.7	1.2	1	3	NS ³	NS

¹Yields in bold denote hybrids that were in the highest-yielding group in 2016.

²Hybrid in bold with an asterisk (*) were in the highest-yielding group for both years, 2015 and 2016.

³NS=Non-significant at the 0.10 probability level.

Grain Sorghum Hybrid Performance Trial at the Rice Research Station – Crowley

Location Summary

Rainfall was low in July (see below). This trial was planted late on May 6 after the original trial (planted early April) was lost to excessive rainfall. Due in part to the late planting grain yields ranged from 48.6 to 83.1 bu/acre with a trial average of 71.1 bu/acre (Table 4). Six hybrids were in the highest-yielding group for both years, 2015 and 2016. Test weights were low with a trial average of only 48.4 lb/bu. Anthracnose is a common problem at this south Louisiana location. Based on a rating scale of 0-9, leaf anthracnose ratings ranged from 2 to 7 with a trial average of 4. Bird damage was also a problem at this location, averaging 15% head damage (Table 4).

Soil type	Crowley silt loam
Row spacing	30 inches
Seeding rate	80,000 seed/acre (4.6 seed/ft)
Previous crop	Grain sorghum
Planting date	May 6 (replant)(original planting date-April 1)
Fertilization	<i>Pre-plant:</i> 0-58-58-6.5 (4/8); <i>Post-emerge:</i> 90 lb N/acre as urea (6/10);
Pesticides	<i>Herbicides:</i> 1.5 pt Dual Magnum/acre plus 3.2 pt Atrazine/acre (4/12, applied in first planting) and 1.33 pt Dual Magnum/acre (5/13, applied in replanted sorghum); <i>Insecticides:</i> 1 oz Transform/acre (7/15);
Harvest date	August 25

