

Performance of Grain Sorghum Hybrids in Louisiana, 2003

H.J. “Rick” Mascagni, Jr., Robert Bell, Pat Bollich, Millie Deloach, Warner Hall, David Lanclos, Jose Liscano, Steve Moore, Jim Rabb, Curt Riche’, and Gerardo Romero

Performance of grain sorghum hybrids is annually evaluated by Louisiana Agricultural Experiment Station (LAES) researchers. 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 results on performance of commercial grain sorghum hybrids submitted for evaluation by private agencies. The data generated in these trials are used by the LCES for recommending hybrids.

The cooperating LAES units in 2003 were: Dean Lee Research Station, Alexandria; Central Research Station, Baton Rouge; Red River Research Station, Bossier City; Rice Research Station, Crowley; Northeast Research Station, St. Joseph; and Northeast Research Station-Macon Ridge Branch, Winnsboro. The trial at the Central Research Station in Baton Rouge was dropped due to high variability among plot data.

Procedures

In 2003, 38 commercial grain sorghum hybrids were entered in the LAES yield trials by participating seed companies. Cultural practices and soil types are listed on page adjacent to yield data for each location. Location summaries and weather graphs are also listed. In weather graphs, maximum and minimum temperatures are weekly averages and rainfall weekly totals. Trials were not irrigated, except at St. Joseph, where both irrigated and non-irrigated trials were conducted. Seed were treated with Concept and Gaucho and recommended cultural practices were followed at each location.

Hybrids were evaluated at each location using randomized complete block designs with four replications. Traits measured and rating scales are listed in Table 1. 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 at that level, we computed an LSD at the 10% probability level. For example, if the LSD (0.10) for yield in a trial is 7.0 bu/acre, there is a 10% chance that two hybrids with a reported yield difference of 7.0 bu/acre are genetically equal and a 90% probability they have differences in genetic potential in that particular environment. LSD values are influenced by the degree of precision that soil, fertility, stand establishment, plot length, harvest efficiency, and by the number of replications.

H.J. “Rick” Mascagni, Jr., Professor and Coordinator, and Robert Bell, Research Associate, Northeast Research Station, St. Joseph, LA 71366; Warner Hall, Research Associate, Agronomy Department, Baton Rouge, LA 70803; Jim Rabb and Jose Liscano, Professor and Research Associate, Red River Research Station, Bossier City, LA 71113; Pat Bollich and Gerardo Romero, Professor and Research Associate, Rice Research Station, Crowley, LA 70527; and Steve Moore, David Lanclos, Curt Riche’, and Millie Deloach, Professor, Corn Specialist, and Research Associates, Dean Lee Research Station, Alexandria, LA 71302.

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 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 in different replications, which reduces the precision of a test.

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

Trait	Abbreviation	Description
Yield	Yield	Grain yield in lb/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	Plant ht	Plant height from ground to base of head, inches (in)
Head exertion	Head exer	Distance between flag leaf and base of head, inches (in)
Head type	Head type	Head type is a measure of head architecture, with ratings of 1-5; 1-compact, 3-intermediate, and 5-open
Lodging	Lo	Lodging is an estimate of plants lodged that could not be harvested, %
Bird damage	Bird	Bird damage ratings are an estimate of head damage, %

Results

Yield data and other agronomic data for each location are presented in Tables 2-7. A location summary, cultural practices, soil types, and weather information are listed on page adjacent to yield data for each location. Yield summary across Louisiana for 2003 is presented in Table 8 and participating seed companies are listed in Table 9.

For additional information on grain sorghum trials, please contact Dr. Rick Mascagni, Northeast Research Station, P.O. Box 438, St. Joseph, LA 71366 (Ph: 318-766-3769; Fax: 318-766-4278; e-mail: hmascagni@agcenter.lsu.edu); or the coordinator at a specific location (Dr. Pat Bollich, Rice Research Station, Crowley, Ph: 337-788-7531, Fax: 337-788-7553, e-mail: pbollich@agcenter.lsu.edu; Dr. Steve Moore, Dean Lee Research Station, Alexandria; Ph: 318-473-6524, Fax: 318-473-6535, e-mail: smoore@agcenter.lsu.edu; Jimmy Rabb, Red River Research Station, Bossier City; Ph: 318-741-7430, Fax 318-741-7433, e-mail: jrabb@agcenter.lsu.edu).

Grain Sorghum Performance at the Dean Lee Research Station – Alexandria

Location Summary

A combination of good June and July rainfall and moderate temperatures throughout the growing season helped produce excellent yields, ranging from 3811 to 7268 lb/a (Table 2). Trial average yield was 6381 lb/a with 22 hybrids having yields greater than 6500 lb/a. Similar to yield, test weights were excellent, with a trial average of 59.1 lb/bu. Based on two-year averages, there will be 20 hybrids recommended for the Dean Lee Research Station location in 2004.

Soil Type.....	Norwood silt loam
Row Spacing.....	38 inch
Seeding Rate.....	8 seed/ft
Fertilization.....	150 lbs N/a
Herbicides.....	Pre: Clarity @ 8 oz/a, Atrazine @ 1 qt/a, Prowl @ 1.8 pt/a, and 0.25% surfactant
Insecticides.....	Baythroid @ 1.3 oz/a (2 applns.); Baythroid @ 2.8oz/a; Karate Z @ 1.9 oz/a
Previous	
Crop.....	Cotton
Planting Date.....	April 23
Harvest Date.....	August 15

