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1991 Grain Sorghum Performance Tests in Texas

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GRAIN SORGHUM PERFORMANCE TESTS IN TEXAS--1991

by

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GRAIN SORGHUM PERFORMANCE TESTS IN TEXAS--1991

D. R. Pietsch, Randy Gaas, D. T. Rosenow, F. R. Miller, and G. C. Peterson

INTRODUCTION

Grain sorghum continues to be a major commodity in Texas with 2.9 million acres harvested in 1991 (1). This is an increase of 11.5 percent from 1990 when 2.6 million acres were harvested. Figure 1 shows the acres and percentage of grain sorghum acreage harvested by Texas Crop Reporting Districts. As depicted in the Figure, District 1N (Northern High Plains), District 4 (Blacklands) and District 8S (Coastal Bend) accounted for 55.6% of the 1991 harvested grain sorghum acreage. Acreage throughout these Districts fluctuate annually based on rainfall patterns, participation in various government supported programs, and price differential between commodities. Due to favorable growing conditions during the growing season, the State mean yield increased from 2,912 pounds per acre to 3,416 pounds per acre or 17.3%. All Crop Reporting Districts (Figure 1) reported an increase in yield except for District 9 which decreased from 4,018 pounds per acre to 3,878 pounds per acre. The largest increase in yield occurred in District 8S which increased from 2,444 pounds per acre to 3,575 pounds per acre or

continued traditional breeding efforts and biotechnology, this decade promises to be exciting and challenging for plant breeders as well as farmers. New and improved hybrids will give farmers 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 of sorghum with tan plant color can be achieved with appropriate hybrids with feed and food quality that have the necessary agronomics, yield potential, and adaptation to Texas environmental conditions. With the ever-alarming rate of aflatoxin found in corn recently, particularly in the non-irrigated areas, grain sorghum may approach acreage seen in the 1960's and 1970's.

GRAIN SORGHUM PERFORMANCE TESTING IN TEXAS

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

In addition, the results of supplementary grain sorghum tests conducted at Beaumont, Eagle Lake, Runnels County and Halfway, Texas, are reported. The Beaumont and Eagle Lake tests were conducted by Dr. John Sij of the Texas Agricultural Research and Extension Center at Beaumont. 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. 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

Excessive amounts of 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 were hand thinned to a uniform spacing for a plant population recommended in the area.

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 were hand harvested except College Station and threshed with a plot thresher or plot harvester. Moisture was determined at harvest. The College Station test was harvested with a MF8 combine modified for plot harvesting. Plot weight, bushel weight, and moisture were calculated with electronic equipment mounted on the 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.

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 exertion--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.

Stand--visual estimate of plants in harvest area taken from all three replications.

Moisture percentage--determined with an electrical resistance meter from threshed grain from all replications.

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.

Greenleaf rating--visual estimate of proportion of green leaf area remaining at harvest presented in Table 6A.

Smut per plot--number of plants showing smut within the harvested area. Taken from all replications and averaged.

Desirability Rating--1= very good, 2= good, 3= average, 4= poor, 5=very poor

Threshing percentage--calculated by dividing plot grain weight by plot head weight x 100.

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 panicle weight x threshing percentage 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

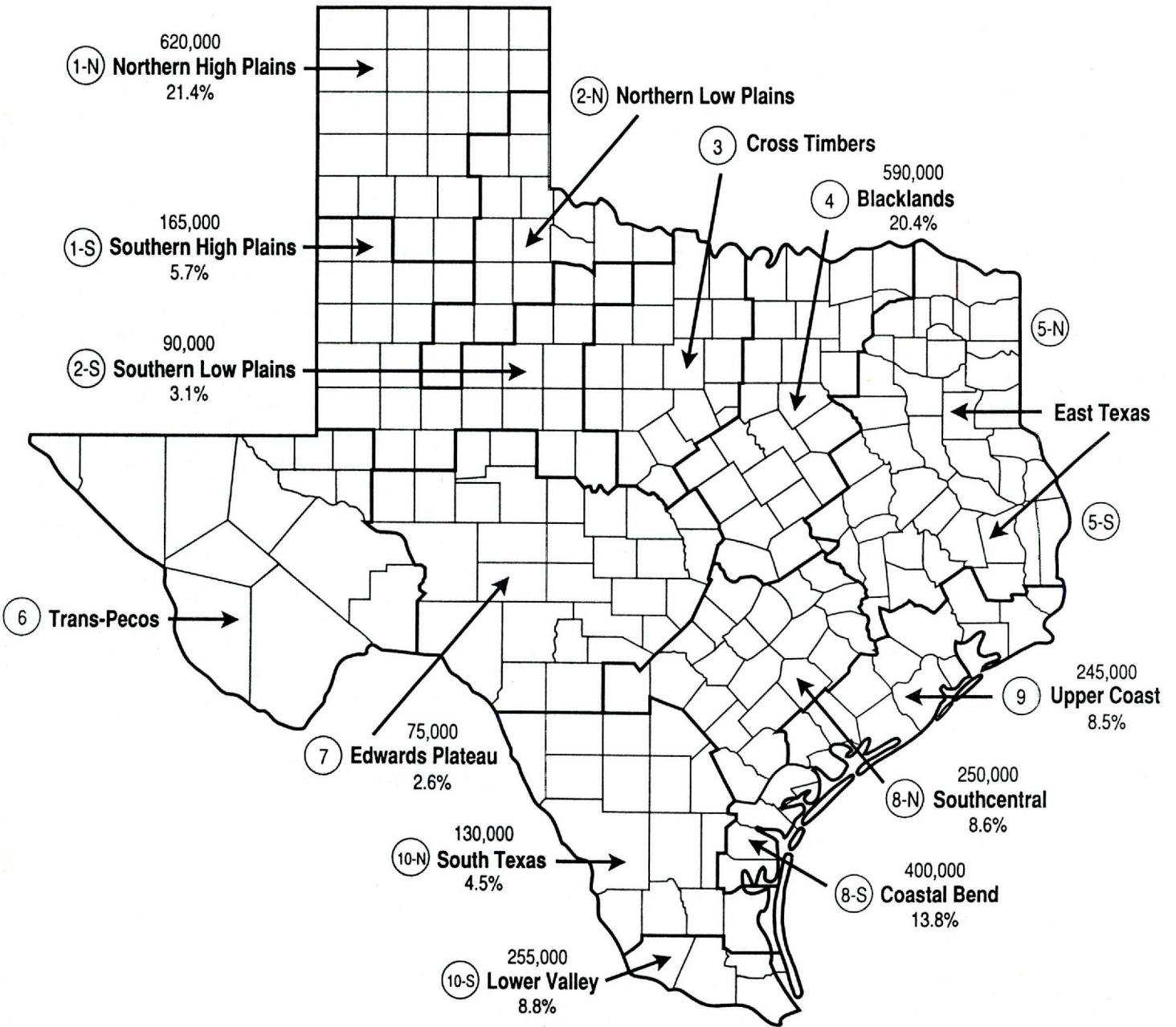
Ten grain sorghum locations were planted this year with data collected from all test sites. Five irrigated sites, designated with an (I) and five non-irrigated sites designated with an (NI) are shown in Figure 2. General comments follow each test site and gives a brief summary of conditions during the growing season.

Near-optimum planting dates were secured at all test sites. Excellent soil moisture was available at planting and timely rainfall during the growing season insured continuous plant growth and development. Midge was observed at a number of the sites due to a combination of early midge pressure and irregular flowering within plots. Head smut was observed at Danevang and readings secured by Dr. R. A. Frederiksen.

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.
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-S3 give agronomic and test results from supplementary grain sorghum tests conducted by Dr. John Sij at Beaumont and Eagle Lake, Texas.
5. Tables S4-S5 gives agronomic and test results from supplementary grain sorghum tests conducted by the Runnels County Young Farmers Organization of Winters, Texas.
6. Table S6-S7 gives results of a supplementary grain sorghum variety test conducted at Halfway, Texas, in cooperation with the High Plains Research Foundation.

Figure 1. Acres and Percentage of Grain Sorghum Acreage Harvested by Texas Crop Reporting Districts, 1991 (1).



- NOTES:
- A. The figure below each crop reporting district is that district's percentage of the total harvested corn in Texas.
 - B. The circled figure is the number of each district.
 - C. The figure above the district name is the total harvested acres for that district.
 - D. The districts with no acreage presented are not considered major corn production areas. Grouped together, these districts account for 80,000 acres or 2.8 percent of state acreage (1).

Figure 2. 1991 Grain Sorghum Test Locations in Texas.

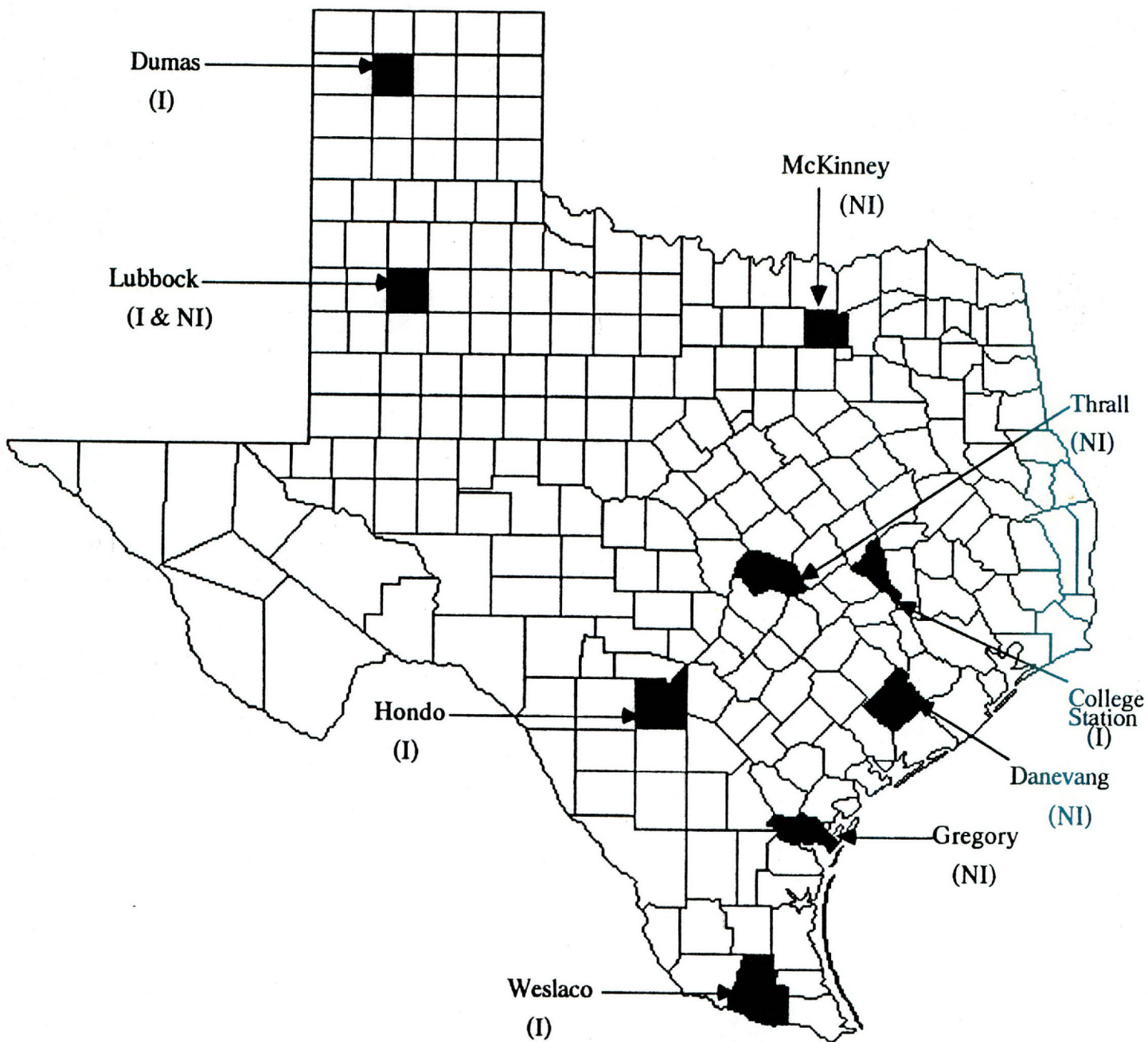


Table 1. Name, address and hybrid designation for participants in the 1991 Texas Grain Sorghum Performance Test

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lub"l"	Lub"D"	Dumas
ASGROW SEED CO. P. O. Box 7570 Des Moines, IA 50322	X5011 X	X	X	-	-	-	-	-	-	-	X
	TOPAZ	X	-	X	-	-	-	-	X	-	X
	X4080 X	X	X	-	-	-	-	-	-	-	X
	X5020 X	-	-	X	-	-	-	-	-	-	-
	X6030 X	-	-	-	X	-	-	-	-	-	X
	GS 712	-	-	-	X	-	-	-	-	-	X
	X4060 X	-	-	-	-	-	X	X	X	-	X
	Chaparral	-	-	-	-	-	X	X	-	-	-
	OSAGE	-	-	-	-	-	-	-	X	-	-
	SENECA	-	-	-	-	-	-	-	-	X	-
MADERA	-	-	-	-	-	-	-	-	X	-	
Cargill Hybrid Seeds P.O. Box 5645 Minneapolis, MN 55440	837	-	X	X	-	X	-	-	X	X	X
	857 (X17055)	-	X	X	X	X	X	-	X	X	X
	847	-	X	X	-	X	-	-	-	-	X
	607E	-	-	-	-	-	X	-	-	X	-
	630	-	-	-	-	-	X	X	-	X	-
	618Y	-	-	-	-	-	-	X	-	X	-
	X15343	-	-	-	-	-	-	-	X	-	X
Conlee Seed Co., Inc. P.O. Box 23219 Waco, TX 76702-3219	Rustler	X	X	X	X	X	X	X	X	-	X
	Towhead	-	-	-	-	-	-	-	X	-	X
DEKALB-PFIZER GENETICS Rt. 2, Box 56 Lubbock, TX 79415	DEKALB DK-50	X	-	-	-	-	-	-	-	-	-
	DEKALB DK-37	X	X	-	X	X	X	X	-	-	-
	DEKALB DK-56	X	X	X	X	X	X	X	X	-	X
	DEKALB X-061 (X)	X	-	-	-	-	-	-	-	-	-
	DEKALB DK-40y	-	-	-	-	-	X	X	-	X	-
	DEKALB DK-66	-	-	-	-	-	-	-	X	-	X
	DEKALB X-033 (X)	-	-	-	-	-	-	-	-	X	-
DELTA AND PINE LAND CO. 1301 E. 50th St. Lubbock, TX 79404	DELTAPINE 1558	X	X	X	X	-	X	-	-	-	-
	DELTAPINE 1552	X	X	-	X	-	X	-	-	-	-
	DELTAPINE 1710	X	X	-	X	-	-	-	-	-	-

Table 1. (Continued)

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lub "I"	Lub "D"	Dumas
DELTA AND PINE LAND CO. (continued)	DELTAPINE 1506	-	-	X	-	X	X	X	X	X	X
	DELTAPINE G-1616	-	-	-	-	-	-	X	X	-	X
	DELTAPINE G-1492	-	-	-	-	-	-	X	-	X	-
DOUGLASS W. KING CO. P.O. Box 200320 San Antonio, TX 78220	dk780	X	X	X	X	X	X	-	-	-	-
	dk760	X	X	X	X	X	X	-	-	-	-
	dk775	X	-	-	-	-	-	-	-	-	-
	dk904W	X	-	X	X	-	X	-	-	-	-
	dk776	-	X	X	-	X	X	-	-	-	-
DyNA Seeds, LTD 6414 N. Sheridan Wichita, KS 67212	DN31	-	-	-	-	-	-	X	-	-	-
East Texas Seed Company P.O. Box 569 Tyler, TX 75710	ET602	-	-	-	-	-	-	X	-	-	-
Frontier Hybrids Inc. P.O. Box 177 Abernathy, TX 79311	F-524	X	X	X	X	X	X	X	X	-	X
	F-457	-	-	-	-	-	-	X	-	-	-
	F-333Y	-	-	-	-	-	-	-	X	-	X
	F-270G	-	-	-	-	-	-	-	-	X	-
	F-300G	-	-	-	-	-	-	-	-	X	-
Garrison Seed Company Drawer 2420 Hereford, TX 79045	S.G.-942	X	X	-	X	X	-	-	-	-	-
	S.G.-925	X	X	-	X	-	-	-	-	-	-
	S.G.-858	-	-	-	-	X	-	X	-	-	-
	S.G.-821	-	-	-	-	-	-	X	-	-	-
Garst Seed Co. Eminence Route Garden City, KS 67846	5392	X	X	-	X	-	X	X	X	-	X
	5319	X	X	X	X	-	X	-	-	-	-
	5503	X	-	-	-	-	-	-	-	-	-
	5521	-	X	-	-	-	-	-	-	-	-
	5522Y	-	-	-	-	-	-	-	-	X	-
George Warner Seed Co., Inc. P.O. Box 1448 Hereford, TX 79045	W-917-E	X	-	-	-	-	-	-	-	-	X
	W-876 DR	X	-	-	-	-	-	-	-	-	-
	W-902-W	X	-	-	-	-	-	-	-	-	X

Table 1. (Continued)

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lub"1"	Lub"D"	Dumas	
George Warner (continued)	W-625-Y	-	-	-	-	-	-	X	-	-	X	
	Wx88318	-	-	-	-	-	-	X	-	-	X	
	W-624-Y	-	-	-	-	-	-	-	-	-	X	
Gro Agri Seed Co. P.O. Box 1656 Lubbock, TX 79408	GSC-3148	X	X	-	X	-	X	-	-	-	X	
	GSC-3150	X	X	-	X	-	X	-	X	-	X	
	GSC-1313	-	X	-	X	-	X	-	X	-	X	
	GSC-3146	-	X	-	-	-	-	-	-	-	-	
	Exp-3185X	-	-	-	X	-	-	-	-	-	X	
	Exp-3186X	-	-	-	X	-	-	-	-	-	X	
	Exp-3187X	-	-	-	X	-	-	-	-	-	X	
	GSC-1299	-	-	-	-	-	X	-	-	-	-	
	GSC-3159	-	-	-	-	-	X	X	-	X	-	
	GSC-1214	-	-	-	-	-	-	-	-	X	-	
	GSC-3605	-	-	-	-	-	-	-	-	-	X	
	HyPerformer Seed Co. 5100 Poplar Suite 3200 Memphis, TN 38137	HSC Wings	X	X	X	X	X	X	-	-	-	-
		HSC Cherokee	X	X	X	X	X	X	X	-	-	-
Honcho		-	-	-	-	-	-	X	-	-	-	
Jacques Seed Company 720 St. Croix Prescott, WI 54021	Jacques 606E	-	-	-	-	-	-	-	X	-	-	
	Jacques 377W	-	-	-	-	-	-	-	-	X	-	
	Jacques 411	-	-	-	-	-	-	-	-	-	X	
NC + Hybrids 3820 N. 56th P.O. Box 4408 Lincoln, NE 68504	NC+ 472	X	X	-	X	-	X	X	-	-	X	
	NC+ 7B90	X	X	-	X	X	X	-	-	-	-	
	NC+ 7B81E	-	-	-	X	-	-	-	-	-	X	
	NC+ 573	-	-	-	-	X	X	X	-	-	X	
	NC+ 7C49	-	-	-	-	-	-	-	-	-	X	
	NC+ 811	-	-	-	-	-	-	-	-	-	X	
Northrup King Company 6139 37th St. Lubbock, TX 79407	2665	X	X	X	X	X	X	-	X	-	X	
	KS 737	X	X	X	X	X	X	X	X	-	X	
	KS 714Y	-	-	X	-	X	X	-	-	X	-	

Table 1. (Continued)

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lub"1"	Lub"D"	Dumas
Northrup King Company (continued)	KS 710	-	-	-	-	-	X	X	-	X	-
	2030	-	-	-	-	-	-	-	-	X	-
ORO Hybrids-R. C. Young Co. 624 27th St. Lubbock, TX 79404	ORO Amigo	X	X	X	X	X	X	X	X	-	X
	ORO G Xtra	X	-	-	X	X	-	X	-	-	X
	ORO Baron	X	X	-	X	X	-	-	-	-	-
	ORO Hombre	X	-	X	-	X	-	-	-	-	X
	ORO Zenith	X	X	X	X	-	-	-	-	-	-
	ORO Ultra	X	X	-	X	-	-	-	-	X	-
	ORO Edge	-	-	-	-	-	X	X	-	-	-
ORO Ivory	-	-	-	-	-	-	X	-	X	-	
Pioneer Hi-Bred Int'l., Inc. P.O. Box 788 Plainview, TX 79072	8195	-	X	X	X	-	X	X	-	-	-
	XS292	-	X	X	X	-	X	X	-	-	-
	8313	-	X	X	X	-	X	X	-	-	-
	8379	-	X	X	X	-	X	X	-	-	-
	8601	-	-	-	-	-	X	X	-	X	-
	8573	-	-	-	-	-	X	X	-	-	-
8452	-	-	-	-	-	-	-	-	X	-	
Harvest Master Seed Company Drawer B Vega, TX 79092	HM2280	-	-	X	-	-	-	-	-	-	-
	HM2250	-	-	X	-	-	-	-	-	-	-
	HM3200	-	-	X	-	-	-	-	-	-	-
SEEDCO Corporation 103 Erskine Lubbock, TX 79403	SC-705	X	X	-	-	-	-	-	-	-	-
	SC-707	X	X	-	-	-	-	-	-	-	-
	SC-710	X	X	-	-	-	-	-	-	-	-
Seed Source, Inc. 106 4th Street Leland, MS 38756	SBP001 (X)	X	-	-	-	X	-	X	X	-	X
	SBP008 (X)	X	-	-	-	-	-	-	-	-	-
	SBP006 (X)	-	-	-	-	X	-	-	-	-	-
	SBP011 (X)	-	-	-	-	X	-	-	-	-	-
	SBP005 (X)	-	-	-	-	-	-	-	X	-	-
	SBP012 (X)	-	-	-	-	-	-	-	-	-	X

Table 1. (Continued)

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lub"1"	Lub"D"	Dumas
Taylor-Evans Seed Co. P.O. Box 68 Tulia, TX 79088	T-E Y-75	X	X	X	X	X	X	-	X	-	X
	T-E 76	X	-	-	-	X	-	X	-	-	-
	T-E 77-E	X	-	-	X	-	-	-	X	-	X
	T-E X9140	X	-	X	X	X	-	-	-	-	X
	T-E X9150	X	-	X	-	-	-	-	-	-	X
	T-E X9160	X	X	X	X	X	-	-	X	-	X
	T-E RIO	-	X	-	-	-	X	-	-	-	-
	T-E RANGER	-	X	X	-	-	-	-	-	-	-
	T-E EDEN	-	-	-	-	-	-	X	-	X	-
	T-E Y-60	-	-	-	-	-	-	-	-	X	-
	T-E X150	-	-	-	-	-	-	-	-	X	-
	T-E WAHOO	-	-	-	-	-	-	-	-	-	X
	TEXAS SEED CO., INC. P.O. Drawer 599 221 Airport Boulevard Kenedy, TX 78119	TS-488	-	X	X	X	-	X	-	-	-
Western Heritage Seed Co. Box 756 Winters, TX 79567	Rio Grande	X	-	-	-	-	-	-	-	X	-
	Rio Bravo	X	-	-	-	-	-	-	-	X	-
Texas Agricultural Experiment Station (FM) College Station, TX 77843	ATx631 x R8505	X	X	X	-	X	-	-	X	-	X
	ATx631 x 80C2241	X	X	X	-	X	-	-	X	-	X
	AArg34 x R8505	X	X	X	-	X	-	-	X	-	X
	A8606 x R8505	X	X	X	-	X	-	-	X	-	X
	A8610 x R8505	X	X	X	-	X	-	-	X	-	X
	A8610 x 80C2241	X	X	X	-	X	-	-	X	-	X
	AArg34 x 80C2241	X	X	X	-	X	-	-	X	-	X
	ATx631 x R8511	X	X	X	-	X	-	-	X	-	X
	AArg34 x R8605	X	X	X	-	X	-	-	X	-	X
	A8618 x RTx2783	X	X	X	-	X	-	-	X	-	X
	A8618 x R6956	X	X	X	-	X	-	-	X	-	X
	AArg34 x Dorado	X	X	X	-	X	-	-	X	-	X
	AVar x R8504	X	X	X	-	X	-	-	X	-	X

Table 1. (Continued)

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lub*1*	Lub*D*	Dumas	
Texas Agricultural Experiment Station (FM) (continued)	ATx2752 x RTx430	X	X	X	X	X	X	X	X	X	X	
	ATx 399 x RTx430	X	X	X	X	X	X	X	X	X	X	
	ATx 378 x RTx430	X	X	X	X	X	X	X	X	X	X	
Texas Agricultural Experiment Station (DR) College Station, TX 77843	A1 x Tx2783	X	X	-	X	-	X	-	-	-	X	
	A1 x R8503	X	X	-	X	-	-	-	-	-	-	
	A1 x 86EO361	X	-	-	-	-	-	X	X	X	-	
	A1 x (Tx430 x R9188)	X	X	-	-	-	-	X	X	X	-	
	A1 x 89C445	X	-	-	X	-	X	-	X	-	-	
	ATx631 x 89C443	X	-	-	-	-	-	-	-	-	-	
	AVar x R8505	X	X	-	-	-	-	-	X	-	-	X
	A35 x R8505	-	X	-	-	-	-	-	-	-	-	-
	A35 x Tx2783	-	X	-	-	-	-	-	-	-	X	-
	A35 x R8503	-	X	-	-	-	-	-	-	-	X	-
	A35 x 89C445	-	X	-	-	-	-	X	-	-	X	-
	A1 x Tx430	-	-	X	X	X	X	X	X	X	X	-
	A4R x Tx430	-	-	X	X	X	X	X	X	X	X	X
	ATx631 x 86EON361	-	-	X	-	X	-	-	-	-	-	X
	A1 x R8505	-	-	-	X	-	-	-	X	X	-	-
	A35 x Tx430	-	-	-	-	-	-	X	X	X	X	-
	A35 x (Tx430 x R9188)	-	X	-	-	-	-	X	-	X	X	-
	AVar x 86EON361	-	-	-	-	-	-	-	-	X	-	X
	AVar x 87EO366	-	-	-	-	-	-	-	-	X	-	-
	A1 x Tx2737	-	-	-	-	-	-	-	-	X	X	-
	A1 x Tx2794	-	-	-	-	-	-	-	-	X	X	-
	ATx399 x Tx2536	X	X	X	X	X	X	X	X	X	X	X
	ATx399 x Tx2737	-	-	-	-	-	-	-	-	X	X	X
	A1 x P46-1	-	-	-	-	-	-	-	-	X	X	-
	A35 x P46-1	-	-	-	-	-	-	-	-	X	X	-
	A1 x P37-3	-	-	-	-	-	-	-	-	X	X	-
	ATx3042 x Tx2737	-	-	-	-	-	-	-	-	-	X	-
A35 x 89C443	-	-	-	-	-	-	-	-	-	X	-	
A35 x P37-3	-	-	-	-	-	-	-	-	-	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) College Station, TX 77843	A1 x GR107A-90M20	X	-	-	-	X	-	-	-	-	-	
	A1 x GR134A-90M49	X	X	-	X	X	-	X	X	-	-	
	ATx2752 x GR107A-90M18	X	-	-	-	X	-	-	-	-	X	
	A1 x Tx2864	-	X	-	-	X	-	-	X	-	-	
	ATx2752 x GR107-90M20	-	X	-	-	X	-	X	X	-	X	
	ATx 2755 x MR120-90M8	-	X	-	X	-	X	-	-	-	-	
	ATx2755 x MR102-90M2	-	X	-	X	-	X	-	-	-	-	
	ATx2752 x Tx2868	-	X	-	-	-	-	-	-	-	-	
	A35 x Tx2862	-	-	X	-	-	-	-	-	X	-	
	A35 x GR107A-90M19	-	-	X	-	-	-	-	-	-	-	
	A35 x GR107A-90M20	-	-	X	-	-	-	-	-	-	-	
	A1 x GR107A-90M19	-	-	-	X	X	X	X	X	-	-	
	A1 x GR107-90M20	-	-	-	-	-	-	-	X	X	-	
	ATx2752 x GR107-90M16	-	-	-	-	-	X	-	X	X	-	
	ATx2752 x GR125-90M35	-	-	-	-	-	-	X	-	-	-	
	ATx2752 x GR126-90M36	-	-	-	-	-	-	X	-	X	-	
	ATx2752 x GR134A-90M49	-	-	-	-	-	-	X	-	X	-	
	A1 x GR126-90M36	-	-	-	-	-	-	X	-	-	-	
	A1 x GR107-90M15	-	-	-	-	-	-	X	-	X	-	
	ATx2752 x GR101B-90M13	-	-	-	-	-	-	X	-	-	X	
	ATx2752 x GR103-90M14	-	-	-	-	-	-	X	-	X	X	
	ATx2752 x GR116-90M34	-	-	-	-	-	-	X	-	X	-	
	ATx2752 x Tx2783	X	X	-	-	-	X	-	X	X	-	X
	ATx2752 x Tx2864	X	X	-	-	-	X	-	X	X	-	X
	A1 x GR103-90M14	-	-	-	-	-	-	X	-	X	-	
	A1 x Tx2783	-	-	-	-	-	-	-	-	X	-	
	A1 x Tx2862	-	-	-	-	-	-	-	-	X	-	
ATx2752 x Tx2862	-	-	-	-	-	-	-	-	X	-		
ATx2752 x Tx2868	-	-	-	-	-	-	-	-	X	-		
A1 x GR107-90M16	-	-	-	-	-	-	-	-	X	-		
A1 x GR107-90M19	-	-	-	-	-	-	-	-	X	-		
A1 x GR116-90M34	-	-	-	-	-	-	-	-	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)	A1 x GR126-90M36	-	-	-	-	-	-	-	X	-	-
	ATx2752 x GR107-90M15	-	-	-	-	-	-	-	X	-	-
	ATx2752 x GR107-90M18	-	-	-	-	-	-	-	X	-	-
	A35 x Tx2864	-	-	-	-	-	-	-	-	X	-
	A35 x Tx2868	-	-	-	-	-	-	-	-	X	-
	A35 x GR107-90M15	-	-	-	-	-	-	-	-	X	-
	A35 x GR106-90M16	-	-	-	-	-	-	-	-	X	-
	A35 x GR107-90M18	-	-	-	-	-	-	-	-	X	-
	A35 x GR107-90M19	-	-	-	-	-	-	-	-	X	-
	A35 x GR107-90M20	-	-	-	-	-	-	-	-	X	-
Texas Agricultural Experiment Station (LC) College Station, TX 77843	A1 x (Tx2536 x R1177)	-	-	-	-	-	-	-	X	X	-
CHECK		X	X	X	X	-	X	X	X	X	X
CHECK		X	X	X	X	-	X	X	X	X	X
CHECK		X	X	X	X	-	X	X	-	-	X
CHECK		-	-	-	-	-	-	X	-	-	X

TABLE 2. AGRONOMIC AND TEST INFORMATION: WESLACO

TEST:	1991 Irrigated Grain Sorghum Performance Test
LOCATION:	Texas A&M University Research and Extension Center, Weslaco, Texas
COOPERATORS:	John Drawe, Ray Castaneda, Dennis Pietsch, and Ralph Morgan
SOIL TYPE:	Raymondville clay loam
ROW WIDTH:	27"
PREVIOUS CROP:	Cotton
LAND PREPARATION:	Disked, chiseled, disked, bedded
DATE PLANTED:	2-20-91
DATE THINNED:	3-20&21; thinned to approximately 3-4 plants/foot
PLOT LENGTH:	30'
FERTILIZER:	160+0+0; (applied 250 lb/A liquid 32-0-0 on 1-28-91, and 250 lb/A liquid 32-0-0 on 4-4-91)
HERBICIDE:	None
INSECTICIDE:	.5 pt/A of Lorsban 4E for midge on 5-8 & 5-10
RAINFALL:	February = 2.21"; March = 0.90"; April = 3.80"; May = 1.70"; June = 3.80"; July = 0.30"; Total = 12.71"
IRRIGATIONS:	4-24-91; approx. 4"
DATE HARVESTED:	7-2-91 by hand
SIZE HARVESTED PLOT:	1/645 acre
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	84
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	3
TEST MEAN:	5,300 lb/A; yields corrected to 13% moisture
TEST C.V:	12.7 percent

GENERAL INFORMATION: Eighteen commercial companies and the Texas Agricultural Experiment Station entered 84 hybrids at this test site which made this one of the largest performance tests in Texas. An optimum planting date was achieved, but due to unaccountable problems within the test block, plant populations were not ideal, thus affecting final yields. Although the coefficient of variation of 12.7 percent is acceptable, there was variation in the test block regarding emergence thus affecting flowering. Since midge were present, two insecticide applications were applied to the test site during flowering.

The test was originally scheduled to be harvested by a plot combine, but due to an extended period of heavy rainfall the test was hand-harvested. The wet conditions combined with high humidity and hot temperatures prompted weathering of some hybrids. Although weathering ratings were not taken, the bushel weights reflect the degree of weathering of a particular hybrid. The test mean yield was only 5,300 lb/A compared to the past 10-year average of 6,187 lb/A.

Lodging was observed in some hybrids. According to John Drawe, damage may be attributed to the Mexican Rice Stem Borer which is a pest in this area and can be severe at times. No control measures were used.

