Texas Agricultural Experiment Station
Texas A&M University System

Grain Sorghum Performance Tests in Texas, 1993

Department of Soil and Crop Sciences

1994 Departmental Technical Report *No. 94-2*

Texas Agricultural Experiment Station • Edward A. Hiler, Director
The Texas A&M University System • College Station, Texas

GRAIN SORGHUM PERFORMANCE TESTS IN TEXAS--1993

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Keywords: Texas/grain sorghum/ performance tests/yield/ disease/insect resistance.

GRAIN SORGHUM PERFORMANCE TESTS IN TEXAS--1993

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INTRODUCTION

Grain sorghum continues to be a major commodity in Texas. From year to year, acreage in Texas has fluctuated based on rainfall patterns, climatic conditions, participation in various government supported programs, and price differential between commodities. This year, 3.3 million acres were harvested by Texas farmers compared to 4.5 million acres in 1992. This decrease is misleading because in 1992, Texas Crop Reporting District 1-S planted 1.32 million acres compared to 340,000 acres in 1993. Sorghum was used as a "catch" crop in this District after acreage planted to cotton was lost due to prolonged periods of heavy rainfall, flooding, and hail damage. Figure 1 shows acreage and percent of State total acreage harvested in 1993 by Crop Reporting District.

Due to erratic weather conditions, State yield decreased from 3,472 lb/A in 1992 to 3,304 lb/A in 1993. Although yields fluctuate yearly, grain sorghum breeders continue to strive for better hybrids. Farmers now have an opportunity to plant white or cream sorghums in addition to the traditional red or bronze colored sorghums without sacrificing yields. In addition to the white or cream colored seed, sorghums that have straw colored glumes, tan plant color, and superior weathering ability will definitely have a marketing advantage. Farmers may have the opportunity to use different marketing strategies to enhance cash flow. Continued emphasis and efforts will be employed in using sorghum for food and animal feed both domestically and internationally. The white or light cream colored sorghums have dual advantages in animal feeds and human foods. These sorghums produce formulated feeds with significantly lighter color and overall improved appearance, which will benefit the U.S. feeder. In addition, the light colored sorghums will enhance export competitiveness of U.S. sorghum in world markets. The potential for using sorghum for food in the U.S. has never been realized, in part because we have never produced consistently sufficient quantities of high quality sorghum for the industry to use. The advantages of white grain types with tan plant color can be achieved with appropriate hybrids for feed and food quality that have the necessary agronomics, yield potential, and adaptation to Texas environmental conditions.

GRAIN SORGHUM PERFORMANCE TESTING IN TEXAS

This report presents the results of five irrigated and five non-irrigated grain sorghum performance tests. Approximate locations of test sites are shown in Figure 2 and represent the major grain sorghum production areas in Texas.

In addition, results of supplementary grain sorghum tests conducted at Runnels County, Halfway, Texas, and Lamesa, Texas are reported. The Runnels County test was conducted by the Winters, Texas Young Farmers Organization. The Halfway test was conducted separately from the State corn and grain sorghum performance tests. It was conducted as part of the sorghum and corn variety testing program at the Texas Agricultural Experiment Station (TAES) at Halfway in cooperation with the High Plains Research Foundation. The Lamesa Test was conducted by personnel of the Texas Agricultural Experiment Station, Lubbock, Texas. Results from these tests will be useful in determining the adaptability of grain sorghum in this area.

Grain sorghum seed producers and TAES plant breeders enter sorghum hybrids in the State testing program at several locations for evaluation under different and changing environmental conditions. Entry of a hybrid at a given location does not imply that it is recommended for that area. Data contained herein are a measure of performance of grain sorghum hybrids planted during a particular season at the location shown.

Selection of a grain sorghum hybrid is a basic management decision. Yield is the predominant criterion of a hybrid, but other agronomic information as provided in this report should be evaluated before a final decision is made.

ENTRIES

Official entry forms are mailed in December to everyone known to be interested in the grain sorghum testing program. Forms include the necessary information to make entries in any or all of the locations to be planted. No restrictions are placed on the number of hybrids a company may enter. Experimental materials are also accepted. All hybrids are entered on a fee basis under their brand name or number designation (Table 1). In addition, standard check hybrids are entered by TAES. After the test plantings are established, each participant receives a location sketch and planting plan for observation of the block during the growing season. After the data has been statistically analyzed, results from each individual test site are made available to participating companies, farmers, county extension agents, test cooperators, and anyone else who requests the information in a timely manner. A detailed publication combining all test results is produced at a later date.

FIELD-PLOT TECHNIQUE

Seed were packaged and planted at all locations by one of the following methods:

1. Hand dropped through planter at Hondo, Danevang, Thrall, McKinney, and Dumas.
2. Cone planter at Weslaco, Gregory, College Station, and Lubbock.

After emergence, seedlings in each plot at Weslaco, Hondo, and Lubbock were hand thinned to a uniform spacing for a plant population recommended for that area. All other sites were planted and not thinned.

Cultural practices were those adapted for general use in the area as determined by the cooperator. Field data were recorded at the appropriate time and other data collected at harvest. All locations, except the Weslaco and Lubbock Dryland Test were harvested with a MF8 combine modified for plot harvesting. Plot weight, bushel weight, and moisture were calculated with electronic equipment mounted on the combine. Due to prolonged wet conditions and the risk of germinating grain the Weslaco test was hand harvested and samples threshed by a stationary plot thresher. The Lubbock test was hand harvested and threshed by running samples through a plot combine.

DATA

The following data are reported and may or may not be quoted in this report for each respective location:

Grain color--designated by a respective seed company for that particular hybrid. R=red, Br=brown, Bz=bronze, Rt=red translucent, W=white, Wt=white translucent, Ct=cream translucent, Y=yellow.
Plant color--designated by a respective seed company for that particular hybrid.T=tan, R=red, P=purple.
Maturity class--maturity designated by a respective seed company for that particular hybrid. Early (E), medium-early (ME), medium (M), medium-late (ML), and late (L) designations are used.
Days to 50 percent flower--number of days from planting to, and including the day that an estimated 50 percent of the plants have reached anthesis.
Plant height--average inches from the ground to the tip of the panicle.
Panicle exsertion--average inches from the flag leaf to the base of the panicle.
Panicle length--number of inches from base of panicle to tip of panicle.
Test weight--pounds per bushel of grain determined from all replications.
Bird damage--visual rating or percentage, not used in yield calculations.
Lodging--visual rating or percentage, not used in yield calculations.
Midge damage--percentage estimated but not used in yield calculations.
Leaf and Plant Death Rating --visual estimate at harvest : 1= no leaf and plant death 5 = leaves and stem completely dead
Desirability Rating--1=very good, 2=good, 3=average, 4=poor, 5=very poor
Chemical Burn Rating-- a visual rating taken at the Lubbock Dryland test. 1= no burn 5= plants killed.

Check hybrids--those hybrids that are commonly used in a respective area that were not entered by a commercial company. They were included in the test on the basis of a survey taken by area county agents, farmers, and seed dealers.

Yield--determined as follows: plot weight x acre conversion factor x moisture correction factor. All yields are corrected to 13 percent moisture.

Statistical significance--shown for the yield of hybrids within each maturity group. Yields followed by the same letter are not significantly different at the 0.05 alpha level based on Duncan's multiple range test.

LSD--Least Significant Difference. A statistical tool measuring the difference between two entries. When two entries are compared and the difference between them is greater than the LSD, then the entries are judged to be significantly different.

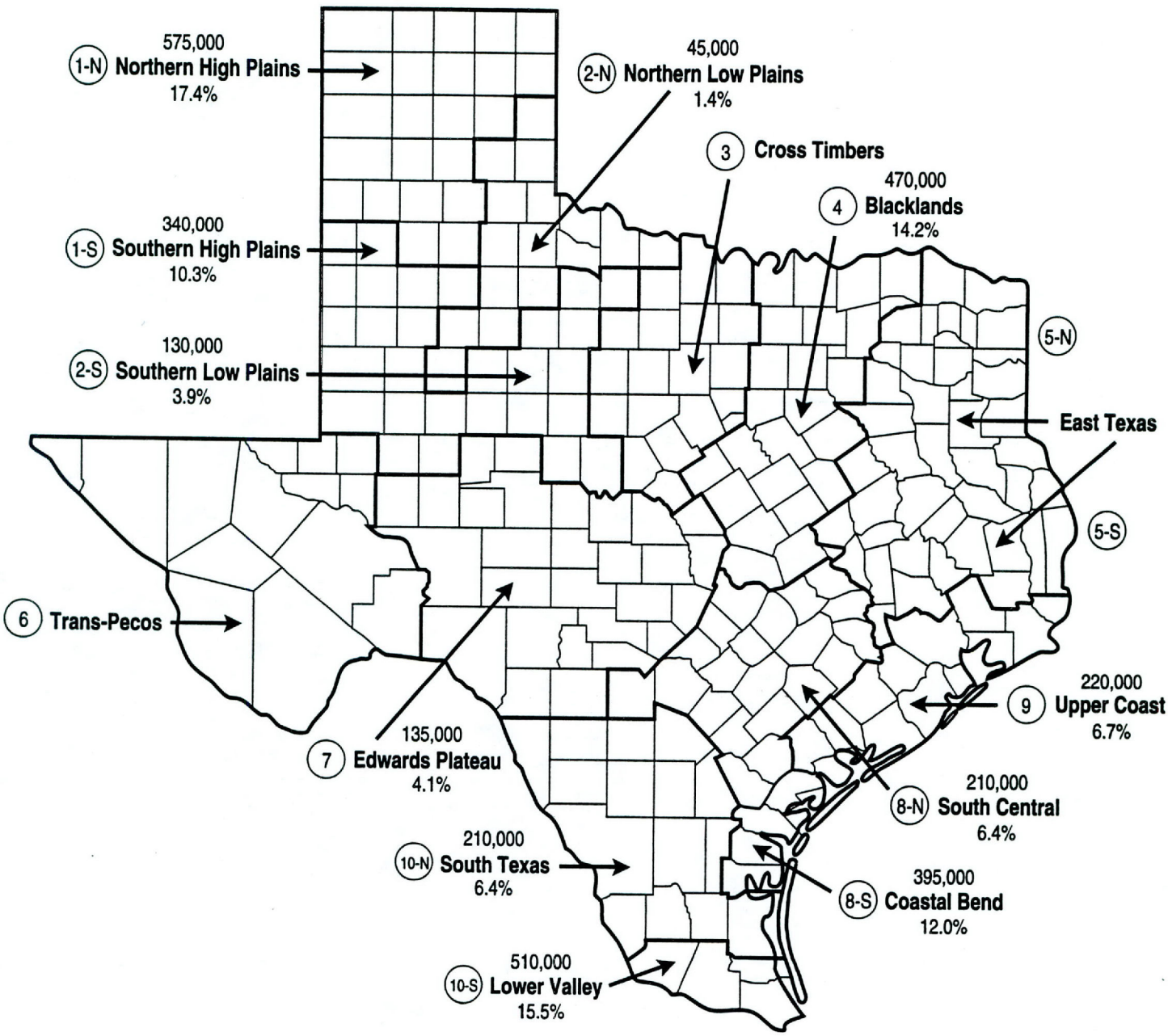
CV--Coefficient of Variation. A statistical tool used to estimate the degree of confidence one may have in published data from replicated tests. C.V.'s below 15% generally indicate reliable, uniform data whereas C.V.'s over 15% are common and may lack precision, but the data may be useful for comparison.

RESULTS

Results for each of the performance test locations are presented as follows:

1. Tables 2-11 summarize agronomic and test data information.
2. Tables 2A-11A present all performance test data obtained for hybrids entered at the respective locations. Some of these hybrids are in the experimental stage and seeds are not yet available in quantities for farm planting. Table 5A-1 gives disease ratings for hybrids entered at the Danevang Test.
3. Tables 2B-11B are summaries of hybrids showing test yields and test ranks at respective locations for given time periods. The summaries are helpful in selection of hybrids for a particular area. Those hybrids not entered for a respective year are designated (--). Hybrids with same yields were ranked by computer.
4. Tables S1-S2 gives results of a supplementary grain sorghum test conducted at Lamesa, Texas.
5. Tables S3-S4 gives results of a supplementary grain sorghum variety test conducted at Halfway, Texas, in cooperation with the High Plains Research Foundation.
6. Tables S5-S6 gives agronomic and test results from supplementary grain sorghum tests conducted by the Runnels County Young Farmers Organization of Winters, Texas.

Figure 1. Acres and Percentage of Grain Sorghum Acreage Harvested by Texas Crop Reporting Districts, 1993 (1).



NOTES:
A. The figure below each crop reporting district is that district's percentage of the total harvested sorghum in Texas.
B. The circled figure is the number of each district.
C. The figure above the distict name is the total harvested acres for that district.
D. The districts with no acreage presented are not considered major sorghum production areas. Grouped together, these districts account for 60,000 acres, or 1.8 percent of state acreage (1).

Figure 2. 1993 Grain Sorghum Performance Test Locations in Texas.

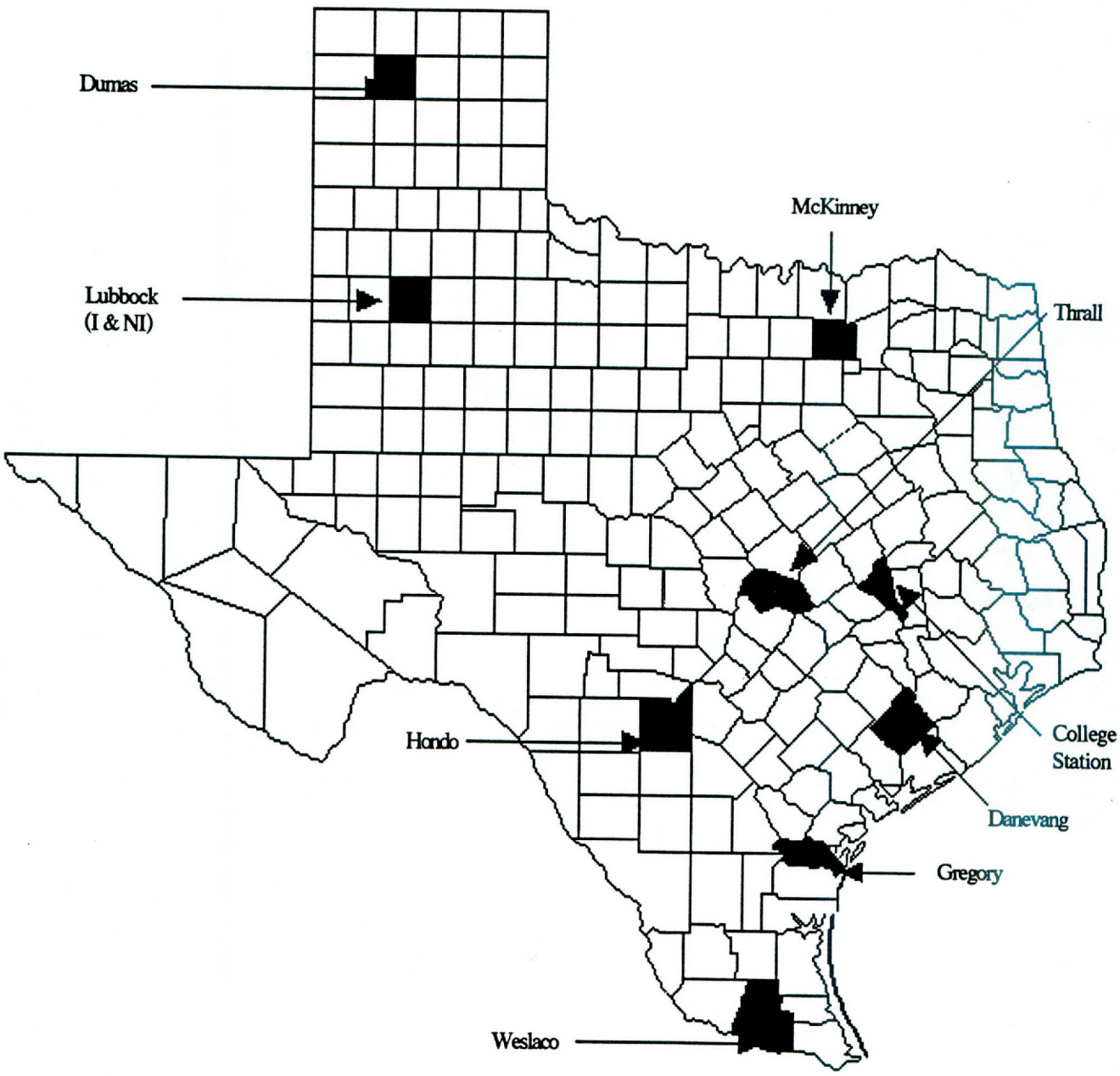


Table 1. Name, address and hybrid designation for participants in the 1993 Texas Grain Sorghum Performance Test

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lub"I"	Lub"D"	Dumas
AgriPro Seeds	AP 9690	-	-	-	-	-	-	-	-	X	X
Ames, Iowa 50010	WAC 657 (81892)	X	-	-	-	-	-	-	-	-	-
	EX 81781	X	-	-	-	-	-	-	-	-	-
	EX 90763	X	-	-	-	-	-	-	-	-	-
	EX 90800	X	-	-	-	-	-	-	-	-	-
	WAC 660 (81772)	X	-	-	-	-	-	-	-	-	-
	EX 19318	X	-	-	-	-	-	-	-	-	-
	EX 19042	X	-	-	-	-	-	-	-	-	-
	EX 19045	X	-	-	-	-	-	-	-	-	-
	EX 19044	X	-	-	-	-	-	-	-	-	-
	EX 29771	X	-	-	-	-	-	-	-	-	-
	EX 29772	X	-	-	-	-	-	-	-	-	-
	EX 29773	X	-	-	-	-	-	-	-	-	-
	WAC 685 (9850)	X	-	-	-	-	-	-	-	-	-
	WAC 686	X	-	-	-	-	-	-	-	-	-
	WAC 672 (D701G)	X	-	-	-	-	-	-	-	-	-
	AP 9850	-	-	-	-	-	-	-	X	-	-
	ST 686	-	-	-	-	-	-	-	X	-	-
	AP 9830	-	-	-	-	-	-	-	-	X	-
ASGROW SEED CO.	XP 5702	X	X	X	X	X	X	X	X	-	X
P. O. Box 460	A 504	-	-	-	-	-	-	-	-	X	X
Parkersburg, IA 50665	A 406	-	-	-	-	-	-	-	-	X	-
Cargill Hybrid Seeds	837	X	X	X	X	X	X	X	X	-	X
P.O. Box 5645	X 19383	X	X	X	-	-	X	X	-	X	-
Minneapolis, MN 55440	857	-	X	X	X	X	X	-	X	X	X
	727	-	X	X	-	-	X	X	-	X	-
	797	-	-	-	-	-	X	-	X	X	X
	607E	-	-	-	-	-	-	-	-	X	-

Table 1. Name, address and hybrid designation for participants in the 1993 Texas Grain Sorghum Performance Test

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lub"I"	Lub"D"	Dumas
AgriPro Seeds	AP 9690	-	-	-	-	-	-	-	-	X	X
Ames, Iowa 50010	WAC 657 (81892)	X	-	-	-	-	-	-	-	-	-
	EX 81781	X	-	-	-	-	-	-	-	-	-
	EX 90763	X	-	-	-	-	-	-	-	-	-
	EX 90800	X	-	-	-	-	-	-	-	-	-
	WAC 660 (81772)	X	-	-	-	-	-	-	-	-	-
	EX 19318	X	-	-	-	-	-	-	-	-	-
	EX 19042	X	-	-	-	-	-	-	-	-	-
	EX 19045	X	-	-	-	-	-	-	-	-	-
	EX 19044	X	-	-	-	-	-	-	-	-	-
	EX 29771	X	-	-	-	-	-	-	-	-	-
	EX 29772	X	-	-	-	-	-	-	-	-	-
	EX 29773	X	-	-	-	-	-	-	-	-	-
	WAC 685 (9850)	X	-	-	-	-	-	-	-	-	-
	WAC 686	X	-	-	-	-	-	-	-	-	-
	WAC 672 (D701G)	X	-	-	-	-	-	-	-	-	-
	AP 9850	-	-	-	-	-	-	-	X	-	-
	ST 686	-	-	-	-	-	-	-	X	-	-
	AP 9830	-	-	-	-	-	-	-	-	X	-
ASGROW SEED CO.	XP 5702	X	X	X	X	X	X	X	X	-	X
P. O. Box 7570	A 504	-	-	-	-	-	-	-	-	X	X
Des Moines, IA 50322	A 406	-	-	-	-	-	-	-	-	X	-
Cargill Hybrid Seeds	837	X	X	X	X	X	X	X	X	-	X
P.O. Box 5645	X 19383	X	X	X	-	-	X	X	-	X	-
Minneapolis, MN 55440	857	-	X	X	X	X	X	-	X	X	X
	727	-	X	X	-	-	X	X	-	X	-
	797	-	-	-	-	-	X	-	X	X	X
	607E	-	-	-	-	-	-	-	-	X	-

Table 1. (Continued)

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lub"I"	Lub"D"	Dumas
DEKALB PLANT GENETICS	DEKALB DK-37	X	X	-	X	X	X	X	-	-	-
Rt. 2, Box 56	DEKALB DK-56	X	X	X	X	X	X	X	X	-	X
Lubbock, TX 79415	DEKALB DK-52 (X-061)	X	-	-	-	-	-	-	-	-	-
	DEKALB X-325 (X)	X	X	-	-	X	-	-	-	-	-
	DEKALB DK-54	-	X	X	X	X	-	-	-	-	-
	DEKALB DK-40Y	-	-	-	-	-	X	X	-	X	-
	DEKALB D-51	-	-	-	-	-	X	X	X	-	-
	DEKALB X-66	-	-	-	-	-	-	-	X	-	X
	DEKALB DK-58	-	-	-	-	-	-	-	X	-	X
	DK-38Y	-	-	-	-	-	-	-	-	X	-
DEKALB Semillas Hibridas	D-62 (Exp. 061)	X	-	-	-	-	-	-	-	-	-
P.O. Box 3640	DK-50	X	-	-	-	-	-	-	-	-	-
Brownsville, TX. 78523	EXP. 9011X	X	-	-	-	-	-	-	-	-	-
DELTA AND PINE LAND CO.	1552	X	X	X	X	X	X	X	-	-	-
1301 E. 50th St.	1558	X	X	X	X	-	X	-	-	-	-
Lubbock, TX 79404	1710	X	X	-	X	X	-	-	-	-	-
	1506	-	-	X	-	X	X	X	-	-	-
	1482	-	-	-	-	-	-	X	-	-	-
DOUGLASS W. KING CO.	dk780	-	X	-	-	-	X	-	X	X	X
P.O. Box 200320	dk785E	X	X	X	X	-	-	-	X	-	X
San Antonio, TX 78220	dk790E	X	-	X	X	-	-	-	X	-	X
	dk715E	-	-	-	-	-	-	-	-	X	-
	dk934X	-	-	X	X	-	X	-	-	-	-
Frontier Hybrids Inc.	F-524	X	X	X	-	X	-	-	X	-	X
P.O. Box 177	F-308G	-	-	-	-	-	-	-	-	-	X
Abernathy, TX 79311	F-300G	-	-	-	-	-	-	-	X	-	-
	F-270G	-	-	-	-	-	-	-	-	X	-
	F-333Y	-	-	-	-	-	-	-	-	X	-

Table 1. (Continued)

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lub"I"	Lub"D"	Dumas
Garrison Seed Company	S.G.-942	-	-	-	-	-	-	-	X	-	X
Drawer 2420	S.G.-925	-	-	-	-	-	-	-	X	-	X
Hereford, TX 79045	S.G.-822	-	-	-	-	-	-	-	-	X	-
	S.G.-622	-	-	-	-	-	-	-	-	X	-
	S.G.-651	-	-	-	-	-	-	-	-	X	-
George Warner Seed Co., Inc.	W-917-E	X	-	-	X	-	-	-	-	-	-
P.O. Box 1448	W-816-E	X	-	-	-	-	-	-	-	-	X
Hereford, TX 79045	W-625-Y	-	-	-	-	-	-	X	-	-	-
	W-818-E	-	-	-	-	-	-	X	-	-	-
	W-624-Y	-	-	-	-	-	-	-	-	X	-
	W-528-W	-	-	-	-	-	-	-	-	X	-
Harvest Master	HM 2250	-	-	X	-	-	-	-	-	-	-
HyPerformer Seed Co.	HSC Cherokee	X	X	X	X	X	X	X	X	X	X
5100 Poplar	HSC Wings	X	X	X	X	-	-	X	-	-	-
Suite 3200	HY 1320	X	X	X	X	X	X	-	X	-	X
Memphis, TN 38137											
	HSC 893	X	-	-	X	X	X	X	X	X	X
	Honcho	-	-	-	-	-	-	-	-	X	-
ICI Seeds	5319	X	X	X	X	-	X	-	-	-	-
2505 Candlewood Dr.	5323	X	X	X	-	-	-	-	-	X	-
Manhattaan, KS 66502	5616	-	X	-	-	-	X	X	-	X	-
	5503	-	-	-	X	-	-	-	-	-	-
	5392	-	-	-	-	-	-	-	X	-	-
	5514Y	-	-	-	-	-	-	-	-	X	-
Jacques Seed Company	Jacques 444E	-	-	-	-	-	-	-	X	X	X
720 St. Croix Street	Jacques 611E	-	-	-	-	-	-	-	X	-	X
Prescott, WI 54021	Jacques 375-W	-	-	-	-	-	-	-	-	X	-
	Jacques 355-W	-	-	-	-	-	-	-	-	X	-

Table 1. (Continued)

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lub"I"	Lub"D"	Dumas
KELLY GREEN SEEDS	KG- 6952	X	-	-	-	-	-	-	-	-	-
610 Ave. A, Box 916	KG-6922	X	-	-	-	-	-	-	-	-	-
Farwell, TX. 79325	KG-6844	X	-	-	-	-	-	-	-	-	-
	KG-6714	X	-	-	-	-	-	-	-	-	
NC + Hybrids	NC+ 7B90	X	X	-	X	-	X	X	-	-	-
3820 N. 56th	NC+ 472	X	X	-	X	-	X	X	-	-	-
P.O. Box 4408	NC+ 573	-	X	-	-	-	X	X	-	-	-
Lincoln, NE 68504											
Northrup King Company	2665	X	X	X	X	X	X	-	-	-	X
6139 37th St.	KS 936	X	-	-	-	-	-	-	-	-	X
Lubbock, TX 79407	KS 737	-	X	X	X	X	X	-	-	-	-
	KS 714Y	-	-	-	X	X	-	-	-	-	-
	KS 397	-	-	-	-	-	X	X	-	-	-
	KS 560Y	-	-	-	-	-	X	-	-	X	-
	KS 383Y	-	-	-	-	-	-	X	-	X	-
	KS 524	-	-	-	-	-	-	X	-	X	-
Mycogen Plant Sciences	Myc GSC-3260	X	X	-	X	X	X	X	X	X	X
505 South 87th	Myc GSC-3150	-	X	-	X	X	X	X	X	-	X
P.O. Box 68	Myc GSC-1313	-	X	-	X	-	-	-	-	-	X
Tulia, Texas 79088											
	Myc GSC-3157	-	X	-	-	-	-	-	-	-	-
	Myc GSC-1310AE	-	-	-	-	-	-	X	-	-	-
	Myc GSC-3624	-	-	-	-	-	-	-	X	-	-
	Myc GSC-3159	-	-	-	-	-	-	-	-	X	-
	Myc GSC-3622	-	-	-	-	-	-	-	-	X	
	Myc ORO Amigo	X	X	X	X	X	X	X	X	-	X
	Myc ORO Quest(X9210)	X	X	X	X	X	X	X	-	X	-
	Myc ORO Exp. 4312X	X	-	-	-	-	-	-	-	-	X

Table 1. (Continued)

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lub"I"	Lub"D"	Dumas
Mycogen (Continued)	Myc ORO Ultra	X	X	-	X	-	-	-	-	-	-
	Myc ORO Zenith	-	X	X	-	-	-	-	-	-	-
	Myc ORO Baron	-	-	-	-	X	-	-	-	-	-
	Myc ORO Exp. 4331X	-	-	-	-	-	X	X	-	-	-
	Myc ORO Bonus	-	-	-	-	-	-	X	-	-	-
	Myc ORO Excel	-	-	-	-	-	-	-	-	X	-
	Myc T-E 77-E	X	-	-	-	-	-	-	-	-	X
	Myc T-E X-8342	X	-	-	X	-	-	-	-	-	X
	Myc T-E SONORA	-	X	X	X	X	X	X	X	X	-
	Myc T-E RANGER	-	X	X	-	-	-	-	-	-	-
	Myc T-E Y-75	-	-	-	-	X	-	-	X	-	-
	Myc T-E X-8321	-	-	-	-	-	X	-	-	-	-
	Myc T-E PROSPER	-	-	-	-	-	X	X	-	-	-
	Myc T-E X-9121	-	-	-	-	-	-	-	-	-	X
	Myc T-E HARDY	-	-	-	-	-	-	-	-	X	-
Pioneer Hi-Bred Int'l., Inc. P.O. Box 788 Plainview, TX 79072	8118 (X5116)	X	X	X	X	X	-	-	-	-	X
	8310 (X5418)	X	X	X	X	X	X	X	-	-	X
	8318	X	X	X	X	X	-	-	-	-	-
	8601	-	-	-	-	-	X	X	-	-	-
	8699	-	-	-	-	-	X	X	-	-	-
	8606 (X5606)	-	-	-	-	-	X	X	-	-	-
	8446	-	-	-	-	-	-	-	-	X	-
	8505	-	-	-	-	-	-	-	-	X	-
Pogue Seed Company P.O. Drawer 389 Kenedy, TX 78119	AG 233	X	X	-	-	-	-	-	-	-	-

Table 1. (Continued)

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lub"I"	Lub"D"	Dumas
SEEDCO Corporation 103 Erskine Lubbock, TX 79403	SC-710	-	X	-	-	-	-	-	-	-	-
Seed Source, Inc. 106 4th Street Leland, MS 38756	SPB 21937	X	-	-	-	-	-	-	-	-	-
	SPB 08936	X	-	-	-	-	-	-	-	-	-
	SPB 18943	X	-	-	-	-	-	-	-	-	-
	SPB 01943	X	-	-	-	X	-	-	-	-	-
	SPB 16908	-	-	-	-	X	-	-	-	-	-
	SPB 22943	-	-	-	-	X	-	-	-	-	-
	SPB 22908	-	-	-	-	X	-	-	-	-	-
TEXAS SEED CO., INC. P.O. Drawer 599 221 Airport Boulevard Kenedy, TX 78119	TS-466	X	X	X	X	-	-	-	-	-	-
Texas Agricultural Experiment Station (FM) College Station, TX 77843	ATxARG-1 x 90T308	X	X	X	X	X	X	X	X	X	X
	A8618 x RQL36	X	X	X	X	X	X	X	X	X	X
	ATx631 x R.9021	X	X	X	X	X	X	X	X	X	X
	ATx631 x RTx436	X	X	X	X	X	X	X	X	X	X
	ATxARG-1 x RTx436	X	X	X	X	X	X	X	X	X	X
	A8618 x RTx2783	X	X	X	X	X	X	X	X	X	X
	A8618 x RTx430	X	X	X	X	X	X	X	X	X	X
	ATxARG-1 x R8925	X	X	X	X	X	X	X	X	X	X
	A8618 x 91C1988	X	X	X	X	X	X	X	X	X	X
	ATxARG-1 x R8922	X	X	X	X	X	X	X	X	X	X

Table 1. (Continued)

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lub"I"	Lub"D"	Dumas
Texas Agricultural Experiment Station (DR) College Station, TX 77843	A807 x 8BE2668	X	X	X	X	-	X	X	X	-	-
	A807 x R3224(t)	X	X	-	X	-	-	-	X	-	-
	A1 x 8BE2668	X	X	X	X	-	X	X	X	-	X
	A807 x R8503	X	X	-	-	-	-	X	X	-	-
	A.BON x 86EO361	X	-	-	-	-	-	-	-	-	-
	ATx635 x 87EO366sis	X	-	-	-	-	-	-	X	-	-
	A807 x Tx2783	-	X	-	X	-	-	-	X	-	-
	A803 x 8BE2668	-	X	-	X	-	-	X	-	-	-
	A35 x 8BE2668	-	-	-	-	-	X	-	-	-	-
	A35 x 89CC443	-	-	-	-	-	X	-	X	-	-
	A807 x (430x9188)	-	-	-	-	-	X	-	X	-	-
	A.Bon34 x 86EO361	-	-	-	-	-	-	-	X	-	-
	ATx635 x 86EO361	-	-	-	-	-	-	-	X	-	-
	A1 x Tx430	-	-	-	-	-	-	-	X	-	-
	A.Bon 34 x 92L215	-	-	-	-	-	-	-	X	-	-
	ABON34 x 86EON361	-	-	-	-	-	-	-	-	-	X
	ATx635 x 86EON361	-	-	-	-	-	-	-	-	-	X
	A4R x Tx430	-	-	-	-	-	-	-	-	-	X
Texas Agricultural Experiment Station (GP) College Station, TX 77843	A1 x GR107-90M17	X	X	-	X	-	X	-	X	-	X
	A1 x GR108-90M23	X	X	-	-	-	-	-	X	-	X
	ATx2752 x GR108-90M23	X	X	-	X	-	X	-	X	-	X
	ATx2755 x MR120-90M8	-	X	-	-	-	-	-	-	X	-
	A1 x GR134A-90M50	-	X	-	-	-	-	-	-	-	-
	ATx2752 x GR134A-90M50	-	X	-	X	X	-	-	X	-	-

Table 1. (Continued)

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lub"I"	Lub"D"	Dumas
Texas Agricultural Experiment Station (GP) (Continued)	A35 x GR107-90M17	-	-	X	-	-	-	-	-	X	-
	A35 x GR107-90M18	-	-	X	-	-	-	-	X	X	-
	A1 x GR108-90M30	-	-	X	-	-	-	-	-	-	-
	A35 x GR134A-90M50	-	-	X	-	-	-	-	-	X	-
	A1 x GR107-90M18	-	-	-	-	X	-	-	-	-	-
	ATx2752 x GR108-90M30	-	-	-	-	-	X	-	X	-	-
	ATx2752 x GR134A-90M49	-	-	-	-	-	-	-	X	-	-
	ATx2752 x GR108-90M24	-	-	-	-	-	-	-	X	-	-
	A35 x GR134A-90M49	-	-	-	-	-	-	-	-	X	-
	ATx2755 x MR102-90M2	-	-	-	-	-	-	-	-	X	-
	ATx2801 x MR102-90M2	-	-	-	-	-	-	-	-	X	-
	ATx2755 x MR114-90M11	-	-	-	-	-	-	-	-	X	-
	ATx2801 x MR114-90M11	-	-	-	-	-	-	-	-	X	-

TABLE 2. AGRONOMIC AND TEST INFORMATION: WESLACO

TEST:	1993 Irrigated Grain Sorghum Performance Test
LOCATION:	Texas A&M University Research and Extension Center, Weslaco, Texas
COOPERATORS:	Ralph Morgan ,John Drawe, & Dennis Pietsch
SOIL TYPE:	Raymondville clay loam
ROW WIDTH:	30"
PREVIOUS CROP:	Cotton
LAND PREPARATION:	Disc, Chiseled, Disc, Bed
DATE PLANTED:	2-18-93
DATE THINNED:	3-25-93; thinned to approximately 3-4 plants/foot
PLOT LENGTH:	22'
FERTILIZER:	160+0+0; 80 lbs N/ac as N-32 1/8/93, 80 lbs N/ac as N-32 applied 4/13/93
HERBICIDE:	None
INSECTICIDE:	6 oz/A Di-Syston for yellow sugarcane aphids on 3-10-93
RAINFALL:	January 0.44"; February = 1.33"; March = 1.57"; April = 0.08"; May 3.3"; June 6.7"; Total 13.42"
IRRIGATIONS:	1-19(preplant); 4-7; 5-3; approx. 4"each
DATE HARVESTED:	6-29-93 by hand
SIZE HARVESTED PLOT:	1/750 acre
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	88
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	2
TEST MEAN:	5,853 lb/A; yields corrected to 13% moisture
TEST C.V:	9.1 percent

GENERAL INFORMATION: Above average yields were attained at this Rio Grande Valley test site despite periods of adverse conditions. First, yellow sugarcane aphids were observed in the test block but were controlled by applying an insecticide. Second, periods of cool and wet conditions during mid-March retarded early plant growth and development. Warm weather soon followed and allowed for continuous plant growth and development. Third, a prolonged period of rainfall and hot temperatures during mid-June just prior to harvest resulted in grain sprouting and grain weathering. Potential yields were probably reduced thus affecting bushel weights and quality. Due to the wet conditions, and to prevent further loss of grain, the test block was harvested by hand on June 29. Samples were threshed with a plot thresher and moisture and bushel weights recorded.