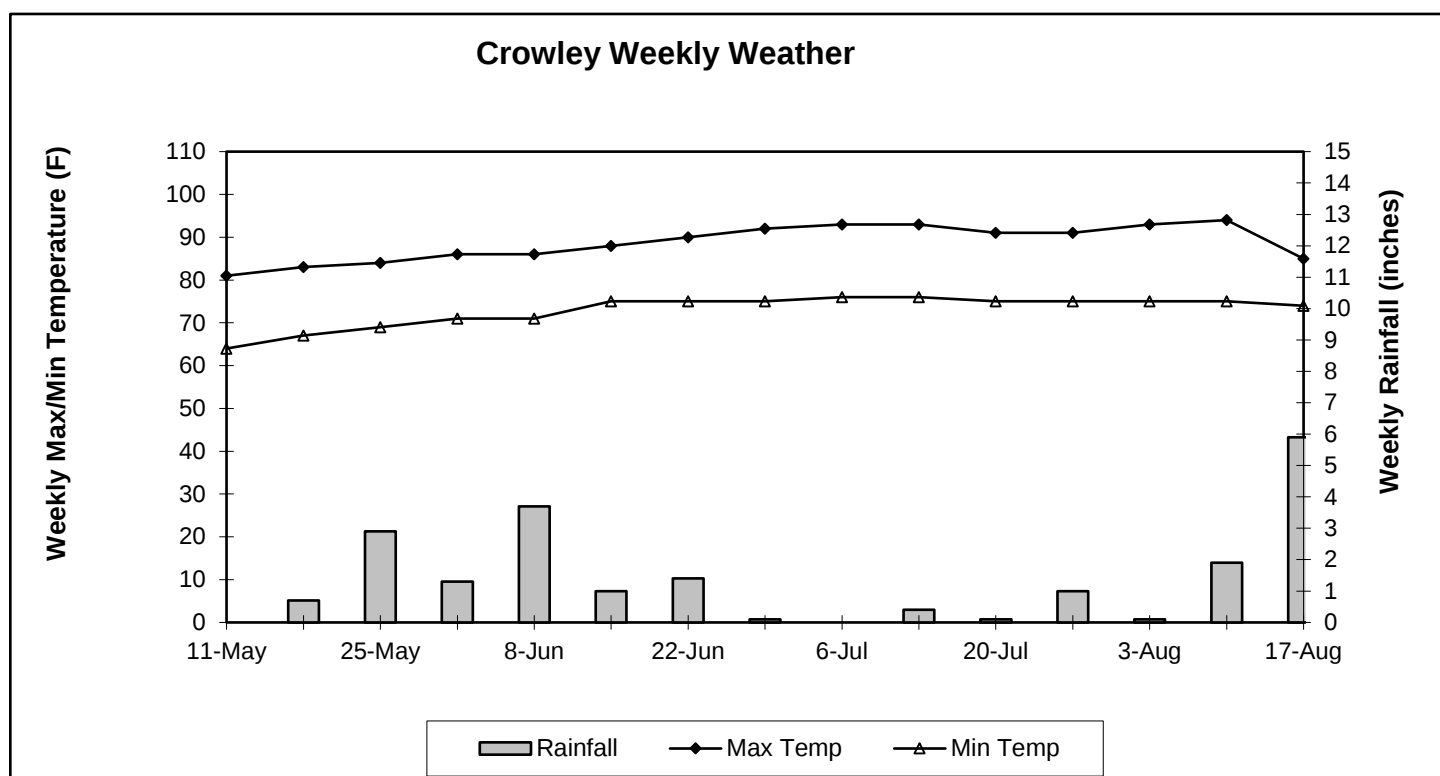


Table 4. Performance of grain sorghum hybrids at Crowley, 2016.

Brand/hybrid	2016 Yield ¹ bu/a	2-Yr avg ² bu/a	Gr mo %	Test wt lb/bu	Mid- head DAP	Plt ht in	Head exert in	Head type 1-5	Anth ³ 0-9	Bird %
Sorghum Partners SP7715	83.1	70.2	20.0	47.7	64	54	4	2	3	15
Dyna-Gro GX15371	82.4	-	19.6	48.3	65	56	2	1	3	5
Terral Seed REV®9782™	79.6	66.3	18.0	49.5	64	51	2	2	6	15
Terral Seed REV®9562™*	79.6	70.2	18.5	49.0	64	53	4	3	4	25
Pioneer 83P99*	79.2	66.1	17.6	49.9	65	51	1	2	5	15
Pioneer 84P80*	78.9	69.7	18.0	49.3	64	53	3	3	6	20
DEKALB Brand DKS51-01*	78.5	66.8	19.1	48.7	68	55	3	2	3	10
Dyna-Gro GX15561	76.2	57.4	19.1	48.6	67	55	3	2	4	5
Pioneer 83P17*	75.5	66.6	21.6	46.5	69	52	2	2	4	10
DEKALB Brand DKS53-53	75.3	-	20.0	47.8	66	52	3	2	5	15
Alta Seeds AG1203	74.9	59.3	20.9	47.1	68	56	3	3	4	10
Dyna-Gro GX15484	74.7	-	20.7	47.1	69	58	7	2	4	5
Dyna-Gro GX16970	73.1	-	16.2	50.8	61	51	3	3	4	35
Dyna-Gro GX15672	72.5	61.9	19.6	48.3	65	54	2	2	4	10
Alta Seeds AG3201*	72.4	64.6	17.8	49.6	62	50	5	2	5	25
Sorghum Partners SP78M30	72.2	-	20.7	47.1	70	56	2	2	2	10
Dyna-Gro 765B	70.0	64.1	20.8	46.9	68	60	3	2	4	10
Dyna-Gro GX16968	69.5	-	19.8	48.0	68	48	6	2	6	20
Terral Seed REV®9924™	69.4	64.6	17.1	50.2	60	55	3	2	5	25
Dyna-Gro M75GR47	67.2	-	15.7	51.2	61	52	4	3	6	35
Chromatin CHROL2042	66.6	-	20.7	47.1	68	55	3	2	4	10
ChromatinCHROL0029	65.5	-	21.8	46.6	73	55	3	1	3	5
Alta Seeds AG2103	62.7	51.4	19.1	48.2	60	48	4	3	7	20
Dyna-Gro GX16675	60.7	-	22.3	45.9	71	69	4	2	2	5
Sorghum Partners NK6638	57.6	55.8	17.6	49.7	64	47	2	4	3	30
Alta Seeds AG2105	54.2	58.5	17.4	49.8	62	49	3	3	6	25
Sorghum Partners SP7868	48.6	52.8	21.7	46.4	69	50	4	1	3	5
Average	71.1	-	19.3	48.4	66	53	3	2	4	15
CV, %	13	-	8	3	4	6	56	20	20	44
LSD (0.10)	10.7	-	1.8	1.5	3	4	2	1	1	10

¹Yields in bold denote hybrids that were in the highest-yielding group in 2016.²Hybrids in bold with an asterisk (*) were in the highest-yielding group for both years, 2015 and 2016.³Anth=Anthracnose, ratings, 0-9 with 0=none and 9=severe, for leaf anthracnose disease symptoms.