Table 2A. GRAIN SORGHUM PERFORMANCE TEST; WESLACO, TEXAS 1991

HYBRID *	COMPANY OR BRAND NAME	GRN CLR **	PLANT COLOR ***	MATU- RITY CLASS ****	DAYS TO 50% FLOWER	PLT. HT., IN.	HEAD EXSER- TION INCHES	% STAND	MIDGE DAM- AGE %	% LODGE	TEST WT. lb/bu	MOIS- TURE %	YIELD lb/A	STAT. SIG., O.05 ****
DEKALB X-061 (X)	DEKALB Plant Genetics	R	P	ML	75	53	9	96.7	2.3	0.0	55.4	17.6	6184	A
ATx631 x 80C2241	Tx. Agri. Exp. Stat.(FM)	W	T	M	72	51	7	76.7	10.0	2.7	57.4	16.9	6052	A-B
ATx2752 x Tx2783	Tx. Agri. Exp. Stat.	R	P	ML	69	48	6	93.3	1.7	1.3	58.4	18.1	6046	A-B
DEKALB DK-50	DEKALB Plant Genetics	R	P	ML	73	51	6	96.7	4.3	0.3	52.6	16.9	6046	A-B
X5011 X	ASGROW SEED CO.	R	P	ML	70	48	7	95.0	0.0	2.0	55.5	16.8	6026	A-B
HSC Cherokee	HyPerformer Seed Co.	R	*	M	68	48	8	98.3	1.0	0.7	56.3	17.6	5993	A-B
5319	Garst Seed Co.	Bz	P	ML	70	49	7	100.0	1.7	5.0	54.7	16.9	5943	A-C
5392	Garst Seed Co.	Bz	P	ML	69	50	9	95.0	0.7	0.7	53.2	17.2	5929	A-D
SC-710	SEEDCO Corporation	R	*	M	69	46	8	96.7	0.0	1.0	56.6	17.9	5908	A-D
SG-925	Garrison Seed & Co.	Bz	R	M	70	47	8	93.3	2.3	0.0	56.4	17.7	5898	A-D
ORO Baron	ORO Hybrids-R.C. Young	Rt	R	ML	69	47	7	98.3	1.7	0.7	55.6	17.3	5877	A-E
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	Rt	P	ML	69	46	10	95.0	1.0	0.0	50.0	15.9	5849	A-E
SBP 008 (X)	Seed Source, Inc.	Bz	R	M	69	48	7	98.3	1.0	0.7	52.3	16.6	5828	A-E
5503	Garst Seed Co.	R	P	M	70	47	8	98.3	0.7	1.7	57.0	17.5	5815	A-F
F-524	Frontier Hybrids	Bz	R	ML	70	48	7	96.7	1.7	4.0	53.9	16.7	5814	A-F
Rustler	Conlee Seed Co., Inc.	R	*	M	69	49	8	96.7	0.0	2.7	54.2	16.8	5809	A-F
Check	Tx. Agri. Exp. Stat.	Bz	P	ML	68	47	8	96.7	1.7	1.7	57.8	17.8	5809	A-F
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	69	50	8	93.3	0.7	5.7	55.1	16.9	5787	A-F
GSC-3150	Gro Agri Seed Co.	Bz	P	ML	70	49	7	95.0	2.0	0.7	54.1	16.6	5786	A-F
X4080 X	ASGROW SEED CO.	R	P	M	69	41	9	100.0	0.7	1.0	54.3	17.0	5781	A-F
dk 760	Douglass W. King Co.	R	R	ML	70	50	8	96.7	1.7	8.3	54.6	16.9	5711	A-G
W-917-E	George Warner Seed Co.	R	R	ML	69	50	7	95.0	1.0	4.0	57.8	17.6	5669	A-G
DELTAPINE 1710	DELTA AND PINE LAND CO.	Bz	P	ML	71	48	7	95.0	9.0	1.7	54.2	16.8	5635	A-G
TOPAZ	ASGROW SEED CO.	R	P	ML	69	46	9	96.7	0.0	1.7	56.2	17.4	5614	A-G
ATx631 x R8511	Tx. Agri. Exp. Stat.(FM)	W	T	M	72	62	6	88.3	8.3	1.7	57.4	17.1	5597	A-H
ORO Zenith	ORO Hybrids-R.C. Young	Rt	P	ML	68	46	10	96.7	1.7	2.0	56.7	17.3	5577	A-H
A8606 x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	72	51	7	75.0	11.7	2.3	56.6	16.8	5568	A-H
DELTAPINE 1552	DELTA AND PINE LAND CO.	Bz	P	M	69	48	8	100.0	0.0	0.7	55.0	17.3	5567	A-H
DELTAPINE 1558	DELTA AND PINE LAND CO.	Rt	P	M	69	46	8	100.0	0.7	0.7	57.1	18.2	5559	A-H
ORO Ultra	ORO Hybrids-R.C. Young	Rz	P	M	69	46	8	96.7	1.7	0.7	51.5	16.4	5547	A-H
DEKALB DK-37	DEKALB Plant Genetics	Bz	P	ME	68	48	10	95.0	0.0	5.7	54.4	17.0	5514	A-H
ATx631 x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	71	53	6	90.0	2.7	2.7	56.4	16.9	5479	A-H
T-E Y-75	TAYLOR-EVANS SEED CO.	Rt	P	ML	68	46	8	96.7	0.0	1.7	57.5	17.7	5458	A-H
NC+ 472	NC+ Hybrids	Bz	*	M	70	45	7	98.3	6.7	0.0	51.9	16.7	5447	A-H
Rio Grande	Western Heritage	Bz	*	ME	70	46	7	90.0	6.0	1.7	51.3	16.4	5435	A-H
AArg34 x R8605	Tx. Agri. Exp. Stat.(FM)	W	T	M	72	45	5	50.0	43.3	0.0	55.4	15.8	5412	A-H
A1 x R8503	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	72	51	7	95.0	6.0	6.7	56.4	18.1	5396	A-H
2665	Northrup King Co.	R	*	ML	67	45	7	96.7	4.0	0.7	53.6	16.6	5355	A-H
SC-705	SEEDCO Corporation	Bz	*	ML	69	51	7	95.0	0.0	6.7	52.6	16.4	5345	A-H
NC+ 7B90	NC+ Hybrids	Bz	*	M	71	48	8	100.0	3.7	1.3	53.8	17.2	5320	A-H
HSC Wings	HyPerformer Seed Co.	Bz	*	ML	69	49	7	96.7	2.3	5.0	53.9	16.9	5319	A-H

Table 2A. GRAIN SORGHUM PERFORMANCE TEST; WESLACO, TEXAS 1991

HYBRID *	COMPANY OR BRAND NAME	GRN CLR **	PLANT COLOR ***	MATU- RITY CLASS ****	DAYS TO FLOWER	PLT. HT., IN.	HEAD EXSER- TION INCHES	% STAND	MIDGE DAM- AGE %	% LODGE	TEST WT. lb/bu	MOIS- TURE %	YIELD lb/A	STAT. SIG., O.05 *****
Check	Tx. Agri. Exp. Stat.	R	*	M	68	45	7	96.7	1.7	0.0	54.7	17.4	5316	A-H
GSC-3148	Gro Agri Seed Co.	R	P	M	69	43	6	90.0	1.7	1.3	49.4	16.3	5295	A-H
ATx399 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	70	45	8	95.0	5.0	0.0	52.1	16.6	5293	A-H
Check	Tx. Agri. Exp. Stat.	Bz	P	ML	74	48	6	95.0	6.0	0.0	55.2	17.4	5284	A-H
dk 775	Douglass W. King Co.	R	R	ML	69	47	6	93.3	5.0	25.0	57.4	17.9	5273	A-H
T-E X9150	TAYLOR-EVANS SEED CO.	R	P	ML	69	49	6	95.0	1.0	2.7	54.6	17.5	5269	A-H
ORO Amigo	ORO Hybrids-R.C. Young	Bz	P	ML	68	50	7	95.0	2.7	5.7	52.8	16.4	5265	A-H
A8610 x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	72	52	7	91.7	2.3	1.7	56.8	17.0	5262	A-H
T-E X9140	TAYLOR-EVANS SEED CO.	R	P	L	69	47	9	93.3	0.0	1.0	57.8	17.7	5257	A-H
ORO G Xtra	ORO Hybrids-R.C. Young	Bz	P	ML	70	49	8	93.3	2.3	2.3	54.1	16.7	5223	A-I
T-E 76	TAYLOR-EVANS SEED CO.	R	P	M	68	43	7	91.7	2.7	3.3	51.2	16.4	5217	A-I
dk 780	Douglass W. King Co.	R	P	ML	70	44	8	96.7	1.7	1.0	56.6	17.7	5210	A-I
ATx378 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	70	54	8	95.0	3.3	1.0	54.4	16.8	5196	A-I
A1 x 86E0361	Tx. Agri. Exp. Stat.(DR)	Wt	P	ML	74	52	7	90.0	11.0	0.7	56.8	18.0	5184	A-I
ATx2752 x Tx2864	Tx. Agri. Exp. Stat.	R	P	ML	69	44	6	90.0	4.0	0.0	55.1	17.0	5119	A-I
ATx2752 x GR107A-90M18	Tx. Agri. Exp. Stat.(GP)	R	P	ML	70	47	9	98.3	0.0	0.7	56.0	17.3	5116	A-I
A1 x 89CC445	Tx. Agri. Exp. Stat.(DR)	Wt	P	ML	75	49	4	96.7	1.7	6.0	54.3	17.0	5077	A-J
W-902-W	George Warner Seed Co.	Wt	T	ML	72	53	7	96.7	1.3	1.7	56.1	16.8	5054	A-J
A1 x Tx2783	Tx. Agri. Exp. Stat.(DR)	Rt	P	L	75	52	3	98.3	3.3	1.7	58.3	18.0	5049	A-J
KS 737	Northrup King Co.	R	*	ML	71	48	10	91.7	10.0	6.3	53.6	16.9	5032	A-J
A8610 x 80C2241	Tx. Agri. Exp. Stat.(FM)	W	T	M	72	50	6	68.3	6.7	6.3	55.9	16.6	5012	A-J
T-E 77-E	TAYLOR-EVANS SEED CO.	Bz	P	ML	70	46	7	95.0	5.0	1.7	54.6	16.8	5009	A-J
ORO Hombre	ORO Hybrids-R.C. Young	R	P	ML	68	43	6	86.7	4.3	5.3	50.2	16.3	5005	A-J
AAArg34 x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	70	48	8	86.7	1.7	1.0	54.8	16.6	4963	A-J
Rio Bravo	Western Heritage	Bz	*	ML	70	54	8	83.3	10.3	4.0	52.7	16.8	4921	A-J
W-876 DR	George Warner Seed Co.	Bz	R	ML	68	50	8	96.7	1.7	7.3	53.1	16.8	4909	A-J
dk 904W	Douglass W. King Co.	Ct	T	M	70	50	11	96.7	3.3	3.0	52.0	16.0	4886	A-J
SC-707	SEEDCO Corporation	Ct	*	M	71	52	11	80.0	9.0	1.3	52.4	16.1	4874	A-J
T-E X9160	TAYLOR-EVANS SEED CO.	Bz	P	ML	68	49	8	93.3	4.0	0.7	55.8	17.2	4816	A-J
A1 x (Tx430 x R9188)	Tx. Agri. Exp. Stat.(DR)	Wt	P	ML	69	49	8	88.3	3.3	2.3	52.9	16.8	4801	A-J
DEKALB DK-56	DEKALB Plant Genetics	R	P	ML	77	50	6	98.3	5.0	0.0	56.7	17.6	4782	A-J
A1 x GR134A-90M49	Tx. Agri. Exp. Stat.(GP)	W	P	ML	72	51	6	95.0	5.0	1.3	53.6	17.1	4720	B-J
SBP 001 (X)	Seed Source, Inc.	Bz	R	M	73	48	6	93.3	12.3	1.3	51.9	16.8	4641	B-J
AAArg34 x Dorado	Tx. Agri. Exp. Stat.(FM)	W	T	M	78	58	4	85.0	11.7	1.3	54.6	17.5	4552	C-J
A8618 x RTx2783	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	76	50	6	85.0	12.3	0.0	54.7	17.2	4501	D-J
SG-942	Garrison Seed & Co.	Bz	R	ML	69	48	5	86.7	6.7	25.0	57.4	17.6	4463	E-J
AVar x R8505	Tx. Agri. Exp. Stat.(DR)	Wt	T	L	73	57	8	73.3	28.3	1.0	57.7	16.7	4391	F-J
A8618 x R6956	Tx. Agri. Exp. Stat.(FM)	Rt	P	M	82	47	6	75.0	53.3	0.0	57.4	18.0	4328	G-J
AVar x R8504	Tx. Agri. Exp. Stat.(FM)	W	T	M	77	56	7	81.7	21.0	0.0	56.3	16.4	4291	G-J
AAArg34 x 80C2241	Tx. Agri. Exp. Stat.(FM)	W	T	M	72	46	7	66.7	11.0	0.0	54.9	17.0	4166	H-J
ATx631 x 89CC443	Tx. Agri. Exp. Stat.(DR)	Wt	T	ML	77	57	4	96.7	5.0	1.7	53.6	16.5	3840	I-J

Table 2A. GRAIN SORGHUM PERFORMANCE TEST; WESLACO, TEXAS 1991

HYBRID *	COMPANY OR BRAND NAME	GRN CLR **	PLANT COLOR ***	MATU- RITY CLASS ****	DAYS TO 50% FLOWER	PLT. HT., IN.	HEAD EXSER- TION INCHES	% STAND	MIDGE DAM- AGE %	% LODGE	TEST WT. lb/bu	MOIS- TURE %	YIELD lb/A	STAT. SIG., 0.05 *****
A1 x GR107A-90M20	Tx. Agri. Exp. Stat.(GP)	R	P	ML	75	51	6	96.7	30.0	0.0	57.2	18.7	3679	J

TEST MEAN= 5300 TEST C.V.=12.7 LSD .05=1087.0

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 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.

* Pioneer 8313, NC+ Hybrids NC+ 573 and Cargill 837 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(*) indicates 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	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
DEKALB X-061(x)	DEKALB Plant Genetics	1	6184	-	-	-	-
ATx631 x 80c2241	Tx. Agri. Exp. Stat. (FM)	2	6052	56	5506	67	6997
ATx2752 x Tx2738	Tx. Agri. Exp. Stat.	3	6046	-	-	-	-
DEKALB DK-50	DEKALB Plant Genetics	4	6046	10	6020	8	7619
X5011 X	ASGROW SEED CO.	5	6026	-	-	-	-
HSC Cherokee	HyPerformer Seed Co.	6	5993	78	5151	-	-
5319	Garst Seed Co.	7	5943	-	-	19	7508
5392	Garst Seed Co.	8	5929	-	-	-	-
SC-710	SEEDCO Corporation	9	5908	93	4497	-	-
SG-925	Garrison Seed & Co.	10	5898	-	-	47	7261
ORO Baron	ORO Hybrids-R. C. Young Seed Co.	11	5877	79	5130	57	7138
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	12	5849	89	4647	25	7461
SBP 008(X)	Seed Source Inc.	13	5828	-	-	-	-
5503	Garst Seed Co.	14	5815	-	-	-	-
F-524	Frontier Hybrids	15	5814	6	6068	-	-
Rustler	Conlee Seed Co., Inc.	16	5809	29	5774	41	7333
CHECK (8313)		17	5809	48	5568	64	7068
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	18	5787	82	5099	39	7337
GSC-3150	Gro Agri Seed Co.	19	5786	12	5993	30	7432
X4080 X	ASGROW SEED CO.	20	5781	-	-	-	-
dk 760	Douglass W. King Seed Co.	21	5711	58	5484	37	7341
W-917-E	WARNER SEED CO., INC.	22	5669	76	5225	81	6763
DELTAPINE 1710	DELTA AND PINELAND CO.	23	5635	-	-	-	-
TOPAZ	ASGROW SEED CO.	24	5614	-	-	-	-
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	25	5597	59	5461	65	7056

Table 2B. Weslaco, Texas. (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
ORO Zenith	ORO Hybrids-R. C. Young Seed Co.	26	5577	55	5507	-	-
A8606 x R8505	Tx. Agri. Exp. Stat. (FM)	27	5568	-	-	-	-
DELTA PINE 1552	DELTA AND PINELAND CO.	28	5567	-	-	-	-
DELTA PINE 1558	DELTA AND PINELAND CO.	29	5559	77	5187	-	-
ORO Ultra	ORO Hybrids-R. C. Young Seed Co.	30	5547	-	-	-	-
DEKALB DK-37	DEKALB Plant Genetics	31	5514	-	-	-	-
ATx631 x R8505	Tx. Agri. Exp. Stat. (FM)	32	5479	47	5600	50	7208
T-E Y-75	TAYLOR EVANS SEED CO.	33	5458	85	5044	5	7728
NC+ 472	NC+ Hybrids	34	5447	15	5932	-	-
Rio Grande	Western Heritage Seed Co.	35	5435	30	5774	40	7336
AArg34 x R8605	Tx. Agri. Exp. Stat. (FM)	36	5412	-	-	-	-
A1 x R8503	Tx. Agri. Exp. Stat. (DR)	37	5396	5	6089	-	-
2665	Northrup King Co.	38	5355	45	5609	29	7440
SC-705	SEEDCO Corporation	39	5345	31	5770	-	-
NC+ 7B90	NC+ Hybrids	40	5320	32	5760	-	-
HSC Wings	HyPerformer Seed Co.	41	5319	63	5389	-	-
CHECK (NC+ 573)		42	5316	87	5005	-	-
GSC-3148	Gro Agri Seed Co.	43	5295	50	5528	7	7649
ATx399 x RTx430	Tx. Agri. Exp. Stat.	44	5293	66	5358	14	7557
CHECK (837)		45	5284	-	-	-	-
dk 775	Douglass W. King Seed Co.	46	5273	3	6175	26	7460
T-E X9150	TAYLOR EVANS SEED CO.	47	5269	-	-	-	-
ORO Amigo	ORO Hybrids-R. C. Young Seed Co.	48	5265	18	5887	10	7607
A8610 x R8505	Tx. Agri. Exp. Stat. (FM)	49	5262	-	-	-	-
T-E X9140	TAYLOR EVANS SEED CO.	50	5257	-	-	-	-

Table 2B. Weslaco, Texas. (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
ORO G Xtra	ORO Hybrids-R. C. Young Seed Co.	51	5223	36	5716	31	7426
T-E 76	TAYLOR EVANS SEED CO.	52	5217	8	6049	15	7555
dk 780	Douglass W. King Seed Co.	53	5210	64	5389	-	-
ATx378 x RTx430	Tx. Agri. Exp. Stat.	54	5196	72	5301	36	7367
A1 x 86EO361	Tx. Agri. Exp. Stat. (DR)	55	5184	19	5871	-	-
ATx2752 x Tx2864	Tx. Agri. Exp. Stat.	56	5119	-	-	-	-
ATx2752 x GR107A-90M18	Tx. Agri. Exp. Stat. (GP)	57	5116	-	-	-	-
A1 x89CC445	Tx. Agri. Exp. Stat. (DR)	58	5077	-	-	-	-
W-902-W	WARNER SEED CO., INC.	59	5054	-	-	99	4874
A1 X TX2783	Tx. Agri. Exp. Stat. (DR)	60	5049	90	4613	-	-
KS 737	Northrup King Co.	61	5032	37	5714	-	-
A8610 x 80C2241	Tx. Agri. Exp. Stat. (FM)	62	5012	-	-	-	-
T-E 77-E	TAYLOR EVANS SEED CO.	63	5009	16	5910	-	-
ORO Hombre	ORO Hybrids-R. C. Young Seed Co.	64	5005	7	6058	-	-
AArg34 x R8505	Tx. Agri. Exp. Stat. (FM)	65	4963	57	5489	-	-
Rio Bravo	Western Heritage Seed Co.	66	4921	33	5726	68	6968
W-876 DR	WARNER SEED CO., INC.	67	4909	53	5517	59	7113
dk 904W	Douglass W. King Seed Co.	68	4886	-	-	-	-
SC-707	SEEDCO Corporation	69	4874	-	-	-	-
T-E X9160	TAYLOR EVANS SEED CO.	70	4816	-	-	-	-
A1 x (Tx430 x R9188)	Tx. Agri. Exp. Stat. (DR)	71	4801	-	-	-	-
DEKALB DK-56	DEKALB Plant Genetics	72	4782	54	5513	-	-
A1 x GR134A-90M49	Tx. Agri. Exp. Stat. (GP)	73	4720	-	-	-	-
SBP 001(X)	Seed Source Inc.	74	4641	-	-	-	-
AArg34 x Dorado	Tx. Agri. Exp. Stat. (FM)	75	4552	-	-	-	-

Table 2B. Weslaco, Texas. (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
A8618 x RTx2783	Tx. Agri. Exp. Stat. (FM)	76	4501	-	-	-	-
SG-942	Garrison Seed & Co.	77	4463	25	5827	2	7845
AVar x R8505	Tx. Agri. Exp. Stat. (DR)	78	4391	-	-	-	-
A8618 x R6956	Tx. Agri. Exp. Stat. (FM)	79	4328	-	-	-	-
AVar x R8504	Tx. Agri. Exp. Stat. (FM)	80	4291	35	5718	-	-
AAArg34 x 80C2241	Tx. Agri. Exp. Stat. (FM)	81	4166	-	-	-	-
A1 x 89CC443	Tx. Agri. Exp. Stat. (DR)	82	3840	-	-	-	-
A1 x GR107A-90M20	Tx. Agri. Exp. Stat. (GP)	83	3679	-	-	-	-
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	-	-	1	6354	1	7950
ATx626 x R8503	Tx. Agri. Exp. Stat. (FM)	-	-	2	6193	55	7171
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	-	-	4	6097	51	7204
Optima	Big Crop Seed Co.	-	-	9	6025	24	7472
Two 80-D	Triumph Seed Co., Inc.	-	-	11	5997	38	7339
SG-944	Garrison Seed & Co.	-	-	13	5989	17	7542
X15277	Cargill Hybrid Seeds	-	-	14	5962	32	7409
GS 712	ASGROW SEED CO.	-	-	20	5869	43	7301
Maxima	Big Crop Seed Co.	-	-	21	5864	3	7729
8278	Pioneer Hi-Bred Int., Inc.	-	-	24	5829	18	7539
SG-922	Garrison Seed & Co.	-	-	26	5821	21	7506
6670	Cargill Hybrid Seeds	-	-	27	5791	23	7475
GSC-3605	Gro Agri Seed Co.	-	-	28	5786	82	6711
SG-932	Garrison Seed & Co.	-	-	38	5699	72	6909
T-E Ranger	TAYLOR EVANS SEED CO.	-	-	40	5675	63	7075
847	Cargill Hybrid Seeds	-	-	44	5641	62	7078
AVar x 80C2241	Tx. Agri. Exp. Stat. (FM)	-	-	46	5600	86	6550

Table 2B. Weslaco, Texas. (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
X6038 (X)	ASGROW SEED CO.	--	--	49	5566	35	7387
GSC-3146	Gro Agri Seed Co.	--	--	52	5522	34	7390
Wrangler II	Conlee Seed Co., Inc.	--	--	60	5451	46	7268
A1 x R8505	Tx. Agri. Exp. Stat. (DR)	--	--	61	5406	80	6765
Two 70-D	Triumph Seed Co., Inc.	--	--	65	5387	54	7187
A8618 x RTx435	Tx. Agri. Exp. Stat. (FM)	--	--	68	5353	93	5986
A1 x R3224t	Tx. Agri. Exp. Stat. (DR)	--	--	69	5353	83	6688
ATx630 x R3338wx	Tx. Agri. Exp. Stat. (DR)	--	--	70	5342	90	6341
Ole'	Big Crop Seed Co.	--	--	71	5329	77	6817
ST 686	AgriPro Seed Co.	--	--	73	5296	16	7546
dk 776	Douglass W. King Seed Co.	--	--	74	5278	73	6903
ATx631 x R8504	Tx. Agri. Exp. Stat. (FM)	--	--	80	5123	84	6652
9344	RICHARDSON SEEDS, INC.	--	--	81	5105	20	7507
T-E Wahoo	TAYLOR EVANS SEED CO.	--	--	83	5065	75	6847
TS-488	TEXAS SEED CO., INC.	--	--	86	5021	48	7258
TR 65-G	Triumph Seed Co., Inc.	--	--	94	3757	49	7237
Number Entries:		83		96		99	
Test Mean Yield:			5300		5488		7076

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

TABLE 3. AGRONOMIC AND TEST INFORMATION: GREGORY

TEST:	1991 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:	Disked, bedded
DATE PLANTED:	2-28-91 with cone planter
DATE THINNED:	3-26-91; approximately 4-5 plants/foot
PLOT LENGTH:	36'
FERTILIZER:	300 lb/A of 25-8-0 pre-plant; 1 application of iron during the growing season
HERBICIDE:	Banded 1 pt/A AAtrex (atrazine) when grain sorghum was 6" tall
INSECTICIDE:	6 lb/A Furadan at planting. Applied Cygon (dimethoate) at label rate for greenbugs in late April
RAINFALL:	Rainfall was not recorded, but was considered above normal
IRRIGATIONS:	None
DATE HARVESTED:	7-3 & 4-91 by hand
SIZE HARVESTED PLOT:	1/500 acre
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	84
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	2
TEST MEAN:	3,926 lb/A; yields corrected to 13% moisture
TEST C.V.:	11.1 percent

GENERAL INFORMATION: This test site is located in the Texas Coastal Bend which is a major grain sorghum production area of Texas. This site is located in the Eastern portion of San Patricio Co. which usually receives more rainfall than the Western areas of the County.

The test block started with a full soil profile of moisture from fall and winter rains. An earlier than normal planting date was secured and seedling emergence was rapid. Very good plant stands were achieved after thinning. Timely rains throughout the growing season resulted in excellent plant growth and development.

With the use of an insecticide at planting, there was no insect damage. The test mean yield was 3,926 lb/A compared to the past 3-year average of 3,554 lb/A. Smut was not observed in the test block and plant diseases were not a problem. Excellent bushel weights were recorded as presented in the following Table.

Table 3A. GRAIN SORGHUM PERFORMANCE TEST; GREGORY, TEXAS 1991

HYBRID *	COMPANY OR BRAND NAME	GRN CLR **	PLT CLR ***	MATU- RITY CLASS ****	DAYS TO 50% FLOWER	PLT. HT., IN.	HEAD EXSER- TION INCHES	% STAND	MIDGE DAM- AGE %	THRESH- ING %	TEST WT. lb/bu	MOIS- TURE %	YIELD lb/A	STAT. SIG.,, 0.05 *****
8195	Pioneer Hi-Bred Int., Inc	BZ	P	L	77	51	9	100.0	1.0	76.3	56.2	16.4	4797	A
SG-925	Garrison Seed Co.	*	*	*	77	52	9	100.0	0.0	76.2	59.6	16.1	4754	A-B
ATx2752 x Tx2783	Tx. Agri. Exp. Stat.	R	P	ML	77	53	6	100.0	0.0	76.7	60.6	15.9	4659	A-C
Rustler	Conlee Seed Co., Inc.	R	P	M	76	55	8	100.0	0.0	73.8	57.6	16.2	4634	A-D
dk 760	Douglass W. King Co.	R	R	ML	75	54	9	100.0	0.0	73.2	57.5	16.2	4568	A-E
NC+ 7B90	NC+ Hybrids	BZ	*	M	75	52	9	100.0	0.0	73.8	57.3	16.1	4562	A-E
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	RT	P	ML	74	50	11	100.0	0.0	75.2	54.3	15.3	4502	A-E
2665	Northrup King Co.	R	*	ML	76	51	7	100.0	2.5	73.3	57.8	15.9	4484	A-E
XS292	Pioneer Hi-Bred Int., Inc	BZ	P	ML	76	48	7	100.0	1.5	76.0	57.6	15.9	4484	A-E
5319	Garst Seed Co.	BZ	P	ML	76	54	8	100.0	0.0	72.7	57.4	16.1	4482	A-E
TS-488	TEXAS SEED CO.	BZ	R	M	79	51	8	100.0	5.0	74.0	58.6	16.2	4468	A-E
NC+ 472	NC+ Hybrids	BZ	*	M	75	50	10	100.0	0.0	74.6	56.2	16.0	4408	A-F
dk 780	Douglass W. King Co.	R	R	ML	76	53	9	100.0	0.0	75.2	58.7	16.1	4392	A-F
5392	Garst Seed Co.	BZ	P	ML	76	53	9	100.0	0.0	72.5	56.4	16.8	4390	A-F
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	BZ	P	ML	74	53	7	100.0	0.0	74.4	58.6	15.9	4369	A-G
CHECK	Tx. Agri. Exp. Stat.	R	P	ML	76	53	10	100.0	0.0	73.4	57.1	16.4	4366	A-G
GSC-3146	Gro Agri Seed Co.	R	P	M	74	52	13	100.0	1.5	76.1	59.1	16.3	4364	A-G
8313	Pioneer Hi-Bred Int., Inc	BZ	P	ML	74	50	8	100.0	0.0	73.5	58.8	17.2	4337	A-G
DELTAPINE 1710	DELTA AND PINE LAND CO.	BZ	P	ML	77	53	8	100.0	1.5	72.1	57.4	16.7	4321	A-H
AVar x R8505	Tx. Agri. Exp. Stat. (DR)	WT	T	L	77	66	12	100.0	0.0	73.3	58.1	15.7	4316	A-H
847	Cargill Hybrid Seeds	Bz	P	ML	79	49	7	100.0	1.0	74.9	59.2	16.0	4286	A-I
ORD Baron	ORD Hybrids-R.C. Young	RT	R	ML	76	51	8	100.0	2.0	74.2	58.4	16.3	4282	A-I
857	Cargill Hybrid Seeds	Bz	P	ML	80	50	6	100.0	2.0	73.0	57.0	16.5	4277	A-I
DEKALB DK-37	DEKALB Plant Genetics	Bz	P	ME	75	55	10	100.0	0.0	71.2	55.5	16.6	4273	A-I
GSC-1313	Gro Agri Seed Co.	R	P	M	77	50	9	100.0	0.0	75.9	58.6	15.9	4268	A-I
F-524	Frontier Hybrids	BZ	R	ML	76	53	7	90.0	6.0	72.8	56.8	15.7	4225	A-I
A8606 x R8505	Tx. Agri. Exp. Stat. (FM)	W	T	M	79	59	9	100.0	2.5	67.6	56.4	15.8	4211	A-I
ATx2752 x Tx2868	Tx. Agri. Exp. Stat. (GP)	R	P	ML	76	53	9	100.0	0.0	73.1	57.5	16.1	4208	A-I
SC-710	SEEDCO Corporation	R	*	M	77	51	8	100.0	2.5	75.4	59.5	16.0	4199	A-I
SC-705	SEEDCO Corporation	BZ	*	ML	75	52	7	100.0	0.0	73.6	57.8	16.3	4191	A-I
ATx2755 x MR102-90M2	Tx. Agri. Exp. Stat. (GP)	R	P	M	77	52	12	100.0	0.0	69.9	54.9	15.9	4175	A-J
CHECK	Tx. Agri. Exp. Stat.	*	*	*	76	56	11	100.0	0.0	71.5	55.4	16.5	4173	A-J
X5011 X	ASGROW SEED CO.	R	P	ML	81	50	7	92.5	5.0	67.8	54.9	16.2	4160	A-J
HSC-Wings	HyPerformer Seed Co.	BZ	*	ML	76	53	10	95.0	5.0	71.4	57.0	16.1	4132	A-J
KS 737	Northrup King Co.	R	*	ML	74	53	12	100.0	0.0	73.8	57.6	16.5	4123	A-J
HSC-Cherokee	HyPerformer Seed Co.	R	*	M	77	52	9	100.0	0.0	73.4	58.6	16.2	4122	A-J
DELTAPINE 1558	DELTA AND PINE LAND CO.	RT	P	M	77	49	10	100.0	1.5	74.6	59.1	16.9	4107	A-J
dk 776	Douglass W. King Co.	R	R	ML	76	49	9	100.0	0.0	74.5	58.6	15.9	4105	A-J
ORD Ultra	ORD Hybrids-R.C. Young	BZ	P	M	75	51	11	100.0	2.5	72.9	55.0	15.5	4080	A-K
GSC-3148	Gro Agri Seed Co.	R	P	M	76	47	6	100.0	0.0	71.4	55.3	16.4	4079	A-K
T-E RANGER	TAYLOR-EVANS SEED CO.	R	P	ML	75	52	13	100.0	0.0	75.6	58.4	16.2	4072	A-K

Table 3A. GRAIN SORGHUM PERFORMANCE TEST; GREGORY, TEXAS 1991

HYBRID *	COMPANY OR BRAND NAME	GRN CLR **	PLT CLR ***	MATU- RITY CLASS ****	DAYS TO 50% FLOWER	PLT. HT., IN.	HEAD EXSER- TION INCHES	% STAND	MIDGE DAM- AGE %	THRESH- ING %	TEST WT. lb/bu	MOIS- TURE %	YIELD lb/A	STAT. SIG., O.05 *****
SG-942	Garrison Seed Co.	BZ	*	ML	76	54	6	100.0	2.5	75.7	59.3	16.2	4065	A-K
A35 x 89CC445	Tx. Agri. Exp. Stat.(DR)	RT	P	ML	79	51	12	100.0	0.0	64.9	56.9	17.4	4053	A-K
X4080 X	ASGROW SEED CO.	R	P	M	76	48	13	100.0	0.0	71.1	56.2	16.4	4052	A-K
CHECK	Tx. Agri. Exp. Stat.	*	*	*	75	55	11	100.0	0.0	71.9	57.6	16.0	4019	A-L
AAArg34 x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	76	53	10	95.0	0.0	71.8	56.7	15.7	4010	A-L
5521	Garst Seed Co.	BZ	P	M	75	53	11	100.0	0.0	67.3	53.2	16.0	3993	A-L
T-E Y-75	TAYLOR-EVANS SEED CO.	RT	P	ML	77	50	7	100.0	1.0	74.2	58.6	15.8	3993	A-L
ATx399 x RTx430	Tx. Agri. Exp. Stat.	BZ	P	ML	74	51	12	92.5	0.0	70.9	54.5	15.8	3983	A-L
ORO Amigo	ORO Hybrids-R.C. Young	BZ	P	ML	76	54	8	100.0	2.5	70.6	57.3	16.2	3972	A-M
ATx631 x 80C2241	Tx. Agri. Exp. Stat.(FM)	W	T	M	81	60	10	100.0	3.5	68.0	55.4	16.5	3960	A-M
837	Cargill Hybrid Seeds	Bz	P	ML	81	54	8	92.5	2.5	67.2	55.1	16.2	3950	A-M
GSC-3150	Gro Agri Seed Co.	BZ	P	ML	76	53	8	100.0	2.5	71.1	57.8	16.0	3950	A-M
ATx631 x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	82	59	12	100.0	5.0	67.6	56.0	16.3	3930	A-M
A1 x R8503	Tx. Agri. Exp. Stat.(DR)	RT	P	ML	81	57	7	100.0	0.0	64.9	54.6	17.0	3915	A-M
ATx2752 x Tx2864	Tx. Agri. Exp. Stat.	R	P	ML	76	48	7	97.5	1.0	69.5	55.3	15.7	3894	B-M
A35 x R8503	Tx. Agri. Exp. Stat.(DR)	RT	P	ML	78	53	12	100.0	0.0	65.9	55.7	17.4	3853	B-M
DEKALB DK-56	DEKALB Plant Genetics	R	P	ML	82	56	9	100.0	2.5	67.1	56.0	17.7	3842	C-M
A35 x R8505	Tx. Agri. Exp. Stat.(DR)	RT	P	ML	77	61	16	100.0	0.0	67.8	56.3	16.7	3805	C-M
AAArg34 x 80C2241	Tx. Agri. Exp. Stat.(FM)	W	T	M	77	52	10	100.0	0.0	72.0	55.6	15.5	3791	C-M
ATx2755 x MR120-90M8	Tx. Agri. Exp. Stat.(GP)	R	P	M	76	70	14	100.0	0.0	67.7	58.2	17.7	3787	C-M
T-E X9160	TAYLOR-EVANS SEED CO.	BZ	P	ML	76	51	8	100.0	3.5	72.4	58.1	16.6	3784	C-M
T-E RIO	TAYLOR-EVANS SEED CO.	BZ	P	M	75	50	10	97.5	0.0	70.3	54.2	15.6	3779	C-M
A1 x (Tx430 x R9188)	Tx. Agri. Exp. Stat.(DR)	WT	P	ML	75	55	10	100.0	0.0	65.3	53.8	15.6	3766	C-M
ORO Zenith	ORO Hybrids-R.C. Young	RT	P	ML	74	50	13	100.0	0.0	74.9	58.5	15.7	3755	D-M
A35 x (Tx430 x R9188)	Tx. Agri. Exp. Stat.(DR)	RT	P	ML	78	52	14	100.0	0.0	65.3	55.3	17.6	3700	E-M
AAArg34 x R8605	Tx. Agri. Exp. Stat.(FM)	W	T	M	77	52	10	100.0	0.0	71.7	55.6	15.2	3697	E-M
DELTAPINE 1552	DELTA AND PINE LAND CO.	Bz	P	M	81	53	8	100.0	5.0	67.5	55.9	16.4	3522	F-M
ATx378 x RTx430	Tx. Agri. Exp. Stat.	BZ	P	ML	75	60	11	100.0	0.0	72.6	56.2	16.0	3516	F-M
8379	Pioneer Hi-Bred Int., Inc	BZ	P	ML	74	50	11	100.0	1.0	74.3	59.4	16.7	3476	G-M
SC-707	SEEDCO Corporation	CT	*	M	74	55	11	100.0	0.0	75.6	55.9	15.7	3432	H-N
A1 x Tx2783	Tx. Agri. Exp. Stat.(DR)	RT	P	L	84	57	7	100.0	5.0	65.6	58.5	17.4	3409	I-N
ATx631 x R8511	Tx. Agri. Exp. Stat.(FM)	W	T	M	80	61	10	100.0	8.5	64.5	56.0	16.4	3388	I-O
A8610 x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	82	60	10	100.0	12.5	62.1	55.5	16.1	3285	J-O
ATx2752 x GR107-90M20	Tx. Agri. Exp. Stat.(GP)	R	P	ML	78	54	11	100.0	5.0	68.4	59.0	16.6	3187	K-O
A1 x Tx2864	Tx. Agri. Exp. Stat.(GP)	W	P	ML	82	51	5	100.0	2.5	60.1	53.1	15.4	3156	L-O
A35 x Tx2783	Tx. Agri. Exp. Stat.(DR)	RT	P	ML	82	58	9	100.0	10.0	67.0	58.5	17.8	3089	M-P
A8610 x 80C2241	Tx. Agri. Exp. Stat.(FM)	W	T	M	82	60	9	92.5	26.0	55.0	54.8	15.8	2618	N-Q
AVar x R8504	Tx. Agri. Exp. Stat.(FM)	W	T	M	83	61	9	100.0	22.5	57.3	56.0	16.8	2588	O-Q
A1 x GR134A-90M49	Tx. Agri. Exp. Stat.(GP)	W	P	ML	81	56	7	100.0	12.5	57.0	52.6	15.8	2373	P-Q
AAArg34 x Dorado	Tx. Agri. Exp. Stat.(FM)	W	T	M	83	61	6	100.0	37.5	59.0	56.5	17.1	2167	Q
A8618 x R6956	Tx. Agri. Exp. Stat.(FM)	RT	P	M	88	52	10	100.0	30.0	53.9	56.9	16.6	1975	Q

Table 3A. GRAIN SORGHUM PERFORMANCE TEST; GREGORY, TEXAS 1991

HYBRID *	COMPANY OR BRAND NAME	GRN CLR **	PLT CLR ***	MATU- RITY CLASS ****	DAYS TO 50% FLOWER	PLT. HT., IN.	HEAD EXSER- TION INCHES	% STAND	MIDGE DAM- AGE %	THRESH- ING %	TEST WT. lb/bu	MOIS- TURE %	YIELD lb/A	STAT. SIG., 0.05 *****
A8618 x RTx2783	Tx. Agri. Exp. Stat.(FM)	RT	R	M	88	52	5	100.0	80.0	36.3	51.4	16.1	982	R

TEST MEAN= 3926 TEST C.V.=11.1 LSD .05=700.1

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.

