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2000 ARKANSAS CORN AND GRAIN SORGHUM PERFORMANCE TESTS¹

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INTRODUCTION

Corn and grain sorghum performance tests are conducted each year in Arkansas by the University of Arkansas Division of Agriculture. The tests provide information to companies marketing seed within the state, and aid the Arkansas Cooperative Extension Service in formulating recommendations for producers.

The 2000 corn performance tests contained 52 entries and were conducted at the Northeast Research and Extension Center (NEREC) at Keiser, the Cotton Branch Station (CBS) near Marianna, the Bell Farming Company (BFC) near Des Arc, the Southeast Research and Extension Center - Rohwer Division (SEREC-RD) near Rohwer, and the Burton Brothers Farm, (BBF) near Gin City. The 2000 grain sorghum performance tests contained 33 entries and were conducted at the NEREC, the Pine Tree Experiment Station (PTS) near Pine Tree, the SEREC-RD, and the McLelland Farm (MF) near Gum Springs. Test location maps for grain sorghum and corn can be found inside the back cover.

MATERIALS AND METHODS

Corn hybrids were divided into two broad maturity groups. Based on information provided by the originating companies, entries were placed into an early- to mid-season group or a mid- to full-season group.

Within each test, entries were arranged as a randomized complete block design with four replications. Plots were two or three rows wide and end-trimmed to a uniform length of 20-25 feet depending on location. Seeding rates for each corn and grain sorghum hybrid were based on the recommendations of the originating company.

¹Use of products and trade names in this report does not constitute a guarantee or warranty of the products named and does not signify that those products are approved to the exclusion of comparable products.

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All plots were harvested with a plot combine. Specific location and management practice information accompanies each table.

GRAIN SORGHUM PERFORMANCE MEASUREMENTS

Yield: Yields were calculated from the weight of threshed grain from each plot and are expressed as pounds per acre (lbs./A) at 14% moisture.

Grain Moisture: Expressed as a percent moisture of grain at harvest.

Plant Height: Average height in inches from the soil surface to the top of the grain head.

Head Exertion: Average distance in inches from the flag leaf to base of panicle.

Head Compactness Scale:

1 = Head short and oval. Rachis branches intermediate in length.

2 = Head long and slender. Rachis branches strong and short.

3 = Head elongated and oval. Rachis branches beginning to weaken and intermediate in length.

4 = Head elongated and rectangular in shape. Rachis branches intermediate in strength and length.

5 = Head open and elongated. Rachis branches weak.

Test Weight: Test weights, where reported, are expressed in pounds per bushel (lbs./bu), and were determined using subsamples from each plot.

Bird Damage: A visual estimate of total percent grain loss from each plot.

CORN PERFORMANCE MEASUREMENTS

Yield: Yields were calculated from the weight of shelled corn harvested from each plot and are expressed as bushels per acre (bu/A) at 15.5% moisture.

Grain Moisture: Expressed as a percent moisture of shelled grain at harvest.

Root Lodging: Plants leaning more than 40 degrees from vertical at harvest were classed as root lodged.

Stalk Lodging: Plants broken below an ear were classed as stalk lodged.

Plants/Acre: The plant population count, expressed in the number of plants per acre.

Ear Height: The average distance in inches from the soil surface to the point of attachment of the upper ear.

Test Weight: Test weights, expressed in pounds per bushel (lbs./bu), were determined using subsamples from each plot.

Tip Cover: Tip cover was rated as good (3), average (2), or poor (1). A rating of good was given when the husks reached well beyond the end of the ear and fitted tightly. A rating of average was given when the husks reached the tip of the ear or fitted loosely. A rating of poor was given when the ears were open to the weather.

**Table 1. Yields of Grain Sorghum Hybrids in Arkansas Performance Tests, 2000,
Continued^{1,2}.**

Brand/Hybrid	Keiser Irrig.	Keiser Nonirr.	Rohwer Irrig.	Rohwer Nonirr..	McLelland Nonirr.	Avg.
	-----lbs./A-----					
Terral TV1050	7607	6475	5768	5943	5949	6348
Terral TV9421	7054	6147	5606	6541	6459	6361
Terral TVX00453	7536	6026	4198	5872	3937	5514
Terral TVX00454	7188	6666	4822	5798	4771	5849
Terral TVX00459	6997	6286	5150	5889	5778	6020
Terral TVX99314	7781	7214	5115	5644	4787	6108
Terral TVX99317	8088	6467	5696	6225	6384	6572
Triumph TR461	6904	6361	6849	7202	5586	6580
Triumph TR82-G	7976	7021	6444	6940	4868	6650
Grand mean	7099	6227	5714	6204	5667	6182
LSD (5%)	605	959	1250	1397	1228	*
C.V. (%)	5.3	9.5	15.5	16.0	13.2	*

¹ Keiser = Northeast Research and Extension Center
Rohwer = Southeast Research and Extension Center, Rohwer Division
McLelland = Tracy McLelland Farm, Clark Co.

² The results of the tests at Pine Tree Experiment Station will not be reported due to an equipment malfunction during harvest.

Table 2. Performance of Irrigated Grain Sorghum Hybrids, Keiser, AR, 2000.

