

Performance of Grain Sorghum Hybrids in Louisiana, 2005

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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 2005 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. Trial at the Red River Research Station in Bossier City was dropped because of glyphosate drift resulting in large variability among treatments.

Procedures

In 2005, 42 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. Trials were not irrigated, except at St. Joseph, where both irrigated and non-irrigated trials were conducted. Seed were treated with Concept (except PSC GS104 and PSC GS105) and Gaucho and recommended LSU AgCenter 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, an LSD at the 10% probability level was calculated. For example, 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

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of replications for each hybrid or treatment. 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 among 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, 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 top 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, soil type, cultural practices and weather information are listed prior to data tables for each location. Yield summary across Louisiana for 2005 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. Jason Bond, Rice Research Station, Crowley, Ph: 337-788-7531, Fax: 337-788-7553, e-mail: jbond@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; Mr. Jose Liscano, Red River Research Station, Bossier City; Ph: 318-741-7430, Fax 318-741-7433, e-mail: jliscano@agcenter.lsu.edu).

Grain Sorghum Performance at the Dean Lee Research Station – Alexandria

Location Summary

Rainfall was low in May and June; however, rainfall was about normal and well dispersed in July, a critical month for grain fill. Yields were excellent, ranging from 3688 to 6462 lb/acre, with a trial average of 5765 lb/acre (Table 2). There were 16 hybrids that had yields greater than 6000 lb/acre. Test weights were also excellent in this trial, ranging from 53.8 to 60.3 lb/bu, with a trial average of 57.7 lb/bu.

Soil Type.....Lanier silty clay loam
 Row Spacing.....38 inch
 Seeding Rate.....8 seed/ft
 Fertilization.....50 lb N/a
 Herbicides.....
 Early-post:Cornerstone @ 32 oz/acre
 plus Buctril @ 8 oz/acre
 Lay-by: Atrazine @ 24 oz/acre
 Insecticides.....
 Karate @ 2 oz/a (2 applns)
 Mustang Max @ 2 oz/a
 Previous Crop.....cotton
 Planting Date.....April 20
 Harvest Date.....August 15

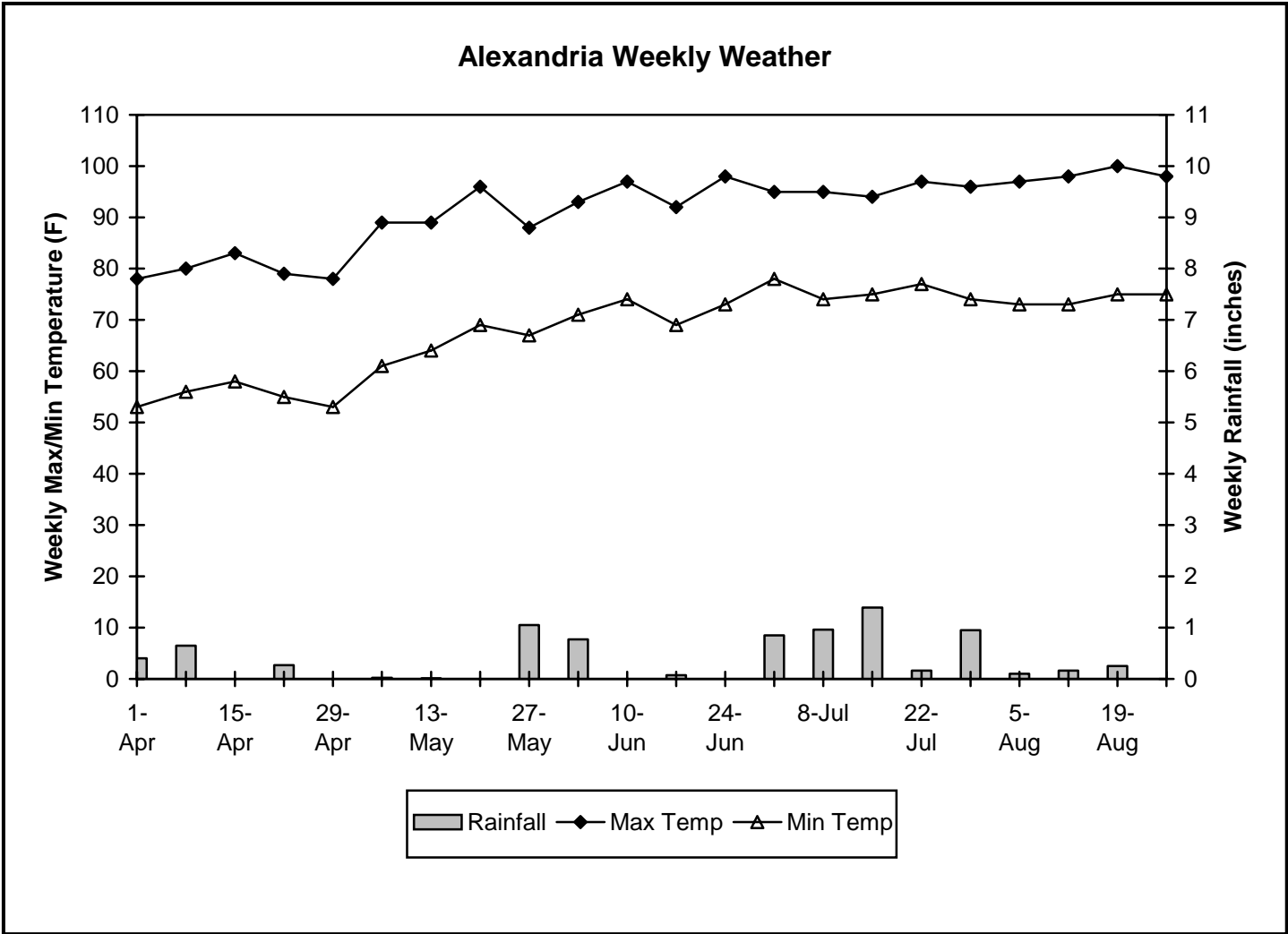


Table 2. Performance of grain sorghum hybrids at Dean Lee Research Station at Alexandria, La., 2005.