Grain Sorghum Hybrid Performance Trial at the Northeast Research Station – St. Joseph

Location Summary

Rainfall was about normal, except for July (see below). Three furrow irrigations were applied (see Chart to the right). Grain yields ranged from 71.2 to 121.0 bu/acre with a trial average of 102.3 bu/acre (Table 5). Seventeen of the twenty-seven hybrids had yields greater than 100 bu/acre. Five hybrids were in the highest-yielding group for both years, 2015 and 2016. Heads at harvest were relatively low ranging from 41,530 to 61,970 heads/acre with a trial average of 56,180 heads/acre. Other agronomic data are presented in Table 5.

Soil type	Sharkey silty clay
Row spacing	40 inches
Seeding rate	80,000 seed/acre (6.1 seed/ft)
Previous crop	Soybeans
Planting date	April 8
Fertilization	140 lb N/acre (30-0-0-2) (4/25)
Pesticides	<i>Pre-emerge:</i> 48 oz Chinch ATZ/acre; <i>Insecticides:</i> No insecticides were required
Irrigation	Furrow-irrigated – 5/23, 6/10, and 7/12
Harvest date	September 3

St. Joseph Weekly Weather

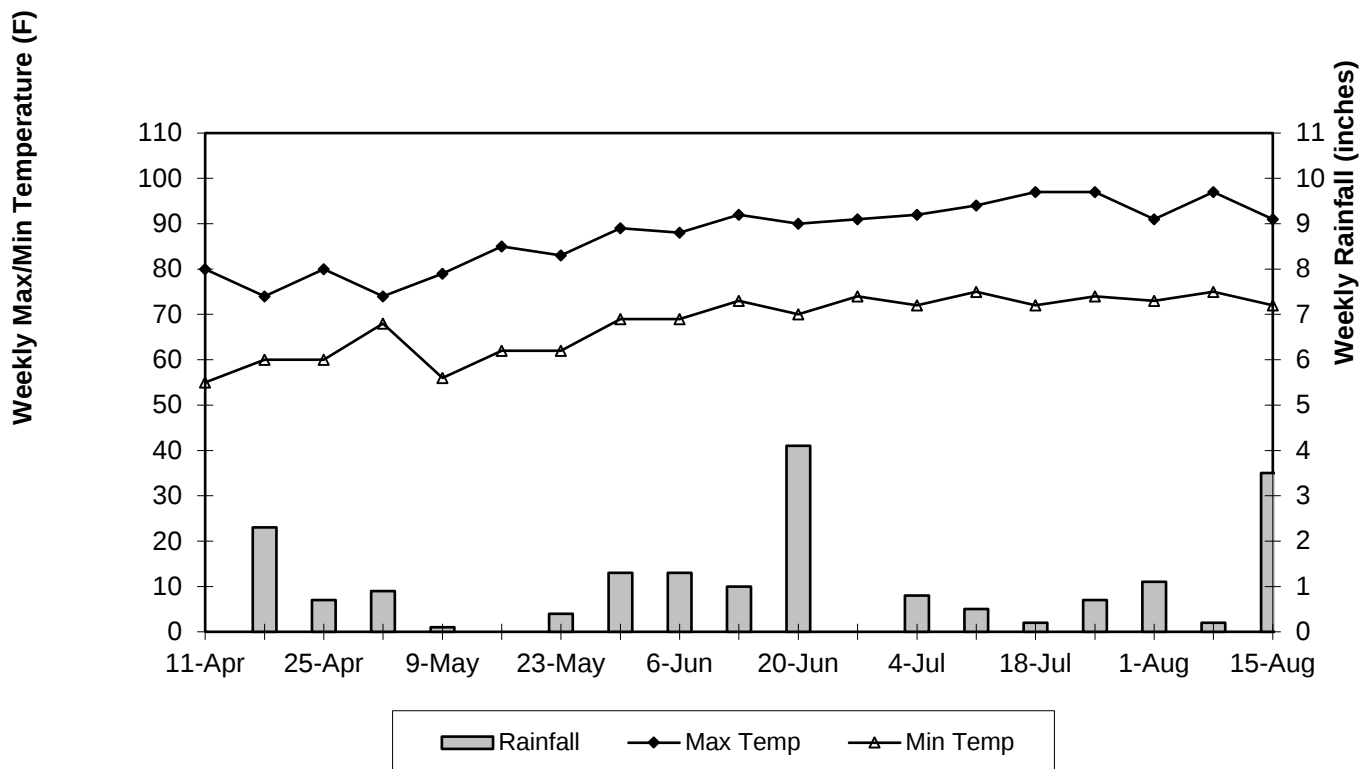


Table 5. Performance of grain sorghum hybrids at St. Joseph, 2016.

Brand/hybrid	2016 Yield ¹ bu/a	2-Yr avg ² bu/a	Gr mo %	Test wt lb/bu	Heads ³ no/a	Mid- head DAP	Plt ht in	Head exert in	Head type 1-5
Dyna-Gro GX15561*	121.0	120.5	13.7	52.5	60,990	64	57	5	2
DEKALB Brand DKS53-53	120.7	-	13.6	55.5	48,890	64	58	7	3
Dyna-Gro GX15371	117.8	-	13.8	52.7	57,230	66	64	7	3
Terral Seed REV®9924™*	117.4	116.8	14.0	50.0	50,850	64	62	6	3
Dyna-Gro GX16675	116.9	-	14.3	52.6	57,550	68	57	6	1
