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1990 Grain Sorghum Performance Tests in Texas

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Texas Agricultural Experiment Station/Charles J. Arntzen, Director/The Texas A&M University System/College Station, Texas

GRAIN SORGHUM PERFORMANCE TESTS IN TEXAS--1990

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GRAIN SORGHUM PERFORMANCE TESTS IN TEXAS--1990

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INTRODUCTION

Grain sorghum has been a major commodity in Texas, and looking back over the past four decades, major accomplishments have been achieved. During this 40-year period, acreage has fluctuated probably due to rainfall patterns, participation in various government supported programs and the necessity to change to different commodities based on price differential. Figure 1 shows Texas acreage from 1950 to 1990 and also reveals that acreage has decreased at a rate of 54,367 acres annually over this period. The decade of the 1950's will best be remembered for the introduction of hybrid sorghum in 1956-57. This genetic phenomenon increased yields substantially and gave plant breeders an avenue to incorporate some degree of insect and disease resistance into a growing commodity. With the continuous improvement of hybrids through breeding efforts, and improved agronomic and cultural practices employed by farmers, yields increased drastically through the 1960's and 1970's. The 1980's saw Texas' acreage drop to an all time low of 2.1 million acres in 1988. The highly intensive level of management used in previous decades, particularly in the irrigated areas, such as the use of multiple irrigations and high fertilization levels were curtailed. The best land which was previously used for sorghum production was planted to economically and politically favored commodities; thus sorghum was planted on marginal land again. Extended drought conditions that persisted in the 1980's in the major production areas of South Texas affected acreage and final yields of all commodities, but sorghum suffered less from this natural disaster.

Although acreage decreased from 1950-90 and levels of management were curtailed, yields have continued to increase. The regression line in Figure 2 shows that yield is increasing at a rate of 48.62 pounds per acre per year. This rate of yield increase should continue into the future because plant breeders are providing more stress resistant hybrids that maintain higher stable performance.

What is the outlook for sorghum in the decade of the 1990's? With continued traditional breeding efforts and a developing era of 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 alfatoxin found in corn recently, particularly in the non-irrigated areas, grain sorghum may approach acreage seen in the 1960's and 1970's.

In 1990, preliminary figures indicate Texas farmers harvested 2.8 million acres. This is a decrease of 9.7% from 1989 when 3.1 million acres were harvested (1). The state mean yield is also expected to decrease, from 2,968 lb/A to 2,576 lb/A. Prolonged drought conditions in South and Central Texas was a contributing factor resulting in the decrease.

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 and represent the major grain sorghum production areas in Texas.

In addition, the results of supplementary grain sorghum tests conducted at Beaumont, Eagle Lake, and Halfway, Texas, are reported. The Halfway test was conducted separately from the state corn and grain sorghum performance tests. It was conducted as part of the sorghum and corn variety testing program at the Texas Agricultural Experiment Station (TAES) at Halfway in cooperation with the High Plains Research Foundation. The Beaumont and Eagle Lake tests were conducted by Dr. John Sij of the Texas Agricultural Research and Extension Center at Beaumont. 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 distributed 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 and threshed with a plot thresher or plot harvester. Moisture was determined at harvest.

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, T=tan, R=red, P=purple.
Plant color--designated by a respective seed company for that particular hybrid.
Maturity class--maturity designated by a respective seed company for that particular hybrid. Early (E), medium-early (ME), medium (M), medium-late (ML), and late (L) designations are used.
Days to 50 percent flower--number of days from planting to, and including, the day that an estimated 50 percent of the plants have reached anthesis.
Plant height--average inches from the ground to the tip of the panicle.
Panicle exsertion--average inches from the flag leaf to the base of the panicle.
Panicle length--number of inches from base of panicle to tip of panicle.
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 with an official test weight apparatus.
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 retention rating--based on % of potential green leaves on the hybrid but which remain green at harvest.
Smut per plot--number of plants showing smut within the harvested area. Taken from all replications and averaged.
Weathering Rating--taken prior to harvest and presented in Tables 4A and 6A.

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

Once again, extended periods of hot and dry weather, particularly at the South and Central Texas non-irrigated test sites, reduced yield substantially. Although adequate moisture was available at planting at most test sites sub-soil moisture was marginal from lack of fall and winter rainfall. Near-optimal planting dates were secured at most test sites except for McKinney, where record-setting rainfall in April delayed planting approximately 6 weeks--until mid-May. Charcoal rot was observed at a number of the non-irrigated test sites due to the hot and dry weather conditions.

Ten performance locations were planted and data was collected from all sites (Fig._). The five irrigated test sites are designated with an (I) and the five non-irrigated test sites are designated with an (NI). General comments follow each test site and gives a brief summary of conditions during the growing season.

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 (--). 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. Table S4-S5 gives results of a supplementary grain sorghum variety test conducted at Halfway, Texas, in cooperation with the High Plains Research Foundation.

Figure 1. Texas Grain Sorghum Acreage, 1950-1990.

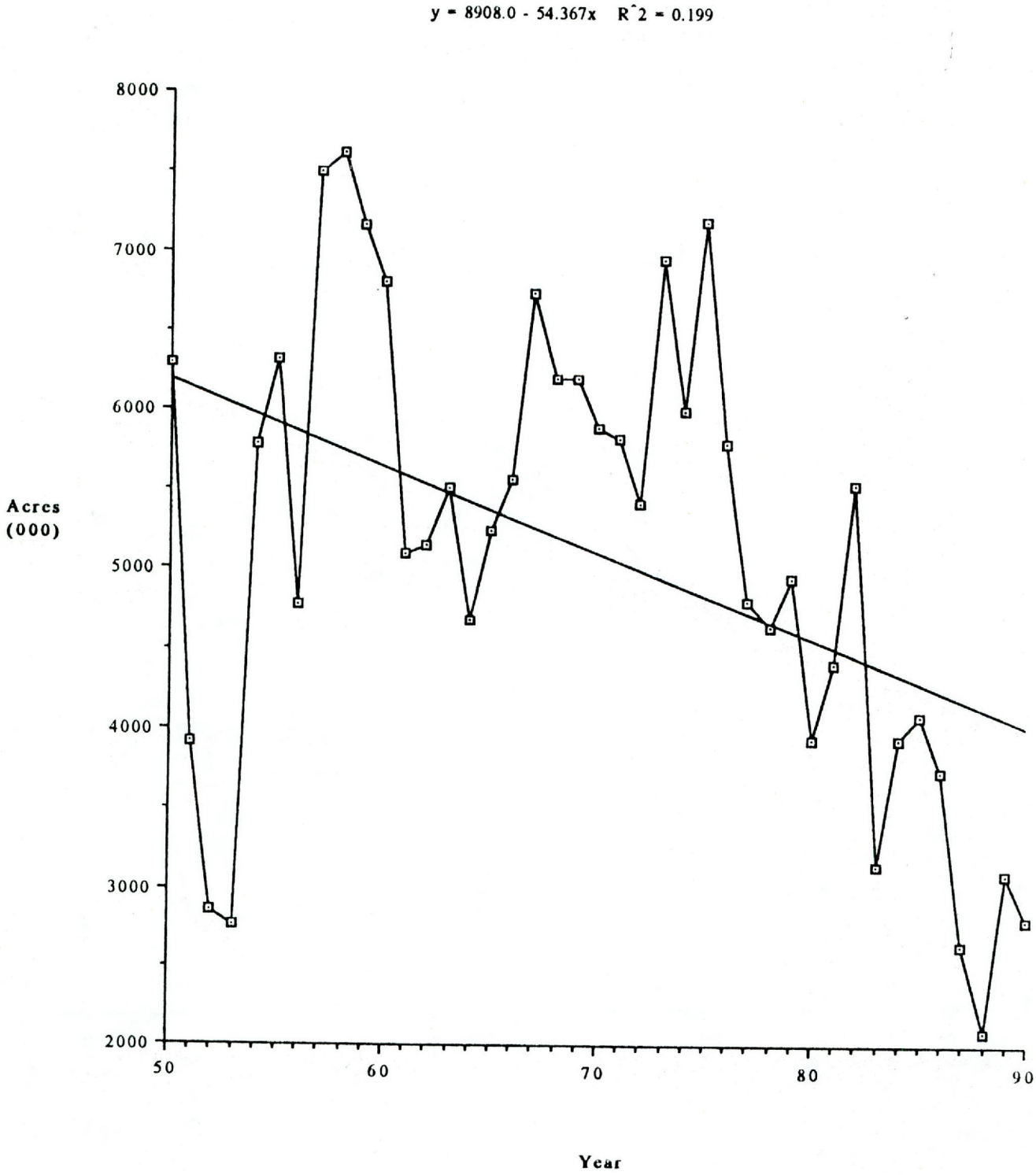


Figure 2. Texas Grain Sorghum Yield, 1950-1990

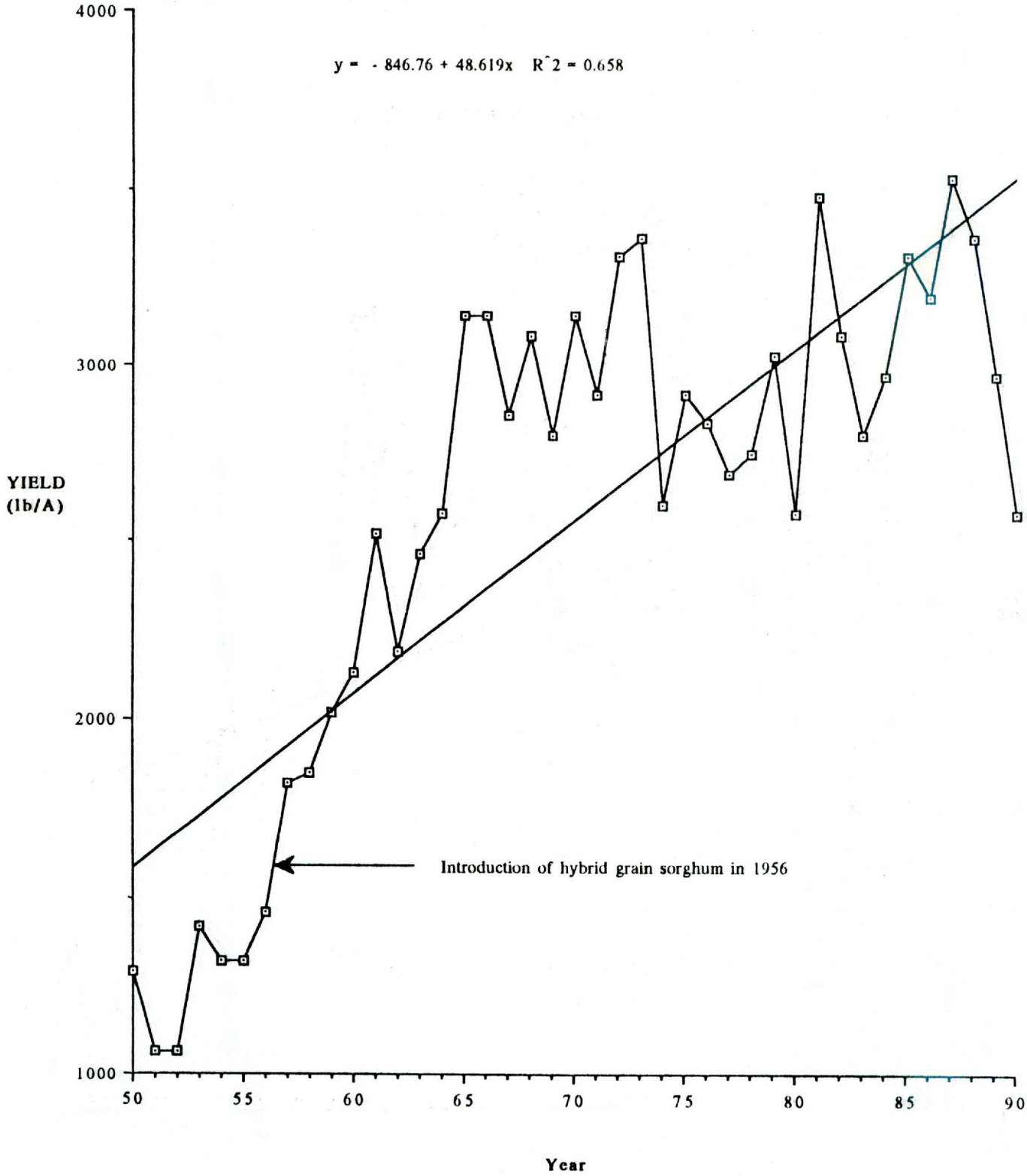
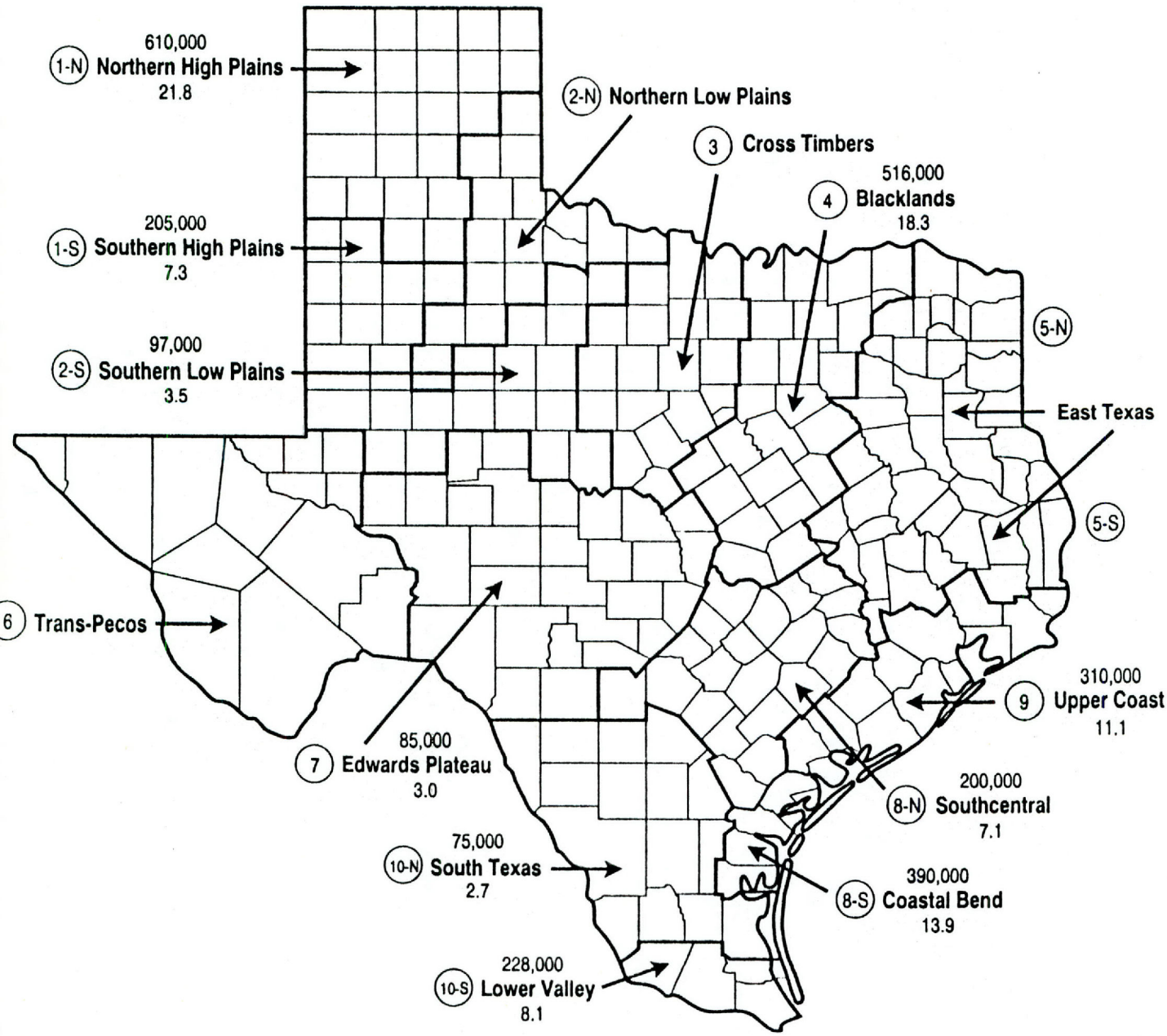
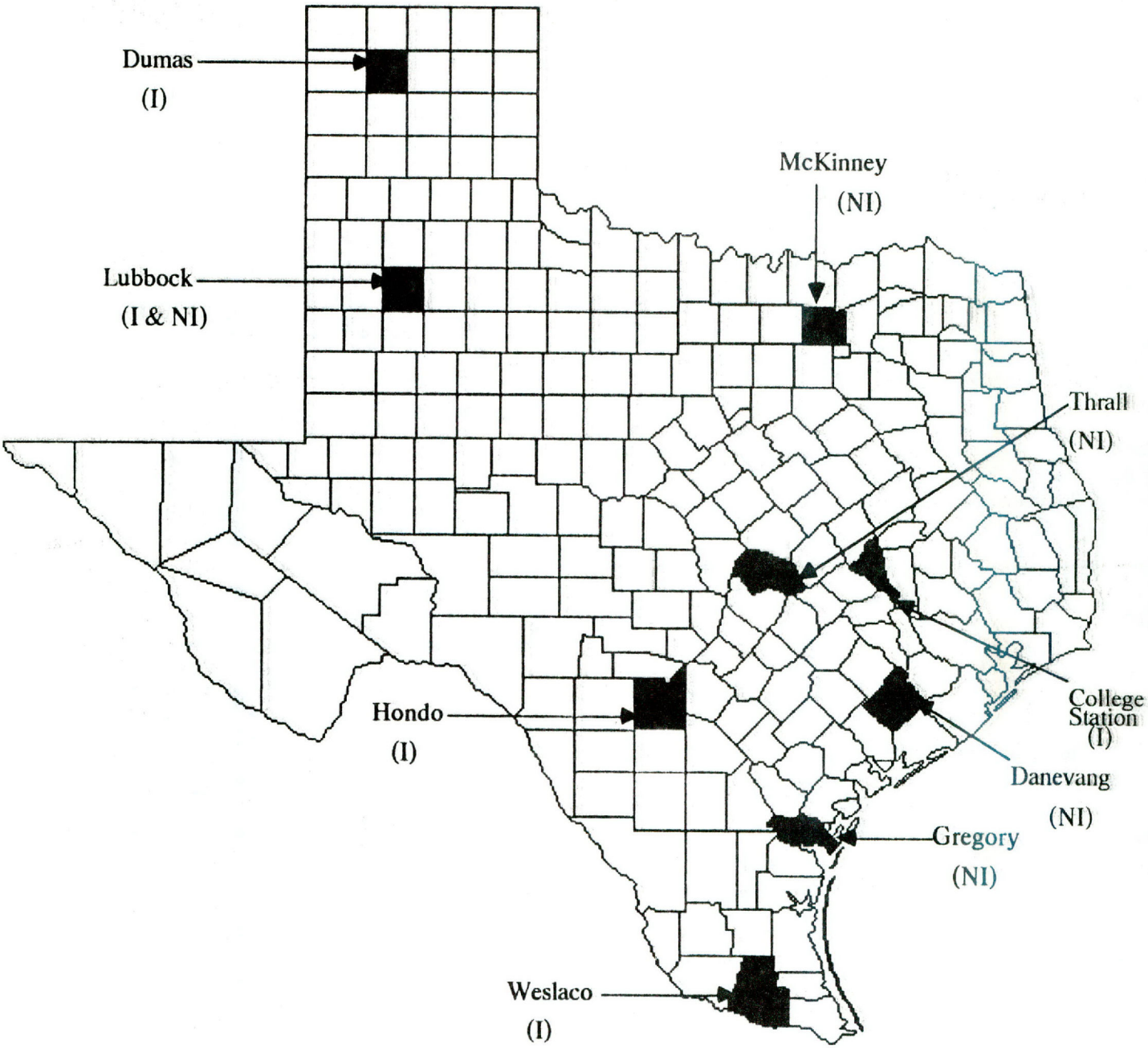


Figure 3. Acres and Percentage of Grain Sorghum Acreage Harvested by Texas Crop Reporting Districts, 1989 (1).



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 distict 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 84,000 acres or 3.0 percent of state acreage (1).

Figure 4. 1990 Grain Sorghum Test Locations in Texas.



Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lubbock Irrigated	Lubbock Dryland	Dumas
AgriPro Seeds	AP 9791	-	X	-	X	-	-	-	-	-	-
Rt. 2, East Hwy 30	AP 9850	-	X	-	-	-	-	-	-	-	-
Ames, IA 50010	ST 686	-	-	X	-	-	-	-	X	-	X
	ST 3308	-	-	-	X	-	X	-	-	-	-
	ST D701G	-	-	-	-	-	-	X	X	-	X
	AP 9830	-	-	-	-	-	-	-	X	-	X
ASGROW SEED COMPANY	X6038(x)	X	X	X	X	X	-	-	-	-	-
Box 1945	GS712	X	X	X	X	X	X	X	X	-	X
Plainview, TX 79072	OSAGE	-	-	X	-	-	-	-	X	-	X
	XP4039(x)	-	-	X	-	-	X	X	X	X	-
	SENECA	-	-	-	-	-	X	X	-	X	-
	XP5049(x)	-	-	-	-	-	X	X	X	X	X
	TOPAZ	-	-	-	-	-	-	-	X	-	X
Big Crop Seed Co.	Maxima	X	X	-	X	-	-	-	-	-	X
212 NE Loop 289	Ole'	X	X	-	X	-	-	-	-	-	-
PO Box 5866	Optima	X	X	-	X	X	-	-	-	-	-
Lubbock, TX 79417											
	Ultima	-	X	-	X	X	X	X	X	X	X
	Macho	-	-	-	-	-	X	X	-	X	-
	8761Ex	-	-	-	-	-	-	-	X	-	X
	Blanco Grande	-	-	-	-	-	-	-	X	X	X
Cargill Hybrid Seeds	X15277	X	X	X	X	X	-	-	X	-	X
PO Box 5645	847	X	X	X	X	X	X	X	X	X	X
Minneapolis, MN 55440	6670	X	X	X	X	X	X	-	X	-	X

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lubbock Irrigated	Lubbock Dryland	Dumas
Cargill Hybrid Seeds (continued)	630	-	-	-	-	-	X	X	X	X	X
	607 E	-	-	-	-	-	-	X	-	X	-
	618 Y	-	-	-	-	-	-	X	-	X	-
	575	-	-	-	-	-	-	X	-	X	-
Conlee Seed Company, Inc.	Rustler	X	X	X	X	X	X	X	X	-	X
PO Box 23219	Wrangler II	X	X	-	-	X	-	-	-	-	-
Waco, TX 76702-3219	Towhead	-	-	-	-	-	-	-	X	-	X
DEKALB GENETICS CORP.	DEKALB DK-50	X	-	-	-	-	-	-	-	-	-
Rt. 2, Box 56	DEKALB DK-64	X	-	-	-	-	-	-	-	-	-
Lubbock, TX 79415	DEKALB DK-56	X	X	-	X	X	X	X	X	-	X
	DEKALB DK-37	-	X	-	X	-	X	X	-	-	-
	DEKALB M-572G	-	X	-	X	-	X	-	-	-	-
	DEKALB DK-40Y	-	-	-	-	-	-	X	-	X	-
	DEKALB DK-66	-	-	-	-	-	-	-	X	-	X
	DEKALB X-950(X)	-	-	-	-	-	-	-	-	X	-
	DEKALB DK-41Y	-	-	-	-	-	-	-	-	X	-
Delta and Pine Land Co.	Delta Pine 1558	X	X	X	X	-	X	-	-	-	-
1301 E. 50th St.	Delta Pine G-1711E	X	X	X	X	X	-	-	X	-	X
Lubbock, TX 79404	Delta Pine G-1616	X	X	X	X	X	X	X	X	-	X
	Delta Pine G-1711	-	-	-	X	-	-	-	-	-	-
	Delta Pine RA787	-	-	-	-	X	X	X	-	-	-
	Delta Pine 1552	-	-	-	-	X	X	X	-	-	-
	Delta Pine 1506	-	-	-	-	-	X	X	-	-	-
	Delta Pine G-1492	-	-	-	-	-	-	X	-	X	-

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lubbock Irrigated	Lubbock Dryland	Dumas
DOUGLASS W. KING CO.	dk 760	X	X	X	X	X	X	-	-	-	-
PO Box 200320	dk 775	X	X	X	X	X	X	-	-	-	-
San Antonio, TX 78220	dk 776	X	X	X	X	X	X	-	-	-	-
	dk 780	X	X	X	X	X	X	-	-	-	-
DyNA Seeds Ltd.	DN31	-	-	-	-	-	-	X	-	-	-
6414 N. Sheridan	DN33	-	-	-	-	-	-	X	-	-	-
Wichita, KS 67204											
FRONTIER HYBRIDS, INC.	F-524	X	-	X	-	X	-	-	X	-	X
PO Box 177	F-457D	-	X	-	X	-	X	X	X	-	-
Abernathy, TX 79311	F-300G	-	-	-	-	-	-	-	X	X	X
	F-270G	-	-	-	-	-	-	-	-	X	-
Garrison Seed Co.	SG-932	X	-	-	X	X	X	-	X	X	X
Drawer 2420	SG-922	X	-	-	X	X	X	-	X	-	X
Hereford, TX 79045	SG-942	X	-	-	X	X	-	-	X	-	X
	SG-944	X	-	-	X	X	-	-	-	-	-
	SG-822	-	-	-	-	X	X	-	X	X	X
	SG-Y850	-	-	-	-	-	X	-	-	-	-
	SG-688	-	-	-	-	-	-	-	-	X	-
Garst Seed Co.	5319	-	X	-	-	-	X	X	X	-	X
3142 Lundin Dr. #4	5503	-	X	-	X	-	X	X	-	-	-
Manhattan, KS 66502	5511	-	-	-	-	-	-	-	-	X	-

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lubbock Irrigated	Lubbock Dryland	Dumas
George Warner Seed Co., Inc.	W-917-E	X	-	-	X	X	-	-	-	-	X
PO Box 1448	W-876 DR	X	-	-	X	-	-	-	-	-	-
Hereford, TX 79045	W-632-W	-	-	-	-	-	-	X	-	X	X
	W-624-Y	-	-	-	-	-	-	-	-	X	-
	W-844-E	-	-	-	-	-	-	-	-	-	X
GroAgri Seed Company	GSC 1313	X	X	-	X	X	X	X	X	-	X
PO Box 1656	GSC 3146	X	X	-	X	-	-	-	-	-	-
Lubbock, TX 79408	GSC 3148	X	X	-	X	X	X	-	-	-	X
	GSC 3150	X	-	-	X	-	X	-	X	-	X
	GSC 1299	-	-	-	-	-	X	-	-	-	-
	Exp 3149X	-	-	-	-	-	X	X	-	-	-
	GSA 1310A	-	-	-	-	-	-	-	X	-	-
	GSA 1180	-	-	-	-	-	-	-	-	X	-
	GSC 1214	-	-	-	-	-	-	-	-	X	-
	Exp 3159X	-	-	-	-	-	X	-	-	X	-
	GSC 3605	X	-	-	-	-	-	-	-	-	X
HyPerformer Seed Co.	HSC Cherokee	X	X	X	X	-	X	X	X	-	-
5100 Poplar, Suite 3200	HSC Wings	X	X	X	X	-	X	X	X	-	-
Memphis, TN 38137	HSC Exp 89-3	X	X	X	X	-	X	-	-	-	-
	HSC Exp 89-4	-	-	-	-	-	-	X	X	-	-
Jacques Seed Company	Jacques 606E	-	-	-	-	-	-	-	X	-	X
720 St. Croix St.	Jacques 377W	-	-	-	-	-	-	-	-	X	-
Prescott, WI 54021	Jacques 477W	-	-	-	-	-	-	-	-	-	X

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lubbock Irrigated	Lubbock Dryland	Dumas
NC+ Hybrids	NC+ 472	X	X	-	X	-	X	X	X	-	-
3820 N. 56th	NC+ X7B90	X	-	-	-	-	-	-	-	-	-
PO Box 4408	NC+ 573E	X	X	-	-	-	X	-	-	-	-
Lincoln, NE 68504											
	NC+ 7B81	-	X	-	X	-	-	-	-	-	-
	NC+ 8B11	-	-	-	-	-	X	-	-	-	-
	NC+ 371	-	-	-	-	-	-	X	-	-	X
	NC+ Y363	-	-	-	-	-	-	X	-	-	-
The New Northrup King	KS 786	X	X	X	X	-	-	-	X	-	X
6139 37th St.	2665	X	X	-	X	X	X	X	X	-	X
Lubbock, TX 79407	KS 737	X	X	-	X	X	X	X	X	-	X
	KS 714Y	-	-	X	-	-	-	X	-	X	-
	KS 780	-	-	X	-	-	-	-	-	-	-
	S 9750	-	-	-	-	-	X	-	-	-	-
	2244	-	-	-	-	-	-	X	-	-	-
	KS 710	-	-	-	-	-	-	-	-	X	-
ORO Hybrids	ORO G Xtra	X	X	X	X	X	X	X	X	X	X
624 27th St.	ORO Baron	X	X	X	X	X	X	X	X	X	X
Lubbock, TX 79404	ORO Amigo	X	X	X	X	X	X	X	X	X	X
	ORO Zenith	X	-	-	-	-	X	-	-	-	-
	ORO Hombre	X	-	-	-	-	-	-	-	-	-
	ORO Ivory	-	-	-	-	-	-	X	-	X	-
Pioneer Hi-Bred Int., Inc.	8278	X	X	X	X	-	X	X	X	-	X
PO Box 788	8313	X	X	X	X	-	X	X	X	-	X
Plainview, TX 79072	8379	X	X	X	X	-	X	X	X	-	X