Brand/Hybrid	Yield		Gr mo	Test wt	Mid-head	Plant ht	Head type
	2005	2-Yr avg ¹					
	-----lb/a-----		%	lb/bu	DAP	in	
Golden Acres 3827	6462	-	15.5	58.0	68	32	5
Pioneer 84G62	6421	6646	15.5	59.8	69	35	5
Asgrow A567	6388	-	15.8	60.3	68	36	3
Dekalb DKS54-00	6309	5060	17.4	57.7	72	39	4
Garst 5440	6298	6589	14.1	59.4	68	38	3
Pioneer 83G66	6266	6607	16.5	57.0	68	38	3
Terral TVX94A427	6264	-	14.2	56.9	68	42	1
Terral TV9421	6191	6621	14.3	57.1	68	34	5
NC+ 7R83	6189	-	13.9	56.5	68	39	3
Terral TVX95B303	6170	-	14.8	58.0	69	41	5
Garst 5401	6102	-	14.9	58.5	68	43	3
Dekalb DKS53-11	6084	6401	16.2	59.5	69	39	3
Terral TV1050	6048	6187	14.3	57.6	68	37	3
Dyna-Gro DGX1784	6037	-	14.8	59.5	75	38	3
Monsanto MSC531	6029	-	15.0	56.9	70	35	5
Terral TVX94A415	6026	-	15.3	58.4	68	42	3
Dyna-Gro DG751B	5961	6416	14.7	58.6	69	38	1
Golden Acres 3552	5956	-	15.1	57.6	68	34	3
Terral TV96H81	5932	6408	14.8	59.3	68	39	2
Golden Acres 444E	5891	6238	14.3	58.1	68	34	5
Dyna-Gro DGX1743	5879	-	13.2	53.1	69	30	3
Terral TV97H17	5871	-	15.7	58.8	70	43	3
Monsanto MSC332	5867	-	16.3	57.5	68	36	3
Dyna-Gro DG762B	5852	6403	13.9	58.2	65	39	3
Terral TVX95B324	5850	-	14.2	59.0	68	35	4
Dyna-Gro DGX1755	5829	-	15.7	56.6	68	36	3
Terral TVX95B323	5718	-	15.6	59.8	70	38	2
Monsanto MTC15525	5682	-	17.2	59.7	72	33	3
Dyna-Gro DGX1785	5629	-	15.6	59.1	69	35	3
Asgrow A571	5628	6332	14.5	55.7	69	35	2
Dyna-Gro DGX1742	5594	-	14.1	56.3	65	36	4
Dyna-Gro DG780B	5578	5839	15.7	58.9	75	40	2
Garst 5515	5576	6240	14.0	58.2	66	35	5
PSC Exp-408	5547	-	18.0	53.8	69	47	3
Terral TV93S72	5507	6000	14.6	58.8	68	31	3
Dyna-Gro DGX1759	5476	-	16.9	57.0	68	39	4
Dyna-Gro DGX1758	5406	-	15.9	58.4	67	39	3
PSC Exp-401	5090	-	15.9	57.1	72	44	5
Dyna-Gro DGX1756	4952	-	14.0	57.7	68	33	5
Terral TVX96A317	4803	-	18.7	54.1	77	42	4
PSC GS104	4122	-	17.5	54.1	77	46	5

PSC GS105	3688	-	17.0	56.0	77	42	3
Average	5765		15.4	57.7	69	38	3
CV, %	10.9		5.2	2.7	1.6	6.6	19.2
LSD (400.10)	741		0.9	1.8	2	4	1

¹Two-year yield average calculated from 2003 and 2005 data (2004 data not available).

Grain Sorghum Performance at the Central Research Station - Baton Rouge

Location Summary

The growing season was excellent with well distributed rainfall in late May, June and July (see below). Maximum temperatures across the growing season were in the low 90's. Yields ranged from 4942 to 7166 lb/acre, with a trial average of 6235 lb/acre (Table 3). One hybrid had yields higher than 7000 lb/acre and 30 hybrids had yields higher than 6000 lb/acre. Test weight and head exertion were also good, with trial averages of 57.1 lb/bu and 5 inches for test weight and head exertion, respectively.

Soil Type.....	Commerce silty clay loam
Row Spacing.....	30 inches
Seeding Rate.....	5 seed/ft
Fertilization.....	70-17-17
Herbicides.....	Pre: 1.5 qt Atrazine/a
Insecticides.....	None
Previous Crop.....	Grain Sorghum
Planting Date.....	May 3
Harvest Date.....	August 25