Brand/Hybrid	Yield lb/A	2-Year Avg. lb/A	3-Year Avg. lb/A	Grain Moist %	Plant Height in.	Head ¹ Exert in.	Head ² Comp Ratg.	Bird Dam. %
Terral TVX99317	8088	.	.	12.5	59	7	4	5.0
Triumph TR82-G	7976	7020	6154	13.2	57	5	3	5.0
Asgrow A581	7880	6624	.	13.6	59	6	3	5.3
Dyna-Gro 780B	7806	7003	.	13.1	59	5	3	6.7
Terral TVX99314	7781	.	.	12.8	61	4	4	5.3
Asgrow Missile	7779	.	.	13.9	53	6	4	5.0
Terral TV1050	7607	6723	6077	13.1	59	6	2	3.7
DEKALB DK52	7539	6772	5815	13.1	57	9	4	7.0
Terral TVX00453	7536	.	.	14.2	68	4	3	10.0
DEKALB DK53	7436	6439	5954	14.1	58	5	3	6.7
DEKALB DKS51-90	7364	.	.	13.1	62	10	4	10.0
Bo-Mar 9322	7302	.	.	13.2	59	6	3	4.0
Pioneer Brand 8313	7297	.	.	13.5	52	4	4	3.7
Southern States SS-650	7275	.	.	13.2	60	7	3	5.0
DEKALB DK54	7269	6199	5694	13.6	55	7	3	6.7
FFR 322	7243	6775	.	12.9	59	6	3	8.3
Terral TVX00454	7188	.	.	12.4	62	7	4	10.0
Asgrow A571	7104	.	.	13.4	57	9	3	3.3
Pioneer Brand 8282	7058	6628	5759	13.8	58	6	4	5.0
Pioneer Brand 83G66	7057	6726	.	14.2	56	7	3	3.7
Terral TV9421	7054	6453	5873	13.1	55	9	4	7.0
Terral TVX00459	6997	.	.	13.2	54	8	4	6.7
Triumph TR461	6904	.	.	13.0	59	6	3	10.3
Dyna-Gro 751B	6770	6409	.	13.0	58	6	3	10.0
Mycogen 444E	6722	.	.	13.0	56	8	4	10.0
Asgrow A459	6680	6425	.	12.7	59	6	4	7.0
Bo-Mar 9300	6652	.	.	13.2	63	8	4	15.0
FFR 321	6603	.	.	12.9	56	9	3	13.3
Southern States SS-800	6595	6205	.	12.5	56	9	3	5.0
Dyna-Gro 762B	6525	5897	.	12.5	59	8	3	7.0
Southern States SS-600	6461	.	.	12.7	54	11	3	10.0
FFR X-320	6361	.	.	12.8	54	11	3	5.3
Southern States SS-560	4352	4253	.	12.7	52	12	4	11.7
Grand mean	7099	.	.	13.2	58	7	3	7.2
LSD (5%)	605	.	.	0.7	.	.	.	.
C.V. (%)	5.3	.	.	3.2	.	.	.	.

Table 3. Performance of Nonirrigated Grain Sorghum Hybrids, Keiser, AR, 2000.

Brand/Hybrid	Yield lb/A	2-Year Avg. lb/A	3-Year Avg. lb/A	Grain Moist %	Plant Height in.	Head ¹ Exert in.	Head ² Comp Ratg.	Bird Dam. %
Terral TVX99314	7214	.	.	11.9	63	4	4	6.7
Triumph TR82-G	7021	6435	5226	12.2	57	5	3	16.7
DEKALB DK54	6985	6325	5128	12.5	54	5	4	11.7
DEKALB DK52	6971	6379	.	12.7	52	7	4	6.7
DEKALB DK53	6929	6079	.	12.9	55	4	3	5.0
Asgrow A571	6908	.	.	12.6	54	5	3	8.3
Mycogen 444E	6905	.	.	12.0	53	8	4	6.7
Pioneer Brand 8313	6728	.	.	12.5	50	1	4	6.7
Terral TVX00454	6666	.	.	12.1	60	4	5	8.3
DEKALB DKS51-90	6527	.	.	12.4	53	4	4	16.7
Asgrow A581	6497	6198	.	12.3	54	3	4	5.3
Terral TV1050	6475	6535	.	12.2	56	6	3	18.3
Terral TVX99317	6467	.	.	11.6	54	4	5	10.0
FFR 321	6436	.	.	12.3	56	8	3	20.0
Southern States SS-800	6375	6283	.	11.7	55	9	3	10.0
Triumph TR461	6361	.	.	11.8	59	6	5	12.0
Terral TVX00459	6286	.	.	11.8	56	5	5	10.0
Dyna-Gro 780B	6194	6131	.	12.0	58	3	4	13.3
Terral TV9421	6147	6241	.	12.0	56	8	4	12.0
FFR 322	6141	6273	.	11.9	58	7	4	16.7
Bo-Mar 9322	6092	.	.	12.5	60	6	3	33.3
Dyna-Gro 751B	6088	6303	.	12.2	60	7	3	15.0
Southern States SS-650	6086	.	.	12.0	59	8	4	20.0
Pioneer Brand 83G66	6064	5986	.	12.4	54	4	3	11.7
FFR X-320	6054	.	.	11.9	54	10	3	13.3
Terral TVX00453	6026	.	.	12.0	66	3	4	21.7
Asgrow Missile	5866	.	.	12.6	49	3	4	6.7
Asgrow A459	5732	5887	.	11.9	56	6	5	15.0
Bo-Mar 9300	5604	.	.	12.2	59	5	3	11.7
Dyna-Gro 762B	5506	5588	.	11.8	59	9	3	18.3
Southern States SS-600	5485	.	.	11.5	53	10	4	18.3
Pioneer Brand 8282	5471	5724	.	13.0	56	6	4	11.7
Southern States SS-560	3185	3806	.	12.0	51	10	4	56.7
Grand mean	6227	.	.	12.2	56	6	4	14.7
LSD (5%)	959	.	.	0.7	.	.	.	.
C.V. (%)	9.5	.	.	3.3	.	.	.	.

Table 4. Performance of Irrigated Grain Sorghum Hybrids, Rohwer, AR, 2000.