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lubbock Irrigated	Lubbock Dryland	Dumas
Pioneer Hi-Bred Int., Inc. (continued)	8500	-	-	-	-	-	X	X	-	X	-
	8452	-	-	-	-	-	X	X	-	X	-
	XSW89	-	-	-	-	-	-	-	-	X	-
	8573	-	-	-	-	-	X	X	-	X	-
	8358	X	-	-	-	-	-	-	-	-	-
Richardson Seeds, Inc.	9344	X	-	-	-	-	-	-	-	-	-
Drawer B	9300	-	-	X	-	-	-	-	-	-	-
Vega, TX 79092	9112	-	-	-	-	-	-	X	-	-	-
	Sprint	-	-	-	-	-	-	X	-	-	-
	9200Y	-	-	-	-	-	-	-	-	-	X
SEEDCO Corporation	SC-701	X	X	-	-	-	-	-	-	-	-
103 Erskine	SC-705	X	X	-	-	-	X	-	-	-	-
Lubbock, TX 79403	SC-710	X	X	-	-	-	X	-	-	-	-
TAYLOR EVANS SEED CO.	T-E Y-75	X	X	X	X	X	X	X	X	-	X
PO Box 68	T-E 76	X	X	X	X	X	X	X	X	-	X
Tulia, TX 79088	T-E Ranger	X	X	X	X	X	X	-	-	-	-
	T-E 77-E	X	X	X	X	X	X	-	X	-	X
	T-E Wahoo	X	X	X	-	X	-	-	X	-	X
	T-E X490	-	-	-	-	-	X	X	-	-	-
	T-E Empire	-	-	-	-	-	-	X	-	X	-
	T-E 35	-	-	-	-	-	-	X	-	-	-
	T-E X8883	-	-	-	-	-	-	-	-	X	-
	T-E X150	-	-	-	-	-	-	-	-	X	-
	T-E Eden	-	-	-	-	-	-	-	-	X	-
	T-E Y-60	-	-	-	-	-	-	-	-	X	-

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lubbock Irrigated	Lubbock Dryland	Dumas
TEXAS SEED 221 Airport Boulevard Kenedy, TX 78119	TS-488	X	X	X	X	-	-	-	-	-	-
Triumph Seed Co., Inc. PO Box 1050 Ralls, TX 79357	TR46	X	-	-	-	-	-	-	-	-	-
	Two 70-D	X	-	-	-	-	-	-	-	-	-
	Two 80-D	X	-	-	-	-	-	-	-	-	-
	TR65-G	X	-	-	-	-	-	-	-	-	-
Western Heritage Seed Co. Box 756 Winters, TX 79567	Rio Grande	X	-	-	-	-	-	-	-	X	-
	Rio Bravo	X	-	-	-	-	-	-	-	X	-
Texas Agricultural Experiment Station (DR) College Station, TX 77843	ATx399 x Tx2536	X	X	X	X	X	X	X	X	X	X
	A1 x Tx430	X	X	X	X	X	X	X	X	X	X
	A4R x Tx430	X	X	X	X	X	X	X	X	X	X
	A1 x Tx435	-	X	-	-	-	X	-	-	X	-
	A1 x R8505	X	X	X	X	X	X	X	X	X	X
	A807 x Tx430	-	-	-	-	-	-	-	X	-	-
	A1 x R3224t	X	-	-	-	-	-	-	-	-	-
	A35 x Tx430	-	X	-	-	-	X	X	X	X	-
	AOK11 x Tx430	-	-	X	-	-	X	-	-	-	-
	A8201-2 x R6078	-	-	-	X	-	-	-	X	-	-
	A1 x Tx2783	X	X	X	X	X	X	X	X	X	X
	A1 x Tx2794	X	X	-	-	-	X	X	-	X	-
	A1 x Tx2737	-	X	-	-	-	-	X	X	X	-
	A1 x 86EO361	X	-	X	X	X	-	-	-	-	-

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lubbock Irrigated	Lubbock Dryland	Dumas
Texas Agricultural Experiment Station (DR) (continued)	A631 x 86EO361	X	-	X	X	X	-	-	X	-	X
	A1 x Tx433	X	-	-	-	-	-	-	-	-	-
	AVG1 x 86EO361	-	-	-	X	X	-	-	X	-	-
	A1 x 850G4300-5	-	X	-	-	-	-	X	-	X	-
	A1 x R8503	X	X	-	X	-	X	X	-	X	-
	ATx630 x R3338wx	X	X	-	-	X	-	-	X	-	-
	AOK11 x R8505	-	-	X	X	X	X	-	X	-	X
	A35 x R8505	-	X	-	-	-	X	X	-	X	-
	A35 x Tx2783	-	-	-	-	-	-	-	-	X	-
	AOK11 x Tx2794	-	-	-	-	-	-	X	-	X	-
	A1 x R3224(sh)	-	-	-	-	-	X	X	-	X	-
	A631 x 87EO366	-	-	-	-	X	-	-	X	-	-
	A1 x 87EO366	-	-	-	-	-	-	-	X	-	-
	AVG1 x 87EO366	-	-	-	-	X	-	-	X	-	-
	AOK11 x Tx2817	-	X	-	X	X	X	X	X	-	-
	A1 x Tx2817	-	-	-	X	-	-	-	-	-	-
	ATx3042 x Tx2737	-	-	-	-	-	-	-	-	X	-
	ATx399 x Tx2737	-	-	-	-	-	-	-	X	X	X
	A1 x P37-3	-	-	-	-	-	-	-	-	X	-
Texas Agricultural Experiment Station (EC) College Station, TX 77843	A1 x (Tx2536 x R1177)-1	-	-	-	-	-	-	-	X	X	-
	A1 x (Tx2536 x R1177)-2	-	-	-	-	-	-	-	-	X	-
	A1 x (Tx2536 x R1177)-3	-	-	-	-	-	-	-	-	X	-
Texas Agricultural Experiment Station (FM) College Station, TX 77843	ATx631 x R8505	X	X	X	X	X	X	X	X	X	X
	ATx631 x R8504	X	X	X	X	X	X	X	X	X	X
	ATx631 x 80C2241	X	X	X	X	X	X	X	X	X	X

Company & Address	Hybrid	Weslaco	Gregory	Hondo	Danevang	College Station	Thrall	McKinney	Lubbock Irrigated	Lubbock Dryland	Dumas
Texas Agricultural Experiment Station (FM) (continued)	ATx631 x R8511	X	X	X	X	X	X	X	X	X	X
	A.Arg34 x R8505	X	X	X	X	X	X	X	X	X	X
	ATx626 x R8503	X	X	X	X	X	X	X	X	X	X
	AVar x R8504	X	X	X	X	X	X	X	X	X	X
	AVar x R8505	X	X	X	X	X	X	X	X	X	X
	AVar x 80C2241	X	X	X	X	X	X	X	X	X	X
	A8618 x RTx430	X	X	X	X	X	X	X	X	X	X
	A8618 x RTx434	X	X	X	X	X	X	X	X	X	X
	A8618 x R8618	X	X	X	X	X	X	X	X	X	X
	A8618 x RTx435	X	X	X	X	X	X	X	X	X	X
	ATx2752 x RTx430	X	X	X	X	X	X	X	X	X	X
	ATx399 x RTx430	X	X	X	X	X	X	X	X	X	X
	ATx378 x RTx430	X	X	X	X	X	X	X	X	X	X
	Check	X	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
	Check	-	X	X	-	X	-	X	-	-	X
	Check	-	X	-	-	-	-	-	-	-	-
	Check	-	X	-	-	-	-	-	-	-	-

TABLE 2. AGRONOMIC AND TEST INFORMATION: WESLACO

TEST:	1990 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:	Grain sorghum
LAND PREPARATION:	Disked(2), moldboard, disked, bedded
DATE PLANTED:	2-28-90
DATE THINNED:	3-14&15; thinned to approximately 3-4 plants/foot
PLOT LENGTH:	30'
FERTILIZER:	160-0-0; applied 250 lb/A liquid 32-0-0 on 1-6-90, and 250 lb/A liquid 32-0-0 on 4-10-90
HERBICIDE:	AATREX (Atrazine) Broadcast .5 qt/A on 3-6-90
INSECTICIDE:	.5 pt/A of Lorsban 4E for midge on 5-15 & 5-19
RAINFALL:	February = 2.30"; March = 0.00"; April = 0.00"; May = 1.60"; June = 2.30"; Total = 6.20"
IRRIGATIONS:	4-17-90 and 5-21-90; approx. 4" each
DATE HARVESTED:	6-28-90 by hand, threshed 6-28&29-90
SIZE HARVESTED PLOT:	1/1,000 acre
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	96
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	3
TEST MEAN:	5,488 lb/A; yields corrected to 13% moisture
TEST C.V:	6.8 percent

GENERAL INFORMATION: Below normal yields were attained at this location probably due to a combination of factors. First, planting was delayed approximately 10 days due to wet soil conditions from 1.8 inches of rainfall on February 21. Second, a period of cool temperatures after planting probably hampered seedling emergence thus resulting in below plant populations for this test. Third, according to John Drawe, the test received no beneficial rainfall prompting several irrigations to be applied. Drawe also indicated that water quality is poor due to a high concentration of salt in the irrigation water as well as salt that has not leached out due to lack of rainfall over the past several years.

This was the largest of 10 grain sorghum performance tests conducted in 1990 with 96 hybrids evaluated. The test mean yield was 5,488 lb/A which is 1,196 lb/A less than the past 5-year average of 6,684 lb/A.

Midge were observed in the test but were controlled with two aerial applications of an insecticide. Lodging was not observed and bird damage was minimal.

Table 2A. GRAIN SORGHUM PERFORMANCE TEST;WESLACO, TEXAS 1990

HYBRID *	COMPANY OR BRAND NAME	GRN CLR **	MATU-RITY CLASS ***	DAYS TO 50% FLOWER	PLT. HT., IN.	HEAD EXS., IN.	MIDGE RAT-ING ****	BIRD DAMAGE %	TEST WT. lb/bu	MOIS-TURE %	THRESH-ING %	YIELD lb/A	STAT. SIG., 0.05 *****
A4R x Tx430	Tx. Agri. Exp. Stat.(DR)	R	ML	70	49	9	0.3	0.0	57.0	16.0	76.5	6354	A
ATx626 x R8503	Tx. Agri. Exp. Stat.(FM)	Rt	M	73	57	7	0.0	0.0	57.2	15.7	77.2	6193	A-B
dK 775	DOUGLASS W. KING COMPANY	R	ML	64	53	4	0.0	0.0	59.0	15.7	77.5	6175	A-C
A1 x Tx430	Tx. Agri. Exp. Stat.(DR)	W	ML	73	54	5	0.3	0.0	56.6	16.5	69.2	6097	A-D
A1 x R8503	Tx. Agri. Exp. Stat.(DR)	R	ML	74	53	5	0.7	0.0	57.6	16.6	71.0	6089	A-D
F-524	FRONTIER HYBRIDS, INC.	Bz	ML	65	53	6	0.3	0.0	58.0	15.7	74.2	6068	A-E
ORO Hombre	ORO Hybrids	R	ML	64	48	5	0.0	0.7	52.8	15.1	71.5	6058	A-E
T-E 76	TAYLOR EVANS SEED CO.	R	M	65	48	5	0.0	0.0	53.2	14.8	71.5	6049	A-F
Optima	Big Crop Seed Company	Bz	M	65	53	7	0.0	0.0	55.7	15.3	72.5	6025	A-F
DEKALB DK-50	DEKALB Plant Genetics	Bz	ML	74	53	7	0.3	0.0	56.3	15.6	70.4	6020	A-F
Two 80-D	Triumph Seed Co., Inc.	Bz	ML	67	54	6	0.0	0.0	57.8	16.1	73.9	5997	A-G
GSC 3150	GroAgri Seed Company	Bz	ML	68	54	7	0.7	0.0	57.1	15.8	75.7	5993	A-G
SG-944	Garrison Seed Company	Bz	ML	65	52	5	0.0	0.0	58.0	16.2	74.7	5989	A-G
NC+ 472	NC+ Hybrids	Bz	M	75	50	6	0.7	0.0	56.6	16.2	69.1	5962	-
				65	49	6	0.0	0.3	55.5	15.4	72.8	5932	A-H
T-E 77-E	TAYLOR EVANS SEED CO.	R	ML	67	54	7	0.0	0.0	57.6	15.3	74.5	5910	A-I
ATx631 x 86E0361	Tx. Agri. Exp. Stat.(DR)	W	ML	76	59	6	1.0	0.0	58.9	16.4	71.9	5902	A-J
ORO Amigo	ORO Hybrids	Bz	ML	69	53	6	0.0	0.0	57.5	15.7	75.6	5887	A-K
A1 x 86E0361	Tx. Agri. Exp. Stat.(DR)	W	ML	72	57	6	1.3	0.0	59.6	16.0	71.8	5871	A-L
GS 712	ASGROW SEED COMPANY	Bz	ML	69	54	7	0.7	0.0	57.6	16.0	74.6	5869	A-L
Maxima	Big Crop Seed Company	Bz	ML	69	53	6	0.0	0.0	57.1	15.7	75.1	5864	A-L
Delta Pine G-1711E	Delta & Pine Land Co.	Bz	ML	65	53	6	0.3	0.0	57.9	15.2	71.3	5856	A-L
Delta Pine G-1616	Delta & Pine Land Co.	Bz	ML	71	55	6	0.7	0.0	56.2	15.8	74.6	5834	A-M
8278	Pioneer Hi-Bred Int Inc	Bz	ML	64	53	6	0.0	0.0	58.7	16.3	74.4	5829	A-M
SG-942	Garrison Seed Company	Bz	ML	65	53	5	0.0	0.0	59.3	15.5	76.6	5827	A-M
SG-922	Garrison Seed Company	Bz	ML	64	49	7	0.0	0.0	55.0	15.6	68.7	5821	A-N
6670	Cargill Hybrid Seeds	Bz	ML	69	53	7	0.0	0.0	57.3	15.9	74.3	5791	A-O
GSC 3605	GroAgri Seed Company	W	ML	69	54	7	0.0	0.0	59.1	15.4	75.9	5786	A-O
Rustler	Conlee Seed Company, Inc	R	M	67	53	6	0.3	0.0	57.8	15.6	73.7	5774	A-P
Rio Grande	Western Heritage Seed Co	Bz	ME	65	48	8	0.0	0.0	54.0	15.5	70.2	5774	A-P
SC-705	SEEDCO Corporation	Bz	ML	65	51	7	0.0	0.0	57.9	15.8	73.9	5770	A-P
NC+ X7B90	NC+ Hybrids	Bz	M	67	52	7	0.0	0.0	56.2	15.7	74.0	5760	A-P
Rio Bravo	Western Heritage Seed Co	Bz	ML	68	59	8	0.0	0.0	56.3	15.6	75.8	5726	A-P
DEKALB DK-64	DEKALB Plant Genetics	Bz	L	74	52	6	0.3	0.0	59.6	16.6	75.1	5719	A-P
AVar x R8504	Tx. Agri. Exp. Stat.(FM)	W	M	76	60	8	1.0	0.0	59.5	15.5	71.5	5718	A-P
ORO G Xtra	ORO Hybrids	Bz	ML	67	52	7	0.0	0.0	57.5	16.1	73.7	5716	A-P
KS 737	The New Northrup King	R	ML	64	54	9	0.0	0.0	57.8	15.7	72.6	5714	A-P
SG-932	Garrison Seed Company	Bz	ML	67	52	6	0.0	0.0	57.8	15.5	74.2	5699	A-P
A8618 x RTx430	Tx. Agri. Exp. Stat.(FM)	Rt	M	74	49	5	1.0	0.0	54.4	15.5	68.9	5683	A-P
T-E Ranger	TAYLOR EVANS SEED CO.	R	ML	67	51	8	0.3	0.0	59.0	15.6	72.9	5675	A-Q
CHECK 1	Tx. Agri. Exp. Stat.	Bz	ML	64	50	7	0.0	0.3	55.2	15.9	69.3	5670	A-Q
8358	Pioneer Overseas	R	ML	65	49	7	0.0	0.3	58.5	16.5	74.1	5663	A-Q

Table 2A. GRAIN SORGHUM PERFORMANCE TEST;WESLACO, TEXAS 1990

HYBRID *	COMPANY OR BRAND NAME	GRN CLR **	MATU-RITY CLASS ***	DAYS TO 50% FLOWER	PLT. HT., IN.	HEAD EXS., IN.	MIDGE RAT-ING ****	BIRD DAMAGE %	TEST WT. lb/bu	MOIS-TURE %	THRESH-ING %	YIELD lb/A	STAT. SIG., 0.05 *****
AVar x R8505	Tx. Agri. Exp. Stat.(FM)	W	M	71	65	10	0.7	0.0	60.2	15.4	77.2	5646	A-Q
847	Cargill Hybrid Seeds	Bz	ML	67	50	6	0.0	0.3	58.2	15.5	74.9	5641	A-Q
2665	The New Northrup King	R	ML	64	48	7	0.0	0.0	57.8	16.0	74.2	5609	A-Q
AVar x 80C2241	Tx. Agri. Exp. Stat.(FM)	W	M	71	62	10	1.0	0.0	59.4	15.5	75.8	5600	A-Q
ATx631 x R8505	Tx. Agri. Exp. Stat.(FM)	W	M	73	58	7	1.0	0.0	58.4	16.1	72.2	5600	A-Q
8313	Pioneer Hi-Bred Int Inc	Bz	ML	65	47	7	0.0	0.3	58.7	15.9	72.6	5568	B-Q
X6038(x)	ASGROW SEED COMPANY	Bz	ML	71	53	6	0.0	0.0	59.7	16.7	72.8	5566	B-Q
GSC 3148	GroAgri Seed Company	R	M	64	47	5	0.0	0.0	53.1	15.7	69.5	5528	B-Q
KS 786	The New Northrup King	R	L	72	54	7	0.3	0.0	57.5	16.0	73.7	5522	B-Q
GSC 3146	GroAgri Seed Company	R	M	68	50	8	0.0	0.0	58.3	15.7	71.9	5522	B-Q
W-876DR	GEORGE WARNER SEED CO.	Bz	L	65	57	8	0.0	0.0	57.0	15.8	74.9	5517	B-Q
DEKALB DK-56	DEKALB Plant Genetics	R	ML	72	54	8	0.3	0.0	57.6	16.1	71.9	5513	B-Q
ORO Zenith	ORO Hybrids	Rt	ML	68	50	9	0.3	0.0	58.7	15.8	72.0	5507	B-Q
ATx631 x 80C2241	Tx. Agri. Exp. Stat.(FM)	W	M	74	56	8	0.7	0.0	58.0	15.5	73.1	5506	B-Q
A.Arg34 x R8505	Tx. Agri. Exp. Stat.(FM)	W	M	69	51	7	0.3	0.0	57.4	15.5	75.6	5489	B-Q
dK 760	DOUGLASS W. KING COMPANY	R	ML	68	51	5	0.3	0.3	57.6	15.6	73.3	5484	B-Q
ATx631 x R8511	Tx. Agri. Exp. Stat.(FM)	W	M	72	58	6	1.0	0.0	58.7	15.5	71.3	5461	B-Q
Wrangler II	Conlee Seed Company, Inc	R	ML	67	61	9	0.0	0.0	58.1	15.6	71.0	5451	B-Q
A1 x R8505	Tx. Agri. Exp. Stat.(DR)	W	ML	71	54	6	0.3	0.0	58.2	16.5	65.6	5406	C-Q
SC-701	SEEDCO Corporation	Bz	M	64	49	7	0.0	0.0	55.1	15.7	69.3	5391	D-R
HSC Wings	HyPerformer Seed Company	Bz	ML	70	51	6	0.0	0.0	57.3	15.6	73.2	5389	D-R
dK 780	DOUGLASS W. KING COMPANY	R	ML	64	52	6	0.0	0.7	58.7	15.8	73.8	5389	D-R
Two 70-D	Triumph Seed Co., Inc.	Bz	ML	68	51	7	1.0	0.0	54.7	15.4	66.5	5387	D-R
ATx399 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	ML	65	51	8	0.3	0.0	54.9	15.8	69.1	5358	D-S
A1 x Tx2794	Tx. Agri. Exp. Stat.(DR)	W	ML	74	56	7	0.3	0.0	56.1	16.0	67.5	5356	D-S
A8618 x RTx435	Tx. Agri. Exp. Stat.(FM)	Rt	ML	74	51	8	1.0	0.0	56.3	15.3	71.4	5353	D-S
A1 x R3224t	Tx. Agri. Exp. Stat.(DR)	R	ML	72	53	4	0.0	0.0	56.4	16.3	66.7	5353	D-S
ATx630 x R3338wx	Tx. Agri. Exp. Stat.(DR)	W	ML	74	59	6	1.3	0.0	57.4	15.3	75.4	5342	D-S
Ole	Big Crop Seed Company	Bz	M	67	51	8	0.0	0.0	55.6	15.7	70.0	5329	D-T
ATx378 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	ML	68	57	7	0.3	0.0	56.7	15.9	74.6	5301	E-U
CHECK 2	Tx. Agri. Exp. Stat.	W	ML	67	51	6	0.3	0.0	58.0	15.9	72.1	5296	E-U
dK 776	DOUGLASS W. KING COMPANY	R	ML	65	50	6	0.0	0.0	57.6	15.7	71.5	5278	F-U
A1 x Tx433	Tx. Agri. Exp. Stat.(DR)	R	ML	75	55	5	0.0	0.0	54.8	15.9	69.8	5246	G-U
W-917-E	GEORGE WARNER SEED CO.	R	L	65	54	6	0.0	0.3	59.3	15.6	77.7	5225	G-V
Delta Pine 1558	Delta & Pine Land Co.	Rt	M	64	51	7	0.0	0.7	59.0	16.1	71.8	5187	H-V
HSC Cherokee	HyPerformer Seed Company	R	M	67	50	7	0.0	0.0	57.8	15.3	71.3	5151	I-V
ORO Baron	ORO Hybrids	Rt	ML	67	51	6	0.0	0.0	58.4	15.4	71.4	5130	J-V
ATx631 x R8504	Tx. Agri. Exp. Stat.(FM)	W	M	75	59	8	2.0	0.0	58.0	16.4	65.7	5123	K-V
9344	RICHARDSON SEEDS INC.	R	L	68	53	5	0.3	0.0	59.7	15.4	74.0	5105	L-V
ATx2752 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	ML	70	53	6	0.7	0.0	57.0	15.7	73.3	5099	L-V
T-E Wahoo	TAYLOR EVANS SEED CO.	Wh	L	71	52	5	1.0	0.0	58.6	15.7	73.8	5065	M-V
HSC Exp 89-3	HyPerformer Seed Company	Bz	M	67	51	7	0.0	0.0	57.3	15.5	71.3	5051	N-V

Table 2A. GRAIN SORGHUM PERFORMANCE TEST;WESLACO, TEXAS 1990

HYBRID *	COMPANY OR BRAND NAME	GRN CLR **	MATU-RITY CLASS ***	DAYS TO 50% FLOWER	PLT. HT., IN.	HEAD EXS., IN.	MIDGE RAT-ING ****	BIRD DAMAGE %	TEST WT. lb/bu	MOIS-TURE %	THRESH-ING %	YIELD lb/A	STAT. SIG., 0.05 *****
T-E Y-75	TAYLOR EVANS SEED CO.	R	M	65	50	5	0.3	0.3	57.2	15.7	69.8	5044	O-V
TS-488	TEXAS SEED COMPANY	R	ML	64	50	6	0.0	0.0	58.0	15.6	72.3	5021	O-V
NC+ 573E	NC+ Hybrids	R	M	65	50	7	0.0	0.7	57.6	15.4	74.9	5005	P-V
GSC 1313	GroAgri Seed Company	R	M	65	50	7	0.0	0.0	57.5	15.8	70.1	4912	Q-V
ATx399 x RTx2536	Tx. Agri. Exp. Stat.(DR)	R	ML	67	45	8	0.7	0.3	53.0	15.2	70.2	4647	R-V
A1 x Tx2783	Tx. Agri. Exp. Stat.(DR)	R	ML	75	56	4	1.0	0.0	58.3	16.2	66.1	4613	S-V
TR 46	Triumph Seed Co., Inc.	R	E	62	46	8	0.0	1.3	55.9	15.1	71.8	4591	T-V
8379	Pioneer Hi-Bred Int Inc	Bz	ML	63	51	8	0.0	0.0	58.3	15.8	70.9	4560	U-V
SC-710	SEEDCO Corporation	R	M	69	52	5	0.0	0.0	57.3	15.8	68.7	4497	V
TR 65-G	Triumph Seed Co., Inc.	R	M	71	52	7	0.0	0.0	56.9	15.5	70.1	3757	W
A8618 x RTx434	Tx. Agri. Exp. Stat.(FM)	Rt	ML	78	55	9	2.3	0.0	54.6	14.9	59.4	3694	W
A8618 x R8618	Tx. Agri. Exp. Stat.(FM)	Rt	ML	78	48	7	2.7	0.0	53.5	15.2	57.9	3339	W
X15277	Cargill Hybrid Seeds	B	PM	.	.	.	.	.	.	.	.	.	A-G

TEST MEAN= 5488 TEST C.V.= 6.8 LSD .05=596.0

Note: 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.

* Frontier F-457D and AgriPro ST-686 were entered as commercial check hybrids at our discretion and should 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.