The test mean yield was 5,853 lb/A compared to 5,178 lb/A in 1992. Thirty-nine hybrids in the test produced over 6,000 lb/A. Root lodging was observed in numerous hybrids which can attributed to a severe thunderstorm on May 7.

Table 2A. GRAIN SORGHUM PERFORMANCE TEST; WESLACO, TEXAS 1993

Hybrid *	Company Or Brand Name	Grain Color **	Plant Color ***	Maturity Class ****	Days To 50% Flower	Plant Height Inches	Head Exsertion Inches	% Stand	% Lodge	Midge Damage %	Test Weight lb/bu	Moisture %	Yield lb/A	Stat. Sig., 0.05 *****
HSC Cherokee	HyPerformer Seed Company	R	*	M	74	44	5	100.0	3.3	1.0	57.9	16.2	6752	A
Myc T-E 77E	Mycogen Plant Sciences	Bz	P	L	74	45	5	100.0	15.0	3.3	55.2	15.6	6713	A-B
EX 90800	AgriPro Seeds	*	*	*	78	49	6	100.0	10.0	1.3	59.1	16.3	6646	A-B
WAC 686	AgriPro Seeds	*	*	*	74	44	6	100.0	1.7	1.3	58.0	16.2	6605	A-B
8313	Pioneer Hi-Bred Int'l., Inc	Bz	P	ML	74	43	4	100.0	5.0	0.7	58.1	16.1	6541	A-C
NC+ 472	NC+ Hybrids	Bz	*	M	74	43	5	100.0	5.0	4.3	53.5	15.0	6538	A-C
Myc ORO Exp.4312X	Mycogen Plant Sciences	R	P	M	79	48	3	98.3	35.0	1.0	57.8	15.7	6516	A-D
WAC 672	AgriPro Seeds	*	*	*	74	47	4	100.0	15.0	1.7	54.2	15.3	6514	A-D
WAC 657	AgriPro Seeds	*	*	*	76	45	5	100.0	9.0	0.7	58.4	16.3	6503	A-E
A807 x R8503	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	78	49	7	100.0	0.0	0.0	57.8	18.4	6498	A-E
EX 19318	AgriPro Seeds	*	*	*	75	43	3	100.0	2.0	2.0	58.4	16.3	6483	A-E
XP5702	Asgrow Seed Company	Bz	P	M	74	48	6	100.0	0.7	0.7	56.3	15.1	6460	A-E
HSC 893	HyPerformer Seed Company	Bz	*	M	73	41	6	100.0	1.3	1.3	58.2	16.4	6458	A-F
EX 90763	AgriPro Seeds	*	*	*	77	48	6	100.0	1.7	1.7	58.0	16.3	6426	A-G
KG-6952	KELLY GREEN SEEDS, INC.	R	*	L	74	46	4	100.0	2.7	2.7	58.7	16.5	6425	A-G
W-816-E	George Warner Seed Co., Inc	*	*	*	74	42	5	100.0	1.3	1.3	58.3	16.3	6415	A-G
Myc ORO Amigo	Mycogen Plant Sciences	Bz	P	ML	74	47	6	98.3	2.3	2.3	55.3	15.4	6361	A-H
837	Cargill Hybrid Seeds	Bz	P	ML	80	48	6	100.0	1.7	1.7	55.1	16.0	6359	A-I
Myc ORO Quest	Mycogen Plant Sciences	Bz	P	ML	74	47	9	100.0	2.0	2.0	55.0	16.0	6339	A-I
5319	ICI Seeds	Bz	P	ML	74	46	6	100.0	4.3	4.3	54.8	15.4	6324	A-I
EX 81781	AgriPro Seeds	*	*	*	75	45	5	100.0	2.7	2.7	57.9	16.1	6320	A-I
dk 790E	DOUGLASS W. KING CO., INC.	R	P	L	74	46	4	100.0	12.0	12.0	55.0	15.6	6305	A-I
W-917-E	George Warner Seed Co., Inc	*	*	*	74	47	3	100.0	2.7	2.7	58.1	16.3	6245	A-J
ATx2792 x Tx2783	Tx. Agri. Exp. Stat.	R	P	ML	74	43	4	98.3	2.0	2.0	57.2	16.4	6218	A-K
8310	Pioneer Hi-Bred Int'l., Inc	Bz	R	ML	75	47	6	100.0	2.7	2.7	57.6	16.2	6199	A-K
AG 233	Pogue Seed Company	Bz	R	ML	74	44	3	100.0	3.3	3.3	53.5	15.3	6194	A-L
KG-6714	KELLY GREEN SEEDS, INC.	Bz	*	ML	74	45	6	100.0	0.7	0.7	53.0	15.5	6191	A-L
KG-6844	KELLY GREEN SEEDS, INC.	Bz	*	ML	75	48	5	100.0	1.7	1.7	55.1	15.9	6171	A-M
1552	Delta and Pine Land Company	Bz	P	M	75	45	3	100.0	4.0	4.0	55.6	16.5	6165	A-M
DEKALB X9011(x)	DEKALB Plant Genetics	Bz	P	ME	74	42	3	100.0	0.7	0.7	58.5	15.7	6136	A-M

Table 2A. (CONTINUED)

Hybrid *	Company Or Brand Name	Grain Color **	Plant Color ***	Maturity Class ****	Days To 50% Flower	Plant Height Inches	Head Exsertion Inches	% Stand	% Lodge	Midge Damage %	Test Weight lb/bu	Moisture %	Yield lb/A	Stat. Sig., 0.05 *****
WAC 685	AgriPro Seeds	*	*	*	76	44	3	100.0	35.0	0.7	58.6	15.9	6105	A-M
1710	Delta and Pine Land Company	Bz	P	ML	76	46	6	100.0	15.0	6.0	54.7	16.1	6102	A-M
A807 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	RT	P	ML	79	52	10	100.0	0.0	0.0	57.9	18.0	6101	A-M
A1 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	RT	P	ML	80	49	8	100.0	8.3	0.0	59.2	17.4	6100	A-M
1558	Delta and Pine Land Company	RT	P	M	74	44	6	100.0	6.7	4.0	58.5	16.2	6094	A-M
NC+ 7B90	NC+ Hybrids	Bz	*	M	75	46	5	100.0	13.3	2.3	54.3	15.8	6053	A-M
CHECK	Tx. Agri. Exp. Stat.	*	*	*	75	45	6	98.3	38.3	4.3	55.1	15.7	6028	A-M
2665	Northrup King Company	R	P	ML	75	43	5	98.3	8.3	15.0	55.9	15.8	6016	A-M
ATxARG-1 x RTx436	Tx. Agri. Exp. Stat.(FM)	WT	T	M	74	46	7	100.0	6.7	1.0	55.2	15.4	6010	A-M
WAC 660	AgriPro Seeds	*	*	*	74	47	5	100.0	31.7	2.3	59.1	16.3	5999	A-M
DEKALB DK-62	DEKALB Plant Genetics	Bz	P	ML	80	48	6	100.0	11.7	1.3	55.8	16.3	5997	A-M
DEKALB X-325(x)	DEKALB Plant Genetics	R	P	ML	81	43	5	95.0	0.0	0.0	51.7	16.0	5969	A-N
Myc T-E X-8342	Mycogen Plant Sciences	Bz	P	ML	79	49	5	100.0	46.7	1.7	57.1	15.8	5968	A-N
HY 1320	HyPerformer Seed Company	R	*	ML	75	44	4	100.0	33.3	0.0	59.0	16.1	5945	A-N
TS-466	Texas Seed Co., Inc.	Bz	P	ML	74	45	5	100.0	43.3	4.7	53.6	15.4	5940	A-N
F-524	Frontier Hybrids, Inc.	Bz	T	ML	74	46	6	100.0	36.7	1.7	55.7	15.4	5937	A-N
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	74	44	5	98.3	30.0	3.0	54.7	15.2	5936	A-N
ATx399 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	74	46	7	100.0	3.3	3.3	52.6	15.3	5923	A-N
Myc ORO Ultra	Mycogen Plant Sciences	Bz	P	ML	74	45	6	100.0	0.7	1.3	53.2	15.6	5921	A-N
KG-6922	KELLY GREEN SEEDS, INC.	Bz	*	ML	74	47	6	100.0	35.0	2.3	52.9	15.1	5911	A-N
HSC Wings	HyPerformer Seed Company	BZ	*	ML	74	44	5	98.3	33.3	3.7	54.5	15.9	5890	A-N
A.BON34 x 86E0361	Tx. Agri. Exp. Stat.(DR)	Wh	T	ML	81	47	6	95.0	18.3	5.7	55.8	15.7	5839	A-N
EX 19045	AgriPro Seeds	*	*	*	76	45	6	98.3	35.0	3.3	57.0	15.6	5813	A-N
DEKALB DK-56	DEKALB Plant Genetics	R	P	ML	81	49	7	98.3	25.0	1.3	57.2	16.7	5721	A-N
ATxARG-1 x R8922	Tx. Agri. Exp. Stat.(FM)	Rt	T	M	83	52	7	100.0	11.7	4.7	56.6	16.3	5674	A-O
Myc Grower's 3260	Mycogen Plant Sciences	Bz	P	ML	75	48	8	100.0	5.0	6.0	54.5	15.9	5672	A-O
ATxARG-1 x R8925	Tx. Agri. Exp. Stat.(FM)	Rt	T	M	77	44	5	95.0	0.0	2.0	52.3	15.9	5662	A-O
ATx378 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	75	50	4	98.3	46.7	4.0	53.1	15.2	5630	B-O
737	Cargill Hybrid Seeds	Bz	P	M	72	42	5	100.0	1.7	3.7	56.4	16.2	5615	B-O
dk 785E	DOUGLASS W. KING CO., INC.	R	P	ME	73	42	7	98.3	0.0	0.7	55.4	16.5	5474	C-P

Table 2A. (CONTINUED)

Hybrid *	Company Or Brand Name	Grain Color **	Plant Color ***	Maturity Class ****	Days To 50% Flower	Plant Height Inches	Head Exsertion Inches	% Stand	% Lodge	Midge Damage %	Test Weight lb/bu	Moisture %	Yield lb/A	Stat. Sig., 0.05 *****
ATx631 x RTx436	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	82	51	5	98.3	20.0	5.7	56.1	16.6	5447	C-P
KS 936	Northrup King Company	R	P	L	79	50	8	98.3	61.7	1.0	58.8	16.2	5424	D-P
DEKALB DK-37	DEKALB Plant Genetics	Bz	P	ME	74	47	7	98.3	23.3	2.3	54.9	15.6	5420	D-P
EX 19044	AgriPro Seeds	*	*	*	79	47	6	100.0	18.3	8.3	57.2	15.9	5401	E-P
A8618 x RTx430	Tx. Agri. Exp. Stat.(FM)	Rt	P	ML	82	47	6	100.0	0.0	4.0	54.1	15.9	5354	F-P
EX 29772	AgriPro Seeds	*	*	*	69	41	6	100.0	0.0	15.0	57.9	15.6	5349	G-P
A807 x R3224(t)	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	76	47	5	100.0	3.3	1.3	54.3	17.6	5334	G-P
DEKALB DK-50	DEKALB Plant Genetics	R	P	ML	81	51	6	100.0	11.7	3.7	53.2	16.5	5324	G-P
8118	Pioneer Hi-Bred Int'l., Inc	Bz	P	L	79	51	7	100.0	5.0	2.3	56.7	16.3	5284	H-Q
ATx635 x 87E0366sis	Tx. Agri. Exp. Stat.(DR)	Wt	T	ML	84	56	6	100.0	20.0	0.0	56.6	15.8	5254	I-Q
A1 x Tx2868	Tx. Agri. Exp. Stat.	W	P	ML	83	50	7	100.0	0.0	1.3	56.8	17.0	5149	J-Q
ATx2752 x GR108-90M23	Tx. Agri. Exp. Stat.(GP)	R	P	ML	74	44	4	100.0	81.7	1.7	57.6	15.6	5130	K-Q
A1 x GR107-90M17	Tx. Agri. Exp. Stat.(GP)	R	P	ML	81	50	5	100.0	0.0	2.0	58.1	17.8	5117	K-Q
EX 29773	AgriPro Seeds	*	*	*	70	45	6	96.7	1.7	6.0	52.3	14.9	5116	K-Q
EX 19042	AgriPro Seeds	*	*	*	75	48	5	96.7	31.7	7.3	55.0	15.1	5091	L-Q
EX 29771	AgriPro Seeds	*	*	*	69	40	6	100.0	3.3	8.3	56.5	15.7	5085	M-Q
A8618 x RQL36	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	82	51	10	95.0	0.0	4.0	53.7	16.3	5081	M-Q
A8618 x RTx2783	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	83	48	3	95.0	0.0	9.0	54.4	16.3	4876	N-Q
A1 x GR108-90M23	Tx. Agri. Exp. Stat.(GP)	R	P	ML	82	56	5	100.0	8.3	3.3	58.5	17.8	4875	N-Q
ATx631 x R.9021	Tx. Agri. Exp. Stat.(FM)	Rt	T	M	85	52	6	100.0	0.0	7.7	54.0	15.8	4628	O-Q
5323	ICI Seeds	R	P	ML	78	48	8	98.3	0.0	36.7	56.3	16.6	4518	P-Q
ATxARG-1 x 90T308	Tx. Agri. Exp. Stat.(FM)	Rt	T	ME	82	45	7	98.3	0.0	1.3	52.0	15.6	4450	P-Q
A8618 x 91C1988	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	86	49	4	83.3	0.0	7.3	53.6	17.5	4248	Q

TEST MEAN= 5853 TEST C.V.= 9.1 LSD .05= 857.2

Note 1: The ANOVA procedure was used for statistical analysis.

Note 2: Hybrid name starting or ending with an "X" denote a commercial experimental. Hybrids entered by the Texas Agricultural Experiment Station are either in the experimental stage or being tested as experimental check hybrids. Individuals may contact respective seed companies for the availability of planting seed for the upcoming crop year.

* Conlee Rustler were entered as commercial check hybrids at our discretion. They are intended to be used for comparison purposes only.

Table 2A. (CONTINUED)

** Grain color designated by respective seed companies: R=Red Br=Brown Bz=Bronze Rt=Red translucent W=White Wt=White translucent Ct=Cream translucent.

*** Plant color designated by respective seed companies: T=Tan R=Red P=Purple. Those hybrids designated with an asterisk(*) indicated company did not submit plant color.

**** Maturity classification for hybrids designated by the respective seed companies.
E=Early M=Medium ME=Medium Early ML=Medium Late L=Late.

***** Duncan's multiple range test was used at the .05 level.

Table 2B. Three-year summary, Grain Sorghum Performance Test, Weslaco, Texas.

HYBRID	COMPANY	1993		1992		1991	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
HSC Cherokee	HyPerformer Seed Company	1	6752	55	5054	6	5993
Myc T-E 77E	Mycogen Plant Sciences	2	6713	33	5457	63	5009
EX 90800	AgriPro Seeds	3	6646	–	–	–	–
WAC 686	AgriPro Seeds	4	6605	–	–	–	–
8313	Pioneer Hi-Bred Int'l., Inc	5	6541	–	–	–	–
NC+ 472	NC+ Hybrids	6	6538	–	–	–	–
Myc ORO Exp. 4312X	Mycogen Plant Sciences	7	6516	–	–	–	–
WAC 672	AgriPro Seeds	8	6514	–	–	–	–
WAC 657	AgriPro Seeds	9	6503	–	–	–	–
A807 x R8503	Tx. Agri. Exp. Stat. (DR)	10	6498	–	–	–	–
EX 19318	AgriPro Seeds	11	6483	–	–	–	–
XP5702	Asgrow Seed Company	12	6460	–	–	–	–
HSC 893	HyPerformer Seed Company	13	6458	–	–	–	–
EX 90763	AgriPro Seeds	14	6426	–	–	–	–
KG-6952	KELLY GREEN SEEDS, INC.	15	6425	–	–	–	–
W-816-E	George Warner Seed Co., Inc	16	6415	–	–	–	–
Myc ORO Amigo	Mycogen Plant Sciences	17	6361	25	5565	48	5265
837	Cargill hybrid Seeds	18	6359	16	5695	45	5284
Myc ORO Quest	Mycogen Plant Sciences	19	6339	49	5168	–	–
5319	ICI Seeds	20	6324	–	–	–	–
EX 81781	AgriPro Seeds	21	6320	–	–	–	–
dk 790E	DOUGLASS W. KING CO., INC.	22	6305	–	–	–	–
W-917-E	George Warner Seed Co., Inc	23	6245	28	5490	22	5669
ATx2792 x Tx2783	Tx. Agri. Exp. Stat.	24	6218	41	5326	–	–
8310	Pioneer Hi-Bred Int'l., Inc	25	6199	–	–	–	–
AG 233	Pogue Seed Company	26	6194	13	5744	–	–
KG-6714	KELLY GREEN SEEDS, INC.	27	6191	81	4069	–	–
KG-6844	KELLY GREEN SEEDS, INC.	28	6171	–	–	–	–
1552	Delta and Pine Land Company	29	6165	5	5903	28	5567
DEKALB X9011(x)	DEKALB Plant Genetics	30	6136	–	–	–	–

Table 2B. Weslaco, Texas. (Continued)

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
WAC 685	AgriPro Seeds	31	6105	–	–	–	–
1710	Delta and Pine Land Company	32	6102	12	5751	23	5635
A807 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	33	6101	–	–	–	–
A1 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	34	6100	–	–	–	–
1558	Delta and Pine Land Company	35	6094	46	5256	29	5559
NC+ 7B90	NC+ Hybrids	36	6053	17	5668	40	5320
CHECK (Rustler)	Tx. Agri. Exp. Stat.	37	6028	10	5781	16	5809
2665	Northrup King Company	38	6016	19	5661	38	5355
ATxARG-1 x RTx436	Tx. Agri. Exp. Stat. (FM)	39	6010	–	–	–	–
WAC 660	AgriPro Seeds	40	5999	–	–	–	–
DEKALB DK-62	DEKALB Plant Genetics	41	5997	2	6072	1	6184
DEKALB X-325(x)	DEKALB Plant Genetics	42	5969	–	–	–	–
Myc T-E X-8342	Mycogen Plant Sciences	43	5968	–	–	–	–
HY 1320	HyPerformer Seed Company	44	5945	–	–	–	–
TS-466	Texas Seed Co., Inc.	45	5940	–	–	–	–
F-524	Frontier Hybrids, Inc.	46	5937	18	5662	15	5814
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	47	5936	32	5458	18	5787
ATx399 x RTx430	Tx. Agri. Exp. Stat.	48	5923	56	4953	44	5293
Myc ORO Ultra	Mycogen Plant Sciences	49	5921	73	4583	30	5547
KG-6922	KELLY GREEN SEEDS, INC.	50	5911	84	3877	–	–
HSC Wings	HyPerformer Seed Company	51	5890	23	5580	41	5319
A.BON34 x 86E0361	Tx. Agri. Exp. Stat. (DR)	52	5839	36	5420	–	–
EX 19045	AgriPro Seeds	53	5813	–	–	–	–
DEKALB DK-56	DEKALB Plant Genetics	54	5721	6	5854	72	4782
ATxARG-1 x R8922	Tx. Agri. Exp. Stat. (FM)	55	5674	–	–	–	–
Myc Grower's 3260	Mycogen Plant Sciences	56	5672	–	–	–	–
ATxARG-1 x R8925	Tx. Agri. Exp. Stat. (FM)	57	5662	–	–	–	–
ATx378 x RTx430	Tx. Agri. Exp. Stat.	58	5630	43	5290	54	5196
737	Cargill Hybrid Seeds	59	5615	–	–	–	–
dk 785E	DOUGLASS W. KING CO., INC.	60	5474	–	–	–	–

Table 2B. Weslaco, Texas. (Continued)

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
ATx631 x RTx436	Tx. Agri. Exp. Stat. (FM)	61	5447	–	–	–	–
KS 936	Northrup King Company	62	5424	3	5938	–	–
DEKALB DK-37	DEKALB Plant Genetics	63	5420	35	5434	31	5514
EX 19044	AgriPro Seeds	64	5401	–	–	–	–
A8618 x RTx430	Tx. Agri. Exp. Stat. (FM)	65	5354	–	–	–	–
EX 29772	AgriPro Seeds	66	5349	–	–	–	–
A807 x R3224(t)	Tx. Agri. Exp. Stat. (DR)	67	5334	37	5388	–	–
DEKALB DK-50	DEKALB Plant Genetics	68	5324	30	5463	4	6046
8118	Pioneer Hi-Bred Int'l., Inc	69	5284	–	–	–	–
ATx635 x 87E066sis	Tx. Agri. Exp. Stat. (DR)	70	5254	–	–	–	–
A1 x Tx2868	Tx. Agri. Exp. Stat.	71	5149	–	–	–	–
ATx2752 x GR108-90M23	Tx. Agri. Exp. Stat. (GP)	72	5130	–	–	–	–
A1 x GR107-90M17	Tx. Agri. Exp. Stat. (GP)	73	5117	–	–	–	–
EX 29773	AgriPro Seeds	74	5116	–	–	–	–
EX 19042	AgriPro Seeds	75	5091	–	–	–	–
EX 29771	AgriPro Seeds	76	5085	–	–	–	–
A8618 x RQL36	Tx. Agri. Exp. Stat. (FM)	77	5081	–	–	–	–
A8618 x RTx2783	Tx. Agri. Exp. Stat. (FM)	78	4876	76	4446	76	4501
A1 x GR108-90M23	Tx. Agri. Exp. Stat. (GP)	79	4875	–	–	–	–
ATx631 x R.9021	Tx. Agri. Exp. Stat. (FM)	80	4628	69	4704	–	–
5323	ICI Seeds	81	4518	–	–	–	–
ATxARG-1 x 90T308	Tx. Agri. Exp. Stat. (FM)	82	4450	83	3917	–	–
A8618 x 91C1988	Tx. Agri. Exp. Stat. (FM)	83	4248	85	3811	–	–
A1 x R8503	Tx. Agri. Exp. Stat. (DR)	–	–	1	6206	37	5396
A1 x Tx2784	Tx. Agri. Exp. Stat. (DR)	–	–	4	5912	60	5049
CHECK (8313)		–	–	7	4832	17	5809
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	–	–	15	5704	25	5597
ICI/Garst 5319	ICI Seeds (Garst Seed Co.)	–	–	21	5643	7	5943
W-902-W	George Warner Seed Co.	–	–	22	5600	59	5054
W-876DR	George Warner Seed Co.	–	–	39	5361	67	4909

Table 2B. Weslaco, Texas. (Continued)

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
SC-705	SEEDCO Corporation	–	–	45	5256	39	5345
A8610 x R8505	Tx. Agri. Exp. Stat. (FM)	–	–	47	5235	49	5262
CHECK (Myc T-E Y-75)		–	–	50	5147	33	5458
ATx2752 x GR107A-90M18	Tx. Agri. Exp. Stat. (GP)	–	–	52	5113	57	5116
ICI/Garst 5392	ICI Seeds (Garst Seed Co.)	–	–	58	4942	8	5929
NC+ 472	NC+ Hybrids	–	–	59	4906	34	5447
CHECK (Myc Grower's 6150)		–	–	62	4832	19	5786
SC-710	SEEDCO Corporation	–	–	64	4744	9	5908
CHECK (Myc ORO Baron)		–	–	67	4717	11	5877
A1 x GR134A-90M49	Tx. Agri. Exp. Stat. (GP)	–	–	70	4683	73	4720
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	–	–	71	4675	12	5849
A1 x GR107A-90M20	Tx. Agri. Exp. Stat. (GP)	–	–	77	4427	83	3679
A8618 x R6956	Tx. Agri. Exp. Stat. (FM)	--	--	79	4404	79	4328
Number Entries:		88		85		83	
Test Mean Yield (lb/A):			5853		5178		5300

Note: Hybrids with the same yields were ranked by computer.

TABLE 3. AGRONOMIC AND TEST INFORMATION: GREGORY

TEST:	1993 Dryland Grain Sorghum Performance Test
LOCATION:	John Hunt's Farm, San Patricio County, Gregory, Texas
COOPERATORS:	Pustjevosky and Sons, Darwin Anderson, Dennis Pietsch, Randy Gaas, Leon Synatschk, and Kenneth Schaefer
SOIL TYPE:	Victoria clay
ROW WIDTH:	38"
PREVIOUS CROP:	Grain Sorghum
LAND PREPARATION:	Plowed stalks with a Lehman plow, bedded (2)
DATE PLANTED:	3-2-93 with cone planter
DATE THINNED:	This year the test block was not thinned. 200 seeds were distributed by a cone-planter on 26 foot centers. A four foot alley was cut for a final plot length of 22 feet.
PLOT LENGTH:	22'
FERTILIZER:	75+15+0; Applied 300 lb/A of liquid 25-5-0 in Fall '92
HERBICIDE:	Broadcast 1 qt/A AAtrex 4L (atrazine) when grain sorghum was 4-5" tall
INSECTICIDE:	Applied 6 lb/A Furadan at planting.
RAINFALL:	From January 1 to mid-May, approximately 30 inches of rainfall were recorded. July was considered dry.
IRRIGATIONS:	None
DATE HARVESTED:	7-13-93 with a MF8 plot combine
SIZE HARVESTED PLOT:	2 rows x 22'
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	72
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	2
TEST MEAN:	4,683 lb/A; yields corrected to 13% moisture
TEST C.V.:	5.3 percent

GENERAL INFORMATION: This test site is representative of conditions in the Coastal Bend Area which is considered a major grain sorghum production area in Texas. This year it is estimated that 395,000 acres of grain sorghum were harvested in this area which accounts for approximately 12 percent of Texas' 3.3 million acres.

Seventy-two hybrids were entered at this site which made this one of the largest grain sorghum performance test sites in Texas for 1993. Abundant rainfall and good growing conditions were contributing factors resulting in outstanding yields. The season started with a full soil moisture profile from fall and winter rains. An optimum planting date was achieved and seedling emergence was rapid. This year, 200 seeds were packaged for each row, distributed using a cone-planter, and not thinned. Plant stands were considered excellent in most plots. Continuous plant growth and development resulted from timely rainfall. Number of days to 50% flower ranged from 79 to 91 days. The test block received a large amount of rainfall in mid-June from a tropical depression. Some grain sprouting occurred but damage was minimal as reflected by the test weights in the following Table. The test mean yield was 4,683 lb/A compared to 4,019 lb/A in 1992. Twenty-six hybrids in the test produced between 5,009 lb/A and 5,851 lb/A. The incidence of midge was minimal. Lodging and bird damage were not observed in the test.

Table 3A. GRAIN SORGHUM PERFORMANCE TEST; GREGORY, TEXAS 1993

Hybrid 1	Company Or Brand Name	Grain Color 2	Plant Color 3	Maturity Class 4	Days To 50% Flower	Plant Height Inches	Head Exsertion Inches	% Stand	Midge Damage %	Test Weight lb/bu	Moisture %	Yield lb/A	Stat. Sig., 0.05 6
DEKALB DK-54	DEKALB Plant Genetics	Bz	P	ML	82	61	11	100.0	0.0	58.2	17.3	5851	A
XP5702	Asgrow Seed Company	Bz	P	M	81	59	11	100.0	0.0	58.6	15.5	5557	A-B
AG 233	Pogue Seed Company	Bz	R	ML	82	54	9	100.0	0.0	58.4	16.6	5514	A-C
HSC Wings	HyPerformer Seed Company	Bz	*	ML	80	55	8	100.0	0.0	59.0	16.7	5497	A-D
8310	Pioneer Hi-Bred Int'l., Inc.	Bz	R	ML	81	57	10	100.0	0.0	58.7	16.9	5425	A-E
CHECK	Tx. Agri. Exp. Stat.	*	*	*	81	61	8	100.0	0.0	59.6	15.6	5410	A-F
8313	Pioneer Hi-Bred Int'l., Inc.	Bz	P	ML	80	49	6	100.0	0.0	59.3	16.3	5402	A-F
8118	Pioneer Hi-Bred Int'l., Inc.	Bz	P	L	84	58	7	100.0	0.0	58.7	16.8	5301	B-G
A807 x Tx2783	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	83	59	9	100.0	0.0	59.4	18.5	5278	B-G
DEKALB DK-37	DEKALB Plant Genetics	Bz	P	ME	79	58	8	100.0	0.0	57.8	16.3	5276	B-G
A807 x R8503	Tx. Agri. Exp. Stat.(DR)	RT	P	ML	84	53	7	100.0	0.0	57.8	20.8	5258	B-G
NC+ 7B90	NC+ Hybrids	Bz	*	M	81	55	8	100.0	0.0	57.6	16.5	5243	B-G
A807 x 8BE2668	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	83	57	12	100.0	0.0	59.1	19.7	5207	B-H
F-524	Frontier Hybrids, Inc.	Bz	T	ML	81	52	7	100.0	0.0	58.9	16.5	5201	B-H
TS-466	Texas Seed Co., Inc.	Bz	R	ML	82	54	8	100.0	0.0	58.2	16.6	5200	B-H
CHECK	Tx. Agri. Exp. Stat.	*	*	*	82	55	7	100.0	0.0	58.4	16.8	5183	B-I
ATx378 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	81	62	8	100.0	0.0	58.0	16.2	5173	B-I
857	Cargill Hybrid Seeds	Bz	P	ML	84	50	5	100.0	0.0	58.6	17.2	5152	B-J
737	Cargill Hybrid Seeds	Bz	P	M	80	51	14	100.0	0.0	58.2	16.2	5134	B-J
HY 1320	HyPerformer Seed Company	R	*	ML	82	54	6	100.0	0.0	59.9	16.3	5121	B-J
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	81	52	7	100.0	0.0	58.6	16.5	5117	B-J
ATx2752 x GR108-90M23	Tx. Agri. Exp. Stat.(GP)	R	P	ML	81	58	7	100.0	0.0	60.4	17.2	5098	B-J
1710	Delta and Pine Land Company	Bz	P	ML	82	54	8	100.0	0.0	58.4	16.9	5086	B-K
Myc T-E SONORA	Mycogen Plant Sciences	Bz	P	M	80	53	10	100.0	0.0	59.2	16.3	5074	B-K
Myc Grower's 3150	Mycogen Plant Sciences	Bz	P	ML	83	53	8	100.0	0.0	59.1	17.1	5047	C-K
5319	ICI Seeds	Bz	P	ML	82	55	8	100.0	0.0	58.5	17.0	5009	D-L
727	Cargill Hybrid Seeds	Bz	P	M	80	51	11	100.0	2.5	58.9	15.7	4970	E-L
Myc ORO Quest	Mycogen Plant Sciences	Bz	P	ML	80	54	9	100.0	0.0	58.9	16.2	4943	E-L
837	Cargill Hybrid Seeds	Bz	P	ML	84	52	8	100.0	0.0	57.6	16.5	4935	E-L
NC+ 573E	NC+ Hybrids	R	*	M	79	50	8	100.0	0.0	59.1	15.3	4911	F-M

Table 3A. (CONTINUED)

Hybrid 1	Company Or Brand Name	Grain Color 2	Plant Color 3	Matu-rity Class 4	Days To 50% Flower	Plant Height Inches	Head Exser-tion Inches	% Stand	Midge Dam-age %	Test Weight lb/bu	Mois-ture %	Yield %	Stat. Sig., 0.05 6
A1 x 8BE2668	Tx. Agri. Exp. Stat.(DR)	Rt	P	M	84	58	6	100.0	0.0	58.7	18.3	4895	G-M
CHECK	Tx. Agri. Exp. Stat.	R	P	ML	81	51	8	100.0	0.0	56.0	15.8	4876	G-M
DEKALB X-325(x)	DEKALB Plant Genetics	R	P	ML	86	50	5	100.0	0.0	54.0	16.3	4874	G-M
5323	ICI Seeds	R	P	ML	85	55	7	100.0	2.5	57.2	16.8	4860	G-M
Myc T-E RANGER	Mycogen Plant Sciences	Bz	P	M	81	56	11	100.0	0.0	60.7	15.8	4848	G-N
NC+ 472	NC+ Hybrids	Bz	*	M	79	50	9	100.0	0.0	56.7	15.4	4831	G-O
ATx631 x RTx436	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	86	62	8	100.0	1.0	58.2	17.5	4829	G-O
dk 780	DOUGLASS W. KING CO., INC.	R	P	M	81	53	7	100.0	0.0	58.8	15.7	4820	G-P
DEKALB DK-56	DEKALB Plant Genetics	R	P	ML	85	55	8	97.5	0.5	59.7	17.0	4812	G-P
ATx2755 x MR120-90M8	Tx. Agri. Exp. Stat.(GP)	R	P	ML	82	67	10	100.0	0.0	56.6	16.7	4795	G-P
Myc Grower's 1313	Mycogen Plant Sciences	R	P	M	82	58	8	100.0	0.0	57.3	16.3	4794	G-P
Myc ORO Zenith	Mycogen Plant Sciences	R	P	ML	80	55	10	100.0	0.0	60.6	15.7	4793	G-P
Myc Grower's 3260	Mycogen Plant Sciences	Bz	P	ML	81	53	12	100.0	0.5	58.6	16.5	4792	G-P
dk 785E	DOUGLASS W. KING CO., INC.	R	P	ME	80	48	8	100.0	0.0	59.6	16.4	4734	H-P
Myc ORO Amigo	Mycogen Plant Sciences	Bz	P	ML	82	53	7	100.0	0.0	58.7	16.7	4732	H-P
1558	Delta and Pine Land Company	Rt	P	M	81	51	8	100.0	0.0	60.3	16.0	4724	H-P
HSC Cherokee	HyPerformer Seed Company	R	*	M	82	52	8	100.0	0.0	59.3	15.9	4685	I-P
5616	ICI Seeds	Bz	P	ME	79	50	11	97.5	0.0	59.3	15.8	4679	I-P
SC-710	SEEDCO Corporation	R	P	M	82	51	7	100.0	0.0	58.4	15.8	4656	J-P
KS 737	Northrup King Company	R	P	ML	79	54	11	100.0	1.5	59.5	15.8	4655	J-P
CHECK	Tx. Agri. Exp. Stat.	R	P	ML	82	53	8	100.0	0.0	58.7	15.8	4587	K-P
A1 x GR108-90M23	Tx. Agri. Exp. Stat.(GP)	R	P	ML	85	60	6	100.0	0.0	58.7	19.9	4536	L-P
2665	Northrup King Company	R	P	ML	83	49	6	95.0	3.5	58.0	17.1	4524	L-P
A1 x GR107-90M17	Tx. Agri. Exp. Stat.(GP)	R	P	ML	84	55	5	100.0	1.5	58.4	19.3	4524	L-P
ATx2752 x GR134A-90M50	Tx. Agri. Exp. Stat.(GP)	R	P	ML	83	58	9	100.0	0.0	58.9	17.0	4425	M-P
1552	Delta and Pine Land Company	Bz	P	M	84	54	7	100.0	0.0	58.3	18.8	4351	N-Q
A807 x R3224(t)	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	81	53	7	100.0	0.0	57.3	18.0	4346	O-Q
Myc Grower's 3157	Mycogen Plant Sciences	Bz	P	ML	81	52	8	100.0	0.0	55.9	15.4	4338	O-Q
ATx399 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	82	52	8	100.0	0.0	57.2	15.8	4322	P-Q
Myc ORO Ultra	Mycogen Plant Sciences	Bz	P	ML	81	52	7	100.0	0.0	56.3	15.7	3915	Q-R

Table 3A. (CONTINUED)

Hybrid 1	Company Or Brand Name	Grain Color 2	Plant Color 3	Matu-rity Class 4	Days To 50% Flower	Plant Height Inches	Head Exser-tion Inches	% Stand	Midge Dam-age %	Test Weight lb/bu	Mois-ture %	Yield lb/A	Stat. Sig., 0.05 6
A803 x 8BE2668	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	85	54	10	100.0	0.0	59.8	16.8	3891	R
A8618 x RQL36	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	90	54	9	100.0	2.5	57.8	17.4	3639	R-S
A8618 x RTx430	Tx. Agri. Exp. Stat.(FM)	Rt	P	ML	86	52	6	100.0	1.5	56.2	15.9	3622	R-S
ATxARG-1 x R8925	Tx. Agri. Exp. Stat.(FM)	Rt	T	M	83	49	7	95.0	0.0	55.9	15.7	3590	R-S
A1 x GR134A-90M50	Tx. Agri. Exp. Stat.(GP)	R	P	ML	88	55	5	100.0	1.5	58.6	18.4	3581	R-S
A8618 x RTx2783	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	89	57	6	100.0	4.0	58.2	16.1	3527	R-S
A1 x Tx2783	Tx. Agri. Exp. Stat.	R	P	ML	90	54	6	100.0	5.0	58.6	19.3	3516	R-S
ATxARG-1 x RTx436	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	85	58	8	85.0	2.5	58.1	15.8	3470	R-S
ATxARG-1 x R8922	Tx. Agri. Exp. Stat.(FM)	Rt	T	M	86	59	8	92.5	4.0	57.2	15.7	3464	R-S
ATx631 x R.9021	Tx. Agri. Exp. Stat.(FM)	Rt	T	M	89	43	8	90.0	1.5	58.9	16.4	3282	S
A8618 x 91C1988	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	91	51	4	87.5	3.0	56.2	17.6	2785	T
ATxARG-1 x 90T308	Tx. Agri. Exp. Stat.(FM)	Rt	T	ME	88	46	7	82.5	0.0	55.8	15.2	2672	T

TEST MEAN= 4683 TEST C.V.= 5.3 LSD .05= 400.6

Note 1: The ANOVA procedure was used for statistical analysis.