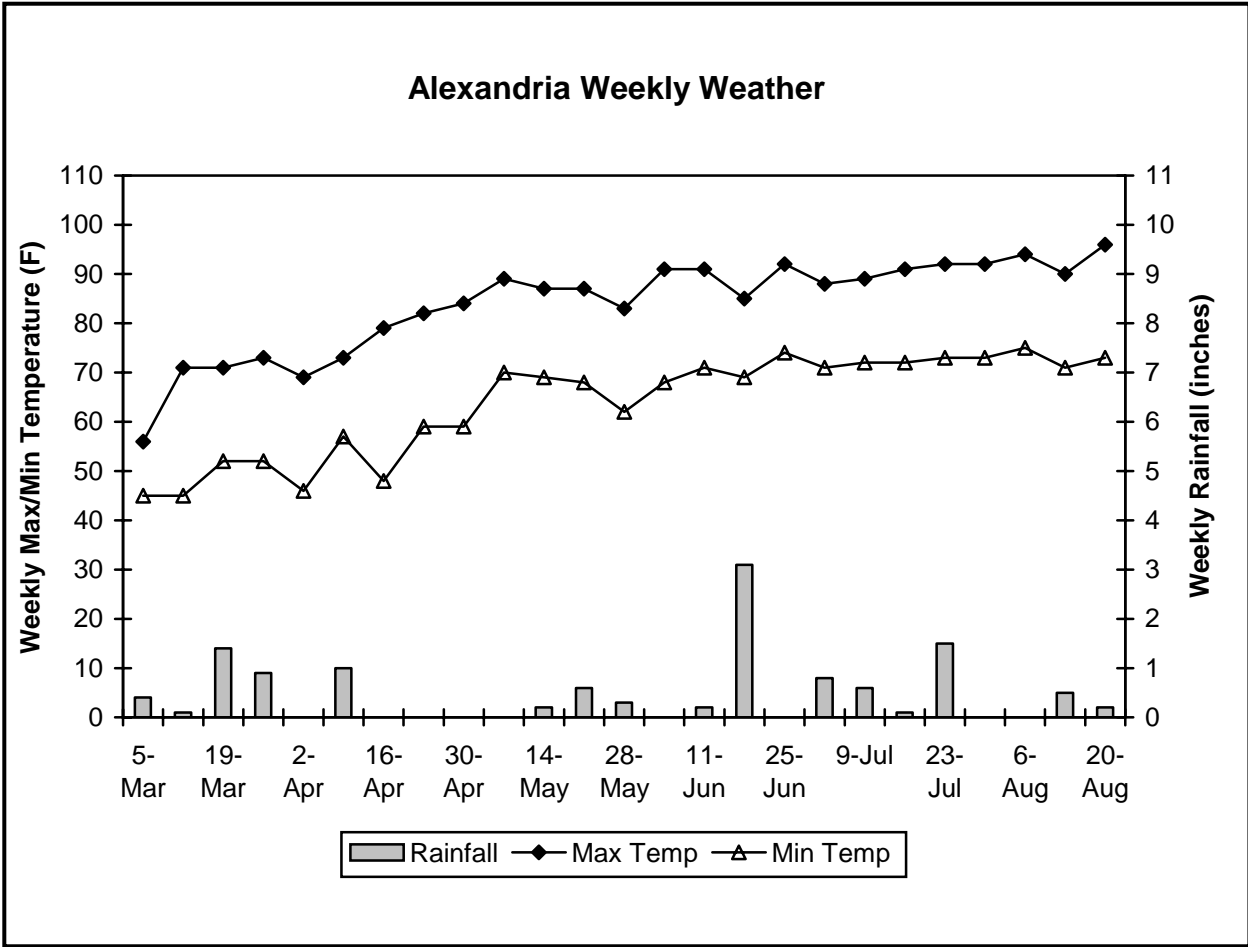


Table 2. Performance of grain sorghum hybrids at Dean Lee Research Station at Alexandria, LA, 2003.

Brand/Hybrid	Yield		Gr mo	Test wt	Mid-head	Plant ht	Head exer	Head type
	2003	2-Yr avg ¹						
	-----lb/a-----		%	lb/bu	DAP	in	in	
Monsanto X234	7268	-	16.0	58.3	60	44	6	4
Terral TV9421	7051	7320 R	14.9	57.9	61	42	6	4
Asgrow A571	7035	7138 R	15.3	56.3	61	48	4	1
SS 650	6977	6956 R	15.3	60.1	57	48	5	4
Dyna Gro 762B	6953	7125 R	15.1	57.8	57	40	4	5
Pioneer Brand 83G66	6947	6934 R	15.5	58.2	60	47	4	4
Golden Acres 3694	6911	7095 R	15.1	58.6	61	43	6	5
Garst 5515	6903	6703 R	15.0	57.4	60	46	4	3
Terral TV96H81	6883	7092 R	15.6	58.9	62	42	2	5
Garst 5440	6879	6936 R	15.4	60.4	59	47	5	2
Pioneer Brand 84G62	6870	7230 R	15.1	60.5	61	45	3	2
Dyna Gro 751B	6870	6843 R	15.4	58.9	59	45	4	2
Terral TVX95S25	6809	-	15.3	60.3	60	49	4	2
Garst N3318	6719	-	15.3	59.2	60	42	7	2
Dekalb DKS 53-11	6717	-	15.6	60.0	59	48	5	4
Golden Acres X-2027	6670	-	15.2	60.1	59	44	5	3
Terral TVX93S16	6609	-	15.7	56.6	66	47	4	2
Golden Acres 444E	6585	6983 R	15.2	57.1	59	47	5	5
Dyna Gro 752B	6557	6548 R	14.9	57.3	61	47	6	4
Dyna Gro 732B	6537	6632 R	15.3	58.7	60	41	3	4
Triumph TR82-G	6529	6869 R	15.7	60.5	63	42	3	4
Terral TVX94S34	6520	-	15.2	58.0	64	47	6	4
Terral TV93S72	6493	6760 R	15.7	56.3	60	42	6	3
SS 800	6432	6628 R	14.8	56.7	62	46	6	2
Dyna Gro X1763	6422	-	15.4	57.7	61	39	3	2
Pioneer Brand 83G15	6417	-	15.7	58.8	61	46	7	5
Monsanto X204	6327	-	15.6	58.4	61	43	6	4
Terral TV1050	6326	6564 R	15.2	58.0	63	46	6	1
Dyna Gro X1753B	6283	-	15.7	57.0	64	45	3	4
Terral TVX95S201	6223	6582 R	14.7	57.5	64	47	3	3
Dyna Gro 780B	6099	6618 R	15.5	60.6	65	41	7	3
Terral TVX96H202	5864	6182	15.4	57.4	64	46	5	3
Triumph TR461	5840	-	15.2	58.6	67	43	8	5
Terral TVX96H23	5709	-	14.9	57.7	67	41	6	2
Garst 5382	5422	6229	15.7	58.5	65	50	6	5
Dekalb DK52	5064	6260	15.5	56.9	69	53	8	3
Dyna Gro X17F90	4697	-	16.7	53.6	66	47	8	3
Dekalb DKS 54-00	3811	5453	16.8	51.4	64	50	7	4
Average	6381	-	15.4	58.1	62	45	5	3
CV, %	8.7	-	2.5	2.0	3.5	7.8	28.0	37.3
LSD (0.10)	649	-	0.5	1.4	4	6	2	2

¹An 'R' next to two-year average indicates a recommendation for 2004.

Grain Sorghum Performance at the Red River Research Station- Bossier City

Location Summary

Yields were excellent, ranging from 5497 to 6959 lb/a (Table 3). May and June rainfall enhanced soil moisture and temperature averages did not exceed the low 90's. There were 21 hybrids with yield greater than 6,000 lb/a. Test weights were also excellent, ranging from 57.5 to 60.7 lb/bu. Based on two-year averages, there will be 16 hybrids recommended at the Red River Research Station location in 2004.