Pioneer 83P17*	111.6	117.8	13.9	51.9	59,680	69	57	5	3
Pioneer 84P80*	111.0	113.2	13.3	52.2	58,530	64	57	7	5
Dyna-Gro GX15672 *	110.0	117.6	13.4	52.1	61,310	63	57	7	3
Chromatin CHROL2042	107.0	-	13.6	52.7	60,820	64	57	7	4
Dyna-Gro GX15484	106.6	-	13.3	52.0	54,450	51	55	6	4
Dyna-Gro 765B	104.4	114.4	13.6	52.4	51,500	66	58	7	2
Dyna-Gro GX16968	104.3	-	13.9	50.1	55,430	64	56	7	3
Terral Seed REV®9782™	103.7	105.9	13.7	54.1	59,350	62	58	5	3
Terral Seed REV®9562™	102.8	108.1	13.4	53.3	41,530	62	57	6	3
Sorghum Partners SP7715	102.1	109.7	14.1	53.0	57,550	64	57	8	2
DEKALB Brand DKS51-01	100.7	110.7	13.6	52.9	48,720	66	55	8	4
Alta Seeds AG2105	100.3	108.6	13.7	51.2	60,660	63	63	6	4
Alta Seeds AG3201	98.4	109.7	13.0	49.5	57,060	63	61	7	5
Dyna-Gro GX16970	97.9	-	13.2	49.5	57,060	63	59	6	5
Alta Seeds AG2103	97.9	101.9	13.6	53.1	59,840	64	59	6	4
Pioneer 83P99	93.8	109.0	13.8	51.1	53,630	68	58	5	3
Sorghum Partners NK6638	92.9	95.5	13.8	48.6	54,610	63	62	5	4
Alta Seeds AG1203	91.7	102.9	13.2	51.9	56,410	62	58	6	5
ChromatinCHROL0029	83.3	-	13.7	51.1	61,970	67	56	5	2
Sorghum Partners SP78M30	80.7	-	13.6	48.5	57,060	67	59	7	3
Dyna-Gro M75GR47	75.3	-	13.1	47.0	56,900	63	61	6	5
Sorghum Partners SP7868	71.2	97.8	13.7	53.0	57,390	69	57	7	3
Average	102.3	-	13.6	51.6	56,180	64	58	6	3
CV, %	11	-	5	2	18	9	7	32	18
LSD (0.10)	13.7	-	NS ⁴	1.9	NS	NS	NS	NS	1

¹Yields in bold denote hybrids that were in the highest-yielding group in 2016.²Hybrids in bold with an asterisk (*) were in the highest-yielding group for both years, 2015 and 2016.³Heads=Head count, number/acre.⁴NS=Non-significant at the 0.10 probability level.