Note 2: Hybrid name starting or ending with an "X" denote a commercial experimental. Hybrids entered by the Texas Agricultural Experiment Station are either in the experimental stage or being tested as experimental check hybrids. Individuals may contact respective seed companies for the availability of planting seed for the upcoming crop year.

* Warner W-917-E, Conlee Rustler, Myc Taylor-Evans Myc T-E Y-75 and Myc ORO Hybrids Myc ORO Baron were entered as commercial check hybrids at our discretion. They are intended to be used for comparison purposes only.

** Grain color designated by respective seed companies: R=Red Br=Brown Bz=Bronze Rt=Red translucent W=White Wt=White translucent Ct=Cream translucent.

*** Plant color designated by respective seed companies: T=Tan R=Red P=Purple. Those hybrids designated with an asterisk(*) indicated company did not submit plant color.

**** Maturity classification for hybrids designated by the respective seed companies.
E=Early M=Medium ME=Medium Early ML=Medium Late L=Late.

***** Duncan's multiple range test was used at the .05 level.

Table 3B. Three-year summary, Grain Sorghum Performance Test, Gregory, Texas.

HYBRID	COMPANY	1993		1992		1991	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
DEKALB DK-54	DEKALB Plant Genetics	1	5851	–	–	–	–
XP5702	Asgrow Seed Company	2	5557	–	–	–	–
AG 233	Pogue Seed Company	3	5514	4	4702	–	–
HSC Wings	HyPerformer Seed Company	4	5497	3	4706	34	4132
8310	Pioneer Hi-Bred Int'l., Inc	5	5425	22	4539	–	–
CHECK (Rustler)	Tx. Agri. Exp. Stat.	6	5410	6	4590	4	4634
8313	Pioneer Hi-Bred Int'l., Inc	7	5402	2	4828	18	4337
8118	Pioneer Hi-Bred Int'l., Inc	8	5301	1	4836	–	–
A807 x Tx2783	Tx. Agri. Exp. Stat.(DR)	9	5278	–	–	–	–
DEKALB DK-37	DEKALB Plant Genetics	10	5276	13	4396	–	–
A807 x R8503	Tx. Agri. Exp. Stat. (DR)	11	5258	–	–	–	–
NC+ 7B90	NC+ Hybrids	12	5243	51	3893	6	4562
A807 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	13	5207	–	–	–	–
F-524	Frontier Hybrids, Inc.	14	5201	19	4318	26	4225
TS-466	Texas Seed Co., Inc.	15	5200	–	–	–	–
CHECK (W-917-E)	Tx. Agri. Exp. Stat.	16	5183	11	4481	–	–
ATx378 x RTx430	Tx. Agri. Exp. Stat.	17	5173	17	4334	69	3516
857	Cargill Hybrid Seeds	18	5152	41	4102	23	4277
737	Cargill Hybrid Seeds	19	5134	–	–	–	–
HY 1320	HyPerformer Seed Company	20	5121	–	–	–	–
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	21	5117	14	4384	15	4369
ATx2752 x GR108-90M23	Tx. Agri. Exp. Stat. (GP)	22	5098	–	–	–	–
1710	Delta and Pine Land Company	23	5086	8	4581	19	4321
Myc T-E SONORA	Mycogen Plant Sciences	24	5074	–	–	–	–
Myc Grower's 3150	Mycogen Plant Sciences	25	5047	–	–	–	–
5319	ICI Seeds	26	5009	–	–	–	–
727	Cargill Hybrid Seeds	27	4970	–	–	–	–
Myc ORO Quest	Mycogen Plant Sciences	28	4943	30	4172	–	–
837	Cargill Hybrid Seeds	29	4935	23	4219	52	3950
NC+ 573E	NC+ Hybrids	30	4911	–	–	–	–

Table 3B. Gregory, Texas. (Continued)

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
A1 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	31	4895	–	–	–	–
CHECK (Myc T-E Y-75)	Tx. Agri. Exp. Stat.	32	4876	21	4248	48	3993
DEKALB X-325(x)	DEKALB Plant Genetics	33	4874	–	–	–	–
5323	ICI Seeds	34	4860	10	4533	–	–
Myc T-E RANGER	Mycogen Plant Sciences	35	4848	35	4141	41	4072
NC+ 472	NC+ Hybrids	36	4831	–	–	–	–
ATx631 x RTx436	Tx. Agri. Exp. Stat. (FM)	37	4829	–	–	–	–
dk 780	DOUGLASS W. KING CO., INC.	38	4820	24	4210	13	4392
DEKALB DK-56	DEKALB Plant Genetics	39	4812	27	4183	58	3842
ATx2755 x MR120-90M8	Tx. Agri. Exp. Stat. (GP)	40	4795	52	3851	61	3787
Myc Grower's 1313	Mycogen Plant Sciences	41	4794	31	4163	25	4268
Myc ORO Zenith	Mycogen Plant Sciences	42	4793	–	–	–	–
Myc Grower's 3260	Mycogen Plant Sciences	43	4792	–	–	–	–
dk 785E	DOUGLASS W. KING CO., INC.	44	4734	–	–	–	–
Myc ORO Amigo	Mycogen Plant Sciences	45	4732	25	4209	50	3972
1558	Delta and Pine Land Company	46	4724	54	3829	37	4107
HSC Cherokee	HyPerformer Seed Company	47	4685	29	4175	36	4122
5616	ICI Seeds	48	4679	–	–	–	–
SC-710	SEEDCO Corporation	49	4656	36	4134	29	4199
KS 737	Northrup King Company	50	4655	57	3643	35	4123
CHECK (ORO Baron)	Tx. Agri. Exp. Stat.	51	4587	–	–	22	4282
A1 x GR108-90M23	Tx. Agri. Exp. Stat. (GP)	52	4536	–	–	–	–
2665	Northrup King Company	53	4524	9	4523	8	4484
A1 x GR107-90M17	Tx. Agri. Exp. Stat. (GP)	54	4524	–	–	–	–
ATx2752 x GR134A-90M50	Tx. Agri. Exp. Stat. (GP)	55	4425	43	4082	–	–
1552	Delta and Pine Land Company	56	4351	58	3634	68	3522
A807 x R3224(t)	Tx. Agri. Exp. Stat. (DR)	57	4346	–	–	–	–
Myc Grower's 3157	Mycogen Plant Sciences	58	4338	53	3833	–	–
ATx399 xRTx430	Tx. Agri. Exp. Stat.	59	4322	56	3650	49	3983
Myc ORO Ultra	Mycogen Plant Sciences	60	3915	61	3621	39	4080

Table 3B. Gregory, Texas. (Continued)

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
A803 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	61	3891	–	–	–	–
A8618 x RQL36	Tx. Agri. Exp. Stat. (FM)	62	3639	–	–	–	–
A8618 x RTx430	Tx. Agri. Exp. Stat. (FM)	63	3622	–	–	–	–
ATxARG-1 xR8925	Tx. Agri. Exp. Stat. (FM)	64	3590	–	–	–	–
A1 x GR134A-90M50	Tx. Agri. Exp. Stat. (GP)	65	3581	–	–	–	–
A8618 x RTx2783	Tx. Agri. Exp. Stat. (FM)	66	3527	73	2783	83	982
A1 x Tx2783	Tx. Agri. Exp. Stat.	67	3516	–	–	72	3409
ATxARG-1 x RTx436	Tx. Agri. Exp. Stat. (FM)	68	3470	–	–	–	–
ATxARG-1 x R8922	Tx. Agri. Exp. Stat. (FM)	69	3464	–	–	–	–
ATx631 x R.9021	Tx. Agri. Exp. Stat. (FM)	70	3282	74	2377	–	–
A8618 x 91C1988	Tx. Agri. Exp. Stat. (FM)	71	2785	–	–	–	–
ATxARG-1 x 90T308	Tx. Agri. Exp. Stat. (FM)	72	2672	55	3721	–	–
DEKALB DK37	DEKALB Plant Genetics	–	–	12	4439	24	4273
ICI/Garst 5319	ICI Seeds (Garst Seed Co.)	–	–	18	4333	69	3516
ATx2755 x MR102-90M2	Tx. Agri. Exp. Stat.(GP)	–	–	32	4160	31	4175
TS-488	Texas Seed Co., Inc.	–	–	33	4158	11	4468
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	–	–	44	4033	7	4502
8195	Pioneer Hi-Bred Int'l., Inc	–	–	45	4022	1	4797
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	–	–	49	3921	73	3388
NC+ 472	NC+ Hybrids	–	–	50	3908	12	4408
A8618 x 89CC443	Tx. Agri. Exp. Stat. (FM)	–	–	60	3623	82	1975
CHECK (8379)		--	--	65	3518	70	3476
Number Entries:		72		74		83	
Test Mean Yield (bu/A):			4683		4019		3926

Note: Hybrids with the same yields were ranked by computer.

TABLE 4. AGRONOMIC AND TEST INFORMATION: HONDO

TEST:	1993 Irrigated Grain Sorghum Performance Test
LOCATION:	Vandenburg Farms; Wayne and Pat Stein, Hondo, Texas
COOPERATORS:	Wayne and Pat Stein, Wayne Scholtz, Steve Bradshaw, Dennis Pietsch, Randy Gaas, and Leon Synatschk
SOIL TYPE:	Knippa clay
ROW WIDTH:	38"
PREVIOUS CROP:	Corn
LAND PREPARATION:	Disked twice in September, chiseled in November, bedded
DATE PLANTED:	3-11-93, by hand, using JD80 Planter
DATE THINNED:	4-16-93, thinned by hand to approximately 5-6 plants/foot
PLOT LENGTH:	25'
FERTILIZER:	118+58+0+12(S)+ trace elements; Applied 240 lb/A of 8-24-0-5 + trace elements at bedding, and 120 lb/A of 82-0-0 sidedress.
HERBICIDE:	1.5 pt/A of Atrazine when plants were 5-6" tall
INSECTICIDE:	None
RAINFALL:	Approximately 14 inches
IRRIGATIONS:	1 application of approximately 2" at flowering stage
DATE HARVESTED:	8-2-93 with a MF 8 plot combine
SIZE HARVESTED PLOT:	2 rows, 25 feet long
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	54
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	2
TEST MEAN:	5,993 lb/A; yields corrected to 13% moisture
TEST C.V.:	6.3%

GENERAL INFORMATION: Good growing conditions, timely rainfall, and proper management were contributing factors resulting in outstanding yields at this test site. An excellent seedbed was available for the March 11 planting date which is considered near optimum for the Medina Valley Area. Seedling emergence was rapid but cool weather hampered early plant growth. Warm weather soon followed resulting in continuous plant growth and development. Although this is designated as an irrigated test site, only one irrigation was applied due to timely rains which insured grain fill.

The test mean yield was 5,993 lb/A which is 785 lb/A more than the past 3-year average of 5,208 lb/A. Test weights were incredible with the range being from 60.7 lb/bu to 64.3 lb/bu. Lodging was not observed in the test and the incidence of midge was low. This was a very uniform test as indicated by the low coefficient of variation of 6.3%.

Table 4A. GRAIN SORGHUM PERFORMANCE TEST; HONDO, TEXAS 1993

Hybrid *	Company Or Brand Name	Grain Color **	Plant Color ***	Matu-rity Class ****	Days To 50% Flower	Plant Height Inches	Head Exser-tion Inches	Test Weight lb/bu	Mois-ture %	Yield lb/A	Stat. Sig., 0.05 *****
DEKALB DK-54	DEKALB Pant Genetics	Bz	P	ML	86	57	9	62.8	12.4	7456	A
XP5702	Asgrow Seed Company	Bz	P	M	85	55	9	62.5	12.3	6854	A-B
8118	Pioneer Hi-Bred Int'l., Inc	Bz	P	L	87	54	6	63.3	12.3	6755	B-C
857	Cargill Hybrid Seeds	Bz	P	ML	88	48	6	61.8	12.2	6721	B-D
HM2250	Harvest Master Seed Company	Bz	R	ML	85	50	6	62.9	12.3	6670	B-E
DEKALB DK-56	DEKALB Plant Genetics	R	P	ML	88	52	8	63.3	12.6	6635	B-F
837	Cargill Hybrid Seeds	Bz	P	ML	87	48	6	64.0	12.3	6552	B-G
CHECK	Tx. Agri. Exp. Stat.	*	*	*	86	51	6	62.9	12.3	6505	B-H
A807 x 8BE2668	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	84	53	10	63.8	13.1	6473	B-I
HY 1320	HyPerformer Seed Company	R	*	ML	85	54	5	64.0	12.9	6420	B-J
F-524	Frontier Hybrids, Inc.	Bz	T	ML	85	52	6	61.6	12.2	6416	B-J
A8618 x RTx2783	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	88	48	4	63.3	12.1	6397	B-K
TS-466	Texas Seed Co., Inc.	Bz	R	ML	83	50	6	62.7	12.3	6396	B-K
5319	ICI Seeds	Bz	P	ML	83	52	6	61.9	12.2	6363	B-K
ATx631 x RTx436	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	89	56	6	62.9	12.8	6310	B-L
2665	Northrup King Company	R	P	ML	85	47	4	62.0	12.0	6228	B-M
A1 x 8BE2668	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	84	53	8	62.0	12.4	6218	B-M
ATxARG-1 x R8922	Tx. Agri. Exp. Stat.(FM)	Rt	T	M	89	57	8	62.0	12.3	6208	B-M
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	85	51	6	63.1	12.3	6168	B-M
Myc T-E SONORA	Mycogen Plant Sciences	Bz	P	M	85	47	7	64.1	12.3	6143	B-M
Myc ORO Amigo	Mycogen Plant Sciences	Bz	P	ML	83	52	5	61.9	12.3	6123	B-M
CHECK	Tx. Agri. Exp. Stat.	R	P	M	85	50	6	62.5	12.1	6119	B-M
8313	Pioneer Hi-Bred Int'l., Inc.	Bz	P	ML	82	50	6	62.9	12.4	6102	B-M
HSC Wings	HyPerformer Seed Company	Bz	*	ML	85	51	6	62.7	12.2	6094	B-M
A35 x Tx2862	Tx. Agri. Exp. Stat.(GP)	R	P	ML	85	50	9	61.7	12.7	6088	B-M
A35 x GR134A-90M50	Tx. Agri. Exp. Stat.(GP)	R	P	ML	86	50	10	62.0	12.4	6072	C-M
Myc T-E RANGER	Mycogen Plant Sciences	Bz	P	M	83	50	8	61.9	12.3	5974	D-M
1552	Delta and Pine Land Company	Bz	P	M	86	49	5	63.9	12.4	5965	D-N
Myc ORO Quest	Mycogen Plant Sciences	Bz	P	ML	83	48	8	61.2	12.1	5955	D-N
dk 785E	DOUGLASS W. KING CO., INC.	R	P	ME	83	48	10	63.4	12.2	5943	E-O

Table 4A. (CONTINUED)

Hybrid *	Company Or Brand Name	Grain Color **	Plant Color ***	Matu-rity Class ****	Days To 50% Flower	Plant Height Inches	Head Exser-tion Inches	Test Weight lb/bu	Mois-ture %	Yield lb/A	Stat. Sig., 0.05 ***
dk 790E	DOUGLASS W. KING CO., INC.	R	R	L	83	53	6	62.5	12.3	5915	E-O
KS 737	Northrup King Company	R	P	ML	80	49	9	63.9	12.4	5905	E-O
1506	Delta and Pine Land Company	Ct	P	M	84	55	10	62.2	12.7	5902	E-O
ATx378 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	84	57	8	62.2	12.5	5861	F-P
737	Cargill Hybrid Seeds	Bz	P	M	82	47	8	61.8	12.2	5856	F-P
Myc ORO Zenith	Mycogen Plant Sciences	R	P	ML	83	50	9	62.5	12.3	5833	G-P
1558	Delta and Pine Land Company	Rt	P	M	83	49	7	62.8	12.1	5810	G-P
ATx399 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	83	48	7	61.1	12.0	5786	G-P
A35 x GR107-90M17	Tx. Agri. Exp. Stat.(GP)	R	P	ML	83	48	9	63.1	12.8	5777	G-P
8310	Pioneer Hi-Bred Int'l., Inc	Bz	R	ML	83	52	7	63.5	12.3	5741	H-P
HSC Cherokee	HyPerformer Seed Company	R	*	M	84	50	6	63.2	12.1	5707	I-P
A8618 x RQL36	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	88	49	7	62.6	12.1	5704	I-P
A1 x GR108-90M30	Tx. Agri. Exp. Stat.(GP)	R	P	ML	86	52	7	64.3	12.7	5644	J-Q
5323	ICI Seeds	R	P	ML	89	48	6	62.0	12.5	5622	K-Q
727	Cargill Hybrid Seeds	Bz	P	M	81	47	10	61.4	12.0	5545	L-Q
CHECK	Tx. Agri. Exp. Stat.	*	*	*	84	54	9	63.2	12.3	5543	L-Q
ATxARG-1 x RTx436	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	86	52	7	63.9	12.4	5542	L-Q
A8618 x RTx430	Tx. Agri. Exp. Stat.(FM)	Rt	P	ML	88	47	7	60.7	12.0	4426	M-Q
A35 x GR107-90M18	Tx. Agri. Exp. Stat.(GP)	R	P	ML	84	50	11	62.5	13.7	5197	N-Q
ATxARG-1 x R8925	Tx. Agri. Exp. Stat.(FM)	Rt	T	M	87	47	6	61.8	11.9	5196	N-Q
ATx631 x R.9021	Tx. Agri. Exp. Stat.(FM)	Rt	T	M	90	52	5	63.9	12.2	5177	O-Q
dk 934x	DOUGLASS W. KING CO., INC.	R	P	ML	83	48	8	62.9	12.3	5102	P-Q
ATxARG-1 x 90T308	Tx. Agri. Exp. Stat.(FM)	Rt	T	ME	89	45	7	60.7	11.7	4917	Q-R
A8618 x 91C 1988	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	90	45	2	61.7	12.9	4379	R

TEST MEAN= 5993 TEST C.V.= 6.3 LSD .05= 611.5

Table 4A. (CONTINUED)

Note 1: The ANOVA procedure was used for statistical analysis.

Note 2: Hybrid name starting or ending with an "X" denote a commercial experimental. Hybrids entered by the Texas Agricultural Station are either in the experimental stage or being tested as experimental check hybrids. Individuals may contact respective seed companies for the availability of planting seed for the upcoming crop year.

* Conlee Rustler, Myc T-E Y-75, and Myc ORO Hybrids Silverado and were entered as commercial check hybrids at our discretion. They are intended to be used for comparison purposes only.

** Grain color designated by respective seed companies: R=Red Br=Brown Bz=Bronze Rt=Red translucent W=White Wt=White translucent Ct=Cream translucent.

*** Plant color designated by respective seed companies: T=Tan R=Red P=Purple. Those hybrids designated with an asterisk(*) indicated company did not submit plant color.

**** Maturity classification for hybrids designated by the respective seed companies.
E=Early M=Medium ME=Medium Early ML=Medium Late L=Late.

***** Duncan's multiple range test was used at the .05 level.

Table 4B. Three-year summary, Grain Sorghum Performance Test, Hondo, Texas.

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
DEKALB DK-54	DEKALB Plant Genetics	1	7456	–	–	–	–
XP5702	Asgrow Seed Company	2	6854	–	–	–	–
8118	Pioneer Hi-Bred Int'l., Inc	3	6755	2	6728	–	–
857	Cargill Hybrid Seeds	4	6721	4	6619	11	5703
HM2250	Harvest Master Seed Company	5	6670	12	6259	7	5772
DEKALB DK-56	DEKALB Plant Genetics	6	6635	7	6478	47	5004
837	Cargill Hybrid Seeds	7	6552	13	6254	12	5654
CHECK (Myc T-E Y-75)	Tx. Agri. Exp. Stat.	8	6505	46	5199	25	5395
A807 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	9	6473	–	–	–	–
HY 1320	HyPerformer Seed Company	10	6420	–	–	–	–
F-524	Frontier Hybrids, Inc.	11	6416	19	6094	10	5714
A8618 x RTx2783	Tx. Agri. Exp. Stat. (FM)	12	6397	–	–	–	–
TS-466	Texas Seed Co., Inc.	13	6396	–	–	–	–
5319	ICI Seeds	14	6363	–	–	–	–
ATx631 x RTx436	Tx. Agri. Exp. Stat. (FM)	15	6310	–	–	–	–
2665	Northrup King Company	16	6228	6	6580	9	5756
A1 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	17	6218	–	–	–	–
ATxARG-1 x R8922	Tx. Agri. Exp. Stat.(FM)	18	6208	–	–	–	–
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	19	6168	3	6686	5	5828
Myc T-E SONORA	Mycogen Plant Sciences	20	6143	35	5551	–	–
Myc ORO Amigo	Mycogen Plant Sciences	21	6123	16	6174	20	5504
CHECK	Tx. Agri. Exp. Stat.	22	6119	–	–	–	–
8313	Pioneer Hi-Bred Int'l., Inc	23	6102	5	6607	14	5613
HSC Wings	HyPerformer Seed Company	24	6094	9	6361	8	5758
A35 x Tx2862	Tx. Agri. Exp. Stat.(GP)	25	6088	–	–	–	–
A35 x GR134A-90M50	Tx. Agri. Exp. Stat. (GP)	26	6072	–	–	–	–
Myc T-E RANGER	Mycogen Plant Sciences	27	5974	22	6005	44	5021
1552	Delta and Pine Land Company	28	5965	11	6319	–	–
Myc ORO Quest	Mycogen Plant Sciences	29	5955	–	–	–	–
dk 785E	DOUGLASS W. KING CO., INC.	30	5943	37	5519	–	–

Table 4B. Hondo, Texas. (Continued)

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
dk 790E	DOUGLASS W. KING CO., INC.	31	5915	8	6406	–	–
KS 737	Northrup King Company	32	5905	59	4569	48	4952
1506	Delta and Pine Land Company	33	5902	25	5899	15	5603
ATx378 x RTx430	Tx. Agri. Exp. Stat.	34	5861	14	6189	6	5783
737	Cargill Hybrid Seeds	35	5856	–	–	–	–
Myc ORO Zenith	Mycogen Plant Sciences	36	5833	–	–	–	–
1558	Delta and Pine Land Company	37	5810	31	5708	26	5382
ATx399 x RTx430	Tx. Agri. Exp. Stat.	38	5786	38	5507	29	5312
A35 x GR107-90M17	Tx. Agri. Exp. Stat. (GP)	39	5777	–	–	–	–
8310	Pioneer Hi-Bred Int'l., Inc	40	5741	23	5972	–	–
HSC Cherokee	HyPerformer Seed Company	41	5707	41	5340	28	5340
A8618 x RQL36	Tx. Agri. Exp. Stat. (FM)	42	5704	–	–	–	–
A35 x GR108-90M30	Tx. Agri. Exp. Stat. (GP)	43	5644	–	–	–	–
5323	ICI Seeds	44	5622	–	–	–	–
727	Cargill Hybrid Seeds	45	5545	–	–	–	–
CHECK	Tx. Agri. Exp. Stat.	46	5543	–	–	–	–
ATxARG-1 x RTx436	Tx. Agri. Exp. Stat. (FM)	47	5542	–	–	–	–
A8618 x RTx430	Tx. Agri. Exp. Stat. (FM)	48	4426	–	–	–	–
A35 x GR107-90M18	Tx. Agri. Exp. Stat. (GP)	49	5197	–	–	–	–
ATxARG-1 x R8925	Tx. Agri. Exp. Stat. (FM)	50	5196	–	–	–	–
ATx631 x R.9021	Tx. Agri. Exp. Stat. (FM)	51	5177	54	4754	–	–
dk 934x	DOUGLASS W. KING CO., INC.	52	5102	–	–	–	–
ATxARG-1 x 90T308	Tx. Agri. Exp. Stat. (FM)	53	4917	56	4693	–	–
A8618 x 91C1988	Tx. Agri. Exp. Stat. (FM)	54	4379	55	4720	–	–
ICI/Garst 5319	ICI Seeds(Garst Seed Co.)	–	–	10	6320	2	5983
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	–	–	18	6126	24	5424
CHECK (Rustler)		–	–	27	5872	4	5840
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	–	–	34	5580	40	5100
Myc ORO Hombre	Mycogen Plant Sciences	–	–	43	5233	41	5090
HM 2280	Harvest Master Seed Co.	–	–	44	5227	30	5293

Table 4B. Hondo, Texas. (Continued)

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
TS-488	Texas Seed Co., Inc.	–	–	47	5159	21	5492
A8618 x R6956	Tx. Agri. Exp. Stat. (FM)	–	–	49	4992	57	4606
8195	Pioneer Hi-Bred Int'l., Inc	–	–	53	4768	35	5220
A8618 x RTx2783	Tx. Agri. Exp. Stat. (FM)	–	–	58	4606	62	3347
KS 714Y	Northrup King Company	–	–	60	4364	46	5010
A35 x GR107A-90M20	Tx. Agri. Exp. Stat. (GP)	–	–	61	4288	61	4303
CHECK (DK-37)		--	--	62	3753	45	5014
Number Entries:		54		62		62	
Test Mean Yield (bu/A):			5993		5612		5235

Note: Hybrids with the same yields were ranked by computer.

TABLE 5. AGRONOMIC AND TEST INFORMATION: DANEVANG

TEST:	1993 Dryland Grain Sorghum Performance Test
LOCATION:	E. E. Berndt Farm - Danevang, Texas
COOPERATORS:	E. E. Berndt, Dennis Pietsch, John Cosper, Randy Gaas, and Leon Synatschk
SOIL TYPE:	Lake Charles clay
ROW WIDTH:	40"
PREVIOUS CROP:	Cotton
LAND PREPARATION:	Shredded stalks, disked, bedded, hipped
DATE PLANTED:	3-31-93: hand-dropped through a 8 row International planter
DATE THINNED:	Test was not thinned, 250 seeds were distributed/row
PLOT LENGTH:	25'
FERTILIZER:	102+34+15+7.5(S)+2.5 qt/A Zn on 4-21-93
HERBICIDE:	None
INSECTICIDE:	4.8 lb/A Counter
RAINFALL:	Approximately 18.3 inches from plant to harvest
IRRIGATIONS:	None
DATE HARVESTED:	7-28-93 with MF 8 plot combine
SIZE HARVESTED PLOT:	2 Rows, 25 feet long
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	52
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	2
TEST MEAN:	5,547 lb/A; yields corrected to 13% moisture
TEST C.V.:	10.6 percent

GENERAL INFORMATION: Exceptional yields were achieved at this site despite the test being planted approximately 3 to 4 weeks later than the optimum planting date. Extended periods of rainfall and wet field conditions during the fall and winter months postponed normal field operations thus delaying the planting date. The test was finally planted on March 31 in a well-drained field. Favorable weather conditions resulted in rapid seedling emergence and plant growth . The test was originally designed to be thinned, but due to rapid plant growth, the test was not thinned for fear of damaging the root system. Warm temperatures and abundant moisture provided for continuous plant growth and development. No herbicides were applied, thus weeds were controlled by cultivation and hand-hoeing. The number of days to achieve 50% flowering were relatively short with the range being from 67 to 75 days.

The test mean yield was 5,547 lb/A compared to the 3-year average of 4,618 lb/A. Ten hybrids in the test produced over 6,000 lb/A. Due to the hot and dry conditions in July, the test block experienced rapid "dry-down" as reflected in Table A under the heading MOISTURE %. Excellent bushel weights were also recorded. The incidence of midge was low. Lodging was not a problem.

Appreciation is expressed to Mr. Delroy Collins, Department of Plant Pathology and Microbiology, Texas A&M University and Dr. Joe Krausz, Extension Plant Pathologist for obtaining Anthracnose and Head Blight data from this site. The visual readings were collected from all three replications and are presented in Table 5A-1P. A rating scale accompanies the Table for both Anthracnose and Head Blight.