Soil Type.....	Miller silty clay loam
Row spacing.....	40 inch
Seeding Rate.....	8 seed/ft
Fertilization.....	100 lbs N/a
Herbicides.....	Pre: Atrazine @ 2 qt./acre
Previous Crop.....	Soybean
Planting Date.....	April 18
Harvest Date.....	August 6

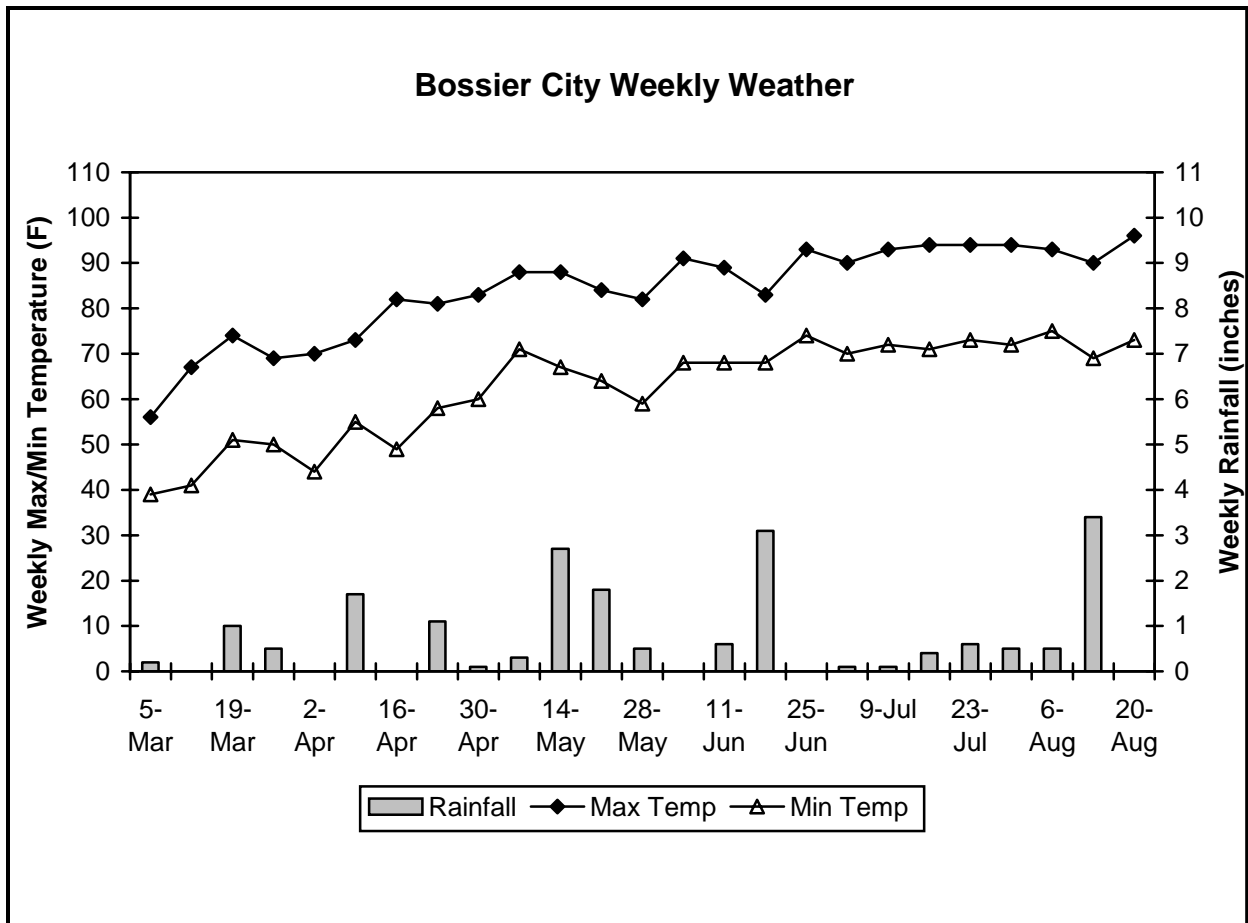


Table 3. Performance of grain sorghum hybrids at the Red River Research Station at Bossier City, LA, 2003.

Brand/hybrid	Yield		Gr mo	Test wt	Mid-head	Plant ht	Head exer	Head type
	2003	2-Yr avg ¹						
	-----lb/a-----		%	lb/bu	DAP	in	in	
Dekalb DKS 53-11	6959	-	16.5	60.0	62	54	4	2
Garst N3318	6732	-	15.5	59.2	62	55	5	2
Pioneer Brand 83G15	6694	-	16.3	59.9	63	51	4	4
SS 800	6608	5071 R	15.9	58.3	61	49	4	4
Pioneer Brand 84G62	6529	5169 R	16.7	59.8	62	53	4	4
Dyna Gro X17F90	6508	-	15.9	59.3	63	57	6	2
Triumph TR82-G	6459	5081 R	15.6	60.4	64	54	5	1
Terral TV96H81	6454	4817 R	15.5	59.6	62	53	4	2
Terral TV1050	6411	4759 R	15.1	58.8	62	53	4	2
Dyna Gro 751B	6408	4758 R	15.2	59.9	62	54	4	2
Terral TV9421	6390	4812 R	15.6	59.1	60	51	7	4
Pioneer Brand 83G66	6356	4742 R	15.5	59.2	61	56	5	3
Terral TV93S72	6318	4913 R	15.1	58.7	59	50	9	3
Terral TVX95S25	6242	-	15.8	60.6	61	56	6	3
Monsanto X204	6167	-	15.6	60.7	60	52	8	2
Garst 5515	6149	4903 R	15.2	57.9	61	50	7	4
Dyna Gro 780B	6099	4446	15.7	60.4	63	53	2	1
Golden Acres X-2027	6088	-	15.4	60.7	62	53	5	4
Golden Acres 3694	6078	4678 R	15.3	59.2	62	51	5	3
Terral TVX94S34	6031	-	14.8	58.9	60	52	6	5
Dyna Gro 752B	6001	4705 R	15.0	58.1	60	51	6	3
SS 650	5983	4976 R	15.8	59.6	62	55	4	2
Asgrow A571	5906	4642 R	16.0	57.9	61	55	8	3
Golden Acres 444E	5905	4862 R	15.6	58.7	61	48	6	4
Dekalb DKS 54-00	5898	4387	17.3	58.5	65	59	8	3
Terral TVX96H202	5835	4818 R	16.2	58.1	64	50	7	3
Garst 5382	5827	4580	17.0	59.5	64	50	7	1
Dyna Gro X1753B	5803	-	16.8	57.5	61	49	5	3
Triumph TR461	5798	-	14.9	58.9	64	53	4	2
Terral TVX96H23	5774	-	17.1	58.2	68	55	5	1
Dyna Gro 762B	5773	4500	15.6	58.5	60	54	6	3
Terral TVX95S201	5718	4593	14.8	58.6	63	51	8	5
Terral TVX93S16	5636	-	16.5	58.5	61	50	5	5
Dyna Gro X1763	5631	-	15.9	58.8	61	53	8	3
Monsanto X234	5614	-	15.8	60.3	61	50	8	3
Dyna Gro 732B	5604	3801	15.2	60.0	57	49	9	3
Dekalb DK52	5511	4429	15.8	59.5	61	50	6	4
Garst 5440	5497	4320	14.8	59.7	61	50	6	4
Average	6089	-	15.7	59.2	62	52	6	3
CV, %	9.3	-	4.1	0.9	1.8	3.8	25.3	19.1
LSD (0.10)	664	-	0.8	0.6	1	2	2	1

¹An 'R' next to two-year average indicates a recommendation for 2004.