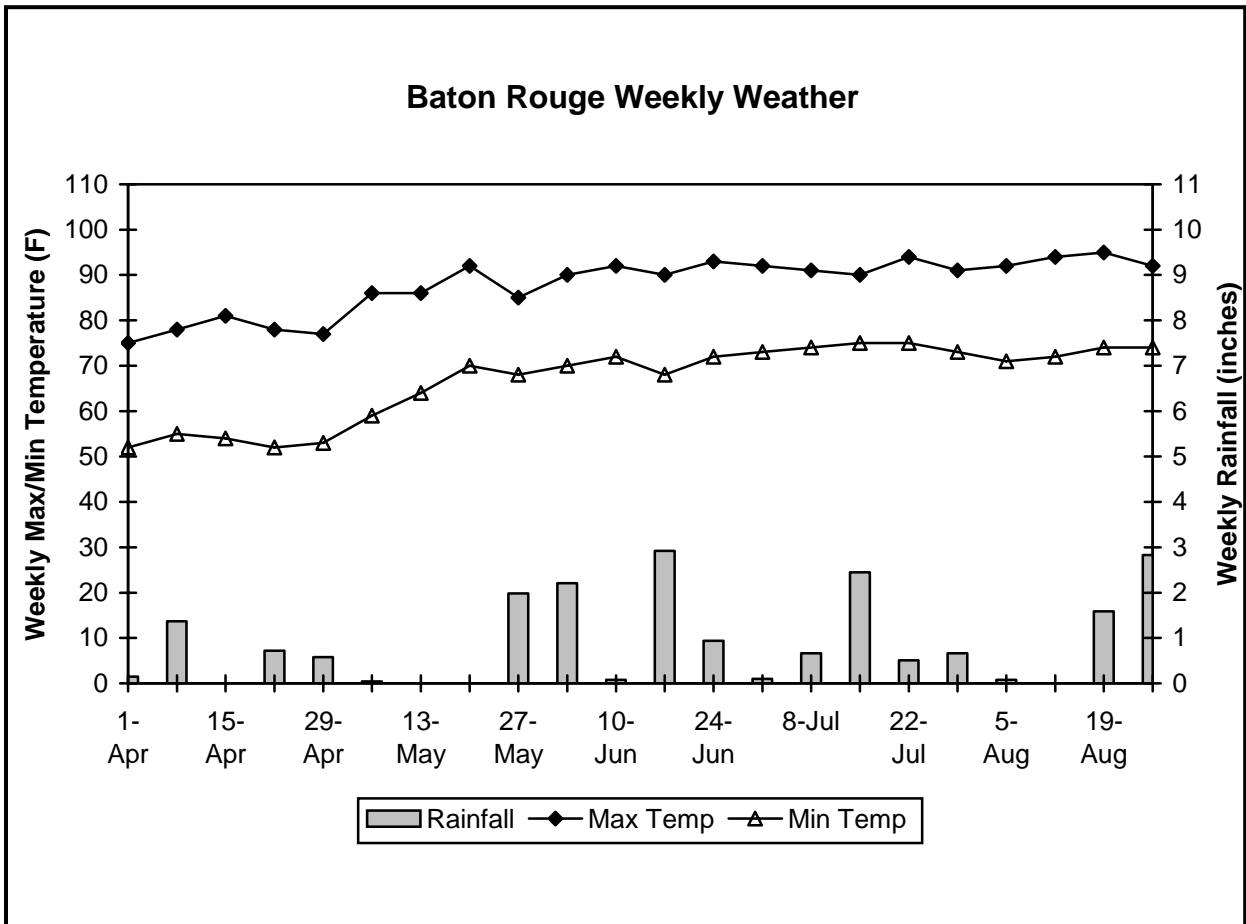


Table 3. Performance of grain sorghum hybrids at the Central Research Station at Baton Rouge, La., 2005.

Brand/hybrid	Yield		Test wt	Plant ht	Head exer	Head type
	2005	2-Yr avg				
	-----lb/a-----		lb/bu	in	in	
Terral TVX94A427	7166	-	55.6	62	8	1.0
Terral TVX94A415	6951	-	57.9	57	5	1.0
Pioneer 83G66	6948	6398	56.5	60	6	3.0
Dyna-Gro DGX1759	6848	-	58.2	58	1	3.0
Pioneer 84G62	6739	6134	58.6	56	4	4.0
Asgrow A567	6724	6013	58.5	57	6	2.0
Monsanto MSC531	6704	-	56.6	55	6	4.0
Dyna-Gro DG751B	6597	5973	58.3	60	3	1.0
Terral TV9421	6596	5938	56.1	55	6	4.0
Terral TV96H81	6551	5909	58.3	59	3	1.0
Terral TV97H17	6499	5728	58.9	64	4	1.0
Golden Acres 3827	6481	5028	58.4	59	6	4.5
Terral TVX95B303	6469	6117	58.7	57	4	4.0
Golden Acres 444E	6459	5575	55.6	55	6	4.0
Golden Acres 3552	6446	-	56.3	55	4	2.5
Monsanto MSC332	6406	-	56.7	63	8	1.0
PSC Exp-408	6379	-	56.0	68	9	4.0
Dyna-Gro DG780B	6373	5662	59.8	60	6	1.0
Dyna-Gro DGX1755	6360	5924	56.8	56	7	2.5
Dyna-Gro DG762B	6312	6210	56.0	59	7	3.5
Garst 5515	6298	6290	56.0	54	6	3.0
NC+ 7R83	6297	6078	54.5	57	5	2.0
Garst 5401	6287	-	57.4	60	5	3.5
Asgrow A571	6264	5851	54.7	57	6	2.0
Terral TV93S72	6203	5271	54.0	55	9	2.0
Dekalb DKS53-11	6136	5807	57.4	57	3	1.0
Monsanto MTC15525	6112	-	58.9	54	7	1.0
Dyna-Gro DGX1785	6089	-	58.7	54	4	1.5
Dyna-Gro DGX1756	6086	-	56.0	54	4	3.5
Dyna-Gro DGX1743	6059	-	52.7	56	7	2.0
Dyna-Gro DGX1758	6055	-	57.3	60	7	2.5
Terral TV1050	5994	5983	56.4	57	3	1.5
Garst 5440	5992	4983	58.4	58	7	2.5
Dyna-Gro DGX1742	5948	-	54.3	54	2	1.5
Dyna-Gro DGX1784	5889	-	57.6	57	4	1.5
Dekalb DKS54-00	5852	5494	56.5	61	5	2.5
Terral TVX95B324	5794	-	56.9	56	3	2.5
PSC Exp-401	5790	-	56.9	68	7	3.5
Terral TVX95B323	5587	-	59.8	57	5	1.0
Terral TVX96A317	5271	-	57.5	62	4	1.5
PSC GS104	5181	-	58.9	61	7	4.5

PSC GS105	4942	-	59.5	62	5	2.5
Average	6235		57.1	58	5	2.5
CV, %	7.0		1.6	4.1	27.9	21.8
LSD (0.10)	509		1.0	4	2	1.0

Grain Sorghum Performance at the Rice Research Station- Crowley

Location Summary

Although rainfall was near normal, temperatures were relatively high, with maximum temperatures during a two-week period in mid-June hovering around 100 F (see below). Yields ranged from 3329 to 5048 lb/acre, with a trial average of 4317 lb/acre (Table 4). Bird damage ratings ranged from 5% to 25%, with a trial average of 10% bird damage. Seed for two hybrids, PSC GS104 and PSC GS105, were not saftened and data was lost as a result of poor stands caused by Dual damage.

Soil Type.....Crowley silt loam
 Row Spacing.....30 inches
 Seeding Rate.....5 seed/ft
 Fertilization.....
 Preplant0-60-60
 Topdress (May 11).....25-0-0
 (June 2).....65-0-0
 Herbicides.....
 Pre: Bicep II Magnum @1.3 qts/a
 Insecticides.....Karate Z@ 2 oz/a
 Previous Crop.....Fallow
 Planting Date.....April 27
 Harvest Date.....August 19