Grain Sorghum Hybrid Performance Trial at the Macon Ridge Research Station – Winnsboro

Location Summary

Rainfall in July was relatively low and not well distributed (see below). On this dryland drought-prone soil, yields were low ranging from 23.0 to 70.1 bu/acre with a trial average of 51.5 bu/acre (Table 6). Two hybrids were in the highest-yielding group for both years, 2015 and 2016. Head counts were extremely low ranging from 16,020 to 48,400 heads/acre with a trial average of only 39,940 heads/acre. The droughty conditions were expressed by several varieties showing Charcoal Rot, which is typically occurs under dry conditions and sometimes low soil potassium. Other agronomic information is presented in Table 6.

Soil type	Gigger silt loam
Row spacing	40-inches
Seeding rate	80,000 seed/acre (6.1 seed/ft)
Previous crop	Soybeans
Planting date	April 25
Fertilization	<i>Sidedress</i> : 120 lb N/acre (30-0-0-2) (5/18)
Pesticides	<i>Preemergence</i> : 3 qt Lexar/acre; <i>Insecticides</i> : 4 oz Savanto/acre plus 14 oz Prevathon/acre (7/13);
Harvest date	August 25

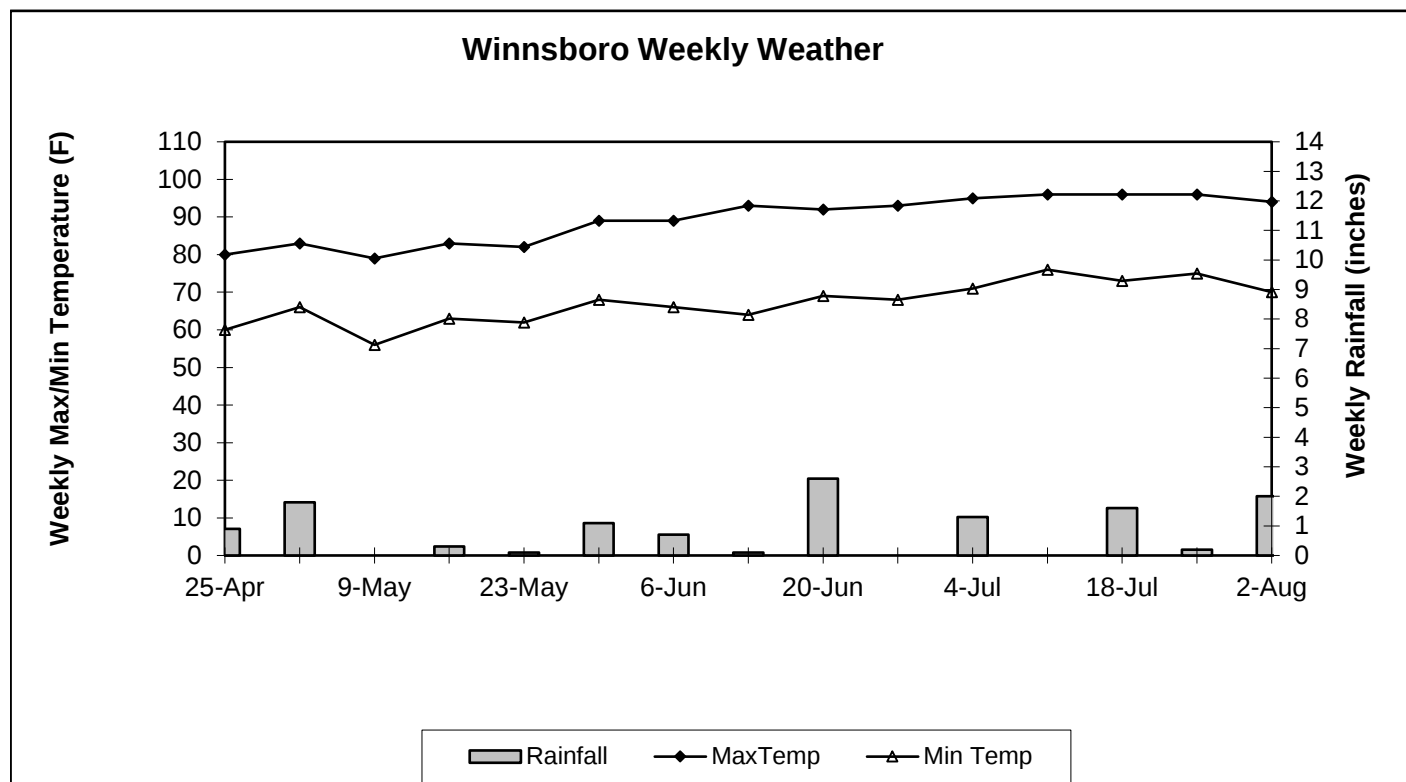


Table 6. Performance of grain sorghum hybrids at Winnsboro, 2016.