Table 5A. GRAIN SORGHUM PERFORMANCE TEST; DANEVANG, TEXAS 1993

Hybrid *	Company Or Brand Name	Grain Color **	Plant Color ***	Matu-rity Class ****	Days To 50% Flower	Plant Height Inches	Head Exser-tion Inches	% Stand	Test Weight lb/bu	Mois-ture %	Yield lb/A	Stat. Sig., 0.05 *****
8118	Pioneer Hi-Bred Int'l., Inc.	Bz	P	L	74	63	6	100.0	61.7	13.9	6675	A
DEKALB DK-54	DEKALB Plant Genetics	Bz	P	ML	71	66	12	96.7	59.9	13.3	6668	A
5503	ICI Seeds	R	P	M	72	57	6	100.0	59.4	13.2	6479	A-B
8310	Pioneer Hi-Bred Int'l., Inc.	Bz	R	ML	73	60	8	100.0	60.4	13.5	6437	A-C
dk 790E	DOUGLASS W. KING CO., INC.	R	P	L	71	56	6	100.0	57.3	13.4	6369	A-D
CHECK	Tx. Agri. Exp. Stat.	R	P	ML	73	54	8	100.0	59.2	13.2	6253	A-E
W-917-E	George Warner Seed Co., Inc	*	*	*	71	63	6	100.0	59.6	12.9	6189	A-F
Myc T-E X-8342	Mycogen Plant Sciences	Bz	P	M	74	66	6	100.0	61.6	13.4	6177	A-F
HY 1320	HyPerformer Seed Comany	R	*	ML	74	59	6	100.0	60.1	13.4	6045	A-G
Myc Grower's 3150	Mycogen Plant Sciences	Bz	P	ML	72	59	7	98.3	58.6	13.4	6002	A-H
HSC 893	HyPerformer Seed Company	Bz	*	M	71	58	7	100.0	60.1	12.9	5992	A-H
5319	ICI Seeds	Bz	P	ML	72	57	7	100.0	59.5	13.2	5986	A-H
NC+ 7B90	NC+ Hybrids	Bz	*	M	73	57	6	100.0	58.2	13.3	5975	A-H
Myc Grower's 1313	Mycogen Plant Sciences	R	P	M	71	54	5	100.0	59.7	13.0	5974	A-H
1710	Delta and Pine Land Company	Bz	P	ML	72	54	6	100.0	58.1	13.4	5938	A-H
A807 x Tx2783	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	72	60	7	100.0	60.4	13.6	5916	A-H
2665	Northrup King Company	R	P	ML	71	52	5	100.0	59.2	13.1	5834	A-I
HSC Cherokee	HyPerformer Seed Company	R	*	M	72	54	7	100.0	60.6	13.4	5773	A-J
HSC Wings	HyPerformer Seed Company	Bz	*	ML	72	55	5	99.0	59.5	13.2	5754	A-J
NC+ 472	NC+ Hybrids	Bz	*	M	70	52	5	100.0	56.9	13.0	5704	A-K
dk 934x	DOUGLASS W. KING CO., INC.	R	P	ML	71	56	7	99.3	60.0	13.2	5697	A-K
CHECK	Tx. Agri. Exp. Stat.	Bz	T	ML	72	61	6	100.0	59.1	13.4	5692	A-K
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	72	53	6	100.0	60.0	13.3	5687	A-K
737	Cargill Hybrid Seeds	Bz	P	M	70	54	8	100.0	58.7	13.0	5663	A-K
1558	Delta and Pine Land Company	Rt	P	M	71	54	7	100.0	60.4	13.0	5628	A-K
ATx2752 x GR108-90M23	Tx. Agri. Exp. Stat.(GP)	R	P	ML	72	62	5	100.0	59.8	14.0	5626	A-K
DEKALB DK-56	DEKALB Plant Genetics	R	P	ML	74	59	8	100.0	60.8	13.6	5591	A-K
ATx378 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	72	63	7	95.0	57.0	13.3	5523	A-K
A1 x 8BE2668	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	74	58	8	100.0	59.9	13.4	5489	A-K
XP5702	Asgrow Seed Company	Bz	P	M	73	65	9	100.0	58.6	13.0	5488	A-K

Table 5A. (CONTINUED)

Hybrid *	Company Or Brand Name	Grain Color **	Plant Color ***	Maturity Class ****	Days To 50% Flower	Plant Height Inches	Head Exsertion Inches	% Stand	Test Weight lb/bu	Moisture %	Yield lb/A	Stat. Sig., 0.05 *****
ATx2752 x GR134A-90M50	Tx. Agri. Exp. Stat.(GP)	R	P	ML	72	63	6	100.0	61.8	13.7	5482	A-K
TS-466	Texas Seed Co., Inc.	Bz	R	ML	72	57	6	100.0	59.6	13.5	5480	A-K
Myc ORO Amigo	Mycogen Plant Sciences	Bz	P	ML	72	57	6	100.0	59.7	13.5	5432	B-K
Myc Grower's 3260	Mycogen Plant Sciences	Bz	P	ML	70	56	8	95.0	58.9	13.0	5294	B-K
837	Cargill Hybrid Seeds	Bz	P	ML	73	55	7	100.0	57.8	13.0	5273	B-K
8313	Pioneer Hi-Bred Int'l., Inc	Bz	P	ML	71	52	5	100.0	59.8	13.1	5234	C-L
A1 x Tx2868	Tx. Agri. Exp. Stat.(GP)	W	P	ML	75	57	6	100.0	59.5	13.6	5230	C-L
1552	Delta and Pine Land Company	Bz	P	M	73	55	5	100.0	60.3	13.7	5204	D-L
ATx399 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	70	54	7	100.0	56.9	12.7	5167	D-L
A807 x 8BE2668	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	74	56	7	100.0	61.6	13.8	5162	D-L
Myc ORO Quest	Mycogen Plant Sciences	Bz	P	ML	70	56	6	98.3	58.6	12.9	5087	E-L
857	Cargill Hybrid Seeds	Bz	P	ML	73	50	8	100.0	58.3	12.8	5051	E-L
dk 785E	DOUGLASS W. KING CO., INC.	R	P	ME	70	50	8	100.0	60.6	13.1	4987	F-L
Myc ORO Ultra	Mycogen Plant Sciences	Bz	P	ML	71	56	8	100.0	57.0	12.6	4938	G-L
A803 x 8BE2668	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	74	53	10	100.0	60.7	13.6	4901	G-L
Myc T-E SONORA	Mycogen Plant Sciences	Bz	P	M	70	59	8	100.0	58.7	13.1	4862	G-L
A1 x GR107-90M17	Tx. Agri. Exp. Stat.(GP)	R	P	ML	73	57	5	98.3	60.2	13.4	4801	H-L
CHECK	Tx. Agri. Exp. Stat.	*	*	*	71	58	10	100.0	58.7	12.6	4668	I-L
A807 x R3224(t)	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	71	59	6	100.0	56.6	13.1	4649	I-L
CHECK	Tx. Agri. Exp. Stat.	*	*	*	73	58	7	100.0	59.9	13.4	4605	J-L
KS 737	Northrup King Company	R	P	ML	69	57	9	100.0	59.6	12.8	4499	K-L
DEKALB DK-37	DEKALB Plant Genetics	Bz	P	ME	67	60	10	98.3	56.3	13.0	4082	L

TEST MEAN = 5547 TEST C.V.= 10.6 LSD .05= 949.1

Note 1 The ANOVA procedure was used for statistical analysis.

Table 5A. (CONTINUED)

Note 2: Hybrid name starting or ending with an "X" denote a commercial experimental. Hybrids entered by the Texas Agricultural Station are either in the experimental stage or being tested as experimental check hybrids. Individuals may contact respective seed companies for the availability of planting seed for the upcoming crop year.

* ICI Seeds 5323, Frontier Hybrids F-524, Myc ORO Hybrids Silverado and Conlee Rustler were entered as commercial check hybrids at our discretion. They are intended to be used for comparison purposes only.

** Grain color designated by respective seed companies: R=Red Br=Brown Bz=Bronze Rt=Red translucent W=White Wt=White translucent Ct=Cream translucent.

*** Plant color designated by respective seed companies: T=Tan R=Red P=Purple. Those hybrids designated with an asterisk(*) indicated company did not submit plant color.

**** Maturity classification for hybrids designated by the respective seed companies.
E=Early M=Medium ME=Medium Early ML=Medium Late L=Late.

***** Duncan's multiple range test was used at the .05 level.

Table 5A-1. Disease ratings for 52 hybrids entered in the 1993 Danevang Grain Sorghum Performance Test.

HYBRID	COMPANY	ANTHRACNOSE									HEAD BLIGHT		
		Foliar			Stalk			Panicle					
		Rep 1	2	3	Rep 1	2	3	Rep 1	2	3	Rep 1	2	3
XP5702	Asgrow Seed Co.	0	0	0	0	0	0	0	0	0	2.5	1.8	2.0
837	Cargill Hybrid Seeds	0	0	0	0	1.5	1.5	0	0	1.5	2.0	4.0	3.0
857	Cargill Hybrid Seeds	0	0	0	0	0	1.5	2.0	3.5	0	3.0	2.2	3.2
X19383	Cargill Hybrid Seeds	0	0	0	0	0	0	0	0	0	1.5	1.8	1.1
DEKALB DK-37	DEKALB Plant Genetics	0	0	0	0	0	0	1.2	0	0	1.5	3.0	2.0
DEKALB DK-56	DEKALB Plant Genetics	0	0	0	0	0	0	0	0	0	1.5	1.5	2.0
DEKALB X-176 (X)	DEKALB Plant Genetics	0	0	0	0	0	1.5	1.5	1.5	1.5	1.8	3.0	1.8
1552	Delta and Pine Land Co.	0	0	0	0	0	0	0	0	0	0	1.5	1.5
1558	Delta and Pine Land Co.	1.2	0	0	2.5	3.0	1.5	1.5	2.0	1.5	2.8	3.8	3.0
1710	Delta and Pine Land Co.	0	0	0	0	0	1.2	0	0	0	0	1.5	1.5
dk 785E	Douglass King Co.	0	0	0	2.2	1.5	1.1	2.5	1.8	0	2.0	2.5	3.2
dk 790	Douglass King Co.	0	0	0	0	0	0	0	0	0	0	2.0	1.8
dk934x	Douglass King Co.	0	0	0	1.5	0	2.5	1.5	0	0	1.8	1.8	3.0
W-917-E	George Warner Seed Co., Inc.	0	0	0	2.5	2.5	0	2.0	2.0	0	2.0	3.0	2.0
Growers 3150	Grower's Brand/Agrigenetics	0	0	0	0	0	0	0	0	0	0	1.5	2.2
Growers 3260	Grower's Brand/Agrigenetics	1.1	0	0	3.5	2.8	2.0	2.5	3.5	2.5	2.5	2.0	3.0
Growers 1313	Grower's Brand/Agrigenetics	0	0	0	3.5	2.5	3.0	2.5	3.8	2.5	3.0	1.5	3.0
HSC Cherokee	HyPerformer Seed Company	1.1	1.2	0	1.5	1.8	2.0	1.2	0	1.5	2.5	2.5	3.0
HSC Wings	HyPerformer Seed Company	0	0	0	0	0	0	0	0	0	1.2	1.5	1.8
HY 1320	HyPerformer Seed Company	0	0	0	1.5	0	0	1.2	0	0	1.5	2.8	1.2
HSC 893	HyPerformer Seed Company	1.5	0	0	2.8	2.2	2.0	3.2	1.2	3.0	2.0	2.2	3.5
5319	ICI Seeds	0	0	0	1.8	0	0	1.5	0	0	1.5	1.5	1.5
5503	ICI Seeds	1.5	0	0	2.5	2.5	2.0	2.0	1.5	1.5	3.0	3.0	3.2
NC+ 472	NC+ Hybrids	1.5	0	0	0	1.5	0	0	1.8	0	2.0	3.5	2.5
NC+ 7B90	NC+ Hybrids	0	0	0	0	0	0	0	0	0	1.5	1.2	1.5

Table 5A-1 (continued)

HYBRID	COMPANY	ANTHRACNOSE									HEAD BLIGHT		
		Foliar			Stalk			Panicle					
		Rep 1	2	3	Rep 1	2	3	Rep 1	2	3	Rep 1	2	3
2665	Northrup King Co.	0	0	0	0	0	0	0	0	0	1.2	2.0	1.8
KS737	Northrup King Co.	0	0	0	2.5	0	1.5	1.5	0	0	3.0	3.8	3.2
ORO Amigo	ORO Hybrids/Agrigenetics	0	0	0	0	0	0	0	0	0	0	1.5	1.2
ORO Quest (x9210)	ORO Hybrids/Agrigenetics	2.0	0	0	3.0	2.2	2.5	1.5	2.0	3.0	3.0	3.0	2.0
ORO Ultra	ORO Hybrids/Agrigenetics	0	0	0	2.0	0	0	1.5	0	0	3.0	3.2	2.8
8118 (XS116)	Pioneer Hi-Bred Int'l., Inc.	1.1	0	0	0	0	0	1.2	0	0	0	1.5	1.5
8310 (XS418)	Pioneer Hi-Bred Int'l., Inc.	0	0	0	0	0	0	0	1.5	0	0	1.8	1.5
8313	Pioneer Hi-Bred Int'l., Inc.	0	0	0	0	2.5	0	1.5	2.0	0	4.2	4.2	4.5
T-E Sonora	TAYLOR-EVANS SEED CO.	0	0	0	3.5	2.5	0	4.0	3.5	0	1.5	2.8	3.8
T-E-X-8342	TAYLOR-EVANS SEED CO.	0	0	0	2.0	0	1.8	3.0	1.5	1.5	2.0	2.5	2.0
TS-466	TEXAS SEED CO., INC.	0	0	0	1.2	0	1.8	0	0	0	1.2	1.8	2.2
93501	Tx. Agri. Exp. Stat.	0	0	0	0	0	0	0	0	0	1.8	1.5	1.5
93502	Tx. Agri. Exp. Stat.	1.1	0	0	0	1.5	1.5	0	1.5	0	3.0	3.0	3.0
93503	Tx. Agri. Exp. Stat.	0	0	0	0	0	1.2	0	0	0	2.5	2.8	3.0
93803	Tx. Agri. Exp. Stat. (GP)	0	0	0	0	0	0	0	0	0	2.0	1.8	1.8
93806	Tx. Agri. Exp. Stat. (GP)	0	0	0	0	0	0	0	1.5	0	1.5	1.8	1.2
93801	Tx. Agri. Exp. Stat. (GP)	0	0	0	0	0	0	1.5	1.5	0	1.2	1.8	2.5
93833	Tx. Agri. Exp. Stat. (GP)	0	0	0	0	0	0	0	1.5	1.5	2.2	2.5	2.0
93701	Tx. Agri. Exp. Stat. (DR)	2.2	1.2	0	3.0	2.0	1.5	4.0	3.5	0	2.0	2.0	3.0
93702	Tx. Agri. Exp. Stat. (DR)	0	0	0	1.5	2.5	1.5	2.5	2.0	1.8	2.0	3.5	2.2
93703	Tx. Agri. Exp. Stat. (DR)	1.1	0	0	0	0	2.0	0	2.0	2.5	3.8	3.0	2.0
93706	Tx. Agri. Exp. Stat. (DR)	1.1	1.2	0	3.5	2.5	3.0	3.0	3.0	3.5	2.0	2.0	2.5
93708	Tx. Agri. Exp. Stat. (DR)	0	0	0	2.5	0	1.5	2.0	0	1.5	1.5	1.8	2.2
CHECK	Tx. Agri. Exp. Stat.	0	0	0	0	0	1.1	0	0	0	1.5	1.2	1.8
CHECK	Tx. Agri. Exp. Stat.	0	0	0	1.5	0	0	0	0	0	2.2	2.2	2.2

Table 5A-1 (continued)

HYBRID	COMPANY	ANTHRACNOSE									HEAD BLIGHT		
		Foliar			Stalk			Panicle					
		Rep 1	2	3	Rep 1	2	3	Rep 1	2	3	Rep 1	2	3
CHECK	Tx. Agri. Exp. Stat.	0	0	0	0	0	0	0	0	0	1.5	1.5	1.5
CHECK	Tx. Agri. Exp. Stat.	0	0	0	0	0	0	0	0	0	0	2.2	2.0

Appreciation is expressed to Mr. Delroy Collins, Department of Plant Pathology and Microbiology, Texas A&M University, and Dr. Joe Krausz, Extension Plant Pathologist for obtaining readings on 7-27-93. Rating scale for Anthracnose is as follows:

0= no evaluation due to low disease pressure
1= resistant, disease inconspicuous
2= disease present, over 50% prevalence with low severity, little damage
3= disease severe, 100% prevalence, less than 25% of plant tissue area destroyed
4= disease severe, 100% prevalence, more than 25% of plant tissue area destroyed
5= death of plant or plant tissue due to disease

Head blight was a combination of early Anthracnose followed by Fusurium infection which was secondary. Rating scale is as follows:

1= resistant, no infection to rachis branches
2= infection limited to rachis branches
3= entire panicle infected
4= panicle and peduncle affected
5= panicle and peduncle death due to disease

If you have any questions regarding readings, please contact Mr. Collins or Dr. R. A. Frederiksen at 409-845-1287.

Table 5B. Three-year summary, Grain Sorghum Performance Test, Danevang, Texas.

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
8118	Pioneer Hi-Bred Int'l., Inc	1	6675	21	5117	–	–
DEKALB DK-54	DEKALB Plant Genetics	2	6668	–	–	–	–
5503	ICI Seeds	3	6479	–	–	–	–
8310	Pioneer Hi-Bred Int'l., Inc	4	6437	4	5914	–	–
dk 790E	DOUGLASS W. KING CO., INC.	5	6369	18	5213	–	–
CHECK (ICI 5323)	Tx. Agri. Exp. Stat.	6	6253	2	6009	–	–
W-917-E	George Warner Seed Co., Inc	7	6189	10	5548	–	–
Myc T-E X-8342	Mycogen Plant Sciences	8	6177	–	–	–	–
HY 1320	HyPerformer Seed Company	9	6045	–	–	–	–
Myc Grower's 3150	Mycogen Plant Sciences	10	6002	–	–	21	4712
HSC 893	HyPerformer Seed Company	11	5992	–	–	–	–
5319	ICI Seeds	12	5986	–	–	–	–
NC+ 7B90	NC+ Hybrids	13	5975	34	4908	15	4818
Myc Grower's 1313	Mycogen Plant Sciences	14	5974	–	–	38	4494
1710	Delta and Pine Land Company	15	5938	32	4957	2	5009
A807 x Tx2783	Tx. Agri. Exp. Stat. (DR)	16	5916	–	–	–	–
2665	Northrup King Company	17	5834	1	6246	13	4856
HSC Cherokee	HyPerformer Seed Company	18	5773	19	5198	18	4767
HSC Wings	HyPerformer Seed Company	19	5754	25	5056	8	4922
NC+ 472	NC+ Hybrids	20	5704	7	5633	25	4666
dk 934x	DOUGLASS W. KING CO., INC.	21	5697	–	–	–	–
CHECK (F-524)	Tx. Agri. Exp. Stat.	22	5692	6	5727	45	4167
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	23	5687	22	5110	30	4591
737	Cargill Hybrid Seeds	24	5663	–	–	–	–
1558	Delta and Pine Land Company	25	5628	51	4251	27	4640
ATx2752 x GR108-90M23	Tx. Agri. Exp. Stat.(GP)	26	5626	–	–	–	–
DEKALB DK-56	DEKALB Plant Genetics	27	5591	27	5034	49	4040
ATx378 x RTx430	Tx. Agri. Exp. Stat.	28	5523	20	5145	58	2958
A1 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	29	5489	–	–	–	–
XP5702	Asgrow Seed Company	30	5488	–	–	–	–

Table 5B. Danevang, Texas. (Continued)

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
ATx2752 x GR134A-90M50	Tx. Agri. Exp. Stat. (GP)	31	5482	–	–	–	–
TS-466	Texas Seed Co., Inc.	32	5480	–	–	–	–
Myc ORO Amigo	Mycogen Plant Sciences	33	5432	17	5296	4	4990
Myc Grower's 3260	Mycogen Plant Sciences	34	5294	31	4967	–	–
837	Cargill Hybrid Seeds	35	5273	42	4689	–	–
8313	Pioneer Hi-Bred Int'l., Inc	36	5234	13	5418	10	4876
A1 x Tx2868	Tx. Agri. Exp. Stat. (GP)	37	5230	–	–	–	–
1552	Delta and Pine Land Company	38	5204	55	4147	31	4568
ATx399 x RTx430	Tx. Agri. Exp. Stat.	39	5167	40	4764	40	4360
A807 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	40	5162	–	–	–	–
Myc ORO Quest	Mycogen Plant Sciences	41	5087	5	5756	–	–
857	Cargill Hybrid Seeds	42	5051	59	3809	39	4379
dk 785E	DOUGLASS W. KING CO., INC.	43	4987	11	5544	–	–
Myc ORO Ultra	Mycogen Plant Sciences	44	4938	24	5060	33	4562
A803 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	45	4901	–	–	–	–
Myc T-E SONORA	Mycogen Plant Sciences	46	4862	49	4431	–	–
A1 x GR107-90M17	Tx. Agri. Exp. Stat. (GP)	47	4801	–	–	–	–
CHECK (Rustler)	Tx. Agri. Exp. Stat.	48	4668	15	5378	7	4929
A807 x R3224(t)	Tx. Agri. Exp. Stat. (DR)	49	4649	47	4543	–	–
CHECK	Tx. Agri. Exp. Stat.	50	4605	–	–	–	–
KS 737	Northrup King Company	51	4499	53	4224	37	4496
DEKALB DK-37	DEKALB Plant Genetics	52	4082	14	5399	41	4351
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	–	–	9	5603	43	4265
Myc T-E Y-75	Mycogen Plant Sciences	–	–	33	4947	36	4508
CHECK (dk 780)		–	–	35	4875	20	4756
ICI/Garst 5392	ICI Seeds (Garst Seed Co.)	–	–	36	4871	5	4967
TS-488	Texas Seed Co., Inc.	–	–	39	4817	35	4520
ATx2755 x MR102-90M2	Tx. Agri. Exp. Stat. (GP)	–	–	44	4625	54	3853
8195	Pioneer Hi-Bred Int'l., Inc	–	–	46	4545	55	3844
ATx2755 x MR120-90M8	Tx. Agri. Exp. Stat. (GP)	--	--	50	4375	26	4664
Number Entries:		52		70		61	
Test Mean Yield (bu/A):			5547		4676		4387

Table S2. (CONTINUED)

Company or Brand Name	Hybrid Designation	Grain Yield lb/A 1	Days To Flower 2	Plant Height (In)	Head Exs. Inches 3	Lodging (%)	Desir-ability Rating 4	Midge Damage (%)	Bird Damage (%)	Mois-ture (%)	Grain Color 5	Plant Color 6	Matu-rity 7
Tx. Agri. Exp. Stat.	ATxARG-1*90T308	2792	65	41	3	0	1.4	3	0	13.9	Rt	T	ML
Garrison & Townsend, Inc.	SG-615	2703	50	30	0	2	2.0	0	0	12.4	R	P	E
Mycogen Plant Sciences	Myc Grower's 1214E	2698	48	34	2	0	2.1	0	0	12.4	Wt	P	M
Tx. Agri. Exp. Stat.	A1*GR108-90M23	2664	62	44	3	0	1.6	3	0	13.2	Rt	P	ML
Tx. Agri. Exp. Stat.	A35*GR107-90M17	2615	63	34	2	0	2.1	1	0	13.4	R	P	ML
Tx. Agri. Exp. Stat.	A35*8BE2668	2592	64	40	2	0	1.8	9	0	13.1	Rt	P	ML
Tx. Agri. Exp. Stat.	A35*Tx2864	2587	56	39	2	0	1.6	4	0	12.6	LY	P	ML
Tx. Agri. Exp. Stat.	A8618*RTx2783	2577	60	43	3	0	1.5	10	0	13.1	Rt	R	ML
Frontier Hybrids, Inc.	F-333y	2534	63	36	1	0	2.2	10	0	12.2	Y	P	M
Tx. Agri. Exp. Stat.	ATxARG-1*RTx436	2445	52	34	1	0	2.3	0	0	12.1	W	T	M
George Warner Seed Co.	W-624-Y	2363	65	35	2	0	2.5	9	0	12.8	R	P	ML
George Warner Seed Co.	W-528W	2354	52	32	2	0	2.0	2	0	12.0	C	P	*
Tx. Agri. Exp. Stat.	A8618*RQL36	2215	61	37	4	0	1.9	1	0	12.7	R	P	ML
AgriPro Seed Co.	AP690	2105	57	36	0	0	1.6	4	0	12.7	C	P	M
Tx. Agri. Exp. Stat.	ATx631*R9021	1968	61	44	4	0	2.2	1.7	0	12.0	Rt	T	ML

Mean Yield= 3291 lb/A C.V.= 17.3% LSD= 793 lb/A

1. All yields adjusted to 13% moisture.

2. Number of days from planting until half the heads have started to flower.

3. The average number of inches from the flag leaf to the base of the head.

4. Desirability rating made by C.A. Woodfin on Oct. 25. Rating scale: 1 = very good 5 = very poor.

5. Grain color designated by respective companies: R = Red, Rt = Red translucent, Bz = Bronze, W = White, Wt = White translucent, Ct = Cream translucent, C= Cream, Y = Yellow endosperm, LY = Lemon yellow.

6. Plant color designated by seed companies: P = Purple, R = Red, T = Tan.

7. Maturity classification by respective seed companies: E = Early, ME = Medium early, M = Medium, ML = Medium late.

TABLE 6. AGRONOMIC AND TEST INFORMATION: COLLEGE STATION

TEST:	1993 Irrigated Grain Sorghum Performance Test
LOCATION:	Texas A&M University Farm, College Station, Texas
COOPERATORS:	F. Miller, K. Prihoda, D. Jakubik, D. Pietsch, R. Gaas
SOIL TYPE:	Ships clay loam
ROW WIDTH:	30"
PREVIOUS CROP:	Grain sorghum
LAND PREPARATION:	Shredded, disked, moldboarded, disked, bedded, cultivated, planted
DATE PLANTED:	3-29-93, cone planter
DATE THINNED:	The test block was not thinned. 200 seeds were distributed by a cone planter, on 21' centers. A four foot alley was cut for a final length of 17 feet.
PLOT LENGTH:	17'
FERTILIZER:	160+80+0; 80+0+0 preplant, sidedress 80+0+0 on May 12
HERBICIDE:	1 lb/A Milogard 4L (propazine) + 2.5 lb/A Ramrod 4L (propachlor) on 3-29-93
INSECTICIDE:	6 lb/A Furadan 15G at planting; 1 application of Asana at label rate for midge
RAINFALL:	February=.22", March = 4.61", April = 3.86", May = 7.26", June=11.12", July=0", August=0" Total= 27.07"
IRRIGATIONS:	None
DATE HARVESTED:	8-11-93
SIZE HARVESTED PLOT:	2 rows 17'
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	50
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	2
TEST MEAN:	6,094 lb/A; yields corrected to 13% moisture
TEST C.V.:	6.9 percent

GENERAL STATEMENT: Good growing conditions and timely rainfall were contributing factors that resulted in above normal yields at this site. The season started with a full soil moisture profile from fall and winter rains. An excellent seedbed was available for the March 29 planting. This year 200 seeds were distributed in each row by a cone planter and were not thinned. Seedling emergence was rapid and excellent plant stands achieved. Timely rainfall throughout the growing season resulted in continuous plant growth and development. Due to the timely rains, no irrigations were applied to the test. Midge were observed but controlled by a single aerial application of an insecticide.

The test mean yield was 6,094 lb/A compared to the past 3-year average of 5,116 lb/A. Six hybrids in the test produced over 7,000 lb/A. Excellent bushel weights were recorded with the range being from 58.0 lb/bu to 63.3 lb/bu.

This trial was conducted by Dr. Fred Miller, Karen Prihoda, and Donald Jakubik in their research plots at College Station. All agronomic data were collected after physiological maturity of the grain. Harvest was made with a MF-8 plot combine and data were recorded for grain weight, bushel weight, and moisture percent by a Harvest-Master Polycorder system.

Table 6A. GRAIN SORGHUM PERFORMANCE TEST; COLLEGE STATION, TEXAS 1993

Hybrid 1	Company Or Brand Name	Grain Color 2	Plant Color 3	Matu-rity Class 4	Days To 50% Flower	Plant Height Inches	Panicle Length Inches	Panicle Exser-tion Inches	Desir-ability Rating 5	Test Weight lb/bu	Mois-ture %	Yield lb/A	Stat. Sig., 0.05 6
DEKALB DK-54	DEKALB Plant Genetics	Bz	P	ML	80	59	11	11	1.8	62.7	14.3	7594	A
HY 1320	HyPerformer Seed Company	R	*	ML	82	55	10	9	1.4	63.2	14.3	7457	A-B
XP5702	Asgrow Seed Company	Bz	P	M	77	54	9	9	1.9	60.8	14.2	7349	A-C
8118	Pioneer Hi-Bred Int'l., Inc	Bz	P	L	77	56	12	5	1.4	63.1	14.3	7279	A-D
Myc T-E Y-75	Mycogen Plant Sciences	R	P	M	77	52	10	7	1.6	60.6	14.1	7199	A-E
837	Cargill Hybrid Seeds	Bz	P	ML	77	52	13	5	1.6	60.5	14.4	7092	A-F
1710	Delta and Pine Land Company	Bz	P	ML	79	50	12	4	1.8	60.5	14.1	6929	A-G
1506	Delta and Pine Land Company	Ct	P	M	74	57	13	9	2.6	61.3	14.5	6926	A-G
857	Cargill hybrid Seeds	Bz	P	ML	74	49	11	5	1.8	60.8	14.1	6842	A-H
8310	Pioneer Hi-Bred Int'l., Inc	Bz	R	ML	75	52	12	6	1.7	62.0	14.5	6833	A-I
DEKALB DK-56	DEKALB Plant Genetics	R	P	ML	78	54	11	8	1.5	62.1	14.4	6813	A-I
Myc Grower's 3260	Mycogen Plant Sciences	Bz	P	ML	74	51	13	7	2.0	60.9	14.1	6738	B-I
1552	Delta and Pine Land Company	Bz	P	M	79	54	11	6	1.5	61.8	14.5	6667	B-I
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	79	52	11	5	1.8	62.0	14.3	6661	B-I
HSC 893	HyPerformer Seed Company	Bz	*	M	78	52	10	6	1.8	62.2	14.1	6567	C-J
HSC Cherokee	HyPerformer Seed Company	R	*	M	81	53	12	5	1.7	63.0	14.3	6566	C-J
DEKALB C-325(x)	DEKALB Plat Genetics	R	P	ML	80	49	11	5	1.8	59.7	13.8	6542	C-J
CHECK	Tx. Agri. Exp. Stat.	*	*	*	76	56	11	9	1.9	61.5	14.3	6525	C-J
Myc ORO Baron	Mycogen Plant Sciences	R	P	ML	79	49	10	6	1.8	63.3	14.3	6488	D-J
Myc T-E SONORA	Mycogen Plant Sciences	Bz	P	M	74	50	12	6	2.0	61.3	14.0	6444	E-K
ATx399 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	75	48	12	6	2.0	60.6	14.1	6387	E-L
Myc ORO Quest	Mycogen Plant Sciences	Bz	P	ML	76	46	12	8	2.4	62.1	14.1	6378	E-L
Myc ORO Amigo	Mycogen Plant Sciences	Bz	P	ML	77	54	10	7	1.9	62.8	14.2	6312	F-M
8313	Pioneer Hi-Bred Int'l., Inc	Bz	P	ML	73	47	15	4	1.9	62.0	14.0	6304	F-M
F-524	Frontier Hybrids, Inc.	Bz	T	ML	74	55	10	8	2.0	62.3	14.2	6302	F-M
Myc Grower's 3150	Mycogen Plant Sciences	Bz	P	ML	74	51	10	5	2.1	59.5	14.1	6225	G-N
2665	Northrup King Company	R	P	ML	78	50	10	5	1.9	62.1	14.1	6220	G-N
SPB 16908	Seed Source, Inc	R	P	M	77	51	13	6	1.4	59.3	14.0	6210	G-N
ATx2752 x GR134A-90M50	Tx. Agri. Exp. Stat.(GP)	R	P	ML	81	57	12	6	3.0	61.9	14.2	6180	G-O
DEKALB DK-37	DEKALB Plant Genetics	Bz	P	ME	72	53	11	8	2.1	60.6	14.2	6064	H-P

Table 6A. (CONTINUED)

Hybrid 1	Company Or Brand Name	Grain Color 2	Plant Color 3	Matu-rity Class 4	Days To 50% Flower	Plant Height Inches	Panicle Length Inches	Head Exser-tion Inches	Desir-ability Rating 5	Test Weight lb/bu	Mois-ture %	Yield lb/A	Stat. Sig., 0.05 6
SPB 22908	Seed Source, Inc.	*	*	*	78	52	11	7	1.5	59.9	13.9	6054	H-P
ATx378 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	77	58	11	5	1.8	60.3	14.2	5883	I-P
KS 737	Northrup King Company	R	P	ML	76	52	11	11	2.7	62.1	14.2	5817	J-Q
A8618 x RQL36	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	81	51	14	6	1.5	61.4	14.0	5796	J-R
A8618 x RTx430	Tx. Agri. Exp. Stat.(FM)	Rt	P	ML	77	52	14	4	1.5	58.9	13.8	5642	K-S
A1 x Tx2864	Tx. Agri. Exp. Stat.	W	P	ML	81	50	14	3	1.8	60.5	14.4	5592	L-S
A1 x GR107-90M18	Tx. Agri. Exp. Stat.(GP)	R	P	ML	78	52	14	4	2.7	60.6	14.6	5542	M-S
ATxARG-1 x R8922	Tx. Agri. Exp. Stat.(FM)	Rt	T	M	82	54	12	7	1.6	58.3	13.9	5540	M-S
ATx631 x R.9021	Tx. Agri. Exp. Stat.(FM)	Rt	T	M	81	58	13	8	1.5	59.6	14.2	5442	N-S
KS 714Y	Northrup King Company	C	P	M	72	50	12	8	2.4	61.0	14.2	5423	N-S
CHECK	Tx. Agri. Exp. Stat.	*	*	*	73	53	11	11	2.1	61.7	14.1	5367	O-T
SPB 22943	Seed Source, Inc.	R	P	ML	80	53	11	8	1.5	59.7	14.1	5338	P-T
ATx631 x RTx436	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	84	58	14	5	1.4	58.1	14.5	5162	Q-T
ATxARG-1 x R8925	Tx. Agri. Exp. Stat.(FM)	Rt	T	M	82	47	14	4	1.7	59.5	13.9	5043	Q-T
ATxARG-1 x RTx436	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	77	50	12	7	1.5	60.1	14.2	4997	R-T
A1 x Tx2868	Tx. Agri. Exp. Stat.	W	P	ML	80	57	14	6	1.8	58.0	13.9	4887	S-U
A8618 x 91C 1988	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	84	51	14	4	1.7	58.3	13.6	4606	T-V
A8618 x RTx2783	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	82	52	12	2	1.4	57.8	13.6	4199	U-C
ATxARG-1 x 90T308	Tx. Agri. Exp. Stat.(FM)	Rt	T	ME	77	48	11	6	1.4	58.0	13.5	4134	V
SPB 01943	Seed Source, Inc.	Bz	P	ML	84	48	13	1	1.5	59.0	13.9	4047	V

TEST MEAN = 6094.4 TEST C.V.= 6.9 LSD .05= 680.35

Note 1: The ANOVA procedure was used for statistical analysis.

Note 2: Hybrid name starting or ending with an "X" denote a commercial experimental. Hybrids entered by the Texas Agricultural Station are either in the experimental stage or being tested as experimental check hybrids. Individuals may contact respective seed companies for the availability of planting seed for the upcoming crop year.

1 Conlee Rustler, and Myc ORO Silverado were entered as commercial check hybrids at our discretion. They are intended to be used for comparison purposes only.

Table 6A. (CONTINUED)

2 Grain color designated by respective seed companies: R=Red Br=Brown Bz=Bronze Rt=Red translucent W=White Wt=White translucent Ct=Cream translucent.

3 Plant color designated by respective seed companies: T=Tan R=Red P=Purple. Those hybrids designated with an asterisk(*) indicated company did not submit plant color.

4 Maturity classification for hybrids designated by the respective seed companies.
E=Early M=Medium ME=Medium Early ML=Medium Late L=Late.