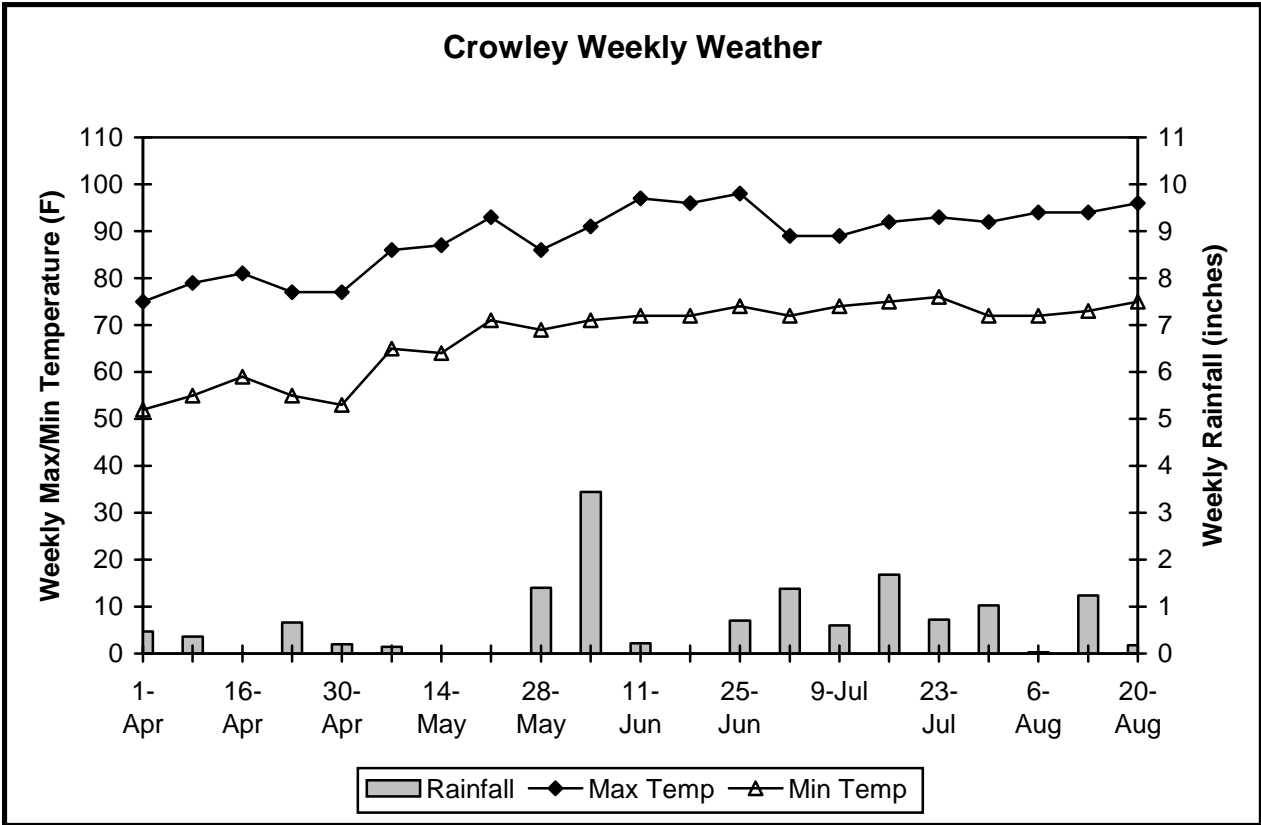


Table 4. Performance of grain sorghum hybrids at the Rice Research Station at Crowley, La., 2005.

Brand/hybrid	Yield		Gr mo	Test wt	Mid- head	Plant ht	Head exer	Head type	Bird
	2005 ¹	2-Yr avg							
	-----lb/a-----	%							
Asgrow A567	5048	5543	14.9	57.2	63	48	5	3	5
Dekalb DKS53-11	4975	4845	14.8	56.8	64	49	1	3	5
Terral TV1050	4936	5519	13.8	56.3	62	47	3	2	10
NC+ 7R83	4926	5412	14.3	55.4	60	46	3	3	10
Golden Acres 3827	4889	4975	14.1	57.9	63	50	6	3	5
Dekalb DKS54-00	4817	5033	14.7	57.4	66	53	7	3	5
Terral TVX96A317	4797	-	15.7	56.7	73	56	3	3	5
PSC Exp-408	4787	-	15.3	56.7	63	57	6	3	20
Terral TVX94A427	4757	-	14.0	55.7	61	53	5	2	10
Dyna-Gro DG762B	4748	4810	14.0	55.3	59	49	5	3	25
Asgrow A571	4678	5359	14.7	55.0	60	49	5	2	15
Dyna-Gro DGX1755	4623	4767	14.2	56.2	61	48	3	3	10
Monsanto MTC15525	4589	-	14.9	59.4	65	46	4	3	5
PSC Exp-401	4520	-	15.9	58.3	64	55	4	3	5
Terral TV97H17	4489	5038	14.8	58.5	65	54	3	2	5
Garst 5401	4487	-	14.2	57.8	60	52	6	3	15
Terral TV9421	4472	4872	13.9	55.3	60	43	5	3	25
Monsanto MSC531	4460	-	14.6	56.6	64	45	5	3	10
Terral TVX95B303	4444	4920	15.1	58.3	64	50	6	3	5
Terral TV96H81	4395	5100	14.3	57.8	60	51	2	2	18
Pioneer 84G62	4383	4888	15.1	57.2	63	48	2	3	15
Golden Acres 444E	4353	4980	14.0	55.1	61	46	4	3	25
Dyna-Gro DGX1784	4247	-	14.8	59.1	67	48	3	3	5
Monsanto MSC332	4230	-	16.6	56.4	65	50	6	2	5
Golden Acres 3552	4193	-	14.8	56.8	61	47	4	3	10
Terral TV93S72	4182	4059	14.3	56.9	60	45	5	3	15
Pioneer 83G66	4087	5347	14.9	56.6	63	47	1	3	5
Terral TVX95B324	4050	-	14.2	56.8	63	47	2	3	10
Dyna-Gro DGX1758	4016	-	14.7	56.9	61	48	6	3	20
Dyna-Gro DGX1742	3985	-	14.4	56.1	60	45	3	2	10
Dyna-Gro DGX1756	3979	-	14.1	55.5	61	44	4	4	20
Dyna-Gro DGX1759	3928	-	15.4	54.6	60	51	2	3	15
Garst 5515	3905	4452	14.1	56.6	60	43	4	3	15
Terral TVX94A415	3797	-	14.4	56.3	61	47	3	2	15
Dyna-Gro DG780B	3727	4804	14.6	57.9	64	50	3	2	5
Garst 5440	3682	4584	14.5	56.7	61	45	4	2	15
Dyna-Gro DGX1785	3670	-	14.3	56.7	62	46	3	3	10
Dyna-Gro DG751B	3600	4786	14.9	56.9	63	47	3	2	5
Dyna-Gro DGX1743	3508	-	14.8	54.4	64	43	2	2	25
Terral TVX95B323	3329	-	14.3	57.7	64	48	3	2	10
Average	4317		14.6	56.7	62	48	4	3	10

CV,%	13.1	3.2	0.9	2.3	5.4	45.5	14.0	48.4
LSD (0.10)	664	0.5	0.6	2	3	2	1	5

¹Lost plots for hybrids PSC GS104 and PSC GS105 because of poor stands.