Grain Sorghum Performance at the Rice Research Station- Crowley

Location Summary

Yields ranged from 2319 to 5208 lb/a with a trial average of 3663 lb/a (Table 4). June and July rainfall was well distributed with average maximum temperatures around 90° F during grain-fill. Test weights ranged from 55.0 to 59.7 lb/bu with a trial average of 57.9 lb/bu. Fusarium mold ratings were taken about a week prior to harvest and there appeared to be a slight negative correlation with yield, as Fusarium ratings increased yields decreased. However, test weights seemed to be unaffected by the Fusarium mold.

Soil Type.....	Crowley silt loam
Row spacing.....	30 inch
Seeding Rate.....	5 seed/ft
Fertilization	Pre..... 90-72-72
	Sidedress... 25-0-0
Herbicides	
	Pre: Atrazine @ 1.5 qt/acre
	Post: Atrazine @ 3.5 pt/a
Previous	
Crop.....	Fallow
Planting Date.....	April 16
Harvest Date.....	August 14

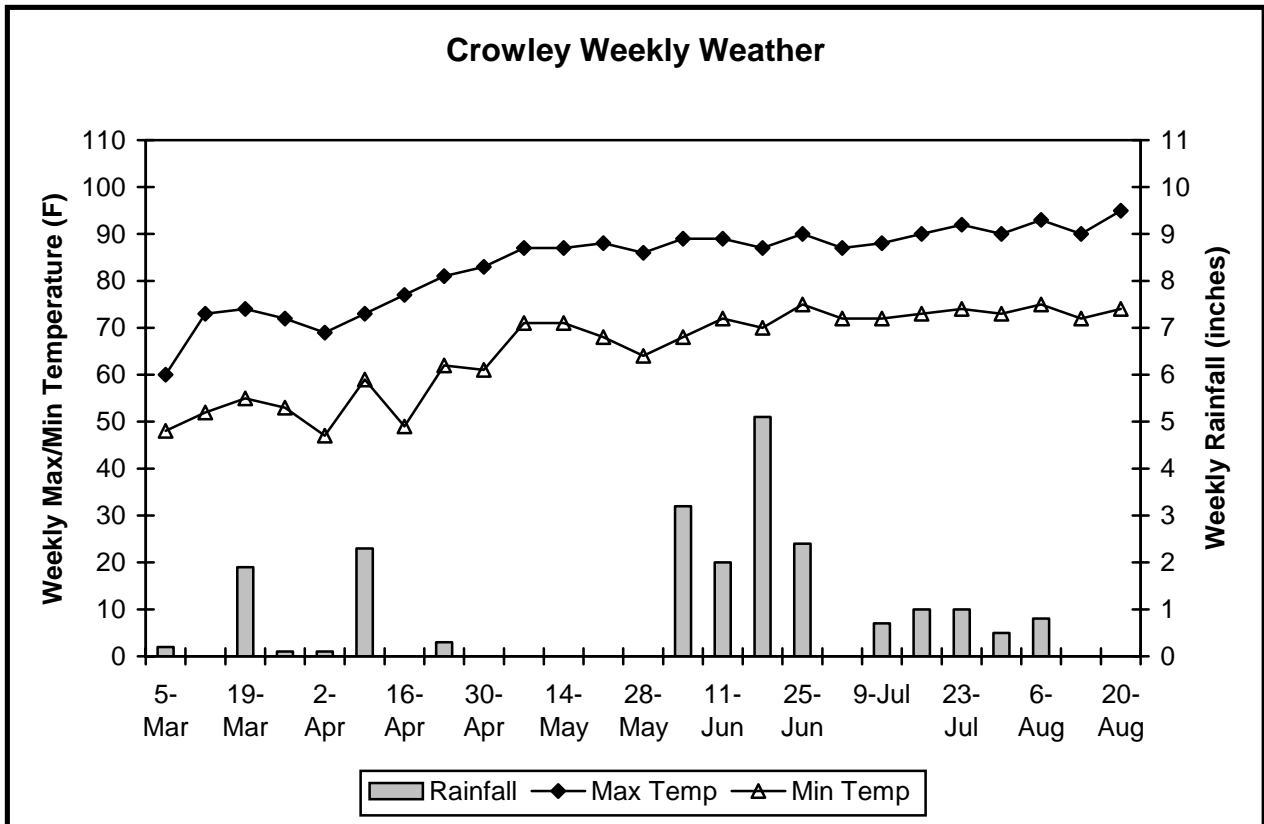


Table 4. Performance of grain sorghum hybrids at the Rice Research Station at Crowley, LA, 2003.