Brand/Hybrid	Yield lb/A	2-Year Avg. lb/A	3-Year Avg. lb/A	Grain Moist %	Plant Height in.	Head ¹ Exert. in.	Bird Dam. %
Triumph TR461	6849	.	.	12.2	58	4	0.0
FFR 322	6817	7968	.	12.2	56	5	1.3
Pioneer Brand 8282	6565	7050	6397	13.2	55	4	2.5
Dyna-Gro 780B	6497	8276	.	12.3	59	5	0.0
Triumph TR82-G	6444	8250	.	12.4	54	4	0.0
Asgrow A571	6314	.	.	12.1	55	5	0.0
Southern States SS-800	6309	7627	.	12.2	53	6	1.3
Asgrow A459	6299	7816	.	12.1	55	3	0.0
Southern States SS-650	6223	.	.	12.2	56	5	1.3
Dyna-Gro 751B	6187	7702	.	12.6	56	5	1.3
FFR X-320	6097	.	.	12.3	53	9	0.0
Bo-Mar 9322	6056	.	.	12.2	56	4	2.5
Asgrow Missile	5982	.	.	13.3	55	4	1.3
Pioneer Brand 8313	5981	.	.	12.4	51	4	0.0
DEKALB DKS51-90	5856	.	.	13.1	51	3	0.0
Mycogen 444E	5842	.	.	12.7	52	5	5.0
Terral TV1050	5768	6916	6399	12.3	50	5	0.0
FFR 321	5767	.	.	12.2	52	4	2.5
Bo-Mar 9300	5737	.	.	12.8	59	4	0.0
Terral TVX99317	5696	.	.	12.3	56	5	0.0
Southern States SS-600	5694	.	.	12.2	54	7	5.0
Terral TV9421	5606	6860	6254	13.3	51	5	2.5
Pioneer Brand 83G66	5491	7183	.	14.4	54	4	0.0
Dyna-Gro 762B	5435	6156	.	12.2	55	6	5.0
DEKALB DK53	5366	6839	6357	15.3	52	2	0.0
DEKALB DK54	5357	7830	.	13.6	60	6	2.5
Terral TVX00459	5150	.	.	13.1	57	3	1.3
Terral TVX99314	5115	.	.	13.0	64	2	1.3
Terral TVX00454	4822	.	.	12.3	64	4	1.3
DEKALB DK52	4648	6134	5506	12.6	50	5	2.5
Asgrow A581	4387	6543	.	14.4	58	6	1.3
Terral TVX00453	4198	.	.	15.2	66	4	2.5
Southern States SS-560	4017	4953	.	12.6	50	6	13.8
Grand mean	5714	.	.	12.8	55	5	1.8
LSD (5%)	1250	.	.	0.9	.	.	.
C.V. (%)	15.5	.	.	5.2	.	.	.

Table 4. Performance of Irrigated Grain Sorghum Hybrids, Rohwer, AR, 2000, Continued.

¹ Head Exertion = Distance in inches from the flag leaf to the base of the panicle.

Soil Type..... Hebert silt loam
 Previous Crop..... Grain Sorghum
 Row Width..... 38 inches
 Preplant Herbicide..... None
 Planting Date..... 4-10-00
 Irrigation Dates..... 6-02-00, 6-12-00, 6-26-00, 6-28-00, 7-07-00, 7-13-00
 Preplant Fertilizer..... 110 lbs./A 46 % Urea, 5-02-00
 Sidedress Fertilizer..... 28 gal./A 32 % liquid N, 5-15-00
 Postemergence Herbicide..... 18 oz./A Dual Magnum II, 4-10-00, 1.5 qts./A Atrazine 4L, 4-26-00
 Insecticide Application..... 0.5 pt./A Lorsban, 6-28-00, 7-03-00, 7-05-00
 Harvest Date..... Early- to mid-season hybrids: 8-16-00
 Mid- to full-season hybrids: 8-16-00

Precipitation (inches)

	April	May	June	July	August	Total
2000	6.6	5.6	4.8	0.6	0.0	17.6
Average	5.0	4.7	3.5	3.9	2.7	19.8
Departure	1.6	0.9	1.3	-3.3	-2.7	-2.2

Table 5. Performance of Nonirrigated Grain Sorghum Hybrids, Rohwer, AR, 2000.

Brand/Hybrid	Yield lb/A	2-Year Avg. lb/A	3-Year Avg. lb/A	Grain Moist %	Plant Height in.	Head ¹ Exert. in.
Southern States SS-600	7248	.	.	12.7	49	4
Triumph TR461	7202	.	.	12.5	57	2
Triumph TR82-G	6940	8771	7547	12.9	54	2
Pioneer Brand 8313	6843	.	.	13.8	49	0
Pioneer Brand 83G66	6815	7377	.	13.9	56	2
Southern States SS-800	6780	7905	.	13.1	49	3
DEKALB DK53	6623	6771	5972	15.3	54	2
Dyna-Gro 751B	6598	7707	.	12.6	57	4
FFR 322	6567	7599	.	12.9	55	3
Terral TV9421	6541	7158	6394	13.5	52	1
DEKALB DK54	6509	8246	6695	14.8	57	4
Asgrow A581	6468	7415	.	14.6	54	2
Pioneer Brand 8282	6445	6839	5971	13.5	55	3
Dyna-Gro 762B	6332	6513	.	12.6	55	6
FFR 321	6266	.	.	12.8	53	4
Asgrow A459	6234	7301	.	12.4	56	3
Terral TVX99317	6225	.	.	14.1	58	2
Mycogen 444E	6119	.	.	13.3	53	4
FFR X-320	6042	.	.	12.6	50	4
Terral TV1050	5943	6444	6136	13.5	55	2
Southern States SS-650	5919	.	.	12.8	56	3
Terral TVX00459	5889	.	.	14.1	57	5
Terral TVX00453	5872	.	.	13.6	69	2
DEKALB DKS51-90	5850	.	.	14.3	50	2
Asgrow A571	5848	.	.	13.3	52	4
Bo-Mar 9322	5838	.	.	13.2	58	4
Terral TVX00454	5798	.	.	13.8	61	2
Asgrow Missile	5713	.	.	16.8	52	2
Terral TVX99314	5644	.	.	14.6	63	1
DEKALB DK52	5535	6963	6184	14.4	54	4
Southern States SS-560	5423	5379	.	12.2	47	4
Dyna-Gro 780B	5403	7822	.	13.6	57	3
Bo-Mar 9300	5263	.	.	13.6	56	4
Grand mean	6204	.	.	13.6	55	3
LSD (5%)	1397	.	.	1.0	.	.
C.V. (%)	16.0	.	.	5.2	.	.