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

Location Summary

Yields ranged from 2334 to 7050 lb/acre in non-irrigated trial (Table 5) and 2835 to 7449 lb/acre in irrigated trial (Table 6). Yield averages were 5679 lb/acre in non-irrigated and 6278 lb/acre in irrigated trials. There was less than an inch of rain in June (see below). Maximum temperatures were relatively mild throughout the growing season. There were six furrow irrigations, beginning June 13 and terminating July 8. In both trials, some hybrids began turning purple soon after an aerial application of a pyrethroid for midge control. We suspect an organo-phosphate residue was left in the spray tank, which resulted in the plants purpling. Ratings of 0 to 5 were taken, with 0 indicating no purple symptoms and 5 indicating severe purple symptoms. Yields generally decreased as ratings increased and symptoms became more severe.

Soil Type.....Sharkey clay
 Row Spacing.....40 inches
 Seeding Rate.....8 seed/ft
 Fertilization.....
 Sidedress..... 120 lb N/a
 Herbicides.....
 Pre: Atrazine @ 1 qt/a + 1% Crop Oil
 Lay-by: Atrazine @ 1 qt/a + Lorox @ 1 qt/a + Dual @ 1 qt/a + Crop Oil @ 1 pt/a
 Insecticides.....
 Karate EC @ 3.6 oz/a (four applns.)
 Previous Crop.....Soybean
 Planting Date.....May 2
 Harvest Date.....August 15

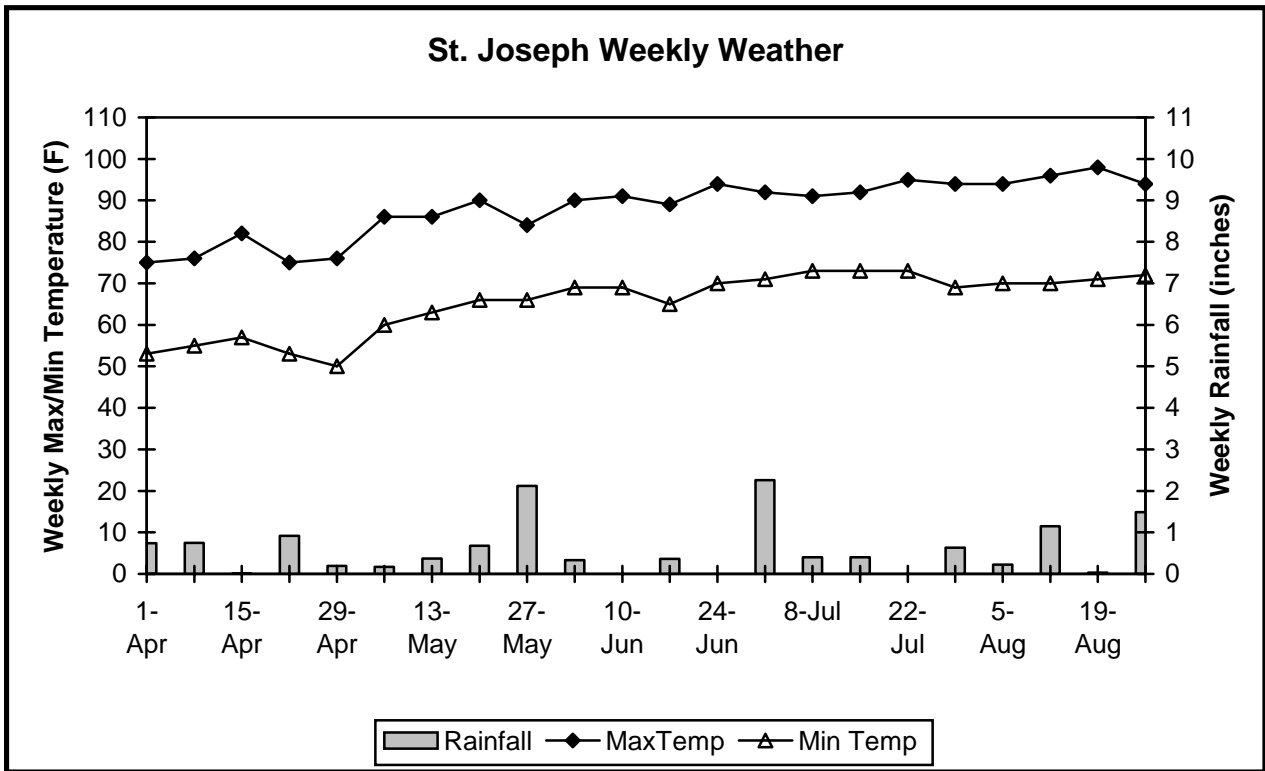


Table 5. Performance of non-irrigated grain sorghum hybrids at the Northeast Research Station at St. Joseph, 2005.

Brand/hybrid	Yield		Gr mo %	Test wt lb/bu	Mid- head DAP	Plant ht in	Head exer in	Purpling ¹
	2005	2-Yr avg						
	-----lb/a-----							
Dekalb DKS54-00	7050	5535	16.9	58.5	59	53	6	0
Deklab DKS53-11	6981	5367	17.0	59.1	57	52	4	0
Monsanto MSC531	6933	-	15.7	59.1	58	50	6	0
Asgrow A567	6807	5577	17.0	59.6	57	54	5	0
Asgrow A571	6788	5618	15.0	58.5	57	54	7	0.5
Golden Acres 3827	6701	5593	14.2	60.2	55	53	6	0
Terral TVX96A317	6678	-	17.2	59.6	58	60	4	1.5
NC+ 7R83	6637	5685	15.3	58.1	57	52	5	0
Pioneer 84G62	6605	5561	14.0	60.1	57	49	3	0
Dyna-Gro DGX1759	6528	-	15.2	59.8	57	54	4	0.5
Golden Acres 444E	6528	5341	14.1	58.9	56	53	4	0
Dyna-Gro DGX1756	6353	-	14.1	58.5	56	49	6	0
Terral TV9421	6344	5592	14.7	58.2	56	51	7	0
Monsanto MTC15525	6291	-	17.4	59.4	59	49	6	0
Terral TV93S72	6251	5255	13.4	58.8	56	52	8	0.5
Terral TVX95B303	6213	5253	13.7	60.8	56	54	5	0
Golden Acres 3552	6181	-	15.1	59.3	55	52	6	0
Terral TV1050	6078	5292	14.8	59.1	58	52	3	0
Garst 5515	6042	5214	13.3	59.5	54	50	5	0
Dyna-Gro DGX1785	6034	-	15.7	59.2	58	51	5	0.5
Dyna-Gro DGX1755	6000	5157	15.3	59.1	56	49	5	0.5
Monsanto MSC332	5906	-	15.6	59.2	57	55	6	0
Dyna-Gro DGX1758	5730	-	15.6	59.7	55	54	6	0
Dyna-Gro DGX1743	5644	-	14.9	57.9	57	48	3	0
Terral TVX94A415	5601	-	13.7	59.3	57	54	5	1.5
Terral TVX94A427	5550	-	14.6	57.7	57	54	6	1.0
PSC Exp-401	5470	-	14.0	59.4	59	62	6	1.0
Dyna-Gro DG762B	5450	4550	13.3	59.1	54	53	6	0.5
Pioneer 83G66	5355	5145	15.3	58.4	57	52	4	2.0
Dyna-Gro DGX1742	5295	-	13.9	59.3	55	49	3	0.5
Garst 5401	5237	-	15.5	59.2	56	54	6	3.0
Terral TVX95B324	5214	-	14.1	59.3	57	49	5	0.5
PSC Exp-408	5157	-	15.0	58.5	59	58	7	0.5
Terral TV96H81	4927	4857	13.3	57.9	57	54	5	3.0
Terral TV97H17	4874	4566	14.9	59.1	60	56	4	2.0
Dyna-Gro DG751B	4625	4396	13.7	58.2	58	52	3	3.0
Dyna-Gro DGX1784	4553	-	13.6	57.9	61	53	4	3.0
Garst 5440	4362	4506	13.3	58.5	56	51	3	3.5
Terral TVX95B323	4190	-	16.2	58.6	59	51	3	3.5
Dyna-Gro DG780B	3940	4297	14.6	58.6	58	53	2	3.5
PSC GS105	3072	-	20.2	56.8	65	58	8	3.0