* ASGROW Topaz, Conlee 36113 and Mitchell YG-76 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(*) indicates 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	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
8195	Pioneer Hi-Bred Int., Inc.	1	4797	-	-	-	-
SG-925	Garrison Seed & Co.	2	4754	-	-	33	3174
ATx2752 x Tx2783	Tx. Agri. Exp. Stat.	3	4659	-	-	-	-
Rustler	Conlee Seed Co., Inc.	4	4634	47	3686	71	2726
dk 760	Douglass W. King Seed Co.	5	4568	2	4299	53	2941
NC+ 7B90	NC+ Hybrids	6	4562	-	-	-	-
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	7	4502	57	3624	68	2744
2665	Northrup King Co.	8	4484	77	3271	40	3107
XS292	Pioneer Hi-Bred Int., Inc.	9	4484	-	-	-	-
5319	Garst Seed Co.	10	4482	74	3372	19	3384
TS-488	TEXAS SEED CO., INC.	11	4468	4	4277	66	2797
NC+ 472	NC+ Hybrids	12	4408	27	3828	-	-
dk 780	Douglass W. King Seed Co.	13	4392	1	4360	-	-
5392	Garst Seed Co.	14	4390	-	-	-	-
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	15	4369	67	3492	82	2588
CHECK (TOPAZ)		16	4366	-	-	51	2971
GSC-3146	Gro Agri Seed Co.	17	4364	66	3506	12	3569
8313	Pioneer Hi-Bred Int., Inc.	18	4337	69	3471	29	3247
DELTAPINE 1710	DELTA AND PINELAND CO.	19	4321	-	-	-	-
AVar x R8505	Tx. Agri. Exp. Stat. (DR)	20	4316	-	-	-	-
847	Cargill Hybrid Seeds	21	4286	44	3704	35	3159
ORO Baron	ORO Hybrids-R. C. Young Seed Co.	22	4282	24	3897	17	3423
857	Cargill Hybrid Seeds	23	4277	-	-	-	-
DEKALB DK-37	DEKALB Plant Genetics	24	4273	17	3997	-	-
GSC-1313	Gro Agri Seed Co.	25	4268	46	3686	77	2661

Table 3B. Gregory, Texas. (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
F-524	Frontier Hybrids	26	4225	-	-	-	-
A8606 x R8505	Tx. Agri. Exp. Stat. (FM)	27	4211	-	-	-	-
ATx2752 x Tx2868	Tx. Agri. Exp. Stat. (GP)	28	4208	-	-	-	-
SC-710	SEEDCO Corporation	29	4199	10	4143	-	-
SC-705	SEEDCO Corporation	30	4191	59	3605	-	-
ATx2755 x MR102-90M2	Tx. Agri. Exp. Stat. (GP)	31	4175	-	-	-	-
CHECK (Conlee 36113)		32	4173	-	-	-	-
X5011 X	ASGROW SEED CO.	33	4160	-	-	-	-
HSC Wings	HyPerformer Seed Co.	34	4132	58	3611	48	3006
KS 737	Northrup King Co.	35	4123	54	3631	27	3277
HSC Cherokee	HyPerformer Seed Co.	36	4122	16	4038	65	2817
DELTAPINE 1558	DELTA AND PINELAND CO.	37	4107	5	4234	56	2914
dk 776	Douglass W. King Seed Co.	38	4105	7	4229	63	2849
ORO Ultra	ORO Hybrids-R. C. Young Seed Co.	39	4080	-	-	-	-
GSC-3148	Gro Agri Seed Co.	40	4079	3	4277	8	3591
T-E\ Ranger	TAYLOR EVANS SEED CO.	41	4072	78	3269	47	3025
SG-942	Garrison Seed & Co.	42	4065	-	-	-	-
A35 x 89CC445	Tx. Agri. Exp. Stat. (DR)	43	4053	-	-	-	-
X4080 X	ASGROW SEED CO.	44	4052	-	-	-	-
CHECK (YG-76)		45	4019	13	4062	30	3244
AAArg34 x R8505	Tx. Agri. Exp. Stat. (FM)	46	4010	36	3798	-	-
5521	Garst Seed Co.	47	3993	-	-	-	-
T-E Y-75	TAYLOR EVANS SEED CO.	48	3993	8	4207	75	2688
ATx399 x RTx430	Tx. Agri. Exp. Stat.	49	3983	51	3652	28	3255
ORO Amigo	ORO Hybrids-R. C. Young Seed Co.	50	3972	23	3901	-	-

Table 3B. Gregory, Texas. (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
ATx631 x 80C2241	Tx. Agri. Exp. Stat. (FM)	51	3960	86	3049	80	2623
837	Cargill Hybrid Seeds	52	3950	--	--	--	--
GSC-3150	Gro Agri Seed Co.	53	3950	--	--	--	--
ATx631 x R8505	Tx. Agri. Exp. Stat. (FM)	54	3930	75	3314	70	2733
A1 x R8503	Tx. Agri. Exp. Stat. (DR)	55	3915	60	3601	--	--
ATx2752 x Tx2864	Tx. Agri. Exp. Stat.	56	3894	--	--	--	--
A35 x R8503	Tx. Agri. Exp. Stat. (DR)	57	3853	--	--	--	--
DEKALB DK-56	DEKALB Plant Genetics	58	3842	15	4055	64	2848
A35 x R8505	Tx. Agri. Exp. Stat. (DR)	59	3805	63	3533	--	--
AArg34 x 80C2241	Tx. Agri. Exp. Stat. (FM)	60	3791	--	--	--	--
ATx2755 x MR120-90M8	Tx. Agri. Exp. Stat. (GP)	61	3787	--	--	--	--
T-E X9160	TAYLOR EVANS SEED CO.	62	3784	--	--	--	--
T-E Rio	TAYLOR EVANS SEED CO.	63	3779	--	--	--	--
A1 x (Tx430 x R9188)	Tx. Agri. Exp. Stat. (DR)	64	3766	--	--	--	--
ORO Zenith	ORO Hybrids-R. C. Young Seed Co.	65	3755	--	--	--	--
A35 x (Tx430 x R9188)	Tx. Agri. Exp. Stat. (DR)	66	3700	--	--	--	--
AArg34 x R8605	Tx. Agri. Exp. Stat. (FM)	67	3697	--	--	--	--
DELTAPINE 1552	DELTA AND PINELAND CO.	68	3522	--	--	--	--
ATx378 x RTx430	Tx. Agri. Exp. Stat.	69	3516	72	3405	4	3670
8379	Pioneer Hi-Bred Int., Inc.	70	3476	29	3823	--	--
SC-707	SEEDCO Corporation	71	3432	--	--	--	--
A1 x Tx2783	Tx. Agri. Exp. Stat. (DR)	72	3409	85	3073	--	--
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	73	3388	21	3952	94	2110
0A8610 x R8505	Tx. Agri. Exp. Stat. (FM)	74	3285	--	--	--	--
ATx2752 x GR107-90M20	Tx. Agri. Exp. Stat. (GP)	75	3187	--	--	--	--

Table 3B. Gregory, Texas. (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
A1 x Tx2864	Tx. Agri. Exp. Stat. (GP)	76	3156	-	-	37	3118
A35 x Tx2783	Tx. Agri. Exp. Stat. (DR)	77	3089	-	-	-	-
A8610 x 80C2241	Tx. Agri. Exp. Stat. (FM)	78	2618	-	-	-	-
AVar x R8504	Tx. Agri. Exp. Stat. (FM)	79	2588	37	3788	-	-
A1 x GR134A-90M49	Tx. Agri. Exp. Stat. (GP)	80	2373	-	-	-	-
AArg34 x Dorado	Tx. Agri. Exp. Stat. (FM)	81	2167	-	-	-	-
A8618 x R6956	Tx. Agri. Exp. Stat. (FM)	82	1975	-	-	-	-
A8618 x RTx2783	Tx. Agri. Exp. Stat. (FM)	83	982	-	-	-	-
SG-932	Garrison Seed & Co.	-	-	9	4194	14	3501
A1 x R8505	Tx. Agri. Exp. Stat. (DR)	-	-	14	4060	73	2720
Wrangler II	Conlee Seed Co., Inc.	-	-	19	3980	18	3404
ORO G Xtra	ORO Hybrids-R. C. Young Seed Co.	-	-	26	3873	43	3064
GS 712	ASGROW SEED CO.	-	-	28	3823	72	2722
T-E 77-E	TAYLOR EVANS SEED CO.	-	-	32	3810	1	3922
ST D701G	AgriPro Seed Co.	-	-	33	3809	22	3365
DEKALB M-572-G	DEKALB Plant Genetics	-	-	38	3783	36	3127
Ole'	Big Crop Seed Co.	-	-	40	3772	34	3162
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	-	-	42	3749	25	3309
T-E 76	TAYLOR EVANS SEED CO.	-	-	43	3707	44	3041
AG-233	TEXAS SEED CO., INC.	-	-	45	3703	61	2867
X6038 (X)	ASGROW SEED CO.	-	-	48	3681	52	2942
8278	Pioneer Hi-Bred Int., Inc.	-	-	49	3679	31	3237
6670	Cargill Hybrid Seeds	-	-	50	3664	23	3336
AVar x 80C2241	Tx. Agri. Exp. Stat. (FM)	-	-	53	3633	96	2022
Optima	Big Crop Seed Co.	-	-	56	3626	38	3117

Table 3B. Gregory, Texas. (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
A1 x Tx435	Tx. Agri. Exp. Stat. (DR)	—	—	62	3556	15	3465
ATx626 x R8503	Tx. Agri. Exp. Stat. (FM)	—	—	64	3518	91	2351
X15277	Cargill Hybrid Seeds	—	—	65	3510	85	2557
dk 775	Douglass W. King Seed Co.	—	—	70	3423	42	3072
Maxima	Big Crop Seed Co.	—	—	71	3414	45	3035
A35 x Tx430	Tx. Agri. Exp. Stat. (DR)	—	—	73	3378	9	3575
A1 x Tx2737	Tx. Agri. Exp. Stat. (DR)	—	—	76	3310	87	2534
A4R x Tx430	Tx. Agri. Exp. Stat.	—	—	80	3162	49	2988
ATx631 x R8504	Tx. Agri. Exp. Stat. (FM)	—	—	82	3134	74	2694
A8618 x RTx435	Tx. Agri. Exp. Stat.	—	—	83	3097	78	2640
A1 x Tx2794	Tx. Agri. Exp. Stat. (DR)	—	—	84	3076	55	2935
ATx630 x R3338wx	Tx. Agri. Exp. Stat. (DR)	—	—	88	2397	83	2577
Number Entries:		83		89		96	
Test Mean Yield:			3926		3669		3005

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

TABLE 4. AGRONOMIC AND TEST INFORMATION: HONDO

TEST:	1991 Irrigated Grain Sorghum Performance Test
LOCATION:	Vandenburg Farms; Wayne and Pat Stein, Hondo, Texas
COOPERATORS:	Wayne and Pat Stein, Wayne Scholtz, John Northcut, 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, and applied fertilizer in December
DATE PLANTED:	3-7-91, by hand, using JD80 Planter
DATE THINNED:	4-3-91, thinned by hand to approximately 5-6 plants/foot
PLOT LENGTH:	30'
FERTILIZER:	Applied 210 lb/A of 8-24-0-5 with Zn and Mn in December, sidedress 150 lb/A of 82-0-0 in April
HERBICIDE:	None
INSECTICIDE:	3.5 lb/A Counter (terbufos)
RAINFALL:	March = 1.0"; April = 4.75"; May = 5.0"; June = 2.5"; July = 1.5"; Total = 14.75"
IRRIGATIONS:	1 application of approximately 2" in June
DATE HARVESTED:	7-24 & 25-91 by hand
SIZE HARVESTED PLOT:	1/500 acre
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	62
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	2
TEST MEAN:	5,235 lb/A; yields corrected to 13% moisture
TEST C.V.:	5.0 %

GENERAL INFORMATION: An early planting date, ample rainfall, and good plant stands were contributing factors that resulted in above normal yields at the test site. The test block was planted approximately 10 days earlier than usual. Warm temperatures and excellent soil moisture resulted in rapid seedling emergence. Plant stands achieved after thinning were good. Timely rainfall in April and May enhanced plant growth and development. Only one irrigation was applied to the test block in June which insured grain fill.

The test mean yield was 5,235 lb/A compared to the past 5-year average of 4,708 lb/A. Excellent bushel weights were recorded with the range being from 54.7 lb/bu to 61.8 lb/bu. A leaf disease rating was taken at harvest and presented in the following Table. It appears the late season disease had little impact on yield although some of the test weights were somewhat low.

TABLE 4A. GRAIN SORGHUM PERFORMANCE TEST;HONDO, TEXAS 1991

HYBRID 1	COMPANY OR BRAND NAME	GRN CLR 2	PLANT COLOR 3	MATU- RITY CLASS 4	DAYS TO 50% FLOWER	PLANT HT., IN.	HEAD EXSER- TION INCHES	% STAND	LEAF DISEASE RATING 5	% LODGE	TEST WT. lb/bu	MOIS- TURE %	YIELD lb/A	STAT. SIG., 0.05 6
A4R x Tx430	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	84	50	8	97.5	2.0	0.0	59.4	14.6	6315	A
5319	Garst Seed Co.	Bz	P	ML	82	51	2	92.5	2.5	0.3	58.6	14.3	5983	A-B
dk 760	Douglass W. King Co.	R	R	ML	81	54	6	92.5	2.5	0.0	58.8	14.5	5938	A-C
Rustler	Conlee Seed Co., Inc.	R	*	M	83	53	6	92.5	2.5	2.7	59.5	14.4	5840	B-D
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	M	82	55	6	95.0	2.5	1.7	59.1	14.4	5828	B-D
ATx378 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	M	82	58	6	92.5	2.0	3.3	58.5	14.5	5783	B-E
HM2250	Harvest Master Seed Co.	Bz	R	L	82	53	5	95.0	2.0	2.0	58.7	14.4	5772	B-F
HSC Wings	HyPerformer Seed Co.	Bz	*	ML	83	52	4	92.5	2.0	0.7	59.5	14.4	5758	B-F
2665	Northrup King Co.	R	*	ML	82	49	4	95.0	2.0	1.0	59.5	13.9	5756	B-F
F-524	Frontier Hybrids	Bz	R	ML	83	53	5	95.0	2.0	0.7	59.4	14.4	5714	B-G
857	Cargill Hybrid Seeds	Bz	P	ML	84	49	5	97.5	3.0	0.0	59.7	14.9	5703	B-G
837	Cargill Hybrid Seeds	Bz	P	ML	83	50	6	100.0	3.0	0.0	58.3	14.5	5654	B-H
847	Cargill Hybrid Seeds	Bz	P	ML	83	50	5	97.5	5.0	0.0	60.7	13.4	5639	B-I
8313	Pioneer Hi-Bred Int.,Inc	Bz	P	ML	81	48	5	100.0	2.5	0.0	60.1	14.9	5613	B-J
DELTAPINE 1506	DELTA AND PINE LAND CO.	Ct	P	M	82	59	9	95.0	2.0	6.7	58.5	15.1	5603	B-J
A1 x Tx430	Tx. Agri. Exp. Stat.(DR)	Wt	P	ML	83	53	5	95.0	2.0	0.0	58.1	14.4	5579	B-K
TOPAZ	Asgrow Seed Co.	R	P	ML	82	49	7	82.5	2.0	0.0	60.1	14.3	5535	B-L
dk 904W	Douglass W. King Co.	Ct	T	M	82	54	7	95.0	3.0	1.7	59.3	14.6	5532	B-L
AVar x R8504	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	86	58	6	90.0	1.0	0.0	61.8	14.3	5527	B-L
ORO Amigo	ORO Hybrids-R.C. Young	Bz	P	ML	82	53	5	97.5	2.5	0.0	58.7	14.3	5504	B-L
TS-488	TEXAS SEED CO., INC.	Bz	P	M	83	51	5	90.0	5.0	0.0	60.4	13.5	5492	B-L
dk 776	Douglass W. King Co.	R	R	ML	82	52	6	90.0	6.0	0.0	59.6	13.5	5479	B-M
AAArg34 x Dorado	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	85	64	5	77.5	1.0	5.0	60.5	14.0	5431	C-N
ATx631 x R8511	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	85	58	2	82.5	1.0	10.0	59.9	14.5	5424	C-N
T-E Y-75	TAYLOR EVANS SEED CO.	Rt	P	ML	83	52	4	95.0	5.0	0.0	60.0	13.6	5395	D-N
DELTAPINE 1558	DELTA AND PINE LAND CO.	Rt	P	M	83	47	5	92.5	2.5	0.0	60.4	14.3	5382	D-N
X5020 X	Asgrow Seed Co.	R	P	ML	85	45	2	100.0	3.0	0.0	58.7	14.4	5343	D-N
HSC Cherokee	HyPerformer Seed Co.	R	*	M	83	50	6	92.5	5.0	0.0	60.4	13.4	5340	D-N
ATx399 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	M	82	50	7	92.5	3.5	0.0	55.7	13.4	5312	D-O
HM2280	Harvest Master Seed Co.	R	R	ML	83	51	5	95.0	5.5	0.0	60.3	13.6	5293	E-O
T-E X9150	TAYLOR EVANS SEED CO.	R	P	ML	83	48	4	100.0	3.0	0.0	59.0	14.5	5261	E-P
T-E X9140	TAYLOR EVANS SEED CO.	R	P	L	82	55	7	95.0	2.0	8.3	60.0	15.1	5254	E-P
HM3200	Harvest Master Seed Co.	Ct	T	ML	82	58	12	100.0	2.0	0.0	58.5	14.9	5248	F-P
A8606 x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	86	57	4	87.5	1.0	0.0	59.7	14.5	5222	G-Q
8195	Pioneer Hi-Bred Int.,Inc	Bz	P	L	84	49	6	97.5	5.5	0.0	57.7	14.1	5220	G-Q
dk 780	Douglass W. King Co.	R	R	ML	83	51	5	92.5	4.5	0.0	60.2	13.7	5191	G-Q
ATx631 x 86E0N361	Tx. Agri. Exp. Stat.(DR)	W	T	L	86	59	5	100.0	1.0	2.7	60.4	14.8	5171	H-R
ATx631 x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	85	60	4	95.0	1.0	8.3	60.0	14.5	5155	H-R
Check	Tx. Agri. Exp. Stat.	Ct	P	M	81	56	7	90.0	3.5	15.0	58.3	14.6	5116	I-S
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	Rt	P	ML	82	45	6	95.0	3.0	0.0	54.9	13.7	5100	J-S
ORO Hombre	ORO Hybrids-R.C. Young	R	P	ML	83	48	4	97.5	3.5	0.0	54.7	13.4	5090	J-S
A35 x Tx2862	Tx. Agri. Exp. Stat.	R	P	M	84	53	7	97.5	2.5	0.0	59.7	15.6	5069	K-S
XS292	Pioneer Hi-Bred Int.,Inc	Bz	P	ML	83	48	7	97.5	8.5	0.0	58.2	13.7	5034	L-S

TABLE 4A. GRAIN SORGHUM PERFORMANCE TEST; HONDO, TEXAS 1991

HYBRID 1	COMPANY OR BRAND NAME	GRN CLR 2	PLANT COLOR 3	MATU- RITY CLASS 4	DAYS TO 50% FLOWER	PLANT HT., IN.	HEAD EXSER- TION INCHES	% STAND	LEAF DISEASE RATING 5	% LODGE	TEST WT. lb/bu	MOIS- TURE %	YIELD lb/A	STAT. SIG., 0.05 6
T-E RANGER Check	TAYLOR EVANS SEED CO. Tx. Agri. Exp. Stat.	R Bz	P P	ML ME	81 79	52 52	9 10	92.5 97.5	4.0 2.0	0.0 13.3	58.9 57.8	13.9 14.2	5021 5014	L-S L-S
KS 714Y	Northrup King Co.	Ct	*	M	79	53	8	92.5	7.5	8.3	58.8	13.8	5010	L-S
DEKALB DK-56	DEKALB Plant Genetics	R	P	ML	85	53	7	92.5	2.0	0.7	59.7	15.1	5004	L-S
KS 737	Northrup King Co.	R	*	ML	80	52	8	95.0	7.0	8.3	58.2	14.3	4952	M-T
ATx631 x 80C2241	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	85	57	4	92.5	1.0	3.3	59.5	14.5	4939	N-T
A35 x GR107A-90M19	Tx. Agri. Exp. Stat.(GP)	W	P	M	83	58	9	100.0	2.5	0.7	59.5	14.6	4933	N-T
ORO Zenith	ORO Hybrids-R.C. Young	Rt	P	ML	82	51	9	90.0	4.0	0.0	58.4	13.9	4909	N-U
A8610 x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	86	57	3	75.0	1.0	0.0	59.8	14.5	4798	D-V
AArg34 x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	84	51	6	70.0	2.0	0.0	59.2	13.9	4755	P-V
T-E X9160	TAYLOR EVANS SEED CO.	Bz	P	ML	83	48	5	92.5	3.0	0.0	59.7	14.5	4706	Q-V
AArg34 x 80C2241	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	84	51	6	87.5	2.0	0.0	58.4	13.6	4658	R-V
8379	Pioneer Hi-Bred Int., Inc	Bz	P	ML	80	50	9	92.5	4.5	0.0	60.1	14.3	4656	R-V
A8618 x R6956	Tx. Agri. Exp. Stat.(FM)	Rt	P	M	89	47	6	77.5	1.0	0.0	60.5	14.2	4606	S-V
A8610 x 80C2241	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	86	53	3	67.5	1.0	0.0	59.2	14.4	4487	T-V
AArg34 x R8605	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	84	50	6	85.0	2.0	0.0	58.8	13.6	4486	T-V
Check	Tx. Agri. Exp. Stat.	Wt	T	ML	86	56	4	90.0	1.0	4.3	59.9	14.6	4406	U-V
A35 x GR107A-90M20	Tx. Agri. Exp. Stat.(GP)	R	P	M	85	54	9	97.5	2.5	1.7	60.2	16.9	4303	V
A8618 x RTx2783	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	89	48	2	75.0	1.0	0.0	60.0	13.8	3347	W

TEST MEAN= 5235 TEST C.V.= 5.0 LSD .05=423.5

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.

1 ORO Hybrid ORO Ivory, DEKALB DK-37 and Warner W-902W were entered as commercial check hybrids at our discretion. They are intended to be used for comparison purposes only.

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(*) indicates 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

5 Leaf disease ratings were taken at harvest by Dennis Pietsch and Wayne Scholtz, County Extension Agent, Medina County. Rating scale is as follows:

1 = Resistant -- no disease,
10 = Death of leaves or plant due to disease.

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

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

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	1	6315	3	5629	1	5976
5319	Garst Seed Co.	2	5983	-	-	-	-
dk 760	Douglass W. King Seed Co.	3	5938	26	4869	26	5435
Rustler	Conlee Seed Co., Inc.	4	5840	43	4560	10	5718
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	5	5828	58	4339	37	5137
ATx378 x RTx430	Tx. Agri. Exp. Stat.	6	5783	24	4890	46	4978
HM2250	Harvest Master Seed Co.	7	5772	-	-	-	-
HSC Wings	HyPerformer Seed Co.	8	5758	6	5415	34	5196
2665	Northrup King Co.	9	5756	-	-	-	-
F-524	Frontier Hybrids	10	5714	28	4816	30	5269
857	Cargill Hybrid Seeds	11	5703	-	-	-	-
837	Cargill Hybrid Seeds	12	5654	-	-	-	-
847	Cargill Hybrid Seeds	13	5639	5	5548	9	5728
8313	Pioneer Hi-Bred Int., Inc.	14	5613	13	5240	28	5300
DELTAPINE 1506	DELTA AND PINELAND CO.	15	5603	-	-	-	-
A1 X TX430	Tx. Agri. Exp. Stat. (DR)	16	5579	61	4095	33	5202
TOPAZ	ASGROW SEED CO.	17	5535	-	-	16	5643
dk 904W	Douglass W. King Seed Co.	18	5532	-	-	-	-
AVar x R8504	Tx. Agri. Exp. Stat. (FM)	19	5527	65	3628	-	-
ORO Amigo	ORO Hybrids-R. C. Young Seed Co.	20	5504	25	4885	38	5136
TS-488	TEXAS SEED CO., INC.	21	5492	1	5779	12	5692
dk 776	Douglass W. King Seed Co.	22	5479	4	5556	40	5129
AArg34 x Dorado	Tx. Agri. Exp. Stat. (FM)	23	5431	-	-	-	-
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	24	5424	23	4928	41	5107
T-E Y-75	TAYLOR EVANS SEED CO.	25	5395	47	4486	17	5594
DELTAPINE 1558	DELTA AND PINELAND CO.	26	5382	16	5125	-	-
X5020 X	ASGROW SEED CO.	27	5343	-	-	-	-
HSC Cherokee	HyPerformer Seed Co.	28	5340	36	4651	5	5789
ATx399 x RTx430	Tx. Agri. Exp. Stat.	29	5312	44	4531	15	5651

Table 4B. Hondo, Texas. (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
HM2280	Harvest Master Seed Co.	30	5293	-	-	-	-
T-E X9150	TAYLOR EVANS SEED CO.	31	5261	-	-	-	-
T-E X9140	TAYLOR EVANS SEED CO.	32	5254	-	-	-	-
HM3200	Harvest Master Seed Co.	33	5248	-	-	-	-
A8606 x R8505	Tx. Agri. Exp. Stat. (FM)	34	5222	-	-	-	-
8195	Pioneer Hi-Bred Int., Inc.	35	5220	-	-	-	-
dk 780	Douglass W. King Seed Co.	36	5191	2	5696	-	-
ATx631 x 86EON361	Tx. Agri. Exp. Stat. (DR)	37	5171	-	-	-	-
ATx631 x R8505	Tx. Agri. Exp. Stat. (FM)	38	5155	60	4327	31	5249
CHECK (ORO Ivory)		39	5116	-	-	-	-
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	40	5100	52	4436	27	5320
ORO Hombre	ORO Hybrids-R. C. Young Seed Co.	41	5090	-	-	-	-
A35 x Tx2862	Tx. Agri. Exp. Stat.	42	5069	-	-	-	-
XS292	Pioneer Hi-Bred Int., Inc.	43	5034	-	-	-	-
T-E Ranger	TAYLOR EVANS SEED CO.	44	5021	7	5412	25	5439
CHECK (DK-37)		45	5014	-	-	-	-
KS 714Y	Northrup King Co.	46	5010	35	4681	-	-
DEKALB DK-56	DEKALB Plant Genetics	47	5004	-	-	-	-
KS 737	Northrup King Co.	48	4952	-	-	-	-
ATx631 x 80C2241	Tx. Agri. Exp. Stat. (FM)	49	4939	57	4369	29	5283
A35 x GR107-90M19	Tx. Agri. Exp. Stat. (GP)	50	4933	-	-	-	-
ORO Zenith	ORO Hybrids-R. C. Young Seed Co.	51	4909	-	-	-	-
A8610 x R8505	Tx. Agri. Exp. Stat. (FM)	52	4798	-	-	-	-
AAArg34 x R8505	Tx. Agri. Exp. Stat. (FM)	53	4755	31	4759	-	-
T-E X9160	TAYLOR EVANS SEED CO.	54	4706	-	-	-	-
AAArg34 x 80C2241	Tx. Agri. Exp. Stat. (FM)	55	4658	-	-	-	-
8379	Pioneer Hi-Bred Int., Inc.	56	4656	18	5038	-	-
A8618 x R6956	Tx. Agri. Exp. Stat. (FM)	57	4606	-	-	-	-

Table 4B. Hondo, Texas. (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
A8610 x 80C2241	Tx. Agri. Exp. Stat. (FM)	58	4487	-	-	-	-
AAArg34 x R8605	Tx. Agri. Exp. Stat. (FM)	59	4486	-	-	-	-
CHECK (W-902W)		60	4406	-	-	-	-
A35 x GR107A-90M20	Tx. Agri. Exp. Stat. (GP)	61	4303	-	-	-	-
A8618 x RTx2783	Tx. Agri. Exp. Stat. (FM)	62	3347	-	-	-	-
ST 686	AgriPro Seed Co.	-	-	9	5366	6	5769
T-E 76	TAYLOR EVANS SEED CO.	-	-	14	5227	3	5820
KS 780	Northrup King Co.	-	-	15	5202	2	5875
OSAGE	ASGROW SEED CO.	-	-	19	5017	53	4847
ORO G Xtra	ORO Hybrids-R. C. Young Seed Co.	-	-	20	5013	24	5482
GS 712	ASGROW SEED CO.	-	-	30	4766	11	5696
ATx626 x R8503	Tx. Agri. Exp. Stat. (FM)	-	-	32	4732	64	4037
X6038 (X)	ASGROW SEED CO.	-	-	34	4709	49	4960
8278	Pioneer Hi-Bred Int., Inc.	-	-	40	4580	35	5166
A8618 x RTx435	Tx. Agri. Exp. Stat. (FM)	-	-	41	4578	32	5215
W-632-W	WARNER SEED CO., INC.	-	-	50	4470	57	4727
dk 775	Douglass W. King Seed Co.	-	-	51	4456	56	4763
ORO Baron	ORO Hybrids-R. C. Young Seed Co.	-	-	53	4424	18	5582
6670	Cargill Hybrid Seeds	-	-	56	4394	14	5656
X15277	Cargill Hybrid Seeds	-	-	59	4337	20	5565
AVar x 80C2241	Tx. Agri. Exp. Stat. (FM)	-	-	62	4039	19	5578
ATx631 x R8504	Tx. Agri. Exp. Stat. (FM)	-	-	64	3716	42	5099
Number Entries:		62		65		67	
Test Mean Yield:			5235		4778		5154

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

TABLE 5. AGRONOMIC AND TEST INFORMATION: DANEVANG

TEST:	1991 Dryland Grain Sorghum Performance Test
LOCATION:	E. E. Berndt Farm - Danevang, Texas
COOPERATORS:	E. E. Berndt, Dennis Pietsch, John Cospers, Randy Gaas, and Leon Synatschk
SOIL TYPE:	Lake Charles clay
ROW WIDTH:	40"
PREVIOUS CROP:	Cotton
LAND PREPARATION:	Shredded stalks, disked, bedded, and hipped in December. Hipped two more times prior to planting
DATE PLANTED:	3-14-91 : hand-dropped behind 8 row International planter
DATE THINNED:	4-19-91 thinned to approximately 6 plants/foot
PLOT LENGTH:	30'
FERTILIZER:	132-61-5-10S + 2 qt Zn in early January
HERBICIDE:	Broadcast 1.75 qt/A Lariat 4L (atrazine + lasso) prior to planting
INSECTICIDE:	5.6 lb/A Furadan (carbofuran) at planting
RAINFALL:	Rainfall was not recorded but was considered above normal
IRRIGATIONS:	None
DATE HARVESTED:	7-15-91, by hand; threshed and moistured 7-16-91
SIZE HARVESTED PLOT:	1/500 acre
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	62
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	2
TEST MEAN:	4,387 lb/A; yields corrected to 13% moisture
TEST C.V.:	10.7 percent

GENERAL INFORMATION: Yields attained at this test site were below normal and may not reflect the potential of hybrids produced in the surrounding area. Despite adequate moisture throughout the growing season, the test mean yield was 4,387 lb/A compared to the past 3-year average of 5,297 lb/A. Although an excellent seedbed was prepared and moisture was good at planting, seedling emergence was erratic and in some plots poor. This may have been the contributing factor that affected final yields. The test block received timely rainfall during the growing season which contributed to excellent plant growth and development.

Midge damage was observed in some hybrids and may be attributed to the rows with erratic emergence. The incidence of head smut was quite high among hybrids. Smut counts were made from the harvested area from all three replications and averaged.

Late season leaf diseases were prevalent at this location and rated by Dr. R.A. Frederiksen, Department of Plant Pathology and Microbiology, Texas A&M University. The ratings are reported in Table 5A.