Brand/hybrid	Yield		Gr mo	Test wt	Mid head	Plant ht	Head exer	Head type	Fus ²	Bird
	2003	2-yr avg ¹								
	-----lb/a-----		%	lb/bu	DAP	in	in			%
Pioneer Brand 84G62	5208	4999 R	13.9	58.7	64	55	7	4	2	5
Dekalb DKS 53-11	4686	-	14.5	58.8	67	58	9	3	1	5
Terral TVX95S201	4324	4551 R	11.6	57.4	63	55	12	5	2	0
Asgrow A571	4319	4233 R	12.9	55.0	61	55	12	3	4	3
Terral TVX96H202	4295	4280 R	12.1	57.4	66	52	9	3	0	0
Dyna Gro 751B	4219	4159 R	14.2	58.3	62	53	13	2	4	3
Monsanto X204	4211	-	15.4	59.4	62	53	14	2	1	0
SS 650	4209	4000	13.9	57.9	61	58	11	3	2	8
Golden Acres X-2027	4200	-	14.4	59.2	64	57	13	4	1	3
Garst N3318	4147	-	14.8	58.6	62	59	15	2	3	3
Monsanto X234	4129	-	17.8	58.3	63	54	13	2	0	3
Garst 5515	4002	3997	12.0	57.4	60	53	10	4	1	3
Terral TV96H81	3988	3966	13.0	58.5	61	60	13	2	3	1
Pioneer Brand 83G66	3900	4294 R	16.1	56.1	62	58	5	4	1	5
Pioneer Brand 83G15	3862	-	13.1	58.8	63	55	8	5	1	2
Terral TV1050	3760	4162 R	12.2	58.1	61	57	10	3	3	4
Triumph TR461	3755	-	12.4	58.1	65	56	4	2	3	1
Garst 5440	3727	4018 R	12.3	58.7	59	58	13	4	3	1
Terral TV93S72	3670	3998	13.4	57.5	59	56	12	3	4	1
Golden Acres 3694	3584	3881	12.9	58.5	64	54	12	4	1	1
Terral TVX94S34	3583	-	13.8	57.8	61	53	7	5	4	1
Terral TVX96H23	3566	-	14.9	57.8	68	59	18	3	1	10
Garst 5382	3542	3952	13.8	58.4	64	50	12	2	0	0
Dyna Gro X1753B	3528	-	12.7	57.2	62	50	5	2	3	5
Golden Acres 444E	3523	3800	11.9	57.8	58	54	6	4	3	0
Dyna Gro 752B	3475	3936	12.0	57.7	59	51	8	4	3	0
Triumph TR82-G	3465	3955	13.6	59.3	64	54	8	2	3	5
Dyna Gro 780B	3462	3737	13.8	59.7	65	59	17	2	2	4
Terral TV9421	3342	3767	11.8	57.2	58	54	8	3	4	1
Dyna Gro 762B	3284	3740	12.6	58.3	60	56	11	3	4	4
Dyna Gro X1763	3097	-	14.5	57.3	64	56	13	2	4	6
Dyna Gro X17F90	3087	-	14.6	57.2	64	65	14	3	1	13
Dekalb DKS 54-00	2975	3888	15.8	56.4	68	64	17	3	1	8
Dekalb DK52	2974	3570	12.4	58.0	64	60	14	5	3	2
SS 800	2819	3640	12.3	56.9	60	50	3	4	4	3
Terral TVX95S25	2557	-	13.8	59.1	62	61	12	4	5	1
Terral TVX93S16	2399	-	13.5	56.9	65	52	7	3	3	9
Dyna Gro 732B	2319	2931	14.1	57.6	57	56	14	2	4	2
Average	3663	-	13.5	57.9	62	56	11	3	2	3
CV,%	18.7	-	11.4	1.6	2.4	4.5	43.5	22.1	45.2	123.2
LSD (0.10)	803	-	1.8	1.5	2	4	8	1	2	NS

¹An 'R' next to two-year average indicates a recommendation for 2004.²Fusarium ratings, 0-5, 0=none and 5=80 to 100% of head affected by Fusarium mold. Ratings taken about a week prior to harvest.

Non-Irrigated and Irrigated Grain Sorghum Performance at the Northeast Research Station – St. Joseph

Location Summary

Yields ranged from 4184 to 6141 lb/a in non-irrigated trial (Table 5) and 5461 to 6817 lb/a in irrigated trial (Table 6). Yield averages were 5358 lb/a in non-irrigated trial and 6220 lb/a in irrigated trial. The irrigated trial (Table 6) was furrow-irrigated using the ‘Arkansas Irrigation Scheduler’ at a soil moisture deficit of 2.5 inches. Two irrigations, June 6 and 27, were applied. Bird damage ratings averaged 20% in non-irrigated and 10% in irrigated trials.

Soil Type.....Sharkey clay
 Row Spacing.....40 inch
 Seeding Rate.....8 seed/ft
 Fertilization
 Sidedress..... 100 lb N/a
 Herbicides
 Pre: Honcho @ 1 qt/a, Atrazine @ 1.5 qt./acre, and Dual Magnum @ 1.3 pt/a, and 1% surfactant
 Post: Atrazine @ 1 qt/a and 1% crop oil
 Insecticides....Intrepid @ 5 oz/a and Karate Z @ 2 oz/a; Karate Z @ 1.5 oz/a
 Previous Crop.....Soybean
 Planting Date.....April 16
 Harvest Date.....August 8

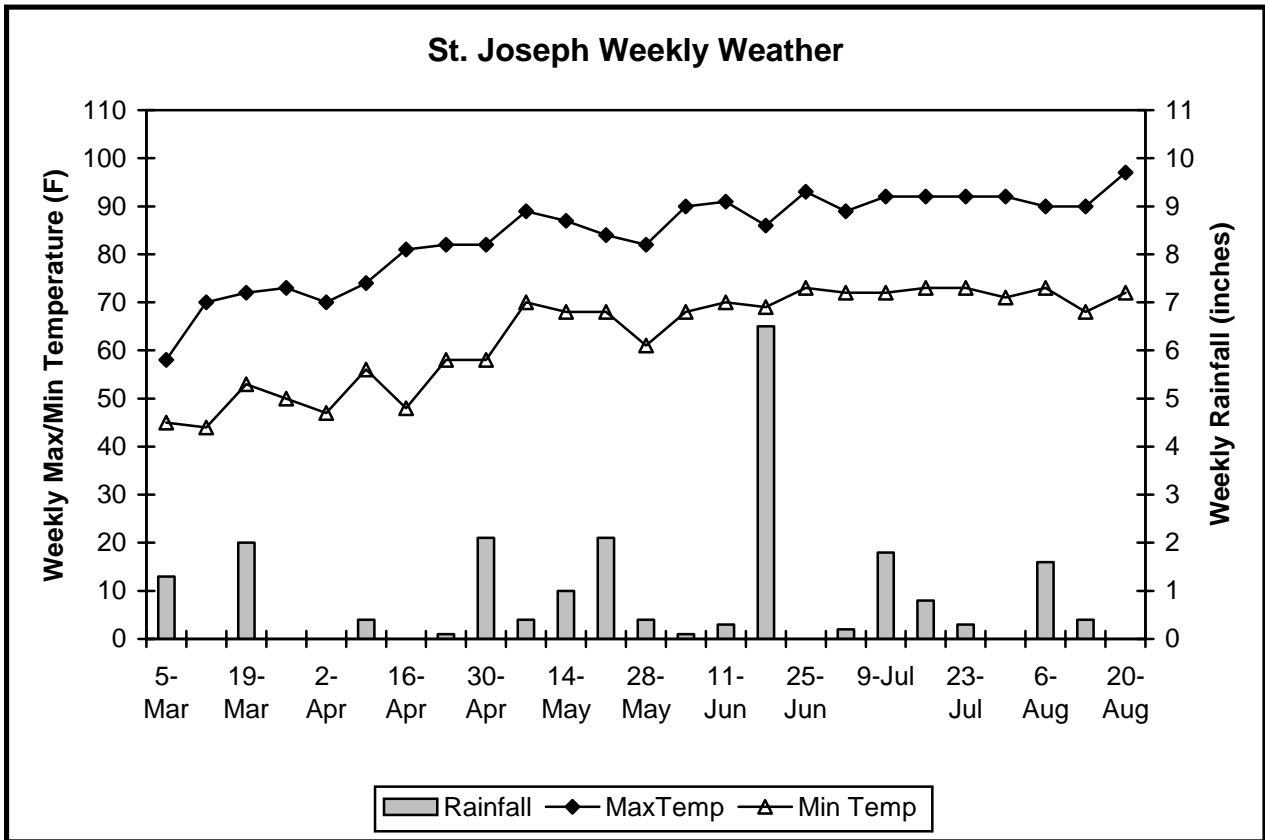


Table 5. Performance of non-irrigated grain sorghum hybrids at the Northeast Research Station at St. Joseph, LA, 2003.