Note: Dr. Fred Miller, Soil & Crop Sciences Department, Texas A&M University, College Station, Texas, made the following ratings:

5 Desirability rating: 1= very good 2= good 3= average 4= poor 5= very poor

6 Duncan's multiple range test was used at the .05 level.

Table 6B. Three-year summary, Grain Sorghum Performance Test, College Station, Texas.

HYBRID	COMPANY	1993		1992		1991	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
DEKALB DK-54	DEKALB Plant Genetics	1	7594	–	–	–	–
HY 1320	HyPerformer Seed Company	2	7457	–	–	–	–
XP5702	Asgrow Seed Company	3	7349	–	–	–	–
8118	Pioneer Hi-Bred Int'l., Inc	4	7279	–	–	–	–
Myc T-E Y-75	Mycogen Plant Sciences	5	7199	6	6887	47	3777
837	Cargill Hybrid Seeds	6	7092	4	7153	6	5540
1710	Delta and Pine Land Company	7	6929	12	6610	–	–
1506	Delta and Pine Land Company	8	6926	21	6379	9	5416
857	Cargill Hybrid Seeds	9	6842	13	6558	44	3807
8310	Pioneer Hi-Bred Int'l., Inc	10	6833	–	–	–	–
DEKALB DK-56	DEKALB Plant Genetics	11	6813	22	6370	2	5885
Myc Grower's 3260	Mycogen Plant Sciences	12	6738	–	–	–	–
1552	Delta and Pine Land Company	13	6667	35	5804	–	–
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	14	6661	8	6784	32	3997
HSC 893	HyPerformer Seed Company	15	6567	–	–	–	–
HSC Cherokee	HyPerformer Seed Company	16	6566	–	–	42	3834
DEKALB C-325(x)	DEKALB Plant Genetics	17	6542	–	–	–	–
CHECK (Rustler)	Tx. Agri. Exp. Stat.	18	6525	–	–	27	4241
Myc ORO Baron	Mycogen Plant Sciences	19	6488	–	–	36	3883
Myc T-E SONORA	Mycogen Plant Sciences	20	6444	–	–	–	–
ATx399 x RTx430	Tx. Agri. Exp. Stat.	21	6387	27	6194	37	3874
Myc ORO Quest	Mycogen Plant Sciences	22	6378	17	6506	–	–
Myc ORO Amigo	Mycogen Plant Sciences	23	6312	20	6381	28	4203
8313	Pioneer Hi-Bred Int'l., Inc	24	6304	–	–	–	–
F-524	Frontier Hybrids, Inc.	25	6302	9	6738	19	4748
Myc Grower's 3150	Mycogen Plant Sciences	26	6225	–	–	–	–
2665	Northrup King Company	27	6220	7	6865	48	3694
SPB 16908	Seed Source, Inc	28	6210	14	6557	–	–
ATx2752 x GR134A-90M50	Tx. Agri. Exp. Stat. (GP)	29	6180	–	–	–	–
DEKALB DK-37	DEKALB Plant Genetics	30	6064	52	4156	23	4564

Table 6B. College Station, Texas. (Continued)

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
SPB 22908	Seed Source, Inc.	31	6054	–	–	–	–
ATx378 x RTx430	Tx. Agri. Exp. Stat.	32	5883	43	5309	16	4981
KS 737	Northrup King Company	33	5817	44	5265	59	1891
A8618 x RQL36	Tx. Agri. Exp. Stat. (FM)	34	5796	–	–	–	–
A8618 x RTx430	Tx. Agri. Exp. Stat. (FM)	35	5642	–	–	–	–
A1 x Tx2864	Tx. Agri. Exp. Stat.	36	5592	32	5901	41	3840
A1 x GR107-90M18	Tx. Agri. Exp. Stat. (GP)	37	5542	–	–	–	–
ATxARG-1 x R8922	Tx. Agri. Exp. Stat.(FM)	38	5540	–	–	–	–
ATx631 x RTx436	Tx. Agri. Exp. Stat.(FM)	39	5442	10	6714	–	–
KS 714Y	Northrup King Company	40	5423	46	5074	60	1750
CHECK	Tx. Agri. Exp. Stat.	41	5367	–	–	–	–
SPB 22943	Seed Source, Inc.	42	5338	–	–	–	–
ATx631 x RTx436	Tx. Agri. Exp. Stat. (FM)	43	5162	–	–	–	–
ATxARG-1 x R8925	Tx. Agri. Exp. Stat. (FM)	44	5043	–	–	–	–
ATxARG-1 x RTx436	Tx. Agri. Exp. Stat. (FM)	45	4997	–	–	–	–
A1 x Tx2868	Tx. Agri. Exp. Stat.	46	4887	–	–	–	–
A8618 x 91C1988	Tx. Agri. Exp. Stat. (FM)	47	4606	49	4756	–	–
A8618 x RTx2783	Tx. Agri. Exp. Stat. (FM)	48	4199	3	7193	15	4986
ATxARG-1 x 90T308	Tx. Agri. Exp. Stat. (FM)	49	4134	51	4186	–	–
SPB 01943	Seed Source, Inc.	50	4047	–	–	–	–
NC+ 573E	NC+ Hybrids	–	–	11	6649	54	3132
A8618 x R8505	Tx. Agri. Exp. Stat. (FM)	–	–	16	6537	13	5061
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	–	–	18	6443	1	6225
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	–	–	19	6390	5	5572
ATx2752 x GR107A-90M18	Tx. Agri. Exp. Stat. (GP)	–	–	23	6301	46	3793
A1 x GR107A-90M19	Tx. Agri. Exp. Stat. (GP)	–	–	36	5771	39	3870
A1 x GR134A-90M49	Tx. Agri. Exp. Stat. (GP)	–	–	40	5592	3	5880
A8618 x R6956	Tx. Agri. Exp. Stat. (FM)	–	–	41	5400	24	4453
A1 x GR107A-90M20	Tx. Agri. Exp. Stat. (GP)	--	--	47	5016	33	3975
Number Entries:		50		53		60	
Test Mean Yield (bu/A):			6094		6000		4228

TABLE 7. AGRONOMIC AND TEST INFORMATION: THRALL

TEST:	1993 Dryland Grain Sorghum Performance Test
LOCATION:	Stiles Farm Foundation, Thrall, Texas
COOPERATORS:	Dennis Pietsch, Cloyce Coffman, Randy Gaas, Leon Synatschk, and Calvin Rinn
SOIL TYPE:	Burleson clay
ROW WIDTH:	38"
PREVIOUS CROP:	Cotton
LAND PREPARATION:	Shredded, bedded, re-bed, sprayed Bladex at label rate for winter weed control
DATE PLANTED:	3-5-93, hand dropped behind a JD7300 Max Emerge 2
DATE THINNED:	Test was not thinned, 200 seeds were distributed/row
PLOT LENGTH:	25'
FERTILIZER:	100+20+0
HERBICIDE:	None
INSECTICIDE:	None
RAINFALL:	Due to a malfunctioning weather station located on the Stiles Farm, rainfall was not recorded. It was estimated that above average rainfall fell during the fall and winter months but no rain in July and August.
IRRIGATIONS:	None
DATE HARVESTED:	7-29-93 with a MF 8 plot combine
SIZE HARVESTED PLOT:	2 rows, 25 feet long
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	66
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	2
TEST MEAN:	5,901 lb/A; yields corrected to 13% moisture
TEST C. V.:	9.0 %

GENERAL INFORMATION: Outstanding yields were recorded at this test site which reflects the potential of grain sorghum production in this Southern Blackland Area of Texas. This year, the test block was designed whereby seeds would be hand-dropped through a planter and not thinned. Two hundred seeds were distributed per 30 foot of row and a five foot alley cut, leaving a final plot length of 25 feet. Distribution of seed was good within the plot. An extended period of wet and cool conditions retarded early plant growth and development. Due to the wet conditions, no herbicides were applied, but weeds were controlled by cultivation and hand-hoeing.

Timely rains throughout the growing season contributed to final yields and superb bushel weights. The test mean yield was 5,901 lb/A compared to the past 5-year average of 4,125 lb/A. Bushel weights ranged from 56.9 lb/bu to 63.3 lb/bu. Although number of days to achieve 50 percent flower was relatively longer than normal due to early cool conditions, midge were not a problem.

Table 7A. GRAIN SORGHUM PERFORMACE TEST; THRALL, TEXAS 1993

Hybrid *	Company Or Brand Name	Grain Color **	Plant Color ***	Maturity Class ****	Days To 50% Flower	Plant Height Inches	Head Exsertion Inches	% Stand	Test Weight lb/bu	Moisture %	Yield lb/A	Stat. Sig., 0.05 *****
857	Cargill Hybrid Seeds	Bz	P	ML	96	48	3	100.0	60.9	13.0	6988	A
HY 1320	HyPerformer Seed Company	R	*	ML	93	51	4	100.0	62.0	12.8	6814	A-B
DEKALB DK-56	DEKALB Plant Genetics	R	P	ML	94	52	7	100.0	61.9	13.1	6770	A-C
ATx631 x RTx436	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	97	56	5	100.0	61.3	13.4	6719	A-D
NC+ 7B90	NC+ Hybrids	Bz	*	M	93	48	6	100.0	60.4	12.8	6639	A-E
A807 x 8BE2668	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	93	50	9	100.0	61.6	14.0	6561	A-F
727	Cargill Hybrid Seeds	Bz	P	M	91	45	7	100.0	59.1	12.1	6560	A-F
A35 x 8BE2668	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	92	53	10	100.0	62.0	13.3	6556	A-G
2665	Northrup King Company	R	P	ML	94	44	3	100.0	59.9	12.8	6537	A-G
A1 x 8BE2668	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	92	51	6	100.0	61.4	13.3	6480	A-H
1506	Delta and Pine Land Company	Ct	P	M	92	56	10	100.0	59.7	13.3	6456	A-I
NC+ 472	NC+ Hybrids	Bz	*	M	91	45	5	100.0	57.7	12.4	6424	A-J
dk 780	DOUGLASS W. KING CO., INC.	R	P	M	92	47	5	100.0	60.1	12.5	6420	A-J
CHECK	Tx. Agri. Exp. Stat.	Bz	T	ML	93	50	5	100.0	60.5	12.9	6403	A-J
Myc ORO Quest	Mycogen Plant Sciences	Bz	P	ML	93	48	6	100.0	60.2	12.9	6386	A-J
A35 x 89CC443	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	94	53	10	100.0	63.3	13.8	6378	A-J
CHECK	Tx. Agri. Exp. Stat.	Bz	P	ML	92	46	5	100.0	61.2	12.7	6333	A-K
Myc Grower's 3150	Mycogen Plant Sciences	Bz	P	ML	93	49	5	100.0	62.3	12.9	6319	A-L
ATx399 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	92	47	6	100.0	59.3	12.4	6291	A-M
5319	ICI Seeds	Bz	P	ML	92	50	5	100.0	61.4	12.8	6282	A-M
NC+ 573E	NC+ Hybrids	R	*	M	91	45	6	100.0	61.1	12.4	6280	A-M
1558	Delta and Pine Land Company	Rt	P	M	92	47	6	100.0	60.8	12.5	6208	A-N
8310	Pioneer Hi-Bred Int'l., Inc	Bz	R	ML	93	51	6	100.0	60.4	13.0	6207	A-N
CHECK	Tx. Agri. Exp. Stat.	*	*	*	93	49	5	100.0	61.5	12.7	6184	A-N
837	Cargill Hybrid Seeds	Bz	P	ML	96	47	4	100.0	60.9	13.3	6179	A-N
737	Cargill Hybrid Seeds	Bz	P	M	91	46	7	100.0	60.1	12.7	6170	A-N
Myc T-E SONORA	Mycogen Plant Sciences	Bz	P	M	92	47	6	100.0	61.9	12.7	6168	A-N
ATx2752 x GR108-90M30	Tx. Agri. Exp. Stat.(GP)	R	P	ML	94	50	5	99.3	63.1	13.1	6103	A-O
CHECK	Tx. Agri. Exp. Stat.	*	*	*	91	51	9	100.0	61.9	12.9	6050	A-O
XP5702	Asgrow Seed Company	Bz	P	M	95	55	8	100.0	62.2	12.7	6041	A-O

Table 7A. (CONTINUED)

Hybrid *	Company Or Brand Name	Grain Color **	Plant Color ***	Matu-rity Class ****	Days To 50% Flower	Plant Height Inches	Head Exser-tion Inches	% Stand	Test Weight lb/bu	Mois-ture %	Yield lb/A	Stat. Sig., 0.05 *****
ATx378 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	93	54	5	99.0	60.5	12.7	5988	A-O
HSC Cherokee	HyPerformer Seed Company	R	*	M	92	47	5	100.0	58.8	12.3	5982	A-O
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	93	50	5	100.0	61.6	13.0	5955	A-O
1552	Delta and Pine Land Company	Bz	P	M	94	49	6	100.0	60.3	13.0	5896	B-O
KS 397	Northrup King Company	R	P	M	87	48	9	100.0	61.2	12.7	5844	B-O
ATx2752 x GR108-90M23	Tx. Agri. Exp. Stat.(GP)	R	P	ML	92	56	7	100.0	62.9	13.2	5834	B-O
A8618 x RTx2783	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	97	49	3	98.3	60.1	12.3	5826	B-O
CHECK	Tx. Agri. Exp. Stat.	R	P	ML	96	46	5	98.3	59.7	12.7	5812	B-O
DEKALB DK-37	DEKALB Plant Genetics	Bz	P	ME	87	51	8	100.0	61.1	12.7	5787	B-O
Myc ORO Amigo	Mycogen Plant Sciences	Bz	P	ML	94	49	4	98.3	60.3	12.9	5781	B-O
ATxARG-1 x R8922	Tx. Agri. Exp. Stat.(FM)	Rt	T	M	96	56	8	98.3	60.3	12.9	5706	C-O
A1 x Tx2868	Tx. Agri. Exp. Stat.(GP)	R	P	ML	93	50	6	100.0	59.9	13.4	5691	C-O
KS 560Y	Northrup King Company	C	P	M	90	41	5	100.0	60.8	12.7	5680	C-O
KS 737	Northrup King Company	R	P	ML	89	48	8	100.0	60.8	12.9	5679	C-O
dk 785E	DOUGLASS W. KING CO., INC.	R	P	ME	91	45	6	100.0	61.6	12.7	5678	C-O
HSC 893	HyPerformer Seed Company	Bz	*	M	92	48	6	99.3	60.2	12.5	5672	D-O
Myc T-E PROSPER	Mycogen Plant Sciences	Bz	P	M	94	45	7	100.0	61.0	12.5	5667	D-O
A807 x (430 x 9188)	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	90	50	9	100.0	59.1	13.6	5663	D-O
Myc Grower's 3260	Mycogen Plant Sciences	Bz	P	ML	92	46	8	100.0	60.8	13.0	5661	D-O
Myc T-E X-8321	Mycogen Plant Sciences	R	P	M	93	48	7	100.0	60.3	12.4	5627	D-P
DEKALB DK-51	DEKALB Plant Genetics	Bz	P	M	92	45	8	100.0	59.9	12.4	5605	E-P
797	Cargill Hybrid Seeds	Bz	P	M	93	44	6	98.7	58.9	12.1	5584	E-P
8601	Pioneer Hi-Bred Int'l., Inc	Bz	P	ME	91	46	6	96.0	61.2	12.9	5485	F-P
8606	Pioneer Hi-Bred Int'l., Inc	Bz	P	ME	90	49	6	100.0	60.3	12.5	5457	G-P
A1 x GR107-90M17	Tx. Agri. Exp. Stat.(GP)	R	P	ML	95	48	4	96.7	60.5	13.3	5428	H-P
A8618 x RQL36	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	97	45	5	93.3	61.4	12.6	5369	I-Q
DEKALB DK-40Y	DEKALB Plant Genetics	Y	P	M	91	48	9	100.0	61.1	12.9	5350	J-Q
Myc ORO Exp. 4331x	Mycogen Plant Sciences	Bz	P	M	95	49	5	98.3	61.9	12.8	5242	K-Q
A8618 x RTx430	Tx. Agri. Exp. Stat.(FM)	Rt	P	ML	95	44	4	100.0	59.3	12.6	5232	L-Q
5616	ICI Seeds	Bz	P	ME	89	45	8	100.0	59.9	12.5	5206	M-Q

Table 7A. (CONTINUED)

Hybrid *	Company Or Brand Name	Grain Color **	Plant Color ***	Matu-rity Class ****	Days To 50% Flower	Plant Height Inches	Head Exser-tion Inches	% Stand	Test Weight lb/bu	Mois-ture %	Yield lb/A	Stat. Sig., 0.05 *****
ATxARG-1 x RTx436	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	95	50	7	96.7	61.6	13.5	5179	N-Q
ATx631 x R.9021	Tx. Agri. Exp. Stat.(FM)	Rt	T	M	99	52	4	98.3	61.4	12.6	5179	N-Q
8699	Pioneer Hi-Bred Int'l., Inc	Bz	P	E	89	46	8	98.0	61.8	12.8	5059	O-Q
ATxARG-1 x R8925	Tx. Agri. Exp. Stat.(FM)	Rt	T	M	95	43	4	98.7	56.9	12.2	4594	P-Q
ATxARG-1 x 90T308	Tx. Agri. Exp. Stat.(FM)	Rt	T	ME	96	45	6	98.7	59.7	12.3	4384	Q-R
A8618 x 91C 1988	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	101	45	2	85.0	59.7	12.6	3797	R

TEST MEAN= 5901 TEST C.V.= 9.0 LSD .05= 775.5

Note 1 The ANOVA procedure was used for statistical analysis.

Note 2: Hybrid name starting or ending with an "X" denote a commercial experimental. Hybrids entered by the Texas Agricultural Station are either in the experimental stage or being tested as experimental check hybrids. Individuals may contact respective seed companies for the availability of planting seed for the upcoming crop year.

1 Conlee Rustler, and Myc ORO Silverado were entered as commercial check hybrids at our discretion. They are intended to be used for comparison purposes only.

* Frontier F-524, Pioneer 8313, Conlee Rustler, Myc ORO Silverado and ICI 5323 were entered as commercial check hybrids at our discretion. They are intended to be used for comparison purposes only.

** Grain color designated by respective seed companies: R=Red Br=Brown Bz=Bronze Rt=Red translucent W=White Wt=White translucent Ct=Cream translucent.

*** Plant color designated by respective seed companies: T=Tan R=Red P=Purple. Those hybrids designated with an asterisk(*) indicated company did not submit plant color.

**** Maturity classification for hybrids designated by the respective seed companies.
E=Early M=Medium ME=Medium Early ML=Medium Late L=Late.

***** Duncan's multiple range test was used at the .05 level.

Table 7B. Three-year summary, Grain Sorghum Performance Test, Thrall, Texas.

HYBRID	COMPANY	1993		1992		1991	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
857	Cargill Hybrid Seeds	1	6988	5	4585	25	5243
HY 1320	HyPerformer Seed Company	2	6814	–	–	–	–
DEKALB DK-56	DEKALB Plant Genetics	3	6770	8	4387	46	4975
ATx631 x RTx436	Tx. Agri. Exp. Stat. (FM)	4	6719	–	–	–	–
NC+ 7B90	NC+ Hybrids	5	6639	43	3209	19	5303
A807 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	6	6561	–	–	–	–
727	Cargill Hybrid Seeds	7	6560	–	–	–	–
A35 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	8	6556	–	–	–	–
2665	Northrup King Company	9	6537	26	3715	28	5215
A1 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	10	6480	–	–	–	–
1506	Delta and Pine Land Company	11	6456	33	4989	3	5933
NC+ 472	NC+ Hybrids	12	6424	10	4252	32	5113
dk 780	DOUGLAS W. KING CO., INC.	13	6420	–	–	–	–
CHECK (ICI 5323)	Tx. Agri. Exp. Stat.	14	6403	12	4228	–	–
Myc ORO Quest	Mycogen Plant Sciences	15	6386	–	–	–	–
A35 x 89CC443	Tx. Agri. Exp. Stat. (DR)	16	6378	1	5087	–	–
CHECK (F-524)	Tx. Agri. Exp. Stat.	17	6333	13	4226	22	5254
Myc Grower's 3150	Mycogen Plant Sciences	18	6319	46	3100	23	5246
ATx399 x RTx430	Tx. Agri. Exp. Stat.	19	6291	–	–	–	–
5319	ICI Seeds	20	6282	–	–	–	–
NC+ 573E	NC+ Hybrids	21	6280	–	–	24	5243
1558	Delta and Pine Land Company	22	6208	23	3796	57	4720
8310	Pioneer Hi-Bred Int'l., Inc	23	6207	37	3341	–	–
CHECK (Rustler)	Tx. Agri. Exp. Stat.	24	6184	17	4072	34	5082
837	Cargill Hybrid Seeds	25	6179	22	3832	–	–
737	Cargill Hybrid Seeds	26	6170	–	–	–	–
Myc T-E SONORA	Mycogen Plant Sciences	27	6168	–	–	–	–
ATx2752 x GR108-90M30	Tx. Agri. Exp. Stat. (GP)	28	6103	–	–	–	–
CHECK (8313)	Tx. Agri. Exp. Stat.	29	6050	18	3986	48	4929
XP5702	Asgrow Seed Company	30	6041	–	–	–	–

Table 7B. Thrall, Texas. (Continued)

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
ATx378 x RTx430	Tx. Agri. Exp. Stat.	31	5988	55	2817	7	5616
HSC Cherokee	HyPerformer Seed Company	32	5982	45	3170	16	5434
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	33	5955	19	3944	15	5448
1552	Delta and Pine Land Company	34	5896	2	5028	35	5058
KS 397	Northrup King Company	35	5844	–	–	–	–
ATx2752 x GR108-90M23	Tx. Agri. Exp. Stat. (GP)	36	5834	–	–	–	–
A8618 x RTx2783	Tx. Agri. Exp. Stat. (FM)	37	5826	62	2402	–	–
CHECK	Tx. Agri. Exp. Stat.	38	5812	–	–	–	–
DEKALB DK-37	DEKALB Plant Genetics	39	5787	34	3440	5	4752
Myc ORO Amigo	Mycogen Plant Sciences	40	5781	20	3888	43	4997
ATxARG-1 x R8922	Tx. Agri. Exp. Stat. (FM)	41	5706	–	–	–	–
A1 x Tx2868	Tx. Agri. Exp. Stat. (GP)	42	5691	–	–	–	–
KS 560Y	Northrup King Company	43	5680	–	–	–	–
KS 737	Northrup King Company	44	5679	38	3370	58	5478
dk 785E	DOUGLASS W. KING CO., INC.	45	5678	64	2215	11	5544
HSC 893	HyPerformer Seed Company	46	5672	–	–	–	–
Myc T-E PROSPER	Mycogen Plant Sciences	47	5667	54	2823	–	–
A807 x (430 x 9188)	Tx. Agri. Exp. Stat. (DR)	48	5663	–	–	–	–
Myc Grower's 3260	Mycogen Plant Sciences	49	5661	–	–	–	–
Myc T-E X-8321	Mycogen Plant Sciences	50	5627	–	–	–	–
DEKALB DK-51	DEKALB Plant Genetics	51	5605	–	–	–	–
797	Cargill Hybrid Seeds	52	5584	–	–	–	–
8601	Pioneer Hi-Bred Int'l., Inc	53	5485	16	4137	29	5210
8606	Pioneer Hi-Bred Int'l., Inc	54	5457	–	–	–	–
A1 x GR107-90M17	Tx. Agri. Exp. Stat. (GP)	55	5428	–	–	–	–
A8618 x RQL36	Tx. Agri. Exp. Stat. (FM)	56	5369	–	–	–	–
DEKALB DK-40Y	DEKALB Plant Genetics	57	5350	7	4419	37	5055
Myc ORO Exp.4331x	Mycogen Plant Sciences	58	5242	–	–	–	–
A8618 x RTx430	Tx. Agri. Exp. Stat. (FM)	59	5232	–	–	–	–
5616	ICI Seeds	60	5206	–	–	–	–

Table 7B. Thrall, Texas. (Continued)

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
ATxARG-1 x RTx436	Tx. Agri. Exp. Stat. (FM)	61	5179	–	–	–	–
ATx 631 x R.9021	Tx. Agri. Exp. Stat. (FM)	62	5179	21	3853	–	–
8699	Pioneer Hi-Bred Int'l., Inc	63	5059	74	1466	–	–
ATxARG-1 x R8925	Tx. Agri. Exp. Stat. (FM)	64	4594	–	–	–	–
ATxARG-1 x 90T308	Tx. Agri. Exp. Stat. (FM)	65	4384	42	3231	–	–
A8618 x 91C1988	Tx. Agri. Exp. Stat. (FM)	66	3797	47	3088	–	–
ICI/Garst 5319	ICI Seeds (Garst Seed Co.)	–	–	27	3711	21	5266
A1 x GR126-90M36	Tx. Agri. Exp. Stat. (GP)	–	–	30	3571	49	4922
ATx 399 x RTx430	Tx. Agri. Exp. Stat.	–	–	31	3528	31	5136
Chaparral	Asgrow Seed Company	–	–	35	3372	69	3945
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	–	–	39	3312	47	4936
8379	Pioneer Hi-Bred Int'l., Inc	–	–	51	2890	63	4414
Myc T-E Y-75	Mycogen Plant Sciences	–	–	53	2860	5	5800
TS-488	Texas Seed Co., Inc.	–	–	56	2619	20	5277
A1 x Tx2783	Tx. Agri. Exp. Stat.	–	–	58	2531	2	5950
CHECK (dk 780)		–	–	59	2516	4	5803
HSC Wings	HyPerformer Seed Company	–	–	61	2490	14	5486
CHECK (ICI/Garst 5392)		–	–	65	2215	11	5544
ATx2755 x MR120-90M8	Tx. Agri. Exp. Stat. (GP)	–	–	70	1943	6	5644
ATx2755 x MR102-90M2	Tx. Agri. Exp. Stat. (GP)	–	–	71	1833	33	5100
Myc ORO Edge	Mycogen Plant Sciences	–	–	72	1757	62	4436
Myc Grower's 3159	Mycogen Plant Sciences	--	--	73	1603	67	4177
Number Entries		66		74		70	
Test Mean Yield (bu/A):			5091		3308		5054

Note: Hybrids with the same yield were ranked by computer.

TABLE 8. AGRONOMIC AND TEST INFORMATION: McKINNEY

TEST:	1993 Dryland Grain Sorghum Performance Test
LOCATION:	Bailey Farms near Prosper, Texas
COOPERATORS:	Scott Bailey, Kenneth White, Dennis Pietsch, Randy Gaas, Leon Synatschk and Cloyce Coffman
SOIL TYPE:	Houston black clay
ROW WIDTH:	30"
PREVIOUS CROP:	Grain sorghum
LAND PREPARATION:	Disked (2), field cultivated
DATE PLANTED:	4-2-93, hand dropped through a Max-Emerge II planter
DATE THINNED:	The test block was not thinned. 200 seeds were distributed by hand, on 30 foot centers. A five foot alley was cut for a final plot length of 25 feet.
PLOT LENGTH:	25'
FERTILIZER:	153+34+0 + 2(Zn)
HERBICIDE:	2 pt/A Lariat Pre-Emerge
INSECTICIDE:	Banded 5 lb/A Counter 15G in furrow at planting
RAINFALL:	March=2.48"; April=3.98"; May = 1.63"; June =3.36"; July = 0.0"; August = 0.0"; Total = 11.45"
IRRIGATIONS:	None
DATE HARVESTED:	8-8-93 with a MF 8 plot combine
SIZE HARVESTED PLOT:	2 rows, 25 feet long
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	48
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	2
TEST MEAN:	5,241 lb/A; yields corrected to 13% moisture
TEST C.V.:	14.0 percent

GENERAL INFORMATION: Excellent yields were attained at this location despite a brief period of hot and dry conditions in June. The season started with a full soil moisture profile from fall and winter rains. An optimum planting date was secured and seedling emergence was rapid. This year, 200 seeds were packaged for each row, and distributed by hand through a Max-Emerge planter, and not thinned. Distribution of seed was not ideal in some plots.

The test did not receive any rainfall from early-May to early-June thus resulting in plant stress. On June 8, the test did receive approximately 3.3" of rainfall which helped alleviate moisture stress and contributed to final yields. No beneficial rains were received after this period.

The test mean yield was 5,241 lb/A. Lodging was observed in the test and can be attributed to the heavy plant population in some rows and moisture stress near harvest. Due to a malfunctioning moisture meter mounted on the combine, a hand-held moisture meter was used for moisture determination.

Table 8A. GRAIN SORGHUM PERFORMANCE TEST; MCKINNEY, TEXAS 1993

Hybrid *	Company Or Brand Name	Grain Color **	Plant Color ***	Maturity Class ****	Days To 50% Flower	Plant Height Inches	Head Exsertion Inches	% Lodge	Midge Damage %	Test Weight lb/bu	Moisture %	Yield lb/A	Stat. Sig., 0.05 *****
1506	Delta and Pine Land Company	Ct	P	M	83	54	7	0.0	0.0	57.6	14.8	6867	A
NC+ 7B90	NC+ Hybrids	Bz	*	M	85	50	5	3.3	3.3	56.2	13.4	6152	A-B
NC+ 573E	NC+ Hybrids	R	*	M	80	46	4	0.0	0.0	58.6	12.2	6103	A-B
W-625-Y	George Warner Seed Co., Inc	*	*	*	83	53	11	0.0	0.0	57.6	14.8	6023	A-B
W-818-E	George Warner Seed Co., Inc	*	*	*	86	54	5	0.0	0.0	57.8	14.4	6009	A-B
NC+ 472	NC+ Hybrids	Bz	*	M	81	46	5	1.7	1.7	55.6	12.6	5993	A-C
DEKALB DK-56	DEKALB Plant Genetics	R	P	ML	88	54	6	0.0	0.0	56.3	14.3	5960	A-C
A803 x 8BE2668	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	84	51	8	0.0	0.0	58.2	12.7	5936	A-C
737	Cargill Hybrid Seeds	Bz	P	M	78	48	9	0.0	0.0	56.8	12.5	5838	A-D
Myc T-E SONORA	Mycogen Plant Sciences	Bz	P	M	81	49	10	5.7	5.7	57.4	12.6	5834	A-D
8606	Pioneer Hi-Bred Int'l., Inc	Bz	P	ME	79	51	7	0.0	0.0	57.0	12.1	5772	A-D
8310	Pioneer Hi-Bred Int'l., Inc	Bz	R	ML	82	51	6	0.7	0.7	56.8	13.9	5711	A-E
Myc ORO Amigo	Mycogen Plant Sciences	Bz	P	ML	85	50	3	3.3	3.3	57.2	13.8	5686	A-E
8601	Pioneer Hi-Bred Int'l., Inc	Bz	P	ME	79	46	7	0.0	0.0	56.6	12.5	5672	A-E
A807 x 8BE2668	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	82	52	6	8.3	8.3	57.8	13.0	5594	A-F
A1 x 8BE2668	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	84	55	5	5.0	5.0	56.6	13.6	5458	A-G
KS 397	Northrup King Company	R	P	M	80	49	8	1.7	1.7	57.1	11.9	5445	A-G
HSC Wings	HyPerformer Seed Company	Bz	*	ML	85	49	4	8.3	8.3	54.8	13.9	5430	A-G
CHECK	Tx. Agri. Exp. Stat.	Bz	T	ML	86	52	3	5.0	5.0	56.6	14.8	5326	B-G
KS 524	Northrup King Company	R	P	M	78	43	7	0.0	0.0	55.7	12.0	5221	B-G
Myc Grower's 3150	Mycogen Plant Sciences	Bz	P	ML	88	52	4	1.7	1.7	57.4	13.5	5194	B-G
1552	Delta and Pine Land Company	Bz	P	M	84	48	5	0.0	0.0	58.0	12.7	5158	B-G
DEKALB DK-40Y	DEKALB Plant Genetics	Y	P	M	82	49	7	0.0	0.0	57.3	13.4	5150	B-G
DEKALB DK-37	DEKALB Plant Genetics	Bz	P	ME	76	46	6	0.0	0.0	56.5	12.4	5138	B-G
Myc ORO Quest	Mycogen Plant Sciences	Bz	P	ML	82	52	8	5.0	5.0	57.0	12.4	5129	B-G
CHECK	Tx. Agri. Exp. Stat.	Bz	P	ML	85	51	5	5.0	5.0	56.8	14.6	5115	B-G
Myc ORO Exp. 4331X	Mycogen Plant Sciences	Bz	P	M	82	46	5	0.0	0.0	57.7	12.8	5094	B-G
CHECK	Tx. Agri. Exp. Stat.	*	*	*	81	52	9	0.0	1.7	56.9	12.7	5084	B-G
XP5702	Asgrow Seed Company	Bz	P	M	86	55	8	1.7	1.7	57.1	14.8	5061	B-G
837	Cargill Hybrid Seeds	Bz	P	ML	89	50	6	0.0	0.0	54.8	17.0	5044	B-G

Table 8A. (CONTINUED)

Hybrid *	Company Or Brand Name	Grain Color **	Plant Color ***	Matu-rity Class ****	Days To 50% Flower	Plant Height Inches	Head Exser-tion Inches	% Bird	Midge Dam-age %	Test Weight lb/bu	Mois-ture %	Yield lb/A	Stat. Sig., 0.05 *****
Myc ORO Bonus	Mycogen Plant Sciences	Bz	P	ML	81	45	7	1.7	1.7	58.2	12.7	5041	B-G
5616	ICI Seeds	Bz	P	ME	81	45	6	0.0	0.0	56.4	12.6	5006	B-G
HSC Cherokee	HyPerformer Seed Company	R	*	M	86	48	2	2.3	2.3	56.6	12.4	5002	B-G
1482	Delta and Pine Land Company	Bz	P	ME	82	47	6	0.0	0.0	56.6	12.7	4982	B-G
CHECK	Tx. Agri. Exp. Stat.	*	P	*	83	47	6	8.3	8.3	56.2	12.1	4966	B-G
727	Cargill Hybrid Seeds	Bz	P	M	84	46	5	0.0	0.0	54.4	14.6	4962	B-G
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	84	46	2	13.3	13.3	56.8	14.1	4829	B-G
Myc T-E PROSPER	Mycogen Plant Sciences	Bz	P	M	85	43	5	0.0	0.0	56.6	12.9	4775	B-G
HSC 893	HyPerformer Seed Company	Bz	*	M	85	50	5	0.0	0.0	56.6	12.7	4771	B-G
Myc Grower's 3260	Mycogen Plant Sciences	Bz	P	ML	83	47	7	15.0	15.0	56.6	13.0	4750	B-G
8699	Pioneer Hi-Bred Int'l., Inc	Bz	P	E	78	49	9	0.7	0.7	57.4	12.1	4743	B-G
CHECK	Tx. Agri. Exp. Stat.	*	*	*	88	48	2	8.3	8.3	57.2	14.2	4731	B-G
KS 383Y	Northrup King Company	C	P	ME	79	41	5	0.0	0.0	55.9	13.0	4631	B-G
DEKALB DK-51	DEKALB Plant Genetics	Bz	P	M	83	47	5	16.7	16.7	56.5	12.3	4473	C-G
ATx399 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	85	47	5	13.3	13.3	56.5	12.7	4326	D-G
ATx378 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	88	53	4	8.3	8.3	53.9	15.1	4223	E-G
Myc Grower's 1310AE	Mycogen Plant Sciences	Bz	P	ML	87	45	6	0.0	0.0	56.4	12.8	4071	F-G
A807 x R8503	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	83	49	6	18.3	18.3	56.6	14.1	4014	G

TEST MEAN= 5241 TEST C.V.= 14.0 LSD .05= 1190.0

Note 1: The ANOVA procedure was used for statistical analysis.