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

**** Midge rating scale: 0= trace or no damage 1= 1-10% 2= 11-20% 3= 21-30% 4=31-40% etc.

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

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

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	1	6354	1	7950	1	8054
ATx626 x R8503	Tx. Agri. Exp. Stat. (FM)	2	6193	55	7171	12	7558
dk 775	DOUGLASS W. KING COMPANY	3	6175	26	7460	4	7738
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	4	6097	51	7204	2	7902
A1 x R8503	Tx. Agri. Exp. Stat. (DR)	5	6089	–	–	–	–
F-524	FRONTIER HYBRIDS, INC.	6	6068	–	–	34	7326
ORO Hombre	ORO Hybrids	7	6058	–	–	–	–
T-E 76	TAYLOR EVANS SEED COMPANY	8	6049	15	7555	–	–
Optima	Big Crop Seed Company	9	6025	24	7472	–	–
DEKALB DK-50	DEKALB Plant Genetics	10	6020	8	7619	5	7695
Two 80-D	Triumph Seed Company, Inc.	11	5997	38	7339	54	7150
GSC 3150	GroAgri Seed Company	12	5993	30	7432	–	–
SG-944	Garrison Seed Company	13	5989	17	7542	–	–
X 15277	Cargill Hybrid Seeds	14	5962	32	7409	–	–
NC+ 472	NC+ Hybrids	15	5932	–	–	–	–
T-E 77-E	TAYLOR EVANS SEED COMPANY	16	5910	–	–	–	–
ATx631 x 86EO361	Tx. Agri. Exp. Stat. (DR)	17	5902	–	–	–	–
ORO Amigo	ORO Hybrids	18	5887	10	7607	–	–
A1 x 86EO361	Tx. Agri. Exp. Stat. (DR)	19	5871	–	–	–	–
GS 712	ASGROW SEED COMPANY	20	5869	43	7301	10	7597
Maxima	Big Crop Seed Company	21	5864	3	7729	24	7411
Delta Pine G-1711E	DELTA & PINE LAND COMPANY	22	5856	–	–	–	–
Delta Pine G-1616	DELTA & PINE LAND COMPANY	23	5834	–	–	–	–
8278	Pioneer Hi-Bred International, Inc.	24	5829	18	7539	–	–
SG-942	Garrison Seed Company	25	5827	2	7845	–	–

Table 2B. Weslaco, Texas. (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
SG-922	Garrison Seed Company	26	5821	21	7506	66	7115
6670	Cargill Hybrid Seeds	27	5791	23	7475	37	7291
GSC 3605	GroAgri Seed Company	28	5786	82	6711	–	–
Rustler	Conlee Seed Company, Inc.	29	5774	41	7333	19	7436
Rio Grande	Western Heritage	30	5774	40	7336	–	–
SC-705	SEEDCO Corporation	31	5770	–	–	–	–
NC+ X7B90	NC+ Hybrids	32	5760	–	–	–	–
Rio Bravo	Western Heritage	33	5726	68	6968	–	–
DEKALB DK-64	DEKALB Plant Genetics	34	5719	–	–	–	–
AVar x R8504	Tx. Agri. Exp. Stat. (FM)	35	5718	–	–	–	–
ORO G Xtra	ORO Hybrids	36	5716	31	7426	36	7302
KS 737	The New Northrup King	37	5714	–	–	–	–
SG-932	Garrison Seed Company	38	5699	72	6909	52	7156
A8618 x RTx430	Tx. Agri. Exp. Stat. (FM)	39	5683	–	–	–	–
T-E Ranger	TAYLOR EVANS SEED COMPANY	40	5675	63	7075	–	–
F-457D	FRONTIER HYBRIDS, INC.	41	5670	–	–	–	–
8358	Pioneer Hi-Bred International, Inc.	42	5663	–	–	70	7061
AVar x R8505	Tx. Agri. Exp. Stat. (FM)	43	5646	–	–	–	–
847	Cargill Hybrid Seeds	44	5641	62	7078	–	–
2665	The New Northrup King	45	5609	29	7440	78	6883
AVar x 80C2241	Tx. Agri. Exp. Stat. (FM)	46	5600	86	6550	–	–
ATx631 x R8505	Tx. Agri. Exp. Stat. (FM)	47	5600	50	7208	7	7685
8313	Pioneer Hi-Bred International, Inc.	48	5568	64	7068	–	–
X6038(x)	ASGROW SEED COMPANY	49	5566	35	7387	–	–
GSC 3148	GroAgri Seed Company	50	5528	7	7649	–	–

Table 2B. Weslaco, Texas. (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
KS 786	The New Northrup King	51	5522	–	–	–	–
GSC 3146	GroAgri Seed Company	52	5522	34	7390	–	–
W-876DR	GEORGE WARNER SEED CO., INC.	53	5517	59	7113	32	7344
DEKALB DK-56	DEKALB Plant Genetics	54	5513	–	–	–	–
ORO Zenith	ORO Hybrids	55	5507	–	–	–	–
ATx631 x 80C2241	Tx. Agri. Exp. Stat. (FM)	56	5506	67	6997	28	7393
A.Arg34 x R8505	Tx. Agri. Exp. Stat. (FM)	57	5489	–	–	–	–
dk 760	DOUGLASS W. KING COMPANY	58	5484	37	7341	65	7120
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	59	5461	65	7056	16	7454
Wrangler II	Conlee Seed Company, Inc.	60	5451	46	7268	33	7327
A1 x R8505	Tx. Agri. Exp. Stat. (DR)	61	5406	80	6765	6	7693
SC-701	SEEDCO Corporation	62	5391	–	–	–	–
HSC Wings	HyPerformer Seed Company	63	5389	–	–	41	7258
dk 780	DOUGLASS W. KING CO.	64	5389	–	–	–	–
Two 70-D	Triumph Seed Company, Inc.	65	5387	54	7187	42	7254
ATx399 x RTx430	Tx. Agri. Exp. Stat. (FM)	66	5358	14	7557	68	7101
A1 x Tx2794	Tx. Agri. Exp. Stat. (DR)	67	5356	–	–	–	–
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	92	6593
Ole'	Big Crop Seed Company	71	5329	77	6817	–	–
ATx378 x RTx430	Tx. Agri. Exp. Stat. (FM)	72	5301	36	7367	89	6704
ST 686	AgriPro Seeds	73	5296	16	7546	64	7122
dk 776	DOUGLASS W. KING COMPANY	74	5278	73	6903	21	7422
A1 x Tx433	Tx. Agri. Exp. Stat. (DR)	75	5246	–	–	95	6471

Table 2B. Weslaco, Texas. (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
W-917-E	GEORGE WARNER SEED CO., INC.	76	5225	81	6763	3	7765
Delta Pine 1558	DELTA & PINE LAND COMPANY	77	5187	–	–	–	–
HSC Cherokee	HyPerformer Seed Company	78	5151	–	–	31	7363
ORO Baron	ORO Hybrids	79	5130	57	7138	43	7253
ATx631 x R8504	Tx. Agri. Exp. Stat. (FM)	80	5123	84	6652	103	6334
9344	RICHARDSON SEEDS, INC.	81	5105	20	7507	–	–
ATx2752 x RTx430	Tx. Agri. Exp. Stat. (FM)	82	5099	39	7337	46	7203
T-E Wahoo	TAYLOR EVANS SEED COMPANY	83	5065	75	6847	–	–
HSC Exp 89-3	HyPerformer Seed Company	84	5051	–	–	–	–
T-E Y-75	TAYLOR EVANS SEED COMPANY	85	5044	5	7728	27	7395
TS-488	TEXAS SEED COMPANY	86	5021	48	7258	–	–
NC+ 573E	NC+ Hybrids	87	5005	–	–	–	–
GSC 1313	GroAgri Seed Company	88	4912	–	–	–	–
ATx399 x RTx2536	Tx. Agri. Exp. Stat. (DR)	89	4647	25	7461	74	6985
A1 x Tx2783	Tx. Agri. Exp. Stat. (DR)	90	4613	–	–	–	–
TR 46	Triumph Seed Company, Inc.	91	4591	–	–	–	–
8379	Pioneer Hi-Bred International, Inc.	92	4560	–	–	–	–
SC-710	SEEDCO Corporation	93	4497	–	–	–	–
TR 65-G	Triumph Seed Company, Inc.	94	3757	49	7237	–	–
A8618 x RTx434	Tx. Agri. Exp. Stat. (FM)	95	3694	–	–	–	–
A8618 x R8618	Tx. Agri. Exp. Stat. (FM)	96	3339	–	–	–	–
S 9750	The New Northrup King	–	–	4	7728	47	7188
5572	Cargill Hybrid Seeds	–	–	11	7591	15	7458
DR 1125	Cargill Hybrid Seeds	–	–	12	7587	56	7148
T-E Y-77	TAYLOR EVANS SEED COMPANY	–	–	22	7477	63	7124

Table 2B. Weslaco, Texas. (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
ST D701G	AgriPro Seeds	–	–	27	7449	51	7159
M-Elite	SEMILLAS MASTER DE MEXICO S.A	–	–	52	7202	53	7152
M-9292-R	SEMILLAS MASTER DE MEXICO S.A	–	–	53	7195	17	7452
CS 737	Columbia Seed Company	–	–	56	7146	59	7138
A1 x Tx435	Tx. Agri. Exp. Stat.	–	–	58	7125	22	7418
M-VICTORIA	SEMILLAS MASTER DE MEXICO S.A	–	–	60	7096	11	7567
T-E DINERO	TAYLOR EVANS SEED COMPANY	–	–	66	7048	23	7413
8260	Pioneer Hi-Bred International, Inc.	–	–	69	6956	75	6941
X 62830	AgriPro Seeds	–	–	71	6945	76	6906
CS 747	Columbia Seed Company	–	–	76	6845	71	7037
ATx629 x R8503	Tx. Agri. Exp. Stat.	–	–	79	6781	9	7620
KS 780	The New Northrup King	–	–	85	6569	61	7132
A1 x R8507	Tx. Agri. Exp. Stat.	–	–	89	6407	45	7209
RS610	Tx. Agri. Exp. Stat.	–	–	95	5714	107	5905
ATx631 x RTx435	Tx. Agri. Exp. Stat.	–	–	96	5512	101	6351
Number Entries:		96		99		107	
Test Mean Yield:			5488		7076		7099

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

TABLE 3. AGRONOMIC AND TEST INFORMATION: GREGORY

TEST:	1990 Dryland Grain Sorghum Performance Test
LOCATION:	John Hunt's Farm, San Patricio County, Gregory, Texas
COOPERATORS:	Wesley Schmidt, Darwin Anderson, Dennis Pietsch, Randy Gaas, Leon Synatschk, and Kenneth Schaefer
SOIL TYPE:	Victoria clay
ROW WIDTH:	38"
PREVIOUS CROP:	Cotton
LAND PREPARATION:	Cut stalks, chiseled 14" deep, disked, bedded
DATE PLANTED:	3-15-90 with cone planter
DATE THINNED:	4-5-90; approximately 4-5 plants/foot
PLOT LENGTH:	36'
FERTILIZER:	340 lb/A of 24-8-0 pre-plant
HERBICIDE:	Banded 1 pt/A AAtrex (atrazine) when grain sorghum was 6" tall
INSECTICIDE:	Applied .25 pt/A Cygon (dimethoate) with herbicide for yellow sugarcane aphids and greenbugs. 10 oz/A of Cygon on 6-10 for greenbug control.
RAINFALL:	Rainfall was not recorded,but was considered below normal
IRRIGATIONS:	None
DATE HARVESTED:	7-2 & 3-90 by hand
SIZE HARVESTED PLOT:	1/500 acre
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	89
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	2
TEST MEAN:	3,669 lb/A; yields corrected to 13% moisture
TEST C.V.:	12.5 percent

GENERAL INFORMATION: The Coastal Bend has traditionally been known as one of the major grain sorghum producing areas in Texas. During the past two years, hot and dry weather conditions have persisted in this area causing difficulty in conducting performance tests. Rainfall patterns have been erratic, thus accounting for yield variability from one area to another. Caution should be used in interpreting these results.

Conditions at this test were not favorable for maximum grain sorghum production in 1990. First, the planting date was delayed approximately 10-14 days due to wet soil conditions from late-February and early-March rains. Second, after the test was hand-thinned, greenbugs, yellow sugarcane aphids and grub worms invaded the test block. Although the block was sprayed with an insecticide, plant populations were reduced, thus affecting final yields. Third, hot and dry weather conditions persisted in May and June, contributing to the development of charcoal rot. Because of the lodging the test block was harvested earlier than normal as reflected by the moisture readings.

The test mean yield was 3,669 lb/A compared to the past 5-year average of 3,982 lb/A. Sixteen hybrids in the test produced over 4,000 lb/A.

Table 3A. GRAIN SORGHUM PERFORMANCE TEST;GREGORY, TEXAS 1990

HYBRID *	COMPANY OR BRAND NAME	GRN CLR **	PLANT COLOR ***	MATU-RITY CLASS ****	DAYS TO 50% FLOWER	PLANT HT., IN.	HEAD EXSER-TION INCHES	% STAND	MIDGE DAM-AGE %	% LODGE	TEST WT. lb/bu	MOIS-TURE %	YIELD lb/A	STAT. SIG., 0.05 *****
dK 780	DOUGLASS W. KING COMPANY	R	R	ML	75	49	6	95.0	1.0	1	57.6	22.3	4360	A
dK 760	DOUGLASS W. KING COMPANY	R	P	ML	74	49	4	95.0	0.0	1	56.0	23.3	4299	A-B
GSC 3148	GroAgri Seed Company	R	P	M	72	46	5	95.0	0.0	1	53.0	22.0	4277	A-B
TS-488	TEXAS SEED COMPANY	R	*	ML	75	50	5	98.3	0.0	0	57.3	21.9	4277	A-B
Delta Pine 1558	Delta & Pine Land Co.	Rt	P	M	73	47	6	91.7	1.0	2	58.3	20.8	4234	A-C
AVar x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	73	61	9	93.3	1.0	2	57.0	21.5	4230	A-C
dK 776	DOUGLASS W. KING COMPANY	R	R	ML	75	48	5	95.0	1.7	1	57.5	21.8	4229	A-C
T-E Y-75	TAYLOR EVANS SEED CO.	R	R	M	75	48	5	95.0	0.0	4	58.1	20.7	4207	A-D
CHECK 4	Tx. Agri. Exp. Stat.	Bz	P	ML	74	49	4	86.7	0.0	1	55.8	23.1	4194	A-D
SC-710	SEEDCO Corporation	R	*	M	75	49	5	96.7	0.0	1	57.9	20.5	4143	A-D
NC+ 7881	NC+ Hybrids	Br	*	M	73	42	4	93.3	0.0	1	56.9	20.2	4067	A-E
NC+ 573E	NC+ Hybrids	R	*	M	75	46	4	93.3	0.0	0	57.1	21.1	4065	A-E
CHECK 1	Tx. Agri. Exp. Stat.	Bz	*	ML	73	51	6	90.0	1.7	1	55.1	23.8	4062	A-E
A1 x R8505	Tx. Agri. Exp. Stat.(DR)	W	R	ML	74	52	5	93.3	0.0	0	55.8	23.1	4060	A-E
DEKALB DK-56	DEKALB Plant Genetics	R	R	ML	78	51	5	95.0	1.7	0	55.8	24.5	4055	A-E
HSC Cherokee	HyPerformer Seed Company	R	R	M	76	49	5	91.7	0.0	2	58.0	21.0	4038	A-F
DEKALB DK-37	DEKALB Plant Genetics	Bz	P	E	72	51	6	93.3	0.7	0	55.6	22.6	3997	A-G
Ultima	Big Crop Seed Company	R	R	M	75	48	5	90.0	1.7	2	57.8	20.8	3995	A-G
Wrangler II	Conlee Seed Company, Inc	R	P	ML	72	55	6	96.7	0.0	1	55.3	23.0	3980	A-G
5503	Garst Seed Company	R	P	ML	75	48	3	95.0	1.7	0	57.6	21.6	3968	A-G
ATx631 x R8511	Tx. Agri. Exp. Stat.(FM)	W	T	M	78	54	4	93.3	3.0	0	56.1	22.9	3952	A-G
SC-701	SEEDCO Corporation	Bz	*	M	72	47	7	88.3	1.0	5	54.5	21.3	3949	A-G
ORO Amigo	ORO Hybrids	Bz	P	ML	73	50	4	91.7	1.0	2	55.2	22.5	3901	A-G
ORO Baron	ORO Hybrids	Rt	R	ML	76	47	4	86.7	0.0	3	57.9	20.1	3897	A-G
A8618 x RTx430	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	80	50	3	90.0	3.3	2	54.9	24.7	3877	A-G
ORO G Xtra	ORO Hybrids	Bz	P	ML	74	49	3	91.7	2.3	2	55.5	22.9	3873	A-G
NC+ 472	NC+ Hybrids	Br	*	M	74	46	5	93.3	0.7	1	53.1	23.2	3828	A-G
GS 712	ASGROW SEED COMPANY	Bz	P	ML	74	51	4	86.7	0.0	2	55.6	22.9	3823	A-G
8379	Pioneer Hi-Bred Int Inc	Bz	P	ML	68	49	10	93.3	0.0	0	58.5	21.8	3823	A-G
Delta Pine G-1711E	Delta & Pine Land Co.	Bz	P	ML	72	51	5	91.7	0.7	5	55.9	22.0	3822	A-G
F-457D	FRONTIER HYBRIDS, INC.	Bz	T	M	71	47	6	90.0	0.7	11	55.0	20.4	3821	A-G
T-E 77-E	TAYLOR EVANS SEED CO.	R	P	ML	73	49	5	93.3	0.0	1	56.4	22.0	3810	A-G
CHECK 2	Tx. Agri. Exp. Stat.	Bz	T	ML	73	50	5	90.0	3.7	3	55.8	21.3	3809	A-G
HSC EXP 89-3	HyPerformer Seed Company	Bz	R	M	77	48	4	96.7	0.3	4	57.5	21.1	3800	A-G
AP 9791	AgriPro Seeds	Bz	R	ML	71	50	9	88.3	0.0	1	56.0	21.3	3799	A-G
A.Arg34 x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	73	51	7	88.3	0.3	0	57.0	21.3	3798	A-G
AVar x R8504	Tx. Agri. Exp. Stat.(FM)	W	T	M	79	58	5	96.7	0.0	0	56.2	27.4	3788	A-G
DEKALB M-572-G	DEKALB Plant Genetics	Bz	P	ML	73	49	5	88.3	0.3	3	56.4	21.6	3783	A-G
A1 x 850G4300-5	Tx. Agri. Exp. Stat.(DR)	R	P	ML	79	55	2	96.7	1.7	0	54.8	24.7	3780	A-G
Ole'	Big Crop Seed Company	Bz	P	M	73	47	5	90.0	0.0	2	53.9	21.3	3772	A-G
AP 9850	AgriPro Seeds	Bz	R	ML	77	50	3	93.3	0.7	1	57.8	21.6	3751	A-G
A1 x Tx430	Tx. Agri. Exp. Stat.(DR)	W	R	ML	79	57	2	96.7	1.7	0	54.7	25.5	3749	A-G

Table 3A. GRAIN SORGHUM PERFORMANCE TEST;GREGORY, TEXAS 1990

HYBRID *	COMPANY OR BRAND NAME	GRN CLR **	PLANT COLOR ***	MATU-RITY CLASS ****	DAYS TO 50% FLOWER	PLANT HT., IN.	HEAD EXSER-TION INCHES	% STAND	MIDGE DAM-AGE %	% LODGE	TEST WT. lb/bu	MOIS-TURE %	YIELD lb/A	STAT. SIG., 0.05 *****
T-E 76	TAYLOR EVANS SEED CO.	R	P	M	71	45	5	95.0	1.7	3	52.1	20.2	3707	A-H
847	Cargill Hybrid Seeds	Bz	R	ML	76	49	3	93.3	3.3	1	57.9	20.9	3704	A-H
CHECK 3	Tx. Agri. Exp. Stat.	Bz	*	ML	74	50	5	88.3	1.0	2	55.9	22.1	3703	A-H
GSC 1313	GroAgri Seed Company	R	R	M	76	47	4	91.7	0.3	3	58.3	20.2	3686	A-H
Rustler	Conlee Seed Company, Inc	R	P	M	73	50	6	88.3	4.0	1	55.4	22.3	3686	A-H
X6038(x)	ASGROW SEED COMPANY	Bz	P	ML	77	52	5	91.7	2.0	1	57.0	23.1	3681	A-H
8278	Pioneer Hi-Bred Int Inc	Bz	P	ML	72	49	4	93.3	0.3	1	56.9	21.3	3679	A-H
6670	Cargill Hybrid Seeds	Bz	P	ML	73	48	3	91.7	0.0	2	55.3	23.0	3664	A-H
ATx399 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	71	47	5	91.7	1.0	1	54.0	20.6	3652	A-H
CHECK 6	Tx. Agri. Exp. Stat.	Bz	*	ML	71	45	7	93.3	0.0	2	56.8	20.4	3643	A-H
AVar x BOC2241	Tx. Agri. Exp. Stat.(FM)	W	T	M	74	59	7	93.3	1.7	0	56.4	21.4	3633	A-H
KS 737	The New Northrup King	R	P	ML	68	48	9	96.7	0.0	1	57.3	20.6	3631	A-H
Delta Pine G-1616	Delta & Pine Land Co.	Bz	P	ML	77	53	2	95.0	0.0	1	54.0	23.9	3630	A-H
Optima	Big Crop Seed Company	Bz	P	M	72	51	5	91.7	0.0	19	52.6	20.8	3626	A-H
ATx399 x Tx2536	Tx. Agri. Exp. Stat.(DR)	R	P	ML	73	46	7	86.7	2.3	0	53.3	23.4	3624	A-H
HSC Wings	HyPerformer Seed Company	Bz	P	ML	73	49	4	85.0	3.3	5	56.0	21.9	3611	A-H
SC-705	SEEDCO Corporation	Bz	*	ML	73	49	5	90.0	0.3	14	55.7	22.3	3605	A-H
A1 x R8503	Tx. Agri. Exp. Stat.(DR)	R	P	ML	80	54	1	93.3	2.3	2	56.3	25.2	3601	A-H
KS 786	The New Northrup King	R	*	L	73	47	4	95.0	3.3	2	55.4	22.0	3564	A-H
A1 x Tx435	Tx. Agri. Exp. Stat.(DR)	W	R	ML	77	54	5	95.0	0.7	0	53.4	24.1	3556	A-H
A35 x R8505	Tx. Agri. Exp. Stat.(DR)	R	P	ML	77	53	9	86.7	3.3	0	57.8	23.3	3533	A-H
ATx626 x R8503	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	80	52	3	88.3	4.0	0	55.5	26.4	3518	A-H
X15277	Cargill Hybrid Seeds	Bz	P	ML	79	51	2	96.7	1.7	0	55.3	24.6	3510	A-H
GSC 3146	GroAgri Seed Company	R	P	M	70	49	9	90.0	0.0	2	58.6	18.0	3506	A-H
ATx2752 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	76	49	4	81.7	3.3	1	54.8	23.1	3492	A-H
T-E Wahoo	TAYLOR EVANS SEED CO.	Wh	P	L	73	50	5	85.0	0.0	0	56.9	21.4	3491	A-H
8313	Pioneer Hi-Bred Int Inc	Bz	P	ML	71	46	5	100.0	0.0	1	57.7	20.3	3471	A-H
dK 775	DOUGLASS W. KING COMPANY	R	R	ML	74	51	2	88.3	1.7	3	57.5	20.3	3423	A-H
Maxima	Big Crop Seed Company	Bz	P	ML	75	49	4	90.0	2.7	4	55.6	22.2	3414	A-H
ATx378 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	72	58	6	93.3	0.7	8	54.9	22.4	3405	B-H
A35 x Tx430	Tx. Agri. Exp. Stat.(DR)	R	P	ML	77	52	6	95.0	4.3	0	55.6	25.7	3378	B-H
5319	Garst Seed Company	R	P	ML	74	49	5	91.7	0.0	5	55.7	22.0	3372	B-H
ATx631 x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	77	55	4	93.3	3.3	0	55.8	22.3	3314	C-H
A1 x Tx2737	Tx. Agri. Exp. Stat.(DR)	W	P	ML	73	52	8	90.0	1.0	0	55.8	23.3	3310	C-H
2665	The New Northrup King	R	P	ML	73	45	4	95.0	0.7	0	56.4	21.5	3271	D-I
T-E Ranger	TAYLOR EVANS SEED CO.	R	P	ML	71	48	9	93.3	0.3	2	58.1	17.8	3269	D-I
AOK11 x Tx2817	Tx. Agri. Exp. Stat.(DR)	W	P	ML	72	50	8	93.3	0.7	0	56.7	21.4	3194	E-I
A4R x Tx430	Tx. Agri. Exp. Stat.(DR)	R	P	ML	78	48	4	100.0	5.0	0	55.8	22.4	3162	E-I
CHECK 5	Tx. Agri. Exp. Stat.	Bz	*	ML	66	41	8	95.0	0.0	0	55.6	19.1	3148	E-I
ATx631 x R8504	Tx. Agri. Exp. Stat.(FM)	W	T	M	81	57	4	90.0	4.3	0	53.9	26.3	3134	E-I
AB618 x RTx435	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	79	47	5	93.3	0.0	13	54.1	22.8	3097	F-I
A1 x Tx2794	Tx. Agri. Exp. Stat.(DR)	W	P	ML	77	53	4	98.3	0.0	0	54.3	23.6	3076	G-I

Table 3A. GRAIN SORGHUM PERFORMANCE TEST:GREGORY, TEXAS 1990

HYBRID *	COMPANY OR BRAND NAME	GRN CLR **	PLANT COLOR ***	MATU-RITY CLASS ****	DAYS TO 50% FLOWER	PLANT 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 Tx2783	Tx. Agri. Exp. Stat.(DR)	R	R	ML	82	59	1	91.7	10.0	0	55.9	24.3	3073	G-I
ATx631 x 80C2241	Tx. Agri. Exp. Stat.(FM)	W	T	M	77	55	3	95.0	7.7	0	54.9	22.3	3049	G-I
A8618 x RTx434	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	84	50	4	86.7	8.3	0	54.3	27.9	2770	H-I
ATx630 x R3338wx	Tx. Agri. Exp. Stat.(DR)	W	P	ML	80	54	4	100.0	15.7	0	52.5	25.4	2397	I-J
A8618 x R8618	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	84	45	2	76.7	13.3	0	52.3	28.8	1975	J

TEST MEAN= 3669 TEST C.V.=12.5 LSD .05=736.5

Note: 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.

* Garrison SG 932, Mitchell YG-76, AgriPro D701G, Texas Seed AG-233, Northrup King NK 2656 and NK 2030 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	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
dk 780	DOUGLASS W. KING COMPANY	1	4360	–	–	–	–
dk 760	DOUGLASS W. KING COMPANY	2	4299	53	2941	37	4228
GSC 3148	GroAgri Seed Company	3	4277	8	3591	–	–
TS-488	TEXAS SEED COMPANY	4	4277	66	2797	–	–
Delta Pine 1558	DELTA & PINE LAND COMPANY	5	4234	56	2914	–	–
AVar x R8505	Tx. Agri. Exp. Stat. (FM)	6	4230	–	–	–	–
dk 776	DOUGLASS W. KING COMPANY	7	4229	63	2849	15	4437
T-E Y-75	TAYLOR EVANS SEED COMPANY	8	4207	75	2688	18	4404
SG-932	Garrison Seed Company	9	4194	14	3501	7	4632
SC-710	SEEDCO Corporation	10	4143	–	–	–	–
NC+ 7B81	NC+ Hybrids	11	4067	–	–	–	–
NC+ 573E	NC+ Hybrids	12	4065	–	–	–	–
YG-76	Mitchell Seed Company	13	4062	30	3244	–	–
A1 x R8505	Tx. Agri. Exp. Stat. (DR)	14	4060	73	2720	–	–
DEKALB DK-56	DEKALB Plant Genetics	15	4055	64	2848	–	–
HSC Cheokee	HyPerformer Seed Company	16	4038	65	2817	11	4507
DEKALB DK-37	DEKALB Plant Genetics	17	3997	–	–	–	–
Ultima	Big Crop Seed Company	18	3995	–	–	–	–
Wrangler II	Conlee Seed Company, Inc.	19	3980	18	3404	33	4258
5503	Garst Seed Company	20	3968	–	–	–	–
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	21	3952	94	2110	–	–
SC-701	SEEDCO Corporation	22	3949	–	–	–	–
ORO Amigo	ORO Hybrids	23	3901	–	–	–	–
ORO Baron	ORO Hybrids	24	3897	17	3423	19	4398
A8618 x RTx430	Tx. Agri. Exp. Stat. (FM)	25	3877	–	–	–	–
ORO G Xtra	ORO Hybrids	26	3873	43	3064	41	4162
NC+ 472	NC+ Hybrids	27	3828	–	–	–	–
GS 712	ASGROW SEED COMPANY	28	3823	72	2722	58	3900
8379	Pioneer Hi-Bred International, Inc.	29	3823	–	–	–	–

Table 3B. Gregory, Texas. (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
Delta Pine G-1711E	DELTA & PINE LAND COMPANY	30	3822	–	–	–	–
F-457D	FRONTIER HYBRIDS, INC.	31	3821	–	–	–	–
T-E 77-E	TAYLOR EVANS SEED COMPANY	32	3810	1	3922	–	–
ST D701G	AgriPro Seeds	33	3809	22	3365	55	3961
HSC Exp. 89-3	HyPerformer Seed Company	34	3800	–	–	–	–
AP 9791	AgriPro Seeds	35	3799	–	–	–	–
A.Arg34 x R8505	Tx. Agri. Exp. Stat. (FM)	36	3798	–	–	–	–
AVar x R8504	Tx. Agri. Exp. Stat. (FM)	37	3788	–	–	–	–
DEKALB M-572-G	DEKALB Plant Genetics	38	3783	36	3127	–	–
A1 x 850G4300-5	Tx. Agri. Exp. Stat. (DR)	39	3780	–	–	–	–
Ole'	Big Crop Seed Company	40	3772	34	3162	–	–
AP 9850	AgriPro Seeds	41	3751	–	–	–	–
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	42	3749	25	3309	39	4182
T-E 76	TAYLOR EVANS SEED COMPANY	43	3707	44	3041	–	–
847	Cargill Hybrid Seeds	44	3704	35	3159	–	–
AG-233	TEXAS SEED COMPANY	45	3703	61	2867	–	–
GSC 1313	GroAgri Seed Company	46	3686	77	2661	–	–
Rustler	Conlee Seed Company, Inc.	47	3686	71	2726	66	3814
X6038(x)	ASGROW SEED COMPANY	48	3681	52	2942	–	–
8278	Pioneer Hi-Bred International, Inc.	49	3679	31	3237	–	–
6670	Cargill Hybrid Seeds	50	3664	23	3336	82	3510
ATx399 x RTx430	Tx. Agri. Exp. Stat. (FM)	51	3652	28	3255	13	4456
2656	The New Northrup King	52	3643	–	–	–	–
AVar x 80C2241	Tx. Agri. Exp. Stat. (FM)	53	3633	96	2022	–	–
KS 737	The New Northrup King	54	3631	27	3277	–	–
Delta Pine G-1616	DELTA & PINE LAND COMPANY	55	3630	–	–	–	–
Optima	Big Crop Seed Company	56	3626	38	3117	–	–
ATx399 x Tx2536	Tx. Agri. Exp. Stat. (DR)	57	3624	68	2744	94	2833

Table 3B. Gregory, Texas. (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
HSC Wings	HyPerformer Seed Company	58	3611	48	3006	76	3684
SC-705	SEEDCO Corporation	59	3605	–	–	–	–
A1 x R8503	Tx. Agri. Exp. Stat. (DR)	60	3601	–	–	–	–
KS 786	The New Northrup King	61	3564	–	–	–	–
A1 x Tx435	Tx. Agri. Exp. Stat. (DR)	62	3556	15	3465	56	3932
A35 x R8505	Tx. Agri. Exp. Stat. (DR)	63	3533	–	–	–	–
ATx626 x R8503	Tx. Agri. Exp. Stat. (FM)	64	3518	91	2351	27	4314
X15277	Cargill Hybrid Seeds	65	3510	85	2557	–	–
GSC 3146	GroAgri Seed Company	66	3506	12	3569	–	–
ATx2752 x RTx430	Tx. Agri. Exp. Stat. (FM)	67	3492	82	2588	21	4367
T-E Wahoo	TAYLOR EVANS SEED COMPANY	68	3491	–	–	–	–
8313	Pioneer Hi-Bred International, Inc.	69	3471	29	3247	–	–
dk 775	DOUGLASS W. KING COMPANY	70	3423	42	3072	2	4921
Maxima	Big Crop Seed Company	71	3414	45	3035	45	4092
ATx378 x RTx430	Tx. Agri. Exp. Stat. (FM)	72	3405	4	3670	62	3857
A35 x Tx430	Tx. Agri. Exp. Stat. (DR)	73	3378	9	3575	28	4310
5319	Garst Seed Company	74	3372	19	3384	–	–
ATx631 x R8505	Tx. Agri. Exp. Stat. (FM)	75	3314	70	2733	31	4280
A1 x Tx2737	Tx. Agri. Exp. Stat. (DR)	76	3310	87	2534	–	–
2665	The New Northrup King	77	3271	40	3107	6	4640
T-E Ranger	TAYLOR EVANS SEED COMPANY	78	3269	47	3025	–	–
AOK11 x Tx2817	Tx. Agri. Exp. Stat. (DR)	79	3194	–	–	–	–
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	80	3162	49	2988	36	4241
2030	The New Northrup King	81	3148	–	–	–	–
ATx631 x R8504	Tx. Agri. Exp. Stat. (FM)	82	3134	74	2694	93	2851
A8618 x RTx435	Tx. Agri. Exp. Stat. (FM)	83	3097	78	2640	–	–
A1 x Tx2794	Tx. Agri. Exp. Stat. (DR)	84	3076	55	2935	–	–
A1 x Tx2783	Tx. Agri. Exp. Stat. (DR)	85	3073	–	–	–	–

Table 3B. Gregory, Texas. (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
ATx631 x 80C2241	Tx. Agri. Exp. Stat. (FM)	86	3049	80	2623	74	3724
A8618 x RTx434	Tx. Agri. Exp. Stat. (FM)	87	2770	–	–	–	–
ATx630 x R3338wx	Tx. Agri. Exp. Stat. (DR)	88	2397	83	2577	89	3069
A8618 x R8618	Tx. Agri. Exp. Stat. (FM)	89	1975	–	–	–	–
DR 1125	Cargill Hybrid Seeds	–	–	5	3641	35	4245
RS610	Tx. Agri. Exp. Stat.	–	–	6	3626	63	3836
8260	Pioneer Hi-Bred International, Inc.	–	–	7	3605	72	3734
G-522DR	DELTA & PINE LAND COMPANY	–	–	10	3574	48	4015
Two 80-D	Triumph Seed Company, Inc.	–	–	11	3569	10	4589
W-876DR	GEORGE WARNER SEED CO., INC.	–	–	16	3454	57	3928
4462	Cargill Hybrid Seeds	–	–	21	3375	84	3404
W-844-E	GEORGE WARNER SEED CO., INC.	–	–	39	3108	24	4340
S 9750	The New Northrup King	–	–	41	3096	16	4432
TS-477	TEXAS SEED COMPANY	–	–	46	3032	14	4444
TOPAZ	ASGROW SEED COMPANY	–	–	51	2971	54	3964
ST 686	AgriPro Seeds	–	–	54	2940	4	4706
W-917-E	GEORGE WARNER SEED CO., INC.	–	–	58	2894	26	4316
T-E DINERO	TAYLOR EVANS SEED COMPANY	–	–	60	2877	61	3859
SG-922	Garrison Seed Company	–	–	76	2677	44	4098
ATx631 x RTx435	Tx. Agri. Exp. Stat.	–	–	86	2550	92	2857
ST 3308	AgriPro Seeds	–	–	88	2388	8	4597
ATx629 x R8503	Tx. Agri. Exp. Stat.	–	–	95	2108	80	3628
Number Entries:		89		96		96	
Test Mean Yield:			3669		3005		3988

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

TABLE 4. AGRONOMIC AND TEST INFORMATION: HONDO

TEST:	1990 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 January
DATE PLANTED:	3-19-90, by hand, using JD80 Planter
DATE THINNED:	4-12-90, thinned by hand to approximately 5-6 plants/foot
PLOT LENGTH:	30'
FERTILIZER:	Applied 150 lb/A of 9-15-0-11 with Zn and Mn in January and sidedress 140 lb/A of 82-0-0 in April
HERBICIDE:	Applied .25 pt/A of Banvel (dicamba) in April
INSECTICIDE:	None at planting. Applied 3/4 pt/A of Malathion ULV for false chinch bugs
RAINFALL:	Jan.= .75"; Feb.= 3.5"; March = 4.75"; April = 5.5"; May = .3"; June = 0.00"; July = 8.00"; Total =22.8"
IRRIGATIONS:	1 preplant of approximately 4" 2 during growing season of approximately 2" each
DATE HARVESTED:	8-2-90, by hand
SIZE HARVESTED PLOT:	1/750 acre
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	65
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	3
TEST MEAN:	4,778 lb/A; yields corrected to 13% moisture
TEST C.V.:	9.0 percent

GENERAL INFORMATION: This test is representative of conditions in the Medina Valley area of Texas just west of San Antonio. Unfavorable weather conditions and insects were impairing factors that resulted in near average yields at this test site.