Brand/hybrid	2016 Yield ¹	2-Yr avg ²	Gr mo	Test wt	Heads ³	Mid- head	Plt ht	Head exert	CR ⁴
	bu/a	bu/a	%	lb/bu	no/a	DAP	in	in	%
DEKALB Brand DKS53-53	70.1	-	13.7	47.8	42,840	67	52	8	0
Pioneer 83P99*	66.1	71.2	14.0	48.9	43,820	71	52	3	0
Dyna-Gro GX15484	66.0	-	13.7	50.1	43,160	67	58	4	0
Pioneer 83P17	64.9	68.0	15.3	49.0	44,150	69	53	6	0
Pioneer 84P80*	60.6	71.1	14.1	49.2	40,220	67	53	2	0
Chromatin CHROL2042	59.6	-	14.3	49.8	38,260	69	49	4	0
Terral Seed REV®9782™	59.0	70.7	14.4	51.1	45,450	67	53	6	0
Dyna-Gro GX16675	57.3	-	13.0	49.0	36,950	70	63	5	10
DEKALB Brand DKS51-01	55.4	67.9	13.7	51.6	44,800	69	45	4	0
Terral Seed REV®9924™	55.2	66.8	12.8	49.9	48,400	67	61	6	0
Dyna-Gro 765B	54.3	59.1	15.5	49.3	37,280	70	55	3	0
Dyna-Gro GX16970	53.7	-	13.8	49.9	46,760	68	56	4	0
ChromatinCHROL0029	52.0	-	13.9	48.7	40,880	69	51	3	0
Dyna-Gro GX15371	50.5	-	14.4	53.9	46,110	67	55	5	15
Alta Seeds AG3201	50.0	58.9	14.5	48.1	44,470	67	48	3	0
Terral Seed REV®9562™	47.8	54.1	13.9	48.5	41,860	67	48	4	0
Sorghum Partners SP78M30	46.7	-	13.2	48.1	35,640	70	43	3	0
Dyna-Gro GX16968	46.2	-	14.8	45.7	41,530	68	44	5	0
Sorghum Part SP7715	45.4	57.3	15.0	48.5	34,340	68	42	6	0
Alta Seeds AG2105	42.7	52.9	14.5	52.7	41,530	67	51	6	20
Sorghum Partners NK6638	40.7	53.2	12.7	49.1	35,640	67	45	4	5
Dyna-Gro GX15561	37.9	41.3	12.3	49.3	39,240	67	53	3	0
Alta Seeds AG1203	35.9	49.3	12.9	46.8	36,300	67	49	2	0
Dyna-Gro M75GR47	35.3	-	12.6	48.4	29,430	67	49	4	0
Alta Seeds AG2103	33.8	50.1	13.8	50.7	42,840	66	43	5	15
Dyna-Gro GX15672	31.9	38.9	16.7	47.7	40,550	67	51	5	15
Sorghum Partners SP7868	23.0	42.9	15.5	51.1	16,020	72	45	3	0
Average	51.5		14.0	49.3	39,940	68	50	4	5
CV, %	18		7	5	14	2	7	57	72
LSD (0.10)	9.8		1.0	NS ⁵	9,440	2	6	NS	NS

¹Yields in bold denote hybrids that were in the highest-yielding group in 2016.²Hybrids in bold with an asterisk (*) were in the highest-yielding group for both years, 2015 and 2016.³Heads=Head count, number heads/acre⁴CR=Charcoal rot, % of plants lodged with CR symptoms (at harvest).⁵NS=Non-significant at the 0.10 probability level.

Table 7. Summary of yield performance of grain sorghum hybrids at five locations in the 2016 LAES official variety trials.