Note 2: Hybrid name starting or ending with an "X" denote a commercial experimental. Hybrids entered by the Texas Agricultural Station are either in the experimental stage or being tested as experimental check hybrids. Individuals may contact respective seed companies for the availability of planting seed for the upcoming crop year.

* Frontier Hybrids F-524, ICI 5319, Myc ORO Silverado, East Texas ET 602, and Conlee Rustler were entered as commercial check hybrids at our discretion. They are intended to be used for comparison purposes only.

** Grain color designated by respective seed companies: R=Red Br=Brown Bz=Bronze Rt=Red translucent W=White Wt=White translucent Ct=Cream translucent.

Table 8A. (CONTINUED)

*** Plant color designated by respective seed companies: T=Tan R=Red P=Purple. Those hybrids designated with an asterisk(*) indicated company did not submit plant color.

**** Maturity classification for hybrids designated by the respective seed companies.
E=Early M=Medium ME=Medium Early ML=Medium Late L=Late.

***** Duncan's multiple range test was used at the .05 level.

Table 8B. Three-year summary, Grain Sorghum Performance Test, McKinney, Texas.

HYBRID	COMPANY	1993		1992		1991	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
1506	Delta and Pine Land Company	1	6867	26	5931	9	5004
NC+ 7B90	NC+ Hybrids	2	6152	13	6254	–	–
NC+ 573E	NC+ Hybrids	3	6103	16	6158	31	4373
W-625-Y	George Warner Seed Co., Inc.	4	6023	29	5751	12	4845
W-818E	George Warner Seed Co., Inc.	5	6009	7	6359	–	–
NC+ 472	NC+ Hybrids	6	5993	2	6657	32	4365
DEKALB DK-56	DEKALB Plant Genetics	7	5960	38	5591	27	4422
A803 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	8	5936	–	–	–	–
737	Cargill Hybrid Seeds	9	5838	–	–	–	–
Myc T-E SONORA	Mycogen Plant Sciences	10	5834	–	–	–	–
8606	Pioneer Hi-Bred Int'l., Inc	11	5772	–	–	–	–
8310	Pioneer Hi-Bred Int'l., Inc	12	5711	3	6601	–	–
Myc ORO Amigo	Mycogen Plant Sciences	13	5686	21	6038	3	5330
8601	Pioneer Hi-Bred Int'l., Inc	14	5672	20	6054	16	4712
A807 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	15	5594	–	–	–	–
A1 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	16	5458	–	–	–	–
KS 397	Northrup King Company	17	5445	–	–	–	–
HSC Wings	HyPerformer Seed Company	18	5430	–	–	–	–
CHECK (ET 602)	Tx. Agri. Exp. Stat.	19	5326	4	6591	51	3924
KS 524	Northrup King Company	20	5221	–	–	–	–
Myc Grower's 3150	Mycogen Plant Sciences	21	5194	6	6434	–	–
1552	Delta and Pine Land Company	22	5158	48	5445	–	–
DEKALB DK-40Y	DEKALB Plant Genetics	23	5150	52	5400	14	4740
DEKALB DK-37	DEKALB Plant Genetics	24	5138	60	5264	6	5080
Myc ORO Quest	Mycogen Plant Sciences	25	5129	–	–	–	–
CHECK (Rustler)	Tx. Agri. Exp. Stat.	26	5115	8	6351	19	4595
Myc ORO Exp. 4331X	Mycogen Plant Sciences	27	5094	–	–	–	–
CHECK (ICI/Garst 5319)	Tx. Agri. Exp. Stat.	28	5084	11	6302	–	–
XP5702	Asgrow Seed Company	29	5061	–	–	–	–
837	Cargill Hybrid Seeds	30	5044	10	6315	–	–

Table 8B. McKinney, Texas. (Continued)

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
Myc ORO Bonus	Mycogen Plant Sciences	31	5041	–	–	–	–
5616	ICI Seeds	32	5006	–	–	–	–
HSC Cherokee	HyPerformer Seed Company	33	5002	5	6581	45	4136
1482	Delta and Pine Land Company	34	4982	34	5650	–	–
CHECK (F-524)	Tx. Agri. Exp. Stat.	35	4966	12	6283	15	4713
727	Cargill Hybrid Seeds	36	4962	–	–	–	–
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	37	4829	9	6347	2	5405
Myc T-E PROSPER	Mycogen Plant Sciences	38	4775	27	5913	–	–
HSC 893	HyPerformer Seed Company	39	4771	–	–	–	–
Myc Grower's 3260	Mycogen Plant Sciences	40	4750	–	–	–	–
8699	Pioneer Hi-Bred Int'l., Inc	41	4743	65	5091	–	–
CHECK	Tx. Agri. Exp. Stat.	42	4731	–	–	–	–
KS 383Y	Northrup King Company	43	4631	49	4329	–	–
DEKALB DK-51	DEKALB Plant Genetics	44	4473	–	–	–	–
ATx399 x RTx430	Tx. Agri. Exp. Stat.	45	4326	18	6065	21	4507
ATx378 x RTx430	Tx. Agri. Exp. Stat.	46	4223	22	6002	22	4491
Myc Grower's 1310AE	Mycogen Plant Sciences	47	4071	61	5206	–	–
A807 x R8503	Tx. Agri. Exp. Stat. (DR)	48	4014	–	–	–	–
CHECK (ET 610)		–	–	1	6882	20	4575
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	–	–	15	6244	8	5020
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	–	–	19	6054	47	4035
8313	Pioneer Hi-Bred Int'l., Inc	–	–	23	6001	29	4402
KS 737	Northrup King Company	–	–	24	5968	11	4869
8379	Pioneer Hi-Bred Int'l., Inc	–	–	31	5718	17	4672
630	Cargill Hybrid Seeds	–	–	33	5660	24	4440
Myc ORO Edge	Mycogen Plant Sciences	–	–	41	5564	26	4427
A1 x R8503	Tx. Agri. Exp. Stat. (DR)	–	–	43	5530	53	3778
Myc Grower's 3159	Mycogen Plant Sciences	–	–	44	5527	50	3937
Myc T-E 76	Mycogen Plant Sciences	–	–	45	5521	23	4465
618Y	Cargill Hybrid Seeds	–	–	53	5377	1	5575

Table 8B. McKinney, Texas. (Continued)

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
SG-858	Garrison & Townsend, Inc.	–	–	54	5361	35	4326
A35 x (TR430 x R9188)	Tx. Agri. Exp. Stat. (DR)	--	--	64	5095	5	5132
Number Entries:		48		69		62	
Test Mean Yield (bu/A):			5241		5735		4279

Note: Hybrids with the same yield were ranked by computer.

TABLE 9. AGRONOMIC AND TEST INFORMATION: LUBBOCK-LIMITED IRRIGATION

TEST:	1993 Limited Irrigated Grain Sorghum Performance Test
LOCATION:	Texas A&M University Agricultural Research and Extension Center, Lubbock, Texas
COOPERATORS:	G. C. Peterson and J. W. Jones
SOIL TYPE:	Olton loam
ROW WIDTH:	40"
PREVIOUS CROP:	Grain Sorghum
LAND PREPARATION:	Disked and bedded
DATE PLANTED:	5-14-93; cone planter
DATE THINNED:	6-14-92, to 3" spacing = 52,000 plants/A
PLOT LENGTH:	16'
FERTILIZER:	160+0+0
HERBICIDE:	1.5 pt/A of Dual 8E
INSECTICIDE:	Applied 6.5 lb/A of Counter 20G (terbufos) for greenbug control
RAINFALL:	May = 1.83"; June = 1.35", July = 3.56"; August = 1.61"; September = 0.19"; October = 0.00; Total = 8.54"
IRRIGATIONS:	5-5-93 = 5" (preplant); 6-10-93 = 5"; 6-31-93 = 4"
DATE HARVESTED:	10-4-93
SIZE HARVESTED PLOT:	1/1000 of acre
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	64
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	2
TEST MEAN:	5,009 lb/A; corrected to 13% moisture
TEST C. V.:	14.7 percent

GENERAL INFORMATION: This was a very good test with little insect or disease pressure. Timely rainfall in addition to three irrigations resulted in outstanding plant growth and development. Stands generally were excellent. Balloons and metallic ribbons were used for bird control and worked well. Panicles were large with well developed grain. Plots were hand harvested and threshed with a plot thresher.

Table 9A. GRAIN SORGHUM PERFORMANCE TEST; LUBBOCK "I", TEXAS 1993

Hybrid	Company Or Brand Name	Grain Color 1	Plant Color 2	Maturity Class 3	Days To 50% Flower	Plant Height Inches	Head Exsertion Inches	% Bird	% Lodge	Midge Damage %	Moisture %	Yield lb/A	Stat. Sig., 0.05 4
HSC 893	HyPerformer Seed Company	Bz	P	M	71	47	4	0.0	0.0	0.0	11.2	6340	A
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	71	45	1	0.0	0.0	0.0	11.6	6087	A-B
Myc Grower's 3150	Mycogen Plant Sciences	Bz	P	ML	71	48	1	0.0	0.0	0.0	11.6	5915	A-C
ATx2752 x Rx2783	Tx. Agri. Exp. Stat.	R	P	ML	74	48	1	0.0	0.0	0.0	11.4	5881	A-D
837	Cargill Hybrid Seeds	Bz	P	ML	70	46	2	0.0	0.0	0.0	11.9	5807	A-E
Myc ORO Amigo	Mycogen Plant Sciences	Bz	P	ML	72	44	2	0.0	0.0	0.0	11.6	5695	A-F
DEKALB DK-51	DEKALB Plant Genetics	Bz	P	M	70	44	3	0.0	0.0	0.0	11.6	5672	A-F
AP 9850	AgriPro Seeds	Bz	R	ML	74	46	1	0.0	0.0	0.0	11.6	5652	A-F
A35 x 89CC443	Tx. Agri. Exp. Stat. (DR)	Bz	P	ML	72	47	5	0.0	0.0	0.0	11.7	5643	A-F
DEKALB DK-66	DEKALB Plant Genetics	Bz	P	L	76	48	0	0.0	0.0	0.0	11.2	5640	A-F
ATx378 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	71	48	2	0.0	0.0	0.0	11.4	5621	A-F
A8618 x RTx2783	Tx. Agri. Exp. Stat. (FM)	Rt	R	ML	75	47	2	0.0	0.0	0.0	11.8	5610	A-F
DEKALB DK-58	DEKALB Plant Genetics	Bz	P	ML	69	46	3	0.0	0.0	0.0	11.7	5602	A-F
ATxARG-1 x R8922	Tx. Agri. Exp. Stat. (FM)	Rt	T	M	74	47	2	0.0	0.0	0.0	11.4	5596	A-F
Myc T-E Y-75	Mycogen Plant Sciences	R	P	M	72	44	2	0.0	1.7	0.0	11.9	5586	A-F
SG-942	Garrison & Townsend, Inc.	R	R	L	72	48	1	0.0	0.0	0.0	11.4	5570	A-G
Myc Grower's 3260	Mycogen Plant Sciences	Bz	P	ML	69	44	3	0.0	0.0	0.0	11.4	5563	A-G
ST 686	AgriPro Seeds	Bz	R	M	70	48	3	0.0	0.0	0.0	12.1	5550	A-G
HY 1320	HyPerformer Seed Company	R	P	ML	73	49	2	0.0	0.0	0.0	11.1	5528	A-G
ATx2752 x GR108-90M23	Tx. Agri. Exp. Stat. (GP)	R	P	ML	73	46	1	0.0	0.0	0.0	11.8	5511	A-G
XP5702	Asgrow Seed Company	Bz	P	M	72	44	2	0.0	0.0	0.0	11.6	5489	A-G
dk 780	DOUGLASS W. KING CO., INC.	R	P	M	73	45	3	0.0	0.0	0.0	11.5	5483	A-H
ATx2752 x GR134A-90M50	Tx. Agri. Exp. Stat. (GP)	R	P	ML	71	44	2	0.0	0.0	0.0	11.4	5476	A-H
SG-925	Garrison & Townsend, Inc.	R	R	ML	72	44	3	0.0	0.0	0.0	11.9	5450	A-H
Jacques 444E	Jacques Seed Company	Bz	P	M	72	42	3	0.0	0.0	0.0	12.2	5449	A-H
F-524	Frontier Hybrids, Inc.	Bz	T	L	73	45	2	0.0	0.0	0.0	11.8	5441	A-H
857	Cargill Hybrid Seeds	Bz	P	ML	72	43	2	0.0	0.0	0.0	11.5	5434	A-H
ATx2752 x GR134A-90M49	Tx. Agri. Exp. Stat. (GP)	R	P	ML	72	43	1	0.0	0.0	0.0	11.5	5411	A-H
ATx631 x RTx436	Tx. Agri. Exp. Stat. (FM)	Wt	T	M	71	49	5	0.0	0.0	0.0	11.4	5368	A-H
Jacques 611E	Jacques Seed Company	Bz	P	ML	72	45	0	0.0	0.0	0.0	11.5	5335	A-I

Table 9A. (CONTINUED)

Hybrid	Company Or Brand Name	Grain Color 1	Plant Color 2	Matu-rity Class 3	Days To 50% Flower	Plant Height Inches	Head Exser-tion Inches	% Bird	% Lodge	Midge Dam-Age %	Mois-ture %	Yield lb/A	Stat. Sig., 0.05 4
A807 x Tx2783	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	67	49	3	3.3	0.0	0.0	11.7	5237	A-J
dk 790E	DOUGLASS W. KING CO., INC.	R	P	L	71	44	3	0.0	0.0	0.0	11.7	5155	A-J
ATx2752 x GR108-90M24	Tx. Agri. Exp. Stat. (GP)	R	P	ML	72	47	1	0.0	0.0	0.0	11.6	5147	A-J
DEKALB DK-56	DEKALB Plant Genetics	Bz	P	ML	71	48	4	0.0	0.0	0.0	11.4	5143	A-J
A8618 x RQL36	Tx. Agri. Exp. Stat. (FM)	Rt	R	M	72	44	3	0.0	0.0	0.0	11.9	5073	A-K
dk 785E	DOUGLASS W. KING CO., INC.	R	P	ME	72	44	5	0.0	0.0	0.0	11.8	5072	A-K
ATx399 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	71	42	4	0.0	0.0	0.0	11.7	5052	A-K
F-300G	Frontier Hybrids, Inc.	Bz	T	M	68	40	4	0.0	0.0	0.0	12.0	4897	A-L
Myc T-E SONORA	Mycogen Plant Sciences	Bz	P	M	70	42	4	0.0	0.0	0.0	11.7	4865	A-L
ATx635 x 87EO366sis	Tx. Agri. Exp. Stat. (DR)	Wt	T	L	74	51	1	0.0	3.3	0.0	11.5	4865	A-L
A.Bon34 x 86EO361	Tx. Agri. Exp. Stat.(DR)	Wh	T	ML	72	45	3	0.0	0.0	0.0	11.8	4840	A-L
ATx2752 x GR108-90M30	Tx. Agri. Exp. Stat. (GP)	R	P	ML	74	43	1	0.0	0.0	0.0	11.8	4781	B-L
ATxARG-1 x RTx436	Tx. Agri. Exp. Stat. (FM)	Wt	T	M	73	46	4	0.0	0.0	0.0	11.7	4726	B-L
A1 x GR108-90M23	Tx. Agri. Exp. Stat.(GP)	R	P	ML	72	52	2	0.0	0.0	0.0	12.2	4647	B-L
5392	ICI Seeds	Bz	P	ML	71	42	1	0.0	0.0	0.0	11.5	4642	B-L
HSC Cherokee	HyPerformer Seed Company	R	P	M	71	45	4	0.0	0.0	0.0	11.7	4633	B-L
ATx635 x 86EO361	Tx. Agri. Exp. Stat. (DR)	Wt	T	L	72	53	2	0.0	0.0	0.0	11.9	4592	B-L
ATxARG-1 x 90T308	Tx. Agri. Exp. Stat. (FM)	Rt	T	ME	76	42	2	0.0	0.0	0.0	11.4	4550	C-L
A807 x (Tx430 x R9188)	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	68	46	5	0.0	0.0	0.0	11.7	4536	C-L
A807 x 8BE2668	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	68	47	7	0.0	0.0	0.0	11.6	4467	C-L
A1 x GR107-90M17	Tx. Agri. Exp. Stat. (GP)	R	P	ML	69	45	3	0.0	0.0	0.0	11.6	4400	C-L
Myc Grower's 3624	Mycogen Plant Sciences	Ct	P	ML	71	45	5	0.0	0.0	0.0	11.5	4386	D-L
A8618 x RTx430	Tx. Agri. Exp. Stat.(FM)	Rt	P	ML	68	45	3	3.3	0.0	0.0	11.9	4353	E-L
ATxARG-1 x R8925	Tx. Agri. Exp. Stat.(FM)	Rt	T	M	75	42	1	0.0	0.0	0.0	11.8	4347	E-L
A1 x Tx2783	Tx. Agri. Exp. Stat.	R	P	ML	71	47	1	0.0	0.0	0.0	11.7	4336	E-L
A1 x Tx430	Tx. Agri. Exp. Stat.(DR)	Ct	P	M	64	47	4	3.3	0.0	0.0	11.7	4193	F-L
A.BON34 x 92L215	Tx. Agri. Exp. Stat.(DR)	Wt	T	ML	74	42	2	0.0	0.0	0.0	11.3	4066	G-L
A8618 x 91C1988	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	73	42	2	0.0	0.0	0.0	11.7	3975	H-M
A807 x R3224 (t)	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	69	47	3	3.3	0.0	0.0	12.0	3849	I-M
A1 x8BE2668	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	67	45	4	3.3	0.0	0.0	11.3	3773	J-M

Table 9A. (CONTINUED)

Hybrid	Company Or Brand Name	Grain Color 1	Plant Color 2	Matu-rity Class 3	Days To 50% Flower	Plant Height Inches	Head Exser-tion Inches	% Bird	% Lodge	Midge Dam-Age %	Mois-ture %	Yield lb/A	Stat. Sig., 0.05 4
797	Cargill Hybrid Seeds	Bz	P	M	73	41	2	0.0	0.0	0.0	11.7	3769	J-M
A1 x GR107-90M18	Tx. Agri. Exp. Stat.(GP)	R	P	ML	68	44	3	0.0	0.0	0.0	11.7	3614	K-M
ATx631 x R.9021	Tx. Agri. Exp. Stat.(FM)	Rt	T	M	74	45	2	0.0	1.7	0.0	11.8	3555	L-M
A807 x R8503	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	63	40	4	15.0	0.0	0.0	11.7	2637	M

Test Mean = 5009 Test C. V. = 14.7 LSD .05 = 1187

Note 1: The ANOVA procedure was used for statistical analysis.

Note 2: Hybrid name starting or ending with an "X" denote a commercial experimental hybrid. Those hybrids entered by the Texas Agricultural Experiment Station are either in the experimental stage or being tested as experimental check hybrids. Please contact respective seed companies for the availability of planting seed for the upcoming crop year.

1 Grain color designated by respective seed companies: R=Red Br=Brown Bz=Bronze Rt=Red translucent W=White Wt=White translucent Ct=Cream translucent Ye=Yellow.

2 Plant color designated by respective seed companies: T=Tan R=Red P=Purple. Those hybrids designated with an asterisk(*) indicated company did not submit plant color.

3 Maturity classification for hybrids designated by the respective seed companies.
E=Early M=Medium ME=Medium Early ML=Medium Late L=Late.

4 Duncan's multiple range test was used at the .05 level.

Table 9B. Three-year summary, Limited Irrigation Grain Sorghum Performance Test, Lubbock, Texas.

HYBRID	COMPANY	1993		1992		1991	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
HSC 893	HyPerformer Seed Company	1	6340	42	7462	–	–
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	2	6087	13	8050	13	6813
Myc Grower's 3150	Mycogen Plant Sciences	3	5915	33	7680	12	6834
ATx2752 x Tx2783	Tx. Agri. Exp. Stat.	4	5881	–	–	–	–
837	Cargill Hybrid Seeds	5	5807	66	6907	5	7127
Myc ORO Amigo	Mycogen Plant Sciences	6	5695	8	8242	20	6577
DEKALB DK-51	DEKALB PlantGenetics	7	5672	–	–	–	–
AP 9850	AgriPro Seeds	8	5652	–	–	–	–
A35 x 89CC443	Tx. Agri. Exp. Stat. (DR)	9	5643	21	7902	–	–
DEKALB DK-66	DEKALB Plant Genetics	10	5640	1	9054	10	6861
ATx378 x RTx430	Tx. Agri. Exp. Stat.	11	5621	4	8335	19	6643
A8618 x RTx2783	Tx. Agri. Exp. Stat. (FM)	12	5610	18	7952	26	6439
DEKALB DK-58	DEKALB Plant Genetics	13	5602	–	–	–	–
ATxARG-1 x R8922	Tx. Agri. Exp. Stat. (FM)	14	5596	–	–	–	–
Myc T-E Y-75	Mycogen Plant Sciences	15	5586	40	7478	44	6001
SG-942	Garrison & Townsend, Inc.	16	5570	3	8465	–	–
Myc Grower's 3260	Mycogne Plant Sciences	17	5563	–	–	–	–
ST 686	AgriPro Seeds	18	5550	–	–	–	–
HY 1320	HyPerformer Seed Company	19	5528	–	–	–	–
ATx2752 x GR108-90M23	Tx. Agri. Exp. Stat. (GP)	20	5511	–	–	–	–
XP5702	Asgrow Seed Company	21	5489	–	–	–	–
dk 780	DOUGLASS W. KING CO., INC.	22	5483	–	–	–	–
ATx2752 x GR134A-90M50	Tx. Agri. Exp. Stat. (GP)	23	5476	15	8020	–	–
SG-925	Garrison & Townsend, Inc.	24	5450	45	7401	–	–
Jacques 444E	Jacques Seed Company	25	5449	75	6441	–	–
F-524	Frontier Hybrids, Inc.	26	5441	28	7712	2	7999
857	Cargill Hybrid Seeds	27	5434	23	7841	17	6720
ATx2752 x GR134A-90M49	Tx. Agri. Exp. Stat. (GP)	28	5411	76	6372	52	5752
ATx631 x RTx436	Tx. Agri. Exp. Stat. (FM)	29	5368	–	–	–	–
Jacques 611E	Jacques Seed Company	30	5335	9	8202	–	–

Table 9B. Lubbock-Limited Irrigation. (Continued)

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
A807 x Tx2783	Tx. Agri. Exp. Stat. (DR)	31	5237	–	–	–	–
dk 790E	DOUGLASS W. KING CO., INC.	32	5155	5	8313	–	–
ATx2752 x GR108-90M24	Tx. Agri. Exp. Stat. (GP)	33	5147	–	–	–	–
DEKALB DK-56	DEKALB Plant Genetics	34	5143	17	7968	46	5911
A8618 x RQL36	Tx. Agri. Exp. Stat. (FM)	35	5073	–	–	–	–
dk 785E	DOUGLASS W. KING CO., INC.	36	5072	43	7449	–	–
ATx399 x RTx430	Tx. Agri. Exp. Stat.	37	5052	35	7625	40	6132
F-300G	Frontier Hybrids, Inc.	38	4897	–	–	–	–
Myc T-E SONORA	Mycogen Plant Sciences	39	4865	–	–	–	–
ATx635 x 87EO366sis	Tx. Agri. Exp. Stat. (DR)	40	4865	–	–	–	–
A.BON34 x 86EO361	Tx. Agri. Exp. Stat. (DR)	41	4840	71	6734	–	–
ATx2752 x GR108-90M30	Tx. Agri. Exp. Stat. (GP)	42	4781	–	–	–	–
ATxARG-1 x RTx436	Tx. Agri. Exp. Stat. (FM)	43	4726	–	–	–	–
A1 x GR108-90M23	Tx. Agri. Exp. Stat. (GP)	44	4647	–	–	–	–
5392	ICI Seeds	45	4642	–	–	–	–
HSC Cherokee	HyPerformer Seed Company	46	4633	26	7743	–	–
ATx635 x 86EO361	Tx. Agri. Exp. Stat. (DR)	47	4592	–	–	–	–
ATxARG-1 x 90T308	Tx. Agri. Exp. Stat. (FM)	48	4550	59	7068	–	–
A807 x (Tx430 x R9188)	Tx. Agri. Exp. Stat. (DR)	49	4536	–	–	–	–
A807 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	50	4467	–	–	–	–
A1 x GR107-90M17	Tx. Agri. Exp. Stat. (GP)	51	4400	–	–	–	–
Myc Grower's 3624	Mycogen Plant Sciences	52	4386	64	7037	–	–
A8618 x RTx430	Tx. Agri. Exp. Stat. (FM)	53	4353	–	–	–	–
ATxARG-1 x R8925	Tx. Agri. Exp. Stat. (FM)	54	4347	–	–	–	–
A1 x Tx2783	Tx. Agri. Exp. Stat.	55	4336	–	–	64	5344
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	56	4193	55	7235	78	4457
A.BON34 x 92L215	Tx. Agri. Exp. Stat. (DR)	57	4066	–	–	–	–
A8618 x 91C1988	Tx. Agri. Exp. Stat. (FM)	58	3975	58	7159	–	–
A807 x R3224 (t)	Tx. Agri. Exp. Stat. (DR)	59	3849	14	8023	–	–
A1 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	60	3773	–	–	–	–

Table 9B. Lubbock-Limited Irrigation. (Continued)

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
797	Cargill Hybrid Seeds	61	3769	77	6363	–	–
A1 x GR107-90M18	Tx. Agri. Exp. Stat. (GP)	62	3614	–	–	–	–
ATx631 x R.9021	Tx. Agri. Exp. Stat. (FM)	63	3555	60	7059	–	–
A807 x R8503	Tx. Agri. Exp. Stat. (DR)	64	2637	–	–	–	–
1506	Delta and Pine Land Company	–	–	6	8275	65	5337
A8618 x R6956	Tx. Agri. Exp. Stat. (FM)	–	–	7	8268	6	7080
ATx2752 x GR126-90M36	Tx. Agri. Exp. Stat. (GP)	–	–	10	8197	22	6506
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	–	–	19	7926	11	6859
Myc T-E 77E	Mycogen Plant Sciences	–	–	20	7915	35	6243
ICI/Garst 5392	ICI Seeds (Garst Seed Co.)	–	–	30	7705	3	7425
A1 x GR116-90M34	Tx. Agri. Exp. Stat. (GP)	–	–	31	7701	75	4808
2665	Northrup King Company	–	–	32	7694	47	5884
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	–	–	37	7574	66	5305
G-1616	Delta and Pine Land Company	–	–	38	7524	58	5593
ATx2752 x GR107-90M15	Tx. Agri. Exp. Stat. (GP)	–	–	39	7512	56	5642
A8610 x R8505	Tx. Agri. Exp. Stat. (FM)	–	–	41	7471	54	5719
A1 x R8505(RTx436)	Tx. Agri. Exp. Stat. (DR)	–	–	44	7445	39	6143
A1 x GR126-90M36	Tx. Agri. Exp. Stat. (GP)	–	–	46	7385	14	6813
CHECK (NC+ 271)		–	–	48	7337	15	6811
ATx2752 x GR107-90M16	Tx. Agri. Exp. Stat. (GP)	–	–	49	7322	25	6447
F-333Y	Frontier Hybrids, Inc.	–	–	54	7258	62	5433
ATx2752 x GR107-90M20	Tx. Agri. Exp. Stat. (GP)	–	–	57	7173	51	5768
CHECK (DK-41y)		–	–	65	6927	36	6190
AVar(ATx635) x 86EON361	Tx. Agri. Exp. Stat. (DR)	–	–	67	6886	4	7276
A1 x P46-1	Tx. Agri. Exp. Stat. (DR)	–	–	70	6816	82	4074
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	–	–	74	6442	43	6035
A1 x Tx2862	Tx. Agri. Exp. Stat.	–	–	79	6219	67	5244
ATx399 x Tx2737	Tx. Agri. Exp. Stat.	–	–	80	5889	41	6091

Table 9B. Lubbock-Limited Irrigation. (Continued)

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
Number of Entries:		64		81		85	
Test Mean Yield (bu/A):			5009		7447		5899

Note: Hybrids with the same yield were ranked by computer.

TABLE 10. AGRONOMIC AND TEST INFORMATION: LUBBOCK-DRYLAND

TEST:	1993 Dryland Grain Sorghum Performance Test
LOCATION:	Texas A&M University Agricultural Research and Extension Center, Lubbock, Texas
COOPERATORS:	D.T. Rosenow & C.A. Woodfin
SOIL TYPE:	Amarillo fine sandy loam
ROW WIDTH:	40"
PREVIOUS CROP:	Sorghum
LAND PREPARATION:	Shredded sorghum stalks from previous year, disc-bedded on top of old beds
DATE PLANTED:	6-24-93; cone planter
DATE THINNED:	7-14
PLOT LENGTH:	18'
FERTILIZER:	Applied 40+0+0 per acre before planting
HERBICIDE:	Applied 1.6 lb/A Milogard (propazine). One-half preplant on May, 3. Remainder applied after planting.
INSECTICIDE:	Applied 7.0 lb/A Counter 15G (terbufos) at planting.
RAINFALL:	May = 1.83"; June = 1.35"; July = 3.56"; August = 1.61"; September = .19"; October=.51" Total = 9.05"
IRRIGATIONS:	None
DATE HARVESTED:	10-18-93
SIZE HARVESTED PLOT:	1/1000 acre
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	75
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	2
MEAN PLANT POP.:	26,000 plants/A

GENERAL INFORMATION: This was a very good dryland test with good stands that produced very good yields for the dry year. There was very little deep moisture at the start of the season. Rainfall in May and June was below normal, but there was good moisture at planting. One heavy rain occurred on July 1, but thereafter, rainfall was low. Late August, September, and October were very dry, with severe moisture stress during grain fill. Some hybrids showed extensive premature leaf and plant death and lodging. This resulted in poor grain development in some hybrids, thus resulting in reduced test weights as shown in the following Table. Leaf and plant death (LPD) ratings were made on September 29, and are an indication of post-flowering drought resistance or susceptibilty. Lodging was due to moisture stress, and is another indicator of post-flowering drought susceptibility. Midge and bird damage occurred only on the very late entries.

On September 17, the test block suffered damage caused by the drift of a cotton defoliant/dessicant that was applied to a commercial field south of the Research Center. A strong wind carried the drift northward resulting in significant leaf discoloration and burning of certain entries. A rating was made on each entry. Some early entries with mostly dead leaves may have escaped the burn. Little if any damage to grain yield occurred, as most entries were at or very near physiological maturity. In known pedigree hybrids, the chemical burn appeared to correspond fairly well (but not in all cases) to known insecticide burn reactions.

All heads were hand harvested from 1/1000 acre (1/2 from each row) and all heads including those on lodged plants were harvested. Threshing was through a plot combine.

Land preparation consisted of shredding sorghum stalks from the previous year, running sweeps between rows for weed control, and disk bedding on top of old beds. This was the eleventh consecutive year that the same beds have been used in this manner. Furrow dikes are maintained in every row essentially year around. This year, dikes were re-established in every other row following planting.