Due to a lack of fall and winter rainfall, the test block was irrigated prior to the March 19 planting, resulting in ample moisture and excellent seedling emergence. Timely rainfall during late March and early April provided sufficient moisture for early plant growth and development. Abnormally high temperatures and a lack of rainfall during May and June warranted the application of two irrigations to insure continuous plant growth and development.

Greenbugs were observed in the test block and a greenbug rating was made by Dr. J.W. Stewart, Entomologist, Texas A&M University Research and Extension Center, Uvalde, Texas, on 6-13-90. Ratings were taken on all three replications and averaged. The rating key is listed at the end of the following table.

A period of heavy rains and hot temperatures just prior to harvest resulted in grain weathering of some hybrids, which is reflected by the bushel weights. A visual weathering rating was taken at harvest and is also presented in the following table. A high incidence of false chinch bugs was observed prior to harvest, thus requiring the application of an insecticide.

The test mean yield was 4,778 lb/A which is only 19 lb/A less than the past 5-year average of 4,797 lb/A. Lodging was observed in the test block, particularly in Rep. III where a small area of "rock-outcropping" was present. The areas in the rock-outcropping were harvested, but the yields were adjusted using a weighted formula. However, the lodging averages were reported as observed.

Table 4A. GRAIN SORGHUM PERFORMANCE TEST;HONDO, TEXAS 1990

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	WEATHER RATING 5	GREEN BUG RATING 6	% LODGE	TEST WT. lb/bu	MOIS-TURE %	YIELD lb/A	STAT. SIG., 0.05 7
TS-488	TEXAS SEED COMPANY	R	*	ML	83	46	4	2	2.0	0	59.0	14.1	5779	A
dK 780	DOUGLASS W. KING COMPANY	R	R	ML	81	49	4	2	2.3	1	58.9	14.0	5696	A-B
A4R x Tx430	Tx. Agri. Exp. Stat.(DR)	R	P	ML	82	45	5	2	3.2	0	57.0	14.2	5629	A-C
dK 776	DOUGLASS W. KING COMPANY	R	R	ML	83	47	4	1	2.0	3	58.7	14.1	5556	A-D
847	Cargill Hybrid Seeds	Bz	R	ML	82	47	3	2	2.3	1	58.2	14.1	5548	A-D
HSC Wings	HyPerformer Seed Company	Bz	P	ML	82	50	4	2	3.2	0	56.2	13.9	5415	A-E
T-E Ranger	TAYLOR EVANS SEED CO.	R	P	ML	82	45	6	3	3.5	8	57.5	13.6	5412	A-F
9300	RICHARDSON SEEDS, INC.	R	P	ML	82	46	3	2	2.3	1	58.1	13.7	5403	A-G
ST 686	AgriPro Seeds	Bz	R	M	82	47	4	2	2.0	2	58.8	13.9	5366	A-G
HSC Exp 89-3	HyPerformer Seed Company	Bz	R	M	83	48	4	2	2.0	0	58.7	14.0	5360	A-G
CHECK 1	Tx. Agri. Exp. Stat.	R	P	L	87	52	2	2	2.3	13	58.5	14.4	5358	A-H
Delta Pine G-1616	DELTA & PINE LAND CO.	Bz	P	ML	82	51	4	2	2.3	0	54.7	13.3	5338	A-I
8313	Pioneer Hi-Bred Int Inc	Bz	P	ML	81	45	2	2	4.0	0	58.2	14.3	5240	A-J
T-E 76	TAYLOR EVANS SEED CO.	R	P	M	80	45	3	3	2.7	5	52.6	13.1	5227	A-J
KS 780	The New Northrup King	R	*	ML	83	45	4	3	3.2	5	53.9	13.6	5202	A-K
Delta Pine 1558	DELTA & PINE LAND CO.	Rt	P	M	81	44	4	2	2.0	0	58.3	13.9	5125	A-K
Delta Pine G-1711E	DELTA & PINE LAND CO.	Bz	P	ML	81	49	3	2	2.7	30	55.6	14.2	5102	A-K
8379	Pioneer Hi-Bred Int Inc	Bz	P	ML	77	46	5	2	2.0	0	57.4	13.4	5038	A-K
OSAGE	ASGROW SEED COMPANY	R	R	M	84	45	2	2	2.0	0	58.9	14.1	5017	A-K
ORO G Xtra	ORO Hybrids	Bz	P	ML	83	47	3	2	3.3	30	55.0	13.8	5013	A-K
CHECK 3	Tx. Agri. Exp. Stat.	Bz	P	ML	82	47	3	3	4.0	1	56.0	13.6	4988	A-K
KS 786	The New Northrup King	R	*	L	83	48	3	3	3.7	2	55.5	13.8	4963	A-L
ATx631 x R8511	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	86	50	2	2	2.7	1	58.2	13.9	4928	A-L
ATx378 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	81	55	6	2	3.0	4	56.7	13.6	4890	B-M
ORO Amigo	ORO Hybrids	Bz	P	ML	80	49	4	2	2.7	2	56.8	13.5	4885	B-M
dK 760	DOUGLASS W. KING COMPANY	R	P	ML	82	46	3	3	3.0	12	56.1	14.0	4869	B-M
AVar x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	83	57	6	2	3.0	3	58.6	13.5	4829	B-M
F-524	FRONTIER HYBRIDS, INC.	Bz	P	ML	82	47	3	2	3.7	3	55.8	13.7	4816	C-M
T-E 77-E	TAYLOR EVANS SEED CO.	R	P	ML	81	48	3	2	2.0	22	55.4	13.6	4775	C-M
GS 712	ASGROW SEED COMPANY	Bz	P	ML	82	49	4	3	3.7	7	55.5	13.9	4766	C-M
A.Arg34 x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	83	48	6	2	3.0	12	56.9	13.5	4759	C-M
ATx626 x R8503	Tx. Agri. Exp. Stat.(FM)	R	R	M	84	51	3	2	3.0	5	56.6	14.0	4732	D-M
AOK11 x R8505	Tx. Agri. Exp. Stat.(DR)	W	P	ML	81	46	6	3	3.2	0	56.0	13.6	4730	D-M
X6038(x)	ASGROW SEED COMPANY	Bz	P	ML	84	48	4	2	3.5	3	59.0	13.9	4709	D-M
KS 714Y	The New Northrup King	W	*	M	79	44	5	3	2.3	1	54.7	13.8	4681	D-M
HSC Cherokee	HyPerformer Seed Company	R	R	M	84	46	3	2	2.0	1	57.9	13.9	4651	E-N
AOK11 x Tx430	Tx. Agri. Exp. Stat.(DR)	W	P	ML	80	49	5	3	3.3	2	52.5	13.5	4624	E-N
XP4039(x)	ASGROW SEED COMPANY	R	R	M	83	47	4	2	2.3	0	56.5	13.6	4623	E-N
CHECK 4	Tx. Agri. Exp. Stat.	W	P	ML	77	48	6	3	3.3	0	54.9	13.8	4617	E-N
8278	Pioneer Hi-Bred Int Inc	Bz	P	ML	81	47	4	2	2.0	5	57.3	13.8	4580	E-O
A8618 x RTx435	Tx. Agri. Exp. Stat.(FM)	P	R	ML	85	43	3	2	3.7	1	56.2	14.0	4578	E-O
A1 x 86E0361	Tx. Agri. Exp. Stat.(DR)	W	R	ML	84	49	4	3	3.3	13	57.8	14.3	4575	E-O

Table 4A. GRAIN SORGHUM PERFORMANCE TEST;HONDO, TEXAS 1990

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	WEATHER RATING 5	GREEN BUG RATING 6	% LODGE	TEST WT. lb/bu	MOIS-TURE %	YIELD lb/A	STAT. SIG.. 0.05 7
Rustler	Conlee Seed Company, Inc	R	P	M	84	46	3	2	3.8	30	54.9	14.1	4560	E-O
ATx399 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	82	45	3	3	3.7	2	51.7	12.7	4531	F-O
T-E Wahoo	TAYLOR EVANS SEED CO.	Wh	P	L	83	45	3	3	3.3	7	57.5	13.8	4516	G-O
A8618 x RTx430	Tx. Agri. Exp. Stat.(FM)	P	R	M	84	47	4	3	3.0	14	55.1	13.4	4490	G-O
T-E Y-75	TAYLOR EVANS SEED CO.	R	R	M	83	46	4	2	2.0	3	56.8	13.5	4486	G-O
A1 x Tx2783	Tx. Agri. Exp. Stat.(DR)	R	R	ML	86	54	2	2	2.7	7	59.4	14.1	4477	H-P
A8618 x R8618	Tx. Agri. Exp. Stat.(FM)	P	R	ML	87	44	4	2	3.2	5	55.3	14.4	4474	I-P
CHECK 2	Tx. Agri. Exp. Stat.	Ct	R	ML	79	46	7	3	3.7	1	53.9	13.6	4470	I-P
dK 775	DOUGLASS W. KING COMPANY	R	R	ML	83	49	1	2	2.0	3	59.1	14.1	4456	I-P
ATx399 x Tx2536	Tx. Agri. Exp. Stat.(DR)	R	P	ML	82	43	3	3	3.8	2	49.7	12.7	4436	J-P
ORO Baron	ORO Hybrids	Rt	R	ML	82	45	4	2	2.0	13	58.0	13.7	4424	J-P
A1 x R8505	Tx. Agri. Exp. Stat.(DR)	W	R	ML	83	47	4	2	3.2	0	58.4	14.3	4420	J-P
ATx631 x 86E0361	Tx. Agri. Exp. Stat.(DR)	W	T	ML	89	50	2	2	2.3	1	57.5	13.9	4404	J-P
6670	Cargill Hybrid Seeds	Bz	P	ML	81	47	3	2	3.7	12	55.6	13.3	4394	J-P
ATx631 x 80C2241	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	87	49	3	2	2.0	6	57.3	14.0	4369	J-P
ATx2752 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	86	46	2	2	3.3	0	56.8	14.2	4339	K-P
X15277	Cargill Hybrid Seeds	Bz	P	ML	84	47	2	3	4.0	23	55.2	14.1	4337	K-P
ATx631 x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	86	50	3	2	2.3	0	58.5	13.7	4327	K-P
A1 x Tx430	Tx. Agri. Exp. Stat.(DR)	W	R	ML	83	52	2	2	3.2	2	54.2	13.7	4095	L-P
AVar x 80C2241	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	85	51	4	2	2.7	2	59.7	13.7	4039	M-P
A8618 x RTx434	Tx. Agri. Exp. Stat.(FM)	P	R	ML	88	46	4	1	3.3	1	56.8	14.0	3781	N-P
ATx631 x R8504	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	87	49	3	2	2.0	3	57.6	14.6	3716	O-P
AVar x R8504	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	86	56	8	2	2.0	6	57.9	14.2	3628	P

TEST MEAN= 4778
TEST C.V.= 9.0
LSD .05=694.0

Note: 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 DEKALB DK-66, Garrison SG-932, Conlee Towhead and Warner W-632W were entered as commercial check hybrids at our discretion and should 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 Weathering rating was made on 8-3-90. Rating key:

Table 4A. GRAIN SORGHUM PERFORMANCE TEST;HONDO, TEXAS 1990

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	WEATHER RATING 5	GREEN BUG RATING 6	% LODGE	TEST WT. lb/bu	MOIS-TURE %	YIELD lb/A	STAT. SIG., 0.05 7

1 = Seed bright, free from mold damage
2 = Moderately resistant to weathering, seed slightly discolored
3 = Moderately susceptible, considerable discoloration
4 = Susceptible, extensive discoloration and deterioration of seed
5 = Very susceptible, seed essentially all dead. Embryos dead and endosperm deteriorated.

6 Greenbug ratings were made by Dr. J. W. Stewart, Entomologist, Texas A&M Unversity Research and Extension Center, Uvalde, Texas on 6-13-90. Rating key:
1 = no greenbugs present; 2 = greenbugs present; 3 = greenbugs present with red leaves; 4 = one dead leaf;
5 = two or more dead leaves.

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

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

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
TS-488	TEXAS SEED COMPANY	1	5779	12	5692	–	–
dk 780	DOUGLASS W. KING COMPANY	2	5696	–	–	–	–
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	3	5629	1	5976	22	5332
dk 776	DOUGLASS W. KING COMPANY	4	5556	40	5129	3	5637
847	Cargill Hybrid Seeds	5	5548	9	5728	–	–
HSC Wings	HyPerformer Seed Company	6	5415	34	5196	11	5450
T-E Ranger	TAYLOR EVANS SEED COMPANY	7	5412	25	5439	–	–
9300	RICHARDSON SEEDS, INC.	8	5403	–	–	–	–
ST 686	AgriPro Seeds	9	5366	6	5769	2	5640
HSC Exp 89-3	HyPerformer Seed Company	10	5360	–	–	–	–
DEKALB DK-66	DEKALB Plant Genetics	11	5358	–	–	–	–
Delta Pine G-1616	DELTA & PINE LAND COMPANY	12	5338	–	–	–	–
8313	Pioneer Hi-Bred International, Inc.	13	5240	28	5300	–	–
T-E 76	TAYLOR EVANS SEED COMPANY	14	5227	3	5820	–	–
KS 780	The New Northrup King	15	5202	2	5875	43	5008
Delta Pine 1558	DELTA & PINE LAND COMPANY	16	5125	–	–	–	–
Delta Pine G-1711E	DELTA & PINE LAND COMPANY	17	5102	–	–	–	–
8379	Pioneer Hi-Bred International, Inc.	18	5038	–	–	–	–
OSAGE	ASGROW SEED COMPANY	19	5017	53	4847	–	–
ORO G Xtra	ORO Hybrids	20	5013	24	5482	56	4830
SG-932	Garrison Seed Company	21	4988	–	–	28	5188
KS 786	The New Northrup King	22	4963	–	–	–	–
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	23	4928	41	5107	46	4976
ATx378 x RTx430	Tx. Agri. Exp. Stat. (FM)	24	4890	46	4978	53	4840
ORO Amigo	ORO Hybrids	25	4885	38	5136	–	–
dk 760	DOUGLASS W. KING CO., INC.	26	4869	26	5435	44	5006
AVar x R8505	Tx. Agri. Exp. Stat. (FM)	27	4829	–	–	–	–
F-524	FRONTIER HYBRIDS, INC.	28	4816	30	5269	–	–
T-E 77-E	TAYLOR EVANS SEED COMPANY	29	4775	–	–	–	–
GS 712	ASGROW SEED COMPANY	30	4766	11	5696	41	5028

Table 4B. Hondo, Texas. (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
A.Arg34 x R8505	Tx. Agri. Exp. Stat. (FM)	31	4759	–	–	–	–
ATx626 x R8503	Tx. Agri. Exp. Stat. (FM)	32	4732	64	4037	29	5180
AOK11 x R8505	Tx. Agri. Exp. Stat. (DR)	33	4730	–	–	–	–
X6038(x)	ASGROW SEED COMPANY	34	4709	49	4960	–	–
KS 714Y	The New Northrup King	35	4681	–	–	–	–
HSC Cherokee	HyPerformer Seed Company	36	4651	5	5789	7	5605
AOK11 x Tx430	Tx. Agri. Exp. Stat. (DR)	37	4624	–	–	–	–
XP4039(x)	ASGROW SEED COMPANY	38	4623	–	–	–	–
Towhead	Conlee Seed Company, Inc.	39	4617	60	4661	–	–
8278	Pioneer Hi-Bred International, Inc.	40	4580	35	5166	–	–
A8618 x RTx435	Tx. Agri. Exp. Stat. (FM)	41	4578	32	5215	–	–
A1 x 86EO361	Tx. Agri. Exp. Stat. (DR)	42	4575	–	–	–	–
Rustler	Conlee Seed Company, Inc.	43	4560	10	5718	47	4931
ATx399 x RTx430	Tx. Agri. Exp. Stat. (FM)	44	4531	15	5651	34	5111
T-E Wahoo	TAYLOR EVANS SEED COMPANY	45	4516	–	–	–	–
A8618 x RTx430	Tx. Agri. Exp. Stat. (FM)	46	4490	–	–	–	–
T-E Y-75	TAYLOR EVANS SEED COMPANY	47	4486	17	5594	1	5875
A1 x Tx2783	Tx. Agri. Exp. Stat. (DR)	48	4477	–	–	–	–
A8618 x R8618	Tx. Agri. Exp. Stat. (FM)	49	4474	–	–	–	–
W-632-W	GEORGE WARNER SEED CO., INC.	50	4470	57	4727	–	–
dk 775	DOUGLASS W. KING COMPANY	51	4456	56	4763	8	5591
ATx399 x Tx2536	Tx. Agri. Exp. Stat. (DR)	52	4436	27	5320	59	4666
ORO Baron	ORO Hybrids	53	4424	18	5582	6	5619
A1 x R8505	Tx. Agri. Exp. Stat. (DR)	54	4420	–	–	–	–
ATx631 x 86EO361	Tx. Agri. Exp. Stat. (DR)	55	4404	–	–	–	–
6670	Cargill Hybrid Seeds	56	4394	14	5656	21	5335
ATx631 x 80C2241	Tx. Agri. Exp. Stat. (FM)	57	4369	29	5283	66	4112
ATx2752 x RTx430	Tx. Agri. Exp. Stat. (FM)	58	4339	37	5137	32	5139
X 15277	Cargill Hybrid Seeds	59	4337	20	5565	–	–
ATx631 x R8505	Tx. Agri. Exp. Stat. (FM)	60	4327	31	5249	57	4763

Table 4B. Hondo, Texas. (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	61	4095	33	5202	13	5405
AVar x 80C2241	Tx. Agri. Exp. Stat. (FM)	62	4039	19	5578	–	–
A8618 x RTx434	Tx. Agri. Exp. Stat. (FM)	63	3781	–	–	–	–
ATx631 x R8504	Tx. Agri. Exp. Stat. (FM)	64	3716	42	5099	58	4713
AVar x R8504	Tx. Agri. Exp. Stat. (FM)	65	3628	–	–	–	–
T-E DINERO	TAYLOR EVANS SEED COMPANY	–	–	4	5802	35	5109
W-844-E	GEORGE WARNER SEED CO., INC.	–	–	7	5751	12	5442
DR 1125	Cargill Hybrid Seeds	–	–	8	5737	15	5370
T-E Y-77	TAYLOR EVANS SEED COMPANY	–	–	13	5659	39	5051
S 9750	The New Northrup King	–	–	21	5503	52	4862
ST D701G	AgriPro Seeds	–	–	22	5499	18	5354
5572	Cargill Hybrid Seeds	–	–	23	5486	5	5624
8260	Pioneer Hi-Bred International, Inc.	–	–	44	5017	60	4594
TS-477	TEXAS SEED COMPANY	–	–	45	5000	4	5626
ATx631 x RTx435	Tx. Agri. Exp. Stat.	–	–	48	4969	67	3865
ST 3308	AgriPro Seeds	–	–	50	4932	26	5191
ATx629 x R8503	Tx. Agri. Exp. Stat.	–	–	51	4898	31	5170
W-917-E	GEORGE WARNER SEED CO., INC.	–	–	52	4889	9	5519
ATx630 x R3338wx	Tx. Agri. Exp. Stat.	–	–	54	4832	40	5032
A1 x R2241	Tx. Agri. Exp. Stat.	–	–	62	4516	16	5361
Wrangler II	Conlee Seed Company, Inc.	–	–	63	4511	37	5062
RS610	Tx. Agri. Exp. Stat.	–	–	67	3511	68	3539
Number Entries:		65		67		68	
Test Mean Yield:			4778		5154		5073

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

TABLE 5. AGRONOMIC AND TEST INFORMATION: DANEVANG

TEST:	1990 Dryland Grain Sorghum Performance Test
LOCATION:	E. E. Berndt Farm - Danevang, Texas
COOPERATORS:	E. E. Berndt, Dennis Pietsch, John Cosper, Randy Gaas, and Leon Synatschk
SOIL TYPE:	Lake Charles clay
ROW WIDTH:	40"
PREVIOUS CROP:	Cotton
LAND PREPARATION:	Shredded stalks, disked, bedded, and hipped in December. Hipped two more times prior to planting
DATE PLANTED:	3-21-90 : hand-dropped behind 8 row International planter
DATE THINNED:	4-24-90 thinned to approximately 6 plants/foot
PLOT LENGTH:	30'
FERTILIZER:	Applied 602 lb/A of 21-10-1-1 + 1 qt/A Zn in early January
HERBICIDE:	1.44 qt/A Lariat 4L (atrazine + lasso)
INSECTICIDE:	7.2 lb/A Furadan (carbofuran) at planting
RAINFALL:	Jan.= 3.20"; Feb.= 4.95"; March = 3.61"; April = 3.43"; May = 4.3"; June = .68"; July = .84"; Total = 21.01"
IRRIGATIONS:	None
DATE HARVESTED:	7-12-90, by hand; threshed and moistured 7-13-90
SIZE HARVESTED PLOT:	1/500 acre
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	86
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	2
TEST MEAN:	4,792 lb/A; yields corrected to 13% moisture
TEST C.V.:	13.2 percent

GENERAL INFORMATION: Potential yields were probably reduced at this location due to a combination of hot and dry weather conditions. The season started with adequate soil moisture from winter rainfall. Planting was delayed approximately two weeks due to wet soil conditions. Seedling emergence and early plant growth was rapid. Outstanding plant stands were attained after thinning. A timely rain in late-April insured continuous plant growth and development. The test block received 1.59 inches of rainfall accompanied by high winds on May 23 resulting in root lodging of some hybrids. Above normal temperatures and no beneficial rain in June rapidly depleted soil moisture and hastened maturity. Charcoal rot developed in the test block and contributed to the overall lodging problem.

The test mean yield was 4,792 lb/A compared to the past 2-year average of 5,550 lb/A. Excellent bushel weights were recorded as shown in the Table. Smut counts were made from the harvest area of all three replications and averaged.