TABLE 5A. GRAIN SORGHUM PERFORMANCE TEST;DANEVANG, TEXAS 1991

HYBRID 1	COMPANY OR BRAND NAME	GRN CLR 2	PLT CLR 3	MATU- RITY CLASS 4	DAYS TO 50% FLOWER	PLANT HT., IN.	HEAD EXSER- TION INCHES	NO. SMUT 5	MIDGE DAM- AGE %	LEAF DISEASE RATING 6	TEST WT. lb/bu	MOIS- TURE %	YIELD lb/A	STAT. SIG., O.05 7
5319	Garst Seed Co.	Bz	P	ML	70	56	8	2.3	1.0	3.3	56.7	15.2	5274	A
DELTAPINE 1710	DELTA AND PINE LAND CO.	Bz	P	ML	71	55	6	3.0	0.0	3.0	56.4	14.9	5009	A-B
SG-942	Garrison Seed Co.	Bz	R	ML	73	58	3	3.0	1.0	3.2	59.0	15.2	5004	A-B
ORO Amigo	ORO Hybrids-R.C. Young	Bz	P	ML	71	54	6	1.3	2.5	3.2	56.3	14.8	4990	A-C
5392	Garst Seed Co.	Bz	P	ML	71	56	8	0.3	0.0	3.7	55.3	15.1	4967	A-C
GS712	Asgrow Seed Co.	R	P	ML	73	54	6	2.3	0.0	3.0	56.1	15.1	4942	A-C
Rustler	Conlee Seed Co., Inc.	R	*	M	73	55	6	3.7	5.0	2.7	56.1	15.5	4929	A-D
HSC Wings	HyPerformer Seed Co.	Bz	*	ML	72	55	6	2.7	0.0	3.0	56.6	15.2	4922	A-D
X6030 X	Asgrow Seed Co.	R	P	ML	74	55	8	0.3	0.0	3.0	57.1	15.5	4884	A-D
8313	Pioneer Hi-Bred Int., Inc	Bz	P	ML	73	52	4	0.0	1.0	2.8	57.2	15.8	4876	A-D
Check	Tx. Agri. Exp. Stat.	Bz	P	ML	71	53	8	0.0	0.0	4.3	57.9	14.7	4862	A-D
dk 760	Douglass W. King Co.	R	R	ML	72	56	6	4.0	0.0	3.3	56.8	15.1	4856	A-D
2665	Northrup King Co.	R	*	ML	71	52	7	1.3	1.0	2.8	57.1	14.8	4856	A-D
GSC-3148	Gro Agri Seed Co.	R	P	M	70	50	5	1.0	1.0	4.3	51.8	14.0	4849	A-E
NC+ 7B90	NC+ Hybrids	Bz	*	M	73	54	6	2.7	5.0	3.0	56.1	15.2	4818	A-E
8379	Pioneer Hi-Bred Int., Inc	Bz	P	ML	73	51	6	0.3	3.5	4.0	58.0	15.3	4786	A-E
Exp-3185 X	Gro Agri Seed Co.	R	P	ML	70	56	8	0.0	1.0	2.7	58.9	15.1	4780	A-E
HSC Cherokee	HyPerformer Seed Co.	R	*	M	72	55	6	0.0	0.0	3.5	57.7	14.6	4767	A-E
SG-925	Garrison Seed Co.	Bz	R	ML	71	55	8	0.3	0.0	4.0	58.3	14.9	4766	A-E
dk 780	Douglass W. King Co.	R	R	ML	73	54	6	0.3	2.5	3.3	58.3	14.8	4756	A-E
GSC-3150	Gro Agri Seed Co.	Bz	P	ML	70	56	8	3.3	1.0	3.3	55.8	14.8	4716	A-E
A4R x Tx430	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	74	51	6	1.7	7.5	2.7	55.5	15.5	4688	A-E
NC+ 7B81E	NC+ Hybrids	Bz	*	M	71	47	6	0.0	1.0	4.0	56.6	14.4	4685	A-E
T-E X9140	TAYLOR EVANS SEED CO.	R	P	L	71	54	7	0.3	0.0	2.8	58.1	15.7	4683	A-E
NC+ 472	NC+ Hybrids	Bz	*	M	71	51	7	2.3	1.0	3.7	53.1	14.3	4666	A-E
ATx2755 x MR120-90M8	Tx. Agri. Exp. Stat.(GP)	R	P	M	74	66	9	1.3	0.0	3.5	58.4	16.5	4664	A-E
DELTAPINE 1558	DELTA AND PINE LAND CO.	Rt	P	M	72	52	8	1.0	4.0	3.0	58.4	15.6	4640	A-E
Exp-3187 X	Gro Agri Seed Co.	R	P	ML	71	54	6	0.3	0.0	3.2	56.0	15.0	4602	A-E
T-E 77-E	TAYLOR EVANS SEED CO.	Bz	P	ML	73	56	6	2.0	3.5	2.8	55.4	14.7	4592	A-E
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	74	54	6	1.3	10.0	3.0	56.4	15.3	4591	A-E
DELTAPINE 1552	DELTA AND PINE LAND CO.	Bz	P	M	74	55	6	0.3	2.5	3.0	57.6	16.2	4568	A-E
Exp-3186 X	Gro Agri Seed Co.	Bz	P	ML	72	54	6	0.0	0.0	2.8	57.4	15.3	4563	A-E
ORO Ultra	ORO Hybrids-R.C. Young	Bz	P	M	72	53	7	1.0	2.5	3.8	52.4	14.8	4562	A-E
ORO Zenith	ORO Hybrids-R.C. Young	Rt	P	ML	72	52	9	2.7	2.5	3.7	57.0	14.7	4524	A-E
TS-488	TEXAS SEED, INC.	Bz	R	M	74	55	7	0.0	0.0	3.7	57.4	14.8	4520	A-E
T-E Y-75	TAYLOR EVANS SEED CO.	Rt	P	ML	74	54	6	0.0	2.5	3.3	57.0	15.0	4508	A-E
KS 737	Northrup King Co.	R	*	ML	70	54	8	5.0	0.0	4.5	56.8	15.4	4496	A-E
GSC-1313	Gro Agri Seed Co.	R	P	M	72	55	7	0.0	0.0	4.0	56.8	14.8	4494	A-E
857	Cargill Hybrid Seeds	Bz	P	ML	72	49	7	3.3	7.5	3.2	57.5	15.7	4379	A-E
ATx399 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	72	53	6	2.3	2.5	3.7	53.7	15.1	4360	A-E

TABLE 5A. GRAIN SORGHUM PERFORMANCE TEST;DANEVANG, TEXAS 1991

HYBRID 1	COMPANY OR BRAND NAME	GRN	PLT	MATU-	DAYS	PLANT HT., IN.	HEAD	NO. SMUT 5	MIDGE	LEAF	TEST WT. 1b/bu	MOIS-	YIELD 1b/A	STAT.
		CLR 2	CLR 3	RITY CLASS 4	TO 50% FLOWER		EXSER- TION INCHES		DAM- AGE %	DISEASE RATING 6		TURE %		O.05 7
DEKALB DK-37	DEKALB Plant Genetics	Bz	P	ME	72	57	8	5.0	0.0	2.8	56.7	15.7	4351	A-E
T-E X9160	TAYLOR EVANS SEED CO.	Bz	P	ML	72	54	6	0.0	2.5	2.7	57.3	15.1	4338	A-E
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	Rt	P	ML	75	50	7	1.7	2.5	2.7	52.3	15.1	4265	B-F
A1 x Tx2783	Tx. Agri. Exp. Stat.(DR)	Rt	P	L	75	59	4	0.0	3.5	2.5	58.1	15.6	4251	B-F
F-524	Frontier Hybrids	Bz	R	ML	75	55	5	1.0	8.5	2.5	56.9	14.9	4167	B-G
ORO G Xtra	ORO Hybrids-R.C. Young	Bz	F	ML	74	53	5	2.7	30.0	3.0	56.2	14.9	4078	B-G
Check	Tx. Agri. Exp. Stat.	Wt	T	ML	75	60	8	5.3	5.0	1.7	56.0	15.1	4078	B-G
ORO Baron	ORO Hybrids-R.C. Young	Rt	R	ML	74	54	7	0.0	1.0	2.8	56.6	14.5	4070	B-G
DEKALB DK-56	DEKALB Plant Genetics	R	P	ML	74	57	9	9.0	2.5	2.7	57.2	16.3	4040	B-G
A1 x Tx430	Tx. Agri. Exp. Stat.(DR)	Wt	P	ML	75	56	4	7.7	5.0	3.0	53.4	15.5	4034	B-G
dk 904W	Douglass W. King Co.	Ct	T	M	72	55	9	2.7	3.5	3.0	56.8	14.8	4014	B-G
A1 x 89CC445	Tx. Agri. Exp. Stat.(DR)	Wt	P	ML	75	53	4	4.0	3.5	2.5	55.4	16.7	3991	C-G
A1 x R8505	Tx. Agri. Exp. Stat.(DR)	Wt	P	ML	74	56	8	5.7	1.0	2.7	56.2	15.0	3936	D-G
ATx2755 x MR102-90M2	Tx. Agri. Exp. Stat.(GP)	R	P	M	75	51	4	2.7	3.5	2.5	54.3	14.3	3853	E-G
8195	Pioneer Hi-Bred Int.,Inc	Bz	P	L	74	51	5	0.0	5.0	3.3	53.5	15.6	3844	F-H
XS292	Pioneer Hi-Bred Int.,Inc	Bz	P	ML	75	48	3	0.0	22.5	4.6	54.2	14.6	3332	F-H
Check	Tx. Agri. Exp. Stat.	R	P	M	74	51	4	5.0	15.0	2.5	52.6	15.0	3253	G-I
ATx378 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	75	60	5	4.0	37.5	2.8	53.4	16.4	2958	H-I
A1 x R8503	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	77	57	5	14.3	27.5	2.2	54.2	15.9	2468	I-J
A1 x GR107A-90M19	Tx. Agri. Exp. Stat.(GP)	W	P	M	76	56	2	3.0	32.5	2.5	54.6	15.3	1952	J
A1 x GR134A-90M49	Tx. Agri. Exp. Stat.(GP)	W	P	M	76	54	3	15.0	25.0	1.8	53.3	14.7	1927	J

TEST MEAN= 4387 TEST C.V.=10.7 LSD .05= 761.3

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.

1 Cargill 847, George Warner W-902W and Garrison SG-858 were entered as commercial check hybrids at our discretion. They are intended to be used for comparison purposes only.

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(*) indicates 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

TABLE 5A. GRAIN SORGHUM PERFORMANCE TEST; DANEVANG, TEXAS 1991

HYBRID 1	COMPANY OR BRAND NAME	GRN	PLT	MATU- RITY	DAYS TO	PLANT	HEAD	NO.	MIDGE	LEAF	TEST	MOIS- TURE	YIELD	STAT.
		CLR	CLR	CLASS	50%	HT.,	EXSER- TION		DAM- AGE	DISEASE RATING				WT.

- 5 Smut counts were taken from the harvested area on all three replications and averaged for each hybrid.
- 6 Leaf death ratings were made following harvest by Dr. R. A. Frederiksen, Dept. of Plant Pathology and Microbiology, Texas A&M University, College Station, Texas. Key is as follows:
- 0 = No evaluation possible.
 - 1 = Resistant - disease inconspicuous or present on an occasional plant.
 - 2 = Disease present (over 50% prevalence with low severity; apparently causing little damage).
 - 3 = Disease severe (100% prevalent, estimated leaf area destroyed up to 25%; disease appears to be economic importance).
 - 4 = As in 3 but over 25% of leaf area destroyed.
 - 5 = Death of leaves or plants due to disease.
- 7 Duncan's multiple range test was used at the .05 level.

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

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
5319	Garst Seed Co.	1	5274	14	5280	22	5719
DELTAPINE 1710	DELTA AND PINELAND CO.	2	5009	-	-	-	-
SG-942	Garrison Seed & Co.	3	5004	16	5260	6	6258
ORO Amigo	ORO Hybrids-R. C. Young Seed Co.	4	4990	55	4741	10	6001
5392	Garst Seed Co.	5	4967	-	-	-	-
GS 712	ASGROW SEED CO.	6	4942	59	4655	57	5096
Rustler	Conlee Seed Co., Inc.	7	4929	60	4651	15	5853
HSC Wings	HyPerformer Seed Co.	8	4922	5	5456	7	6151
X6030 X	ASGROW SEED CO.	9	4884	74	4289	42	5358
8313	Pioneer Hi-Bred Int., Inc.	10	4876	21	5173	23	5712
CHECK (847)		11	4862	8	5368	62	4982
dk 760	Douglass W. King Seed Co.	12	4856	52	4788	40	5386
2665	Northrup King Co.	13	4856	35	4952	3	6443
GSC-3148	Gro Agri Seed Co.	14	4849	78	4149	26	5692
NC+ 7B90	NC+ Hybrids	15	4818	-	-	-	-
8379	Pioneer Hi-Bred Int., Inc.	16	4786	50	4797	-	-
Exp.-3185X	Gro Agri Seed Co.	17	4780	-	-	-	-
HSC Cherokee	HyPerformer Seed Co.	18	4767	32	4965	63	4960
SG-925	Garrison Seed & Co.	19	4766	-	-	-	-
dk 780	Douglass W. King Seed Co.	20	4756	1	5736	-	-
GSC-3150	Gro Agri Seed Co.	21	4716	65	4541	25	5692
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	22	4688	9	5350	86	3970
NC+ 7B81E	NC+ Hybrids	23	4685	13	5298	-	-
T-E X9140	TAYLOR EVANS SEED CO.	24	4683	-	-	-	-
NC+ 472	NC+ Hybrids	25	4666	40	4920	-	-

Table 5B. Danevang, Texas. (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
ATx2755 x MR120-90M8	Tx. Agri. Exp. Stat. (GP)	26	4664	-	-	-	-
DELTA PINE 1558	DELTA AND PINELAND CO.	27	4640	11	5318	24	5696
Exp.-3187X	Gro Agri Seed Co.	28	4602	-	-	-	-
T-E 77-E	TAYLOR EVANS SEED CO.	29	4592	17	5258	-	-
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	30	4591	47	4839	74	4616
DELTA PINE 1552	DELTA AND PINELAND CO.	31	4568	-	-	-	-
Exp.-3186X	Gro Agri Seed Co.	32	4563	-	-	-	-
ORO Ultra	ORO Hybrids-R. C. Young Seed Co.	33	4562	-	-	-	-
ORO Zenith	ORO Hybrids-R. C. Young Seed Co.	34	4524	-	-	-	-
TS-488	TEXAS SEED CO., INC.	35	4520	36	4943	84	4317
T-E Y-75	TAYLOR EVANS SEED CO.	36	4508	4	5481	53	5147
KS 737	Northrup King Co.	37	4496	37	4938	-	-
GSC-1313	Gro Agri Seed Co.	38	4494	29	5012	29	5620
857	Cargill Hybrid Seeds	39	4379	-	-	-	-
ATx399 x RTx430	Tx. Agri. Exp. Stat.	40	4360	58	4674	17	5840
DEKALB DK-37	DEKALB Plant Genetics	41	4351	71	4365	-	-
T-E X9160	TAYLOR EVANS SEED CO.	42	4338	-	-	-	-
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	43	4265	83	3755	35	5542
A1 x Tx2783	Tx. Agri. Exp. Stat. (DR)	44	4251	19	5208	-	-
F-524	Frontier Hybrids	45	4167	-	-	-	-
ORO G Xtra	ORO Hybrids-R. C. Young Seed Co.	46	4078	63	4584	67	4906
CHECK (W-902W)		47	4078	-	-	-	-
ORO Baron	ORO Hybrids-R. C. Young Seed Co.	48	4070	43	4885	36	5527
DEKALB DK-56	DEKALB Plant Genetics	49	4040	62	4606	68	4877
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	50	4034	72	4347	46	5268

Table 5B. Danevang, Texas. (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
dk 904W	Douglass W. King Seed Co.	51	4014	-	-	-	-
A1 x 89CC445	Tx. Agri. Exp. Stat. (DR)	52	3991	-	-	-	-
A1 x R8505	Tx. Agri. Exp. Stat. (DR)	53	3936	54	4760	81	4445
ATx2755 x MR102-90M2	Tx. Agri. Exp. Stat. (GP)	54	3853	-	-	-	-
8195	Pioneer Hi-Bred Int., Inc.	55	3844	-	-	-	-
XS292	Pioneer Hi-Bred Int., Inc.	56	3332	-	-	-	-
CHECK (SG-858)		57	3252	-	-	-	-
ATx378 x RTx430	Tx. Agri. Exp. Stat.	58	2958	34	4961	54	5143
A1 x R8503	Tx. Agri. Exp. Stat. (DR)	59	2468	73	4338	-	-
A1 x GR107A-90M19	Tx. Agri. Exp. Stat. (GP)	60	1952	-	-	-	-
A1 x GR134A-90M49	Tx. Agri. Exp. Stat. (GP)	61	1927	-	-	-	-
8278	Pioneer Hi-Bred Int., Inc.	-	-	2	5660	64	4913
ATx631 x R8505	Tx. Agri. Exp. Stat. (FM)	-	-	3	5617	28	5653
W-917-E	WARNER SEED CO., INC.	-	-	6	5438	37	5515
DELTAPINE G-1711E	DELTA AND PINELAND CO.	-	-	10	5325	2	6447
dk 776	Douglass W. King Seed Co.	-	-	12	5316	79	4488
Maxima	Big Crop Seed Co.	-	-	15	5277	32	5567
SG-944	Garrison Seed & Co.	-	-	18	5214	85	4295
ST 3308	AgriPro Seed Co.	-	-	22	5106	9	6065
W-876 DR	WARNER SEED CO., INC.	-	-	25	5042	14	5868
GSC-3146	Gro Agri Seed Co.	-	-	26	5039	41	5373
A8201-2 x R6078	Tx. Agri. Exp. Stat. (DR)	-	-	27	5034	27	5654
ST D701G	AgriPro Seed Co.	-	-	28	5016	16	5849
dk 775	Douglass W. King Seed Co.	-	-	31	4982	48	5198
T-E Ranger	TAYLOR EVANS SEED CO.	-	-	38	4933	43	5338

Table 5B. Danevang, Texas. (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
W-844-E	WARNER SEED CO., INC.	--	--	48	4820	69	4867
SG-932	Garrison Seed & Co.	--	--	56	4740	8	6090
AVar x 80C2241	Tx. Agri. Exp. Stat. (FM)	--	--	57	4676	1	6722
T-E 76	TAYLOR EVANS SEED CO.	--	--	61	4630	77	4558
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	--	--	64	4566	71	4762
Optima	Big Crop Seed Co.	--	--	66	4535	47	5198
6670	Cargill Hybrid Seeds	--	--	68	4442	88	3785
ATx626 x R8503	Tx. Agri. Exp. Stat. (FM)	--	--	69	4373	13	5942
ATx631 x 80C2241	Tx. Agri. Exp. Stat. (FM)	--	--	77	4222	82	4434
ATx631 x 86EO361	Tx. Agri. Exp. Stat. (DR)	--	--	80	3931	4	6383
ATx631 x R8504	Tx. Agri. Exp. Stat. (FM)	--	--	82	3778	78	4544
A1 x Tx2817	Tx. Agri. Exp. Stat. (DR)	--	--	85	3345	44	5324
A8618 x RTx435	Tx. Agri. Exp. Stat. (FM)	--	--	86	3204	72	4738
Number Entries:		61		86		90	
Test Mean Yield:			4387		4792		5259

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

TABLE 6. AGRONOMIC AND TEST INFORMATION: COLLEGE STATION

TEST:	1991 Irrigated Grain Sorghum Performance Test
LOCATION:	Texas A&M University Farm, College Station, Texas
COOPERATORS:	F. Miller, T. Dusek, D. Jakubik , and D. Pietsch
SOIL TYPE:	Miller clay loam
ROW WIDTH:	26 2/3"
PREVIOUS CROP:	Grain sorghum
LAND PREPARATION:	Shredded, disked, moldboard, disked, bedded
DATE PLANTED:	4-1-91, cone planter
PLOT LENGTH:	21' with 4' removed for alley
FERTILIZER:	250-0-0; applied 125-0-0 preplant and 125-0-0 at layby
HERBICIDE:	3 lb/A Ramrod 4L (propachlor) on 4-2 + 1.5 pt/A Prowl (pendimethalin) at layby
INSECTICIDE:	7 lb/A Furadan 15G at planting, Lorsban 4E applied at label rate for midge control.
RAINFALL:	March = 2.3", April = 6.0", May = 6.7", June = 7.0", July = .30", Total = 22.3"
IRRIGATIONS:	None
DATE HARVESTED:	8-22-91 with a MF8 plot combine
SIZE HARVESTED PLOT:	Harvested 3 rows 17' long
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	60
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	3
MEAN PLANT POP.:	Estimated to be between 70,000 and 90,000 plants/A
TEST MEAN:	4,228 lb/A; yields corrected to 13% moisture
TEST C.V.:	17.9 percent

GENERAL STATEMENT: Yields at this test site do not reflect the potential of sorghum for grain production in this area. The test block encountered numerous problems that affected final yields this year as reflected in the following Table. Abundant soil moisture was available at planting from fall and winter rainfall. Seedling emergence was rapid, but excessive rainfall shortly thereafter hampered early plant growth and development. Also, poor field drainage impeded uniform plant growth, flowering and accelerated midge populations between hybrids and within replications. Although this is a designated irrigated test site, no irrigations were applied due to timely and beneficial rains (and mostly excessive rainfall). The high number of overcast days also affected final yields.

Sorghum midge was a problem in the test block. Insecticides were applied by aerial equipment numerous times, but control was only partially successful. Midge readings were not obtained at this site.

The test mean yield was only 4,228 lb/A compared to the past 10-year average of 6,162 lb/A. In spite of the reduced yields, the performance of hybrids with white grain and tan plant color continues to be good. Leaf quality is uniformly superior on the tan plant hybrids. Bushel weight and threshability are good in these food quality hybrids.

TABLE 6A. GRAIN SORGHUM PERFORMANCE TEST; COLLEGE STATION, TEXAS 1991

HYBRID 1	COMPANY OR BRAND NAME	GRN	PLT	MATU- RITY	DAYS	PLANT HT. IN.	PAN. LTH. IN.	PAN. EXSER- TION IN.	DESIR- ABILITY RATING 5	GREEN LEAF RATING 6	TEST	% MOIST	GRAIN PER ACRE 1b/A	STAT. SIG. O.05 7
		CLR 2	CLR 3	CLASS 4	TO 50% FLOWER						WT. 1b/bu			
A1 x Tx430	Tx. Agri. Exp. Stat.(DR)	Wt	P	ML	73	52	12	6	1.6	1.3	57.1	13.9	6225	A
DEKALB DK-56	DEKALB Plant Genetics	R	P	ML	76	53	11	9	1.4	1.3	57.5	13.9	5885	A-B
A1 x GR134A-90M49	Tx. Agri. Exp. Stat.(GP)	W	P	M	79	54	12	7	1.4	3.0	55.8	14.5	5880	A-B
A8610 x 80C2241	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	78	57	13	10	1.3	2.5	57.6	14.4	5850	A-C
ATx631 x R8511	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	79	58	12	7	1.3	3.0	57.0	14.0	5572	A-D
837	Cargill Hybrid Seeds	Bz	P	ML	76	51	12	6	1.8	2.5	55.3	14.0	5540	A-E
A1 x 86EON361	Tx. Agri. Exp. Stat.(DR)	W	T	ML	84	54	13	8	1.7	2.3	55.4	13.1	5480	A-F
ATx2752 x Tx2783	Tx. Agri. Exp. Stat.	R	P	M	76	53	10	4	1.7	2.0	58.9	14.6	5460	A-G
DELTAPINE 1506	DELTA AND PINE LAND CO.	Ct	P	M	75	57	11	11	1.9	2.5	58.8	13.9	5416	A-H
AVar x R8504	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	80	60	13	8	1.7	2.5	57.9	14.3	5276	A-I
SBPO11 (X)	Seed Source, Inc.	Bz	R	M	72	53	14	7	1.7	3.0	54.1	13.7	5173	A-J
ATx631 x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	75	59	14	7	1.6	1.8	57.3	13.9	5167	A-J
A8610 x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	76	58	13	9	1.4	2.5	57.0	14.1	5061	A-K
AAArg34 x Dorado	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	77	67	13	8	1.5	1.1	57.3	15.1	4998	A-L
A8618 x RTx2783	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	81	55	14	6	1.5	1.3	56.0	13.9	4986	A-L
ATx378 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	71	56	11	8	1.9	3.0	57.3	13.8	4981	A-L
AAArg34 x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	76	49	12	7	1.5	2.5	57.9	14.1	4956	A-L
ATx631 x 80C2241	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	77	57	12	8	1.4	1.8	57.0	13.9	4829	A-L
F-524	Frontier Hybrids	Bz	R	ML	74	52	10	8	2.1	2.8	56.1	13.7	4748	A-M
A8606 x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	76	53	12	9	1.5	1.5	57.0	13.8	4692	B-N
NC+ 7B90	NC+ Hybrids	Bz	*	M	73	50	10	8	2.1	3.0	58.2	13.7	4670	B-O
A4R x Tx430	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	73	49	11	10	2.2	2.8	55.6	13.8	4571	B-O
DEKALB DK-37	DEKALB Plant Genetics	Bz	P	ME	72	52	12	9	1.8	2.3	57.0	14.2	4564	B-O
A8618 x R6956	Tx. Agri. Exp. Stat.(FM)	Rt	P	M	83	54	12	11	1.6	2.8	55.7	13.9	4453	B-O
ATx2752 x Tx2864	Tx. Agri. Exp. Stat.	R	P	M	73	47	10	6	2.1	1.8	57.7	13.9	4347	C-P
847	Cargill Hybrid Seeds	Bz	P	ML	72	48	10	6	2.2	2.2	56.5	14.0	4253	D-P
Rustler	Conlee Seed Co., Inc.	R	*	M	71	51	9	9	2.1	3.2	57.6	13.7	4241	D-P
ORO Amigo	ORO Hybrids	Bz	P	ML	72	55	11	10	2.0	3.0	53.5	14.1	4203	D-P
ORO G Xtra	ORO Hybrids	Bz	P	ML	72	53	10	7	2.4	3.2	54.8	13.9	4175	D-Q
AAArg34 x R8605	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	73	50	11	7	1.5	2.8	57.0	13.9	4117	D-R
SBPO06 (X)	Seed Source, Inc.	Bz	R	M	74	52	12	8	1.9	1.8	53.2	13.9	4025	E-R
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	71	52	11	7	2.4	2.8	53.0	13.9	3997	F-R
A1 x GR107A-90M20	Tx. Agri. Exp. Stat.(GP)	R	P	M	77	56	14	7	2.8	3.0	54.0	14.4	3975	F-R
dk 780	Douglass W. King Co.	R	R	ML	72	51	9	9	1.9	2.0	55.8	14.4	3927	G-R
SG-942	Garrison Seed Co.	Bz	R	ML	72	54	10	7	2.6	2.8	56.8	14.1	3908	H-R
ORO Baron	ORO Hybrids	Rt	R	ML	72	52	10	10	2.1	3.5	57.8	13.9	3883	H-R
ATx399 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	74	49	9	9	2.2	2.8	53.4	13.4	3874	H-R
SBPO01 (X)	Seed Source, Inc.	Bz	R	M	74	47	14	10	2.3	2.8	54.8	13.3	3873	H-R
A1 x GR107A-90M19	Tx. Agri. Exp. Stat.(GP)	W	P	M	78	56	16	2	1.9	2.8	53.2	14.2	3870	H-R
ATx2752 x GR107-90M20	Tx. Agri. Exp. Stat.(GP)	R	P	M	76	52	11	11	2.5	1.7	59.1	13.8	3847	I-R
A1 x Tx2864	Tx. Agri. Exp. Stat.	W	P	M	78	50	13	4	1.6	1.9	51.3	12.7	3840	I-R

TABLE 6A. GRAIN SORGHUM PERFORMANCE TEST; COLLEGE STATION, TEXAS 1991

HYBRID 1	COMPANY OR BRAND NAME	GRN	PLT	MATU-	DAYS	PLANT HT. IN.	PAN. LTH. IN.	PAN. EXSER- TION IN.	DESIR- ABILITY RATING 5	GREEN LEAF RATING 6	TEST WT. 1b/bu	% MOIST	GRAIN PER ACRE 1b/A	STAT. SIG. O.05 7
		CLR 2	CLR 3	RITY CLASS 4	TO 50% FLOWER									
HSC Cherokee	HyPerformer Seed Co.	R	*	M	72	52	11	10	2.1	2.5	57.1	14.0	3834	I-R
HSC Wings	HyPerformer Seed Co.	Bz	*	ML	72	53	9	7	2.5	2.5	54.8	13.7	3823	I-R
857	Cargill Hybrid Seeds	Bz	P	ML	73	46	10	10	2.7	2.3	55.7	13.5	3807	I-R
ORO Hombre	ORO Hybrids	R	P	ML	72	46	10	8	2.6	2.5	54.8	13.4	3798	I-R
ATx2752 x GR107A-90M18Tx.	Agri. Exp. Stat.(GP)	R	P	M	72	49	11	10	2.5	2.5	58.3	14.1	3793	I-R
T-E Y-75	TAYLOR EVANS SEED CO.	Rt	P	ML	72	50	9	7	2.3	2.5	57.0	13.9	3777	I-R
2665	Northrup King Co.	R	*	ML	71	47	9	8	2.7	2.8	53.5	13.7	3694	J-R
T-E 76	TAYLOR EVANS SEED CO.	R	P	M	74	45	9	5	2.6	2.8	52.9	13.2	3654	J-R
SG-858	Garrison Seed Co.	R	P	M	75	48	11	6	2.5	2.5	52.7	13.4	3560	K-R
dk 760	Douglass W. King Co.	R	R	ML	73	51	10	8	2.1	3.0	53.1	13.4	3475	L-R
dk 776	Douglass W. King Co.	R	R	ML	72	49	10	7	2.1	2.8	55.7	13.7	3232	M-S
AAArg34 x 80C2241	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	75	49	11	9	1.5	1.5	54.4	13.7	3150	N-T
NC+ 573E	NC+ Hybrids	R	*	M	73	48	9	9	2.6	3.2	57.4	14.0	3128	O-T
T-E X9140	TAYLOR EVANS SEED CO.	R	P	L	72	48	12	9	2.7	1.4	56.6	14.3	2862	P-T
ATx2752 x GR107-90M16	Tx. Agri. Exp. Stat.(GP)	R	P	M	72	42	11	8	2.7	1.3	58.0	14.0	2831	P-T
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	Rt	P	ML	72	47	9	11	2.9	1.5	49.0	12.6	2639	Q-T
T-E X9160	TAYLOR EVANS SEED CO.	Bz	P	ML	72	47	12	6	2.8	1.5	52.0	13.5	2608	R-T
KS 737	Northrup King Co.	R	*	ML	72	49	10	14	2.9	3.0	51.0	13.3	1891	S-T
KS 714Y	Northrup King Co.	C	*	M	69	48	10	12	3.1	2.8	48.2	13.2	1750	T

TEST MEAN= 4228 TEST C.V.=17.9 LSD .05=1223.2

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.

1 Commercial check hybrids were not entered in the test. Hybrids that are commonly used in this area were already entered by commercial companies.

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(*) indicates 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

TABLE 6A. GRAIN SORGHUM PERFORMANCE TEST; COLLEGE STATION, TEXAS 1991

HYBRID	COMPANY OR BRAND NAME	GRN PLT		MATU-	DAYS	PLANT	PAN.	EXSER-	DESIR-	GREEN	TEST	GRAIN	STAT.	
		CLR	CLR	RITY	TO		PAN.							ABILITY
1		2	3	4	50%	HT.	LTH.	TION	RATING	RATING	WT.	%	ACRE	0.05
					FLOWER	IN.	IN.	IN.	5	6	lb/bu	MOIST	lb/A	7

6 Green leaf ratings: visual estimate of proportion of green leaf area remaining at harvest.

0 = No evaluation possible.

1 = Resistant - disease inconspicuous or present on only an occasional plant.

2 = Disease present (over 50% prevalence with low severity; apparently causing little economic damage).

3 = Disease severe (100% prevalent, estimated leaf area destroyed up to 25%; disease appears to be of economic importance).

4 = As in 3 but over 25% of leaf area destroyed.

5 = Death of leaves or plants due to disease.