PSC GS104	2334	-	20.7	56.6	65	58	8	3.0
Average	5679		15.1	58.8	57	53	5	1.0
CV, %	7.8		2.9	0.7	1.6	2.2	28.0	41.3
LSD (0.10)	519		0.5	0.7	1	2	2	0.5

¹Purple leaf symptoms appeared on some plots shortly after an aerial pyrethroid application for midge. Pesticide contamination is suspected. Ratings were taken 0-5, with 0 indicating no symptoms and 5 very severe symptoms.

Table 6. Performance of irrigated grain sorghum hybrids at the Northeast Research Station at St. Joseph, 2005.

Brand/hybrid	Yield		Gr mo %	Test wt lb/bu	Mid- head DAP	Plant ht in	Head exer in	Head type	Purpling ¹
	2005 -----lb/a-----	2-Yr avg							
Dekalb DKS54-00	7449	5054	16.3	58.4	58	58	7	3.5	0
Monsanto MSC531	7362	-	15.9	57.7	58	57	8	3.5	0
Dekalb DKS53-11	7200	4933	16.8	59.0	58	57	5	3.0	0
Asgrow A571	7198	5685	14.7	57.8	56	57	9	3.0	0.5
Terral TVX95B303	7144	5622	14.6	59.8	56	58	7	3.5	0
Golden Acres 3827	7136	5562	14.4	59.4	56	60	8	3.5	0
Terral TVX96A317	7127	-	17.4	58.6	59	64	6	3.0	1.5
Asgrow A567	7070	5593	16.9	58.9	57	55	5	3.5	0.5
Monsanto MSC332	7017	-	16.5	58.1	57	59	7	2.5	0
Terral TV1050	6992	5618	14.7	58.2	58	56	3	3.0	0.5
Golden Acres 444E	6948	5457	14.3	57.9	55	56	8	3.5	0
Pioneer 84G62	6943	5536	15.5	59.6	57	54	3	3.5	0
Monsanto MTC15525	6884	-	16.9	59.9	59	55	8	2.5	0
NC+ 7R83	6816	5568	15.0	57.3	57	58	6	2.5	0.5
Terral TVX94A427	6784	-	14.5	56.9	56	58	7	2.0	1.5
Dyna-Gro DGX1759	6724	-	17.1	58.5	57	58	5	4.0	0
PSC Exp-408	6633	-	15.6	56.9	57	65	8	3.0	1.0
Terral TV9421	6616	5223	13.9	57.9	56	55	5	3.5	0
Terral TV93S72	6574	5221	14.3	58.0	56	53	9	3.5	0.5
Dyna-Gro DGX1755	6535	5212	15.6	58.4	57	55	7	3.5	0.5
Dyna-Gro DG762B	6511	5028	13.6	58.5	54	57	5	3.0	0.5
Dyna-Gro DGX1756	6446	-	15.7	56.6	56	54	7	4.0	0
Golden Acres 3552	6439	-	15.6	57.7	55	55	5	3.5	0
Dyna-Gro DGX1785	6398	-	15.8	59.1	58	54	5	2.5	0
Terral TVX94A415	6326	-	14.4	58.1	57	61	6	2.0	1.0
Terral TVX95B324	6230	-	14.0	59.0	57	54	5	3.0	1.0
Garst 5401	6182	-	15.5	59.2	57	60	9	3.0	2.5
Terral TV97H17	6119	4602	16.0	59.2	59	67	8	2.5	1.5
Garst 5515	6108	5122	14.0	57.6	55	53	5	3.5	0.5
Dyna-Gro DGX1743	6092	-	14.9	56.9	58	51	3	3.0	0
Dyna-Gro DGX1758	6086	-	16.0	58.1	56	58	7	3.5	0

Pioneer 83G66	6071	-	16.8	57.2	57	57	5	3.5	1.5
PSC Exp-401	5948	-	16.0	57.9	61	66	6	3.5	1.0
Terral TV96H81	5798	4971	13.7	57.2	56	56	3	2.0	2.5
Dyna-Gro DGX1742	5683	-	14.1	57.6	55	56	7	3.0	0
Dyna-Gro DG751B	5579	4887	14.9	57.9	58	58	3	1.5	2.5
Dyna-Gro DGX1784	5241	-	14.8	58.0	60	56	5	3.0	2.0
Terral TVX95B323	5203	-	17.7	57.8	59	55	4	2.0	2.5
Garst 5440	5163	4761	13.8	58.1	56	56	6	3.0	2.5
Dyna-Gro DG780B	4735	5091	15.9	58.3	59	61	4	1.0	2.5
PSC GS105	3356	-	17.4	56.6	64	64	8	3.5	2.5
PSC GS104	2835	-	17.1	56.2	66	59	7	4.0	3.0
Average	6278		15.4	58.1	57	57	6	3.0	1.0
CV, %	6.0		5.1	0.7	1.7	3.7	26.9	11.0	38.5
LSD (0.10)	444		0.9	0.7	1	4	3	0.5	0.5

¹Purple leaf symptoms appeared on some plots shortly after an aerial pyrethroid application for midge. Pesticide contamination is suspected. Ratings were taken 0-5, with 0 indicating no symptoms and 5 very severe symptoms.