Table 5. Performance of Nonirrigated Grain Sorghum Hybrids, Rohwer, AR, 2000, Continued.

¹ Head Exertion = Distance in inches from the flag leaf to the base of the panicle.

Soil Type..... Hebert silt loam
 Previous Crop..... Grain Sorghum
 Row Width..... 38 inches
 Preplant Herbicide..... None
 Planting Date..... 4-10-00
 Preplant Fertilizer..... 110 lbs./A 46 % Urea, 5-02-00
 Sidedress Fertilizer..... 28 gal./A 32 % liquid N, 5-15-00
 Postemergence Herbicide..... 18 oz./A Dual Magnum II, 4-10-00, 1.5 qts./A Atrazine 4L, 4-26-00
 Insecticide Application..... 0.5 pt./A Lorsban, 6-28-00, 7-03-00, 7-05-00
 Harvest Date..... Early- to mid-season hybrids: 8-16-00
 Mid- to full-season hybrids: 8-16-00

Precipitation (inches)

	April	May	June	July	August	Total
2000	6.6	5.6	4.8	0.6	0.0	17.6
Average	5.0	4.7	3.5	3.9	2.7	19.8
Departure	1.6	0.9	1.3	-3.3	-2.7	-2.2

Table 6. Performance of Nonirrigated Grain Sorghum Hybrids, McLelland Farm, Clark Co., AR, 2000.

Brand/Hybrid	Yield lb/A	Grain Moist %	Plant Height in.	Head ¹ Exert. in.	Test Wt. lbs.	Bird Dam. %
DEKALB DKS51-90	6901	12.0	56	4	44.7	13.1
Pioneer Brand 8313	6771	16.4	56	3	52.5	1.0
Pioneer Brand 83G66	6529	17.2	56	3	48.0	3.3
FFR 322	6498	13.9	56	4	54.0	5.0
Terral TV9421	6459	15.5	51	5	50.3	6.0
Terral TVX99317	6384	17.0	53	2	52.5	0.0
Asgrow Missile	6253	17.5	51	3	48.2	11.7
DEKALB DK54	6208	13.8	64	5	46.2	9.6
Bo-Mar 9322	6141	15.1	60	3	53.9	11.7
Southern States SS-800	6139	14.4	48	5	51.4	3.3
Asgrow A571	6119	15.2	55	5	50.2	7.1
Mycogen 444E	6077	15.2	52	4	50.8	13.3
Pioneer Brand 8282	6021	16.7	56	4	49.3	6.7
Southern States SS-650	5958	13.8	54	5	47.1	12.0
Terral TV1050	5949	16.4	52	4	49.6	2.1
DEKALB DK53	5930	18.9	57	3	49.0	7.1
Dyna-Gro 762B	5926	13.4	56	3	46.8	0.0
Terral TVX00459	5778	17.4	53	3	51.8	3.3
FFR 321	5726	14.2	55	5	50.1	13.3
FFR X-320	5653	13.5	51	6	52.9	5.0
Triumph TR461	5586	13.0	58	4	53.3	10.0
Dyna-Gro 780B	5461	14.6	57	4	56.2	14.0
Asgrow A581	5409	17.8	55	3	45.5	10.0
DEKALB DK52	5341	16.6	55	4	45.7	10.0
Asgrow A459	5306	14.2	54	5	53.5	8.7
Dyna-Gro 751B	5259	14.0	55	5	50.1	1.7
Southern States SS-600	5096	11.7	49	5	49.9	3.3
Triumph TR82-G	4868	15.8	58	3	53.2	15.0
Terral TVX99314	4787	16.6	66	4	52.9	15.0
Terral TVX00454	4771	15.5	63	4	53.1	15.0
Bo-Mar 9300	4004	19.9	65	3	50.0	3.3
Terral TVX00453	3937	17.7	71	3	47.9	14.6
Southern States SS-560	3770	12.1	47	7	52.8	6.7
Grand mean	5667	15.4	56	4	50.4	7.9
LSD (5%)	1228	3.2	.	.	4.4	.
C.V. (%)	13.2	12.7	.	.	5.3	.

Table 6. Performance of Nonirrigated Grain Sorghum Hybrids, McLelland Farm, Clark Co., AR, 2000, Continued.

⌞ Head Exertion = Distance in inches from the flag leaf to the base of the panicle.

Soil Type.....	Marietta fine sandy loam
Previous Crop.....	Soybean
Row Width.....	32 inches
Preplant Herbicide.....	None
Planting Date.....	4-20-00
Fertilizer application.....	300 lbs./A 13-13-13, 4-21-00
Sidedress Fertilizer.....	200 lbs./A 34-0-0, 6-01-00
Postemergence Herbicide.....	1.5 pts./A Dual + 2 qts./A Atrazine, 4-20-00
Insecticide Application.....	12 oz./A Lorsban 15G, 4 oz./A Warrior T, 6-07-00, Warrior T 1% solution, 7-18-00
Harvest Date.....	Early- to mid-season hybrids: 8-16-00 Mid- to full-season hybrids: 8-16-00

Table 7. Yields of Corn Hybrids in Arkansas Performance Tests, 2000^{1,2,3}.