Brand/hybrid	Yield		Gr mo	Test wt	Mid- head	Plant ht	Head exer	Head type	Bird
	2003	2-Yr avg ¹							
	-----lb/a-----		%	lb/bu	DAP	in	in		%
SS 650	6141	5842	17.1	53.9	60	57	6	2	15
Terral TV93S72	6044	6500 R	14.8	51.5	57	49	8	4	20
Pioneer Brand 83G66	6018	6892 R	17.5	53.6	57	54	7	4.5	20
Asgrow A571	5837	6322 R	16.1	51.9	59	54	8	4.5	15
Pioneer Brand 84G62	5768	7003 R	16.9	55.0	60	49	5	4	10
Garst N3318	5745	-	17.0	53.4	59	56	7	2.5	25
Pioneer Brand 83G15	5681	-	17.1	55.0	60	50	3	4	15
Monsanto X204	5625	-	18.0	54.2	57	49	6	3	10
Terral TV96H81	5616	5955	17.1	52.1	60	53	4	3	25
Terral TVX93S16	5592	-	17.0	53.4	60	51	8	4.5	25
Garst 5382	5584	6210 R	17.4	52.4	62	47	5	1	10
Dekalb DKS 53-11	5545	-	18.9	54.6	61	54	6	3.5	25
Dyna Gro 752B	5510	5898	15.3	51.3	57	49	8	3.5	20
Golden Acres 444E	5504	6248 R	15.3	51.1	56	51	7	4.5	20
Dyna Gro 751B	5471	6150 R	16.5	53.9	58	54	3	3.5	20
Garst 5440	5463	5735	16.5	53.4	59	50	7	4	20
Terral TV9421	5424	6219 R	15.0	52.0	56	51	8	4.5	20
Dekalb DK52	5420	6388 R	16.7	53.0	58	49	5	4	20
Terral TVX96H202	5415	5785	17.2	52.7	62	50	8	4	10
Terral TVX94S34	5406	-	15.8	53.0	58	51	9	5	25
Golden Acres 3694	5390	6125 R	16.7	53.4	59	50	5	4	15
Garst 5515	5380	6037	15.7	52.7	57	51	6	4	20
Terral TVX95S201	5367	5563	15.9	52.9	61	50	7	5	10
Terral TV1050	5330	6168 R	16.0	53.2	58	49	4	3.5	20
Monsanto X234	5327	-	19.3	54.2	58	50	7	2.5	25
Dyna Gro X1753B	5290	-	16.2	51.5	59	52	9	3	15
Triumph TR461	5280	-	15.3	52.9	61	56	5	3	20
Dyna Gro 780B	5268	4796	17.0	54.7	61	56	5	2.5	25
Dyna Gro 762B	5217	6117	16.0	53.0	56	52	5	4	25
Dyna Gro X1763	5190	-	16.0	52.6	57	50	5	3	20
Terral TVX95S25	5189	-	16.6	53.4	58	58	8	4.5	45
Dyna Gro 732B	5189	6149 R	16.3	53.6	55	50	7	4.5	25
SS 800	5156	6124 R	15.0	51.4	58	49	6	3.5	15
Golden Acres X-2027	4909	-	18.3	54.8	58	51	7	4.5	25
Dekalb DKS 54-00	4392	6005	17.3	50.4	62	57	11	4.5	25
Dyna Gro X17F90	4389	-	17.5	53.4	61	55	5	3.5	15
Triumph TR82-G	4381	5257	17.6	53.4	62	58	6	1.5	40
Terral TVX96H23	4184	-	16.8	52.4	64	55	6	2.5	30
Average	5358	-	16.6	53.0	59	52	6	3.5	20
CV, %	10.9	-	5.5	1.8	1.4	4.2	29.6	14.0	45.1
LSD (0.10)	687	-	1.1	1.6	2	4	3	1	10

¹An 'R' next to two-year average indicates a recommendation for 2004.

Table 6. Performance of irrigated grain sorghum hybrids at the Northeast Research Station at St. Joseph, LA, 2003.

Brand/hybrid	Yield		Gr mo	Test wt	Mid- head	Plant ht	Head exer	Head type	Bird
	2003	2-Yr avg ¹							
	-----lb/a-----		%	lb/bu	DAP	in	in		%
Garst N3318	6817	-	15.5	54.4	59	58	7	2	15
Pioneer Brand 83G66	6650	7083 R	18.1	54.1	57	58	8	4	15
SS 650	6648	6772 R	15.1	54.2	58	58	5	1.5	10
Terral TVX95S25	6585	-	15.8	55.3	58	60	9	4	25
Dekalb DK 53-11	6574	-	17.3	55.0	60	54	6	2.5	10
Dyna Gro 780B	6557	6426 R	16.0	55.2	61	57	2	2	10
Dekalb DK52	6543	6617 R	15.4	54.0	58	56	9	4	5
Pioneer Brand 83G15	6468	-	15.8	55.0	60	56	5	4.5	10
Monsanto X204	6465	-	16.5	54.9	58	54	9	3.5	20
Golden Acres 3694	6431	6415 R	14.2	53.2	58	55	7	3	10
Monsanto X234	6427	-	17.3	54.8	59	53	6	3	15
Terral TV1050	6423	6793 R	14.6	53.7	58	56	6	3	15
Asgrow A571	6423	6596 R	14.9	52.5	59	56	9	3.5	15
Terral TV93S72	6396	6703 R	14.8	52.6	58	52	9	3.5	5
Pioneer Brand 84G62	6382	7096 R	15.9	54.9	61	54	5	3.5	5
Dyna Gro 751B	6375	6464 R	15.2	54.2	60	57	5	2	10
Terral TV96H81	6317	6620 R	15.3	54.3	60	57	16	2	10
Dyna Gro X1753B	6232	-	14.1	51.8	58	50	7	2.5	5
Garst 5440	6208	6276	14.9	54.5	59	56	13	3.5	10
Dekalb DKS 54-00	6191	6712 R	18.6	53.9	63	60	9	3.5	10
Triumph TR82-G	6177	6218	16.2	55.2	61	60	6	1.5	15
Terral TVX94S34	6171	-	14.6	53.3	61	51	9	4.5	15
Terral TVX96H23	6092	-	15.2	53.8	64	57	9	3	15
Triumph TR461	6061	-	13.8	53.5	61	60	6	3.5	5
Dyna Gro X1763	6040	-	15.3	53.3	57	54	10	3	10
Terral TV9421	6027	6613 R	13.9	53.0	56	54	9	4	15
SS 800	6025	6317 R	14.1	52.8	58	53	8	3.5	5
Golden Acres 444E	6022	6574 R	14.1	52.9	56	53	8	4	15
Terral TVX96H202	6007	6177	15.4	53.2	61	54	10	4	5
Garst 5382	5995	6260	17.7	54.3	62	51	11	1	5
Terral TVX93S16	5956	-	15.9	53.3	60	57	7	4	20
Golden Acres X-2027	5950	-	16.5	54.4	59	54	9	4	10
Dyna Gro 762B	5946	6280	14.4	53.1	56	59	8	3.5	20
Dyna Gro X17F90	5898	-	17.1	54.1	61	60	7	3	5
Garst 5515	5877	5990	14.8	52.8	56	55	9	4	15
Dyna Gro 752B	5837	6141	13.9	52.3	57	51	7	3	15
Terral TVX95S201	5765	5963	14.5	53.4	62	54	9	4.5	5
Dyna Gro 732B	5461	6035	15.1	54.7	56	51	9	4.5	20
Average	6220	-	15.5	53.8	59	55	8	3	10
CV, %	5.3	-	5.0	0.6	1.3	3.4	38.7	12.4	61.6
LSD (0.10)	388	-	0.9	0.5	2	3	NS	0.5	10