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

Location Summary

Rainfall was low for May, June and July, except for a 4-inch rain in early June (see below). Yields were low, ranging from 626 to 3983 lb/acre, with a trial average of 2806 lb/acre (Table 7). The relatively dry conditions, particularly in mid-June to early July, resulted in plants showing severe drought-stress symptoms. Test weights were high and head exertion was very poor. Lodging ranged from 0 to 60%, with a trial average of 15%. This trial was harvested after Hurricane Katrina, so the lodging was primarily caused by storm damage and not charcoal rot. Even though there was some noticeable lodging caused by charcoal rot before the storm, it was impossible after the storm to delineate what caused the lodging. The combine was able to gather a large portion of the lodged heads.

Soil Type.....Gigger silt loam
 Row Spacing.....40 inches
 Seeding Rate.....8 seed/ft
 Fertilization
 Sidedress.....80 lb N/acre
 Herbicides.....
 Pre: Atrazine @ 1 qt/a + Dual @ 1 pt/a
 Insecticides.....
 Warrior @ 2 oz/a (two applns); Steward @ 6.4 oz/a + Battery @ 2oz/a; Decis @ 2 oz/a; Battery @ 2 oz/a; Baythroid@ 2 oz/a (three applns)
 Previous Crop.....Cotton
 Planting Date.....April 27
 Harvest Date.....August 31

Winnsboro Weekly Weather

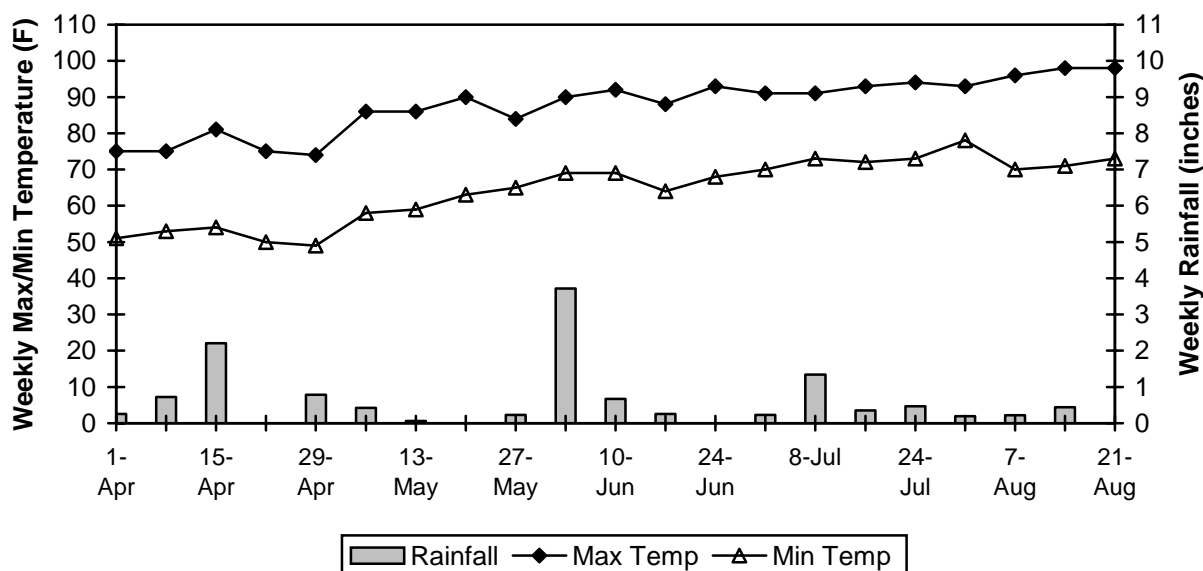


Table 7. Performance of grain sorghum hybrids at the Macon Ridge Research Station at Winnsboro, La., 2005.

Brand/hybrid	Yield		Gr mo	Test wt	Mid- head	Plant ht	Head exer	Head type	Lo
	2005	2-Yr avg							
	-----lb/a-----		%	lb/bu	DAP	in	in		%
Golden Acres 3827	3983	4194	16.4	58.3	66	45	5	4.5	10
Monsanto MTC15525	3974	-	13.9	61.0	68	42	3	3.0	5
Monsanto MSC332	3916	-	14.2	59.3	68	42	3	3.0	0
Terral TVX95B303	3892	4194	14.0	59.4	66	44	3	4.5	10
Monsanto MSC531	3884	-	12.6	55.3	69	38	2	3.5	15
Golden Acres 3552	3495	-	13.4	59.1	65	42	2	3.5	10
Terral TVX95B324	3355	-	13.7	58.8	67	40	1	4.0	5
Terral TVX94A427	3302	-	13.6	57.8	66	43	2	3.5	10
Dyna-Gro DGX1743	3301	-	12.9	58.3	68	37	1	3.5	5
Dyna-Gro DGX1785	3233	-	13.5	60.3	67	40	1	3.0	20
Asgrow A571	3177	4087	13.3	57.8	69	39	2	3.0	5
Dekalb DKS53-11	3152	3891	14.8	59.2	69	43	2	3.5	10
Pioneer 84G62	3087	3876	12.9	57.5	66	42	1	4.0	20
Pioneer 83G66	3083	4409	14.1	58.2	67	42	1	3.5	25
Terral TVX95B323	3060	-	13.8	60.6	69	43	3	3.0	15
NC+ 7R83	3026	3986	12.6	56.5	69	39	1	2.5	0
Dyna-Gro DGX1756	3024	-	12.9	58.1	65	37	2	3.5	5
Dyna-Gro DGX1759	2982	-	14.3	59.1	66	43	2	3.5	10
Dyna-Gro DGX1742	2910	-	13.2	58.3	66	38	2	4.0	20
Terral TV9421	2868	3462	14.3	56.7	65	42	2	4.0	5
Dyna-Gro DG751B	2837	3579	14.2	60.0	67	41	1	3.0	20
Garst 5401	2797	-	13.6	59.5	65	42	3	3.5	35
Golden Acres 444E	2768	3537	12.7	57.5	65	39	1	4.0	5
Dekalb DKS54-00	2739	3769	13.8	59.0	69	44	3	3.0	15
Terral TV96H81	2725	3735	13.0	59.4	66	42	0	3.0	40
Terral TVX94A415	2703	-	13.0	59.6	66	41	1	2.0	10
Asgrow A567	2678	3583	14.7	58.9	67	43	2	3.0	15
Dyna-Gro DG762B	2671	3521	12.6	57.2	64	42	2	4.0	20
Terral TV93S72	2664	2928	14.5	59.1	66	42	4	3.5	10
Terral TV1050	2609	3035	13.8	57.7	68	40	1	3.0	25
Garst 5515	2583	3544	13.3	57.6	66	36	2	3.5	5
Dyna-Gro DGX1758	2497	-	13.7	58.8	66	41	3	3.5	5
Dyna-Gro DGX1784	2494	-	13.0	60.4	72	42	2	3.0	25
Garst 5440	2468	3420	12.8	58.5	66	37	1	4.0	20
Dyna-Gro DG780B	2314	3879	13.7	60.5	70	41	1	2.5	35
Dyna-Gro DGX1755	2199	3559	12.9	58.9	67	41	2	3.5	25
Terral TV97H17	1933	3593	14.4	59.9	70	44	1	3.0	40
PSC Exp-401	1917	-	15.1	59.1	70	50	5	4.0	35
PSC GS105	1852	-	14.6	58.8	74	43	4	3.5	5
PSC Exp-408	1816	-	14.7	59.6	68	44	3	4.0	60
PSC GS104	1496	-	14.2	56.9	76	44	4	3.5	15