Brand/Hybrid	Marianna Irrig.	Bell Farm Irrig.	Rohwer Irrig.	Avg.
	-----bu/A-----			
Early- to Mid-Season Hybrids				
AgriPro AP 9707	161.2	211.2	122.1	164.8
AgriPro HS 9843	160.4	190.6	138.9	163.3
AgriPro HY 9646	176.7	194.8	160.4	177.3
Asgrow RX 764	171.6	181.6	130.9	161.4
Asgrow RX 799 Bt	179.8	200.0	160.1	180.0
Croplan Genetics 727	179.9	205.6	113.8	166.4
Croplan Genetics 641RR	158.2	195.9	140.5	164.9
Croplan Genetics 661	153.9	175.6	130.9	153.5
Croplan Genetics TR1106	159.7	198.5	133.4	163.9
Croplan Genetics 676RR	152.2	172.1	140.6	155.0
Croplan Genetics TR1157	160.8	206.0	122.9	163.2
DEKALB DK 647 BTY	179.3	209.3	125.0	171.2
DEKALB DK611	182.0	208.7	142.6	177.8
DEKALB DK650	166.7	199.6	142.8	169.7
DEKALB DKC65-25	160.1	194.7	132.6	162.5
Garst 8222 IT	159.9	210.7	124.7	165.1
Garst 8251 IT	147.2	190.9	137.0	158.4
Mycogen 2888 IMI	165.9	205.2	143.1	171.4
Novartis N63-G7	171.2	189.8	142.8	167.9
Pioneer 32P76	190.2	226.2	113.3	176.6
Pioneer 33J56	154.3	206.6	144.3	168.4
Pioneer Hybrid 3223	159.4	206.3	154.2	173.3
Pioneer Hybrid 3245	148.6	228.2	143.3	173.4
Pioneer Hybrid 34B23	169.6	208.4	112.4	163.5
Southern States Exp 8000	171.0	184.7	111.7	155.8

Table 7. Yields of Corn Hybrids in Arkansas Performance Tests, 2000, Continued ^{1,2,3}

Brand/Hybrid	Marianna Irrig.	Bell Farm Irrig.	Rohwer Irrig.	Avg.
-----bu/A-----				
Early- to Mid-Season Hybrids Continued				
Southern States SS710	183.0	196.1	139.0	172.7
Southern States SS730 Bt	168.1	212.9	162.8	181.3
Southern States SS747	160.9	208.0	150.0	173.0
Southern States SS769 Bt	188.0	186.9	126.7	167.2
Terral TV2128 RR	147.1	183.5	148.9	159.8
Terral TV2130	186.4	220.8	146.6	184.6
Terral TV2140	156.6	204.5	148.9	170.0
Terral TV2140 RR	166.3	194.8	158.3	173.1
Terral TV2143 Bt	182.6	204.3	113.1	166.7
Terral TV2160 Bt	190.9	202.4	155.3	182.9
Triumph 1514 Bt	182.4	205.4	125.6	171.1
Grand mean	168.1	200.6	137.2	168.6
LSD (5%)	19.9	19.3	36.6	*
C.V. (%)	8.4	6.8	18.9	*
Mid- to Full-Season Hybrids				
Asgrow RX 889	174.6	176.6	120.9	157.4
Croplan Genetics 818	185.6	224.9	137.0	182.5
Croplan Genetics 744 Bt	199.5	201.5	103.8	168.3
Croplan Genetics TR1167 CL	181.2	206.8	153.1	180.4
Croplan Genetics TR1226	157.0	192.1	138.3	162.5
Croplan Genetics 827	162.5	201.6	155.5	173.2
Dyna-Gro 5510A	181.6	213.4	147.7	180.9

Table 7. Yields of Corn Hybrids in Arkansas Performance Tests, 2000, Continued ^{1,2,3}

Brand/Hybrid	Marianna Irrig.	Bell Farm Irrig.	Rohwer Irrig.	Avg.
-----bu/A-----				
Mid- to Full-Season Hybrids Continued				
Mycogen 8460	168.6	200.0	118.2	162.3
Novartis N79-L3	192.3	204.9	129.5	175.6
Novartis N83-N5	168.3	228.3	125.7	174.1
Pioneer 31G98	187.3	214.3	155.1	185.6
Pioneer Hybrid 3085	141.8	177.9	120.0	146.6
Pioneer Hybrid 3163	172.6	206.9	132.2	170.6
Pioneer Hybrid 31B13	204.8	204.9	117.5	175.7
Southern States SS859 CL	187.1	210.5	163.7	187.1
Triumph 1866 Bt	210.3	218.7	155.9	195.0
Grand mean	179.7	205.2	135.9	173.6
LSD (5%)	23.4	19.1	38.3	*
C.V. (%)	9.2	6.6	17.1	*

¹Marianna = Cotton Branch Station

Bell Farm = Bell Farming Company (Prairie County)

Rohwer = Southeast Research and Extension Center - Rohwer Division

² Two attempts were made to establish corn tests at NEREC, Keiser. The first attempt resulted in inadequate stands and the second attempt resulted in low yields and poor uniformity. Therefore, results will not be reported for this location.

³ The tests at Southwest Arkansas will not be reported due to an error that occurred during sidedressing.

Table 8. Performance of Irrigated Corn Hybrids, Marianna, AR, 2000.