¹An 'R' next to two-year average indicates a recommendation for 2004.

Grain Sorghum Performance at the Macon Ridge Branch of the Northeast Research Station – Winnsboro

Location Summary

Yields ranged from 3279 to 5854 lb/a, with a trial average of 4836 lb/a (Table 7). Rainfall was well distributed in May through July with average maximum temperatures occurring in the lower 90's during grain-fill. Head exertion (distance between base of head and flag leaf) was relatively low, ranging from 0 to 8 inches. Based on two-year averages, there will be ten hybrids recommended at the Macon Ridge Research Station location in 2004.

Soil Type.....Gigger silt loam
 Row spacing.....40 inch
 Seeding Rate.....8 seed/ft
 Fertilization
 Sidedress....80 lb N/acre
 Herbicides
 Pre: Atrazine @ 1 qt./acre and
 Dual Magnum @ 1 pt./acre
 Post: Atrazine @ 1 qt/a and Lorox @
 0.75 lb/a
 Insecticides
 Decis @ 2 oz/a (2 applns.);
 Baythroid @ 4 oz/a
 Previous Crop.....Cotton
 Planting Date.....April 22
 Harvest Date.....August 12

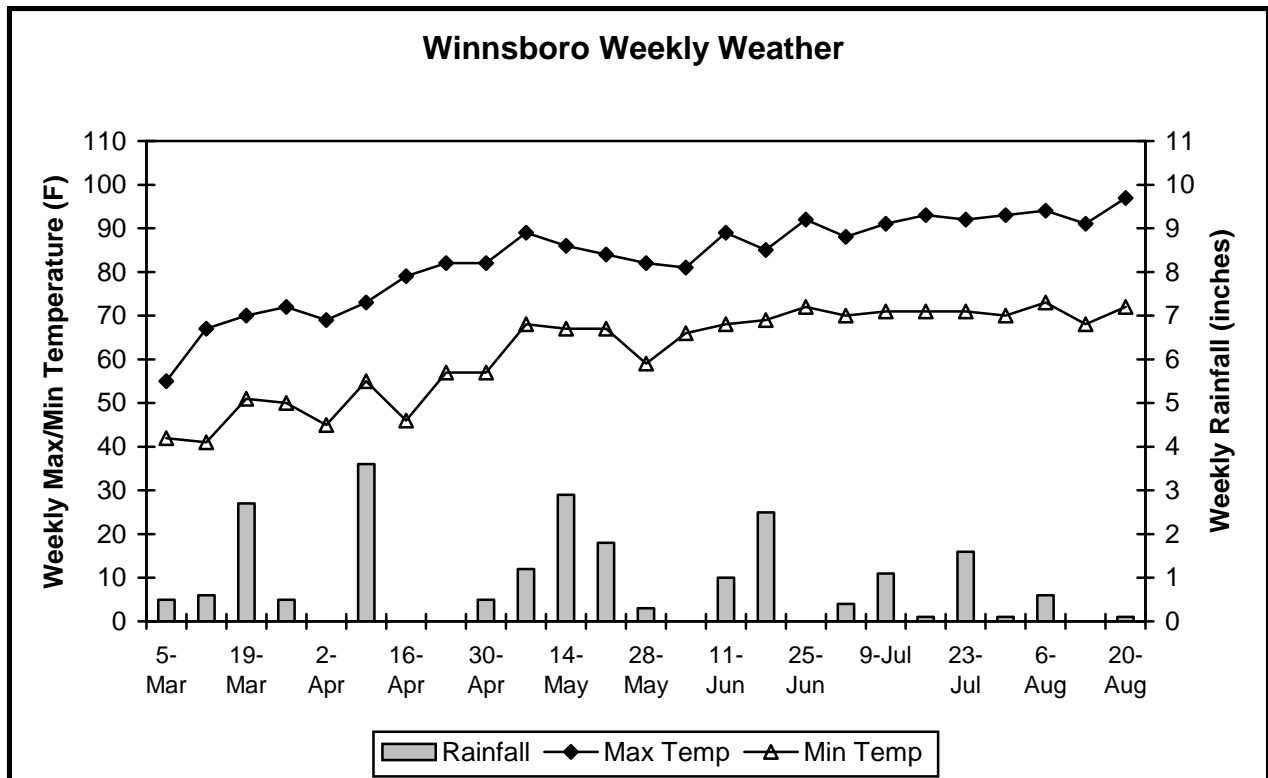


Table 7. Performance of grain sorghum hybrids at the Macon Ridge Research Station at Winnsboro, LA, 2003.