Table 5A. GRAIN SORGHUM PERFORMANCE TEST;DANEVANG, TEXAS 1990

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	NO. SMUT 5	MIDGE DAM-AGE %	% LODGE	TEST WT. lb/bu	MOIS-TURE %	YIELD lb/A	STAT. SIG., 0.05 6
dK 780	DOUGLASS W. KING COMPANY	R	R	ML	68	54	10	0.7	0.0	3	61.0	14.8	5736	A
8278	Pioneer Hi-Bred Int Inc	Bz	P	ML	70	56	5	0.0	0.0	1	60.3	15.8	5660	A-B
ATx631 x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	72	63	6	1.0	2.5	5	59.7	16.3	5617	A-C
T-E Y-75	TAYLOR EVANS SEED CO.	R	R	M	68	54	9	0.0	0.0	2	60.4	14.7	5481	A-D
HSC Wings	HyPerformer Seed Company	Bz	P	ML	69	56	8	2.7	0.0	4	59.8	15.5	5456	A-D
W-917-E	GEORGE WARNER SEED CO.	R	R	L	68	59	8	0.0	0.0	8	60.8	14.9	5438	A-E
AP 9791	AgriPro Seeds	Bz	R	ML	69	55	10	0.0	0.0	4	59.6	14.7	5411	A-E
847	Cargill Hybrid Seeds	Bz	R	ML	70	53	7	0.0	0.0	3	60.6	14.6	5368	A-E
A4R x Tx430	Tx. Agri. Exp. Stat.(DR)	R	P	ML	70	53	8	0.3	2.5	0	59.7	15.1	5350	A-E
Delta Pine G-1711E	DELTA & PINE LAND CO.	Bz	P	ML	68	57	8	0.7	0.0	12	60.1	15.1	5325	A-E
Delta Pine 1558	DELTA & PINE LAND CO.	R	P	M	69	54	8	0.7	1.5	3	60.8	15.4	5318	A-E
dK 776	DOUGLASS W. KING COMPANY	R	R	ML	69	51	11	0.0	0.0	1	60.7	14.9	5316	A-E
NC+ 7B81	NC+ Hybrids	BR	*	M	68	46	6	0.0	0.0	1	59.6	14.4	5298	A-E
CHECK 3	Tx. Agri. Exp. Stat.	R	P	ML	69	55	9	2.3	0.5	7	59.9	15.4	5280	A-E
Maxima	Big Crop Seed Company	Bz	P	ML	69	55	7	1.0	0.0	7	59.8	14.9	5277	A-E
SG-942	Garrison Seed Company	Bz	R	ML	69	52	4	1.0	0.0	27	61.0	15.2	5260	A-E
T-E 77-E	TAYLOR EVANS SEED CO.	R	P	ML	69	55	8	2.0	1.0	1	59.5	15.4	5258	A-E
SG-944	Garrison Seed Company	Bz	R	ML	68	56	5	1.0	2.5	3	60.1	15.0	5214	A-F
A1 x Tx2783	Tx. Agri. Exp. Stat.(DR)	R	R	ML	74	64	3	0.3	5.0	2	60.5	17.2	5208	A-F
AVar x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	71	67	8	0.0	0.0	19	61.1	14.6	5204	A-F
8313	Pioneer Hi-Bred Int Inc	Bz	P	ML	70	51	6	0.0	0.5	1	59.9	15.7	5173	A-F
ST 3308	AgriPro Seeds	Bz	R	M	73	56	5	0.0	0.5	0	59.1	15.7	5106	A-F
Ultima	Big Crop Seed Company	R	R	M	70	54	8	0.0	0.0	3	60.8	14.7	5047	A-G
Delta Pine G-1616	DELTA & PINE LAND CO.	Bz	P	ML	70	59	7	4.3	0.0	7	58.3	14.8	5043	A-G
W-876 DR	GEORGE WARNER SEED CO.	Bz	R	L	68	59	8	0.3	0.5	10	59.2	15.2	5042	A-G
GSC 3146	GroAgri Seed Company	R	P	M	69	54	10	0.3	0.0	3	60.0	14.8	5039	A-G
AB201-2 x R6078	Tx. Agri. Exp. Stat.(DR)	R	R	ML	72	60	6	1.0	0.0	4	61.3	14.7	5034	A-G
CHECK 1	Tx. Agri. Exp. Stat.	Bz	T	ML	69	55	7	1.7	0.0	4	58.9	15.1	5016	A-G
GSC 1313	GroAgri Seed Company	R	R	M	69	53	9	0.0	0.0	5	60.6	14.2	5012	A-G
AOK11 x R8505	Tx. Agri. Exp. Stat.(DR)	W	P	ML	69	55	11	1.0	0.0	1	59.1	15.0	5005	A-G
dK 775	DOUGLASS W. KING COMPANY	R	R	ML	70	57	3	1.0	0.5	28	60.5	15.3	4982	A-G
HSC Cherokee	HyPerformer Seed Company	R	R	M	69	53	8	0.3	0.5	6	60.3	14.4	4965	A-G
KS 786	The New Northrup King	R	*	L	70	57	8	3.0	1.0	5	59.1	14.8	4963	A-G
ATx378 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	69	62	6	2.0	0.0	27	58.9	15.0	4961	A-G
2665	The New Northrup King	R	P	ML	70	51	7	0.3	0.0	1	59.5	15.2	4952	A-G
TS-488	TEXAS SEED COMPANY	R	*	ML	69	54	8	0.0	0.0	7	60.2	14.1	4943	A-G
KS 737	The New Northrup King	R	P	ML	68	54	11	0.0	0.0	5	60.0	15.0	4938	A-G
T-E Ranger	TAYLOR EVANS SEED CO.	R	P	ML	68	51	11	1.0	0.0	2	60.4	14.9	4933	A-G
Delta Pine G-1711	DELTA & PINE LAND CO.	Bz	P	ML	70	54	7	0.7	0.0	3	59.7	14.8	4933	A-G
NC+ 472	NC+ Hybrids	BR	*	M	68	51	8	2.0	0.0	4	57.2	14.7	4920	A-G
A8618 x RTx430	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	72	54	6	2.3	1.5	0	57.9	15.9	4902	A-G
AVG1 x 86E0361	Tx. Agri. Exp. Stat.(DR)	W	T	ML	74	69	6	0.0	1.5	15	60.1	17.1	4890	A-G

Table 5A. GRAIN SORGHUM PERFORMANCE TEST;DANEVANG, TEXAS 1990

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	NO. SMUT 5	MIDGE DAM-AGE %	% LODGE	TEST WT. lb/bu	MOIS-TURE %	YIELD lb/A	STAT. SIG., 0.05 6
ORO Baron	ORO Hybrids	Rt	R	ML	68	53	9	0.0	0.0	3	60.2	14.2	4885	A-G
Ole'	Big Crop Seed Company	Bz	P	M	70	53	9	1.0	2.0	6	57.2	14.9	4875	A-G
X15277	Cargill Hybrid Seeds	Bz	P	ML	72	55	6	0.3	0.0	4	59.1	15.4	4861	A-G
HSC Exp 89-3	HyPerformer Seed Company	Bz	R	M	70	53	7	0.0	0.0	7	60.2	14.2	4852	A-G
ATx2752 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	71	57	6	1.0	2.5	7	59.1	15.4	4839	A-G
CHECK 2	Tx. Agri. Exp. Stat.	R	R	ML	67	53	10	0.0	2.5	12	60.4	14.2	4820	A-G
5503	Garst Seed Company	R	P	M	69	54	8	0.0	1.0	6	59.9	14.4	4820	A-G
8379	Pioneer Hi-Bred Int Inc	Bz	P	ML	68	53	10	0.0	0.0	2	60.5	15.1	4797	A-H
F-457D	FRONTIER HYBRIDS, INC.	Bz	T	M	67	53	10	1.7	0.0	13	56.8	14.3	4796	A-H
dK 760	DOUGLASS W. KING COMPANY	R	P	ML	71	55	6	0.3	0.0	10	59.5	15.5	4788	A-H
AOK11 x Tx2817	Tx. Agri. Exp. Stat.(DR)	W	P	ML	70	56	10	2.3	0.0	3	59.7	14.5	4773	A-H
A1 x R8505	Tx. Agri. Exp. Stat.(DR)	W	R	ML	72	58	7	1.3	0.0	0	58.7	15.8	4760	A-H
ORO Amigo	ORO Hybrids	Bz	P	ML	68	52	8	1.3	0.0	10	59.8	14.4	4741	A-H
SG-932	Garrison Seed Company	Bz	P	ML	70	56	8	4.3	0.0	10	59.4	14.7	4740	A-H
AVar x 80C2241	Tx. Agri. Exp. Stat.(FM)	W	T	M	72	64	8	0.0	2.5	22	60.3	15.7	4676	A-H
ATx399 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	71	54	5	1.0	1.0	4	57.0	15.0	4674	A-H
GS 712	ASGROW SEED COMPANY	Bz	P	ML	69	54	8	1.7	0.0	12	59.5	14.5	4655	A-H
Rustler	Conlee Seed Company, Inc	R	P	M	70	57	7	3.3	0.0	6	59.8	15.3	4651	A-H
T-E 76	TAYLOR EVANS SEED CO.	R	P	M	68	49	8	0.0	0.0	8	54.0	13.8	4630	A-H
DEKALB DK-56	DEKALB Plant Genetics	R	R	ML	71	56	9	2.3	0.0	2	58.7	15.5	4606	A-I
ORO G Xtra	ORO Hybrids	Bz	P	ML	70	56	7	3.3	0.0	10	59.4	14.9	4584	A-I
ATx631 x R8511	Tx. Agri. Exp. Stat.(FM)	W	T	M	73	62	5	1.0	0.0	3	58.9	16.3	4566	A-I
GSC 3150	GroAgri Seed Company	Bz	P	M	68	55	7	1.0	0.0	13	59.0	14.3	4541	A-I
Optima	Big Crop Seed Company	Bz	P	M	71	58	7	3.0	0.0	5	55.6	14.0	4535	A-I
DEKALB M-572G	DEKALB Plant Genetics	Bz	P	ML	70	56	5	0.7	1.0	5	59.4	14.9	4485	A-I
6670	Cargill Hybrid Seeds	Bz	P	ML	69	55	6	1.7	1.5	18	58.9	14.1	4442	A-J
ATx626 x R8503	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	73	60	5	6.3	2.5	7	58.9	15.0	4373	B-J
A8618 x RTx434	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	76	58	7	2.3	0.0	0	57.2	15.9	4366	B-J
DEKALB DK-37	DEKALB Plant Genetics	Bz	P	E	67	56	10	0.3	0.0	8	58.6	14.6	4365	B-J
A1 x Tx430	Tx. Agri. Exp. Stat.(DR)	W	R	ML	72	60	4	8.0	1.0	2	57.2	15.7	4347	C-J
A1 x R8503	Tx. Agri. Exp. Stat.(DR)	R	P	ML	73	57	2	6.3	7.5	3	59.5	17.0	4338	C-J
X6038(x)	ASGROW SEED COMPANY	Bz	P	ML	70	57	10	6.7	0.0	20	60.4	14.5	4289	D-J
AVar x R8504	Tx. Agri. Exp. Stat.(FM)	W	T	M	74	64	6	0.0	0.0	22	59.8	16.8	4282	D-J
A.Arg34 x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	71	56	9	0.3	0.0	0	59.9	14.5	4252	D-J
ATx631 x 80C2241	Tx. Agri. Exp. Stat.(FM)	W	T	M	74	61	7	1.7	1.5	3	58.8	16.3	4222	D-J
GSC 3148	GroAgri Seed Company	R	P	M	68	50	7	0.7	0.0	28	55.0	13.3	4149	E-J
SG-922	Garrison Seed Company	Bz	P	ML	69	52	8	2.0	0.0	10	56.8	14.0	4136	E-J
ATx631 x 86E0361	Tx. Agri. Exp. Stat.(DR)	W	T	ML	76	62	4	0.0	7.5	2	58.1	17.7	3931	F-J
A8618 x R8618	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	79	50	4	1.0	6.5	0	57.0	16.1	3801	G-J
ATx631 x R8504	Tx. Agri. Exp. Stat.(FM)	W	T	M	73	61	6	2.3	6.0	0	58.6	16.0	3778	G-J
ATx399 x Tx2536	Tx. Agri. Exp. Stat.(DR)	R	P	ML	71	50	8	1.0	4.0	6	55.0	13.9	3755	G-J
A1 x 86E0361	Tx. Agri. Exp. Stat.(DR)	W	R	ML	73	60	7	0.0	4.0	0	59.7	16.1	3517	H-J

Table 5A. GRAIN SORGHUM PERFORMANCE TEST;DANEVANG, TEXAS 1990

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	NO. SMUT 5	MIDGE DAM-AGE %	% LODGE	TEST WT. lb/bu	MOIS-TURE %	YIELD lb/A	STAT. SIG., 0.05 6
A1 x Tx2817	Tx. Agri. Exp. Stat.(DR)	W	R	ML	77	54	5	3.7	0.5	2	59.1	16.0	3345	I-J
A8618 x RTx435	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	76	53	4	3.0	8.0	3	54.6	15.0	3204	J

TEST MEAN= 4792 TEST C.V.=13.1 LSD .05=1016.5

Note: 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 Garst 5319, AgriPro D701G and Warner W-884E 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 Smut counts were taken from the harvested area on all three replications and averaged for each hybrid.

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

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

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
dk 780	DOUGLASS W. KING COMPANY	1	5736	–	–	–	–
8278	Pioneer Hi-Bred International, Inc.	2	5660	64	4913	–	–
ATx631 x R8505	Tx. Agri. Exp. Stat. (FM)	3	5617	28	5653	33	6024
T-E Y-75	TAYLOR EVANS SEED COMPANY	4	5481	53	5147	31	6071
HSC Wings	HyPerformer Seed Company	5	5456	7	6151	–	–
W-917-E	GEORGE WARNER SEED CO., INC.	6	5438	37	5515	–	–
AP 9791	AgriPro Seeds	7	5411	–	–	–	–
847	Cargill Hybrid Seeds	8	5368	62	4982	–	–
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	9	5350	86	3970	19	6424
Delta Pine G-1711E	DELTA & PINE LAND COMPANY	10	5325	2	6447	–	–
Delta Pine 1558	DELTA & PINE LAND COMPANY	11	5318	24	5696	–	–
dk 776	DOUGLASS W. KING COMPANY	12	5316	79	4488	58	5444
NC+ 7B81	NC+ Hybrids	13	5298	–	–	–	–
5319	Garst Seed Company	14	5280	22	5719	49	5701
Maxima	Big Crop Seed Company	15	5277	32	5567	5	6733
SG-942	Garrison Seed Company	16	5260	6	6258	–	–
T-E 77-E	TAYLOR EVANS SEED COMPANY	17	5258	–	–	–	–
SG-944	Garrison Seed Company	18	5214	85	4295	–	–
A1 x Tx2783	Tx. Agri. Exp. Stat. (DR)	19	5208	–	–	–	–
AVar x R8505	Tx. Agri. Exp. Stat. (FM)	20	5204	–	–	–	–
8313	Pioneer Hi-Bred International, Inc.	21	5173	23	5712	–	–
ST 3308	AgriPro Seeds	22	5106	9	6065	46	5815
Ultima	Big Crop Seed Company	23	5047	–	–	–	–
Delta Pine G-1616	DELTA & PINE LAND COMPANY	24	5043	–	–	–	–
W-876DR	GEORGE WARNER SEED CO., INC.	25	5042	14	5868	4	6851
GSC 3146	GroAgri Seed Company	26	5039	41	5373	–	–
A8201-2 x R6078	Tx. Agri. Exp. Stat. (DR)	27	5034	27	5654	78	4706

Table 5B. Danevang, Texas. (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
ST D701G	AgriPro Seeds	28	5016	16	5849	43	5855
GSC 1313	GroAgri Seed Company	29	5012	29	5620	–	–
AOK11 x R8505	Tx. Agri. Exp. Stat. (DR)	30	5005	–	–	–	–
dk 775	DOUGLASS W. KING COMPANY	31	4982	48	5198	20	6370
HSC Cherokee	HyPerformer Seed Company	32	4965	63	4960	–	–
KS 786	The New Northrup King	33	4963	–	–	–	–
ATx378 x RTx430	Tx. Agri. Exp. Stat. (FM)	34	4961	54	5143	1	7095
2665	The New Northrup King	35	4952	3	6443	59	5440
TS-488	TEXAS SEED COMPANY	36	4943	84	4317	–	–
KS 737	The New Northrup King	37	4938	–	–	–	–
T-E Ranger	TAYLOR EVANS SEED COMPANY	38	4933	43	5338	–	–
Delta Pine G-1711	DELTA & PINE LAND COMPANY	39	4933	–	–	–	–
NC+ 472	NC+ Hybrids	40	4920	–	–	–	–
A8618 x RTx430	Tx. Agri. Exp. Stat. (FM)	41	4902	–	–	–	–
AVG1 x 86EO361	Tx. Agri. Exp. Stat. (DR)	42	4890	–	–	–	–
ORO Baron	ORO Hybrids	43	4885	36	5527	24	6275
Ole'	Big Crop Seed Company	44	4875	–	–	–	–
X15277	Cargill Hybrid Seeds	45	4861	–	–	–	–
HSC Exp 89-3	HyPerformer Seed Company	46	4852	–	–	–	–
ATx2752 x RTx430	Tx. Agri. Exp. Stat. (FM)	47	4839	74	4616	6	6720
W-844-E	GEORGE WARNER SEED CO., INC.	48	4820	69	4867	41	5898
5503	Garst Seed Company	49	4820	–	–	–	–
8379	Pioneer Hi-Bred International, Inc.	50	4797	–	–	–	–
F-457D	FRONTIER HYBRIDS, INC.	51	4796	–	–	–	–
dk 760	DOUGLASS W. KING COMPANY	52	4788	40	5386	44	5828
AOK11 x Tx2817	Tx. Agri. Exp. Stat. (DR)	53	4773	–	–	–	–
A1 x R8505	Tx. Agri. Exp. Stat. (DR)	54	4760	81	4445	–	–

Table 5B. Danevang, Texas. (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
ORO Amigo	ORO Hybrids	55	4741	10	6001	–	–
SG-932	Garrison Seed Company	56	4740	8	6090	–	–
AVar x 80C2241	Tx. Agri. Exp. Stat. (FM)	57	4676	1	6722	–	–
ATx399 x RTx430	Tx. Agri. Exp. Stat. (FM)	58	4674	17	5840	11	6631
GS 712	ASGROW SEED COMPANY	59	4655	57	5096	14	6597
Rustler	Conlee Seed Company, Inc.	60	4651	15	5853	18	6427
T-E 76	TAYLOR EVANS SEED COMPANY	61	4630	77	4558	–	–
DEKALB DK-56	DEKALB Plant Genetics	62	4606	68	4877	–	–
ORO G Xtra	ORO Hybrids	63	4584	67	4906	30	6103
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	64	4566	71	4762	–	–
GSC 3150	GroAgri Seed Company	65	4541	25	5692	–	–
Optima	Big Crop Seed Company	66	4535	47	5198	–	–
DEKALB M-572G	DEKALB Plant Genetics	67	4485	–	–	–	–
6670	Cargill Hybrid Seeds	68	4442	88	3785	37	5966
ATx626 x R8503	Tx. Agri. Exp. Stat. (FM)	69	4373	13	5942	64	5311
A8618 x RTx434	Tx. Agri. Exp. Stat. (FM)	70	4366	–	–	–	–
DEKALB DK-37	DEKALB Plant Genetics	71	4365	–	–	–	–
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	72	4347	46	5268	51	5627
A1 x R8503	Tx. Agri. Exp. Stat. (DR)	73	4338	–	–	–	–
X6038(x)	ASGROW SEED COMPANY	74	4289	42	5358	–	–
AVar x R8504	Tx. Agri. Exp. Stat. (FM)	75	4282	–	–	–	–
A.Arg34 x R8505	Tx. Agri. Exp. Stat. (FM)	76	4252	–	–	–	–
ATx631 x 80C2241	Tx. Agri. Exp. Stat. (FM)	77	4222	82	4434	70	5075
GSC 3148	GroAgri Seed Company	78	4149	26	5692	–	–
SG-922	Garrison Seed Company	79	4136	–	–	–	–
ATx631 x 86EO361	Tx. Agri. Exp. Stat. (DR)	80	3931	4	6383	–	–

Table 5B. Danevang, Texas. (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
A8618 x R8618	Tx. Agri. Exp. Stat. (FM)	81	3801	–	–	–	–
ATx631 x R8504	Tx. Agri. Exp. Stat. (FM)	82	3778	78	4544	63	5331
ATx399 x Tx2536	Tx. Agri. Exp. Stat. (DR)	83	3755	35	5542	69	5122
A1 x 86EO361	Tx. Agri. Exp. Stat. (DR)	84	3517	–	–	–	–
A1 x Tx2817	Tx. Agri. Exp. Stat. (DR)	85	3345	44	5324	–	–
A8618 x RTx435	Tx. Agri. Exp. Stat. (FM)	86	3204	72	4738	–	–
NC+ 174	NC+ Hybrids	–	–	11	5982	23	6282
Wrangler II	Conlee Seed Company, Inc.	–	–	12	5964	50	5632
5329	Garst Seed Company	–	–	20	5791	10	6652
T-E DINERO	TAYLOR EVANS SEED COMPANY	–	–	31	5573	2	7095
8260	Pioneer Hi-Bred International, Inc.	–	–	34	5558	21	6362
ATx629 x R8503	Tx. Agri. Exp. Stat.	–	–	49	5178	56	5454
ST 686	AgriPro Seeds	–	–	52	5150	42	5864
ATx630 x R3338wx	Tx. Agri. Exp. Stat.	–	–	55	5128	55	5480
KS 780	The New Northrup King	–	–	60	5031	9	6658
S 9750	The New Northrup King	–	–	61	5024	40	5904
Delta Pine G-522DR	DELTA & PINE LAND COMPANY	–	–	65	4913	32	6035
WAC 715DR	AgriPro Seeds	–	–	70	4849	8	6702
RS610	Tx. Agri. Exp. Stat.	–	–	73	4712	77	4784
ATx631 x RTx435	Tx. Agri. Exp. Stat.	–	–	76	4576	45	5828
4462	Cargill Hybrid Seeds	–	–	90	3754	16	6451
Number Entries:		86		90		81	
Test Mean Yield:			4792		5259		5841

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

TABLE 6. AGRONOMIC AND TEST INFORMATION: COLLEGE STATION

TEST:	1990 Irrigated Grain Sorghum Performance Test
LOCATION:	Texas A&M University Farm, College Station, Texas
COOPERATORS:	F. Miller, T. Dusek, D. Pietsch, R. Gaas and L.Synatschk
SOIL TYPE:	Miller clay loam
ROW WIDTH:	26 2/3"
PREVIOUS CROP:	Grain sorghum
LAND PREPARATION:	Shredded, disked, moldboarded, disked, bedded, planted
DATE PLANTED:	4-3-90, cone planter
PLOT LENGTH:	19'
FERTILIZER:	246-40-10; applied 100-40-10 preplant and 146-0-0 at layby
HERBICIDE:	1 lb/A Milogard 4L (propazine) + 3 lb/A Ramrod 4L (propachlor) on 4-3
INSECTICIDE:	7 lb/A Furadan 15G at planting; 3 aerial applications of Lorsban 4E for midge control
RAINFALL:	March = 2.85", April = 4.42", May = 2.46", June = 2.03", July = 2.50", Total = 14.26"
IRRIGATIONS:	3 applications of approximately 3" each on 6-1, 6-15, and 7-13
DATE HARVESTED:	7-26-90 by hand
SIZE HARVESTED PLOT:	1/994 acre
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	70
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	3
MEAN PLANT POP.:	Estimated to be between 70,000 and 90,000 plants/A
TEST MEAN:	5,119 lb/A; yields corrected to 13% moisture
TEST C.V.:	10.0 percent

GENERAL STATEMENT: Stands and growth in this trial were very good. Rainfall distribution, irrigation and the fertility program were good; however, yields were down significantly from previous years. When compared to 1989 yields, the test means were separated by 1,001 lb/A. The top seven hybrids in 1989 ranged from 7,000 to 7,851 lb/A; however, in 1990 the best seven hybrids produced 5,760 lb/A to 6,183 lb/A. Even though there was excellent moisture at planting and stands were established quickly, there was a continuous problem with excessive day and night time temperatures. Prior to and following anthesis, temperatures were record setting. Nighttime temperatures created substantial photosynthetic drain on growth and development as well as seed filling. When one observes bushel weights the impact of respiration loss is seen. Only 7 of the 70 hybrids met or exceeded the minimum weight of 56 lb/bu; furthermore, 8 hybrids were below 50 lb/bu.

There were few hybrids with grain weathering problems or insecticide phyotoxic markings on leaves this year. There were no lodging or disease problems in the trial; however, there was some midge damage of the very late hybrids. In general most hybrids flowered 4-6 days earlier this year when compared to 1989.

The test mean yield was 5,119 lb/A compared to the past 5-year average of 6,104 lb/A.

Table 6A. GRAIN SORGHUM PERFORMANCE TEST;COLLEGE STATION, TEXAS 1990

HYBRID 1	COMPANY OR BRAND NAME	GRN CLR 2	PLT CLR 3	MATU-RITY CLASS 4	DAYS TO 50% FLOWER	PLANT HT. IN.	PAN. LTH. IN.	PAN. EXSER-TION IN.	WEATHER RATING 5	% GRN. LEAF 6	SMUT PER PLOT 7	TEST WT. lb/bu	% MOIST	THR. %	GRAIN PER ACRE lb/A	STAT. SIG. 0.05 8
A1 x Tx430	Tx. Agri. Exp. Stat.(DR)	W	R	ML	70	57	14	2	1.7	60	1.0	52.6	14.6	71.4	6183	A
SG-942	Garrison Seed Company	Bz	R	ML	65	58	8	4	1.7	55	0.0	53.2	15.9	76.0	6011	A-B
A4R x Tx430	Tx. Agri. Exp. Stat.(DR)	R	P	ML	68	52	12	8	1.6	52	0.7	54.6	15.1	75.5	5894	A-C
T-E 76	TAYLOR EVANS SEED CO.	R	P	M	64	48	9	5	1.6	48	1.3	47.1	13.7	74.1	5806	A-D
dK 775	DOUGLASS W. KING COMPANY	R	R	ML	66	56	10	1	1.3	45	0.3	57.1	15.7	74.2	5803	A-D
ATx378 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	67	59	11	2	1.7	55	0.0	53.7	14.3	74.5	5787	A-D
dK 760	DOUGLASS W. KING COMPANY	R	P	ML	67	54	10	4	1.7	55	0.0	54.5	15.3	73.6	5760	A-D
Delta Pine G-1616	DELTA & PINE LAND CO.	Bz	P	ML	69	56	13	4	1.6	52	0.0	52.1	14.3	72.9	5748	A-D
GSC 1313	GroAgri Seed Company	R	R	M	67	51	10	3	1.2	48	0.3	55.5	13.7	72.4	5727	A-D
Optima	Big Crop Seed Company	Bz	P	M	66	54	10	4	1.7	52	0.0	50.3	15.0	71.8	5669	A-E
2665	The New Northrup King	R	P	ML	66	51	13	3	1.9	52	0.3	50.9	15.3	71.7	5660	A-E
AVar x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	70	62	11	6	1.5	55	0.0	54.6	15.2	72.0	5614	A-E
F-524	FRONTIER HYBRIDS, INC.	Bz	P	ML	65	56	12	5	1.7	55	0.0	52.9	15.4	72.2	5594	A-F
dK 780	DOUGLASS W. KING COMPANY	R	R	ML	64	51	10	3	1.2	50	0.0	55.8	15.4	74.8	5577	A-F
GSC 3148	GroAgri Seed Company	R	P	M	65	47	8	5	1.5	45	0.0	48.4	14.3	72.7	5557	A-F
W-917-E	GEORGE WARNER SEED CO.	R	R	L	66	56	10	3	1.2	45	0.0	57.1	15.3	75.2	5556	A-F
Rustler	Conlee Seed Company, Inc	R	P	M	66	54	10	3	1.7	55	0.3	53.3	14.7	72.7	5550	A-F
6670	Cargill Hybrid Seeds	Bz	P	ML	65	54	10	4	1.8	52	0.3	51.3	15.1	71.9	5542	A-G
SG-932	Garrison Seed Company	Bz	P	ML	66	54	9	6	1.7	52	0.0	54.2	14.8	73.2	5525	A-H
ORO G Xtra	ORO Hybrids	Bz	P	ML	66	53	10	4	1.6	52	0.0	54.2	14.5	73.7	5512	A-H
CHECK 4	Tx. Agri. Exp. Stat.	R	R	M	67	53	9	5	1.3	45	1.0	55.4	15.4	72.9	5507	A-H
AVar x 80C2241	Tx. Agri. Exp. Stat.(FM)	W	T	M	71	66	10	6	1.6	55	0.0	53.6	15.1	70.8	5493	A-H
X15277	Cargill Hybrid Seeds	Bz	P	ML	71	51	13	2	1.5	50	0.3	53.1	14.4	69.8	5471	A-I
SG-822	Garrison Seed Company	Ct	P	M	65	49	12	5	1.8	45	0.0	52.4	14.6	73.1	5447	A-I
Wrangler II	Conlee Seed Company, Inc	Bz	P	ML	66	59	10	6	1.6	55	0.3	53.3	14.6	75.5	5428	A-I
CHECK 3	Tx. Agri. Exp. Stat.	Bz	P	ML	65	54	11	5	1.8	45	0.3	53.0	15.5	74.0	5406	A-I
T-E 77-E	TAYLOR EVANS SEED CO.	R	P	ML	65	54	9	6	1.8	50	0.0	53.1	14.4	72.9	5374	A-I
SG-922	Garrison Seed Company	Bz	P	ML	64	50	11	6	1.7	.	1.3	49.9	14.7	73.7	5364	A-I
dK 776	DOUGLASS W. KING COMPANY	R	R	ML	65	51	10	4	1.4	48	0.3	55.0	14.9	72.9	5352	A-I
ATx399 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	65	49	10	9	1.6	52	0.3	50.1	15.0	68.6	5348	A-I
847	Cargill Hybrid Seeds	Bz	R	ML	68	50	10	5	1.3	52	0.0	55.0	16.0	75.0	5347	A-I
ORO Amigo	ORO Hybrids	Bz	P	ML	65	56	9	6	1.7	52	0.3	51.4	15.3	71.4	5346	A-I
ATx631 x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	71	56	13	3	1.5	60	0.3	52.2	14.3	68.0	5339	A-I
Delta Pine G-1711E	DELTA & PINE LAND CO.	Bz	P	ML	65	55	10	4	1.7	55	0.0	54.2	14.8	73.9	5335	A-I
Delta Pine 1552	DELTA & PINE LAND CO.	Bz	P	M	68	54	10	5	1.4	60	0.0	54.2	16.1	70.5	5318	A-I
Ultima	Big Crop Seed Company	R	R	M	65	49	11	1	1.4	48	0.3	55.0	15.6	73.5	5304	A-I
ATx631 x 80C2241	Tx. Agri. Exp. Stat.(FM)	W	T	M	74	54	13	3	1.8	60	0.3	52.0	15.1	66.9	5298	A-I
ATx2752 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	65	54	11	3	1.8	52	0.7	52.4	15.8	69.0	5288	A-I
AVar x R8504	Tx. Agri. Exp. Stat.(FM)	W	T	M	76	62	11	8	1.7	62	0.3	53.4	15.8	65.7	5277	A-I
ATx626 x R8503	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	70	56	11	4	1.3	52	0.3	51.2	17.0	72.1	5248	A-I
KS 737	The New Northrup King	R	P	ML	64	50	12	6	1.9	35	0.0	52.3	15.1	71.3	5237	A-I