Brand/Hybrid	Yield bu/A	2-Year Avg. bu/A	Grain Moist %	Root ¹ Lodg.	Stalk ² Lodg.	Ear Height in.
<u>Early- to Mid-Season Hybrids</u>						
Terral TV2160 Bt	190.9	190.7	20.8	2.8	9.8	52
Pioneer 32P76	190.2	.	20.3	1.5	1.3	48
Southern States SS769 Bt	188.0	180.2	20.6	0.5	0.5	39
Terral TV2130	186.4	179.3	19.3	1.3	7.0	52
Southern States SS710	183.0	.	15.9	0.0	2.0	43
Terral TV2143 Bt	182.6	180.7	19.9	7.5	8.3	48
Triumph 1514 Bt	182.4	.	19.0	1.3	2.3	39
DEKALB DK611	182.0	179.9	15.0	0.0	1.3	46
Croplan Genetics 727	179.9	.	15.6	2.0	4.0	39
Asgrow RX799 Bt	179.8	177.8	20.4	2.3	0.8	40
DEKALB DK 647 BTY	179.3	.	19.5	2.0	1.8	48
AgriPro HY 9646	176.7	173.0	20.1	0.8	5.0	49
Asgrow RX 764	171.6	.	18.5	0.3	1.3	36
Novartis N63-G7	171.2	174.0	16.3	0.0	2.3	43
Southern States Exp 8000	171.0	.	20.7	1.8	1.8	41
Pioneer Hybrid 34B23	169.6	169.7	16.3	2.3	6.5	37
Southern States SS730 Bt	168.1	.	20.5	4.5	3.5	48
DEKALB DK650	166.7	175.4	19.0	0.5	4.8	43
Terral TV2140 RR	166.3	.	19.1	0.8	2.3	53
Mycogen 2888 IMI	165.9	167.9	20.3	0.5	5.8	48
AgriPro AP 9707	161.2	169.4	19.8	2.0	4.5	42
Southern States SS747	160.9	.	19.4	6.0	5.3	45
Croplan Genetics TR1157	160.8	168.0	20.3	1.3	6.0	48
AgriPro HS 9843	160.4	162.5	19.9	0.8	4.8	43
DEKALB DKC65-25	160.1	.	17.3	0.0	3.5	39
Garst 8222 IT	159.9	173.2	21.2	1.8	6.8	47
Croplan Genetics TR1106	159.7	153.3	19.1	0.5	5.5	41
Pioneer Hybrid 3223	159.4	172.0	19.7	2.3	12.8	53
Croplan Genetics 641 RR	158.2	157.8	17.3	0.0	1.5	37
Terral TV2140	156.6	167.3	18.9	0.5	5.0	52
Pioneer 33J56	154.3	.	17.0	2.5	8.5	41
Croplan Genetics 661	153.9	164.1	18.5	0.5	4.8	41
Croplan Genetics 676 RR	152.2	.	17.1	0.0	1.5	39
Pioneer Hybrid 3245	148.6	160.6	18.3	2.3	12.3	40
Garst 8251 IT	147.2	.	19.4	1.8	5.3	49
Terral TV2128 RR	147.1	.	17.0	0.5	2.5	40
Grand mean	168.1	.	18.8	1.5	4.5	44
LSD (5%)	19.9	.	1.5	3.0	4.3	.
C.V. (%)	8.4	.	5.7	.	.	.

Table 8. Performance of Irrigated Corn Hybrids, Marianna, AR, 2000, Continued.

Brand/Hybrid	Yield bu/A	2-Year Avg. bu/A	Grain Moist %	Root Lodg.	Stalk ² Lodg.	Ear Height in.
<u>Mid- to Full-Season Hybrids</u>						
Triumph 1866 Bt	210.3	190.9	22.0	2.3	7.5	52
Pioneer Hybrid 31B13	204.8	199.1	21.1	2.5	5.3	48
Croplan Genetics 744 Bt	199.5	.	21.2	0.0	1.0	38
Novartis N79-L3	192.3	.	20.6	2.3	1.5	39
Pioneer 31G98	187.3	.	21.8	1.8	7.5	48
Southern States SS859 CL	187.1	.	21.0	2.0	3.3	44
Croplan Genetics 818	185.6	.	20.4	0.8	4.3	39
Dyna-Gro 5510A	181.6	180.0	23.1	3.8	7.3	45
Croplan Genetics TR1167 CL	181.2	.	21.4	0.5	1.3	46
Asgrow RX 889	174.6	.	22.7	1.0	7.5	34
Pioneer Hybrid 3163	172.6	176.4	24.6	1.8	10.8	48
Mycogen 8460	168.6	169.9	21.7	1.3	5.8	47
Novartis N83-N5	168.3	169.9	20.7	3.0	7.0	47
Croplan Genetics 827	162.5	.	20.6	1.3	10.5	46
Croplan Genetics TR1226	157.0	159.8	22.9	0.8	3.3	43
Pioneer Hybrid 3085	141.8	157.3	28.2	8.0	15.3	51
Grand mean	179.7	.	22.1	2.1	6.2	45
LSD (5%)	23.4	.	2.8	4.2	6.1	.
C.V. (%)	9.2	.	8.9	.	.	.

¹ Root lodging = number of plants leaning more than 40 degrees from vertical.

² Stalk lodging = number of plants broken below the ear

Soil Type..... Calloway silt loam
 Previous Crop..... Soybean
 Row Width..... 38 inches
 Preplant Herbicide..... None
 Planting Date..... 4-24-00
 Preplant Fertilizer..... 250 lbs./A 0-23-30, 4-10-00, 320 lbs./A 46-0-0, 4-17-00
 Irrigation Dates..... 6-08-00, 6-13-00, 6-28-00, 6-30-00, 7-05-00, 7-09-00, 7-13-00,
 7-17-00, 7-20-00, 7-24-00, 7-28-00, 8-01-00, 8-07-00, 8-11-00
 Sidedress Fertilizer..... 60 gal./A of 32% liquid N, 5-16-00, 0.9 gal./A Zinc Chelate 9% solution, 5-26-00
 Postemergence Herbicide..... 2 qts./A Atrazine + 2 qts./A Lasso, 4-24-00
 Insecticide Application..... None
 Harvest Date..... Early- to mid-season hybrids: 8-25-00
 Mid- to full-season hybrids: 8-25-00

Precipitation (inches)

	April	May	June	July	August	Total
2000	3.8	4.9	3.6	0.3	0.4	13.0
Average	5.4	5.2	3.4	4.0	2.8	20.8
Departure	-1.6	-0.3	0.2	-3.7	-2.4	-7.8

Table 9. Performance of Irrigated Corn Hybrids, Bell Farm, Prairie Co. , AR, 2000.