7 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	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	1	6225	1	6138	8	6992
DEKALB DK-56	DEKALB Plant Genetics	2	5885	56	4904	9	6921
A1 x GR134A-90M49	Tx. Agri. Exp. Stat. (GP)	3	5880	-	-	-	-
A8610 x 80C2241	Tx. Agri. Exp. Stat. (FM)	4	5840	-	-	-	-
Atx631 x R8511	Tx. Agri. Exp. Stat. (FM)	5	5572	53	4932	65	5438
837	Cargill Hybrid Seeds	6	5540	-	-	-	-
A1 x 86EON361	Tx. Agri. Exp. Stat. (DR)	7	5480	-	-	-	-
ATx2752 x Tx2783	Tx. Agri. Exp. Stat. (DR)	8	5460	-	-	-	-
DELTAPINE 1506	DELTA AND PINELAND CO.	9	5416	-	-	-	-
AVar x R8504	Tx. Agri. Exp. Stat. (FM)	10	5276	39	5277	-	-
SBP 011 (X)	Seed Source Inc.	11	5173	-	-	-	-
ATx631 x R8505	Tx. Agri. Exp. Stat. (FM)	12	5167	33	5339	57	5810
A8610 x R8505	Tx. Agri. Exp. Stat. (FM)	13	5061	-	-	-	-
AArg34 x Dorado	Tx. Agri. Exp. Stat. (FM)	14	4998	-	-	-	-
A8618 x RTx2783	Tx. Agri. Exp. Stat. (FM)	15	4986	-	-	-	-
ATx378 x RTx430	Tx. Agri. Exp. Stat.	16	4981	6	5787	41	6207
AArg34 x R8505	Tx. Agri. Exp. Stat. (FM)	17	4956	61	4476	-	-
ATx631 x 80C2241	Tx. Agri. Exp. Stat. (FM)	18	4829	37	5298	21	6534
F524	Frontier Hybrids	19	4748	13	5594	-	-
A8606 x R8505	Tx. Agri. Exp. Stat. (FM)	20	4692	-	-	-	-
NC+ 7B90	NC+ Hybrids	21	4670	-	-	-	-
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	22	4571	3	5894	14	6787
DEKALB DK-37	DEKALB Plant Genetics	23	4564	-	-	-	-
A8618 x R6956	Tx. Agri. Exp. Stat. (FM)	24	4453	-	-	-	-
ATx2752 x Tx2864	Tx. Agri. Exp. Stat.	25	4347	-	-	-	-
847	Cargill Hybrid Seeds	26	4253	31	5347	33	6311
Rustler	Conlee Seed Co., Inc.	27	4241	17	5550	27	6425
ORO Amigo	ORO Hybrids-R. C. Young Seed Co.	28	4203	32	5346	-	-
ORO G Xtra	ORO Hybrids-R. C. Young Seed Co.	29	4175	20	5512	1	7851

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

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
AArg34 x R8605	Tx. Agri. Exp. Stat. (FM)	30	4117	-	-	-	-
SBP 006(X)	Seed Source Inc.	31	4025	-	-	-	-
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	32	3997	38	5288	55	5890
A1 x Gr107A-90M20	Tx. Agri. Exp. Stat. (GP)	33	3975	-	-	-	-
dk 780	Douglass W. King Seed Co.	34	3927	14	5577	-	-
SG-942	Garrison Seed & Co.	35	3908	2	6011	-	-
ORO Baron	ORO Hybrids-R. C. Young Seed Co.	36	3883	52	4944	37	6245
ATx399 x RTx430	Tx. Agri. Exp. Stat.	37	3874	30	5348	25	6447
SBP 001(X)	Seed Source Inc.	38	3873	-	-	-	-
A1 x GR107A-90M19	Tx. Agri. Exp. Stat. (GP)	39	3870	-	-	-	-
ATx2752 x GR107-90M20	Tx. Agri. Exp. Stat. (GP)	40	3847	-	-	-	-
A1 x Tx2864	Tx. Agri. Exp. Stat.	41	3840	-	-	-	-
HSC Cherokee	HyPerformer Seed Co.	42	3834	21	5507	7	7006
HSC Wings	HyPerformer Seed Co.	43	3823	26	5406	11	6853
857	Cargill Hybrid Seeds	44	3807	-	-	-	-
ORO Hombre	ORO Hybrids-R. C. Young Seed Co.	45	3798	-	-	-	-
ATx2752 x GR107A-90M18	Tx. Agri. Exp. Stat. (GP)	46	3793	-	-	-	-
T-E Y-75	TAYLOR EVANS SEED CO.	47	3777	44	5141	51	6000
2665	Northrup King Co.	48	3694	11	5660	10	6914
T-E 76	TAYLOR EVANS SEED CO.	49	3654	4	5806	31	6363
SG-858	Garrison Seed & Co.	50	3560	-	-	-	-
dk 760	Douglass W. King Seed Co.	51	3475	7	5760	6	7060
dk 776	Douglass W. King Seed Co.	52	3232	29	5352	17	6637
AArg34 x 80C2241	Tx. Agri. Exp. Stat. (FM)	53	3150	-	-	-	-
NC+ 573E	NC+ Hybrids	54	3128	-	-	-	-
T-E X9140	TAYLOR EVANS SEED CO.	55	2862	-	-	-	-
ATx2752 x GR107-90M16	Tx. Agri. Exp. Stat. (GP)	56	2831	-	-	-	-
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	57	2639	45	5137	44	6134

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

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
T-E X9160	TAYLOR EVANS SEED CO.	58	2608	-	-	-	-
KS 737	Northrup King Co.	59	1891	41	5237	-	-
KS 714Y	Northrup King Co.	60	1750	-	-	-	-
dk 775	Douglass W. King Seed Co.	-	-	5	5803	4	7132
Optima	Big Crop Seed Co.	-	-	10	5669	39	6242
W-917-E	WARNER SEED CO., INC.	-	-	16	5556	3	7206
6670	Cargill Hybrid Seeds	-	-	18	5542	50	6049
SG-932	Garrison Seed & Co.	-	-	19	5525	15	6768
AVar x 80C2241	Tx. Agri. Exp. Stat. (FM)	-	-	22	5493	36	6279
X15277	Cargill Hybrid Seeds	-	-	23	5471	26	6436
Wrangler II	Conlee Seed Co., Inc.	-	-	25	5428	49	6051
T-E 77-E	TAYLOR EVANS SEED CO.	-	-	27	5374	19	6556
SG-922	Garrison Seed & Co.	-	-	28	5364	43	6174
ATx626 x R8503	Tx. Agri. Exp. Stat. (FM)	-	-	40	5248	73	4916
A1 x R8505	Tx. Agri. Exp. Stat. (DR)	-	-	47	5044	12	6800
T-E Ranger	TAYLOR EVANS SEED CO.	-	-	54	4926	34	6305
ATx631 x R8504	Tx. Agri. Exp. Stat. (FM)	-	-	55	4924	29	6392
X6038 X	ASGROW SEED CO.	-	-	57	4753	32	6337
T-E Wahoo	TAYLOR EVANS SEED CO.	-	-	60	4493	64	5551
ATx630 x R3338wx	Tx. Agri. Exp. Stat. (DR)	-	-	66	4094	72	4961
ATx631 x 86EO361	Tx. Agri. Exp. Stat. (DR)	-	-	67	4066	18	6577
A8618 x RTx435	Tx. Agri. Exp. Stat. (FM)	-	-	70	1941	66	5416
Number of Entries:		60		70		78	
Test Mean Yield:			4228		5119		6120

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

TABLE 7. AGRONOMIC AND TEST INFORMATION: THRALL

TEST:	1991 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, applied fertilizer, field cultivated and harrowed beds prior to planting
DATE PLANTED:	3-11-91, hand dropped behind a JD7300 Max Emerge 2
DATE THINNED:	4-26 & 29 -91; thinned to approximately 4-5 plants/foot
PLOT LENGTH:	25'
FERTILIZER:	375 lb/A of 32-0-0 in December '90 on side of bed
HERBICIDE:	1 lb/A of AAtrex (atrazine) in Dec '90
INSECTICIDE:	None
RAINFALL:	Jan = 8.9", Feb = 2.3", March = 1.0", April = 4.3", May = 4.4", June = 3.4", July = 1.4", Total = 25.7"
IRRIGATIONS:	None
DATE HARVESTED:	7-22-91
SIZE HARVESTED PLOT:	1/500 acre
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	70
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	2
TEST MEAN:	5,054 lb/A; yields corrected to 13% moisture
TEST C. V.:	7.8 %

GENERAL INFORMATION: Seventy hybrids entered by 16 commercial seed companies and the Texas Agricultural Experiment Station were planted at this site which is representative of conditions in the Southern Blacklands of Texas. Favorable conditions during the growing season contributed to excellent yields. An optimum planting date and an ideal seedbed resulted in rapid seedling emergence. Adequate stands were secured after thinning although the test block was not thinned until late-April due to prolonged periods of rainfall. Dry conditions followed thus aiding in continuous plant growth and development. Timely rainfall after flowering was beneficial as depicted by the bushel weights in the following Table.

The test mean yield was 5,054 lb/A compared to only 1,954 lb/A in 1990. Hot and dry conditions reduced potential yields at this site in 1990. Midge were observed in the test block but did not warrant insecticide control.

TABLE 7A. GRAIN SORGHUM PERFORMANCE TEST; THRALL, TEXAS 1991

HYBRID *	COMPANY OR BRAND NAME	GRN CLR **	PLT CLR ***	MATU- RITY CLASS ****	DAYS TO 50% FLOWER	PLT. HT., IN.	HEAD EXSER- TION INCHES	% STAND	MIDGE DAM- AGE %	THRESH- ING %	TEST WT. lb/bu	MOIS- TURE %	YIELD lb/A	STAT. SIG., 0.05 ****
A1 x Tx430	Tx. Agri. Exp. Stat.(DR)	WT	P	ML	78	54	7	100.0	0.0	72.3	57.8	15.2	6277	A
A1 x Tx2783	Tx. Agri. Exp. Stat.(DR)	RT	P	L	80	61	5	100.0	0.0	77.3	60.8	15.8	5950	A-B
DELTAPINE 1506	DELTA AND PINE LAND CO.	Ct	P	M	78	59	11	100.0	0.0	73.6	58.2	15.8	5933	A-C
dk 780	Douglass W. King Co.	R	R	ML	76	56	9	100.0	0.0	79.1	60.2	15.3	5803	A-D
T-E Y-75	TAYLOR-EVANS SEED CO.	Rt	P	ML	76	55	9	95.0	0.7	78.6	60.3	15.1	5800	A-D
ATx2755 x MR120-90M8	Tx. Agri. Exp. Stat.(GP)	R	P	M	78	68	11	95.0	0.0	76.0	60.4	16.0	5644	A-E
ATx378 x RTx430	Tx. Agri. Exp. Stat.	Bz	R	ML	77	60	10	100.0	0.7	77.9	58.1	15.3	5616	A-F
A4R x Tx430	Tx. Agri. Exp. Stat.(DR)	RT	P	ML	79	53	11	100.0	2.0	76.6	58.6	15.4	5566	A-G
dk 776	Douglass W. King Co.	R	R	ML	76	53	9	100.0	0.0	79.1	60.0	15.3	5559	A-G
A1 x 89CC445	Tx. Agri. Exp. Stat.(DR)	WT	P	ML	79	53	7	91.7	1.0	68.7	59.1	16.1	5551	A-G
5392	Garst Seed Co.	Bz	P	ML	77	54	8	98.3	1.7	75.5	58.4	15.7	5544	A-G
Check	Tx. Agri. Exp. Stat.	Bz	R	M	77	55	9	100.0	0.0	79.3	60.2	14.9	5518	A-H
A35 x Tx430	Tx. Agri. Exp. Stat.(DR)	RT	P	ML	77	57	12	100.0	0.0	72.4	58.2	16.3	5504	B-H
HSC Wings	HyPerformer Seed Co.	Bz	*	ML	77	54	8	96.7	5.0	75.5	58.5	15.3	5486	B-H
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	Bz	R	ML	76	54	7	100.0	0.3	77.9	59.3	15.3	5448	B-H
HSC Cherokee	HyPerformer Seed Co.	R	*	M	77	54	9	98.3	0.0	78.1	60.5	15.3	5434	B-H
GSC-1313	Gro Agri Seed Co.	R	P	M	76	54	9	100.0	0.0	78.0	59.9	15.5	5423	B-H
GSC-3148	Gro Agri Seed Co.	R	P	M	77	49	7	98.3	0.3	74.9	54.8	15.1	5321	B-I
NC+ 7B90	NC+ Hybrids	Bz	*	M	77	54	9	98.3	0.7	77.7	58.5	15.4	5303	B-I
TS-488	TEXAS SEED CO., INC.	Bz	R	M	77	55	9	100.0	0.7	77.8	60.5	15.2	5277	B-I
5319	Garst Seed Co.	Bz	P	ML	77	53	8	95.0	0.7	75.9	58.6	15.8	5266	B-J
F-524	Frontier Hybrids	Bz	R	ML	77	54	8	98.3	0.3	76.7	58.8	15.5	5254	B-J
GSC-3150	Gro Agri Seed Co.	Bz	P	ML	77	55	8	98.3	1.0	77.3	58.8	15.3	5246	B-K
NC+ 573E	NC+ Hybrids	R	*	M	76	53	9	100.0	0.0	80.3	60.0	14.9	5243	B-K
857	Cargill Hybrid Seeds	Bz	P	ML	78	52	10	100.0	1.7	75.6	59.2	15.7	5243	B-K
ATx2752 x GR116-90M34	Tx. Agri. Exp. Stat.	R	P	M	77	53	7	100.0	0.0	76.5	60.2	14.5	5237	B-K
A35 x 89CC445	Tx. Agri. Exp. Stat.(DR)	RT	P	ML	78	55	11	100.0	0.0	71.7	59.2	16.1	5229	B-K
2665	Northrup King Co.	R	*	ML	76	51	9	100.0	0.0	75.6	59.4	15.6	5215	B-L
8601	Pioneer Hi-Bred Int., Inc	Bz	P	ME	76	54	10	100.0	0.0	76.0	59.6	15.8	5210	B-L
dk 760	Douglass W. King Co.	R	R	ML	76	55	8	100.0	0.7	77.2	59.5	15.7	5138	C-M
ATx399 x RTx430	Tx. Agri. Exp. Stat.	Bz	R	ML	76	51	9	96.7	1.0	74.1	56.4	15.4	5136	C-M
NC+ 472	NC+ Hybrids	Bz	*	M	76	51	9	100.0	0.0	78.1	57.9	15.3	5113	D-M
ATx2755 x MR102-90M2	Tx. Agri. Exp. Stat.(GP)	R	P	M	78	54	9	100.0	0.0	76.4	57.9	14.5	5100	D-N
Rustler	Conlee Seed Co., Inc.	R	*	M	76	55	8	98.3	1.0	76.9	58.7	15.6	5082	D-N
DELTAPINE 1552	DELTA AND PINE LAND CO.	Bz	P	M	78	55	9	98.3	2.7	73.0	59.3	15.9	5058	D-N
A35 x (Tx430 x 9188)	Tx. Agri. Exp. Stat.(DR)	RT	P	ML	78	55	12	100.0	0.0	69.3	58.1	16.3	5056	D-N
DEKALB DK-40y	DEKALB Plant Genetics	Y	P	M	76	51	9	93.3	10.7	72.3	56.3	16.3	5055	D-N
dk 904W	Douglass W. King Co.	Ct	T	M	76	59	14	100.0	0.0	78.7	59.2	15.3	5036	D-O
GSC-1299	Gro Agri Seed Co.	Bz	P	M	75	53	10	100.0	0.0	78.3	60.3	15.9	5020	D-O
T-E RIO	TAYLOR-EVANS SEED CO.	Bz	P	M	77	52	10	100.0	1.0	74.6	56.8	15.1	5012	D-O
Check	Tx. Agri. Exp. Stat.	Bz	R	ML	77	57	7	100.0	0.7	80.2	60.8	15.5	5004	D-O
Check	Tx. Agri. Exp. Stat.	R	P	ML	76	51	8	96.7	0.7	75.2	59.7	15.4	5002	D-O

TABLE 7A. GRAIN SORGHUM PERFORMANCE TEST; THRALL, TEXAS 1991

HYBRID *	COMPANY OR BRAND NAME	GRN CLR **	PLT CLR ***	MATU-RITY CLASS ****	DAYS TO 50% FLOWER	PLT. HT., IN.	HEAD EXSER-TION INCHES	% STAND	MIDGE DAM-AGE %	TEST THRESH-ING %	TEST WT. lb/bu	MOIS-TURE %	YIELD lb/A	STAT. SIG. O.05 ****†
ORO Amigo	ORO Hybrids-R.C. Young	Bz	P	ML	77	56	8	98.3	1.3	76.3	58.7	15.5	4997	D-0
ATx2752 x GR126-90M36	Tx. Agri. Exp. Stat.(GP)	R	P	M	78	56	9	100.0	1.0	75.6	60.8	15.6	4990	D-0
A1 x GR107-90M15	Tx. Agri Exp. Stat.(GP)	R	P	M	81	57	5	98.3	3.0	71.5	60.1	15.5	4976	E-0
DEKALB DK-56	DEKALB Plant Genetics	R	P	ML	79	56	10	98.3	1.7	72.7	59.9	16.3	4975	E-0
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	RT	P	ML	76	49	10	100.0	17.0	75.0	55.6	15.3	4936	E-P
8313	Pioneer Hi-Bred Int.,Inc	Bz	P	ML	76	50	7	96.7	3.3	76.7	60.4	16.0	4929	E-P
A1 x GR126-90M36	Tx. Agri Exp. Stat.(GP)	W	P	M	80	57	8	90.0	3.7	71.6	58.9	15.6	4922	E-P
XS292	Pioneer Hi-Bred Int.,Inc	Bz	P	ML	77	48	8	100.0	1.0	78.6	59.1	15.7	4901	E-P
KS 710	Northrup King Co.	R	*	M	75	50	10	100.0	1.0	75.4	59.3	15.8	4859	E-P
630	Cargill Hybrid Seeds	Bz	P	ME	76	52	9	95.0	1.0	74.8	59.4	15.9	4845	E-P
ATx2752 x GR103-90M14	Tx. Agri. Exp. Stat.	R	P	M	77	58	10	100.0	3.3	78.3	60.8	15.5	4818	F-Q
8573	Pioneer Hi-Bred Int.,Inc	Bz	P	ME	75	54	12	96.7	1.0	79.0	60.5	15.5	4760	G-Q
DEKALB DK-37	DEKALB Plant Genetics	Bz	P	ME	75	56	11	96.7	1.3	73.9	59.1	16.0	4752	G-Q
A1 x GR103-90M14	Tx. Agri. Exp. Stat.(GP)	W	P	M	80	57	6	86.7	8.0	70.8	58.6	16.4	4750	G-Q
DELTAPINE 1558	DELTA AND PINE LAND CO.	Rt	P	M	76	53	10	98.3	2.7	79.7	60.7	15.4	4720	H-Q
KS 737	Northrup King Co.	R	*	ML	75	53	12	100.0	0.0	75.8	58.6	15.4	4578	I-R
8195	Pioneer Hi-Bred Int.,Inc	Bz	P	L	78	48	8	96.7	4.7	76.9	57.8	15.2	4516	I-S
ATx2752 x GR134A-90M49	Tx. Agri. Exp. Stat.(GP)	R	P	M	77	53	8	96.7	1.0	73.5	58.9	15.1	4515	I-S
ATx2752 x GR101B-90M13	Tx. Agri. Exp. Stat.	R	P	M	78	52	7	100.0	0.7	75.0	59.3	15.5	4453	J-S
ORO Edge	ORO Hybrids-R.C. Young	Bz	P	ME	75	46	10	100.0	0.0	78.1	59.3	15.1	4436	K-S
8379	Pioneer Hi-Bred Int.,Inc	Bz	P	ML	75	52	12	100.0	0.0	77.2	60.8	15.8	4414	L-S
ATx2752 x GR125-90M35	Tx. Agri. Exp. Stat.(GP)	R	P	M	77	56	10	98.3	1.0	74.0	59.9	15.4	4379	M-S
A1 x GR107A-90M19	Tx. Agri. Exp. Stat.(GP)	W	P	M	80	56	6	98.3	11.7	73.1	60.2	15.8	4303	N-S
607E	Cargill Hybrid Seeds	Bz	P	ME	76	46	10	96.7	0.7	72.2	57.1	16.0	4239	O-S
GSC-3159	Gro Agri Seed Co.	Bz	P	ME	74	47	10	100.0	0.0	77.7	59.0	15.0	4177	P-S
KS 714Y	Northrup King Co.	C	*	M	75	53	11	100.0	3.3	77.2	58.6	15.5	4050	Q-S
Chaparrel	ASGROW SEED COMPANY	R	P	ME	75	53	11	96.7	0.0	76.2	60.2	15.8	3945	R-S
X4060 X	ASGROW SEED COMPANY	W	P	ME	75	52	13	100.0	0.0	74.3	57.6	15.6	3764	S

TEST MEAN= 5054 TEST C.V.= 7.8 LSD .05= 638.2

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

Note 2: Hybrid name starting or ending with an "X" denotes 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.

* Garrison Seed Co. SG-925, SG-942 and Asgrow Topaz 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(*) indicates company did not submit plant color.

TABLE 7A. GRAIN SORGHUM PERFORMANCE TEST; THRALL, TEXAS 1991

HYBRID *	COMPANY OR BRAND NAME	GRN CLR **	PLT CLR ***	MATU- RITY CLASS ****	DAYS TO 50% FLOWER	PLT. HT., IN.	HEAD EXSER- TION INCHES	% STAND	MIDGE DAM- AGE %	THRESH- ING %	TEST WT. lb/bu	MOIS- TURE %	YIELD lb/A	STAT. SIG., 0.05 *****
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**** 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	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	1	6777	52	1862	31	5828
A1 x Tx2783	Tx. Agri. Exp. Stat.	2	5950	90	1387	-	-
DELTAPINE 1506	DELTA AND PINELAND CO.	3	5933	8	2566	1	6901
dk 780	Douglass W. King Seed Co.	4	5803	16	2339	-	-
T-E Y-75	TAYLOR EVANS SEED CO.	5	5800	6	2656	45	5596
ATx2755 x MR120-90M8	Tx. Agri. Exp. Stat. (GP)	6	5644	-	-	-	-
ATx378 x RTx430	Tx. Agri. Exp. Stat.	7	5616	45	1960	7	6333
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	8	5566	27	2230	12	6208
dk 776	Douglass W. King Seed Co.	9	5559	39	2058	20	6013
A1 x 89CC445	Tx. Agri. Exp. Stat. (DR)	10	5551	-	-	-	-
5392	Garst Seed Co.	11	5544	-	-	-	-
CHECK (SG-925)		12	5518	-	-	-	-
A35 x Tx430	Tx. Agri. Exp. Stat. (DR)	13	5504	20	2325	52	5505
HSC Wings	HyPerformer Seed Co.	14	5486	34	2156	23	5966
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	15	5448	51	1864	75	4925
HSC Cherokee	HyPerformer Seed Co.	16	5434	37	2121	30	5844
GSC-1313	Gro Agri Seed Co.	17	5423	28	2212	22	5985
GSC-3148	Gro Agri Seed Co.	18	5321	54	1833	47	5591
NC+ 7B90	NC+ Hybrids	19	5303	-	-	-	-
TS-488	TEXAS SEED CO., INC.	20	5277	-	-	-	-
5319	Garst Seed Co.	21	5266	84	1449	14	6185
F-524	Frontier Hybrids	22	5254	-	-	-	-
GSC-3150	Gro Agri Seed Co.	23	5246	36	2133	-	-
NC+ 573E	NC+ Hybrids	24	5243	42	2723	-	-
857	Cargill Hybrid Seeds	25	5243	-	-	-	-
ATx2752 x GR116-90M34	Tx. Agri. Exp. Stat. (GP)	26	5237	-	-	-	-
A35 x 89CC445	Tx. Agri. Exp. Stat. (DR)	27	5229	-	-	-	-

Table 7B. Thrall, Texas. (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
2665	Northrup King Co.	28	5215	88	1396	51	5528
8601	Pioneer Hi-Bred Int., Inc.	29	5210	-	-	-	-
dk 760	Douglass W. King Seed Co.	30	5138	71	1618	8	6298
ATx399 x RTx430	Tx. Agri. Exp. Stat.	31	5136	77	1558	26	5955
NC+ 472	NC+ Hybrids	32	5113	48	1930	50	5543
ATx2755 x MR102-90M2	Tx. Agri. Exp. Stat. (GP)	33	5100	-	-	-	-
Rustler	Conlee Seed Co., Inc.	34	5082	75	1567	16	6150
DELTAPINE 1552	DELTA AND PINELAND CO.	35	5058	12	2416	28	5855
A35 x (Tx430 x R9188)	Tx. Agri. Exp. Stat. (DR)	36	5056	-	-	-	-
DEKALB DK-40y	DEKALB Plant Genetics	37	5055	-	-	-	-
dk 904W	Douglass W. King Seed Co.	38	5036	-	-	-	-
GSC-1299	Gro Agri Seed Co.	39	5020	17	2333	-	-
T-E Rio	TAYLOR EVANS SEED CO.	40	5012	-	-	-	-
CHECK (SG-942)		41	5004	-	-	-	-
CHECK (TOPAZ)		42	5002	-	-	-	-
ORO Amigo	ORO Hybrids-R. C. Young Seed Co.	43	4997	59	1760	33	5822
ATx2752 x GR126-90M36	Tx. Agri. Exp. Stat. (GP)	44	4990	-	-	-	-
A1 x GR107-90M15	Tx. Agri. Exp. Stat. (GP)	45	4976	-	-	-	-
DEKALB DK-56	DEKALB Plant Genetics	46	4975	2	2791	34	5818
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	47	4936	94	1062	90	4126
8313	Pioneer Hi-Bred Int., Inc.	48	4929	80	1515	15	6155
A1 x GR126-90M36	Tx. Agri. Exp. Stat. (GP)	49	4922	-	-	-	-
XS292	Pioneer Hi-Bred Int., Inc.	50	4901	-	-	-	-
KS 710	Northrup King Co.	51	4859	-	-	-	-
630	Cargill Hybrid Seeds	52	4845	78	1533	-	-
ATx2752 x GR103-90M14	Tx. Agri. Exp. Stat. (GP)	53	4818	-	-	-	-
8573	Pioneer Hi-Bred Int., Inc.	54	4760	24	2279	62	5294

Table 7B. Thrall, Texas. (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
DEKALB DK-37	DEKALB Plant Genetics	55	4752	1	2801	24	5963
A1 x GR103-90M14	Tx. Agri. Exp. Stat. (GP)	56	4750	--	--	--	--
DELTAPINE 1558	DELTA AND PINELAND CO.	57	4720	52	2664	--	--
KS 737	Northrup King Co.	58	4578	40	2051	35	5807
8195	Pioneer Hi-Bred Int., Inc.	59	4516	--	--	--	--
ATx2752 x GR134A-90M49	Tx. Agri. Exp. Stat. (GP)	60	4515	--	--	--	--
ATx2752 x GR101B-90M35	Tx. Agri. Exp. Stat.	61	4453	--	--	--	--
ORO Edge	ORO Hybrids-R. C. Young Seed Co.	62	4436	--	--	--	--
8379	Pioneer HI-Bred Int., Inc.	63	4414	10	2511	48	5582
ATx2752 x GR125-90M35	Tx. Agri. Exp. Stat. (GP)	64	4379	--	--	--	--
A1 x GR107A-90M19	Tx. Agri. Exp. Stat. (GP)	65	4303	--	--	--	--
607E	Cargill Hybrid Seeds	66	4239	--	--	--	--
GSC-3159	Gro Agri Seed Co.	67	4177	29	2212	--	--
KS 714Y	Northrup King Co.	68	4050	--	--	--	--
Chaparrel	ASGROW SEED CO.	69	3945	--	--	--	--
X4060 X	ASGROW SEED CO.	70	3764	--	--	--	--
8278	Pioneer Hi-Bred Int., Inc.	--	--	3	2732	2	6650
W-917-E	WARNER SEED CO., INC.	--	--	7	2611	38	5735
8500	Pioneer Hi-Bred Int., Inc.	--	--	9	2526	39	5723
A1 xTx435	Tx. Agri. Exp. Stat. (DR)	--	--	11	2444	40	5695
XP4039(x)	ASGROW SEED CO.	--	--	13	2385	9	6298
ATx631 x R8505	Tx. Agri. Exp. Stat. (FM)	--	--	14	2384	55	5395
ORO Baron	ORO Hybrids-R. C. Young Seed Co.	--	--	21	2320	36	5791
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	--	--	26	2249	63	5256
ATx631 x 80C2241	Tx. Agri. Exp. Stat. (FM)	--	--	30	2202	71	5071
ST 3308	AgriPro Seed Co.	--	--	31	2193	6	6348

Table 7B. Thrall, Texas. (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
A1 x Tx2794	Tx. Agri. Exp. Stat. (DR)	--	--	32	2174	74	4945
8452	Pioneer Hi-Bred Int., Inc.	--	--	33	2163	42	5672
dk 775	Douglass W. King Seed Co.	--	--	42	2008	4	6400
SENECA	ASGROW SEED CO.	--	--	43	1975	70	5107
AVar x 80C2241	Tx. Agri. Exp. Stat. (FM)	--	--	46	1940	60	5301
DELTAPINE RA787	DELTA AND PINELAND CO.	--	--	49	1916	3	6565
ST D701G	AgriPro Seed Co.	--	--	53	1840	10	6282
847	Cargill Hybrid Seeds	--	--	55	1829	19	6060
XP5049(x)	ASGROW SEED CO.	--	--	56	1817	72	5012
6670	Cargill Hybrid Seeds	--	--	60	1753	32	5826
ATx626 x R8503	Tx. Agri. Exp. Stat. (FM)	--	--	62	1721	78	4716
ORO G Xtra	ORO Hybrids-R. C. Young Seed Co.	--	--	65	1699	69	5120
SG-922	Garrison Seed & Co.	--	--	69	1635	29	5849
A1 x R8503	Tx. Agri. Exp. Stat. (DR)	--	--	70	1630	58	5355
AOK11 x Tx430	Tx. Agri. Exp. Stat. (DR)	--	--	73	1579	37	5742
S9750	Northrup King Co.	--	--	76	1560	13	6186
ATx631 x R8504	Tx. Agri. Exp. Stat. (FM)	--	--	81	1496	84	4485
SG-932	Garrison Seed & Co.	--	--	82	1481	17	6094
A8618 x RTx435	Tx. Agri. Exp. Stat. (FM)	--	--	86	1417	81	4608
GS 712	ASGROW SEED CO.	--	--	87	1407	25	5963
Number Entries:			70		94		97
Test Mean Yield:			5054		1954		5407

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

TABLE 8. AGRONOMIC AND TEST INFORMATION: MCKINNEY

TEST:	1991 Dryland Grain Sorghum Performance Test
LOCATION:	Bailey Farms near Prosper, Texas
COOPERATORS:	Scott Bailey, Ken White, Dennis Pietsch, Randy Gaas, Leon Synatschk and Cloyce Coffman
SOIL TYPE:	Houston black clay
ROW WIDTH:	30"
PREVIOUS CROP:	Cotton
LAND PREPARATION:	Disked (2), field cultivated
DATE PLANTED:	3-28-91, by hand
PLOT LENGTH:	30'
FERTILIZER:	125-34-0, applied pre-plant
HERBICIDE:	.5 lb/A atrazine, banded at planting
INSECTICIDE:	No insecticide at planting, Sprayed twice for midge with Lorsban at label rate
RAINFALL:	March=2.22", April=7.28", May = 3.86"; June = 6.05"; July = 1.10"; August =4.10"; Total = 24.61"
IRRIGATIONS:	None
DATE HARVESTED:	8-20-91, by hand
SIZE HARVESTED PLOT:	1/500 acre
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	62
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	2
MEAN PLANT POP.:	Plants were thinned to approximately 5 plants/foot
TEST MEAN:	4,279 lb/A; yields corrected to 13% moisture
TEST C.V.:	12.3 percent

GENERAL INFORMATION: Erratic weather patterns throughout the growing season may have reduced potential yields at this site. The season started with ample surface and subsoil moisture but surface moisture depleted rapidly from high winds and tillage operations just prior to planting. The marginal moisture conditions resulted in erratic seedling emergence. Heavy rains soon followed thus allowing remaining seeds to germinate and emerge. Although emergence was uneven, it did not appear that flowering was erratic. Severe plant stress was observed just prior to the flowering stage and may have reduced grain fill thus reducing final yields. The test mean yield was 4,279 lb/A compared to the past 3-year average of 4,692 lb/A. Only 10 hybrids produced over 5,000 pounds per acre. The test block was sprayed twice for midge control with Lorsban, but some of the later flowering hybrids still had considerable damage.

It is interesting to note that of the top 10 producing hybrids in the test, six had either white or cream colored grain instead of the traditional red or bronze grain. Feed formulations of white or cream colored sorghum are favored by broiler producers prior to slaughter. The broiler industry is a viable industry in this area.

TABLE 8A. GRAIN SORGHUM PERFORMANCE TEST;McKINNEY, TEXAS 1991

HYBRID *	COMPANY OR BRAND NAME	GRN CLR **	PLT CLR ***	MATU- RITY CLASS ****	DAYS TO 50% FLOWER	PLT. HT., IN.	HEAD EXSER- TION INCHES	% STAND	MIDGE DAM- AGE %	THRESH- ING %	TEST WT. lb/bu	MOIS- TURE %	YIELD lb/A	STAT. SIG., 0.05 *****
618Y	Cargill Hybrid Seeds	Ct	P	ME	79	41	3	95.0	2.3	76.7	51.6	11.4	5575	A
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	82	44	2	98.3	0.7	71.5	55.1	11.9	5405	A-B
ORO Amigo	ORO Hybrids-R.C. Young	Bz	P	ML	81	45	2	98.3	1.0	71.3	54.9	11.5	5330	A-C
DELTAPINE G-1616	DELTA AND PINE LAND CO.	Bz	P	ML	83	46	3	98.3	3.3	72.2	54.0	11.7	5255	A-D
A1 x (Tx430 x R9188)	Tx. Agri. Exp. Stat.(DR)	Wt	P	ML	80	47	2	90.0	7.3	70.3	52.5	11.7	5132	A-E
DEKALB DK-37	DEKALB Plant Genetics	Bz	P	ME	79	48	3	93.3	0.0	67.0	55.9	11.9	5080	A-F
X4060 X	ASGROW SEED CO.	W	P	ME	80	40	4	96.7	0.0	78.2	53.3	11.4	5053	A-G
A1 x Tx430	Tx. Agri. Exp. Stat.(DR)	Wt	P	ML	84	50	2	98.3	1.3	70.9	50.1	11.6	5020	A-H
DELTAPINE 1506	DELTA AND PINE LAND CO.	Ct	P	M	83	50	5	98.3	2.0	68.6	55.1	12.2	5004	A-I
ORO Ivory	ORO Hybrids-R.C. Young	Ct	P	M	80	48	3	93.3	4.0	74.7	54.7	11.8	4914	A-I
KS 737	Northrup King Co.	R	*	ML	79	44	3	98.3	0.0	71.5	55.6	11.7	4869	A-J
W-625-Y	George Warner Seed Co.	Y	R	M	81	47	5	93.3	4.0	63.4	55.9	12.5	4845	A-K
8573	Pioneer Hi-Bred Int.,Inc	Bz	P	ME	80	43	4	95.0	1.7	70.8	56.5	12.0	4815	A-K
DEKALB DK-40y	DEKALB Plant Genetics	Y	P	M	81	43	2	86.7	2.7	75.4	53.1	11.5	4740	A-L
F-524	Frontier Hybrids	Bz	R	ML	82	45	3	96.7	1.3	71.0	52.9	11.7	4713	A-L
8601	Pioneer Hi-Bred Int.,Inc	Bz	P	ME	79	41	3	96.7	0.0	73.2	55.4	11.7	4712	A-L
8379	Pioneer Hi-Bred Int.,Inc	Bz	P	ML	80	42	2	96.7	0.7	74.9	57.3	11.8	4672	A-L
Check	Tx. Agri. Exp. Stat.	*	*	*	80	41	3	95.0	0.0	73.5	57.0	12.1	4668	A-L
Rustler	Conlee Seed Co.,Inc.	R	*	M	82	42	2	96.7	1.3	69.9	54.1	11.7	4595	A-L
Check	Tx. Agri. Exp. Stat.	*	*	*	83	43	2	95.0	5.0	68.7	54.4	11.8	4575	A-L
ATx399 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	81	39	2	91.7	0.7	68.4	50.5	11.3	4507	B-L
ATx378 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	82	52	3	93.3	1.7	71.3	54.1	11.5	4491	B-L
T-E 76	TAYLOR-EVANS SEED CO.	R	P	M	81	39	2	93.3	0.0	70.7	49.9	11.2	4465	B-L
630	Cargill Hybrid Seeds	Bz	P	ME	82	40	1	96.7	1.0	69.7	54.7	11.9	4440	B-M
ATx2752 x Tx2783	Tx. Agri. Exp. Stat.	R	P	M	84	44	2	90.0	0.7	72.0	57.5	12.1	4428	B-M
ORO Edge	ORO Hybrids-R.C. Young	Bz	P	ME	79	39	1	96.7	0.7	72.0	54.7	11.7	4427	B-M
DEKALB DK-56	DEKALB Plant Genetics	R	P	ML	85	47	6	93.3	2.3	66.1	56.2	12.2	4422	B-M
A1 x R8505	Tx. Agri. Exp. Stat.(DR)	Wt	P	ML	84	47	5	95.0	2.3	69.3	54.5	11.9	4413	B-M
8313	Pioneer Hi-Bred Int.,Inc	Bz	P	ML	82	41	1	95.0	1.7	71.5	55.7	11.9	4402	B-M
SG-821	Garrison Seed Co.	Ct	T	M	82	45	6	91.7	2.0	73.4	52.3	11.4	4401	B-M
NC+ 573E	NC+ Hybrids	R	*	M	81	42	1	98.3	0.0	72.7	55.9	11.9	4373	B-M
NC+ 472	NC+ Hybrids	Bz	*	M	82	38	1	100.0	1.0	71.8	48.3	11.3	4365	B-M
A35 x Tx430	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	84	45	5	96.7	4.3	67.4	54.7	12.3	4359	B-M
AVar x R8505	Tx. Agri. Exp. Stat.(DR)	Wt	T	L	85	55	6	90.0	2.7	71.9	57.6	11.6	4329	B-M
SG-858	Garrison Seed Co.	R	P	M	82	41	1	90.0	2.0	70.0	51.8	11.1	4326	C-M
ATx2752 x Tx2864	Tx. Agri. Exp. Stat.	R	P	M	83	41	1	93.3	1.7	66.7	53.4	11.3	4326	C-M
ORO G Xtra	ORO Hybrids-R.C. Young	Bz	P	ML	83	44	2	95.0	5.0	69.2	53.7	11.6	4310	C-M
CHAPARRAL	ASGROW SEED CO.	R	P	ME	82	41	3	98.3	0.7	67.4	54.8	11.7	4297	C-M
XS292	Pioneer Hi-Bred Int.,Inc	Bz	P	ML	83	40	2	98.3	2.0	69.6	54.3	11.9	4293	C-M
T-E EDEN	TAYLOR-EVANS SEED CO.	R	P	ME	79	39	2	96.7	0.0	72.0	55.4	11.7	4291	C-M
Honcho	HyPerformer Seed Co.	Bz	*	ME	80	38	3	96.7	1.0	69.9	53.4	11.6	4262	C-M

TABLE 8A. GRAIN SORGHUM PERFORMANCE TEST;McKINNEY, TEXAS 1991

HYBRID *	COMPANY OR BRAND NAME	GRN CLR **	PLT CLR ***	MATU- RITY CLASS ****	DAYS TO 50% FLOWER	PLT. HT. IN.	HEAD EXSER- TION INCHES	% STAND	MIDGE DAM- AGE %	THRESH- ING %	TEST WT. lb/bu	MOIS- TURE %	YIELD lb/A	STAT. SIG., 0.05 *****
Check	Tx. Agri. Exp. Stat.	*	*	*	83	46	2	98.3	5.0	72.5	57.3	12.0	4246	D-M
DN 31	DyNA Seed Ltd.	R	P	M	80	41	3	91.7	0.0	69.6	52.8	11.5	4208	D-M
F-457	Frontier Hybrids	Bz	R	M	81	41	1	96.7	3.3	68.9	49.7	11.1	4180	D-N
HSC Cherokee	HyPerformer Seed Co.	R	*	M	82	41	2	95.0	2.7	70.5	56.2	11.9	4136	E-N
5392	Garst Seed Co.	Bz	P	ML	82	41	2	98.3	0.0	68.3	54.1	11.7	4127	E-N
ATx399 x RTx2536	Tx. Agri. Exp. Stat.	Rt	P	ML	82	41	3	93.3	0.7	71.6	47.8	10.7	4035	F-0
8195	Pioneer Hi-Bred Int., Inc	Bz	P	L	83	43	3	100.0	2.3	69.4	52.0	11.3	3976	G-0
A4R x Tx430	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	85	41	2	100.0	4.3	70.8	53.1	11.5	3947	H-0
GSC-3159	Gro Agri Seed Co.	Bz	P	ME	79	38	1	88.3	0.0	72.8	55.3	12.0	3937	H-0
ET 602	East Texas Seed Co.	*	*	*	83	43	3	98.3	2.0	67.5	50.2	11.3	3924	I-0
KS 710	Northrup King Co.	R	*	M	80	42	2	95.0	1.0	66.1	52.5	11.3	3800	J-0
A1 x R8503	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	83	47	2	96.7	11.7	59.7	53.1	12.1	3778	K-0
Check	Tx. Agri. Exp. Stat.	*	*	*	83	42	2	93.3	4.0	69.7	56.0	11.7	3700	L-P
ATx2752 x GR107-90M16	Tx. Agri. Exp. Stat.(GP)	R	P	M	82	40	2	91.7	0.7	66.4	56.8	11.9	3657	L-P
DELTAPINE-1492	DELTA AND PINE LAND CO.	Bz	P	ME	82	35	1	93.3	2.0	66.2	47.9	11.0	3375	M-Q
SBPO01 (X)	Seed Source, Inc.	Bz	R	M	85	43	1	95.0	6.7	59.5	48.9	11.2	3160	N-Q
A1 x GR134A-90M49	Tx. Agri. Exp. Stat.(GP)	W	P	M	85	49	3	93.3	15.0	60.3	49.8	11.3	3066	O-Q
ATx2752 x GR107-90M20	Tx. Agri. Exp. Stat.(GP)	R	P	M	87	41	4	91.7	18.3	62.1	55.2	11.6	2789	P-R
Wx88318	George Warner Seed Co.	Rt	R	M	87	49	5	98.3	31.7	55.0	55.4	12.1	2488	Q-S
A1 x GR107-90M20	Tx. Agri. Exp. Stat.(GP)	R	P	M	87	48	4	93.3	61.7	50.4	54.1	12.5	2071	R-S
A1 x GR107A-90M19	Tx. Agri. Exp. Stat.(GP)	W	P	M	86	49	3	96.7	71.7	53.6	50.4	11.8	1768	S

TEST MEAN= 4279 TEST C.V.=12.3 LSD .05=851.0

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 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.