Brand/Hybrid	Alex ¹	BC	CR	SJ	WN	Avg
bu/acre						
Alta Seeds AG1203	109.8	88.7	74.9	91.7	35.9	80.2
Alta Seeds AG2103	107.4	92.7	62.7	97.9	33.8	78.9
Alta Seeds AG2105	112.1	86.1	54.2	100.3	42.7	79.1
Alta Seeds AG3201	113.9	84.8	72.4	98.4	50.0	83.9
Chromatin CHROL2042	112.4	80.4	66.6	107.0	59.6	85.2
ChromatinCHROL0029	102.3	76.7	65.5	83.3	52.0	76.0
DEKALB Br DKS51-01	131.4	106.6	78.5	100.7	55.4	94.5
DEKALB Br DKS53-53	134.2	97.2	75.3	120.7	70.1	99.5
Dyna-Gro 765B	127.0	81.0	70.0	104.4	54.3	87.3
Dyna-Gro GX15371	119.8	76.6	82.4	117.8	50.5	89.4
Dyna-Gro GX15484	116.0	91.9	74.7	106.6	66.0	91.0
Dyna-Gro GX15561	115.6	60.4	76.2	121.0	37.9	82.2
Dyna-Gro GX15672	124.6	75.3	72.5	110.0	31.9	82.9
Dyna-Gro GX16675	97.4	84.2	60.7	116.9	57.3	83.3
Dyna-Gro GX16968	115.7	85.1	69.5	104.3	46.2	84.2
Dyna-Gro GX16970	109.0	71.6	73.1	97.9	53.7	81.1
Dyna-Gro M75GR47	101.3	81.1	67.2	75.3	35.3	72.0
Pioneer 83P17	121.4	87.1	75.5	111.6	64.9	92.1
Pioneer 83P99	124.3	83.8	79.2	93.8	66.1	89.4
Pioneer 84P80	126.2	86.9	78.9	111.0	60.6	92.7
Sorghum Part NK6638	107.2	94.5	57.6	92.9	40.7	78.6
Sorghum Part SP7715	106.1	88.4	83.1	102.1	45.4	85.0
Sorghum Part SP7868	78.1	70.5	48.6	71.2	23.0	58.3
Sorghum Part SP78M30	96.7	82.3	72.2	80.7	46.7	75.7
Terral Seed REV®9562™	121.7	88.7	79.6	102.8	47.8	88.1
Terral Seed REV®9782™	115.1	79.3	79.6	103.7	59.0	87.3
Terral Seed REV®9924™	131.4	83.6	69.4	117.4	55.2	91.4
Average	114.0	83.9	71.1	102.3	51.5	

¹Alex=Alexandria; BC=Bossier City; CR=Crowley; SJ=St. Joseph; WN=Winnsboro;

Table 8. List of participating seed companies and hybrids tested in the LAES 2016 grain sorghum official variety trials.

Company	Brand/Hybrid
Alta Seeds 301 S. Polk, Ste 350 Amarillo, TX 79101	Alta Seeds AG1203, Alta Seeds AG2103, Alta Seeds AG2105, Alta Seeds AG3201,
Chromatin, Inc/Sorghum Partners 1301 East 50 th Street Lubbock, TX 79404	Chromatin CHOL0029, Chromatin CHROL2042, Sorghum Partners NK6638, Sorghum Partners SP7715, Sorghum Partners SP7868, Sorghum Partners SP78M30
Crop Production Services/Dyna-Gro Seed 11 Gin Rd Rayville, LA 71269	Dyna-Gro 765B, Dyna-Gro GX15371, Dyna-Gro GX15484, Dyna-Gro GX15561, Dyna-Gro GX15672, Dyna-Gro GX16968, Dyna-Gro GX16970, Dyna-Gro GX16675, Dyna-Gro M75GR47
Dupont/Pioneer 59 Greif Parkway, Suite 200 Delaware, OH 43015	Pioneer 83P99, Pioneer 84P80, Pioneer 83P17
Monsanto/Dekalb 7159 N 247 th W Mt. Hope, KS 67108	DEKALB DKS51-01, DEKALB DKS53-53
Terral Seed, Inc. 117 Ellington Dr. Rayville, LA 71269	Terral Seed REV®RV9562™, Terral Seed REV®RV9782™, Terral Seed REV®RV9924™