Brand/Hybrid	Yield bu/A	2-Year Avg. bu/A	3-Year Avg. bu/A	Grain Moist %	Root ¹ Lodg.	Tip ¹ Cover	Plants/ Acre	Ear Ht. in.
<u>Early- to Mid-Season Hybrids</u>								
Pioneer Hybrid 3245	228.2	220.1	211.3	21.6	2.0	2	29076	48
Pioneer 32P76	226.2	.	.	22.1	2.0	2	28859	52
Terral TV2130	220.8	208.9	189.6	21.2	2.0	2	30710	50
Southern States SS730 Bt	212.9	.	.	20.3	1.0	3	28750	50
AgriPro AP 9707	211.2	204.6	193.0	21.6	2.0	2	27552	49
Garst 8222 IT	210.7	187.9	.	22.6	1.0	3	28314	50
DEKALB DK 647 BTY	209.3	.	.	20.4	2.0	2	28205	53
DEKALB DK611	208.7	207.6	.	18.9	2.0	2	26681	49
Pioneer Hybrid 34B23	208.4	204.5	.	18.8	3.0	1	31254	41
Southern States SS747	208.0	.	.	20.7	2.0	2	28641	48
Pioneer 33J56	206.6	.	.	20.7	2.0	2	27987	51
Pioneer Hybrid 3223	206.3	208.0	196.7	20.6	2.0	2	27225	53
Croplan Genetics TR1157	206.0	197.3	186.3	21.3	2.0	2	29512	47
Croplan Genetics 727	205.6	.	.	17.1	2.0	2	28205	44
Triumph 1514 Bt	205.4	.	.	19.6	2.0	2	28968	40
Mycogen 2888 IMI	205.2	201.1	.	22.2	2.0	2	25156	51
Terral TV2140	204.5	197.9	184.9	21.3	2.0	2	28423	58
Terral TV2143 Bt	204.3	197.0	.	21.5	1.0	3	29512	55
Terral TV2160 Bt	202.4	197.7	.	20.1	2.0	2	25809	52
Asgrow RX799 Bt	200.0	196.4	.	22.0	1.0	3	28096	43
DEKALB DK650	199.6	201.5	.	20.8	2.0	2	25047	52
Croplan Genetics TR1106	198.5	171.2	169.5	20.2	3.0	1	28532	43
Southern States SS710	196.1	.	.	18.2	2.0	2	27008	46
Croplan Genetics 641 RR	195.9	175.4	.	17.5	2.0	2	27552	44
Terral TV2140 RR	194.8	.	.	20.2	2.0	2	26790	55
AgriPro HY 9646	194.8	198.8	182.9	21.1	2.0	2	26789	56
DEKALB DKC65-25	194.7	.	.	20.8	2.0	2	26572	48
Garst 8251 IT	190.9	.	.	21.2	1.0	3	27007	55
AgriPro HS 9843	190.6	184.8	178.4	21.7	2.0	2	29185	49
Novartis N63-G7	189.8	184.8	188.5	18.8	2.0	2	30057	44
Southern States SS769 Bt	186.9	189.2	.	22.8	2.0	2	27878	44
Southern States Exp 8000	184.7	.	.	23.4	1.0	3	26136	44
Terral TV2128 RR	183.5	.	.	18.7	2.0	2	29185	47
Asgrow RX 764	181.6	.	.	18.0	2.0	2	27552	41
Croplan Genetics 661	175.6	178.7	.	21.3	3.0	1	23305	40
Croplan Genetics 676 RR	172.1	.	.	19.6	2.0	2	25374	44
Grand mean	200.6	.	.	20.5	1.9	2	27803	48
LSD (5%)	19.3	.	.	1.5	.	.	2881	.
C.V. (%)	6.8	.	.	5.4	.	.	7	.

Table 10. Performance of Irrigated Corn Hybrids, Rohwer, AR, 2000.

Brand/Hybrid	Yield bu/A	Grain Moist %	Root ¹ Lodg	Stalk ² Lodg.	Plants/ Acre	Ear Height in.
<u>Early- to Mid-Season Hybrids</u>						
Southern States SS730 Bt	162.8	12.2	0.0	0.0	30436	50
AgriPro HY 9646	160.4	13.5	0.0	0.0	29404	54
Asgrow RX799 Bt	160.1	13.2	0.0	0.0	31897	44
Terral TV2140 RR	158.3	13.1	0.5	0.0	27684	53
Terral TV2160 Bt	155.3	13.6	0.0	0.0	28200	47
Pioneer Hybrid 3223	154.2	13.8	0.0	0.0	30006	48
Southern States SS747	150.0	12.3	0.3	0.0	30693	46
Terral TV2140	148.9	13.7	0.3	0.0	29060	55
Terral TV2128 RR	148.9	12.1	0.3	0.3	31295	43
Terral TV2130	146.6	13.8	0.3	0.0	29146	49
Pioneer 33J56	144.3	12.3	0.0	0.0	29920	44
Pioneer Hybrid 3245	143.3	12.5	0.3	0.0	32929	41
Mycogen 2888 IMI	143.1	14.0	0.0	0.0	26395	51
DEKALB DK650	142.8	13.5	0.0	0.3	30006	43
Novartis N63-G7	142.8	11.4	0.0	0.3	31037	45
DEKALB DK611	142.6	12.3	0.0	0.0	30779	40
Croplan Genetics 676 RR	140.6	12.2	0.0	0.0	34562	43
Croplan Genetics 641 RR	140.5	11.9	0.0	0.0	32499	34
Southern States SS710	139.0	11.6	0.0	0.0	30522	43
AgriPro HS 9843	138.9	13.3	0.0	0.0	29748	48
Garst 8251 IT	137.0	13.7	0.0	0.3	28716	52
Croplan Genetics TR1106	133.4	13.0	0.5	0.0	30693	44
DEKALB DKC65-25	132.6	12.6	0.3	0.0	28286	44
Asgrow RX 764	130.9	12.0	0.3	0.0	31553	38
Croplan Genetics 661	130.9	12.4	0.0	0.0	28458	35
Southern States SS769 Bt	126.7	13.5	0.0	0.0	29748	43
Triumph 1514 Bt	125.6	12.1	0.0	0.0	31123	43
DEKALB DK 647 BTY	125.0	13.1	0.0	0.0	28716	44
Garst 8222 IT	124.7	16.0	0.3	0.3	27340	38
Croplan Genetics TR1157	122.9	13.7	0.5	0.3	31639	50
AgriPro AP 9707	122.1	12.8	0.0	0.0	28286	45
Croplan Genetics 727	113.8	12.1	0.3	0.0	26051	39
Pioneer 32P76	113.3	14.2	0.0	0.0	29318	45
Terral TV2143 Bt	113.1	16.0	0.0	0.0	28974	45
Pioneer Hybrid 34B23	112.4	12.4	0.0	0.0	30607	36
Southern States Exp 8000	111.7	13.9	0.0	0.0	23557	37
Grand mean	137.2	13.1	0.1	0.0	29702	44
LSD (5%)	36.6	1.0	0.5	0.3	4933	.
C.V. (%)	18.9	5.5	.	.	12	.