Table 10A. GRAIN SORGHUM PERFORMANCE TEST; LUBBOCK "D", TEXAS 1993

Hybrid	Company Or Brand Name	Grain Color *	Plant Color **	Maturity Class ***	Days To 50% Flower	Plant Height Inches	Head Exsertion Inches	Bird Damage %	LPD Rat ****	Chem Burn *****	% Lodge	Midge Damage %	Test Wt. lb/bu	Moisture %	Grain Per Acre lb/A	Stat. Sig., 0.05 ******
Myc T-E HARDY	Mycogen Plant Sciences	Ct	P	ME	51	32	1	0.0	3.3	2	0.0	0.0	58.3	12.2	3111	A
5616	ICI Seeds	Bz	P	ME	52	34	1	3.3	4.6	3.5	7.7	0.0	57.1	12.5	3098	A-B
A35 x RTx430	Tx. Agri. Exp. Stat. (DR)	Bz	P	ML	53	37	1	2.7	2.9	3.1	3.3	0.0	58.0	12.5	2913	A-C
Myc Grower's 3622	Mycogen Plant Sciences	Ct	P	ME	51	31	2	0.0	3.4	2	3.7	0.0	58.7	12.2	2889	A-D
Myc ORO Quest	Mycogen Plant Sciences	Bz	P	ML	51	33	2	0.0	3	1.8	16.7	0.0	57.9	12.2	2885	A-D
ATx399 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	52	34	1	0.0	3.2	1.5	18.3	0.0	56.2	12.1	2875	A-D
SG-822	Garrison & Townsend, Inc	C	W	M	52	36	2	1.7	4.2	2.5	6.7	0.0	56.1	12.0	2862	A-E
857	Cargill Hybrid Seeds	Bz	P	ML	54	33	1	0.0	3.8	1.4	23.3	0.0	56.4	12.0	2805	A-F
ATx631 x RTx436	Tx. Agri. Exp. Stat. (FM)	Wt	T	M	54	39	2	0.0	3.3	1.5	7.7	0.0	57.7	12.4	2753	A-G
8505	Pioneer Hi-Bred Int'l ., Inc	Bz	P	M	52	35	1	0.0	3.5	1.8	10.3	0.0	57.0	12.2	2749	A-G
Jacques 375-W	Jacques Seed Company	Ct	P	ME	52	35	2	0.0	3.7	2.2	18.7	0.0	57.3	12.1	2719	A-G
737	Cargill Hybrid Seeds	Bz	P	M	51	33	1	0.0	3.9	2.2	3.7	0.0	57.5	12.1	2714	A-G
727	Cargill Hybrid Seeds	Bz	P	M	50	34	3	0.0	3.2	2	26.7	0.0	55.7	12.1	2709	A-G
Myc Grower's 3260	Mycogen Plant Sciences	Bz	P	ML	52	33	1	0.0	3.6	1.3	43.3	0.0	57.4	12.0	2688	A-G
Jacques 355-W	Jacques Seed Company	Ct	P	ME	51	31	1	0.0	3.9	1.7	2.0	0.0	56.5	12.0	2656	A-H
A1 x R8503	Tx. Agri. Exp. Stat. (DR)	Rt	P	ML	54	37	1	0.0	2.9	1.8	16.7	0.0	57.9	12.5	2628	A-I
A406	Asgrow Seed Company	Wh	P	M	51	34	3	0.0	4	1.8	2.0	0.0	55.3	11.9	2625	A-J
W-528-W	George Warner Seed Co., Inc	Ct	P	M	51	35	1	0.0	4.1	2.1	23.3	0.0	56.2	11.9	2622	A-J
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	53	33	1	0.0	3.1	1.5	17.0	0.0	58.0	12.2	2619	A-J
DEKALB DK-38Y	DEKALB Plant Genetics	Y	P	E	51	31	1	0.0	3.5	1.6	15.0	0.0	55.2	11.8	2602	A-K
Myc ORO Excel	Mycogen Plant Sciences	Ct	P	ML	51	32	1	0.0	3.6	2.2	1.0	0.0	57.8	12.1	2569	A-K
dk 715E	DOUGLASS W. KING CO.,INC.	R	P	ME	49	32	3	0.0	3.6	2.2	8.7	0.0	56.9	12.0	2550	A-K
8446	Pioneer Hi-Bred Int'l., Inc	Bz	P	M	51	33	1	0.0	3.2	1.9	10.7	0.0	55.3	12.0	2542	A-K
ATx2755 x MR102-90M2	Tx. Agri. Exp. Stat. (GP)	R	P	M	54	34	2	0.0	4.3	1.8	71.7	0.0	51.3	12.0	2537	A-K
A504	Asgrow Seed Company	Wh	P	M	52	37	2	0.0	4	1.7	26.7	0.0	56.0	12.2	2536	A-K
KS 560Y	Northrup King Company	C	P	M	51	28	1	0.0	3.6	2.3	8.7	0.0	59.1	12.3	2532	A-K
CHECK 1	Tx. Agri. Exp. Stat.	Rt	P	M	52	32	1	1.0	3.3	2.6	2.7	0.0	55.4	12.1	2526	A-K
AP 9690	AgriPro Seeds	C	T	M	53	36	1	1.7	3.8	2.8	15.0	0.0	59.7	12.0	2516	A-K
Myc Grower's 3159	Mycogen Plant Sciences	Bz	P	ME	50	32	2	0.0	4	2.3	21.0	0.0	57.2	12.1	2501	A-K
ATx2801 x MR114-90M11	Tx. Agri. Exp. Stat. (GP)	W	P	M	53	35	2	0.0	3.8	1.6	53.3	0.0	54.1	11.9	2495	A-K

Table 10A. (CONTINUED)

Hybrid	Company Or Brand Name	Grain Color *	Plant Color **	Maturity Class ***	Days To 50% Flower	Plant Height Inches	Head Exsertion Inches	Bird Damage %	LPD Rat ****	Chem Burn *****	% Lodge	Midge Damage %	Test Wt. lb/bu	Moisture %	Grain Per Acre lb/A	Stat. Sig., 0.05 *****
Jacques 444E	Jacques Seed Company	Bz	P	M	52	34	1	0.0	3	1.5	18.3	0.0	57.7	12.5	2492	A-K
ATx378 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	54	38	1	0.0	3	2	15.0	0.0	55.3	12.3	2491	A-K
A1 x RTx430	Tx. Agri. Exp. Stat. (DR)	Ct	P	ML	54	37	1	0.0	3.4	2	15.0	0.0	56.4	12.5	2485	A-K
ATx2801 x MR102-90M2	Tx. Agri. Exp. Stat. (GP)	W	P	M	55	36	3	0.0	3.7	2.1	35.0	0.0	55.8	12.0	2469	A-K
ATx2752 x MR120-90M8	Tx. Agri. Exp. Stat. (GP)	R	P	M	53	42	3	0.0	3.8	2.4	60.0	0.0	57.5	12.1	2459	A-K
DEKALB DK-40Y	DEKALB Plant Genetics	Y	P	ME	53	34	2	0.0	2.9	1.7	8.3	0.0	57.8	12.3	2453	A-K
A803 x R3224(t)	Tx. Agri. Exp. Stat. (DR)	Rt	P	M	53	35	1	3.3	4.8	1.4	58.3	0.0	54.3	11.7	2367	A-K
Myc T-E SONORA	Mycogen Plant Genetics	Bz	P	M	53	32	2	0.0	3.2	1.9	13.3	0.0	58.0	12.3	2365	A-K
SG-622	Garrison & Townsend, Inc	C	W	ME	51	35	3	0.0	3.5	1.8	28.3	0.0	55.9	11.9	2357	A-L
A35 x GR134A-90M49	Tx. Agri. Exp. Stat. (GP)	Ly	P	ML	55	37	3	1.7	2.9	3.9	0.0	0.0	55.9	12.9	2354	A-L
A807 x 8BE2668	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	57	35	1	1.7	2.9	3.5	5.0	0.0	56.7	13.0	2328	A-M
A807 x (Tx430 x R9188)	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	52	33	1	0.0	4.3	1.6	66.7	0.0	53.5	11.8	2314	A-M
A35 x 89CC443	Tx. Agri. Exp. Stat.(DR)	Bz	P	ML	57	36	4	1.0	2.7	2.5	0.0	0.0	59.2	13.5	2299	A-M
F-333Y	Frontier Hybrids, Inc.	Y	T	M	54	34	1	0.0	2.6	1.8	0.0	0.0	50.9	12.2	2287	A-M
W-624-Y	George Warner Seed Co., Inc.	Rt	P	ML	54	34	3	2.7	3.2	2.9	1.7	0.0	59.0	12.7	2284	B-M
A35 x Tx2864	Tx. Agri. Exp. Stat.	R	P	ML	56	35	3	1.7	2.6	2.9	0.0	0.0	56.5	13.3	2253	C-M
A1 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	Rt	P	ML	56	36	1	1.7	2.7	3.5	0.0	33.3	56.7	12.6	2216	C-M
A35 x GR107-90M18	Tx. Agri. Exp. Stat. (GP)	R	P	ML	56	33	2	2.3	2.8	2.8	0.3	0.0	58.0	13.7	2206	C-M
HSC Cherokee	HyPerformer Seed Co.	R	P	M	52	33	1	3.3	4.1	2.6	60.0	0.0	56.9	12.0	2184	C-M
KS 383Y	Northrup King Company	C	P	ME	51	29	1	0.0	4.6	1.7	20.0	0.0	56.9	12.2	2162	C-M
dk 780	DOUGLASS W. KING CO., INC	R	P	M	52	32	1	0.0	4.4	2.1	50.0	0.0	55.9	12.1	2158	C-M
HSC Honcho	HyPerformer Seed Company	Bz	P	ME	51	32	3	0.0	4.2	2	38.3	0.0	54.9	11.8	2129	C-N
F-270G	Frontier Hybrids, Inc.	Bz	T	ME	51	38	4	0.0	4.1	1.8	68.3	0.0	54.8	11.7	2128	C-N
SG-651	Garrison & Townsend, Inc.	C	W	ME	51	30	1	0.0	4.6	1.6	91.7	0.0	51.5	11.5	2126	C-N
AP 9830	AgriPro Seeds	C	T	ML	53	36	1	0.0	3.1	2	20.0	0.0	54.7	12.2	2113	C-N
KS 524	Northrup King Company	R	P	M	51	31	1	0.0	4.3	1.5	58.3	0.0	53.5	11.5	2079	D-N
A807 x R3224 (t)	Tx. Agri. Exp. Stat. (DR)	Rt	P	ML	53	35	1	0.0	4.4	1.4	71.7	0.0	53.6	11.7	2065	D-N
ATxARG-1 x RTx436	Tx. Agri. Exp. Stat. (FM)	Wt	T	M	54	35	2	0.0	3	1.3	6.7	0.0	57.9	12.3	2044	E-N
5514Y	ICI Seeds	Ct	P	M	54	32	2	0.0	3.2	1.8	5.3	0.0	55.8	12.1	2030	F-N
A35 x GR107-90M17	Tx. Agri. Exp. Stat. (GP)	R	P	ML	57	35	3	1.0	2.8	2.9	0.0	0.0	56.6	13.8	2015	G-N

Table 10A. (CONTINUED)

Hybrid	Company Or Brand Name	Grain Color *	Plant Color **	Matu-rity Class ***	Days To 50% Flower	Plant Height Inches	Head Exser-tion Inches	Bird Dam-%	LPD Rat ****	Chem Burn *****	% Lodge	Midge Dam-Age %	Test Wt. lb/bu	Mois-ture %	Grain Per Acre lb/A	Stat. Sig., 0.05 ******
ATx2755 x MR114-90M11	Tx. Agri. Exp. Stat. (GP)	R	P	M	53	33	2	0.0	4.2	2.7	56.7	0.0	54.1	11.5	1956	G-N
797	Cargill Hybrid Seeds	Bz	P	M	51	30	1	0.0	4	1.7	72.7	0.0	53.7	11.7	1952	G-N
A807 x R8503	Tx. Agri. Exp. Stat. (DR)	Rt	P	ML	53	33	0	0.0	3.9	1.8	46.7	0.0	55.5	12.3	1848	H-N
A8618 x RQL36	Tx. Agri. Exp. Stat. (FM)	Rt	R	M	58	37	2	0.0	2.5	1.2	0.0	8.3	56.4	12.7	1831	H-N
A35 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	Rt	P	ML	56	34	2	8.3	3	3.8	0.0	3.3	57.8	13.0	1823	I-N
A8618 x RTx430	Tx. Agri. Exp. Stat. (FM)	Rt	P	ML	59	34	2	0.0	2.7	1.7	0.3	0.0	53.1	12.8	1800	J-N
607E	Cargill Hybrid Seeds	Bz	P	ME	51	33	2	0.0	4.2	1.9	43.3	0.0	54.3	11.8	1784	K-N
ATxARG-1 x 90T308	Tx. Agri. Exp. Stat. (FM)	Rt	T	ME	59	33	1	0.0	2.8	1.3	2.0	0.0	53.5	12.5	1778	K-N
HSC 893	HyPerformer Seed Company	Bz	P	M	54	32	1	3.3	3.6	2.6	46.7	0.0	56.4	12.0	1741	M-O
A35 x GR134A-90M50	Tx. Agri. Exp. Stat. (GP)	R	P	ML	58	35	3	3.0	2.7	2.8	0.0	3.3	58.1	13.4	1549	N-O
ATxARG-1 x R8925	Tx. Agri. Exp. Stat. (FM)	Rt	T	M	58	33	1	6.0	2.8	1.7	3.3	28.3	49.8	12.4	1334	N-P
ATxARG-1 x R8922	Tx. Agri. Exp. Stat. (FM)	Rt	T	M	61	36	1	0.0	2.4	1.3	0.0	41.7	52.4	11.9	937	O-P
A8618 x 91C1988	Tx. Agri. Exp. Stat. (FM)	Rt	R	ML	61	36	2	0.0	2.4	1.3	0.3	40.0	52.8	12.8	934	O-P
ATx631 x R.9021	Tx. Agri. Exp. Stat. (FM)	Rt	T	M	61	38	2	6.7	2.9	2.7	0.0	50.0	54.6	11.1	774	P
A8618 x RTx2783	Tx. Agri. Exp. Stat. (FM)	Rt	R	ML	63	33	1	2.0	2.7	3.3	0.3	10.0	50.2	12.7	674	P

Test Mean = 2281 Test C. V. = 17.4 LSD .05 = 640.6

Note 1: The ANOVA procedure was used for statistical analysis.

Note 2: Hybrid name starting or ending with an "X" denote a commercial experimental hybrid. Those hybrids entered by the Texas Agricultural Experiment Station are either in the experimental stage or being tested as experimental check hybrids. Please contact respective seed companies for the availability of planting seed for the upcoming crop year.

1 Grain color designated by respective seed companies: R=Red Br=Brown Bz=Bronze Rt=Red translucent W=White Wt=White translucent Ct=Cream translucent Ye=Yellow.

2 Plant color designated by respective seed companies: T=Tan R=Red P=Purple. Those hybrids designated with an asterisk(*) indicated company did not submit plant color.

3 Maturity classification for hybrids designated by the respective seed companies.
E=Early M=Medium ME=Medium Early ML=Medium Late L=Late.

Dr. D. T. Rosenow, Professor, Texas A&M University, Research and Extension Center, Lubbock, Texas, made the following ratings at the appropriate time:

TAble 10A. (CONTINUED)

4 Leaf and Plant Death Rating: 1= no leaf and plant death 5= leaves and stems completely dead

5 Chemical Burn Rating: 1= no burn 5= plants killed

6 Duncan's multiple range test was used at the .05 level.

Table 10B. Three-year summary, Dryland Grain Sorghum Performance Test, Lubbock, Texas.

HYBRID	COMPANY	1993		1992		1991	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
Myc T-E HARDY	Mycogen Plant Sciences	1	3111	–	–	–	–
5616	ICI Seeds	2	3098	–	–	–	–
A35 x RTx430	Tx. Agri. Exp. Stat. (DR)	3	2913	58	3425	21	2439
Myc Grower's 3622	Mycogen Plant Sciences	4	2889	32	3775	–	–
Myc ORO Quest	Mycogen Plant Sciences	5	2885	13	4063	–	–
ATx399 x RTx430	Tx. Agri. Exp. Stat.	6	2875	27	3837	34	2270
SG-822	Garrison & Townsend, Inc	7	2862	29	3789	–	–
857	Cargill Hybrid Seeds	8	2805	11	4151	49	1920
ATx631 x RTx436	Tx. Agri. Exp. Stat. (FM)	9	2753	–	–	–	–
8505	Pioneer Hi-Bred Int'l., Inc	10	2749	–	–	–	–
Jacques 375-W	Jacques Seed Company	11	2719	47	3597	–	–
737	Cargill Hybrid Seeds	12	2714	–	–	–	–
727	Cargill Hybrid Seeds	13	2709	–	–	–	–
Myc Grower's 3260	Mycogen Plant Sciences	14	2688	–	–	–	–
Jacques 355-W	Jacques Seed Company	15	2656	–	–	–	–
A1 x R8503	Tx. Agri. Exp. Stat. (DR)	16	2628	5	4191	39	2128
A406	Asgrow Seed Company	17	2625	–	–	–	–
W-528-W	George Warner Seed Co., Inc.	18	2622	87	5621	–	–
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	19	2619	4	4218	37	2223
DEKALB DK-38Y	DEKALB Plant Genetics	20	2602	68	3261	–	–
Myc ORO Excel	Mycogen Plant Sciences	21	2569	–	–	–	–
dk 715E	DOUGLASS W. KING CO., INC.	22	2550	–	–	–	–
8446	Pioneer Hi-Bred Int'l., Inc	23	2542	18	3948	–	–
ATx2755 x MR102-90M2	Tx. Agri. Exp. Stat. (GP)	24	2537	34	3748	–	–
A504	Asgrow Seed Company	25	2536	–	–	–	–
KS 560Y	Northrup King Company	26	2532	–	–	–	–
CHECK 1	Tx. Agri. Exp. Stat.	27	2526	–	–	–	–
AP 9690	AgriPro Seeds	28	2516	–	–	–	–
Myc Grower's 3159	Mycogen Plant Sciences	29	2501	85	2802	20	2445
ATx2801 x MR114-90M11	Tx. Agri. Exp. Stat. (GP)	30	2495	–	–	–	–

Table 10B. Lubbock-Dryland. (Continued)

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
Jacques 444E	Jacques Seed Company	31	2492	33	3764	–	–
ATx378 x RTx430	Tx. Agri. Exp. Stat.	32	2491	28	3827	15	2503
A1 x RTx430	Tx. Agri. Exp. Stat. (DR)	33	2485	19	2926	32	2306
ATx2801 x MR102-90M2	Tx. Agri. Exp. Stat. (GP)	34	2469	57	3433	–	–
ATx2752 x MR120-90M8	Tx. Agri. Exp. Stat. (GP)	35	2459	–	–	–	–
DEKALB DK-40Y	DEKALB Plant Genetics	36	2453	6	4177	12	2624
A803 x R3224 (t)	Tx. Agri. Exp. Stat. (DR)	37	2367	–	–	–	–
Myc T-E SONORA	Mycogen Plant Sciences	38	2365	3	4227	–	–
SG-622	Garrison & Townsend, Inc	39	2357	–	–	–	–
A35 x GR134A-90M49	Tx. Agri. Exp. Stat. (GP)	40	2354	52	3525	–	–
A807 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	41	2328	–	–	–	–
A807 x (Tx430 x R9188)	Tx. Agri. Exp. Stat. (DR)	42	2314	–	–	–	–
A35 x 89CC443	Tx. Agri. Exp. Stat. (DR)	43	2299	56	3452	59	1095
F-333Y	Frontier Hybrids, Inc.	44	2287	–	–	–	–
W-624-Y	George Warner Seed Co., Inc.	45	2284	–	–	–	–
A35 x Tx2864	Tx. Agri. Exp. Stat.	46	2253	–	–	–	–
A1 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	47	2216	–	–	–	–
A35 x GR107-90M18	Tx. Agri. Exp. Stat. (GP)	48	2206	51	3553	–	–
HSC Cherokee	HyPerformer Seed Company	49	2184	17	3966	–	–
KS 383Y	Northrup King Company	50	2162	36	3734	–	–
dk 780	DOUGLASS W. KING CO., INC.	51	2158	–	–	–	–
HSC Honcho	HyPerfomer Seed Company	52	2129	44	3616	–	–
F-270G	Frontier Hybrids, Inc.	53	2128	55	3459	24	2389
SG-651	Garrison & Townsend, Inc.	54	2126	24	3856	–	–
AP 9830	AgriPro Seeds	55	2113	–	–	–	–
KS 524	Northrup King Company	56	2079	–	–	–	–
A807 x R3224 (t)	Tx. Agri. Exp. Stat. (DR)	57	2065	60	3418	–	–
ATxARG-1 x RTx436	Tx. Agri. Exp. Stat. (FM)	58	2044	–	–	–	–
5514Y	ICI Seeds	59	2030	–	–	–	–
A35 x GR107-90M17	Tx. Agri. Exp. Stat. (GP)	60	2015	–	–	–	–

Table 10B. Lubbock-Dryland. (Continued)

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
ATx2755 x MR114-90M11	Tx. Agri. Exp. Stat. (GP)	61	1956	–	–	–	–
797	Cargill Hybrid Seeds	62	1952	1	4246	–	–
A807 x R8503	Tx. Agri. Exp. Stat. (DR)	63	1848	–	–	–	–
A8618 x RQL36	Tx. Agri. Exp. Stat. (FM)	64	1831	–	–	–	–
A35 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	65	1823	–	–	–	–
A8618 x RTx430	Tx. Agri. Exp. Stat. (FM)	66	1800	–	–	–	–
607E	Cargill Hybrid Seeds	67	1784	72	3216	38	2180
ATxARG-1 x 90T308	Tx. Agri. Exp. Stat. (FM)	68	1778	–	–	–	–
HSC 893	HyPerformer Seed Company	69	1741	49	3584	–	–
A35 x GR134A-90M50	Tx. Agri. Exp. Stat. (GP)	70	1549	9	4166	–	–
ATxARG-1 x R8925	Tx. Agri. Exp. Stat.(FM)	71	1334	–	–	–	–
ATxARG-1 x R8922	Tx. Agri. Exp. Stat.(FM)	72	937	–	–	–	–
A8618 x 91C1988	Tx. Agri. Exp. Stat.(FM)	73	934	75	3139	–	–
ATx631 x R.9021	Tx. Agri. Exp. Stat.(FM)	74	774	91	1872	–	–
A8618 x RTx2783	Tx. Agri. Exp. Stat.(FM)	75	674	90	2094	–	–
ATx399 x Tx2737	Tx. Agri. Exp. Stat.	–	–	14	4017	55	1639
A35 x Tx2864	Tx. Agri. Exp. Stat.	–	–	15	3983	51	1851
KS 710	Northrup King Company	–	–	20	3918	54	1681
CHECK (DK-46)		–	–	22	3872	56	1880
A35 x GR107-90M16	Tx. Agri. Exp. Stat.(GP)	–	–	23	3870	25	2374
1506	Delta and Pine Land Company	–	–	25	3854	46	1963
A35 x (Tx430 x R9188)	Tx. Agri. Exp. Stat.(DR)	–	–	26	3852	48	1937
A1 x Tx2794	Tx. Agri. Exp. Stat.(DR)	–	–	30	3783	14	2512
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	–	–	31	3783	27	2354
A1 x Tx2737	Tx. Agri. Exp. Stat.(DR)	–	–	39	3658	5	2771
A35 x Tx2868	Tx. Agri. Exp. Stat.	–	–	40	3633	52	1793
A1 x P46-1	Tx. Agri. Exp. Stat.(DR)	–	–	45	3616	41	2103
8452	Pioneer Hi-Bred Int'l., Inc	–	–	46	3613	3	2861
CHECK (DK-41y)		–	–	48	3591	1	2917
ICI /Garst 5522y	ICI Seeds (Garst Seed Co.)	–	–	54	3514	22	2390

Table 10B. Lubbock-Dryland. (Continued)

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
Myc Grower's 1214E	Mycogen Plant Sciences	–	–	69	3242	9	2679
ATx3042 x Tx2737	Tx. Agri. Exp. Stat.	–	–	70	3237	10	2648
Myc T-E Eden	Mycogen Plant Sciences	–	–	73	3171	31	2322
A35 x Tx2783	Tx. Agri. Exp. Stat.	–	–	79	3012	57	1359
Myc ORO Ivory	Mycogen Plant Sciences	–	–	86	2764	6	2762
Number of Entries:		75		91		61	
Test Mean Yield (bu/A):			2281		3534		2200

Note: Hybrids with the same yields were ranked by computer.

TABLE 11. AGRONOMIC AND TEST INFORMATION: DUMAS

TEST:	1993 Irrigated Grain Sorghum Performance Test
LOCATION:	Tri-C Farms, Dumas, Texas
COOPERATORS:	Joe Cox, Buddy Cox, Mike Cox, Dennis Pietsch, Randy Gaas, Leon Synatschk, and Robert Harris
SOIL TYPE:	Sherman silty clay loam
ROW WIDTH:	30"
PREVIOUS CROP:	Fallow
LAND PREPARATION:	disked, sweep, chiseled, and bedded
DATE PLANTED:	5-20-93, by hand
DATE THINNED:	300 seeds were packaged for each 30' of row. A 5' alley was cut and plots were not thinned.
PLOT LENGTH:	25'
FERTILIZER:	175+52+0; Applied 200 lb/A of Anhydrous Ammonia pre-plant and 100 lb/A of 11-52-0 pre-plant
HERBICIDE:	Applied 1.5 lb/A of MiloPro
INSECTICIDE:	None
RAINFALL:	Estimated to be less than 3"
IRRIGATIONS:	Pre-plant and 3 irrigations of approximately 4"/irrigation
DATE HARVESTED:	10-13-93 with a MF8 plot combine
SIZE HARVESTED PLOT:	2 rows-25' long
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	80
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	2
TEST MEAN:	7,308 lb/A; yields corrected to 13% moisture
TEST C. V.:	8.8 percent

GENERAL INFORMATION: Grain sorghum is a major commodity in the Northern High Plains as represented by Texas Crop Reporting District 1-N. This year, 575,000 acres of grain sorghum was harvested which accounts for 17.4% of Texas' 3.3 million acres.

Below normal rainfall and a period of hot temperatures were contributing factors resulting in below normal yields at this test site. An optimum planting date was achieved and seedling emergence was rapid.

The test block was scheduled to be thinned approximately 4 weeks after planting, but due to rapid plant growth, the test block was not thinned. This resulted in a higher than normal plant population, thus reducing panicle size.

The test block received less than 3 inches of rainfall during the growing season, thus three irrigations were applied, which alleviated plant stress, and insured continuous plant growth and development.

The test mean yield was 7,308 lb/A compared to the past 3-year average of 8,495 lb/A Only one hybrid produced over 9,000 lb/A compared to last year when 60 hybrids produced over 9,000 lb/A. Excellent bushel weights were recorded with the range being from 59.6 to 65.5 lb/bu. The evidence of bird damage was minimal.

Appreciation is expressed to Norman Wuthrich, Research Associate, Texas A&M University Research and Extension Center, Halfway, Texas for recording flowering notes at the appropriate time.

Table 11A. GRAIN SORGHUM PERFORMANCE TEST; DUMAS, TEXAS 1993

Hybrid *	Company Or Brand Name	Grain Color **	Plant Color ***	Maturity Class ****	Days To 50% Flower	Plant Height Inches	Head Exsertion Inches	% Stand	Test Weight lb/bu	Moisture %	Yield lb/A	Stat. Sig., 0.05 *****
8118	Pioneer Hi-Bred Int'l., Inc	Bz	P	L	75	54	6	100.0	64.6	13.0	9081	A
DEKALB DK-66	DEKALB Plant Genetics	Bz	P	L	75	55	5	100.0	65.5	13.0	8912	A-B
XP5702	Asgrow Seed Company	Bz	P	M	72	56	7	100.0	63.1	12.7	8872	A-C
HY 1320	HyPerformer Seed Company	R	*	ML	72	51	6	100.0	63.5	13.0	8691	A-D
8310	Pioneer Hi-Bred Int'l., Inc	Bz	R	ML	70	47	6	100.0	62.8	12.9	8650	A-E
DEKALB DK-56	DEKALB Plant Genetics	Bz	P	ML	70	55	9	100.0	62.9	13.0	8492	A-F
ATx635 x 86EON361	Tx. Agri. Exp. Stat. (DR)	Wt	T	L	72	57	7	100.0	62.1	12.8	8467	A-G
ATx2752 x GR108-90M23	Tx. Agri. Exp. Stat.(GP)	R	P	ML	71	54	6	100.0	60.8	13.5	8263	A-H
CHECK	Tx. Agri. Exp. Stat.	*	*	*	70	48	4	100.0	62.9	12.9	8108	A-I
837	Cargill Hybrid Seeds	Bz	P	ML	70	49	6	100.0	63.3	12.8	8015	A-J
SG-942	Garrison & Townsend, Inc.	R	R	L	71	49	4	100.0	62.9	13.0	7960	A-K
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	69	47	5	100.0	62.2	12.8	7874	A-L
Myc T-E 77E	Mycogen Plant Sciences	Bz	P	ML	70	44	5	100.0	62.5	12.8	7854	A-L
KS 936	Northrup King Company	R	P	L	76	56	8	100.0	64.0	12.9	7828	A-M
DEKALB DK-58	DEKALB Plant Genetics	Bz	P	ML	70	52	6	90.0	61.4	13.4	7825	A-M
F-524	Frontier Hybrids, Inc.	Bz	T	L	69	48	6	100.0	62.3	12.9	7815	A-M
ATx378 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	69	54	5	100.0	62.0	12.7	7747	A-N
857	Cargill Hybrid Seeds	Bz	P	ML	74	47	6	100.0	62.6	13.2	7682	B-O
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	Rt	P	ML	68	45	8	100.0	61.4	12.6	7666	B-P
Myc T-E X-9121	Mycogen Plant Sciences	R	P	ML	69	52	4	100.0	60.5	12.4	7653	B-P
W-816-E	George Warner Seed Co., Inc	*	*	*	71	48	5	100.0	63.1	13.0	7638	B-P
A8618 x RTx2783	Tx. Agri. Exp. Stat. (FM)	Rt	R	ML	74	51	6	100.0	64.1	13.0	7615	B-P
CHECK	Tx. Agri. Exp. Stat.	Bz	P	ML	68	44	6	100.0	60.7	12.8	7605	B-P
ATx631 x RTx436	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	72	51	6	100.0	63.5	14.0	7567	B-P
Myc ORO Amigo	Mycogen Plant Sciences	Bz	P	ML	69	48	5	100.0	63.9	12.9	7489	C-Q
HSC 893	HyPerformer Seed Company	Bz	*	M	69	49	6	100.0	62.6	12.7	7412	D-R
A1 x GR108-90M23	Tx. Agri. Exp. Stat. (GP)	R	P	ML	70	51	6	100.0	62.7	13.3	7369	D-R
ATx2752 x Tx2783	Tx. Agri. Exp. Stat.	R	P	ML	71	50	4	100.0	62.2	12.9	7275	E-R
dk 790E	DOUGLASS W. KING CO., INC.	R	P	L	69	48	5	100.0	62.6	12.8	7260	E-R
F-380G	Frontier Hybrids, Inc.	Bz	T	M	69	42	7	100.0	61.8	12.7	7213	F-R

Hybrid *	Company Or Brand Name	Grain Color **	Plant Color ***	Matu-rity Class ****	Days To 50% Flower	Plant Height Inches	Head Exser-tion Inches	% Stand	Test Weight lb/bu	Mois-ture %	Yield lb/A	Stat. Sig., 0.05 *****
ATxARG-1 x RTx436	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	71	47	8	100.0	61.1	13.0	7204	F-R
SG-925	Garrison & Townsend, Inc.	R	R	ML	68	48	7	100.0	61.9	12.7	7173	F-R
Jacques 611E	Jacques Seed Company	Bz	P	ML	71	50	5	100.0	61.6	12.9	7161	F-R
Myc Grower's 3150	Mycogen Plant Sciences	Bz	P	ML	69	49	5	100.0	61.8	12.8	7122	F-R
A504	Asgrow Seed Company	Wh	P	M	70	45	7	100.0	61.9	12.8	7120	F-R
ATx399 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	68	46	7	100.0	61.1	12.6	7115	F-R
CHECK	Tx. Agri. Exp. Stat.	*	*	*	71	46	8	100.0	61.5	12.9	7069	G-R
HSC Cherokee	HyPerformer Seed Company	R	*	M	69	49	5	100.0	62.9	12.6	7145	H-R
2665	Northrup King Company	R	P	ML	70	44	5	100.0	59.6	13.0	7142	H-R
Myc Grower's 1313	Mycogen Plant Sciences	R	P	M	69	47	6	100.0	61.0	12.5	6979	H-R
Myc Grower's 3260	Mycogen Plant Sciences	Bz	P	ML	67	47	8	100.0	61.0	12.7	6936	H-R
A8618 x RQL36	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	72	44	7	92.0	62.1	13.1	6802	I-R
797	Cargill Hybrid Seeds	Bz	P	M	70	39	6	100.0	60.3	12.4	6709	I-R
dk 780	DOUGLASS W. KING CO., INC.	R	P	ML	70	48	7	100.0	61.4	12.7	6659	J-R
CHECK	Tx. Agri. Exp. Stat.	R	P	M	69	49	5	100.0	61.0	12.8	6633	J-R
A.BON34 x 86EON361	Tx. Agri. Exp. Stat.(DR)	Wh	T	ML	69	44	5	100.0	61.6	13.2	6598	K-R
A8618 x RTx430	Tx. Agri. Exp. Stat.(FM)	Rt	P	ML	69	45	6	98.0	61.1	12.5	6575	K-R
ATx631 x R.9021	Tx. Agri. Exp. Stat.(FM)	Rt	T	M	74	50	7	92.0	62.9	13.1	6563	K-R
Myc ORO Exp. 4312x	Mycogen Plant Sciences	R	P	L	72	56	6	100.0	62.5	13.0	6539	L-R
AP 9690	AgriPro Seeds	C	T	M	70	48	7	100.0	93.1	12.8	6464	L-R
Jacques 444E	Jacques Seed Company	Bz	P	M	68	46	6	98.0	60.8	12.9	6415	M-R
A1 x Tx2864	Tx. Agri. Exp. Stat.	W	P	ML	68	47	6	97.0	62.2	13.1	6392	N-R
dk 785	DOUGLASS W. KING CO., INC.	R	P	M	69	45	7	100.0	61.9	12.7	6358	N-R
Myc T-E X-8342	Mycogen Plant Sciences	R	P	M	72	57	5	100.0	62.3	13.0	6334	N-R
A8618 x 91C1988	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	75	48	7	97.0	62.4	13.0	6325	O-R
A1 x GR107-90M17	Tx. Agri. Exp. Stat. (GP)	R	P	ML	67	48	6	100.0	61.6	13.2	6318	O-R
A1 x 8BE2668	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	68	47	6	99.0	62.2	13.1	6253	P-R
ATxARG-1 x R8925	Tx. Agri. Exp. Stat.(FM)	Rt	T	M	75	42	6	100.0	61.1	12.7	6136	Q-R
ATxARG-1 x R8922	Tx. Agri. Exp. Stat.(FM)	Rt	T	M	75	52	8	100.0	63.3	12.9	6107	Q-R
ATxARG-1 x 90T308	Tx. Agri. Exp. Stat.(FM)	Rt	T	ME	75	45	9	100.0	61.2	12.8	6034	R

Table 11A. (CONTINUED)

Hybrid *	Company Or Brand Name	Grain Color **	Plant Color ***	Matu-rity Class ****	Days To 50% Flower	Plant Height Inches	Head Exser-tion Inches	% Stand	Test Weight lb/bu	Mois-ture %	Yield lb/A	Stat. Sig., 0.05 *****

Test Mean = 7308 Test C. V. = 8.8 LSD .05 = 1045.5

Note 1: The ANOVA procedure was used for statistical analysis.

Note 2: Hybrid name starting or ending with an "X" denote a commercial experimental. Hybrids entered by the Texas Agricultural Experiment Station are either in the experimental stage or being tested as experimental check hybrids. Individuals may contact respective seed companies for the availability of planting seed for the upcoming crop year.

* Conlee Rustler, ICI 5392, Myc ORO Silverado, and Myc Taylor-Evans Y-75 were entered as commercial check hybrids at our discretion. They are intended to be used for comparison purposes only.

** Grain color designated by respective seed companies: R=Red Br=Brown Bz=Bronze Rt=Red translucent W=White Wt=White translucent Ct=Cream translucent.

*** Plant color designated by respective seed companies: T=Tan R=Red P=Purple. Those hybrids designated with an asterisk(*) indicated company did not submit plant color.

**** Maturity classification for hybrids designated by the respective seed companies.
E=Early M=Medium ME=Medium Early ML=Medium Late L=Late.

***** Duncan's multiple range test was used at the .05 level.

Table 11B. Three-year summary, Grain Sorghum Performance Test, Dumas, Texas.