Brand/hybrid	Yield		Gr mo	Test wt	Mid-head	Plant ht	Head exer
	2003	2-Yr avg ¹					
	-----lb/a-----		%	lb/bu	DAP	in	in
Golden Acres X-2027	5854	-	15.1	55.1	61	50	6
Pioneer Brand 83G66	5851	5388 R	15.3	54.5	61	55	5
Dekalb DKS 53-11	5597	-	16.1	55.2	65	51	5
Dyna Gro X1763	5556	-	15.5	53.4	61	50	5
Dekalb DKS 54-00	5554	4894 R	16.4	55.4	67	50	6
Pioneer Brand 83G15	5553	-	14.8	54.7	63	44	3
Pioneer Brand 84G62	5493	5362 R	15.2	54.4	62	46	3
SS 800	5379	4687	15.2	52.5	60	46	4
Garst 5382	5268	5015 R	15.3	55.5	62	47	6
Dyna Gro 780B	5249	5118 R	15.0	55.5	62	56	5
Golden Acres 3694	5184	4735	15.0	53.9	62	51	7
Garst N3318	5123	-	14.9	54.4	61	51	6
Asgrow A571	5057	4722	14.9	51.6	62	48	5
Terral TV1050	5001	4788 R	14.9	53.9	61	50	5
Terral TVX94S34	4992	-	15.8	53.8	62	49	5
Terral TVX93S16	4980	-	15.8	54.8	62	46	3
Dyna Gro 762B	4976	4684	15.1	54.4	59	50	4
Dekalb DK52	4945	4649	16.0	55.2	64	46	5
Terral TV96H81	4929	4787 R	14.8	54.3	61	54	4
Dyna Gro X1753B	4841	-	16.1	53.0	63	44	5
Dyna Gro 751B	4799	4865 R	15.4	54.9	62	50	4
Monsanto X204	4784	-	14.8	55.1	62	48	6
Terral TV9421	4773	3982	14.7	52.2	60	47	8
SS 650	4743	4788 R	14.7	54.4	62	49	4
Golden Acres 444E	4650	4151	15.0	52.3	61	44	5
Dyna Gro 752B	4640	4295	15.0	51.7	61	44	7
Terral TV93S72	4614	4280	14.5	51.9	60	45	8
Terral TVX96H23	4601	-	15.3	54.1	65	52	6
Triumph TR82-G	4560	4790 R	15.0	56.4	64	49	3
Monsanto X234	4437	-	15.0	54.6	63	47	5
Dyna Gro X17F90	4371	-	16.3	54.5	65	52	3
Terral TVX95S25	4252	-	15.0	55.6	60	53	8
Terral TVX95S201	4161	3904	14.9	53.2	62	44	6
Terral TVX96H202	3976	3806	14.6	53.6	65	40	0
Garst 5515	3969	4021	15.1	53.2	62	42	4
Garst 5440	3873	4324	14.7	53.9	61	44	3
Dyna Gro 732B	3654	3879	14.5	54.8	56	45	8
Triumph TR461	3279	-	14.7	54.4	64	44	3
Average	4836	-	15.2	54.1	62	48	5
CV, %	14.5	-	5.2	1.6	2.0	5.2	34.8
LSD (0.10)	830	-	0.9	1.4	2	4	3

¹An 'R' next to two-year average indicates a recommendation for 2004.

Table 8. Summary of yield performance of grain sorghum hybrids entered in the 2003 LAES hybrid performance trials at five locations.

Brand/hybrid	St. Joseph					Winns
	Alex.	Bossier City	Crowley	Non-Irr	Irr	
	-----lb/a-----					
Asgrow A571	7035	5906	4319	5837	6423	5057
Dekalb DK52	5064	5511	2974	5420	6543	4945
Dekalb DKS53-11	6717	6959	4686	5545	6574	5597
Dekalb DKS54-00	3811	5898	2975	4392	6191	5554
Dyna Gro 732B	6537	5604	2319	5189	5461	3654
Dyna Gro 751B	6870	6408	4219	5471	6375	4799
Dyna Gro 752B	6557	6001	3475	5510	5837	4640
Dyna Gro 762B	6953	5773	3284	5217	5946	4976
Dyna Gro 780B	6099	6099	3462	5268	6557	5249
Dyna Gro X17F90	4697	6508	3087	4389	5898	4371
Dyna Gro X1753B	6283	5803	3528	5290	6232	4841
Dyna Gro X1763	6422	5631	3097	5199	6040	5556
Garst 5382	5422	5827	3542	5584	5995	5268
Garst 5440	6879	5497	3727	5463	6208	3873
Garst 5515	6903	6149	4002	5380	5877	3969
Garst N3318	6719	6732	4147	5745	6817	5123
Golden Acres 444E	6585	5905	3523	5504	6022	4650
Golden Acres 3694	6911	6078	3584	5390	6431	5184
Golden Acres X-2027	6670	6088	4200	4909	5950	5854
Monsanto X204	6327	6167	4211	5625	6465	4784
Monsanto X234	7268	5614	4129	5327	6427	4437
Pioneer Brand 83G15	6417	6694	3862	5681	6468	5553
Pioneer Brand 83G66	6947	6356	3900	6018	6650	5851
Pioneer Brand 84G62	6870	6529	5208	5768	6382	5493
SS 650	6977	5983	4209	6141	6648	4743
SS 800	6432	6608	2819	5156	6025	5379
Terral TV1050	6326	6411	3760	5330	6423	5001
Terral TVX93S16	6609	5636	2399	5592	5956	4980
Terral TV93S72	6493	6318	3670	6044	6396	4614
Terral TV9421	7051	6390	3342	5424	6027	4773
Terral TVX94S34	6520	6031	3583	5406	6171	4992
Terral TVX95S25	6809	6242	2557	5189	6585	4252
Terral TVX95S201	6223	5718	4324	5367	5765	4161
Terral TVX96H23	5709	5774	3566	4184	6092	4601
Terral TV96H81	6883	6454	3988	5616	6317	4929
Terral TVX96H202	5864	5835	4295	5415	6007	3976
Triumph TR82-G	6529	6459	3465	4381	6177	4560
Triumph TR461	5840	5798	3755	5280	6061	3279
Average	6381	6089	3663	5358	6220	4836

Table 9. List of participating seed companies and hybrids tested in the LAES 2003 grain sorghum hybrid trials.

Company	Brand/hybrids
Garst/Agripro Seed Company 761 Walnut Knoll Lane, Suite 200 Cordova, TN 38018	Garst: 5382, 5440, 5515, N3318
Golden Acres Genetics P.O. Box 579 Buchanan Dam, TX 78609	Golden Acres: 444E, 3694, X-2027
Monsanto Company 982 U.S. Hwy. 77 Bishop, TX 78343	Asgrow: A571 Dekalb: DK52, DK53, DKS54-00 Monsanto: X204, X234
Pioneer, A Dupont Co. 6767 Old Madison Pike, Suite 110 Huntsville, AL 35806	Pioneer Brand: 83G15, 83G66, 84G62
Southern States Cooperative 6606 W. Broa St. P.O. Box 26234 Richmond, VA 23260	Southern States: SS650, SS800
Terral Seed, Inc. 604 Blount St. Lake Providence, LA 71254	Terral: TV1050, TV93S72, TV9421, TV96H81, TVX96H202, TVX95S201, TVX95S25, TVX96H23, TVX93S16, TVX94S34
Triumph Seed Co., Inc. Hwy. 62 Bypass P.O. Box 1050 Ralls, TX 79357	Triumph: TR82-G, TR461
UAP Mid-South 57 Germantown Court, Suite 200 Cordova, TN 38018	DynaGrow: 732B, 751B, 752B, 762B, 780B X1753B, X17F90, X1763