**Participants and Entries
2000 Grain Sorghum Tests**

<u>Company</u>	<u>Hybrid</u>
Bo-Mar Seed #12 Bo-Mar Ln Benton, MO 63736	Bo-Mar 9300 Bo-Mar 9322
FFR Seed 969 Cloverleaf Dr. Southaven, MS 38671	FFR 321 FFR 322 FFR X-320
Golden Acres Genetics P. O. Box 852350 Richardson, TX 75805	Mycogen 444E
Monsanto Company Route 2 Box 373 Bishop, TX 78343	Asgrow A459 Asgrow A571 Asgrow A581 Asgrow Missile DEKALB DK52 DEKALB DK53 DEKALB DK54 DEKALB DKS51-90
Pioneer Hi-Bred International 6767 Old Madison Pike, Suite 110 Huntsville, AL 35806	Pioneer Brand 8282 Pioneer Brand 8313 Pioneer Brand 83G66
Southern States Co-Op P. O. Box 26234 Richmond, VA 23260	Southern States SS-560 Southern States SS-600 Southern States SS-650 Southern States SS-800
Terral Seed, Inc. P. O. Box 826 Lake Providence, LA 71254	Terral TV1050 Terral TV9421 Terral TVX00453 Terral TVX00454 Terral TVX00459 Terral TVX99314 Terral TVX99317
Triumph Seed Co., Inc. P. O. Box 1050 Ralls, TX 79357	Triumph TR461 Triumph TR82-G

UAP Mid-South
57 Germantown Court, Suite 200
Cordova, TN 38018

Dyna-Gro 751B
Dyna-Gro 762B
Dyna-Gro 780B

Participants and Entries 2000 Corn Tests

Garst Seed Company
761 Walnut Knoll Lane
Memphis, TN 38018

AgriPro AP 9707
AgriPro HS 9843
AgriPro HY 9646
Garst 8222 IT
Garst 8251 IT

Golden Acres Genetics
P. O. Box 852350
Richardson, TX 75085

Mycogen 2888 IMI
Mycogen 8460

Land O'Lakes/Croplan Genetics
P. O. Box 171376
Memphis, TN 38187

Croplan Genetics 727
Croplan Genetics 641 RR
Croplan Genetics 661
Croplan Genetics TR1106
Croplan Genetics 676 RR
Croplan Genetics TR1157
Croplan Genetics 744 Bt
Croplan Genetics TR1167 CL
Croplan Genetics TR1226
Croplan Genetics 827
Croplan Genetics 818

Novartis

Novartis N63-G7
Novartis N79-L3
Novartis N83-N5

Monsanto
3100 Sycamore Rd.
DeKalb, IL 60115

Asgrow RX 764
Asgrow RX 799 BT
Asgrow RX 889
DEKALB DK611
DEKALB DK647 Bty
DEKALB DK650
DEKALB DKC65-25

Pioneer Hi-Bred International
6767 Old Madison Pike, Suite 110
Huntsville, AL 35806

Pioneer Brand 3223
Pioneer Brand 3245
Pioneer Brand 32P76
Pioneer Brand 33J56
Pioneer Brand 34B23
Pioneer Brand 3085
Pioneer Brand 3163
Pioneer Brand 31B13
Pioneer Brand 31G98

Southern States Co-Op
P. O. Box 26234
Richmond, VA 23260

Southern States Exp. 8000
Southern States SS710
Southern States SS730 Bt
Southern States SS747
Southern States SS769 Bt
Southern States SS859 CL

Terral Seed Inc.
P. O. Box 826
Lake Providence, LA 71254

Terral TV2128 RR
Terral TV2130
Terral TV2140
Terral TV2140 RR
Terral TV2143 Bt
Terral TV2160 Bt

Triumph Seed Co., Inc.
P. O. Box 1050
Ralls, TX 79357

Triumph 1514 Bt
Triumph 1866 Bt

UAP Mid-South
57 Germantown Court, Suite 200
Cordova, TN 38018

Dyna-Gro 5510A

CORN TEST LOCATIONS



- NEREC** Northeast Research and Extension Center, Keiser, Arkansas
- BFC** Bell Farming Company, Des Arc, Arkansas
- SEREC-RD** Southeast Research and Extension Center-Rohwer Division, Rohwer, Arkansas
- BBF** Burton Brothers Farm, Gin City, Arkansas
- CBS** Cotton Branch Station, Marianna, Arkansas

GRAIN SORGHUM TEST LOCATIONS



- | | |
|--|---|
| <p>NEREC</p> <p>PTS</p> <p>SEREC-RD</p> <p>TMF</p> | <p>Northeast Research and Extension Center, Keiser, Arkansas</p> <p>Pine Tree Station, Colt, Arkansas</p> <p>Southeast Research and Extension Center-Rohwer Division, Rohwer, Arkansas</p> <p>Tracy McClelland Farm</p> |
|--|---|