* Triumph TR 60G, East Texas ET610, Conlee Exp-346E and Exp-344E 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(*) indicates 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	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
618Y	Cargill Hybrid Seeds	1	5575	79	3498	-	-
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	2	5405	48	3925	68	4264
ORO Amigo	ORO Hybrids-R. C. Young Seed Co.	3	5330	31	4125	20	5217
DELTAPINE G-1616	DELTA AND PINELAND CO.	4	5255	5	4501	-	-
A1 x (Tx430 x R9188)	Tx. Agri. Exp. Stat. (DR)	5	5132	-	-	-	-
DEKALB DK-37	DEKALB Plant Genetics	6	5080	72	3605	47	4762
X4060 X	ASGROW SEED CO.	7	5053	-	-	-	-
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	8	5020	60	3744	3	5643
DELTAPINE 1506	DELTA AND PINELAND CO.	9	5004	50	3916	5	5543
ORO Ivory	ORO Hybrids-R. C. Young Seed Co.	10	4914	75	3525	-	-
KS 737	Northrup King Co.	11	4869	58	3798	39	4971
W-625-Y	WARNER SEED CO., INC.	12	4845	-	-	-	-
8573	Pioneer Hi-Bred Int., Inc.	13	4815	87	3259	52	4649
DEKALB DK-40y	DEKALB Plant Genetics	14	4740	32	4090	46	4821
F-524	Frontier Hybrids	15	4713	-	-	-	-
8601	Pioneer Hi-Bred Int., Inc.	16	4712	-	-	-	-
8379	Pioneer Hi-Bred Int., Inc.	17	4672	81	3446	62	4450
CHECK (TR 60G)		18	4668	-	-	-	-
Rustler	Conlee Seed Co., Inc.	19	4595	18	4233	24	5175
CHECK (ET 610)		20	4575	56	3859	-	-
ATx399 x RTx430	Tx. Agri. Exp. Stat.	21	4507	46	3959	30	5091
ATx378 x RTx430	Tx. Agri. Exp. Stat.	22	4491	24	4162	21	5207
T-E 76	TAYLOR EVANS SEED CO.	23	4465	35	4071	-	-
630	Cargill Hybrid Seeds	24	4440	70	3623	-	-
ATx2752 x Tx2783	Tx. Agri. Exp. Stat.	25	4428	-	-	-	-

Table 8B. McKinney, Texas. (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
ORO Edge	ORO Hybrids-R. C. Young Seed Co.	26	4427	-	-	-	-
DEKALB DK-56	DEKALB Plant Genetics	27	4422	2	4777	36	4999
A1 x R8505	Tx. Agri. Exp. Stat. (DR)	28	4413	8	4403	-	-
8313	Pioneer Hi-Bred Int., Inc.	29	4402	29	4130	40	4965
SG-821	Garrison Seed & Co.	30	4401	-	-	-	-
NC+ 573E	NC+ Hybrids	31	4373	-	-	-	-
NC+ 472	NC+ Hybrids	32	4365	34	4080	-	-
A35 x Tx430	Tx. Agri. Exp. Stat. (DR)	33	4359	55	3864	41	4954
AVar x R8505	Tx. Agri. Exp. Stat. (DR)	34	4329	-	-	-	-
SG-858	Garrison Seed & Co.	35	4326	-	-	-	-
ATx2752 x Tx2864	Tx. Agri. Exp. Stat.	36	4326	-	-	-	-
ORO G Xtra	ORO Hybrids-R. C. Young Seed Co.	37	4310	21	4200	9	5453
Chaparral	ASGROW SEED CO.	38	4297	-	-	-	-
XS292	Pioneer Hi-Bred Int., Inc.	39	4293	-	-	-	-
T-E Eden	TAYLOR EVANS SEED CO.	40	4291	-	-	-	-
Honcho	HyPerformer Seed Co.	41	4262	-	-	56	4533
CHECK (Exp. 346E)		42	4246	-	-	-	-
DN31	DyNA Seeds Ltd.	43	4208	53	3907	49	4674
F-457	Frontier Hybrids	44	4180	37	4044	-	-
HSC Cherokee	HyPerformer Seed Co.	45	4136	28	4132	34	5017
5392	Garst Seed Co.	46	4127	-	-	-	-
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	47	4035	25	4150	28	5117
8195	Pioneer Hi-Bred Int., Inc.	48	3976	-	-	-	-
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	49	3947	45	3960	1	5759
GSC-3159	Gro Agri Seed Co.	50	3937	-	-	-	-

Table 8B. McKinney, Texas. (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
ET 602	East Texas Seed Co.	51	3924	49	3921	38	4974
KS 710	Northrup King Co.	52	3800	-	-	-	-
A1 x R8503	Tx. Agri. Exp. Stat. (DR)	53	3778	36	4064	-	-
CHECK (Exp.-344E)		54	3700	-	-	-	-
ATx2752 x GR107-90M16	Tx. Agri. Exp. Stat. (GP)	55	3657	-	-	-	-
DELTAPINE 1492	DELTA AND PINELAND CO.	56	3375	65	3673	59	4495
SBP 001(X)	Seed Source Inc.	57	3160	-	-	-	-
A1 x GR134A-90M49	Tx. Agri. Exp. Stat. (GP)	58	3066	-	-	-	-
ATx2752 x GR107-90M20	Tx. Agri. Exp. Stat. (GP)	59	2789	-	-	-	-
Wx88318	WARNER SEED CO., INC.	60	2488	-	-	-	-
A1 x GR107-90M20	Tx. Agri. Exp. Stat. (GP)	61	2071	-	-	-	-
A1 x GR107A-90M19	Tx. Agri. Exp. Stat. (GP)	62	1768	-	-	-	-
ATx631 x R8505	Tx. Agri. Exp. Stat. (FM)	-	-	1	5133	70	4240
AVar x 80C2241	Tx. Agri. Exp. Stat. (FM)	-	-	4	4508	86	3765
2665	Northrup King Co.	-	-	6	4488	18	5260
GS 712	ASGROW SEED CO.	-	-	7	4447	10	5447
ST D701G	AgriPro Seed Co.	-	-	9	4396	7	5511
847	Cargill Hybrid Seeds	-	-	11	4341	15	5291
T-E Y-75	TAYLOR EVANS SEED CO.	-	-	12	4314	14	5292
ATx626 x R8503	Tx. Agri. Exp. Stat. (FM)	-	-	15	4277	45	4830
HSC Exp. 89-4	HyPerformer Seed Co.	-	-	19	4227	4	5610
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	-	-	22	4180	32	5027
HSC Wings	HyPerformer Seed Co.	-	-	23	4175	8	5467
ATx631 x 80C2241	Tx. Agri. Exp. Stat. (FM)	-	-	26	4143	81	4005
A1 x Tx2737	Tx. Agri. Exp. Stat. (DR)	-	-	27	4137	22	5206

Table 8B. McKinney, Texas. (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
DELTAPINE RA787	DELTA AND PINELAND CO.	-	-	40	4032	6	5536
ORO Baron	ORO Hybrids-R. C. Young Seed Co.	-	-	42	4000	29	5096
8500	Pioneer Hi-Bred Int., Inc.	-	-	44	3966	75	4137
ATx631 x R8504	Tx. Agri. Exp. Stat. (FM)	-	-	47	3946	84	3819
8278	Pioneer Hi-Bred Int., Inc.	-	-	52	3908	19	5240
W-632-W	WARNER SEED CO., INC.	-	-	57	3826	54	4595
XP5049(X)	ASGROW SEED CO.	-	-	59	3754	37	4976
T-E Empire	TAYLOR EVANS SEED CO.	-	-	63	3730	80	4010
DELTAPINE G-1492	DELTA AND PINELAND CO.	-	-	65	3673	59	4495
ET 505	East Texas Seed Co.	-	-	66	3668	26	5136
8452	Pioneer Hi-Bred Int., Inc.	-	-	74	3546	77	4074
2244	Northrup King Co.	-	-	77	3514	71	4223
XP4039(X)	ASGROW SEED CO.	-	-	80	3455	50	6441
A8618 x RTx435	Tx. Agri. Exp. Stat. (FM)	-	-	84	3303	87	3643
T-E 35	TAYLOR EVANS SEED CO.	-	-	85	3301	65	4402
SENECA	ASGROW SEED CO.	-	-	86	3275	66	4346
Number Entries:		62		90		92	
Test Mean Yield:			4279		3919		4691

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

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

TEST:	1991 Limited Irrigated Grain Sorghum Performance Test
LOCATION:	Texas A&M University Agricultural Research and Extension Center, Lubbock, Texas
COOPERATORS:	Gary Peterson and Jerry Jones
SOIL TYPE:	Olton loam
ROW WIDTH:	40"
PREVIOUS CROP:	Grain Sorghum
LAND PREPARATION:	Moldboard, disked, chiseled, and bedded
DATE PLANTED:	5-15-91; cone planter
DATE THINNED:	Thinned to approximately 52,000 plants/A on 6-15-91
PLOT LENGTH:	17'
FERTILIZER:	200-0-0
HERBICIDE:	None
INSECTICIDE:	Applied 6.5 lb/A of Counter 15G (terbufos) at planting
RAINFALL:	May = 1.76"; June = 4.05"; July = 2.34"; August = 2.02"; September = 5.85"; October = 0.00 Total = 16.02"
IRRIGATIONS:	4-28-91: 5" (preplant); 7-9-91:4" ; 8-5-91:5"
DATE HARVESTED:	10-14-91, by hand
SIZE HARVESTED PLOT:	1/1000 acre
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	85
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	3
TEST MEAN:	5,899 lb/A; corrected to 13% moisture
TEST C. V.:	15.9 percent

GENERAL INFORMATION: A very good test with little insect or disease pressure. Timely rainfall in addition to three irrigations resulted in outstanding plant growth and development. Plant stands were excellent. Balloons were used for bird control and worked well. Panicles were large with well developed grain.

TABLE 9A. LIMITED IRRIGATION GRAIN SORGHUM PERFORMANCE TEST: LUBBOCK, TEXAS, 1991

HYBRID (*)	COMPANY OR BRAND NAME	GRN CLR **	PLT CLR ***	MATU- RITY CLASS ****	DAYS TO 50% FLOWER	PLANT HT., IN.	HEAD EXSER- TION INCHES	BIRD DAM- AGE %	% LODGE	TEST WT. lb/bu	MOIS- TURE %	GRAIN PER ACRE lb/A	STAT. SIG., 0.05 *****
ATx2752 x Tx2783 F-524	Tx. Agri. Exp. Stat. Frontier Hybrids	R	P	ML	73	49	3	3.3	0.0	59.7	11.9	8405	A
5392	Garst Seed Company	Bz	P	ML	70	43	5	0.0	0.0	55.3	11.9	7999	A-B
AVar x 86E0N361 837	Tx. Agri. Exp. Stat.(DR) Cargill Hybrid Seeds	Wt	T	L	69	56	6	6.7	0.0	57.0	12.1	7425	A-C
		Bz	P	ML	66	47	6	0.0	0.0	54.0	12.3	7276	A-D
												7127	A-E
A8618 x R6956 GSC-1313	Tx. Agri. Exp. Stat.(FM) Gro Agri Seed Company	Rt	P	M	77	50	9	0.0	0.0	55.0	12.0	7080	A-F
ATx2752 x Tx2868	Tx. Agri. Exp. Stat.	R	P	ML	70	49	6	10.0	0.0	57.0	12.1	6904	A-G
ATx631 x 80C2241	Tx. Agri. Exp. Stat.(FM)	W	T	M	71	52	7	13.3	0.0	60.7	12.1	6872	A-G
DEKALB DK-66	DEKALB Plant Genetics	R	P	L	76	53	5	0.0	0.0	56.3	12.2	6864	A-G
										63.7	11.8	6861	A-G
ATx631 x R8511 GSC-3150	Tx. Agri. Exp. Stat.(FM) Gro Agri Seed Company	W	T	M	70	50	5	18.3	3.3	56.3	12.2	6859	A-G
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	Bz	P	ML	68	47	4	11.7	0.0	53.7	12.1	6834	A-G
A1 x GR126-90M36	Tx. Agri. Exp. Stat.(GP)	Bz	R	ML	67	46	4	0.0	0.0	56.0	12.0	6813	A-H
CHECK 2	Tx. Agri. Exp. Stat.	W	P	ML	67	53	6	0.0	0.0	54.0	12.0	6813	A-H
		*	*	*	66	45	8	13.3	0.0	53.7	11.9	6811	A-H
AArg34 x R8605 857	Tx. Agri. Exp. Stat.(FM) Cargill Hybrid Seeds	W	T	M	72	47	6	5.0	0.0	55.0	12.2	6725	A-I
A8606 x R8503	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	67	46	6	3.3	0.0	52.3	11.9	6720	A-I
ATx378 x RTx430	Tx. Agri. Exp. Stat.	W	T	M	73	51	8	5.0	0.0	56.7	12.1	6668	A-I
ORO Amigo	ORO Hybrids-R.C. Young	Bz	R	ML	65	52	5	13.3	0.0	52.3	12.0	6643	A-I
		Bz	P	ML	68	45	4	6.7	0.0	54.0	12.4	6577	A-J
Rustler	Conlee Seed Co., Inc.	R	*	M	68	47	5	13.3	0.0	54.0	12.1	6569	A-J
ATx2752 x GR126-90M36	Tx. Agri. Exp. Stat.(GP)	R	P	ML	73	54	6	3.3	0.0	56.0	12.0	6506	B-J
ATx2752 x GR107-90M18	Tx. Agri. Exp. Stat.(GP)	R	P	ML	71	43	5	10.0	0.0	53.3	11.7	6493	B-J
AArg34 x Dorado	Tx. Agri. Exp. Stat.(FM)	W	T	M	73	59	5	0.0	6.7	55.7	11.9	6478	B-J
ATx2752 x GR107-90M16	Tx. Agri. Exp. Stat.(GP)	R	P	ML	70	41	4	3.3	0.0	56.7	11.9	6447	B-K
A8618 x RTx2783 SBP001 (X)	Tx. Agri. Exp. Stat.(FM) Seed Source, Inc.	Rt	R	M	71	50	5	10.0	0.0	54.3	12.0	6439	B-K
AVar x 87E0366	Tx. Agri. Exp. Stat.(DR)	Bz	R	M	73	49	4	10.0	0.0	51.3	11.8	6423	B-K
ATx2752 x Tx2862	Tx. Agri. Exp. Stat.	Wt	T	L	70	52	4	0.0	0.0	55.7	12.3	6416	B-K
Osage	Tx. Agri. Exp. Stat.	R	P	ML	72	48	5	16.7	0.0	58.7	12.1	6403	B-K
	Asgrow Seed Company	R	P	ML	70	48	4	23.3	0.0	55.7	12.1	6400	B-K
A8610 x 80C2241 X15343	Tx. Agri. Exp. Stat.(FM) Cargill Hybrid Seeds	W	T	M	72	53	9	3.3	0.0	58.3	12.0	6337	B-L
AVar x R8504	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	77	51	3	3.3	0.0	54.7	12.1	6334	B-L
KS 737	Tx. Agri. Exp. Stat.(FM) Northrup King Company	W	T	M	70	54	8	6.7	0.0	51.7	11.8	6255	B-M
T-E 77-E	TAYLOR EVANS SEED CO.	R	*	ML	67	45	7	15.0	6.7	52.0	12.3	6252	B-M
		Bz	P	ML	66	45	4	16.7	0.0	52.7	11.9	6243	B-M
CHECK 1	Tx. Agri. Exp. Stat.	*	*	*	64	43	7	5.0	1.7	53.0	12.2	6190	B-M
SBP005 (X)	Seed Source, Inc.	Bz	R	M	73	49	6	10.0	16.7	51.0	11.9	6145	B-M
Jacques 606E	Jacques Seed Company	Bz	P	ML	69	47	4	3.3	0.0	51.0	11.9	6144	B-M
A1 x R8505	Tx. Agri. Exp. Stat.(DR)	Wt	P	ML	69	49	5	11.7	0.0	54.0	11.9	6143	B-M

TABLE 9A. LIMITED IRRIGATION GRAIN SORGHUM PERFORMANCE TEST: LUBBOCK, TEXAS, 1991

HYBRID (*)	COMPANY OR BRAND NAME	GRN CLR **	PLT CLR ***	MATU- RITY CLASS ****	DAYS TO 50% FLOWER	PLANT HT., IN.	HEAD EXSER- TION INCHES	BIRD DAM- AGE %	% LODGE	TEST WT. lb/bu	MOIS- TURE %	GRAIN PER ACRE lb/A	STAT. SIG., 0.05 ****
ATx399 x RTx430	Tx. Agri. Exp. Stat.	Bz	R	ML	67	44	7	13.3	0.0	53.0	12.1	6132	B-N
ATx399 x Tx2737	Tx. Agri. Exp. Stat.	Bz	P	ML	66	40	6	20.0	0.0	54.0	12.2	6091	B-N
ATx2752 x GR116-90M34	Tx. Agri. Exp. Stat.(GP)	R	P	ML	69	43	5	6.7	0.0	56.0	12.0	6069	C-N
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	Bz	P	ML	68	42	6	15.0	0.0	49.3	12.0	6035	C-N
T-E Y-75	TAYLOR EVANS SEED CO.	Rt	P	ML	69	44	3	8.3	0.0	55.0	12.0	6001	C-N
AArg34 x 80C2241	Tx. Agri. Exp. Stat.(FM)	W	T	M	73	47	5	0.0	0.0	54.7	12.1	5929	C-O
DEKALB DK-56	DEKALB Plant Genetics	R	P	ML	69	53	7	26.7	0.0	54.7	11.8	5911	C-O
2665	Northrup King Company	R	*	ML	67	40	4	3.3	0.0	54.0	12.3	5884	C-O
Towhead	Conlee Seed Co., Inc.	W	*	ML	69	44	7	10.0	0.0	52.3	11.8	5879	C-O
ATx2752 x GR103-90M14	Tx. Agri. Exp. Stat.(GP)	R	P	ML	71	47	7	10.0	0.0	55.0	12.3	5813	C-O
T-E X9160	TAYLOR EVANS SEED CO.	Bz	P	ML	72	45	4	16.7	13.3	54.7	12.1	5793	C-O
ATx2752 x GR107-90M20	Tx. Agri. Exp. Stat.(GP)	R	P	ML	70	46	7	13.3	0.0	56.3	11.9	5768	C-O
ATx2752 x GR134A-90M49	Tx. Agri. Exp. Stat.(GP)	R	P	ML	69	44	3	0.0	0.0	52.3	12.2	5752	C-O
A35 x P46-1	Tx. Agri. Exp. Stat.(DR)	R	P	M	68	50	10	15.0	0.0	54.0	12.4	5740	C-O
A8610 x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	73	52	7	16.7	0.0	57.0	12.2	5719	C-O
TOPAZ	Asgrow Seed Company	R	P	ML	67	41	4	3.3	0.0	51.3	12.1	5656	C-O
ATx2752 x GR107-90M15	Tx. Agri. Exp. Stat.(GP)	R	P	ML	71	46	5	30.0	0.0	54.0	12.4	5642	C-O
A35 x (Tx430 x R9188)	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	73	50	8	15.0	0.0	53.0	12.3	5610	C-P
DELTAPINE G-1616	DELTA AND PINE LAND CO.	Bz	P	ML	64	47	8	46.7	0.0	50.7	12.1	5593	C-P
A1 x 89CC445	Tx. Agri. Exp. Stat.(DR)	Ct	P	ML	64	46	5	16.7	0.0	52.0	11.9	5534	C-P
A1 x (Tx430 x R9188)	Tx. Agri. Exp. Stat.(DR)	Wt	P	ML	63	50	8	26.7	0.0	53.3	12.0	5462	D-Q
A1 x GR107-90M16	Tx. Agri. Exp. Stat.(GP)	R	P	ML	65	45	3	30.0	0.0	57.0	12.4	5436	D-Q
F-333Y	Frontier Hybrids	Y	T	M	65	38	9	13.3	0.0	47.3	12.0	5433	D-Q
A1 x P37-3	Tx. Agri. Exp. Stat.(DR)	Ct	P	M	64	48	6	10.0	0.0	50.0	11.8	5371	D-Q
A1 x Tx2783	Tx. Agri. Exp. Stat.	R	P	ML	66	51	3	45.0	0.0	57.0	11.7	5344	D-Q
DELTAPINE 1506	DELTA AND PINE LAND CO.	Ct	P	M	63	48	11	21.7	0.0	52.3	11.8	5337	E-Q
A4R x Tx430	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	63	44	9	46.7	0.0	53.7	12.4	5305	E-Q
A1 x Tx2862	Tx. Agri. Exp. Stat.	R	P	ML	66	48	5	10.0	0.0	57.0	12.3	5244	E-Q
ATx631 x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	73	51	7	15.0	0.0	55.0	11.9	5163	F-Q
A1 x (Tx2536 x R1177)	Tx. Agri. Exp. Stat.(LC)	Wt	P	ML	64	51	5	23.3	0.0	52.3	12.6	5157	F-Q
AArg34 x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	72	47	7	0.0	0.0	54.3	11.9	5066	G-R
ATx2752 x Tx2864	Tx. Agri. Exp. Stat.	R	P	ML	72	42	2	0.0	0.0	56.0	11.8	4972	G-R
A1 x Tx2794	Tx. Agri. Exp. Stat.(DR)	Ct	P	M	62	47	8	36.7	0.0	51.0	11.8	4966	G-R
A1 x GR107-90M15	Tx. Agri. Exp. Stat.(GP)	R	P	ML	66	49	6	36.7	0.0	54.7	12.0	4887	H-R
X4060 X	Asgrow Seed Company	W	P	ME	64	41	8	20.0	0.0	52.0	11.9	4825	I-R
A1 x GR116-90M34	Tx. Agri. Exp. Stat.(GP)	W	P	ML	65	45	5	23.3	0.0	54.7	12.3	4808	I-R
A1 x Tx2864	Tx. Agri. Exp. Stat.	W	P	ML	67	45	4	6.7	0.0	51.7	12.1	4646	J-R
A1 x GR107-90M20	Tx. Agri. Exp. Stat.(GP)	R	P	ML	68	47	6	10.0	0.0	57.7	12.1	4512	K-R

TABLE 9A. LIMITED IRRIGATION GRAIN SORGHUM PERFORMANCE TEST: LUBBOCK, TEXAS, 1991

HYBRID (*)	COMPANY OR BRAND NAME	GRN CLR **	PLT CLR ***	MATU- RITY CLASS ****	DAYS TO 50% FLOWER	PLANT HT., IN.	HEAD EXSER- TION INCHES	BIRD DAM- AGE %	% LODGE	TEST WT. lb/bu	MOIS- TURE %	GRAIN PER ACRE lb/A	STAT. SIG., 0.05 *****
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	Ct	P	ML	62	46	5	46.7	0.0	53.3	11.9	4457	L-R
A1 x GR134A-90M49	Tx. Agri. Exp. Stat. (GP)	W	P	ML	64	47	4	26.7	0.0	49.7	12.2	4375	M-R
A1 x R8503	Tx. Agri. Exp. Stat. (DR)	Rt	P	ML	63	46	7	43.3	0.0	53.7	11.8	4327	M-R
A1 x GR103-90M14	Tx. Agri. Exp. Stat. (GP)	W	P	ML	66	50	4	36.7	0.0	53.7	12.0	4212	N-R
A1 x P46-1	Tx. Agri. Exp. Stat. (DR)	Ct	P	M	63	50	8	46.7	0.0	52.3	12.1	4074	O-R
A35 x Tx430	Tx. Agri. Exp. Stat. (DR)	Bz	P	M	62	44	9	46.7	0.0	48.0	11.8	3714	P-R
A1 x GR107-90M19	Tx. Agri. Exp. Stat. (GP)	W	P	ML	64	44	3	23.3	0.0	53.0	12.1	3638	Q-R
A1 x Tx2737	Tx. Agri. Exp. Stat. (DR)	Ct	P	M	62	43	9	53.3	0.0	49.7	11.9	3274	R

TEST MEAN= 5899 TEST C.V.=15.9 LSD .05=1509.4

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

Note 2: Hybrid name starting or ending with an "X" denotes 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.

* NC+ Hybrids NC+ 271 and DeKalb DK-41Y were entered as 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 Y=Yellow.

*** Plant color designated by respective seed companies: T=Tan R=Red P=Purple. Those hybrids designated with an asterisk(*) indicates 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 9B. Three-year summary, Limited Irrigation Grain Sorghum Performance Test, Lubbock, Texas.

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
ATx2752 x Tx2783	Tx. Agri. Exp. Stat.	1	8405	—	—	—	—
F-524	Frontier Hybrids	2	7999	14	5652	48	5263
5392	Garst Seed Co.	3	7425	—	—	—	—
AVar x 86EON361	Tx. Agri. Exp. Stat. (DR)	4	7276	—	—	—	—
837	Cargill Hybrid Seeds	5	7127	—	—	—	—
A8618 x R6956	Tx. Agri. Exp. Stat. (FM)	6	7080	—	—	—	—
GSC-1313	Gro Agri Seed Co.	7	6904	27	5474	21	5714
ATx2752 x Tx2868	Tx. Agri. Exp. Stat.	8	6872	—	—	—	—
ATx631 x 80C2241	Tx. Agri. Exp. Stat. (FM)	9	6864	30	5415	49	5263
DEKALB DK-66	DEKALB Plant Genetics	10	6861	2	6211	—	—
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	11	6859	51	5125	28	5600
GSC-3150	Gro Agri Seed Co.	12	6834	13	5656	—	—
ATx2752 x RTx430	Tx. Agri. Exp. Stat. (FM)	13	6813	16	5648	50	5259
A1 x GR126-90M36	Tx. Agri. Exp. Stat. (GP)	14	6813	—	—	—	—
CHECK (NC+ 271)		15	6811	34	5346	15	5834
AAArg34 x R8605	Tx. Agri. Exp. Stat. (FM)	16	6725	—	—	—	—
857	Cargill Hybrid Seeds	17	6720	—	—	—	—
A8606 x R8505	Tx. Agri. Exp. Stat. (FM)	18	6668	—	—	—	—
ATx378 x RTx430	Tx. Agri. Exp. Stat.	19	6643	43	5233	53	5216
ORO Amigo	ORO Hybrids-R. C. Young Seed Co.	20	6577	68	4934	—	—
Rustler	Conlee Seed Co., Inc.	21	6569	54	5115	10	6076
ATx2752 x GR126-90M36	Tx. Agri. Exp. Stat. (GP)	22	6506	—	—	—	—
ATx2752 x GR107-90M18	Tx. Agri. Exp. Stat. (GP)	23	6493	—	—	—	—
AAArg34 x Dorado	Tx. Agri. Exp. Stat. (FM)	24	6478	—	—	—	—
ATx2752 x GR107-90M16	Tx. Agri. Exp. Stat. (GP)	25	6447	—	—	—	—

Table 9B. Lubbock-Limited Irrigation (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
A8618 x RTx2783	Tx. Agri. Exp. Stat. (FM)	26	6439	-	-	-	-
SBP 001 (x)	Seed Source Inc.	27	6423	-	-	-	-
AVar x 87EO366	Tx. Agri. Exp. Stat. (DR)	28	6416	-	-	-	-
ATx2752 x Tx2862	Tx. Agri. Exp. Stat.	29	6403	-	-	-	-
OSAGE	ASGROW SEED CO.	30	6400	79	4614	85	3993
A8610 x 80C2241	Tx. Agri. Exp. Stat. (FM)	31	6337	-	-	-	-
X15343	Cargill Hybrid Seeds	32	6334	-	-	-	-
AVar x R8504	Tx. Agri. Exp. Stat. (FM)	33	6255	58	5031	-	-
KS 737	Northrup King Co.	34	6252	75	4777	24	5621
T-E 77-E	TAYLOR EVANS SEED CO.	35	6243	44	5232	-	-
CHECK (DK-41y)		36	6190	41	5247	73	4647
SBP 005(x)	Seed Source Inc.	37	6145	-	-	-	-
Jacques 606E	Jacques Seed Co.	38	6144	38	5255	-	-
A1 x R8505	Tx. Agri. Exp. Stat. (DR)	39	6143	67	4943	8	6227
ATx399 x RTx430	Tx. Agri. Exp. Stat.	40	6132	65	4956	72	4704
STx399 x Tx2737	Tx. Agri. Exp. Stat.	41	6091	74	4811	22	5674
ATx2752 x GR116-90M34	Tx. Agri. Exp. Stat. (GP)	42	6069	-	-	-	-
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	43	6035	48	5154	40	5443
T-E Y-75	TAYLOR EVANS SEED CO.	44	6001	21	5593	16	5833
AArg34 x 80C2241	Tx. Agri. Exp. Stat. (FM)	45	5929	-	-	-	-
DEKALB DK-56	DEKALB Plant Genetics	46	5911	33	5359	-	-
2665	Northrup King Co.	47	5884	23	5545	3	6448
Towhead	Conlee Seed Co., Inc.	48	5879	36	5326	20	5734
ATx2752 x GR103-90M14	Tx. Agri. Exp. Stat. (GP)	49	5813	-	-	-	-
T-E X9160	TAYLOR EVANS SEED CO.	50	5793	-	-	-	-

Table 9B. Lubbock-Limited Irrigation (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
ATx2752 x GR107-90M20	Tx. Agri. Exp. Stat. (GP)	51	5768	--	--	--	--
ATx2752 x GR134A-90M49	Tx. Agri. Exp. Stat. (GP)	52	5752	--	--	--	--
A35 x P46-1	Tx. Agri. Exp. Stat. (DR)	53	5740	--	--	--	--
A8610 x R8505	Tx. Agri. Exp. Stat. (FM)	54	5719	--	--	--	--
TOPAZ	ASGROW SEED CO.	55	5656	73	4861	27	5603
ATx2752 x GR107-90M15	Tx. Agri. Exp. Stat. (GP)	56	5642	--	--	--	--
A35 x (Tx430 x R9188)	Tx. Agri. Exp. Stat. (DR)	57	5610	--	--	--	--
DELTAPINE G-1616	DELTA AND PINELAND CO.	58	5593	22	5582	--	--
A1 x 89CC445	Tx. Agri. Exp. Stat. (DR)	59	5534	--	--	--	--
A1 x (Tx430 x R9188)	Tx. Agri. Exp. Stat. (DR)	60	5462	--	--	--	--
A1 x GR107-90M16	Tx. Agri. Exp. Stat. (GP)	61	5436	--	--	--	--
F-333Y	Frontier Hybrids	62	5433	--	--	--	--
A1 xP37-3	Tx. Agri. Exp. Stat. (DR)	63	5371	--	--	--	--
A1 x Tx2783	Tx. Agri. Exp. Stat.	64	5344	4	6071	--	--
DELTAPINE 1506	DELTA AND PINELAND CO.	65	5337	--	--	--	--
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	66	5305	57	5039	42	5416
A1 x Tx2862	Tx. Agri. Exp. Stat.	67	5244	--	--	81	4302
ATx631 x R8505	Tx. Agri. Exp. Stat. (FM)	68	5163	--	--	86	3957
A1 x (Tx2536 x R1177)	Tx. Agri. Exp. Stat. (LC)	69	5157	--	--	--	--
AAArg34 x R8505	Tx. Agri. Exp. Stat. (FM)	70	5066	70	4877	--	--
ATx2752 x Tx2864	Tx. Agri. Exp. Stat.	71	4972	--	--	38	5476
A1 x Tx2794	Tx. Agri. Exp. Stat. (DR)	72	4966	--	--	65	5030
A1 x GR107-90M15	Tx. Agri. Exp. Stat. (GP)	73	4887	--	--	--	--
X4060 X	ASGROW SEED CO.	74	4825	--	--	--	--
A1 x GR116-90M34	Tx. Agri. Exp. Stat. (GP)	75	4808	--	--	--	--