Table 6A. GRAIN SORGHUM PERFORMANCE TEST;COLLEGE STATION, TEXAS 1990

HYBRID 1	COMPANY OR BRAND NAME	GRN CLR 2	PLT CLR 3	MATU-RITY CLASS 4	DAYS TO 50% FLOWER	PLANT HT. IN.	PAN. LTH. IN.	PAN. EXSER-TION IN.	WEATHER RATING 5	% GRN. LEAF 6	SMUT PER PLOT 7	TEST WT. lb/bu	% MOIST	THR. %	GRAIN PER ACRE lb/A	STAT. SIG. 0.05 8
ATx631 x 87E0366	Tx. Agri. Exp. Stat.(DR)	W	*	ML	73	58	12	4	1.5	50	0.3	52.3	15.3	65.4	5178	A-J
CHECK 2	Tx. Agri. Exp. Stat.	Bz	P	ML	65	49	11	7	1.9	40	0.3	55.3	15.5	73.3	5177	A-J
T-E Y-75	TAYLOR EVANS SEED CO.	R	R	M	66	52	11	4	1.4	48	0.0	55.9	14.4	73.4	5141	A-K
ATx399 x Tx2536	Tx. Agri. Exp. Stat.(DR)	R	P	ML	64	47	10	6	2.5	50	0.0	49.2	13.9	70.9	5137	A-K
SG-944	Garrison Seed Company	Bz	R	ML	65	53	11	2	1.4	50	0.0	55.9	14.8	71.6	5087	B-L
A1 x R8505	Tx. Agri. Exp. Stat.(DR)	W	R	ML	69	52	13	3	1.6	52	0.3	53.0	16.0	61.9	5044	B-L
Delta Pine RA787	DELTA & PINE LAND CO.	Bz	P	ML	69	53	10	6	1.7	55	0.0	50.1	14.6	72.2	5044	B-L
GS 712	ASGROW SEED COMPANY	Bz	P	ML	65	52	11	4	1.5	55	0.3	54.5	14.9	68.3	5042	B-L
CHECK 1	Tx. Agri. Exp. Stat.	Bz	P	ML	65	48	14	2	1.4	50	0.0	54.0	15.7	72.9	5027	B-L
AOK11 x R8505	Tx. Agri. Exp. Stat.(DR)	W	*	ML	65	49	11	4	1.9	50	0.3	52.9	15.0	74.4	4976	B-L
ORD Baron	ORD Hybrids	Rt	R	ML	66	52	10	5	1.3	52	0.0	53.7	16.0	71.3	4944	C-L
ATx631 x R8511	Tx. Agri. Exp. Stat.(FM)	W	T	M	73	56	13	2	1.4	58	1.0	51.6	15.0	67.0	4932	C-L
T-E Ranger	TAYLOR EVANS SEED CO.	R	P	ML	65	49	11	8	2.0	45	0.0	53.4	14.7	72.8	4926	C-L
ATx631 x R8504	Tx. Agri. Exp. Stat.(FM)	W	T	M	71	57	15	4	1.7	60	0.7	50.7	15.1	63.4	4924	C-L
DEKALB DK-56	DEKALB Plant Genetics	R	R	ML	67	56	10	9	1.8	55	0.3	53.8	15.8	67.1	4904	C-L
X6038(X)	ASGROW SEED COMPANY	Bz	P	ML	69	56	10	5	1.4	.	0.3	54.7	15.9	65.6	4753	D-L
A1 x 86E0361	Tx. Agri. Exp. Stat.(DR)	W	R	ML	72	56	14	6	1.5	52	0.3	53.7	16.1	62.1	4630	E-L
AOK11 x Tx2817	Tx. Agri. Exp. Stat.(DR)	W	R	ML	68	50	12	6	1.8	52	0.3	53.7	14.6	71.3	4543	F-L
T-E Wahoo	TAYLOR EVANS SEED CO.	W	P	L	68	51	10	6	1.9	52	0.3	54.3	13.6	72.3	4496	G-L
A.Arg34 x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	70	52	11	5	1.7	50	0.0	51.8	14.3	68.8	4476	H-L
AVG1 x 86E0361	Tx. Agri. Exp. Stat.(DR)	W	T	ML	77	62	14	4	1.8	55	0.0	54.0	17.8	65.0	4439	I-L
A8618 x RTx430	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	73	52	14	2	1.8	60	0.3	47.2	15.2	65.2	4435	J-L
A1 x Tx2783	Tx. Agri. Exp. Stat.(DR)	R	R	ML	73	62	13	3	1.1	62	0.0	56.7	16.1	63.0	4155	J-M
AVG1 x 87E0366	Tx. Agri. Exp. Stat.(DR)	W	*	ML	78	65	11	6	1.4	35	0.7	54.0	14.6	60.1	4130	K-M
ATx630 x R3338wx	Tx. Agri. Exp. Stat.(DR)	W	P	ML	71	56	14	7	2.0	62	0.0	48.5	15.1	65.0	4094	L-M
ATx631 x 86E0361	Tx. Agri. Exp. Stat.(DR)	W	T	ML	78	60	14	3	1.9	55	0.0	52.0	16.0	62.4	4066	L-M
A8618 x RTx434	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	77	52	12	5	1.4	70	0.3	47.6	15.5	62.8	3313	M-N
A8618 x R8618	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	79	49	11	7	1.5	68	0.0	45.1	14.7	51.8	2786	N
A8618 x RTx435	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	79	52	13	2	1.4	72	0.0	46.2	17.0	43.2	1941	O

TEST MEAN= 5119 TEST C.V.=10.0 LSD .05= 822.4

Note: 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 HyPerformer HSC Cherokee, HSC Wings, Pioneer 8379 and 8313 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.

Table 6A. GRAIN SORGHUM PERFORMANCE TEST;COLLEGE STATION, TEXAS 1990

HYBRID 1	COMPANY OR BRAND NAME	GRN CLR 2	PLT CLR 3	MATU-RITY CLASS 4	DAYS TO 50% FLOWER	PLANT HT. IN.	PAN. LTH. IN.	PAN. EXSER-TION IN.	WEATHER RATING 5	% GRN. LEAF 6	SMUT PER PLOT 7	TEST WT. lb/bu	% MOIST	THR. %	GRAIN PER ACRE lb/A	STAT. SIG. 0.05 8

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 Weathering rating was made on 8-3-90. Rating key:
1 = Seed bright, free from mold damage
2 = Moderately resistant to weathering, seed slightly discolored
3 = Moderately susceptible, considerable discoloration
4 = Susceptible, extensive discoloration and deterioration of seed
5 = Very susceptible, seed essentially all dead. Embryos dead and endosperm deteriorated.

6 Green leaf retention ratings: visual estimate of proportion of green leaf area remaining at harvest.
100% = all green leaf area remains except basal 5 leaves.
0% = all leaf area dead or necrotic.
A dot indicates data was not recorded.

7 Smut counts were taken from the harvested area on all three replications and averaged for each hybrid.

8 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	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	1	6183	8	6992	20	5116
SG-942	Garrison Seed Company	2	6011	–	–	–	–
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	3	5894	14	6787	33	4612
T-E 76	TAYLOR EVANS SEED COMPANY	4	5806	31	6363	–	–
dk 775	DOUGLASS W. KING COMPANY	5	5803	4	7132	–	–
ATx378 x RTx430	Tx. Agri. Exp. Stat. (FM)	6	5787	41	6207	53	4026
dk 760	DOUGLASS W. KING COMPANY	7	5760	6	7060	–	–
Delta Pine G-1616	DELTA & PINE LAND COMPANY	8	5748	–	–	–	–
GSC 1313	GroAgri Seed Company	9	5727	–	–	–	–
Optima	Big Crop Seed Company	10	5669	39	6242	–	–
2665	The New Northrup King	11	5660	10	6914	65	3567
AVar x R8505	Tx. Agri. Exp. Stat. (FM)	12	5614	–	–	–	–
F-524	FRONTIER HYBRIDS, INC.	13	5594	–	–	50	4150
dk 780	DOUGLASS W. KING COMPANY	14	5577	–	–	–	–
GSC 3148	GroAgri Seed Company	15	5557	–	–	–	–
W-917-E	GEORGE WARNER SEED CO., INC.	16	5556	3	7206	11	5544
Rustler	Conlee Seed Company, Inc.	17	5550	27	6425	73	3375
6670	Cargill Hybrid Seeds	18	5542	50	6049	72	3407
SG-932	Garrison Seed Company	19	5525	15	6768	51	4078
ORO G Xtra	ORO Hybrids	20	5512	1	7851	47	4204
HSC Cherokee	HyPerformer Seed Company	21	5507	7	7006	2	6296
AVar x 80C2241	Tx. Agri. Exp. Stat. (FM)	22	5493	36	6279	–	–
X15277	Cargill Hybrid Seeds	23	5471	26	6436	–	–
SG-822	Garrison Seed Company	24	5447	–	–	–	–
Wrangler II	Conlee Seed Company, Inc.	25	5428	49	6051	6	5964

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

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
HSC Wings	HyPerformer Seed Company	26	5406	11	6853	76	3306
T-E 77-E	TAYLOR EVANS SEED COMPANY	27	5374	19	6556	–	–
SG-922	Garrison Seed Company	28	5364	43	6174	69	3483
dk 776	DOUGLASS W. KING COMPANY	29	5352	17	6637	–	–
ATx399 x RTx430	Tx. Agri. Exp. Stat. (FM)	30	5348	25	6447	27	4702
847	Cargill Hybrid Seeds	31	5347	33	6311	–	–
ORO Amigo	ORO Hybrids	32	5346	–	–	–	–
ATx631 x R8505	Tx. Agri. Exp. Stat. (FM)	33	5339	57	5810	46	4206
Delta Pine G-1711E	DELTA & PINE LAND COMPANY	34	5335	–	–	–	–
Delta Pine 1552	DELTA & PINE LAND COMPANY	35	5318	–	–	–	–
Ultima	Big Crop Seed Company	36	5304	–	–	–	–
ATx631 x 80C2241	Tx. Agri. Exp. Stat. (FM)	37	5298	21	6534	41	4421
ATx2752 x RTx430	Tx. Agri. Exp. Stat. (FM)	38	5288	55	5890	77	3291
AVar x R8504	Tx. Agri. Exp. Stat. (FM)	39	5277	–	–	–	–
ATx626 x R8503	Tx. Agri. Exp. Stat. (FM)	40	5248	73	4916	44	4332
KS 737	The New Northrup King	41	5237	–	–	–	–
ATx631 x 87EO366	Tx. Agri. Exp. Stat. (DR)	42	5178	–	–	–	–
8379	Pioneer Hi-Bred International, Inc.	43	5177	–	–	–	–
T-E Y-75	TAYLOR EVANS SEED COMPANY	44	5141	51	6000	1	6306
ATx399 x Tx2536	Tx. Agri. Exp. Stat. (DR)	45	5137	44	6134	86	2619
SG-944	Garrison Seed Company	46	5087	–	–	–	–
A1 x R8505	Tx. Agri. Exp. Stat. (DR)	47	5044	12	6800	35	4577
Delta Pine RA787	DELTA & PINE LAND COMPANY	48	5044	–	–	–	–
GS 712	ASGROW SEED COMPANY	49	5042	–	–	66	3547
8313	Pioneer Hi-Bred International, Inc.	50	5027	–	–	–	–

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

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
AOK11 x R8505	Tx. Agri. Exp. Stat. (DR)	51	4976	–	–	78	3280
ORO Baron	ORO Hybrids	52	4944	37	6245	10	5615
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	53	4932	65	5438	59	3763
T-E Ranger	TAYLOR EVANS SEED COMPANY	54	4926	34	6305	–	–
ATx631 x R8504	Tx. Agri. Exp. Stat. (FM)	55	4924	29	6392	24	4914
DEKALB DK-56	DEKALB Plant Genetics	56	4904	9	6921	–	–
X6038(x)	ASGROW SEED COMPANY	57	4753	32	6337	–	–
A1 x 86EO361	Tx. Agri. Exp. Stat. (DR)	58	4630	–	–	–	–
AOK11 x Tx2817	Tx. Agri. Exp. Stat. (DR)	59	4543	–	–	–	–
T-E Wahoo	TAYLOR EVANS SEED COMPANY	60	4496	64	5551	–	–
A.Arg34 x R8505	Tx. Agri. Exp. Stat. (FM)	61	4476	–	–	–	–
AVG1 x 86EO361	Tx. Agri. Exp. Stat. (DR)	62	4439	–	–	–	–
A8618 x RTx430	Tx. Agri. Exp. Stat. (FM)	63	4435	–	–	–	–
A1 x Tx2783	Tx. Agri. Exp. Stat. (DR)	64	4155	–	–	–	–
AVG1 x 87EO366	Tx. Agri. Exp. Stat. (DR)	65	4130	–	–	–	–
ATx630 x R3338wx	Tx. Agri. Exp. Stat. (DR)	66	4094	72	4961	49	4165
ATx631 x 86EO361	Tx. Agri. Exp. Stat. (DR)	67	4066	18	6577	–	–
A8618 x RTx434	Tx. Agri. Exp. Stat. (FM)	68	3313	–	–	–	–
A8618 x R8618	Tx. Agri. Exp. Stat. (FM)	69	2786	–	–	–	–
A8618 x RTx435	Tx. Agri. Exp. Stat. (FM)	70	1941	66	5416	–	–
AVar x RTx435	Tx. Agri. Exp. Stat.	–	–	5	7086	81	3154
X62830	AgriPro Seeds	–	–	13	6790	3	6076
S 9750	The New Northrup King	–	–	16	6740	80	3176
ATx629 x R8503	Tx. Agri. Exp. Stat.	–	–	24	6484	45	4324
A8201-2 x R4317	Tx. Agri. Exp. Stat.	–	–	28	6400	13	5507

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

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
Maxima	Big Crop Seed Company	–	–	30	6378	63	3655
ST 686	AgriPro Seeds	–	–	40	6225	5	5075
W-844-E	GEORGE WARNER SEED CO., INC.	–	–	42	6190	7	5956
ST 3308	AgriPro Seeds	–	–	48	6056	4	6074
5572	Cargill Hybrid Seeds	–	–	53	5962	30	4693
ATx631 x RTx435	Tx. Agri. Exp. Stat.	–	–	54	5928	75	3324
A1 x Tx435	Tx. Agri. Exp. Stat.	–	–	56	5882	36	4566
4462	Cargill Hybrid Seeds	–	–	60	5673	68	3498
A1 x R8507	Tx. Agri. Exp. Stat.	–	–	61	5654	43	4381
A35 x Tx430	Tx. Agri. Exp. Stat.	–	–	69	5245	14	5421
ATx631 x R3338wx	Tx. Agri. Exp. Stat.	–	–	70	5131	29	4694
RS610	Tx. Agri. Exp. Stat.	–	–	77	4367	58	3765
Number of Entries:		70		78		87	
Test Mean Yield:			5119		6120		4338

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

TABLE 7. AGRONOMIC AND TEST INFORMATION: THRALL

TEST:	1990 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:	3-20-90, hand dropped behind a JD7300 Max Emerge 2
DATE THINNED:	4-25 & 30 & 5-1-90; thinned to approximately 4-5 plants/foot
PLOT LENGTH:	30'
FERTILIZER:	280 lb/A of 32-0-0 prior to planting
HERBICIDE:	Broadcast 1.25 qt/A of Milogard 4L (propazine) pre-emerge
INSECTICIDE:	None
RAINFALL:	Jan = 1.33", Feb = 5.08", March = 2.20", April = 3.31", May = 3.05", June = 0.00", July = 1.99", Total = 16.96"
IRRIGATIONS:	None
DATE HARVESTED:	7-19 & 20-90 by hand; threshed and moistured on 7-23-90
SIZE HARVESTED PLOT:	1/500 acre
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	94
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	2
TEST MEAN:	1,954 lb/A; yields corrected to 13% moisture
TEST C. V.:	23.7 %

GENERAL INFORMATION: This site is representative of conditions in the Southern Blacklands of Texas which is considered a major grain sorghum production area in Texas. Ninety-four hybrids were entered by 19 commercial companies and the Texas Agricultural Experiment Station which made this one of the largest grain sorghum performance tests in Texas for 1990.

Due to the high coefficient of variation (C.V.) of this test, caution should be used in interpreting these results. The season started with adequate surface moisture but virtually no subsoil moisture due to a lack of rainfall during the fall and winter months. Excessive rainfall in February delayed the fertilizer and tillage operations, thus delaying planting approximately 2 weeks. Seedling emergence was rapid but plant stands in some hybrids were weak and noted prior to thinning. Plant growth and development were hampered by abnormally hot temperatures and lack of rainfall in May and June. Greenbugs were observed, but populations assessed by a scout for the farm had not reached economic threshold levels. An insecticide was not applied for control measures. Charcoal rot was observed, and combined with the greenbug damage, contributed to the overall lodging problem as reflected in the data Table.

The test mean yield was only 1,954 lb/A which is 2,758 lb/A less than the past 5-year average of 4,712 lb/A.

Table 7A. GRAIN SORGHUM PERFORMANCE TEST; THRALL, TEXAS 1990

HYBRID (*)	COMPANY OR BRAND NAME	GRN CLR **	PLANT COLOR ***	MATU-RITY CLASS ****	DAYS TO 50% FLOWER	PLANT HT., IN.	HEAD EXSER-TION INCHES	% STAND	% LODGE	TEST WT. lb/bu	MOIS-TURE %	THRESH-ING %	GRAIN PER ACRE, LBS.	STAT. SIG., 0.05 *****
DEKALB DK-37	DEKALB Plant Genetics	Bz	P	E	77	52	3	100.0	57	54.4	11.3	67.1	2801	A
DEKALB DK-56	DEKALB Plant Genetics	R	R	ML	81	47	4	80.0	37	55.4	13.1	69.0	2791	A
8278	Pioneer Hi-Bred Int Inc	Bz	P	ML	78	41	1	100.0	88	56.0	13.9	69.6	2732	A-B
NC+ 573E	NC+ Hybrids	R	*	M	78	46	2	100.0	75	55.4	14.2	71.8	2723	A-C
Delta Pine 1558	DELTA & PINE LAND CO.	R	P	M	77	44	2	100.0	72	55.5	14.4	70.1	2664	A-D
T-E Y-75	TAYLOR EVANS SEED CO.	R	R	M	79	46	0	100.0	87	54.9	14.3	68.2	2656	A-E
CHECK 2	Tx. Agri. Exp. Stat.	W	R	L	78	50	1	100.0	92	54.9	13.9	70.7	2611	A-F
Delta Pine 1506	DELTA & PINE LAND CO.	Ct	P	M	79	51	6	100.0	68	55.4	13.5	66.9	2566	A-G
8500	Pioneer Hi-Bred Int Inc	R	P	M	77	45	4	100.0	20	55.7	13.4	70.8	2526	A-H
8379	Pioneer Hi-Bred Int Inc	Bz	P	ML	76	46	1	100.0	77	56.5	13.9	72.2	2511	A-H
A1 x Tx435	Tx. Agri. Exp. Stat.(DR)	W	R	ML	80	50	4	100.0	53	52.9	14.2	64.7	2444	A-I
Delta Pine 1552	DELTA & PINE LAND CO.	Bz	P	M	79	50	4	100.0	52	55.4	14.3	66.6	2416	A-J
XP4039(x)	ASGROW SEED COMPANY	R	R	M	82	40	0	100.0	68	54.8	14.5	67.4	2385	A-K
ATx631 x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	83	46	1	70.0	52	54.9	12.9	63.3	2384	A-K
T-E 76	TAYLOR EVANS SEED CO.	R	P	M	79	41	0	100.0	87	44.2	12.4	59.0	2362	A-L
dK 780	DOUGLASS W. KING COMPANY	R	R	ML	80	42	0	100.0	88	53.8	13.9	65.7	2339	A-M
GSC 1299	GroAgri Seed Company	Bz	P	M	77	46	3	100.0	85	56.4	13.8	68.5	2333	A-M
ADK11 x Tx2817	Tx. Agri. Exp. Stat.(DR)	W	R	ML	79	45	4	100.0	61	54.1	13.7	67.7	2331	A-M
SC-710	SEEDCO Corporation	R	*	M	80	10	0	100.0	85	54.7	13.9	65.5	2330	A-M
A35 x Tx430	Tx. Agri. Exp. Stat.(DR)	R	P	ML	80	49	4	60.0	42	54.9	15.4	62.7	2325	A-M
ORO Baron	ORO Hybrids	Rt	R	ML	80	45	0	100.0	75	53.7	11.4	68.5	2320	A-M
T-E 77-E	TAYLOR EVANS SEED CO.	R	P	ML	79	45	1	100.0	77	55.5	13.8	65.9	2318	A-M
T-E X490	TAYLOR EVANS SEED CO.	Ct	P	ML	77	39	1	100.0	78	53.2	13.7	67.9	2284	A-M
8573	Pioneer Hi-Bred Int Inc	Bz	P	ME	77	43	5	100.0	67	55.6	13.4	69.4	2279	A-M
Delta Pine G-1616	DELTA & PINE LAND CO.	Bz	P	ML	80	50	1	100.0	93	51.1	13.8	64.3	2261	A-M
ATx631 x R8511	Tx. Agri. Exp. Stat.(FM)	W	T	M	83	49	1	100.0	40	55.3	15.6	63.1	2249	A-M
A4R x Tx430	Tx. Agri. Exp. Stat.(DR)	R	P	ML	81	42	1	100.0	30	54.9	13.0	70.3	2230	A-N
GSC 1313	GroAgri Seed Company	R	R	M	80	44	0	100.0	80	55.8	13.2	68.9	2212	A-N
Exp. 3159(x)	GroAgri Seed Company	Bz	P	ME	75	41	3	100.0	48	54.2	13.6	70.2	2212	A-N
ATx631 x BOC2241	Tx. Agri. Exp. Stat.(FM)	W	T	M	84	44	0	100.0	15	55.7	15.0	64.4	2202	A-N
ST 3308	AgriPro Seeds	Bz	R	M	82	42	0	100.0	42	55.4	15.0	65.2	2193	A-N
A1 x Tx2794	Tx. Agri. Exp. Stat.(DR)	W	P	ML	80	47	0	100.0	50	54.2	13.7	59.9	2174	A-O
8452	Pioneer Hi-Bred Int Inc	Bz	P	M	79	45	4	100.0	11	54.4	13.7	63.9	2163	A-P
HSC Wings	HyPerformer Seed Company	Bz	P	ML	79	44	1	100.0	92	50.8	13.2	62.1	2156	A-P
ORO Zenith	ORO Hybrids	Rt	P	ML	78	39	3	100.0	50	55.8	13.8	60.9	2139	A-P
GSC 3150	GroAgri Seed Company	Bz	P	M	80	39	0	100.0	73	54.1	13.6	62.7	2133	A-P
HSC Cherokee	HyPerformer Seed Company	R	R	M	79	49	1	100.0	95	53.8	14.0	61.5	2121	A-P
5503	Garst Seed Company	R	P	M	80	44	1	100.0	82	54.3	13.3	65.6	2108	A-P
dK 776	DOUGLASS W. KING COMPANY	R	R	ML	80	39	0	100.0	90	53.8	13.8	62.5	2058	A-P
KS 737	The New Northrup King	R	P	ML	76	43	2	100.0	72	55.1	14.0	66.4	2051	A-P
ADK11 x R8505	Tx. Agri. Exp. Stat.(DR)	W	P	ML	78	47	4	100.0	68	53.0	13.3	65.2	2027	A-Q
dK 775	DOUGLASS W. KING COMPANY	R	R	ML	80	43	0	100.0	88	55.1	13.7	64.8	2008	A-Q
Seneca	ASGROW SEED COMPANY	Bz	P	ME	74	41	7	100.0	12	57.2	14.1	68.1	1975	A-Q

Table 7A. GRAIN SORGHUM PERFORMANCE TEST; THRALL, TEXAS 1990

HYBRID (*)	COMPANY OR BRAND NAME	GRN CLR **	PLANT COLOR ***	MATU-RITY CLASS ****	DAYS TO 50% FLOWER	PLANT HT., IN.	HEAD EXSER-TION INCHES	% STAND	% LODGE	TEST WT. lb/bu	MOIS-TURE %	THRESH-ING %	GRAIN PER ACRE, LBS.	STAT. SIG., 0.05 *****
SG-822	Garrison Seed Company	Ct	P	M	79	43	3	50.0	30	54.3	14.0	62.5	1962	A-Q
ATx378 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	80	51	1	100.0	95	48.9	12.7	60.0	1960	A-Q
AVar x 80C2241	Tx. Agri. Exp. Stat.(FM)	W	T	M	83	46	0	50.0	38	56.8	14.1	62.1	1940	A-Q
F-457D	FRONTIER HYBRIDS, INC.	Bz	T	M	77	45	2	100.0	77	47.7	12.0	56.1	1936	A-Q
NC+ 472	NC+ Hybrids	Bz	*	M	79	41	0	100.0	70	49.6	12.8	58.2	1930	A-Q
Delta Pine RA787	DELTA & PINE LAND CO.	Bz	P	ML	80	44	1	100.0	85	50.7	13.5	61.4	1916	A-Q
T-E Ranger	TAYLOR EVANS SEED CO.	R	P	ML	80	36	4	100.0	50	54.7	14.0	62.7	1906	A-Q
ATx2752 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	81	46	1	100.0	62	53.3	14.4	58.8	1864	A-Q
A1 x Tx430	Tx. Agri. Exp. Stat.(DR)	W	R	ML	82	51	0	100.0	75	49.8	12.9	55.3	1862	A-Q
CHECK 1	Tx. Agri. Exp. Stat.	Br	T	ML	79	41	1	100.0	78	51.8	12.9	57.9	1840	A-Q
GSC 3148	GroAgri Seed Company	R	P	M	80	42	0	100.0	93	48.7	12.5	56.7	1833	A-Q
847	Cargill Hybrid Seeds	Bz	R	ML	81	44	0	100.0	95	53.8	13.5	63.8	1829	A-Q
XP5049(x)	ASGROW SEED COMPANY	W	P	M	78	49	4	100.0	92	54.2	13.5	66.8	1817	B-Q
HSC Exp. 89-3	HyPerformer Seed Company	Bz	R	M	79	43	1	100.0	95	53.8	12.9	64.6	1796	B-Q
AVar x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	83	43	0	50.0	65	57.0	13.8	62.9	1786	B-Q
ORO Amigo	ORO Hybrids	Bz	P	ML	80	39	0	100.0	70	54.8	11.5	63.2	1760	B-Q
6670	Cargill Hybrid Seeds	Bz	P	ML	80	48	0	100.0	82	50.7	12.5	56.5	1753	C-Q
SG-Y850	Garrison Seed Company	Bz	*	ML	79	43	3	100.0	53	48.2	14.1	58.9	1738	D-Q
ATx626 x R8503	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	82	47	0	60.0	62	53.5	14.2	65.5	1721	D-Q
NC+ 8B11	NC+ Hybrids	Bz	*	M	80	41	4	100.0	45	53.4	13.3	62.3	1714	D-Q
Ultima	Big Crop Seed Company	R	R	M	80	38	0	100.0	80	54.4	12.8	67.3	1704	D-Q
ORO G Xtra	ORO Hybrids	Bz	P	ML	79	48	0	100.0	90	50.8	12.4	57.6	1699	D-Q
Exp. 3149(x)	GroAgri Seed Company	Bz	P	ME	78	38	1	100.0	20	52.0	12.9	55.2	1683	E-Q
SC-705	SEEDCO Corporation	Bz	*	ML	80	45	0	100.0	83	51.7	13.1	57.8	1646	F-Q
A1 x R8505	Tx. Agri. Exp. Stat.(DR)	W	R	ML	84	44	0	50.0	40	54.7	17.2	58.6	1639	F-Q
SG-922	Garrison Seed Company	Bz	P	ML	80	40	0	75.0	70	47.1	12.8	52.1	1635	G-Q
A1 x R8503	Tx. Agri. Exp. Stat.(DR)	R	P	ML	83	44	0	100.0	52	54.9	14.9	62.4	1630	G-Q
dK 760	DOUGLASS W. KING COMPANY	R	P	ML	80	44	0	100.0	87	53.7	11.5	59.7	1618	G-Q
Macho	Big Crop Seed Company	Bz	P	ME	79	47	2	100.0	67	50.8	13.3	57.9	1596	G-Q
AOK11 x Tx430	Tx. Agri. Exp. Stat.(DR)	W	P	ML	79	42	0	100.0	82	53.5	13.0	65.3	1579	H-Q
A8618 x RTx430	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	83	43	0	100.0	48	50.7	14.7	55.1	1570	H-Q
Rustler	Conlee Seed Company, Inc	R	P	M	80	46	0	100.0	88	52.2	12.8	57.5	1567	H-Q
S9750	The New Northrup King	R	P	L	81	45	2	100.0	58	51.5	14.0	55.7	1560	H-Q
ATx399 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	81	39	0	50.0	60	47.7	13.0	54.8	1558	H-Q
630	Cargill Hybrid Seeds	Bz	P	ME	81	40	0	100.0	50	53.1	13.4	58.4	1533	I-Q
A.Arg34 x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	82	44	3	100.0	53	54.1	13.3	58.9	1528	I-Q
8313	Pioneer Hi-Bred Int Inc	Bz	P	ML	78	40	0	100.0	92	54.5	12.7	62.2	1515	I-Q
ATx631 x R8504	Tx. Agri. Exp. Stat.(FM)	W	T	M	84	.	.	.	70	55.1	13.8	59.7	1496	I-Q
SG-932	Garrison Seed Company	Bz	P	ML	80	45	0	100.0	82	51.6	12.9	55.8	1481	I-Q
A8618 x RTx434	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	86	45	0	100.0	57	53.7	15.0	59.2	1455	J-Q
5319	Garst Seed Company	R	P	ML	82	.	.	.	70	52.8	13.7	56.9	1449	J-Q
A35 x R8505	Tx. Agri. Exp. Stat.(DR)	R	P	ML	85	45	2	100.0	5	57.9	15.4	61.5	1443	J-Q

Table 7A. GRAIN SORGHUM PERFORMANCE TEST; THRALL, TEXAS 1990

HYBRID (*)	COMPANY OR BRAND NAME	GRN CLR **	PLANT COLOR ***	MATU-RITY CLASS ****	DAYS TO 50% FLOWER	PLANT HT., IN.	HEAD EXSER-TION INCHES	% STAND	% LODGE	TEST WT. lb/bu	MOIS-TURE %	THRESH-ING %	GRAIN PER ACRE, LBS.	STAT. SIG., 0.05 *****
A8618 x RTx435	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	88	43	0	40.0	15	52.5	15.5	60.3	1417	K-Q
GS 712	ASGROW SEED COMPANY	Bz	P	ML	79	42	0	75.0	80	53.1	12.7	58.2	1407	L-Q
2665	The New Northrup King	R	P	ML	81	39	0	100.0	42	51.4	13.1	54.8	1396	L-Q
DEKALB M-572G	DEKALB Plant Genetics	Bz	P	ML	81	38	0	100.0	73	51.6	11.3	55.7	1387	M-Q
A1 x Tx2783	Tx. Agri. Exp. Stat.(DR)	R	R	ML	84	46	0	100.0	37	55.3	14.7	59.4	1387	M-Q
A1 x R3224(sh)	Tx. Agri. Exp. Stat.(DR)	R	P	ML	83	43	2	100.0	72	52.1	13.7	47.8	1263	N-Q
A8618 x R8618	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	90	41	0	50.0	3	54.3	17.5	56.5	1202	O-Q
AVar x R8504	Tx. Agri. Exp. Stat.(FM)	W	T	M	85	48	1	70.0	28	54.4	14.9	52.7	1194	P-Q
ATx399 x Tx2536	Tx. Agri. Exp. Stat.(DR)	R	P	ML	86	36	0	50.0	5	52.1	15.7	53.1	1062	Q

TEST MEAN= 1954 TEST C.V.=23.7 LSD .05= 746.1

Note 1: 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.