HYBRID	COMPANY	1993		1992		1991	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
8118	Pioneer Hi-Bred Int'l., Inc	1	9081	–	–	–	–
DEKALB DK-66	DEKALB Plant Genetics	2	8912	1	12234	1	10029
XP5702	Asgrow Seed Company	3	8872	–	–	–	–
HY 1320	HyPerformer Seed Company	4	8691	–	–	–	–
8310	Pioneer Hi-Bred Int'l., Inc	5	8650	–	–	–	–
DEKALB DK-56	DEKALB Plant Genetics	6	8492	30	9909	65	7910
ATx635 x 86EON361	Tx. Agri. Exp. Stat. (DR)	7	8467	–	–	–	–
ATx2752 x GR108-90M23	Tx. Agri. Exp. Stat. (GP)	8	8263	–	–	–	–
CHECK (Rustler)	Tx. Agri. Exp. Stat.	9	8108	13	10500	16	9016
837	Cargill Hybrid Seeds	10	8015	15	10443	30	8666
SG-942	Garrison & Townsend, Inc.	11	7960	2	11706	3	9637
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	12	7874	5	10811	57	8055
Myc T-E 77E	Mycogen Plant Sciences	13	7854	7	10738	24	8756
KS 936	Northrup King Company	14	7828	6	10742	–	–
DEKALB DK-58	DEKALB Plant Genetics	15	7825	–	–	–	–
F-524	Frontier Hybrids, Inc.	16	7815	18	10384	28	8688
ATx378 x RTx430	Tx. Agri. Exp. Stat.	17	7747	27	9986	29	8667
857	Cargill Hybrid Seeds	18	7682	25	10061	66	7873
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	19	7666	12	10506	40	8474
Myc T-E X-9121	Mycogen Plant Sciences	20	7653	3	11230	–	–
W-816-E	George Warner Seed Co., Inc.	21	7638	10	10646	–	–
A8618 x RTx2783	Tx. Agri. Exp. Stat. (FM)	22	7615	46	9558	15	9040
CHECK (Myc T-E Y-75)	Tx. Agri. Exp. Stat.	23	7605	47	9507	38	8478
ATx631 x RTx436	Tx. Agri. Exp. Stat.(FM)	24	7567	–	–	–	–
Myc ORO Amigo	Mycogen Plant Sciences	25	7489	29	9930	36	8543
HSC 893	HyPerformer Seed Company	26	7412	–	–	–	–
A1 x GR108-90M23	Tx. Agri. Exp. Stat. (GP)	27	7369	–	–	–	–
ATx2752 x Tx2783	Tx. Agri. Exp. Stat.	28	7275	–	–	–	–
dk 790E	DOUGLASS W. KING CO., INC.	29	7260	–	–	–	–
F-380G	Frontier Hybrids, Inc.	30	7213	–	–	–	–

Table 11B. Dumas, Texas. (Continued)

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
ATxARG-1 x RTx436	Tx. Agri. Exp. Stat. (FM)	31	7204	–	–	–	–
SG-925	Garrison & Townsend, Inc.	32	7173	33	9861	–	–
Jacques 611E	Jacques Seed Company	33	7161	4	10891	–	–
Myc Grower's 3150	Mycogen Plant Sciences	34	7122	–	–	44	8367
A504	Asgrow Seed Company	35	7120	–	–	–	–
ATx399 x RTx430	Tx. Agri. Exp. Stat.	36	7115	–	–	–	–
CHECK	Tx. Agri. Exp. Stat.	37	7069	–	–	–	–
HSC Cherokee	HyPerformer Seed Company	38	7045	–	–	–	–
2665	Northrup King Company	39	7042	34	9843	55	8059
Myc Grower's 1313	Mycogen Plant Sciences	40	6979	22	10171	45	8315
Myc Grower's 3260	Mycogen Plant Sciences	41	6936	–	–	–	–
A8618 x RQL36	Tx. Agri. Exp. Stat. (FM)	42	6802	–	–	–	–
797	Cargill Hybrid Seeds	43	6709	31	9898	–	–
dk 780	DOUGLASS W. KING CO., INC.	44	6659	–	–	–	–
CHECK	Tx. Agri. Exp. Stat.	45	6633	–	–	–	–
A.BON34 x 86EON361	Tx. Agri. Exp. Stat. (DR)	46	6598	40	9765	–	–
A8618 x RTx430	Tx. Agri. Exp. Stat. (FM)	47	6575	–	–	–	–
ATx631 x R.9021	Tx. Agri. Exp. Stat. (FM)	48	6563	75	8147	–	–
Myc ORO Exp. 4312x	Mycogen Plant Sciences	49	6539	–	–	–	–
AP 9690	AgriPro Seeds	50	6464	–	–	–	–
Jacques 444E	Jacques Seed Company	51	6415	54	9338	–	–
A1 x Tx2864	Tx. Agri. Exp. Stat.	52	6392	–	–	–	–
dk 785	DOUGLASS W. KING CO., INC.	53	6358	–	–	–	–
Myc T-E X-8342	Mycogen Plant Sciences	54	6334	–	–	–	–
A8618 x 91C1988	Tx. Agri. Exp. Stat. (FM)	55	6325	68	8464	–	–
A1 x GR107-90M17	Tx. Agri. Exp. Stat. (GP)	56	6318	–	–	–	–
A1 x 8BE2668	Tx. Agri. Exp. Stat. (DR)	57	6253	–	–	–	–
ATxARG-1 x R8925	Tx. Agri. Exp. Stat. (FM)	58	6136	–	–	–	–
ATxARG-1 x R8922	Tx. Agri. Exp. Stat. (FM)	59	6107	–	–	–	–
ATxARG-1 x 90T308	Tx. Agri. Exp. Stat. (FM)	60	6034	80	7463	–	–

Table 11B. Dumas, Texas. (Continued)

HYBRID	COMPANY	1993 RANK	1993 YIELD	1992 RANK	1992 YIELD	1991 RANK	1991 YIELD
A8610 x R8505	Tx. Agri. Exp. Stat. (FM)	–	–	8	10683	5	9528
Myc ORO G Xtra	Mycogen Plant Sciences	–	–	9	10678	6	9510
W-917-E	George Warner Seed Co.	–	–	11	10643	4	9565
W-902-W	George Warner Seed Co.	–	–	16	10403	9	9369
Myc Grower's 3605	Mycogen Plant Sciences	–	–	20	10226	18	8885
AVar x 86EON361	Tx. Agri. Exp. Stat. (DR)	–	–	23	10161	83	7065
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	–	–	24	10075	10	9342
CHECK (KS 737)		–	–	32	9892	33	8607
1506	Delta and Pine Land Company	–	–	38	9790	37	8541
CHECK (8379)		–	–	39	9775	76	7526
G-1616	Delta and Pine Land Company	–	–	50	9431	62	7979
NC+ 573E	NC+ Hybrids	–	–	51	9422	54	8068
ICI/Garst 5392	ICI Seeds (Garst Seed Co.)	–	–	52	9376	50	8144
ATx399 x RTx430	Tx. Agri. Exp. Stat.	–	–	56	9251	75	7625
NC+ 7B81E	NC+ Hybrids	–	–	58	9162	22	8776
NC+ 472	NC+ Hybrids	–	–	61	8996	64	7951
ATx399 x Tx2737	Tx. Agri. Exp. Stat.	–	–	65	8620	81	7352
A8618 x R6956	Tx. Agri. Exp. Stat. (FM)	–	–	69	8358	14	9053
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	–	–	70	8348	77	7510
ATx2792 x Tx2864	Tx. Agri. Exp. Stat.	–	–	72	8243	68	7846
F-333Y	Frontier Hybrids, Inc.	–	–	73	8243	72	7703
ATx2752 x GR107-90M20	Tx. Agri. Exp. Stat. (GP)	–	–	76	8036	74	7644
Number Entries:		60		80		84	
Test Mean Yield (bu/A):			7308		9595		8401

Note: Hybrids with the same yields were ranked by computer.

SUPPLEMENT

This section contains results from supplementary grain sorghum tests conducted at Lamesa, Halfway, and Runnels County, Texas. Although these tests are not official performance test sites evaluated under Project 1418, results may be used as necessary to determine the adaptability in these areas.

TABLE S1. AGRONOMIC AND TEST INFORMATION: LAMESA, TEXAS
Supplementary Grain Sorghum Test

TITLE:	Dryland grain sorghum performance test at AG-CARES, Lamesa, Texas, 1993.	
AUTHORS:	D. T. Rosenow and C. A. Woodfin, Professor and Senior Research Associate.	
METHODS & MATERIALS:	Experimental Design:	Triple lattice with 3 replications
	Plot Size:	6.7 ft (2 beds) x 17 ft
	Row Spacing:	Single row on 40-inch beds
	Soil Type:	Amarillo fine sandy loam
	Previous Crop:	Dryland grain sorghum
	Fertilizer:	42+0+0
	Herbicide:	None
	Seeding Rate:	40,000/A hand thinned to uniform stand of about 26,000 plants per acre
	Planting Date:	June 30
	Harvest Date:	October 27

RESULTS & DISCUSSION:

Table S2 contains all data recorded in 1993. Grain yields were excellent for the amount of rainfall received. The mean grain yield or 3291 lb/A was well above the average expected for dryland sorghum for the area. Moisture was marginal at planting with 0.57 inch on June 22 assuring a good stand. Slightly over 3 inches (July 11-19), 2 inches on August 30, and 0.53 on October 18 were the only effective rains the remainder of the crop season. The test plots were hand harvested (1/1000 A) from 2-row plots and threshed with a plot combine.

There was very little midge or bird damage, and no disease problems. Stand were good. The rainfall distribution was favorable and allowed for good growth, head growth, head development, and grain development.

Table S2. Grain yield and other agronomic data for one hundred grain sorghum hybrids under dryland at AG-CARES, Lamesa, Texas, 1993.

Company or Brand Name	Hybrid Designation	Grain Yield lb/A 1	Days To Flower 2	Plant Height (In)	Head Exs. Inches 3	Lodging (%)	Desir-ability Rating 4	Midge Damage (%)	Bird Damage (%)	Mois-ture (%)	Grain Color 5	Plant Color 6	Matu-rity 7
Mycogen Plant Sciences	Myc Grower's 3260	4171	49	32	0	0	1.6	1	0	12.5	Bz	P	ML
Mycogen Plant Sciences	Myc T-E Sonora	4173	47	34	1	0	1.6	0	0	12.5	Bz	P	M
Tx. Agri. Exp. Stat.	A1*Tx430	4089	52	37	1	0	1.6	7	0	12.5	Ct	P	ML
Tx. Agri. Exp. Stat.	A1*P37-3	4038	54	39	2	0	1.5	0	0	12.6	Ct	P	M
HyPerformer Seed Co.	HSC Honcho	3979	47	33	1	0	1.6	1	0	12.4	Bz	P	ME
Mycogen Plant Sciences	Myc ORO Quest	3959	49	34	1	0	1.5	0	0	12.6	Bz	P	ML
Tx. Agri. Exp. Stat.	A1*R8503	3940	54	39	0	0	1.4	0	0	12.5	Rt	P	ML
Mycogen Plant Sciences	Myc T-E Hardy	3938	46	33	1	0	1.5	0	0	12.4	Ct	P	ME
Garrison & Townsend, Inc.	SG-651	3900	51	36	1	0	1.8	0	0	12.3	C	P	ME
Tx. Agri. Exp. Stat.	A807*R8503	3843	50	34	0	0	2.1	0	0	12.9	Rt	P	ML
ICI Seeds, Inc.	5514Y	3842	61	39	2	0	1.3	1	0	12.7	Ct	P	M
Tx. Agri. Exp. Stat.	A807*R3224(t)	3829	51	40	1	0	1.4	0	0	12.5	Rt	P	ML
Northrup King Co.	KS524	3827	46	30	1	0	1.6	0	0	12.3	R	P	M
Tx. Agri. Exp. Stat.	A1*Tx2864	3821	63	38	1	0	1.5	0	0	12.9	Ct	P	ML
DeKalb	DK-38y	3816	48	33	0	0	1.3	2	0	12.3	Y	P	E
Tx. Agri. Exp. Stat.	A35*Tx430	3773	50	37	2	0	1.6	2	0	13.0	Bz	P	ML
Tx. Agri. Exp. Stat.	ATx2752*Tx430	3764	49	36	1	0	1.7	1	0	12.6	Bz	P	ML
Tx. Agri. Exp. Stat.	A807*Tx2783	3742	53	38	1	0	1.7	2	0	12.9	Rt	P	ML
Tx. Agri. Exp. Stat.	A35*P37-3	3724	59	42	3	0	1.5	0	0	12.9	Bz	P	ML
Northrup King Co.	KS560Y	3721	49	28	0	0	1.4	0	0	12.8	C	P	M
Cargill Hybrid Seeds	737	3699	46	33	1	0	1.8	0	0	12.4	Bz	P	M
Tx. Agri. Exp. Stat.	ATx378*Tx430	3671	53	37	1	0	2.2	8	0	12.5	Bz	P	ML
Tx. Agri. Exp. Stat.	RS610(ATx3197*Tx7078)	3663	46	35	4	0	1.4	0	0	12.2	R	P	ME
Tx. Agri. Exp. Stat.	ATx3042*Tx2737	3607	48	33	2	0	1.8	0	0	12.3	Bz	P	ME
Pioneer Hi-Bred Int.	8446	3577	53	33	1	0	2.2	2	0	12.5	Bz	P	M
Asgrow Seed Co.	A504	3566	49	34	1	0	1.5	0	0	12.5	W	P	M
Tx. Agri. Exp. Stat.	A1*Tx2737	3558	50	37	1	0	1.8	1	0	12.9	Ct	W	ML
Tx. Agri. Exp. Stat.	ATx2755*MR120-90M8	3548	52	43	2	0	1.5	0	0	12.6	R	P	M
Cargill Hybrid Seeds	797	3547	51	32	0	0	2.0	0	0	12.5	Bz	P	M
Douglass W. King Co.	dk-60-G	3537	51	33	1	0	1.4	1	0	12.5	Wt	P	M

Table S2. (CONTINUED)

Company or Brand Name	Hybrid Designation	Grain Yield lb/A 1	Days To Flower 2	Plant Height (In)	Head Exs. Inches 3	Lodging (%)	Desir-ability Rating 4	Midge Damage (%)	Bird Damage (%)	Mois-ture (%)	Grain Color 5	Plant Color 6	Matu-rity 7
DeKalb	DK-46	3529	52	38	2	0	1.5	0	0	12.6	Rt	P	M
Tx. Agri. Exp. Stat.	ATx2801*MR102-90M2	3526	56	37	2	0	1.7	0	0	12.1	W	P	M
Jacques Seed Co.	Jacques 444E	3521	50	32	0	0	2.0	1	0	12.5	Bz	P	M
HyPerformer Seed Co.	HSC Cherokee	3512	51	37	1	0	1.8	0	0	12.6	R	P	M
Tx. Agri. Exp. Stat.	ATx2755*MR120-90M2	3503	53	34	2	0	1.9	0	0	12.2	R	P	M
Cargill Hybrid Seeds	857	3492	51	29	0	3	2.1	1	0	12.5	Bz	P	ML
Tx. Agri. Exp. Stat.	A35*89CC443	3480	61	38	2	0	1.6	4	0	13.8	Bz	P	ML
Tx. Agri. Exp. Stat.	A1*Tx2794	3468	51	38	1	0	1.6	0	0	12.6	Ct	W	ML
Jacques Seed Co.	Jacques 375W	3467	47	33	1	0	1.8	0	0	12.5	Ct	P	ME
Cargill Hybrid Seeds	607E	3457	50	33	1	0	1.5	0	0	12.3	Bz	P	ME
Tx. Agri. Exp. Stat.	A35*GR107-90M18	3436	55	37	3	0	1.7	3	0	13.1	R	P	ML
HyPerformer Seed Co.	HSC 893	3425	52	33	1	0	2.1	0	0	12.5	Bz	P	M
Mycogen Plant Sciences	Myc ORO Excel	3420	48	30	0	0	1.6	0	0	12.4	Ct	P	ML
Tx. Agri. Exp. Stat.	A807*(Tx430*R9188)	3389	48	33	1	0	1.8	0	1	12.4	Rt	P	ML
Pioneer Hi-Bred Int.	8505	3380	49	33	1	0	1.9	0	0	12.3	Bz	P	M
Frontier Hybrids, Inc.	F-2706	3378	48	37	2	0	2.2	0	1	12.4	Bz	P	ME
Asgrow Seed Co.	A406	3368	48	32	2	0	2.1	0	0	12.3	W	P	M
Tx. Agri. Exp. Stat.	A807*R3224(t)	3365	50	34	0	0	1.9	0	0	12.4	Rt	P	ML
Northrup King Co.	KS 383Y	3363	47	28	0	0	1.7	0	0	12.3	C	P	ME
Tx. Agri. Exp. Stat.	A1*GR107-90M17	3343	63	41	2	0	1.8	6	0	14.2	R	P	ML
Mycogen Plant Sciences	Myc Grower's 3622	3337	47	32	1	0	1.6	1	0	12.5	Ct	P	ME
Tx. Agri. Exp. Stat.	A1*(Tx430*89108)	3315	48	34	1	0	1.5	0	0	12.4	Wt	P	ML
Garrison & Townsend, Inc.	SG-822	3300	50	34	1	0	1.6	2	0	12.7	C	P	M
AgriPro Seeds	AP9830	3270	55	34	1	0	1.7	1	0	12.3	C	P	ML
ICI Seeds, Inc.	5616	3263	51	32	1	0	1.7	0	0	12.3	Bz	P	ME
Tx. Agri. Exp. Stat.	ATx2801*MR114-90M11	3262	51	37	2	0	1.8	0	0	12.1	R	P	M
Tx. Agri. Exp. Stat.	ATx2755*MR114-90M11	3257	52	33	1	0	1.9	0	0	12.1	R	P	M
Tx. Agri. Exp. Stat.	A35*GR134A-90M50	3219	62	38	3	0	0.0	2	0	13.7	R	P	ML

Table S2. (CONTINUED)

Company or Brand Name	Hybrid Designation	Grain Yield lb/A 1	Days To Flower 2	Plant Height (In)	Head Exs. Inches 3	Lodging (%)	Desir-ability Rating 4	Midge Damage (%)	Bird Damage (%)	Mois-ture (%)	Grain Color 5	Plant Color 6	Matu-rity 7
Tx. Agri. Exp. Stat.	A803*R3224(t)	3205	53	34	2	0	1.9	0	0	12.2	Rt	P	ML
Mycogen Plant Sciences	Myc ORO Edge	3191	44	29	1	0	1.9	0	1	12.4	R	P	M
Texas Triumph	TR60-G	3170	47	32	1	0	1.7	0	0	12.4	Rt	P	M
Tx. Agri. Exp. Stat.	A807*8BE2668	3164	57	36	1	0	1.6	1	0	13.0	Rt	P	ML
DeKalb	DK-40Y	3133	50	32	1	0	1.6	0	0	12.3	Y	P	ME
Jacques Seed Co.	Jacques 355W	3129	47	30	0	0	1.6	0	0	12.5	Ct	P	ME
DeKalb	DK-41y	3095	54	34	1	0	1.6	2	0	12.7	YE	P	M
Tx. Agri. Exp. Stat.	A8618*RTx430	3095	61	41	2	0	1.9	5	0	13.3	Rt	P	ML
Tx. Agri. Exp. Stat.	A35*GR134A-90M49	3076	55	41	3	0	1.5	0	0	12.2	LY	P	ML
Tx. Agri. Exp. Stat.	ATx631*RTx436	3076	52	37	1	0	1.8	1	0	12.5	W	T	M
Tx. Agri. Exp. Stat.	ABON34*215	3068	58	38	2	1	2.2	1	1	12.4	W	T	ML
Tx. Agri. Exp. Stat.	A807*Tx2864	3067	51	34	1	0	2.0	0	2	12.7	Rt	P	ML
Tx. Agri. Exp. Stat.	A1*8BE2668	3053	63	37	0	0	1.8	2	0	12.9	Rt	P	ML
Tx. Agri. Exp. Stat.	A8618*91C1988	3042	60	42	4	0	1.5	3	0	13.2	Rt	R	ML
Douglass W. King Co.	dk715E	3033	45	31	0	0	1.9	0	0	12.1	R	P	ME
Mycogen Plant Sciences	Myc Grower's 3159	3032	45	29	0	0	1.8	0	2	12.3	Bz	P	ME
Tx. Agri. Exp. Stat.	ATx399*Tx430	2997	50	33	1	0	2.1	0	0	12.2	Bz	P	ML
Douglass W. King Co.	dk780	2989	53	33	0	0	2.1	0	0	12.4	R	P	M
Mycogen Plant Sciences	Myc ORO Ivory	2987	48	31	1	0	1.8	0	0	12.3	Ct	P	M
Tx. Agri. Exp. Stat.	A35*R3224(t)	2986	65	42	3	0	1.5	2	0	12.6	Rt	P	ML
Garrison & Townsend, Inc.	SG-622	2965	47	32	1	0	1.9	0	0	12.1	C	P	ME
Tx. Agri. Exp. Stat.	ATxARG-1*R8925	2964	61	36	1	0	2.2	2	3	12.5	Rt	T	ML
Triumph Seed Co.	TRX22010	2964	57	33	2	0	1.7	0	0	13.1	Rt	P	ME
Cargill Hybrid Seeds	727	2925	52	33	2	1	2.2	1	0	12.6	Bz	P	M
Tx. Agri. Exp. Stat.	ATxARG-1*R8922	2889	62	40	2	1	2.0	6	0	12.7	Rt	T	ML
Tx. Agri. Exp. Stat.	ABON34*86EO361	2859	58	38	2	1	1.8	3	0	12.3	W	T	ML
Mycogen Plant Sciences	Myc T-E Eden	2855	44	29	1	0	2.1	0	0	12.3	R	P	ME

TABLE S3. AGRONOMIC AND TEST INFORMATION: HALFWAY, TEXAS
Supplementary Grain Sorghum Test

TITLE: Single row irrigated grain sorghum performance test at the Texas Agricultural Experiment Station, Halfway, Texas, 1993

AUTHORS: N.E. Wuthrich, C. A. Woodfin, J. W. Jones, D. T. Rosenow, G. C. Peterson, Research Associate, Senior Research Associate, Research Associate, Professor and Associate Professor

METHODS & MATERIALS:

Experimental Design:	Triple lattice
Plot Size:	6.66 ft (2 beds x 21 ft)
Plot Spacing:	Single row on 40-inch spaced beds
Soil Type:	Pullman clay loam
Previous Crop:	Cotton
Fertilizer:	172 (N), 52 (Ca) lb/A liquid NCal 23 on May 21; 10 (N), 47(P) lb/A liquid 10-34-0 on June 29.
Herbicide:	1 lb ai/A Milogard pre-emerge, .5 ai/A Prowl layby
Insecticide:	6.3 lbs/A Counter 15G preplant
Irrigations:	Pre-emergence plus 2.7, 3.9, 3.8, 2.2, and 2.9 in/A applied on July 6, 26, Aug 3, 16, and 27
Rainfall:	Jan-Oct (10.37")
Planting Date:	May 28
Population:	82,618 seeds/A
Harvest Date:	October 5

RESULTS & DISCUSSION:

Table S4 contains all agronomic data recorded in 1993.

Yields were good with a test mean of 8,600 lb/A.

Physiological maturity was early due to the total degree units received this season.

Bird repelling balloons and reflecting tape were used to discourage bird damage.

Dry weather during the growing season increased irrigation increments for producing maximum yields.

The entire plot (2 rows) was combine harvested. No lodging occurred. Grain yields were adjusted to 13% moisture and converted to pounds per acre.

Table S4. Grain yield and other agronomic data for thirty-six hybrids evaluated under irrigation at the Texas Agricultural Experiment Station, Halfway, Texas, 1993.

Company Or Brand Name	Hybrid Designation	Grain Yield lb/A 1	Duncan's 5% Level 2	Days To Flower 3	Plant Height (In)	Head Exs. In. 4	Height Unif. 5.0	Head Type 6.0	Mois-Ture %	Matu-Rity 7
Tx. Agri. Exp. Stat.	ATx2752*Tx2783	10344	A	64	62	6	3.0	3.0	14.6	ML
DeKalb Plant Genetics	DK-58	9726	A-B	63	61	7	3.0	3.3	15.3	ML
Mycogen Plant Sciences	Myc ORO Exp.4312	9701	A-B	63	68	6	3.0	3.0	14.4	L
Garrison & Townsend, Inc.	SG-942	9661	A-B	63	60	4	3.0	2.3	15.4	L
Tx. Agri. Exp. Stat.	ATx2752*RTx430	9536	B-C	63	57	4	3.0	2.7	14.6	ML
Frontier	F-524	9424	B-D	63	58	5	3.0	2.3	14.6	L
Tx. Agri. Exp. Stat.	ATx2752*GR108-90M23	9392	B-D	63	65	7	3.0	2.7	15.3	ML
ICI	5319	9197	B-E	62	57	5	3.0	2.7	14.7	ML
DeKalb Plant Genetics	DK-56	9080	B-F	61	63	9	2.7	3.0	14.9	ML
Mycogen Plant Sciences	Myc T-E Y-75	9078	B-F	63	58	5	3.0	3.0	14.4	M
Tx. Agri. Exp. Stat.	A807*8BE2668	9071	B-F	61	56	8	2.3	3.0	15.6	ML
Mycogen Plant Sciences	Myc ORO Amigo	8967	B-G	62	59	6	3.0	3.0	14.6	ML
Douglass W. King	dk 790E	8959	B-G	63	59	6	3.0	3.0	14.6	L
Mycogen Plant Sciences	Myc T-E Sonora	8929	B-G	62	56	6	2.7	3.0	15.0	ML
Northrup King	KS 737	8890	B-G	61	53	5	3.0	3.0	14.5	ML
ICI	5392	8696	C-H	63	57	7	3.0	3.0	14.7	ML
Tx. Agri. Exp. Stat.	A807*R3224(t)	8672	D-H	62	58	5	3.0	3.0	15.9	ML
Mycogen Plant Sciences	Myc T-E 77E	8666	D-H	62	59	5	3.0	3.0	14.7	L
Mycogen Plant Sciences	Myc 3260	8630	D-H	61	56	6	2.7	3.0	14.9	L
Mycogen Plant Sciences	Myc 3150	8615	D-H	63	59	6	3.0	2.7	14.4	ML
Tx. Agri. Exp. Stat.	A1*GR108-90M23	8602	D-H	62	64	7	3.0	3.7	15.4	ML
Tx. Agri. Exp. Stat.	ATx399*RTx430	8595	D-H	61	54	5	3.0	3.0	14.2	ML
Mycogen Plant Sciences	Myc ORO Quest	8580	D-H	62	54	5	2.7	3.0	14.7	ML
Tx. Agri. Exp. Stat.	A1*8BE2668	8474	E-H	62	58	6	2.7	4.0	14.9	ML
Tx. Agri. Exp. Stat.	ATx635*86EON361	8442	E-H	63	65	7	3.0	2.0	14.4	ML

Table S4. (Continued)

Company Or Brand Name	Hybrid Designation	Grain Yield lb/A 1	Duncan's 5% Level 2	Days To Flower 3	Plant Height (In)	Head Exs. In. 4	Height Unif. 5	Head Type 6	Mois-ture %	Matu-rity 7
DeKalb Plant Genetics	DK-66	8392	E-H	67	62	6	3.0	3.0	14.4	L
Frontier	F-600	8265	F-H	63	54	5	3.0	3.3	14.4	L
Northrup King	KS 714Y	8196	G-H	61	53	5	2.3	3.0	14.7	ML
Tx. Agri. Exp. Stat.	ATx2752*GR108-90M30	8140	G-H	64	56	4	3.0	3.0	14.6	ML
Tx. Agri. Exp. Stat.	A1*GR107-90M17	7998	H	62	58	6	3.0	3.0	15.0	ML
SeedCo	SC-707	7939	H	62	58	8	3.0	3.0	14.4	ML
Tx. Agri. Exp. Stat.	A.BON34*86EON361	7911	H	63	57	7	2.3	3.0	14.0	ML
Douglass W. King	dk 785E	7903	H	61	54	6	2.7	3.0	14.4	ME
Tx. Agri. Exp. Stat.	A.BON34*215	7112	I	61	54	4	3.0	3.0	13.9	ML
Tx. Agri. Exp. Stat.	ATx2752*GR134A-90M50	6980	I	64	59	3	3.3	3.0	14.9	ML
Tx. Agri. Exp. Stat.	RS610	5234	J	57	55	9	3.0	2.0	13.9	ME
TEST MEAN= 8611.0	TEST C.V.= 5.0	LSD .05= 705.0								

Note 1: The ANOVA procedure was used for statistical analysis.

Note 2: No bird damage was observed in the test except for RS610 which had 22%.

1 All yields figured at 13% moisture

2 Any two hybrids having a common letter are not significantly different at the 0.05 probability level.

3 Number of days from planting until date when majority of heads are in half-bloom.

4 Head exsertion is average number of inches from the flag leaf to the base of the head.

5 Height uniformity rating 1-5: 1 = uniform 5 = irregular.

6 Head type rating 1-5: 1 = tight, compact head 5 = loose, open head.

7 Seed company maturity designation: E = early, ME = medium early, M = medium, ML = medium late, L = late.

Table S5. Gary Jacob's Grain Sorghum Variety Test (Runnels County, 1993).

OBJECTIVES

Variety tests provide producers with the opportunity of comparing new varieties of grain sorghum with varieties that have been successfully grown under varying weather conditions in Runnels County. Utilization of new varieties, that are equal to or exceed currently available varieties, should increase production and income of county producers.

MATERIALS AND METHODS USED

This was a strip plot with a check variety (Pioneer 8446) planted between every sixth variety. Variation between checks was used to adjust the yields to reduce impact made by variety location. Plots were harvested by a combine using a weigh-wagon. Moisture was taken from each variety harvested and used to adjust the yield to 13 percent moisture. The results from the test are reported below.

AGRONOMIC AND TEST INFORMATION

TEST:	1993 Dryland Grain Sorghum Performance Test
LOCATION:	3 miles west of Winters, Texas
COOPERATORS:	Gary Jacob (Producer) Mike Mauldin (County Extension Agent) Rick Minzenmayer (Extension Agent-Entomology Runnels & Tom Green Counties) Dr. Billy Warrick (Extension Agronomist:San Angelo)
SOIL TYPE:	Portales clay loam
ROW WIDTH:	40", two rows per variety
PREVIOUS CROP:	Cotton
DATE PLANTED:	April 12, 1993 with JD 71 Flex-Planter, 2 Row Lincoln Ag B Sorg 13-60 with tooth driver, tooth driven
PLANTING RATE:	Approximately 4 pounds per acre
FERTILIZER:	None at planting
HERBICIDES:	3 qt/A Lasso, incorporated lightly
MOISTURE @ PLANTING	Good underground moisture; slightly dry in upper two inches
HARVEST DATE:	August 13, 1993

Table S6. Gary Jacob's Grain Sorghum Variety Test Data (Runnel's County, 1993)

Variety	Test Weight Per Bushel	Percent Moisture	Yield Per Acre at 13% Moisture (pounds)	Gross Income Per Acre At $4.00 Per CWT	Grain Color
GroAgri 3225*	57.0	11.4	1509.95	$60.84	Bronze
DeKalb DK 28E	55.5	12.9	1457.82	$58.31	Bronze
Deltapine 1506	56.0	12.0	1454.00	$58.16	Bronze
Pioneer XS-615	57.0	11.6	1270.92	$50.84	Bronze
Pioneer 8699	56.0	12.8	1253.67	$50.15	Bronze
ORO Ivory*	55.0	10.9	1223.63	$48.95	Cream
Asgrow Seneca	53.5	12.4	1221.83	$48.87	Bronze
Northrup King KS710	58.5	11.6	1157.11	$46.28	Bronze
DeKalb DK38y	56.0	11.8	1097.71	$43.91	Yellow
Northrup King KS524	56.0	11.2	990.85	$39.63	Bronze
ORO Eagle*	57.0	11.1	934.74	$37.39	Bronze
Asgrow Chaparral	53.5	12.7	917.91	$36.72	Bronze
Douglas King dk904W	56.0	11.1	915.66	$36.63	Cream
Pioneer 8446	56.5	11.4	893.56	$35.74	Bronze
GroAgri 3159*	55.0	12.4	789.49	$31.58	Red
ORO Edge*	56.0	12.2	753.61	$30.14	Bronze
Cargill 797	56.0	11.4	722.45	$28.90	Bronze
Warner W560t*	54.5	12.1	716.74	$28.67	Bronze
Deltapine 1482	56.0	12.7	674.39	$26.98	Bronze
Warner W632W*	58.0	12.1	641.30	$25.65	White
Northrup King KS383y	52.5	13.3	595.33	$23.81	Yellow
Golden Acres TE Eden	58.0	11.5	569.71	$22.79	Red
ORO Excel*	58.0	13.7	518.51	$20.74	Bronze
Asgrow X-5702	56.5	11.0	515.64	$20.63	Bronze
Western Heritage Rio Grande	56.5	13.8	480.92	$19.24	Bronze
Douglas King dk715E	55.0	13.5	445.47	$17.82	Red
Western Heritage Rio Concho	55.0	14.0	442.90	$17.72	Bronze
DeKalb DK40y	57.5	11.7	435.79	$17.43	Yellow
Douglas King dk785E	56.0	12.4	394.74	$15.79	Red
Warner W528W*	53.0	14.8	383.93	$15.36	White
Cargill 727	55.0	12.2	376.80	$15.07	Bronze
Western Heritage Rio Bravo	57.5	11.4	323.20	$12.93	Bronze
Golden Acres TE Omaha	57.5	14.0	239.90	$9.60	Cream
Deltapine 1505y	56.0	10.8	229.69	$9.19	Yellow

*Indicates hybrids that were treated with Screen seed safener, all others treated with Concep

SUMMARY

Thirty-four grain sorghum varieties were planted by Gary Jacob in northern Runnels County, three miles West of Winters, Texas on farm road 153. Normal dryland production practices were used by Jacob's. Yields were substantially reduced in all varieties due to the drought. Some varieties did exhibit more drought tolerance. When reviewing the test results, producers should keep in mind that this is only one year's data. Year to year consistency should be a primary consideration in selecting varieties of grain sorghum to be planted.

ECONOMIC ANALYSIS

There is a 662 percent difference between the yield of the lowest and highest varieties in the test. Using a price of $4.00 per cwt. for grain sorghum, this results in a difference of $51.65 per acre. The higher yield and income of the best varieties in this test justifies the adoption of these into certain farm production.

ACKNOWLEDGMENTS

Sincere appreciation is expressed to Gary Jacob for establishing and managing the dryland grain sorghum variety test. Also, a word of thanks to all those that assisted with the county grain sorghum tour and to those that assisted in harvesting the plots. A special thanks to all the seed companies that donated seed for the test plot.