Table 9B. Lubbock-Limited Irrigation (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
A1 x Tx2864	Tx. Agri. Exp. Stat.	76	4646	-	-	-	-
A1 x GR107-90M20	Tx. Agri. Exp. Stat. (GP)	77	4512	-	-	-	-
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	78	4457	64	4979	83	4048
A1 x GR134A-90M49	Tx. Agri. Exp. Stat. (GP)	79	4375	-	-	-	-
A1 x R8503	Tx. Agri. Exp. Stat. (DR)	80	4327	-	-	-	-
A1 x GR103-90M14	Tx. Agri. Exp. Stat. (GP)	81	4212	-	-	-	-
A1 x P46-1	Tx. Agri. Exp. Stat. (DR)	82	4074	-	-	-	-
A35 x Tx430	Tx. Agri. Exp. Stat. (DR)	83	3714	71	4874	74	4623
A1 x GR107-90M19	Tx. Agri. Exp. Stat. (GP)	84	3638	-	-	-	-
A1 x Tx2737	Tx. Agri. Exp. Stat. (DR)	85	3274	72	4864	58	5147
SG-942	Garrison Seed & Co.	-	-	1	6338	9	6106
8379	Pioneer Hi-Bred Int., Inc.	-	-	3	6103	25	5615
ST 686	AgriPro Seed Co.	-	-	6	5912	4	6375
6670	Cargill Hybrid Seeds	-	-	11	5688	55	5174
ST D701G	AgriPro Seed Co.	-	-	12	5677	6	6256
ORO G Xtra	ORO Hybrids-R. C. Young Seed Co.	-	-	17	5627	47	5290
5319	Garst Seed Co.	-	-	18	5619	29	5593
AVar x 80C2241	Tx. Agri. Exp. Stat. (FM)	-	-	19	5619	11	5965
8278	Pioneer Hi-Bred Int., Inc.	-	-	24	5521	37	5488
XP5049(x)	ASGROW SEED CO.	-	-	25	5486	68	4776
X15277	Cargill Hybrid Seeds	-	-	31	5406	57	5152
847	Cargill Hybrid Seeds	-	-	32	5368	66	5002
SG-932	Garrison Seed & Co.	-	-	46	5188	18	5821
ATx631 x R8505	Tx. Agri. Exp. Stat. (FM)	-	-	47	5168	86	3957
GS 712	ASGROW SEED CO.	-	-	52	5124	5	6347

Table 9B. Lubbock-Limited Irrigation (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
ORO Baron	ORO Hybrids-R. C. Young Seed Co.	-	-	55	5097	12	5960
8313	Pioneer Hi-Bred Int., Inc.	-	-	56	5095	26	5608
A8618 x RTx435	Tx. Agri. Exp. Stat. (FM)	-	-	62	5014	33	5532
T-E 76	TAYLOR EVANS SEED CO.	-	-	63	5003	19	5770
ATx631 x R8504	Tx. Agri. Exp. Stat. (FM)	-	-	66	4953	64	5049
ATx630 x R3338wx	Tx. Agri. Exp. Stat. (DR)	-	-	77	4744	76	4554
ATx626 x R8503	Tx. Agri. Exp. Stat. (FM)	-	-	80	4588	84	4015
A8201-2 x R6078	Tx. Agri. Exp. Stat. (DR)	-	-	83	4469	75	4598
Number of Entries:		85		87		91	
Test Mean Yield:			5899		5227		5202

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

TABLE 10. AGRONOMIC AND TEST INFORMATION: LUBBOCK-DRYLAND

TEST:	1991 Dryland Grain Sorghum Performance Test
LOCATION:	Texas A&M University Agricultural Research and Extension Center, Lubbock, Texas
COOPERATORS:	D.T. Rosenow and C.A. Woodfin; Professor and Senior Research Associate
SOIL TYPE:	Amarillo fine sandy loam
ROW WIDTH:	40"
PREVIOUS CROP:	Grain Sorghum
LAND PREPARATION:	Shredded sorghum stalks from previous year, disc-bedded on top of old beds, listed rows
DATE PLANTED:	6-17-91; cone planter
DATE THINNED:	7-17-91
PLOT LENGTH:	16'
FERTILIZER:	Applied 40-0-0 preplant
HERBICIDE:	None
INSECTICIDE:	Applied 7.0 lb/A Counter 15G (terbufos) at planting.
RAINFALL:	January = 1.20" ; February = 0.42" ; March = 0.08" ; April = 0.00" ; May = 1.76" ; June = 4.05" ; July = 2.34" ; August = 2.02" ; September = 5.85" ; September = 5.85" ; October = 0.00" ; Total = 17.72"
IRRIGATIONS:	None
DATE HARVESTED:	10-23-91
SIZE HARVESTED PLOT:	1/1000 acre
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	61
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	2
MEAN PLANT POP.:	26,000 plants/A
TEST MEAN:	2,200 lb/A; corrected to 13% moisture
TEST C. V.:	24.4 percent

GENERAL INFORMATION: This was a little below average dryland test with good plant stands, no disease or bird damage, but some midge damage affected yields to some extent. Very little precipitation fell the first four months of the year causing a depletion of subsoil moisture. Timely rainfall in May helped establish plant stands. Pre-flowering drought stress was evident in some hybrids. There was no lodging. Temperatures in August were in the upper 80's & 90's with no 100 degree days recorded. Only one 100 degree day was recorded this year. Post-flowering stress was very mild except for maybe 1 or 2 hybrids. Land preparation consisted of shredding stalks from previous year, running sweeps between rows for weed control, and disc bedding on top of old beds. This was the ninth consecutive year that the same beds have been used in this manner. Furrow dikes are maintained in every row essentially year around, with dikes re-established in every row following planting. Plots were hand harvested and threshed with a plot combine.

TABLE 10A. DRYLAND GRAIN SORGHUM PERFORMANCE TEST:LUBBOCK, TEXAS, 1991

HYBRID (*)	COMPANY OR BRAND NAME	GRN CLR **	PLT CLR ***	MATU- RITY CLASS ****	DAYS TO 50% FLOWER	PLANT HT., IN.	HEAD EXSER- TION INCHES	% MIDGE	TEST WT. lb/bu	MOIS- TURE %	GRAIN PER ACRE lb/A	STAT. SIG., 0.05 *****
CHECK	Tx. Agri. Exp. Stat.	Ye	P	M	59	39	3	0.0	51.1	14.1	2917	A
618Y	Cargill Hybrid Seeds	Ct	P	ME	58	40	5	0.0	53.4	11.5	2862	A-B
8452	Pioneer Hi-Bred Int., Inc	Bz	P	M	56	33	1	0.0	53.3	13.2	2861	A-B
A1 x P37-3	Tx. Agri. Exp. Stat.(DR)	Ct	P	M	61	45	3	1.7	55.1	11.8	2834	A-B
A1 x Tx2737	Tx. Agri. Exp. Stat.(DR)	Ct	P	M	59	41	2	0.0	53.2	14.2	2771	A-C
ORD Ivory	ORD Hybrids-R.C. Young	Ct	P	M	56	38	2	0.0	58.3	13.0	2762	A-C
837	Cargill Hybrid Seeds	Bz	P	ML	64	40	3	1.7	58.1	13.6	2711	A-D
A35 x P37-3	Tx. Agri. Exp. Stat.(DR)	R	P	M	65	43	4	0.0	54.1	13.5	2679	A-D
GSC-1214	Gro Agri Seed Company	Ct	P	ME	57	36	1	2.0	57.7	13.1	2676	A-D
ATx3042 x Tx2737	Tx. Agri. Exp. Stat.	Bz	P	ME	55	36	2	2.7	51.1	11.1	2648	A-D
2030	Northrup King Company	Br	*	E	55	31	2	0.0	49.4	10.0	2632	A-E
DEKALB DK-40y	DEKALB Plant Genetics	Y	P	ME	59	37	2	0.0	56.2	12.5	2624	A-E
Rio Bravo	Western Heritage Seed Co	Bz	*	ML	64	43	2	2.7	45.7	13.5	2534	A-E
A1 x Tx2794	Tx. Agri. Exp. Stat.(DR)	Ct	P	M	61	42	1	0.0	56.5	12.7	2512	A-E
ATx378 x Tx430	Tx. Agri. Exp. Stat.	R	P	ML	64	40	2	1.0	56.1	14.8	2503	A-E
T-E Y-60	TAYLOR EVANS SEED CO.	Ct	P	ME	57	36	1	0.0	58.7	12.5	2476	A-E
DEKALB X-033(X)	DEKALB Plant Genetics	Y	P	ME	58	33	1	1.0	54.9	11.5	2472	A-E
Rio Grande	Western Heritage Seed Co	Bz	*	ME	63	37	1	1.7	56.4	13.7	2464	A-E
Jacques 377-W	Jacques Seed Company	Ct	P	ME	57	39	2	4.0	58.7	13.5	2457	A-F
GSC-3159	Gro Agri Seed Company	Bz	P	ME	55	31	1	3.3	59.1	11.5	2445	A-F
A35 x Tx430	Tx. Agri. Exp. Stat.(DR)	Bz	P	M	64	41	4	1.0	55.1	14.3	2439	A-F
5522Y	Garst Seed Company	Ct	P	M	59	38	3	0.0	57.1	14.1	2390	A-F
A35 x R8503	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	63	37	3	0.0	57.8	17.2	2389	A-F
F-270G	Frontier Hybrids	Bz	R	ME	56	33	1	0.0	57.6	12.4	2389	A-F
A35 x GR107-90M16	Tx. Agri. Exp. Stat.(GP)	R	P	ML	67	42	1	0.0	57.8	26.7	2374	A-F
KS 714Y	Northrup King Company	C	*	M	59	37	3	3.3	57.7	13.3	2371	A-F
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	Bz	P	ML	59	35	3	6.0	54.9	11.7	2354	A-F
T-E X150	TAYLOR EVANS SEED CO.	R	P	E	58	35	0	1.0	54.3	12.7	2353	A-F
MADERA	ASGROW SEED COMPANY	R	P	E	55	32	1	1.0	58.8	11.5	2345	A-F
8601	Pioneer HI-Bred Int., Inc	Bz	P	ME	57	36	2	3.3	58.3	13.2	2335	A-G
T-E EDEN	TAYLOR EVANS SEED CO.	R	P	ME	55	31	0	0.0	54.8	12.1	2322	A-G
A1 x Tx430	Tx. Agri. Exp. Stat.(DR)	Ct	P	ML	64	41	1	0.0	57.8	16.3	2306	A-G
SENECA	ASGROW SEED COMPANY	R	P	ME	56	33	2	0.0	58.5	12.3	2282	A-G
ATx399 x Tx430	Tx. Agri. Exp. Stat.	R	P	ML	63	39	0	3.3	55.7	12.4	2270	A-G
F-300G	Frontier Hybrids	Bz	R	M	61	33	2	0.7	50.6	11.9	2236	A-G
630	Cargill Hybrid Seeds	Bz	P	ME	58	33	1	0.0	55.9	12.7	2235	A-G
ATx2752 x Tx430	Tx. Agri. Exp. Stat.	R	P	ML	64	38	0	0.0	51.9	14.9	2223	A-G
607E	Cargill Hybrid Seeds	Bz	P	ME	57	32	1	1.7	57.0	12.6	2180	A-G
A1 x R8503	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	63	39	0	0.0	57.2	13.4	2128	A-H
A35 x GR107-90M18	Tx. Agri. Exp. Stat.(GP)	R	P	ML	69	38	1	2.7	56.4	21.9	2106	A-H

TABLE 10A. DRYLAND GRAIN SORGHUM PERFORMANCE TEST:LUBBOCK, TEXAS, 1991

HYBRID (*)	COMPANY OR BRAND NAME	GRN CLR **	PLT CLR ***	MATU- RITY CLASS ****	DAYS TO 50% FLOWER	PLANT HT., IN.	HEAD EXSER- TION INCHES	% MIDGE	TEST WT. lb/bu	MOIS- TURE %	GRAIN PER ACRE lb/A	STAT. SIG., .05 *****
A1 x P46-1	Tx. Agri. Exp. Stat.(DR)	Ct	P	M	61	42	2	0.0	58.2	13.5	2103	A-H
ORO Ultra	ORO Hybrids-R.C. Young	Bz	P	M	62	35	1	0.0	54.6	12.1	2055	A-H
DELTAPINE G-1492	DELTA AND PINE LAND CO.	Bz	P	ME	61	36	1	0.0	53.2	11.3	2040	A-H
A1 x (Tx430 x R9188)	Tx. Agri. Exp. Stat.(DR)	Wt	P	ML	62	39	2	0.0	55.8	13.9	2027	A-H
A35 x GR107-90M19	Tx. Agri. Exp. Stat.(GP)	W	P	ML	66	41	2	0.7	56.2	16.0	2010	A-H
DELTAPINE 1506	DELTA AND PINE LAND CO.	Ct	P	M	65	40	3	5.0	57.6	12.7	1963	A-H
A1 x (Tx2536 x R1177)	Tx. Agri. Exp. Stat.(LC)	Wt	P	ML	66	45	0	1.7	50.8	16.5	1943	A-I
A35 x (Tx430 x R9188)	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	68	36	2	6.7	55.4	20.2	1937	A-I
857	Cargill Hybrid Seeds	Bz	P	ML	65	38	2	0.0	45.5	13.8	1920	A-I
CHECK	Tx. Agri. Exp. Stat.	R	P	M	63	39	3	0.0	58.9	14.0	1880	A-I
A35 x Tx2864	Tx. Agri. Exp. Stat.	R	P	ML	66	40	2	4.0	50.4	18.0	1851	A-I
A35 x Tx2868	Tx. Agri. Exp. Stat.	R	P	ML	64	43	3	4.3	55.7	11.5	1793	B-I
A35 x P46-1	Tx. Agri. Exp. Stat.(DR)	R	P	M	66	40	3	11.7	55.9	15.9	1779	B-I
KS 710	Northrup King Company	R	*	M	57	31	1	3.3	54.9	12.8	1681	C-I
ATx399 x Tx2737	Tx. Agri. Exp. Stat.	Bz	P	ML	56	31	1	6.7	54.5	12.3	1639	D-I
A4R x Tx430	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	64	38	1	2.0	52.4	13.3	1527	E-J
A35 x Tx2783	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	68	43	1	2.3	59.5	25.9	1359	F-J
A35 x Tx2862	Tx. Agri. Exp. Stat.	R	P	ML	68	38	0	3.3	58.7	23.2	1251	G-J
A35 x 89CC443	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	70	36	0	13.3	51.6	24.8	1095	H-J
A35 x GR107-90M15	Tx. Agri. Exp. Stat.(GP)	R	P	ML	69	40	0	2.0	57.9	18.9	894	I-J
A35 x GR107-90M20	Tx. Agri. Exp. Stat.(GP)	R	P	ML	69	38	1	10.7	47.6	12.1	577	J

TEST MEAN= 2200 TEST C.V.=24.4 LSD .05=868.1

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

Note 2: Hybrid name starting or ending with an "X" denotes 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.

* DeKalb DK-41y and DK-46 were entered as 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 Ye=Yellow.

*** Plant color designated by respective seed companies: T=Tan R=Red P=Purple. Those hybrids designated with an asterisk(*) indicates 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 10B. Three-year summary, Dryland Grain Sorghum Performance Test, Lubbock, Texas.

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
CHECK (DK-41y)							
618Y	Cargill Hybrid Seeds	1	2917	25	2000	11	2988
8452	Pioneer Hi-Bred Int., Inc.	2	2862	13	2136	-	-
A1 x P37-3	Tx. Agri. Exp. Stat. (DR)	3	2861	3	2380	7	3055
A1 x Tx2737	Tx. Agri. Exp. Stat. (DR)	4	2834	22	2022	-	-
		5	2771	12	2169	43	2400
ORO Ivory	ORO Hybrids-R. C. Young Seed Co.	6	2762	66	1187	-	-
837	Cargill Hybrid Seeds	7	2711	-	-	-	-
A35 x P37-3	Tx. Agri. Exp. Stat. (DR)	8	2679	-	-	-	-
GSC-1214	Gro Agri Seed Co.	9	2676	38	1750	-	-
ATx3042 x Tx2737	Tx. Agri. Exp. Stat.	10	2648	40	1743	52	2244
2030	Northrup King Co.	11	2632	-	-	-	-
DEKALB DK-40y	DEKALB Plant Genetics	12	2624	33	1823	27	2673
Rio Bravo	Western Heritage Seed Co.	13	2534	39	1743	20	2733
A1 x Tx2794	Tx. Agri. Exp. Stat. (DR)	14	2512	9	2268	18	2785
ATx378 x RTx430	Tx. Agri. Exp. Stat.	15	2503	49	1611	9	3038
T-E Y-60	TAYLOR EVANS SEED CO.	16	2476	45	1643	4	3261
DEKALB X-033(x)	DEKALB Plant Genetics	17	2472	-	-	-	-
Rio Grande	Western Heritage Seed Co.	18	2464	61	1313	67	2004
Jacques 377-W	Jacques Seed Co.	19	2457	27	1954	-	-
GSC-3159	Gro Agri Seed Co.	20	2445	2	2454	-	-
A35 x Tx430	Tx. Agri. Exp. Stat. (DR)	21	2439	35	1787	13	2952
5522Y	Garst Seed Co.	22	2390	-	-	-	-
A35 x R8503	Tx. Agri. Exp. Stat. (DR)	23	2389	-	-	-	-
F-270G	Frontier Hybrids	24	2389	20	2053	30	2602
A35 x GR107-90M16	Tx. Agri. Exp. Stat. (GP)	25	2374	-	-	-	-
KS 714Y	Northrup King Co.	26	2371	15	2113	-	-
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	27	2354	67	1178	2	3794
T-E X150	TAYLOR EVANS SEED CO.	28	2353	30	1854	71	1961
MADERA	ASGROW SEED CO.	29	2345	-	-	77	1689
8601	Pioneer Hi-Bred Int., Inc.	30	2335	-	-	-	-

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
T-E Eden	TAYLOR EVANS SEED CO.	31	2322	19	2055	-	-
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	32	2306	18	2061	33	2542
SENECA	ASGROW SEED CO.	33	2282	8	2286	50	2266
ATx399 x RTx430	Tx. Agri. Exp. Stat.	34	2270	81	799	26	2686
F-300G	Frontier Hybrids	35	2236	69	1149	-	-
630	Cargill Hybrid Seeds	36	2235	50	1548	-	-
ATx2752 x Tx430	Tx. Agri. Exp. Stat.	37	2223	76	1067	5	3244
607E	Cargill Hybrid Seeds	38	2180	29	1886	-	-
A1 x R8503	Tx. Agri. Exp. Stat. (DR)	39	2128	72	1089	51	2260
A35 x Gr107-90M18	Tx. Agri. Exp. Stat. (GP)	40	2106	-	-	-	-
A1 x P46-1	Tx. Agri. Exp. Stat. (DR)	41	2103	-	-	-	-
ORO Ultra	ORO Hybrids-R. C. Young Seed Co.	42	2055	-	-	-	-
DELTAPINE G-1492	DELTA AND PINELAND CO.	43	2040	75	1069	-	-
A1 x (Tx430 x R9188)	Tx. Agri. Exp. Stat. (DR)	44	2027	-	-	42	2427
A35 x GR107-90M19	Tx. Agri. Exp. Stat. (GP)	45	2010	-	-	-	-
DELTAPINE 1506	DELTA AND PINELAND CO.	46	1963	-	-	-	-
A1 x (Tx2536 x R1177)	Tx. Agri. Exp. Stat. (LC)	47	1943	-	-	-	-
A35 x (Tx430 x R9188)	Tx. Agri. Exp. Stat. (DR)	48	1937	-	-	-	-
857	Cargill Hybrid Seeds	49	1920	-	-	-	-
CHECK (DK-46)		50	1880	57	1405	23	2723
A35 x Tx2864	Tx. Agri. Exp. Stat.	51	1851	-	-	73	1945
A35 x Tx2868	Tx. Agri. Exp. Stat.	52	1793	-	-	-	-
A35 x P46-1	Tx. Agri. Exp. Stat. (DR)	53	1779	-	-	-	-
KS 710	Northrup King Co.	54	1681	14	2132	-	-
ATx399 x Tx2737	Tx. Agri. Exp. Stat.	55	1639	6	2321	28	2668
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	56	1527	62	1294	-	-
A35 x Tx2783	Tx. Agri. Exp. Stat. (DR)	57	1359	26	1990	-	-
A35 x Tx2862	Tx. Agri. Exp. Stat.	58	1251	-	-	16	2848
A35 x 89CC443	Tx. Agri. Exp. Stat. (DR)	59	1095	-	-	-	-
A35 x GR107-90M15	Tx. Agri. Exp. Stat. (GP)	60	894	-	-	-	-

Table 10B. Lubbock-Dryland (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
A35 x GR107-90M20	Tx. Agri. Exp. Stat. (GP)	61	577	-	-	-	-
ATx631 x R8504	Tx. Agri. Exp. Stat. (FM)	-	-	5	2342	39	2492
A1 x Tx435	Tx. Agri. Exp. Stat. (DR)	-	-	10	2235	63	2101
847	Cargill Hybrid Seeds	-	-	16	2094	14	2869
SG-822	Garrison Seed & Co.	-	-	17	2067	34	2531
XP5049(x)	ASGROW SEED CO.	-	-	21	2028	57	2167
8500	Pioneer Hi-Bred Int., Inc.	-	-	23	2011	8	3049
SG-688	Garrison Seed & Co.	-	-	24	2011	59	2145
W-632-W	WARNER SEED CO., INC.	-	-	31	1847	45	2378
8573	Pioneer Hi-Bred Int., Inc.	-	-	34	1801	17	2838
5511	Garst Seed Co.	-	-	37	1758	3	3444
ATx631 x R8505	Tx. Agri. Exp. Stat. (FM)	-	-	42	1715	6	3228
A1 x R3224sh	Tx. Agri. Exp. Stat. (DR)	-	-	48	1618	44	2400
XP4039(x)	ASGROW SEED CO.	-	-	51	1540	58	2161
ORO Baron	ORO Hybrids-R. C. Young Seed Co.	-	-	52	1504	49	2294
ORO G Xtra	ORO Hybrids-R. C. Young Seed Co.	-	-	54	1493	76	1720
A8618 x RTx435	Tx. Agri. Exp. Stat. (FM)	-	-	56	1436	82	1571
ATx631 x 80C2241	Tx. Agri. Exp. Stat. (FM)	-	-	63	1266	48	2327
ATx626 x R8503	Tx. Agri. Exp. Stat. (FM)	-	-	64	1245	37	2494
AVar x 80C2241	Tx. Agri. Exp. Stat. (FM)	-	-	68	1161	41	2438
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	-	-	70	1141	19	2749
Number of Entries:		61		82		86	
Test Mean Yield:			2200		1673		2401

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

TABLE 11. AGRONOMIC AND TEST INFORMATION: DUMAS

TEST:	1991 Irrigated Grain Sorghum Performance Test
LOCATION:	Tri-C Farms
COOPERATORS:	Joe Cox, Kenneth Holloway, Dennis Pietsch, Randy Gaas, and Leon Synatschk
SOIL TYPE:	Sherman silty clay loam
ROW WIDTH:	30"
PREVIOUS CROP:	Fallow
LAND PREPARATION:	Disked, sweep, chiseled, and bedded
DATE PLANTED:	5-31-91, by hand
DATE THINNED:	6-25-91; thinned to approximately 90,000 plants/acre
PLOT LENGTH:	30'
FERTILIZER:	205-0-0 (Applied 250 lb/A anhydrous ammonia)
HERBICIDE:	Applied 1.5 lb/A of AAtrex 90 (atrazine)
INSECTICIDE:	Applied .087 gal/A of Lorsban on 7-28-91 for greenbug control
RAINFALL:	June = 0.00"; July = 2.5"; August = 2.0"; Sept.= 2.0"
IRRIGATIONS:	Pre-plant and 3 irrigations of approximately 4"/irrigation
DATE HARVESTED:	10-23-91, by hand
SIZE HARVESTED PLOT:	1/1,000 acre
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	84
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	3
TEST MEAN:	8,401 lb/A; yields corrected to 13% moisture
TEST C. V.:	9.7 percent

GENERAL INFORMATION: Beneficial rainfall and a timely irrigation schedule resulted in outstanding yields at this test site. The test was originally scheduled to be harvested with a plot combine, but was harvested by hand and threshed with a plot thresher.

The test mean yield was 8,401 lb/A compared to the past 3-year average of 7,410 lb/A. One hybrid produced over 10,000 lb/A with 16 hybrids producing over 9,000 lb/A. The test block was virtually disease free. Insects were not a problem. Excellent bushel weights were obtained as reflected in the following Table. Moisture at harvest was low due to a freeze approximately one week prior to harvest.

It is interesting to note that of the top 10 producing hybrids, five had white translucent (Wt) grain and tan (T) plant color. These are important characteristics for food quality hybrids and for feed formulations used in the livestock and poultry industry.

TABLE 11A. GRAIN SORGHUM PERFORMANCE TEST: DUMAS, TEXAS, 1991

HYBRID (*)	COMPANY OR BRAND NAME	GRN CLR **	PLT CLR ***	MATU- RITY CLASS ****	DAYS TO 50% FLOWER	PLANT HT., IN.	HEAD EXSER- TION INCHES	% STAND	TEST WT. lb/bu	MOIS- TURE %	THRESH- ING %	GRAIN PER ACRE, LBS.	STAT. SIG., 0.05 *****
DEKALB DK-66	DEKALB Plant Genetics	R	P	L	76	62	6	92.5	60.2	15.4	82.5	10029	A
ATx631 x 80C2241	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	69	59	9	92.5	61.0	14.0	80.5	9776	A-B
CHECK	Tx. Agri. Exp. Stat.	*	*	*	70	57	5	90.0	61.4	13.3	82.7	9637	A-C
W-917-E	George Warner Seed Co.	R	R	L	68	59	6	92.5	61.4	12.5	82.5	9565	A-D
A8610 x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	71	62	9	95.0	60.5	14.3	81.0	9528	A-E
ORD G Xtra	ORD Hybrids-R.C. Young	Bz	P	ML	68	53	5	92.5	58.9	12.9	78.9	9510	A-E
A8606 x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	72	57	8	90.0	60.2	14.3	79.7	9479	A-E
A1 x Tx2783	Tx. Agri. Exp. Stat.(DR)	Rt	P	L	69	63	7	92.5	61.6	12.5	81.1	9413	A-F
W-902-W	George Warner Seed Co.	Wt	T	L	70	62	9	90.0	60.2	13.7	80.7	9369	A-G
ATx631 x R8511	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	72	60	8	77.5	59.7	14.7	78.8	9342	A-G
ATx2752 x Tx2868	Tx. Agri. Exp. Stat.(GP)	R	P	M	69	55	7	90.0	61.0	12.8	80.8	9274	A-H
ATx2752 x Tx2783	Tx. Agri. Exp. Stat.(GP)	R	P	M	70	55	4	87.5	61.3	13.3	82.4	9227	A-H
ATx2752 x GR103-90M14	Tx. Agri. Exp. Stat.(GP)	R	P	M	69	55	9	92.5	61.6	13.3	81.5	9214	A-H
A8618 x R6956	Tx. Agri. Exp. Stat.(FM)	Rt	P	M	74	56	8	92.5	59.2	13.7	79.4	9053	A-I
A8618 x RTx2783	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	74	56	7	92.5	59.1	13.3	79.7	9040	A-I
Rustler	Conlee Seed Company, Inc	R	*	M	69	56	6	95.0	59.2	13.5	79.3	9016	A-J
X15343	Cargill Hybrid Seeds	Bz	P	ML	74	60	7	95.0	60.2	14.8	81.8	8885	A-J
GSC-3605	Gro Agri Seed Company	W	R	ML	69	58	10	87.5	61.0	13.5	79.5	8885	A-J
A8610 x 80C2241	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	75	61	8	87.5	59.9	15.3	79.9	8862	A-J
ATx631 x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	73	62	9	90.0	60.2	14.3	80.7	8847	A-J
SBP001 (X)	Seed Source, Inc.	Bz	R	M	69	53	6	95.0	58.3	12.9	79.9	8807	A-K
NC+ 7B81E	NC+ Hybrids	Bz	*	M	67	47	3	92.5	60.8	12.8	79.0	8776	A-K
ATx631 x 86E0N361	Tx. Agri. Exp. Stat.(DR)	Wh	T	L	69	64	9	92.5	60.6	12.8	81.6	8757	A-K
T-E 77-E	TAYLOR EVANS SEED CO.	Bz	P	ML	68	55	7	92.5	59.5	12.8	79.5	8756	A-K
Exp-3185x	Gro Agri Seed Company	R	P	ML	71	55	10	97.5	61.3	13.8	80.4	8738	A-L
AAArg34 x 80C2241	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	72	53	8	95.0	59.9	12.7	78.7	8699	A-L
NC+ 7C49	NC+ Hybrids	Ct	*	M	67	55	9	92.5	61.4	12.9	79.5	8698	A-L
F-524	Frontier Hybrids	Bz	R	ML	69	56	7	92.5	60.2	13.3	80.6	8688	A-L
ATx378 x Tx430	Tx. Agri. Exp. Stat.	Rt	P	ML	68	66	9	95.0	58.4	12.4	79.6	8667	A-L
837	Cargill Hybrid Seeds	Bz	P	ML	67	54	8	95.0	60.0	12.5	79.1	8666	A-L
W-625-Y	George Warner Seed Co.	Y	R	M	67	56	11	95.0	60.3	13.0	78.5	8645	A-L
X5011 X	ASGROW SEED COMPANY	R	P	ML	70	49	7	95.0	59.7	13.1	77.0	8608	A-L
KS 737	Northrup King Company	R	*	ML	68	52	8	90.0	61.2	12.9	76.7	8607	A-L
Wx88318	George Warner Seed Co.	Rt	R	ML	70	61	10	90.0	61.6	14.2	81.8	8577	A-L
X4060 X	ASGROW SEED COMPANY	W	P	ME	66	49	8	95.0	59.3	12.6	79.5	8559	A-L
ORD Amigo	ORD Hybrids-R.C. Young	Bz	P	ML	68	54	7	92.5	60.2	12.5	77.3	8543	A-L
DELTAPINE 1506	DELTA AND PINE LAND CO.	Ct	P	M	67	59	11	90.0	60.3	13.1	79.0	8541	A-L
T-E Y-75	TAYLOR EVANS SEED CO.	Rt	P	ML	68	54	5	92.5	60.6	12.3	78.8	8478	A-L
CHECK	Tx. Agri. Exp. Stat.	*	*	*	69	57	8	87.5	60.3	12.4	80.6	8476	A-L
A4R x Tx430	Tx. Agri. Exp. Stat.(DR)	Rt	P	ML	67	53	9	95.0	60.5	12.3	78.6	8474	A-L

TABLE 11A. GRAIN SORGHUM PERFORMANCE TEST: DUMAS, TEXAS, 1991

HYBRID (*)	COMPANY OR BRAND NAME	GRN CLR **	PLT CLR ***	MATU- RITY CLASS ****	DAYS TO 50% FLOWER	PLANT HT., IN.	HEAD EXER- TION INCHES	% STAND	TEST WT. lb/bu	MOIS- TURE %	THRESH- ING %	GRAIN PER ACRE, LBS.	STAT. SIG., O.05 *****
ATx2752 x GR107A-90M18T	Tx. Agri. Exp. Stat.(GP)	R	P	M	70	56	8	92.5	61.0	13.3	80.5	8467	A-L
Exp-3186x	Gro Agri Seed Company	Bz	P	ML	69	49	6	90.0	61.0	13.6	79.0	8444	A-L
847	Cargill Hybrid Seeds	Bz	P	ML	68	54	7	92.5	61.1	12.4	79.9	8368	A-L
GSC-3150	Gro Agri Seed Company	Bz	P	ML	68	53	7	87.5	59.0	13.0	81.3	8367	A-L
GSC-1313	Gro Agri Seed Company	R	P	M	68	56	7	92.5	60.2	12.6	79.9	8315	B-L
GS712	ASGROW SEED COMPANY	R	P	ML	69	55	8	92.5	59.2	13.1	79.6	8267	B-L
AVar x R8505	Tx. Agri. Exp. Stat.(DR)	Wt	T	L	74	68	13	87.5	61.5	14.0	83.2	8210	B-L
GSC-3148	Gro Agri Seed Company	R	P	M	69	51	6	95.0	57.0	13.0	74.8	8207	B-L
X6030 X	ASGROW SEED COMPANY	R	P	ML	68	55	11	90.0	60.1	12.6	81.3	8200	B-L
5392	Garst Seed Company	Bz	P	ML	68	55	9	92.5	60.1	13.1	78.4	8144	B-L
AVar x R8504	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	71	64	11	87.5	61.9	13.4	80.7	8128	B-L
W-624-Y	George Warner Seed Co.	Y	R	M	67	51	10	90.0	60.9	13.7	76.4	8112	B-L
ATx2752 x GR101B-90M13T	Tx. Agri. Exp. Stat.(GP)	R	P	M	71	57	7	92.5	61.2	13.1	81.0	8111	B-L
NC+ 573E	NC+ Hybrids	R	*	M	68	49	6	92.5	61.0	12.4	80.2	8068	C-L
2665	Northrup King Company	R	*	ML	69	53	6	95.0	61.0	13.3	81.6	8059	C-L
ATx2752 x Tx430	Tx. Agri. Exp. Stat.	R	P	ML	68	56	7	95.0	60.1	12.8	80.6	8058	C-L
CHECK	Tx. Agri. Exp. Stat.	*	*	*	68	54	8	95.0	59.9	12.4	80.5	8055	C-L
AArg34 x Dorado	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	74	69	9	77.5	60.9	11.9	82.8	8043	C-L
AArg34 x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	73	53	8	85.0	60.8	13.0	78.5	8033	C-L
Towhead	Conlee Seed Company, Inc	W	*	ML	66	54	9	95.0	60.6	12.5	79.7	8030	C-L
T-E X9150	TAYLOR EVANS SEED CO.	R	P	ML	70	52	5	92.5	60.9	12.7	79.3	8026	C-L
DELTAPINE G-1616	DELTA AND PINE LAND CO.	Bz	P	ML	67	54	6	85.0	58.6	12.4	75.6	7979	C-L
T-E WAHOO	TAYLOR EVANS SEED CO.	Wh	R	L	72	57	10	92.5	61.0	13.4	82.2	7978	C-L
NC+ 472	NC+ Hybrids	Bz	*	M	67	45	5	92.5	57.7	12.5	75.9	7951	D-L
DEKALB DK-56	DEKALB Plant Genetics	R	P	ML	70	57	9	92.5	61.2	12.4	76.2	7910	D-L
857	Cargill Hybrid Seeds	Bz	P	ML	67	52	7	97.5	59.8	13.1	79.1	7873	E-L
ORO Hombre	ORO Hybrids-R.C. Young	R	P	ML	68	50	7	92.5	56.4	12.2	75.1	7848	E-L
ATx2752 x Tx2864	Tx. Agri. Exp. Stat.(GP)	R	P	M	68	50	5	95.0	59.4	13.2	77.5	7846	E-L
Jacques 411	Jacques Seed Company	Bz	P	M	68	46	7	82.5	60.0	12.6	77.3	7747	F-L
Exp-3187x	Gro Agri Seed Company	R	P	ML	71	53	6	85.0	59.8	13.5	78.7	7723	G-L
TOPAZ	ASGROW SEED COMPANY	R	P	ML	68	51	8	82.5	61.0	13.0	78.9	7707	G-L
F-333Y	Frontier Hybrids	Y	R	M	66	47	10	95.0	60.4	12.7	76.2	7703	G-L
T-E X9160	TAYLOR EVANS SEED CO.	Bz	P	ML	69	48	5	87.5	60.9	13.6	77.9	7657	H-L
ATx2752 x GR107-90M20	Tx. Agri. Exp. Stat.(GP)	R	P	M	72	51	8	80.0	61.3	14.0	78.5	7644	H-L
ATx399 x Tx430	Tx. Agri. Exp. Stat.	R	P	ML	68	51	7	87.5	57.6	12.9	75.2	7625	H-L
CHECK	Tx. Agri. Exp. Stat.	*	*	*	68	48	7	87.5	62.1	13.4	79.2	7526	I-L
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	Bz	P	ML	67	50	8	92.5	55.9	11.7	73.7	7520	I-L
NC+ 8B11	NC+ Hybrids	Bz	*	ML	70	49	8	90.0	60.3	14.3	80.3	7517	I-L
T-E X9140	TAYLOR EVANS SEED CO.	R	P	L	75	54	10	85.0	61.2	14.1	82.0	7510	I-L

TABLE 11A. GRAIN SORGHUM PERFORMANCE TEST: DUMAS, TEXAS, 1991

HYBRID (*)	COMPANY OR BRAND NAME	GRN CLR **	PLT CLR ***	MATU- RITY CLASS ****	DAYS TO 50% FLOWER	PLANT HT., IN.	HEAD EXSER- TION INCHES	% STAND	TEST WT. lb/bu	MOIS- TURE %	THRESH- ING %	GRAIN PER ACRE, LBS.	STAT. SIG., O.05 *****
AArg34 x R8605	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	72	54	9	90.0	60.7	12.4	78.7	7418	I-L
ATx399 x Tx2737	Tx. Agri. Exp. Stat.	Bz	P	ML	67	49	8	97.5	60.2	12.3	76.2	7352	J-L
SBPO12 (X)	Seed Source, Inc.	Bz	R	M	68	51	7	92.5	61.0	12.8	79.8	7154	K-L
AVar x 86EON361	Tx. Agri. Exp. Stat.(DR)	Wt	T	L	68	66	10	92.5	61.9	11.9	80.5	7065	L
X4080 X	ASGROW SEED COMPANY	R	P	M	67	45	8	80.0	60.2	13.8	79.0	7056	L

TEST MEAN= 8401 TEST C.V.= 9.7 LSD .05=1310.4

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

Note 2: Hybrid name starting or ending with an "X" denotes 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.