Note 2: A dot indicates data was not recorded.

* George Warner Seed Co. W-917-E and AgriPro D701G 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 7B. Three-year summary, Grain Sorghum Performance Test, Thrall, Texas.

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
DEKALB DK-37	DEKALB Plant Genetics	1	2801	24	5963	–	–
DEKALB DK-56	DEKALB Plant Genetics	2	2791	34	5818	–	–
8278	Pioneer Hi-Bred International, Inc.	3	2732	2	6650	–	–
NC+ 573E	NC+ Hybrids	4	2723	–	–	–	–
Delta Pine 1558	DELTA & PINE LAND COMPANY	5	2664	–	–	–	–
T-E Y-75	TAYLOR EVANS SEED COMPANY	6	2656	45	5596	25	4290
W-917-E	GEORGE WARNER SEED CO., INC.	7	2611	38	5735	22	4406
Delta Pine 1506	DELTA & PINE LAND COMPANY	8	2566	1	6901	–	–
8500	Pioneer Hi-Bred International, Inc.	9	2526	39	5723	–	–
8379	Pioneer Hi-Bred International, Inc.	10	2511	48	5582	–	–
A1 x Tx435	Tx. Agri. Exp. Stat. (DR)	11	2444	40	5695	2	5104
Delta Pine 1552	DELTA & PINE LAND COMPANY	12	2416	28	5855	–	–
XP4039(x)	ASGROW SEED COMPANY	13	2385	9	6298	–	–
ATx631 x R8505	Tx. Agri. Exp. Stat. (FM)	14	2384	55	5395	53	3980
T-E 76	TAYLOR EVANS SEED COMPANY	15	2362	–	–	–	–
dk 780	DOUGLASS W. KING COMPANY	16	2339	–	–	–	–
GSC 1299	GroAgri Seed Company	17	2333	–	–	–	–
AOK11 x Tx2817	Tx. Agri. Exp. Stat. (DR)	18	2331	–	–	–	–
SC-710	SEEDCO Corporation	19	2330	–	–	–	–
A35 x Tx430	Tx. Agri. Exp. Stat. (DR)	20	2325	52	5505	75	3509
ORO Baron	ORO Hybrids	21	2320	36	5791	35	4195
T-E 77-E	TAYLOR EVANS SEED COMPANY	22	2318	–	–	–	–
T-E X490	TAYLOR EVANS SEED COMPANY	23	2284	–	–	–	–
8573	Pioneer Hi-Bred International, Inc.	24	2279	62	5294	–	–
Delta Pine G-1616	DELTA & PINE LAND COMPANY	25	2261	–	–	–	–
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	26	2249	63	5256	–	–
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	27	2230	12	6208	1	5166
GSC 1313	GroAgri Seed Company	28	2212	22	5985	–	–
Exp. 3159(x)	GroAgri Seed Company	29	2212	–	–	–	–
ATx631 x 80C2241	Tx. Agri. Exp. Stat. (FM)	30	2202	71	5071	58	3886

Table 7B. Thrall, Texas. (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
ST 3308	AgriPro Seeds	31	2193	6	6348	54	3970
A1 x Tx2794	Tx. Agri. Exp. Stat. (DR)	32	2174	74	4945	–	–
8452	Pioneer Hi-Bred International, Inc.	33	2163	42	5672	64	3681
HSC Wings	HyPerformer Seed Company	34	2156	23	5966	13	4573
ORO Zenith	ORO Hybrids	35	2139	–	–	–	–
GSC 3150	GroAgri Seed Company	36	2133	–	–	–	–
HSC Cherokee	HyPerformer Seed Company	37	2121	30	5844	14	4568
5503	Garst Seed Company	38	2108	–	–	–	–
dk 776	DOUGLASS W. KING COMPANY	39	2058	20	6013	48	4074
KS 737	The New Northrup King	40	2051	35	5807	43	4127
AOK11 x R8505	Tx. Agri. Exp. Stat. (DR)	41	2027	–	–	–	–
dk 775	DOUGLASS W. KING COMPANY	42	2008	4	6400	23	4350
SENECA	ASGROW SEED COMPANY	43	1975	70	5107	–	–
SG-822	Garrison Seed Company	44	1962	–	–	–	–
ATx378 x RTx430	Tx. Agri. Exp. Stat. (FM)	45	1960	7	6333	8	4589
AVar x 80C2241	Tx. Agri. Exp. Stat. (FM)	46	1940	60	5301	–	–
F-547D	FRONTIER HYBRIDS, INC.	47	1936	–	–	–	–
NC+ 472	NC+ Hybrids	48	1930	50	5543	–	–
Delta Pine RA787	DELTA & PINE LAND COMPANY	49	1916	3	6565	–	–
T-E Ranger	TAYLOR EVANS SEED COMPANY	50	1906	–	–	–	–
ATx2752 x RTx430	Tx. Agri. Exp. Stat. (FM)	51	1864	75	4925	28	4249
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	52	1862	31	5828	30	4232
ST D701G	AgriPro Seeds	53	1840	10	6282	7	4681
GSC 3148	GroAgri Seed Company	54	1833	47	5591	–	–
847	Cargill Hybrid Seeds	55	1829	19	6060	–	–
XP5049(x)	ASGROW SEED COMPANY	56	1817	72	5012	–	–
HSC Exp. 89-3	HyPerformer Seed Company	57	1796	–	–	–	–
AVar x R8505	Tx. Agri. Exp. Stat. (FM)	58	1786	–	–	–	–
ORO Amigo	ORO Hybrids	59	1760	33	5822	–	–
6670	Cargill Hybrid Seeds	60	1753	32	5826	31	4215

Table 7B. Thrall, Texas. (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
SG-Y850	Garrison Seed Company	61	1738	–	–	–	–
ATx626 x R8503	Tx. Agri. Exp. Stat. (FM)	62	1721	78	4716	36	4178
NC+ 8B11	NC+ Hybrids	63	1714	–	–	–	–
Ultima	Big Crop Seed Company	64	1704	–	–	–	–
ORO G Xtra	ORO Hybrids	65	1699	69	5120	5	4888
Exp. 3149(x)	GroAgri Seed Company	66	1683	–	–	–	–
SC-705	SEEDCO Corporation	67	1646	–	–	–	–
A1 x R8505	Tx. Agri. Exp. Stat. (DR)	68	1639	–	–	–	–
SG-922	Garrison Seed Company	69	1635	29	5849	50	4045
A1 x R8503	Tx. Agri. Exp. Stat. (DR)	70	1630	58	5355	–	–
dk 760	DOUGLASS W. KING COMPANY	71	1618	8	6298	39	4153
Macho	Big Crop Seed Company	72	1596	–	–	–	–
AOK11 x Tx430	Tx. Agri. Exp. Stat. (DR)	73	1579	37	5742	–	–
A8618 x RTx430	Tx. Agri. Exp. Stat. (FM)	74	1570	–	–	–	–
Rustler	Conlee Seed Company, Inc.	75	1567	16	6150	4	4900
S9750	The New Northrup King	76	1560	13	6186	15	4557
ATx399 x RTx430	Tx. Agri. Exp. Stat. (FM)	77	1558	26	5955	32	4210
630	Cargill Hybrid Seeds	78	1533	–	–	70	3581
A.Arg34 x R8505	Tx. Agri. Exp. Stat. (FM)	79	1528	–	–	–	–
8313	Pioneer Hi-Bred International, Inc.	80	1515	15	6155	–	–
ATx631 x R8504	Tx. Agri. Exp. Stat. (FM)	81	1496	84	4485	61	3713
SG-932	Garrison Seed Company	82	1481	17	6094	12	4574
A8618 x RTx434	Tx. Agri. Exp. Stat. (FM)	83	1455	–	–	–	–
5319	Garst Seed Company	84	1449	14	6185	–	–
A35 x R8505	Tx. Agri. Exp. Stat. (DR)	85	1443	–	–	–	–
A8618 x RTx435	Tx. Agri. Exp. Stat. (FM)	86	1417	81	4608	–	–
GS 712	ASGROW SEED COMPANY	87	1407	25	5963	3	5010
2665	The New Northrup King	88	1396	51	5528	21	4434
DEKALB M-572G	DEKALB Plant Genetics	89	1387	–	–	–	–
A1 x Tx2783	Tx. Agri. Exp. Stat. (DR)	90	1387	–	–	–	–

Table 7B. Thrall, Texas. (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
A1 x R3224(sh)	Tx. Agri. Exp. Stat. (DR)	91	1263	–	–	–	–
A8618 x R8618	Tx. Agri. Exp. Stat. (FM)	92	1202	–	–	–	–
AVar x R8504	Tx. Agri. Exp. Stat. (FM)	93	1194	–	–	–	–
ATx399 x Tx2536	Tx. Agri. Exp. Stat. (DR)	94	1062	90	4126	68	3615
ST 686	AgriPro Seeds	–	–	18	6069	40	4133
T-E DINERO	TAYLOR EVANS SEED COMPANY	–	–	21	5994	72	3551
W-844-E	GEORGE WARNER SEED CO., INC.	–	–	27	5864	6	4995
A1 x R2241	Tx. Agri. Exp. Stat.	–	–	41	5687	17	4535
5572	Cargill Hybrid Seeds	–	–	43	5653	11	4581
Wrangler II	Conlee Seed Company, Inc.	–	–	44	5614	59	3777
4462	Cargill Hybrid Seeds	–	–	54	5398	34	4199
ST 3258	AgriPro Seeds	–	–	56	5383	47	4076
8260	Pioneer Hi-Bred International, Inc.	–	–	57	5373	20	4480
ATx629 x R8503	Tx. Agri. Exp. Stat.	–	–	59	5355	52	4028
ATx630 x R3338wx	Tx. Agri. Exp. Stat.	–	–	61	5298	65	3678
T-E 42	TAYLOR EVANS SEED COMPANY	–	–	67	5150	49	4053
Towhead	Conlee Seed company, Inc.	–	–	68	5145	42	4131
RS610	Tx. Agri. Exp. Stat.	–	–	79	4703	83	3010
A1 x R8507	Tx. Agri. Exp. Stat.	–	–	83	4518	67	3623
ATx631 x RTx435	Tx. Agri. Exp. Stat.	–	–	91	4092	82	3026
Number Entries:		94		97		83	
Test Mean Yield:			1954		5407		4091

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

TABLE 8. AGRONOMIC AND TEST INFORMATION: McKINNEY

TEST:	1990 Dryland Grain Sorghum Performance Test
LOCATION:	Jack Furr Farm
COOPERATORS:	Jack Furr, Ken White, Dennis Pietsch, Randy Gaas, Leon Synatschk and Cloyce Coffman
SOIL TYPE:	Houston black clay
ROW WIDTH:	40"
PREVIOUS CROP:	Grain Sorghum
LAND PREPARATION:	Chiseled, disked (2), field cultivated
DATE PLANTED:	5-14-90, by hand
PLOT LENGTH:	30'
FERTILIZER:	100 lb/A of Anhydrous Ammonia preplant and 125 lb/A of 10-30-4 at planting
HERBICIDE:	1.6 pt/A Bicep (atrazine & metolachor) pre-emerge
INSECTICIDE:	None
RAINFALL:	Jan.=4.54",Feb.=7.29", March=6.44", April=8.09", May = 8.14"; June = 1.79"; July = 1.97"; August = 5.31"; Total = 43.57"
IRRIGATIONS:	None
DATE HARVESTED:	9-5 & 6-90, by hand
SIZE HARVESTED PLOT:	1/500 acre
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	90
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	2
MEAN PLANT POP.:	Plants were thinned to approximately 5 plants/foot
TEST MEAN:	3,919 lb/A; yields corrected to 13% moisture
TEST C.V.:	10.3 percent

GENERAL INFORMATION: A total of 90 hybrids were entered at this Northern Blackland test site which made this one of the largest grain sorghum performance tests in Texas. Outstanding yields were attained despite the adverse weather conditions encountered during the growing season. The test block received nearly 40" of rainfall from January to April thus delaying planting until May 14. The annual rainfall for this area is approximately 36". The planting date is about 6 weeks later than the optimum planting date of April 1.

Seedling emergence was rapid and early plant growth was good due to available soil moisture. Very hot temperatures in June rapidly depleted available soil moisture thus resulting in plant stress. A timely rain in mid-July was beneficial for the later maturing hybrids in the test opposed to the earlier maturing hybrids as indicated by the yield table.

Even with the late planting date, the test mean yield was still 3,919 lb/A. It is interesting to note that out of the top five producing hybrids in the test, three had white(W) seed and tan(T) plant color. These are important characteristics especially to the broiler industry where sorghum is used in feed rations.

Although the test block was planted late, midge were not observed in the test block. The incidence of lodging and bird damage was minimal.

Table 8A. GRAIN SORGHUM PERFORMANCE TEST;McKINNEY, TEXAS 1990

HYBRID (*)	COMPANY OR BRAND NAME	GRN CLR **	PLANT COLOR ***	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 *****
ATx631 x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	65	43	6	91.7	61.6	13.8	79.0	5133	A
DEKALB DK-56	DEKALB Plant Genetics	R	R	ML	65	43	6	98.3	62.3	12.7	79.4	4777	A-B
AVar x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	68	48	7	100.0	63.3	12.3	82.0	4584	A-C
AVar x 80C2241	Tx. Agri. Exp. Stat.(FM)	W	T	M	69	46	6	96.7	62.6	13.3	78.8	4508	A-D
Delta Pine G-1616	DELTA & PINE LAND CO.	Bz	P	ML	67	40	5	96.7	60.8	12.2	77.7	4501	A-E
2665	The New Northrup King	R	P	ML	64	36	2	95.0	61.8	12.6	78.7	4488	A-E
GS 712	ASGROW SEED COMPANY	Bz	P	ML	65	38	2	95.0	60.9	12.4	79.3	4447	A-F
A1 x R8505	Tx. Agri. Exp. Stat.(DR)	R	R	ML	64	42	4	83.3	61.6	13.9	75.5	4403	A-G
ST D701G	AgriPro Seeds	Bz	T	ML	64	37	3	95.0	61.2	12.3	79.0	4396	A-G
A.Arg34 x R8505	Tx. Agri. Exp. Stat.(FM)	W	T	M	68	41	6	95.0	61.6	12.2	78.1	4369	A-H
847	Cargill Hybrid Seeds	Bz	R	ML	64	39	4	86.7	62.6	12.3	81.7	4341	B-I
T-E Y-75	TAYLOR EVANS SEED CO.	R	R	M	64	38	3	93.3	62.4	11.9	82.2	4314	B-J
5503	Garst Seed Company	R	P	M	63	36	3	95.0	62.3	11.9	82.4	4304	B-J
A35 x R8505	Tx. Agri. Exp. Stat.(DR)	R	P	ML	68	46	7	91.7	62.5	14.4	77.1	4286	B-K
ATx626 x R8503	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	65	42	7	91.7	61.8	12.4	80.7	4277	B-L
A1 x 850G4300-5	Tx. Agri. Exp. Stat.(DR)	R	P	ML	68	49	4	90.0	61.0	12.6	76.9	4274	B-L
A1 x Tx2783	Tx. Agri. Exp. Stat.(DR)	R	R	ML	70	51	4	81.7	61.8	14.2	78.4	4266	B-L
Rustler	Conlee Seed Company, Inc	R	P	M	63	38	3	90.0	60.4	12.0	77.7	4233	B-L
HSC Exp 89-4	HyPerformer Seed Company	Bz	R	ML	66	40	4	96.7	62.7	12.0	83.3	4227	B-L
5319	Garst Seed Company	R	P	ML	64	36	3	93.3	61.2	12.2	78.7	4207	B-M
ORO G Xtra	ORO Hybrids	Bz	P	ML	64	37	4	96.7	61.2	12.4	78.4	4200	B-M
ATx631 x R8511	Tx. Agri. Exp. Stat.(FM)	W	T	M	66	41	6	91.7	61.3	13.3	79.8	4180	B-M
HSC Wings	HyPerformer Seed Company	Bz	P	ML	63	37	4	96.7	60.9	12.3	78.3	4175	B-M
ATx378 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	65	40	4	91.7	60.7	12.2	79.1	4162	B-M
ATx399 x Tx2536	Tx. Agri. Exp. Stat.(DR)	R	P	ML	63	35	3	88.3	60.2	11.7	77.6	4150	B-M
ATx631 x 80C2241	Tx. Agri. Exp. Stat.(FM)	W	T	M	68	42	5	90.0	61.7	13.4	78.7	4143	B-M
A1 x Tx2737	Tx. Agri. Exp. Stat.(DR)	W	P	ML	63	39	4	91.7	61.7	13.2	76.2	4137	B-N
HSC Cherokee	HyPerformer Seed Company	R	R	M	63	36	3	90.0	62.4	11.6	82.7	4132	B-N
8313	Pioneer Hi-Bred Int Inc	Bz	P	ML	64	35	2	95.0	61.7	12.0	79.7	4130	B-N
9112	RICHARDSON SEEDS, INC.	R	P	M	63	38	3	86.7	62.1	11.5	83.3	4126	B-N
ORO Amigo	ORO Hybrids	Bz	P	ML	62	36	3	96.7	61.6	12.0	78.8	4125	B-N
DEKALB DK-40Y	DEKALB Plant Genetics	Y	P	ME	63	34	2	95.0	62.3	12.4	76.4	4090	B-O
NC+ 371	NC+ Hybrids	Wt	*	M	64	33	4	96.7	61.6	12.5	82.5	4087	B-O
NC+ 472	NC+ Hybrids	Bz	*	M	63	33	2	96.7	59.3	12.0	79.6	4080	B-O
T-E 76	TAYLOR EVANS SEED CO.	R	P	M	62	34	1	95.0	60.1	11.6	78.3	4071	B-O
A1 x R8503	Tx. Agri. Exp. Stat.(DR)	R	P	ML	66	42	4	81.7	61.3	13.4	79.7	4064	B-O
F-457D	FRONTIER HYBRIDS, INC.	Bz	T	M	63	35	2	91.7	60.5	11.9	78.6	4044	B-O
AOK11 x Tx2817	Tx. Agri. Exp. Stat.(DR)	W	P	ML	67	42	7	95.0	61.6	11.8	81.5	4038	B-O
GSC 1313	GroAgri Seed Company	R	R	M	63	36	2	95.0	62.0	11.9	81.4	4037	B-O
Delta Pine RA 787	DELTA & PINE LAND CO.	Bz	P	ML	66	38	4	98.3	60.4	12.2	76.5	4032	B-O
T-E X490	TAYLOR EVANS SEED CO.	Ct	P	ML	63	33	4	100.0	61.6	12.3	79.1	4032	B-O
ORO Baron	ORO Hybrids	Rt	R	ML	63	36	4	96.7	62.5	11.6	79.3	4000	B-P

Table 8A. GRAIN SORGHUM PERFORMANCE TEST;McKINNEY, TEXAS 1990

HYBRID (*)	COMPANY OR BRAND NAME	GRN CLR **	PLANT COLOR ***	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 *****
Ultima	Big Crop Seed Company	R	R	M	63	37	4	88.3	62.6	12.0	81.4	3975	B-P
8500	Pioneer Hi-Bred Int Inc	R	P	M	62	36	4	95.0	62.3	12.1	80.7	3966	B-P
A4R x Tx430	Tx. Agri. Exp. Stat.(DR)	R	P	ML	66	37	4	93.3	61.2	11.8	81.5	3960	B-P
ATx399 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	63	36	2	91.7	59.6	11.8	77.3	3959	B-P
ATx631 x R8504	Tx. Agri. Exp. Stat.(FM)	W	T	M	68	44	6	98.3	60.6	13.7	74.3	3946	B-P
ATx2752 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	63	38	3	88.3	61.1	12.4	77.9	3925	C-P
East Texas ET602	East Texas Seed Company	R	*	ML	62	34	2	93.3	60.1	11.8	78.0	3921	C-P
Delta Pine 1506	DELTA & PINE LAND CO.	Ct	P	M	67	42	5	96.7	60.7	14.0	76.0	3916	C-P
Delta Pine 1552	DELTA & PINE LAND CO.	Bz	P	M	63	40	4	100.0	63.1	12.2	79.4	3910	C-P
8278	Pioneer Hi-Bred Int Inc	Bz	P	ML	64	34	3	100.0	61.4	12.1	78.6	3908	C-P
DN 31	DyNA Seeds Ltd.	R	T	M	62	34	4	90.0	61.3	12.0	78.1	3907	C-P
A1 x Tx2794	Tx. Agri. Exp. Stat.(DR)	W	P	ML	63	44	4	98.3	60.1	12.8	75.4	3907	C-P
A35 x Tx430	Tx. Agri. Exp. Stat.(DR)	R	P	ML	66	42	6	96.7	60.7	13.8	76.2	3864	C-P
CHECK 2	Tx. Agri. Exp. Stat.	R	*	ML	65	36	4	100.0	61.3	12.1	77.7	3859	C-P
W-632-W	GEORGE WARNER SEED CO.	Ct	R	ML	64	36	5	96.7	61.7	12.3	78.8	3826	C-P
KS 737	The New Northrup King	R	P	ML	63	32	3	98.3	62.2	12.2	78.1	3798	C-P
XP5049(x)	ASGROW SEED COMPANY	W	P	M	63	37	4	90.0	61.0	12.7	80.5	3754	C-P
A1 x Tx430	Tx. Agri. Exp. Stat.(DR)	W	R	ML	65	41	4	91.7	59.7	12.7	76.5	3744	D-P
Macho	Big Crop Seed Company	Bz	P	ME	63	32	2	96.7	60.3	12.0	76.8	3743	D-P
A8618 x RTx430	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	67	40	5	98.3	60.1	12.2	75.2	3743	D-P
T-E Empire	TAYLOR EVANS SEED CO.	R	P	ME	61	32	2	91.7	61.6	12.3	78.9	3730	D-P
575	Cargill Hybrid Seeds	Ct	P	M	64	36	4	96.7	61.2	12.7	77.6	3726	D-P
Delta Pine G-1492	DELTA & PINE LAND CO.	Bz	P	ME	63	31	3	95.0	58.9	11.3	79.8	3673	D-P
CHECK 3	Tx. Agri. Exp. Stat.	R	*	ML	60	38	2	85.0	60.6	12.0	78.0	3668	E-P
A1 x R3224(sh)	Tx. Agri. Exp. Stat.(DR)	R	P	ML	69	41	3	91.7	60.2	13.1	71.9	3650	F-P
Exp 3149(x)	GroAgri Seed Company	Bz	P	ME	62	31	2	95.0	60.6	11.9	77.5	3647	F-P
Sprint	RICHARDSON SEEDS, INC.	R	T	E	59	38	4	88.3	59.6	11.6	79.7	3623	F-P
630	Cargill Hybrid Seeds	Bz	P	ME	61	33	1	95.0	61.9	12.2	77.0	3623	F-P
KS 714Y	The New Northrup King	W	*	M	63	34	4	95.0	62.0	12.6	79.6	3612	F-P
DEKALB DK-37	DEKALB Plant Genetics	Bz	P	E	61	33	2	91.7	61.0	12.5	75.7	3605	G-P
AVar x R8504	Tx. Agri. Exp. Stat.(FM)	W	T	M	71	46	6	98.3	60.0	14.3	74.6	3600	G-P
8452	Pioneer Hi-Bred Int Inc	Bz	P	M	62	31	1	95.0	62.2	12.0	79.0	3546	H-Q
ORO Ivory	ORO Hybrids	Ct	P	M	62	34	3	98.3	61.3	12.6	76.6	3525	I-Q
NC+ Y363	NC+ Hybrids	Ct	*	ME	62	36	2	95.0	62.2	12.4	78.0	3520	I-Q
2244	The New Northrup King	R	*	M	61	33	3	96.7	61.9	11.7	81.1	3514	I-Q
AOK11 x Tx2794	Tx. Agri. Exp. Stat.(DR)	W	P	ML	63	38	4	96.7	60.8	12.4	77.5	3508	I-Q
618Y	Cargill Hybrid Seeds	Ct	P	ME	62	35	5	93.3	60.0	12.2	74.6	3498	J-Q
XP4039(x)	ASGROW SEED COMPANY	R	R	M	66	37	5	98.3	61.2	11.6	81.2	3455	K-Q
8379	Pioneer Hi-Bred Int Inc	Bz	P	ML	63	31	3	95.0	62.4	12.3	78.7	3446	L-Q
DN 33	DyNA Seeds Ltd.	R	T	ME	62	33	2	81.7	61.3	12.4	76.1	3390	M-R
607E	Cargill Hybrid Seeds	Bz	P	ME	61	31	2	93.3	60.9	12.5	76.6	3306	N-R
A8618 x RTx435	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	73	42	6	96.7	58.6	13.7	71.5	3303	N-R

Table 8A. GRAIN SORGHUM PERFORMANCE TEST;McKINNEY, TEXAS 1990

HYBRID (*)	COMPANY OR BRAND NAME	GRN CLR **	PLANT COLOR ***	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 *****
T-E 35	TAYLOR EVANS SEED CO.	R	P	ME	60	30	3	96.7	60.8	11.4	80.1	3301	N-R
Seneca	ASGROW SEED COMPANY	Bz	P	ME	60	30	4	98.3	62.2	11.8	79.9	3275	O-R
8573	Pioneer Hi-Bred Int Inc	Bz	P	ME	61	36	4	81.7	61.8	11.9	79.1	3259	O-R
CHECK 1	Tx. Agri. Exp. Stat.	R	P	ML	60	35	4	95.0	62.1	11.9	79.8	3191	P-R
A8618 x RTx434	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	75	41	6	98.3	59.2	13.0	71.7	2788	Q-R
A8618 x R8618	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	76	41	6	91.7	58.8	15.2	66.7	2634	R

TEST MEAN= 3919 TEST C.V.=10.3 LSD .05=650.2

Note: 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.