Terral TVX96A317	626	-	14.0	55.4	76	42	3	3.0	60
Average	2806		13.7	58.6	68	41	2	3.5	15
CV, %	24.6		3.6	1.8	2.9	6.2	68.0	14.1	120
LSD (0.10)	812		0.6	1.7	2	3	2	0.5	25

Table 8. Summary of yield performance of grain sorghum hybrids at five locations entered in the 2005 LAES hybrid performance trials.

Brand/hybrid	Alex	BR	Crow	St. Joseph			Avg
				Non- irr	Irr	Winns	
	-----lb/a-----						
Asgrow A567	6388	6724	5048	6907	7070	2678	5786
Asgrow A571	5628	6264	4678	6788	7198	3177	5622
Dekalb DKS53-11	6084	6136	4975	6981	7200	3152	5755
Dekalb DKS54-00	6309	5852	4817	7050	7449	2739	5703
DynaGro DG751B	5961	6597	3600	4625	5579	2837	4867
DynaGro DG762B	5852	6312	4748	5450	6511	2671	5257
DynaGro DG780B	5578	6373	3727	3940	4735	2314	4445
DynaGro DGX1742	5594	5948	3985	5295	5683	2910	4903
DynaGro DGX1743	5880	6059	3508	5644	6092	3301	5081
DynaGro DGX1755	5829	6360	4623	6000	6535	2199	5258
DynaGro DGX1756	4952	6086	3979	6353	6446	3024	5140
DynaGro DGX1758	5406	6055	4016	5730	6086	2497	4965
DynaGro DGX1759	5476	6848	3928	6528	6724	2982	5414
DynaGro DGX1784	6037	5889	4247	4553	5241	2494	4744
DynaGro DGX1785	5629	6089	3670	6034	6398	3233	5176
Garst 5401	6102	6287	4487	5237	6182	2797	5182
Garst 5440	6298	5992	3682	4362	5163	2468	4661
Garst 5515	5576	6298	3905	6042	6108	2583	5085
Golden Acres 3552	5956	6446	4193	6181	6439	3495	5452
Golden Acres 3827	6462	6481	4889	6701	7136	3983	5942
Golden Acres 444E	5891	6459	4353	6528	6948	2768	5491
Monsanto MSC332	5867	6406	4230	5906	7017	3916	5557
Monsanto MSC531	6029	6704	4460	6933	7362	3884	5895
Monsanto MSC15525	5682	6112	4589	6291	6884	3974	5589
NC+ 7R83	6189	6297	4926	6637	6816	3026	5649
Pioneer 83G66	6266	6948	4087	5355	6071	3083	5302
Pioneer 84G62	6421	6739	4383	6605	6943	3087	5696
PSC GS104	4122	5181	-	2334	2835	1496	3194
PSC GS105	3688	4942	-	3072	3358	1852	3382
PSC Exp-401	5090	5790	4520	5470	5948	1917	4789
PSC Exp-408	5547	6379	4787	5157	6633	1816	5053
Terral TV1050	6048	5994	4936	6078	6992	2609	5443
Terral TV93S72	5507	6203	4182	6251	6574	2664	5230
Terral TV9421	6191	6596	4472	6344	6616	2868	5515
Terral TV96H81	5932	6551	4395	4927	5798	2725	5055
Terral TV97H17	5871	6499	4489	4874	6119	1933	4964
Terral TVX94A415	6026	6951	3797	5601	6326	2703	5234
Terral TVX94A427	6264	7166	4757	5550	6784	3302	5637
Terral TVX95B303	6170	6469	4444	6213	7144	3892	5722
Terral TVX95B323	5718	5587	3329	4190	5203	3060	4515
Terral TVX95B324	5850	5794	4050	5214	6230	3355	5082
Terral TVX96A317	4803	5271	4797	6678	7127	626	4884

Average	5765	6235	4317	5679	6278	2806
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Table 9. List of participating seed companies and hybrids tested in the LAES 2005 grain sorghum hybrid performance trials.

Company/Institution	Brand/hybrids
Garst Seed Company 2369 330 th Street P.O. Box 500 Slater, Iowa 50244	Garst: 5401, 5440, 5515
Golden Acres Genetics P.O. Box 579 Buchanan Dam, TX 78609	Golden Acres: 3552, 3827, 444E
Monsanto Company 982 U.S. Hwy. 77 Bishop, TX 78343	Asgrow: A567, A571 Dekalb: DKS53-11, DKS54-00 Monsanto: MSC 332, MSC531, MTC15525
NC+ Hybrids 602 Newport Road Hutchinson, KS 67502	7R83
Pioneer Hi-Bred International 7501 Memorial Pkwy SW, Suite 205 Huntsville, AL 35802	Pioneer Brand:83G66, 84G62
Plantation Seed Conditioners P.O. Box 398 Newton, GA 39870	GS104, GS105, Exp-401, Exp-408
Terral Seed, Inc. 604 Blount St. Lake Providence, LA 71254	Terral: TV1050, TV93S72, TV9421, TV96H81, TV97H17, TVX94A415, TVX94A427, TVX95B303, TVX95B323, TVX95B324, TVX96A317
United Agri Products - Delta 57 Germantown Court, Suite 200 Cordova, TN 38018	DynaGrow: DG751B, DG762B, DG780B DGX1742, DGX1743, DGX1755, DGX1756, DGX1758, DGX1759, DGX1784, DGX1785