* Garrison Seed Co. SG-942, Asgrow Seed Co. OSAGE, Douglass W. King Co. dk776 and Pioneer 8379 were entered as 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(*) indicates 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	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
DEKALB DK-66	DEKALB Plant Genetics	1	10029	1	8798	65	7112
ATx631 x 80C2241	Tx. Agri. Exp. Stat. (FM)	2	9776	55	7189	9	7916
CHECK (SG-942)		3	9637	20	7942	3	8222
W-917-E	WARNER SEED CO., INC.	4	9565	14	8026	14	7822
A8610 x R8505	Tx. Agri. Exp. Stat. (FM)	5	9528	-	-	-	-
ORO G Xtra	ORO Hybrids-R. C. Young Seed Co.	6	9510	21	7927	62	7172
A8606 x R8505	Tx. Agri. Exp. Stat. (FM)	7	9479	-	-	-	-
A1 x Tx2783	Tx. Agri. Exp. Stat. (DR)	8	9413	7	8155	-	-
W-902-W	WARNER SEED CO., INC.	9	9369	-	-	28	7500
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	10	9342	9	8088	4	8220
Atx2752 x Tx2868	Tx. Agri. Exp. Stat. (GP)	11	9274	-	-	-	-
Atx2752 x Tx2783	Tx. Agri. Exp. Stat. (GP)	12	9227	-	-	-	-
ATx2752 x GR103-90M14	Tx. Agri. Exp. Stat. (GP)	13	9214	-	-	-	-
A8618 x R6956	Tx. Agri. Exp. Stat. (FM)	14	9053	-	-	-	-
A8618 x RTx2783	Tx. Agri. Exp. Stat. (FM)	15	9040	-	-	-	-
Rustler	Conlee Seed Co., Inc.	16	9016	49	7328	78	6865
X15343	Cargill Hybrid Seeds	17	8885	-	-	-	-
GSC-3605	Gro Agri Seed Co.	18	8885	4	8238	-	-
A8618 x 80C2241	Tx. Agri. Exp. Stat. (FM)	19	8862	-	-	-	-
ATx631 x R8505	Tx. Agri. Exp. Stat. (FM)	20	8847	66	7034	5	8148
SBP 001(X)	Seed Source Inc.	21	8807	-	-	-	-
NC+ 7B81E	NC+ Hybrids	22	8776	-	-	-	-
ATx631 x 86EON361	Tx. Agri. Exp. Stat. (DR)	23	8757	-	-	-	-
T-E 77-E	TAYLOR EVANS SEED CO.	24	8756	40	7470	34	7412
Exp.-3185x	Gro Agri Seed Co.	25	8738	-	-	-	-
AAArg34 x 80C2241	Tx. Agri. Exp. Stat. (FM)	26	8699	-	-	-	-
NC+ 7C49	NC+ Hybrids	27	8698	-	-	-	-
F-524	Frontier Hybrids	28	8688	63	7078	55	7215
ATx378 x RTx430	Tx. Agri. Exp. Stat.	29	8667	35	7545	12	7876

Table 11B. Dumas, Texas (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
837	Cargill Hybrid Seeds	30	8666	-	-	-	-
W-625-Y	WARNER SEED CO., INC.	31	8645	-	-	-	-
X5011 X	ASGROW SEED CO.	32	8608	-	-	-	-
KS 737	Northrup King Co.	33	8607	77	6475	61	7194
Wx88318	WARNER SEED CO., INC.	34	8577	-	-	-	-
X4060 X	ASGROW SEED CO.	35	8559	-	-	-	-
ORO Amigo	ORO Hybrids-R. C. Young Seed Co.	36	8543	27	7715	-	-
DELTAPINE 1506	DELTA AND PINELAND CO.	37	8541	-	-	-	-
T-E Y-75	TAYLOR EVANS SEED CO.	38	8478	57	7170	52	7235
CHECK (OSAGE)		39	8476	25	7723	41	7339
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	40	8474	11	8081	-	-
ATx2752 x GR107A-90M18	Tx. Agri. Exp. Stat. (GP)	41	8467	-	-	-	-
Exp.-3186x	Gro Agri Seed Co.	42	8444	-	-	-	-
847	Cargill Hybrid Seeds	43	8368	36	7532	33	7429
GSC-3150	Gro Agri Seed Co.	44	8367	28	7712	46	7288
GSC-1313	Gro Agri Seed Co.	45	8315	42	7451	45	7297
GS 712	ASGROW SEED CO.	46	8267	45	7368	24	7551
AVar x R8505	Tx. Agri. Exp. Stat. (DR)	47	8210	-	-	-	-
GSC-3148	Gro Agri Seed Co.	48	8207	51	7321	79	6864
X6030 X	ASGROW SEED CO.	49	8200	-	-	-	-
5392	Garst Seed Co.	50	8144	-	-	-	-
AVar xR8504	Tx. Agri. Exp. Stat. (FM)	51	8128	76	6566	-	-
W-624-Y	WARNER SEED CO., INC.	52	8112	-	-	-	-
ATx2752 x GR101B-90M13	Tx. Agri. Exp. Stat. (GP)	53	8111	-	-	-	-
NC+ 573E	NC+ Hybrids	54	8068	-	-	-	-
2665	Northrup King Co.	55	8059	50	7322	64	7113
ATx2752 x Tx430	Tx. Agri. Exp. Stat.	56	8058	41	7458	44	7301
CHECK (dk 776)		57	8055	-	-	61	5107

Table 11B. Dumas, Texas (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
AArg34 x Dorado	Tx. Agri. Exp. Stat. (FM)	58	8043	-	-	-	-
AArg34 x R8505	Tx. Agri. Exp. Stat. (FM)	59	8033	75	6867	-	-
Twohead	Conlee Seed Co., Inc.	60	8030	29	7665	32	7453
T-E X9150	TAYLOR EVANS SEED CO.	61	8026	-	-	-	-
DELTAPINE G-1616	DELTA AND PINELAND CO.	62	7979	26	7718	-	-
T-E Wahoo	TAYLOR EVANS SEED CO.	63	7978	3	8420	-	-
NC+ 472	NC+ Hybrids	64	7951	-	-	-	-
DEKALB DK-56	DEKALB Plant Genetics	65	7910	32	7589	-	-
857	Cargill Hybrid Seeds	66	7873	-	-	-	-
ORO Hombre	ORO Hybrids-R. C. Young Seed Co.	67	7848	-	-	-	-
ATx2752 x Tx2864	Tx. Agri. Exp. Stat. (GP)	68	7846	-	-	-	-
Jacques 411	Jacques Seed Co.	69	7747	-	-	-	-
Exp.-3187(x)	Gro Agri Seed Co.	70	7723	-	-	-	-
TOPAZ	ASGROW SEED CO.	71	7707	60	7145	20	7638
F-333Y	Frontier Hybrids	72	7703	-	-	70	7020
T-E X9160	TAYLOR EVANS SEED CO.	73	7657	-	-	-	-
ATx2752 x GR107-90M20	Tx. Agri. Exp. Stat. (GP)	74	7644	-	-	-	-
ATx399 x RTx430	Tx. Agri. Exp. Stat.	75	7625	62	7121	81	6829
CHECK (8379)		76	7526	19	7954	7	7987
ATx399 x Tx2536	Tx. Agri. Exp. Stat.	77	7510	2	8487	76	6912
NC+ 8B11	NC+ Hybrids	78	7517	-	-	-	-
T-E X9140	TAYLOR EVANS SEED CO.	79	7510	-	-	-	-
AArg34 x R8605	Tx. Agri. Exp. Stat. (FM)	80	7418	-	-	-	-
ATx399 x Tx2737	Tx. Agri. Exp. Stat.	81	7352	58	7167	85	6663
SBP 012(x)	Seed Source Inc.	82	7154	-	-	-	-
AVar x 86EON361	Tx. Agri. Exp. Stat. (DR)	83	7065	-	-	-	-
X4080 X	ASGROW SEED CO.	84	7056	-	-	-	-
SG-932	Garrison Seed & Co.	-	-	5	8236	59	7202

Table 11B. Dumas, Texas (Continued)

HYBRID	COMPANY	1991		1990		1989	
		RANK	YIELD	RANK	YIELD	RANK	YIELD
dk 775	Douglass W. King Seed Co.	--	--	13	8037	8	7945
AVar x 80C2241	Tx. Agri. Exp. Stat. (FM0	--	--	15	8022	1	8650
ST 3308	AgriPro Seed Co.	--	--	22	7916	26	7522
8278	Pioneer Hi-Bred Int., Inc.	--	--	23	7820	23	7568
ST D701G	AgriPro Seed Co.	--	--	24	7803	27	7512
W-844-E	WARNER SEED CO., INC.	--	--	30	7637	37	7365
ORO Baron	ORO Hybrids-R. C. Young Seed Co.	--	--	37	7506	60	7194
Jacques 606E	Jacques Seed Co.	--	--	38	7478	77	6883
XP5049(x)	ASGROW SEED CO.	--	--	44	7381	50	7253
8313	Pioneer Hi-Bred Int., Inc.	--	--	47	7347	19	7658
T-E 76	TAYLOR EVANS SEED CO.	--	--	52	7314	83	6726
ST 686	AgriPro Seed Co.	--	--	59	7146	16	7730
W-632-W	WARNER SEED CO., INC.	--	--	61	7139	69	7037
Maxima	Big Crop Seed Co.	--	--	64	7073	21	7607
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	--	--	65	7071	31	7488
Jacques 477W	Jacques Seed Co.	--	--	67	7022	39	7355
ATx631 x R8504	Tx. Agri. Exp. Stat. (FM)	--	--	68	7007	35	7397
ATx626 x R8503	Tx. Agri. Exp. Stat. (FM)	--	--	72	6984	66	7103
A8618 x RTx435	Tx. Agri. Exp. Stat. (FM)	--	--	73	6964	11	7890
6670	Cargill Hybrid Seeds	--	--	74	6897	36	7370
630	Cargill Hybrid Seeds	--	--	79	6346	68	7073
Number Entries:		84		80		88	
Test Mean Yield:		8401		7490		7346	

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

SUPPLEMENT

This section contains results from supplementary grain sorghum tests conducted at Beaumont, Eagle Lake, Runnels County, and Halfway, Texas. Although 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. GRAIN SORGHUM AGRONOMIC AND TEST INFORMATION, 1991.

LOCATION:	Beaumont, Texas	Eagle Lake, Texas
COOPERATOR:	John W. Sij	John W. Sij and Jack Vawter
SOIL TYPE:	Bernard-Morey silt loam	Nada fine sandy loam
PREVIOUS CROP:	Soybean	Fallow
TEST DESIGN:	Randomized complete block	Randomized complete block
LAND PREPARATION:	Disked and bedded	Disked and bedded
DATE PLANTED:	March 21	March 26
PLOT SIZE:	0.0025 acres 2 rows, 32" x 20' each	0.0025 acres 2 rows, 32" x 20' each
NUMBER REPLICATIONS:	3	3
FERTILIZER:	75-30-30 preplant on Mar. 20 75-30-30 topdress on Apr. 25 100-0-0 on July 26 after main-crop stubble shredded	14-42-42 preplant on March 6 45-0-0 topdress on April 22 35-0-0 topdress on May 6
HERBICIDE:	2.0 lb ai/A AAtrex 4L and 2.0 lb ai/A Dual 8E preemergence on March 21	2.0 lb ai/A AAtrex 4L and 2.0 lb ai/A Dual 8E preemergence on March 26
INSECTICIDE:	7 lb/A Furadan 15G on Mar. 21 7 oz/A Pounce on May 31 and 4 oz/A Pounce on June 12 for webworm	7 lb/A Furadan 15G on Mar. 26 0.25 lb ai/A Lorsban 4E on June 5, 11, 17, and 24 for webworm
RAINFALL (inches):	Feb. = 5.64, Mar. = 2.05 Apr. = 10.44, May = 9.88 June = 10.83, July = 4.27 Aug. = 4.95, Sept. = 3.20 Oct. = 2.19, Nov. = 3.08	Feb. = 2.59, Mar. = 1.17 Apr. = 7.07, May = 3.17 June = 4.92, July = 4.95
DATE HARVESTED:	July 17 (main crop) November 12 (ratoon crop)	July 18
SIZE HARVESTED PLOT:	0.0025 acres 2 rows, 32" x 20' each	0.0025 acres 2 rows, 32" x 20' each
MEAN PLANT POP./A:	70000	70000
TEST MEAN (lb/A):	4300 (main crop) 890 (ratoon crop) Adjusted to 13% moisture and 60 lb/bu at both locations	3070
STD. ERROR OF MEAN:	510 lb/A (main crop) 230 lb/A (ratoon crop)	470 lb/A
TEST CV:	20.6% (main crop) 44.0% (ratoon crop)	26.7%
LSD(0.1):	1270 lb/A (main crop) 650 lb/A (ratoon crop)	1120 lb/A

TABLE S2. GRAIN SORGHUM PERFORMANCE TEST, BEAUMONT, 1991.

Entry	Company or brand name	Days to 50% flower	Plant height (in.)	Panicle exs. (in.)	Panicle length (in.)	Bird damage (%)	Desir. rating (1-5)*	Test wt. (lb/bu)	Main yield (lb/A)	Ratoon yield (lb/A)	Total yield (lb/A)
ATx2752 x SC103-12E	TAES	66	60	7	10	0	3.0	54.8	5700	1250	6950
8300	Pioneer Hi-Bred	72	56	6	12	0	2.0	55.1	5600	510	6110
HSC Cherokee	HyPerformer Seed	71	53	5	10	2	3.0	56.2	5490	570	6060
D701G	AgriPro	73	55	3	11	3	2.8	55.5	5450	500	5950
A2Tx632 x (TX430 x RIO)	TAES	74	56	6	11	3	3.2	53.7	5300	640	5940
8313	Pioneer Hi-Bred	72	50	5	12	2	2.2	55.2	5230	1190	6420
A2Tx632 x SC103-12E	TAES	71	63	7	11	0	3.8	52.7	5040	980	6020
ATx378 x SC103-12E	TAES	67	64	7	11	0	3.7	53.7	5010	1080	6090
A28603 x SC103-12E	TAES	73	55	8	12	0	2.0	54.0	4800	0	4800
G-1711	Delta & Pine Land	73	55	4	10	0	2.2	52.7	4680	390	5070
TS-488	Texas Seed	73	53	3	10	0	3.0	54.0	4620	520	5140
9850	AgriPro	73	56	5	9	2	2.8	55.7	4530	930	5460
A28603 x (TX430 x RIO)	TAES	76	56	7	10	0	2.2	52.5	4480	1680	6160
G522 DR	Delta & Pine Land	73	53	6	11	5	2.8	51.0	4470	1120	5590
HSC Wings	HyPerformer Seed	74	57	6	11	3	2.8	52.8	4420	670	5090
DP 1710	Delta & Pine Land	73	53	5	10	0	2.8	53.2	4400	870	5270
AgriPro 686	AgriPro	72	53	3	9	2	3.0	54.4	4380	1120	5500
RA 787	Delta & Pine Land	74	56	5	11	3	2.3	51.0	4310	1630	5940
TS-477	Texas Seed	74	55	3	10	0	2.0	55.4	4170	730	4900
DP 1552	Delta & Pine Land	74	57	4	10	3	2.7	51.6	4120	450	4570
A8618 x (TX430 x RIO)	TAES	77	57	6	11	0	2.7	49.2	4040	780	4820
ATx629 x RTx434	TAES	78	65	5	11	3	3.2	51.2	4040	260	4300
ATx631 x R8505	TAES	76	63	5	13	5	2.5	51.7	4040	740	4780
GS 712	Asgrow Seed	75	53	6	10	2	3.0	54.5	3900	590	4490
DP 1558	Delta & Pine Land	72	52	5	11	3	2.8	54.5	3840	1150	4990
A8618 x (SC103 x SC237)	TAES	77	55	5	11	0	2.2	52.1	3790	590	4380
ATx378 x RTx434	TAES	74	67	7	11	3	3.3	51.2	3640	1020	4660
A8618 x SC103-12E	TAES	73	54	6	13	0	2.7	50.9	3610	630	4240
8379	Pioneer Hi-Bred	73	52	8	10	0	3.2	52.3	3490	1250	4740
ATx626 x R8503	TAES	78	56	2	13	3	3.0	51.1	3400	0	3400
Topaz	Asgrow Seed	73	53	5	11	3	3.5	53.0	3350	1260	4610
ATx378 x SC326-6	TAES	75	54	3	10	8	4.0	53.4	3060	0	3060
ATx631 x Dorado	TAES	78	84	4	13	28	5.0	52.3	2120	0	2120

MAIN YIELD TEST MEAN = 4300 (510) lb/A CV = 20.6% LSD(0.1) = 1270 lb/A
 RATOON YIELD TEST MEAN = 890 (230) lb/A CV = 44.0% LSD(0.1) = 650 lb/A

* Desirability rating: 1 = excellent, 5 = very poor.

TABLE S3. GRAIN SORGHUM PERFORMANCE TEST, EAGLE LAKE, 1991.

Entry	Company or brand name	Days to 50% flower	Plant height (in.)	Panicle exs. (in.)	Panicle length (in.)	Bird damage (%)	Desir. rating (1-5)*	Test wt. (lb/bu)	Yield (lb/A)
Topaz	Asgrow Seed	66	44	2	10	2	3.3	55.4	3940
HSC Cherokee	HyPerformer Seed	67	41	1	9	2	3.0	53.5	3840
ATx378 x SC103-12E	TAES	66	51	3	10	2	2.7	50.0	3680
RA 787	Delta & Pine Land	69	45	2	10	2	2.5	48.0	3660
ATx2752 x SC103-12E	TAES	68	47	3	9	0	2.5	53.9	3620
8379	Pioneer Hi-Bred	67	42	2	11	3	3.0	52.2	3550
TS-488	Texas Seed	70	39	2	8	0	3.5	54.4	3530
A28603 x (TX430 x RIO)	TAES	74	45	5	8	3	2.3	49.8	3480
TS-477	Texas Seed	70	43	2	8	2	3.3	53.5	3440
8313	Pioneer Hi-Bred	66	42	1	10	3	3.0	53.9	3350
G-1711	Delta & Pine Land	65	47	1	11	2	3.0	53.4	3350
HSC Wings	HyPerformer Seed	69	43	0	10	0	3.0	53.8	3310
GS 712	Asgrow Seed	66	44	2	9	5	3.0	50.6	3270
AgriPro 686	AgriPro	69	40	3	8	2	3.7	50.4	3240
A8618 x SC103-12E	TAES	70	45	4	11	2	2.7	52.6	3220
9850	AgriPro	70	43	2	7	3	3.2	50.0	3140
A28603 x SC103-12E	TAES	68	44	6	10	0	2.3	51.0	3100
DP 1552	Delta & Pine Land	70	44	3	9	0	3.0	52.6	3080
DP 1710	Delta & Pine Land	66	43	2	8	2	3.0	50.8	3070
A2Tx632 x SC103-12E	TAES	67	48	3	11	3	2.8	51.8	2950
DP 1558	Delta & Pine Land	67	41	3	10	5	3.2	49.7	2890
ATx378 x RTx434	TAES	70	49	5	9	5	3.3	49.2	2880
A2Tx632 x (TX430 x RIO)	TAES	67	45	2	11	0	3.7	49.1	2860
ATx631 x Dorado	TAES	79	63	3	10	5	3.5	49.1	2820
A8618 x (TX430 x RIO)	TAES	77	44	4	10	3	2.8	42.3	2800
8300	Pioneer Hi-Bred	68	44	1	12	7	3.2	51.5	2790
A8618 x (SC103 x SC237)	TAES	75	45	5	11	0	2.5	49.7	2640
G522 DR	Delta & Pine Land	69	41	2	10	3	3.8	48.7	2570
ATx629 x RTx434	TAES	78	48	4	9	2	3.0	48.5	2540
D701G	AgriPro	68	45	2	10	7	3.2	51.6	2500
ATx631 x R8505	TAES	73	47	1	11	7	3.2	43.0	2230
ATx378 x SC326-6	TAES	74	43	5	9	5	4.2	52.0	2020
ATx626 x R8503	TAES	72	45	1	11	2	3.5	50.3	1940
TEST MEAN = 3070 (470) lb/A		CV = 26.7%	LSD(0.1) = 1120 lb/A						

* Desirability rating: 1 = excellent, 5 = very poor.

Table S4. **AGRONOMIC AND TEST INFORMATION**
Gary Jacob's Grain Sorghum Variety Test Data (Runnels County, 1991).

TEST:	1991 Dryland Grain Sorghum Performance Test
LOCATION:	Winters, Texas
COOPERATORS:	Winters Young Farmers
SOIL TYPE:	Portales clay loam
ROW WIDTH:	40"
PREVIOUS CROP:	Cotton
DATE PLANTED:	June 21, 1991 with an 8-row John Deere 804 planter
PLANTING RATE:	Approximately 55,000 seed per acre. Solid planting, no skip row
FERTILIZER:	20-20-0 Banded at planting
HERBICIDE:	None
INSECTICIDE:	None
DATE HARVESTED:	10-25-91, by hand
SIZE HARVESTED PLOT:	1/1,000 acre
NUMBER ENTRIES:	24
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	4
TEST MEAN:	1,392 lb/A

GENERAL INFORMATION: Yields at this site should be considered good despite a later than normal planting date. Some hybrids in the block sustained considerable midge damage as reflected by yield in the following Table.

Table S5. Gary Jacob's Grain Sorghum Variety Test Data (Runnel's County,1991)

HYBRID	YIELD	STATISTICAL SIGNIFICANCE
DeKalb DK40Y	2363	a
Deltapine DP 1506	2187	ab
Rio Grande	2157	ab
Browning Challenger	2137	ab
Rio Bravo	2063	abc
Deltapine G-1498	1893	abc
DeKalb DK56	1830	abcd
Warner W624	1763	abcde
Golden Acres T-E76	1647	abcde
Pioneer 8510	1633	abcde
Pioneer 8446	1533	abcde
Pioneer 8510Y	1510	abcde
Warner W632	1493	abcde
AgriPro 75050	1417	abcde
NK KS714Y	1380	abcdef
AgriPro 9250	1327	bcdefg
NK KS710	1327	bcdefg
Cargill C40	1097	cdefgh
Oro Ivory	823	defgh
GroAgri GSC 3159	750	efgh
Cargill 607E	393	fgh
Golden Acres T-E Eden	360	gh
Oro Alpha	237	h
GroAgri GSC 3151	93	h

Test Mean= 1,392 lb/A

NOTE: The Tukey Method was used at the 0.05 level for statistical analysis.

Acknowledgements

A special word of thanks to Gary Jacob for working with the County Extension office in conducting this test.

Also, appreciation is expressed to the Winters Young Farmers for the establishment and harvest of this test and for conducting and sponsoring the tour of the test plot.

We want to thank all the seed companies for their interest and support of this test.

TABLE S6.

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, 1991	
AUTHORS:	N.E. Wuthrich, J.W. Jones, C.A. Woodfin, G.C. Peterson, D.T. Rosenow, Research Associates, Senior Research Associate, Associate Professor, and Professor	
METHODS & MATERIALS:	Experimental Design:	Triple lattice
	Plot Size:	10 ft (3 beds) x 21 ft net
	Plot Spacing:	Single row on 40-inch spaced beds
	Soil Type:	Pullman clay loam
	Previous Crop:	Corn
	Fertilizer:	128-25-0 liquid (N-P-K)
	Herbicide:	1 lb ai/A Atrazine plus 2 lbs ai/a Lasso, 1 pt/a Prowl at layby
	Insecticide:	7.5 lbs/A Counter 20CR preplant
	Irrigations:	Pre-emergence plus 2.36, 1.36, 2.39, 1.56, 2.15 and 2.05 acre in/A. Applications on July 2, 8, 23, 30, Aug 7, 27
	Planting Date:	May 28
	Plant Population:	87,000 plts/A
	Harvest Date:	October 21

RESULTS &
DISCUSSION:

Table S7 contains all agronomic data recorded in 1991.

Yields were excellent in the test, with a mean of 7,818 lb/A. Several new and experimental hybrids exceeded the mean yield. Some yield loss was due to tall leaning plants and others lodged from high cross winds. These plants were not harvested with the combine used. The systemic insecticide, Counter, was applied preplant for seasonal greenbug control. Parasitic wasps helped control the overall threshold of greenbug damage. Several isolated plots had excessive greenbug damage. No insecticide was applied after emergence.

Bird damage was slight and noted only on early maturing hybrids. Bird repelling balloons were spaced intermittently in the field along with reflecting tape to discourage bird damage.

Two representative rows from each 3-row plot was combine harvested. Grain yields were adjusted to 13% moisture and converted to pounds per acre.

Table S7. Grain yield and other agronomic data for thirty-eight hybrids evaluated under irrigation at the Texas Agricultural Experiment Station, Halfway, Texas, 1991.

COMPANY OR BRAND NAME	HYBRID DESIGNATION	GRAIN YIELD lb/A 1	DUNCAN'S 5% LEVEL 2	DAYS TO FLOWER 3	PLANT HEIGHT (IN) 4	HEAD EXS. IN. 4	HEIGHT UNIF. 5	HEAD TYPE 6	LODGE- ING % 7	BIRD DAM- AGE % 8	MOIS- TURE % 9	MATU- RITY 7
Garrison Seed Co.	SG-942	9241	A	68	59	4	4.0	2.0	9.0	0.0	14.4	L
Tx. Agri. Exp. Stat.	AVar x R8505	9181	A-B	72	73	8	4.0	2.0	5.3	1.3	14.3	L
TAYLOR EVANS SEED CO.	T-E 77-E	9112	A-B	68	59	5	2.7	3.0	2.3	0.0	13.8	L
Tx. Agri. Exp. Stat.	ATx2752 x Tx2783	8995	A-B	71	57	3	3.0	2.0	1.3	0.0	13.9	ML
Tx. Agri. Exp. Stat.	ATx2752 x Tx2862	8990	A-B	69	56	6	3.0	3.0	0.3	2.0	14.1	ML
Tx. Agri. Exp. Stat.	AVar x 86EON361	8739	A-C	68	65	8	3.7	1.0	2.0	0.0	14.2	L
DEKALB Plant Genetics	DK-66	8718	A-C	72	61	3	3.0	3.0	9.0	0.0	14.6	L
Asgrow Seed Co.	OSAGE	8682	A-C	68	58	6	3.0	2.3	3.3	0.3	13.5	M
SEEDCO Corporation	SC710	8642	A-D	67	54	6	2.3	2.7	0.0	1.3	13.7	ML
Triumph Seed Co.	TR65G+	8554	A-D	65	55	7	3.0	2.7	0.3	10.7	13.3	ML
Tx. Agri. Exp. Stat.	ATx631x(RTx430xLASON)/433	8538	A-D	67	64	6	4.0	1.0	8.7	0.0	14.2	ML
Tx. Agri. Exp. Stat.	ATx2752 x GR126-90M36	8522	A-D	69	63	5	3.0	2.3	0.3	0.0	14.0	ML
Garst Seed Co.	5392	8436	A-E	67	52	6	2.3	3.0	0.3	0.3	14.7	L
TAYLOR EVANS SEED CO.	T-E Wahoo	8426	A-E	69	57	6	2.7	2.0	1.7	0.0	13.7	L
Tx. Agri. Exp. Stat.	ATx2752 x RTx430	8322	A-E	68	58	4	3.3	2.0	3.0	0.0	13.8	ML
ORO Hybrids-R.C. Young	ORO Amigo	8307	A-E	68	58	5	3.0	3.0	3.3	0.0	14.2	L
Frontier Hybrids, Inc.	F-524	8274	A-E	68	58	4	3.0	2.0	6.3	0.0	14.0	L
Tx. Agri. Exp. Stat.	ATx2752 x GR107-90M16	8125	A-F	69	50	3	2.0	2.0	0.0	0.0	14.7	ML
Tx. Agri. Exp. Stat.	A1 x Tx2783	8087	A-F	66	64	7	3.3	3.0	3.7	3.0	13.8	ML
Northrup King Co.	2665	7897	A-G	67	52	3	3.0	2.0	1.0	0.0	14.7	M
Triumph Seed Co.	Two 80-D	7892	A-G	68	58	4	3.0	2.7	2.0	0.0	14.2	ML
Tx. Agri. Exp. Stat.	ATx2752 x Tx2868	7729	A-G	69	55	6	3.0	2.0	4.7	0.0	14.0	ML
Conlee Seed Co.	Rustler	7706	A-G	69	55	3	3.3	2.0	10.7	0.0	14.0	L
Tx. Agri. Exp. Stat.	A1 x R8505	7598	A-G	68	58	8	3.0	3.0	0.7	0.0	14.6	ML
Tx. Agri. Exp. Stat.	ATx631 x R8505	7501	A-H	70	61	6	4.3	3.0	6.0	0.0	14.2	ML
Tx. Agri. Exp. Stat.	A1 x Tx2864	7479	A-H	67	51	5	2.7	2.7	0.0	1.0	14.9	ML
Tx. Agri. Exp. Stat.	ATx399 x RTx430	7476	A-H	66	54	6	2.3	2.0	5.0	0.0	13.5	ML
Garrison Seed Co.	SG-821	7469	A-H	68	62	8	4.0	2.0	10.7	0.0	13.8	ML
Tx. Agri. Exp. Stat.	ATx2752 x Tx2864	7299	B-H	68	51	3	2.7	2.7	1.7	0.0	14.3	ML
Tx. Agri. Exp. Stat.	ATx2752 x GR107-90M20	7298	B-H	71	51	4	3.0	3.0	0.0	0.0	15.2	ML
Tx. Agri. Exp. Stat.	ATx378 x Tx7000	7066	C-H	70	55	6	3.0	2.0	2.0	0.0	14.1	L
Northrup King Co.	KS710y	7022	C-H	65	48	6	1.7	3.0	10.7	0.7	13.2	ML
Conlee Seed Co.	Towhead	6753	D-H	67	55	7	3.0	3.0	6.7	0.7	13.5	M
SEEDCO Corporation	SC707	6595	E-H	67	56	8	3.0	3.0	4.3	0.0	13.4	M
SEEDCO Corporation	SC705	6324	F-H	68	55	4	3.0	2.0	13.0	0.0	14.4	ML
Asgrow Seed Co.	GS712	6131	G-H	68	53	4	3.3	2.0	34.3	0.7	15.0	M
Asgrow Seed Co.	A504	5732	H-I	68	54	8	2.7	3.0	7.3	0.3	13.7	M
Tx. Agri. Exp. Stat.	RS610	4241	I	56	56	9	3.0	2.0	7.3	60.0	12.8	E

Table S7. Grain yield and other agronomic data for thirty-eight hybrids evaluated under irrigation at the Texas Agricultural Experiment Station, Halfway, Texas, 1991.

COMPANY OR BRAND NAME	HYBRID DESIGNATION	GRAIN YIELD lb/A 1	DUNCAN'S 5% LEVEL 2	DAYS TO FLOWER 3	PLANT HEIGHT (IN) 4	HEAD EXS. IN. 4	HEIGHT UNIF. 5	HEAD TYPE 6	LODG- ING %	BIRD DAM- AGE %	MOIS- TURE %	MATU- RITY 7
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TEST MEAN= 7818 TEST C.V.=12.0 LSD .05=1529.7

Note: The ANOVA procedure was used for statistical analysis.

- 1 All yields adjusted to 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 exertion 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: ME = medium early, M = medium, ML = medium late, L = late.

LITERATURE CITED

1. Texas Agricultural Facts. January 23, 1992

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