* East Texas 610, 505 and GroAgri GSA 1180 were entered as commercial check hybrids at our discretion and should 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	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
ATx631 x R8505	Tx. Agri. Exp. Stat. (FM)	1	5133	70	4240	12	6087
DEKALB DK-56	DEKALB Plant Genetics	2	4777	36	4999	–	–
AVar x R8505	Tx. Agri. Exp. Stat. (FM)	3	4584	–	–	–	–
AVar x 80C2241	Tx. Agri. Exp. Stat. (FM)	4	4508	86	3765	–	–
Delta Pine G-1616	DELTA & PINE LAND COMPANY	5	4501	–	–	–	–
2665	The New Northrup King	6	4488	18	5260	3	6278
GS 712	ASGROW SEED COMPANY	7	4447	10	5447	30	5757
A1 x R8505	Tx. Agri. Exp. Stat. (DR)	8	4403	–	–	–	–
ST D701G	AgriPro Seeds	9	4396	7	5511	17	6037
A.Arg34 x R8505	Tx. Agri. Exp. Stat. (FM)	10	4369	–	–	–	–
847	Cargill Hybrid Seeds	11	4341	15	5291	–	–
T-E Y-75	TAYLOR EVANS SEED COMPANY	12	4314	14	5292	–	–
5503	Garst Seed Company	13	4304	–	–	–	–
A35 x R8505	Tx. Agri. Exp. Stat. (DR)	14	4286	–	–	–	–
ATx626 x R8503	Tx. Agri. Exp. Stat. (FM)	15	4277	45	4830	83	4379
A1 x 850G4300-5	Tx. Agri. Exp. Stat. (DR)	16	4274	–	–	–	–
A1 x Tx2783	Tx. Agri. Exp. Stat. (DR)	17	4266	–	–	–	–
Rustler	Conlee Seed Company, Inc.	18	4233	24	5175	11	6092
HSC Exp. 89-4	HyPerformer Seed Company	19	4227	4	5610	–	–
5319	Garst Seed Company	20	4207	–	–	–	–
ORO G Xtra	ORO Hybrids	21	4200	9	5453	–	–
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	22	4180	32	5027	–	–
HSC Wings	HyPerformer Seed Company	23	4175	8	5467	–	–
ATx378 x RTx430	Tx. Agri. Exp. Stat. (FM)	24	4162	21	5207	19	6035
ATx399 x Tx2536	Tx. Agri. Exp. Stat. (DR)	25	4150	28	5117	46	5377
ATx631 x 80C2241	Tx. Agri. Exp. Stat. (FM)	26	4143	81	4005	32	5726
A1 x Tx2737	Tx. Agri. Exp. Stat. (DR)	27	4137	22	5206	–	–
HSC Cherokee	HyPerformer Seed Company	28	4132	34	5017	–	–
8313	Pioneer Hi-Bred International, Inc.	29	4130	40	4965	–	–

Table 8B. McKinney, Texas. (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
9112	RICHARDSON SEEDS, INC.	30	4126	–	–	–	–
ORO Amigo	ORO Hybrids	31	4125	20	5217	–	–
DEKALB DK-40Y	DEKALB Plant Genetics	32	4090	46	4821	41	5498
NC+ 371	NC+ Hybrids	33	4087	–	–	–	–
NC+ 472	NC+ Hybrids	34	4080	–	–	–	–
T-E 76	TAYLOR EVANS SEED COMPANY	35	4071	–	–	–	–
A1 x R8503	Tx. Agri. Exp. Stat. (DR)	36	4064	–	–	–	–
F-457D	FRONTIER HYBRIDS, INC.	37	4044	–	–	–	–
AOK11 x Tx2817	Tx. Agri. Exp. Stat. (DR)	38	4038	–	–	–	–
GSC 1313	GroAgri Seed Company	39	4037	–	–	–	–
Delta Pine RA787	DELTA & PINE LAND COMPANY	40	4032	6	5536	–	–
T-E X490	TAYLOR EVANS SEED COMPANY	41	4032	–	–	–	–
ORO Baron	ORO Hybrids	42	4000	29	5096	29	5785
Ultima	Big Crop Seed Company	43	3975	–	–	–	–
8500	Pioneer Hi-Bred International, Inc.	44	3966	75	4137	–	–
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	45	3960	1	5759	25	5837
ATx399 x RTx430	Tx. Agri. Exp. Stat. (FM)	46	3959	30	5091	82	4463
ATx631 x R8504	Tx. Agri. Exp. Stat. (FM)	47	3946	84	3819	38	5601
ATx2752 x RTx430	Tx. Agri. Exp. Stat. (FM)	48	3925	68	4264	44	5467
ET 602	East Texas Seed Company	49	3921	38	4974	33	5689
Delta Pine 1506	DELTA & PINE LAND COMPANY	50	3916	5	5543	–	–
Delta Pine 1552	DELTA & PINE LAND COMPANY	51	3910	–	–	–	–
8278	Pioneer Hi-Bred International, Inc.	52	3908	19	5240	–	–
DN 31	DyNA Seeds Ltd.	53	3907	49	4674	55	5237
A1 x Tx2794	Tx. Agri. Exp. Stat. (DR)	54	3907	–	–	–	–
A35 x Tx430	Tx. Agri. Exp. Stat. (DR)	55	3864	41	4954	4	6267
ET 610	East Texas Seed Company	56	3859	–	–	15	6061
W-632-W	GEORGE WARNER SEED CO., INC.	57	3826	54	4595	22	5947

Table 8B. McKinney, Texas. (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
KS 737	The New Northrup King	58	3798	39	4971	42	5481
XP5049(x)	ASGROW SEED COMPANY	59	3754	60	4490	–	–
A1 X TX430	Tx. Agri. Exp. Stat. (DR)	60	3744	3	5643	2	6300
Macho	Big Crop Seed Company	61	3743	37	4976	–	–
A8618 x RTx430	Tx. Agri. Exp. Stat. (FM)	62	3743	–	–	–	–
T-E Empire	TAYLOR EVANS SEED COMPANY	63	3730	80	4010	–	–
575	Cargill Hybrid Seeds	64	3726	–	–	–	–
Delta Pine G-1492	DELTA & PINE LAND COMPANY	65	3673	59	4495	–	–
ET 505	East Texas Seed Company	66	3668	26	5136	40	5534
A1 x R3224(sh)	Tx. Agri. Exp. Stat. (DR)	67	3650	–	–	–	–
Exp. 3149(x)	GroAgri Seed Company	68	3647	–	–	–	–
Sprint	RICHARDSON SEEDS, INC.	69	3623	–	–	–	–
630	Cargill Hybrid Seeds	70	3623	–	–	69	4926
KS 714Y	The New Northrup King	71	3612	–	–	–	–
DEKALB DK-37	DEKALB Plant Genetics	72	3605	47	4762	73	4840
AVar x R8504	Tx. Agri. Exp. Stat. (FM)	73	3600	–	–	–	–
8452	Pioneer Hi-Bred International, Inc.	74	3546	77	4074	14	6072
ORO Ivory	ORO Hybrids	75	3525	–	–	–	–
NC+ Y363	NC+ Hybrids	76	3520	–	–	–	–
2244	The New Northrup King	77	3514	71	4223	70	4920
AOK11 x Tx2794	Tx. Agri. Exp. Stat. (DR)	78	3508	–	–	–	–
618Y	Cargill Hybrid Seeds	79	3498	–	–	–	–
XP4039(x)	ASGROW SEED COMPANY	80	3455	50	6441	–	–
8379	Pioneer Hi-Bred International, Inc.	81	3446	62	4450	–	–
DN 33	DyNA Seeds Ltd.	82	3390	–	–	–	–
607E	Cargill Hybrid Seeds	83	3306	–	–	–	–
A8618 x RTx435	Tx. Agri. Exp. Stat. (FM)	84	3303	87	3643	–	–
T-E 35	TAYLOR EVANS SEED COMPANY	85	3301	65	4402	77	4652

Table 8B. McKinney, Texas. (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
SENECA	ASGROW SEED COMPANY	86	3275	66	4346	–	–
8573	Pioneer Hi-Bred International, Inc.	87	3259	52	4649	–	–
GSA 1180	GroAgri Seed Company	88	3191	–	–	–	–
A8618 x RTx434	Tx. Agri. Exp. Stat. (FM)	89	2788	–	–	–	–
A8618 x R8618	Tx. Agri. Exp. Stat. (FM)	90	2634	–	–	–	–
A1 x R2241	Tx. Agri. Exp. Stat.	–	–	2	5663	21	5989
A1 x Tx435	Tx. Agri. Exp. Stat.	–	–	13	5299	1	6527
ST 686	AgriPro Seeds	–	–	23	5175	8	6144
W-844-E	GEORGE WARNER SEED CO., INC.	–	–	27	5122	6	6212
5572	Cargill Hybrid Seeds	–	–	31	5084	31	5727
OSAGE	ASGROW SEED COMPANY	–	–	35	5009	18	6036
ATx629 x R8503	Tx. Agri. Exp. Stat.	–	–	43	4869	56	5213
Wrangler II	Conlee Seed Company	–	–	44	4832	53	5285
4462	Cargill Hybrid Seeds	–	–	53	4618	36	5630
Towhead	Conlee Seed Company	–	–	57	4526	10	6093
ATx630 x R3338wx	Tx. Agri. Exp. Stat.	–	–	58	4516	66	5027
ST 3308	AgriPro Seeds	–	–	61	4456	45	5378
ATx2752 xRTx430	Tx. Agri. Exp. Stat.	–	–	68	4264	44	5467
T-E 42	TAYLOR EVANS SEED COMPANY	–	–	69	4261	78	4595
RS610	Tx. Agri. Exp. Stat.	–	–	83	3945	68	4961
ATx631 x RTx435	Tx. Agri. Exp. Stat.	–	–	89	3456	21	5866
X62830	AgriPro Seeds	–	–	90	3455	7	6199
Number Entries:		90		92		84	
Test Mean Yield:			3919		4691		5466

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

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

TEST:	1990 Limited Irrigated Grain Sorghum Performance Test
LOCATION:	Texas A&M University Agricultural Research and Extension Center, Lubbock, Texas
COOPERATORS:	D.T. Rosenow and C.A. Woodfin
SOIL TYPE:	Olton loam
ROW WIDTH:	40"
PREVIOUS CROP:	Cotton
LAND PREPARATION:	disked, chiseled, and bedded
DATE PLANTED:	5-16-90; cone planter
DATE THINNED:	6-14-90, to 3" spacing = 52,000 plants/A
PLOT LENGTH:	16'
FERTILIZER:	200-80-0
HERBICIDE:	1.5 lb/A A.I.Milogard (propazine) pre-emerge
INSECTICIDE:	Applied 7 lb/A of Counter 15G (terbufos) at planting
RAINFALL:	May = 0.82"; June = 0.20", July = 5.79"; August = 1.48"; September = 1.46"; Total = 9.75"
IRRIGATIONS:	5-1-90 (preplant); 6-23-90 = 4"; 7-18-90 = 4"
DATE HARVESTED:	9-26-90
SIZE HARVESTED PLOT:	Hand harvested 1/1000 acre from middle row , and threshed with plot combine
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	87
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	3
TEST MEAN:	5,227 lb/A; corrected to 13% moisture
TEST C. V.:	8.5 percent

GENERAL INFORMATION: This was a good test considering the extreme heat and dry weather for a good portion of the summer. From May 1 to July 21, there was no effective rainfall. June was extremely hot with temperatures meeting or exceeding 100 degrees F for 19 days, which was a record. The 110 degrees recorded on June 24 was an all time record. Moisture stress was severe in the test at time of first post-plant irrigation on June 23. From mid-July through part of August, temperatures were below normal and the sorghum responded well. Stands generally were excellent. Balloons were used for bird control and worked very well. Only the very early maturing hybrids had any significant bird damage. Panicles were large, grain was well developed and yields were good considering the stress in May, June and July. The only effect of the hot, dry weather appeared to be very little tillering and shorter than normal plant height.

Table 9A. LIMITED IRRIGATION GRAIN SORGHUM PERFORMANCE TEST:LUBBOCK, TEXAS, 1990

HYBRID (*)	COMPANY OR BRAND NAME	GRN CLR **	PLANT COLOR ***	MATU-RITY CLASS ****	DAYS TO 50% FLOWER	PLANT HT., IN.	HEAD EXSER-TION INCHES	BIRD DAM-AGE %	TEST WT. lb/bu	MOIS-TURE %	GRAIN PER ACRE lb/A	STAT. SIG., 0.05 *****
SG-942	Garrison Seed Company	Bz	R	ML	71	46	3	0.0	59.7	14.9	6338	A
DEKALB DK-66	DEKALB Plant Genetics	R	P	L	78	48	5	0.0	59.1	14.6	6211	A-B
8379	Pioneer Hi-Bred Int Inc	Bz	P	ML	74	41	4	0.0	57.6	14.9	6103	A-C
A1 x Tx2783	Tx. Agri. Exp. Stat.(DR)	R	R	ML	69	48	6	0.0	60.7	14.2	6071	A-D
AVar x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	79	57	8	0.0	58.7	15.1	6050	A-E
ST 686	AgriPro Seeds	Bz	R	M	69	43	7	0.0	59.8	13.8	5912	A-F
8761Ex	Big Crop Seed Company	R	P	ML	69	45	3	0.3	58.0	13.7	5912	A-F
ATx631 x 86E0361	Tx. Agri. Exp. Stat.(DR)	W	T	ML	71	50	7	0.0	60.5	14.6	5793	A-G
AVG1 x 86E0361	Tx. Agri. Exp. Stat.(DR)	W	T	ML	81	57	6	0.0	60.1	15.1	5777	A-H
Delta Pine G-1711E	DELTA & PINE LAND CO.	Bz	P	ML	70	43	4	0.0	57.4	13.0	5692	A-I
6670	Cargill Hybrid Seeds	Bz	P	ML	69	42	4	0.0	55.9	14.3	5688	A-I
ST D701G	AgriPro Seeds	Bz	T	ML	69	44	4	0.0	57.6	14.0	5677	A-I
GSC 3150	GroAgri Seed Company	R	P	M	68	42	3	0.0	56.2	13.6	5656	A-J
F-524	FRONTIER HYBRIDS, INC.	Bz	P	ML	67	44	5	0.0	57.1	13.9	5652	A-J
KS 786	The New Northrup King	R	*	L	71	44	4	0.0	57.3	14.1	5650	A-J
ATx2752 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	67	44	5	0.0	57.6	13.4	5648	A-J
ORO G Xtra	ORO Hybrids	Bz	P	ML	68	45	4	0.0	56.6	13.3	5627	A-J
5319	Garst Seed Company	Bz	P	ML	68	42	4	0.0	57.5	13.4	5619	A-J
AVar x 80C2241	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	82	54	7	0.0	59.4	14.4	5619	A-J
T-E Wahoo	TAYLOR EVANS SEED CO.	Wh	P	L	74	47	6	0.0	60.1	13.8	5600	A-K
T-E Y-75	TAYLOR EVANS SEED CO.	R	R	M	69	42	4	0.7	58.4	13.4	5593	A-K
Delta Pine G-1616	DELTA & PINE LAND CO.	Bz	P	ML	72	44	5	0.0	55.5	14.0	5582	A-K
2665	The New Northrup King	R	P	ML	67	41	3	0.0	56.4	13.1	5545	A-K
8278	Pioneer Hi-Bred Int Inc	Bz	P	ML	68	42	4	0.3	58.5	13.6	5521	A-L
XP5049(x)	ASGROW SEED COMPANY	W	P	M	80	44	6	0.0	59.0	14.5	5486	A-M
XP4039(x)	ASGROW SEED COMPANY	R	R	M	67	42	5	0.0	59.9	13.7	5483	A-M
GSC 1313	GroAgri Seed Company	R	R	M	70	42	5	1.0	59.9	14.1	5474	A-M
Ultima	Big Crop Seed Company	R	R	M	70	41	5	0.0	58.4	14.1	5429	B-N
HSC Exp 89-4	HyPerformer Seed Company	Bz	R	ML	74	44	4	0.0	59.8	14.4	5428	B-N
ATx631 x 80C2241	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	68	47	8	0.0	59.7	14.3	5415	B-N
X15277	Cargill Hybrid Seeds	Bz	P	ML	68	44	7	0.0	57.5	13.7	5406	B-N
847	Cargill Hybrid Seeds	Bz	R	ML	71	44	6	0.0	60.3	14.3	5368	B-O
DEKALB DK-56	DEKALB Plant Genetics	R	R	ML	74	48	6	0.0	57.8	14.6	5359	B-O
CHECK 2	Tx. Agri. Exp. Stat.	W	*	ML	74	42	6	0.0	57.5	13.1	5346	B-O
Blanco Grande	Big Crop Seed Company	W	P	M	75	45	7	0.0	55.3	13.6	5330	B-O
Towhead	Conlee Seed Co., Inc.	W	P	ML	74	43	7	0.0	55.9	14.5	5326	B-P
GSA 1310A	GroAgri Seed Company	Bz	P	M	71	40	6	0.0	55.1	14.5	5316	B-Q
Jacques 606E	Jacques Seed Company	Bz	P	ML	67	41	4	0.0	57.3	13.3	5255	C-Q
ATx631 x 87E0366	Tx. Agri. Exp. Stat.(DR)	W	T	ML	71	50	6	0.0	57.9	12.8	5250	C-Q

Table 9A. LIMITED IRRIGATION GRAIN SORGHUM PERFORMANCE TEST:LUBBOCK, TEXAS, 1990

HYBRID (*)	COMPANY OR BRAND NAME	GRN CLR **	PLANT COLOR ***	MATU-RITY CLASS ****	DAYS TO 50% FLOWER	PLANT HT., IN.	HEAD EXSER-TION INCHES	BIRD DAM-AGE %	TEST WT. lb/bu	MOIS-TURE %	GRAIN PER ACRE lb/A	STAT. SIG., 0.05 *****
SG-822	Garrison Seed Company	Ct	P	ML	75	42	6	0.0	56.3	13.3	5249	C-Q
CHECK 1	Tx. Agri. Exp. Stat.	W	P	M	67	40	7	0.7	56.8	13.1	5247	C-Q
HSC Cherokee	HyPerformer Seed Company	R	R	M	68	42	5	0.0	58.9	13.3	5236	C-Q
ATx378 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	69	46	7	0.7	54.7	13.6	5233	C-Q
T-E 77-E	TAYLOR EVANS SEED CO.	R	P	ML	69	42	4	0.7	56.3	13.2	5232	C-Q
A1 x(Tx2536xR1177)1	Tx. Agri. Exp. Stat.(EC)	W	P	ML	70	47	4	0.0	56.7	13.7	5195	C-Q
SG-932	Garrison Seed Company	Bz	P	ML	69	43	4	0.0	57.0	14.6	5188	D-Q
ATx631 x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	67	45	8	1.7	60.0	14.0	5168	D-R
ATx399 x Tx2536	Tx. Agri. Exp. Stat.(DR)	R	P	ML	64	38	4	1.7	54.2	12.2	5154	E-R
A1 x 87E0366	Tx. Agri. Exp. Stat.(DR)	W	P	ML	70	47	7	0.0	58.3	12.8	5153	E-R
AP 9830	AgriPro Seeds	Ct	T	ML	69	44	7	0.0	55.3	13.0	5130	F-R
ATx631 x R8511	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	69	46	8	0.0	59.9	14.3	5125	F-R
GS 712	ASGROW SEED COMPANY	Bz	P	ML	72	43	4	0.3	56.7	13.8	5124	F-R
SG-922	Garrison Seed Company	Bz	P	ML	68	40	6	0.0	54.8	14.1	5119	F-R
Rustler	Conlee Seed Co., Inc.	R	P	M	67	42	4	0.0	56.0	14.0	5115	F-R
ORO Baron	ORO Hybrids	Rt	R	ML	68	42	6	0.0	59.7	14.6	5097	F-R
8313	Pioneer Hi-Bred Int Inc	Bz	P	ML	70	41	4	0.0	59.3	14.4	5095	F-R
A4R x Tx430	Tx. Agri. Exp. Stat.(DR)	R	P	ML	67	41	8	1.7	57.0	14.3	5039	F-R
AVar x R8504	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	82	52	6	0.0	59.1	14.6	5031	F-R
AOK11 x R8505	Tx. Agri. Exp. Stat.(DR)	W	P	ML	67	44	9	0.0	59.5	13.9	5025	F-R
HSC Wings	HyPerformer Seed Company	Bz	P	ML	67	42	4	0.0	55.7	14.7	5024	F-R
NC+ 472	NC+ Hybrids	Bz	*	M	66	38	4	0.0	54.3	14.3	5018	F-R
A8618 x RTx435	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	82	47	7	0.0	53.8	14.7	5014	F-R
T-E 76	TAYLOR EVANS SEED CO.	R	P	M	64	38	3	0.0	55.0	12.7	5003	F-R
A1 x Tx430	Tx. Agri. Exp. Stat.(DR)	W	R	ML	65	46	6	1.7	56.8	13.5	4979	G-R
ATx399 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	67	40	5	0.0	54.5	13.0	4956	G-R
ATx631 x R8504	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	66	46	8	0.0	58.3	13.5	4953	G-R
A1 x R8505	Tx. Agri. Exp. Stat.(DR)	W	R	ML	67	44	6	0.3	59.8	14.0	4943	G-R
ORO Amigo	ORO Hybrids	Bz	P	ML	68	39	4	0.0	57.2	14.2	4934	G-R
AOK11 x Tx2817	Tx. Agri. Exp. Stat.(DR)	W	P	ML	71	43	7	0.0	59.1	13.8	4918	G-R
A.Arg34 x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	74	46	9	0.0	57.8	13.4	4877	H-R
A35 x Tx430	Tx. Agri. Exp. Stat.(DR)	R	P	ML	66	44	7	1.0	58.1	14.9	4874	H-R
A1 x Tx2737	Tx. Agri. Exp. Stat.(DR)	W	P	ML	68	43	5	1.7	57.8	14.3	4864	H-R
TOPAZ	ASGROW SEED COMPANY	Bz	R	M	68	40	5	0.0	58.6	13.6	4861	H-R
ATx399 x Tx2737	Tx. Agri. Exp. Stat.(DR)	R	P	ML	70	38	6	0.0	54.7	14.5	4811	I-R
KS 737	The New Northrup King	R	P	ML	72	42	6	0.0	55.4	14.3	4777	I-R
AVG1 x 87E0366	Tx. Agri. Exp. Stat.(DR)	W	T	ML	80	58	7	0.0	57.3	14.4	4757	J-R
ATx630 x R3338wx	Tx. Agri. Exp. Stat.(DR)	W	P	ML	69	51	7	0.7	57.5	13.5	4744	J-R

Table 9A. LIMITED IRRIGATION GRAIN SORGHUM PERFORMANCE TEST:LUBBOCK, TEXAS, 1990

HYBRID (*)	COMPANY OR BRAND NAME	GRN CLR **	PLANT COLOR ***	MATU-RITY CLASS ****	DAYS TO 50% FLOWER	PLANT HT., IN.	HEAD EXSER-TION INCHES	BIRD DAM-AGE %	TEST WT. lb/bu	MOIS-TURE %	GRAIN PER ACRE lb/A	STAT. SIG., 0.05 *****
F-457D	FRONTIER HYBRIDS, INC.	Bz	T	M	64	40	5	2.3	54.5	13.7	4701	K-S
OSAGE	ASGROW SEED COMPANY	R	R	M	72	42	6	0.7	58.8	13.4	4614	L-S
ATx626 x R8503	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	65	43	8	7.0	58.1	13.5	4588	M-S
F-300G	FRONTIER HYBRIDS, INC.	Bz	T	M	65	39	5	7.3	52.9	12.7	4522	N-S
A807 x Tx430	Tx. Agri. Exp. Stat.(DR)	R	P	ML	61	41	5	6.0	58.0	14.5	4489	O-S
A8201-2 x R6078	Tx. Agri. Exp. Stat.(DR)	R	R	ML	68	46	7	0.0	58.8	13.7	4469	O-S
A8618 x RTx430	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	72	44	6	0.0	53.6	14.1	4414	P-S
A8618 x RTx434	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	76	48	10	0.0	53.3	13.3	4405	Q-S
A8618 x R8618	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	78	44	8	0.0	53.9	13.4	4259	R-S
630	Cargill Hybrid Seeds	Bz	P	ME	60	32	3	11.7	59.8	14.6	3860	S

TEST MEAN= 5227 TEST C.V.= 8.5 LSD .05= 712.6

Note: 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.

*** 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	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
SG-942	Garrison Seed Company	1	6338	9	6106	–	–
DEKALB DK-66	DEKALB Plant Genetics	2	6211	–	–	–	–
8379	Pioneer Hi-Bred International, Inc.	3	6103	25	5615	–	–
A1 x Tx2783	Tx. Agri. Exp. Stat. (DR)	4	6071	–	–	–	–
AVar x R8505	Tx. Agri. Exp. Stat. (FM)	5	6050	–	–	–	–
ST 686	AgriPro Seeds	6	5912	4	6375	–	–
8761Ex	Big Crop Seed Company	7	5912	–	–	–	–
ATx631 x 86EO361	Tx. Agri. Exp. Stat. (DR)	8	5793	–	–	–	–
AVG1 x 86EO361	Tx. Agri. Exp. Stat. (DR)	9	5777	–	–	–	–
Delta Pine G-1711E	DELTA & PINE LAND COMPANY	10	5692	–	–	–	–
6670	Cargill Hybrid Seeds	11	5688	55	5174	46	6634
ST D701G	AgriPro Seeds	12	5677	6	6256	84	6022
GSC 3150	GroAgri Seed Company	13	5656	–	–	–	–
F-524	FRONTIER HYBRIDS, INC.	14	5652	48	5263	–	–
KS 786	The New Northrup King	15	5650	–	–	–	–
ATx2752 x RTx430	Tx. Agri. Exp. Stat. (FM)	16	5648	50	5259	12	7441
ORO G Xtra	ORO Hybrids	17	5627	47	5290	19	7251
5319	Garst Seed Company	18	5619	29	5593	–	–
AVar x 80C2241	Tx. Agri. Exp. Stat. (FM)	19	5619	11	5965	–	–
T-E Wahoo	TAYLOR EVANS SEED COMPANY	20	5600	–	–	–	–
T-E Y-75	TAYLOR EVANS SEED COMPANY	21	5593	16	5833	22	7150
Delta Pine G-1616	DELTA & PINE LAND COMPANY	22	5582	–	–	–	–
2665	The New Northrup King	23	5545	3	6448	14	7333
8278	Pioneer Hi-Bred International, Inc.	24	5521	37	5488	–	–
XP5049(x)	ASGROW SEED COMPANY	25	5486	68	4776	–	–
XP4039(x)	ASGROW SEED COMPANY	26	5483	–	–	–	–
GSC 1313	GroAgri Seed Company	27	5474	21	5714	–	–
Ultima	Big Crop Seed Company	28	5429	–	–	–	–

Table 9B. Lubbock-Limited Irrigation (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
HSC Exp 89-4	HyPerformer Seed Company	29	5428	–	–	–	–
ATx631 x 80C2241	Tx. Agri. Exp. Stat. (FM)	30	5415	49	5263	47	6622
X15277	Cargill Hybrid Seeds	31	5406	57	5152	–	–
847	Cargill Hybrid Seeds	32	5368	66	5002	–	–
DEKALB DK-56	DEKALB Plant Genetics	33	5359	–	–	–	–
NC+ 271	NC+ Hybrids	34	5346	15	5834	31	6937
Blanco Grande	Big Crop Seed Company	35	5330	–	–	–	–
Towhead	Conlee Seed Company	36	5326	20	5734	69	6243
GSA 1310A	GroAgri Seed Company	37	5316	–	–	–	–
Jacques 606E	Jacques Seed Company	38	5255	–	–	–	–
ATx631 x 87EO366	Tx. Agri. Exp. Stat. (DR)	39	5250	–	–	–	–
SG-822	Garrison Seed Company	40	5249	–	–	–	–
DEKALB DK-41Y	DEKALB Plant Genetics	41	5247	73	4647	23	7130
HSC Cherokee	HyPerformer Seed Company	42	5236	–	–	–	–
ATx378 x RTx430	Tx. Agri. Exp. Stat. (FM)	43	5233	53	5216	1	8329
T-E 77-E	TAYLOR EVANS SEED COMPANY	44	5232	–	–	–	–
A1 x (Tx2736 x R1177)-1	Tx. Agri. Exp. Stat. (EC)	45	5195	–	–	–	–
SG-932	Garrison Seed Company	46	5188	18	5821	9	7807
ATx631 x R8505	Tx. Agri. Exp. Stat. (FM)	47	5168	86	3957	10	7740
ATx399 x Tx2536	Tx. Agri. Exp. Stat. (DR)	48	5154	40	5443	16	7308
A1 x 87EO366	Tx. Agri. Exp. Stat. (DR)	49	5153	–	–	–	–
AP 9830	AgriPro Seeds	50	5130	–	–	–	–
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	51	5125	28	5600	58	6457
GS 712	ASGROW SEED COMPANY	52	5124	5	6347	26	7097
SG-922	Garrison Seed Company	53	5119	–	–	5	7986
Rustler	Conlee Seed Company	54	5115	10	6076	39	6714
ORO Baron	ORO Hybrids	55	5097	12	5960	25	7099

Table 9B. Lubbock-Limited Irrigation (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
8313	Pioneer HI-Bred International, Inc.	56	5095	26	5608	–	–
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	57	5039	42	5416	8	7914
AVar x R8504	Tx. Agri. Exp. Stat. (FM)	58	5031	–	–	–	–
AOK11 x R8505	Tx. Agri. Exp. Stat. (DR)	59	5025	–	–	–	–
HSC Wings	HyPerformer Seed Company	60	5024	–	–	–	–
NC+ 472	NC+ Hybrids	61	5018	–	–	–	–
A8618 x RTx435	Tx. Agri. Exp. Stat. (FM)	62	5014	33	5532	–	–
T-E 76	TAYLOR EVANS SEED COMPANY	63	5003	19	5770	–	–
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	64	4979	83	4048	55	6510
ATx399 x RTx430	Tx. Agri. Exp. Stat. (FM)	65	4956	72	4704	28	7000
ATx631 x R8504	Tx. Agri. Exp. Stat. (FM)	66	4953	64	5049	18	7271
A1 x R8505	Tx. Agri. Exp. Stat. (DR)	67	4943	8	6227	6	7920
ORO Amigo	ORO Hybrids	68	4934	–	–	–	–
AOK11 x Tx2817	Tx. Agri. Exp. Stat. (DR)	69	4918	–	–	–	–
A.Arg34 x R8505	Tx. Agri. Exp. Stat. (FM)	70	4877	–	–	–	–
A35 x Tx430	Tx. Agri. Exp. Stat. (DR)	71	4874	74	4623	63	6357
A1 x Tx2737	Tx. Agri. Exp. Stat. (DR)	72	4864	58	5147	–	–
TOPAZ	ASGROW SEED COMPANY	73	4861	27	5603	–	–
ATx399 x Tx2737	Tx. Agri. Exp. Stat. (DR)	74	4811	22	5674	15	7312
KS 737	The New Northrup King	75	4777	24	5621	38	6733
AVG1 x 87EO366	Tx. Agri. Exp. Stat. (DR)	76	4757	–	–	–	–
ATx630 x R3338wx	Tx. Agri. Exp. Stat. (DR)	77	4744	76	4554	93	5656
F-457D	FRONTIER HYBRIDS, INC.	78	4701	–	–	–	–
OSAGE	ASGROW SEED COMPANY	79	4614	85	3993	32	6853
ATx626 x R8503	Tx. Agri. Exp. Stat. (FM)	80	4588	84	4015	56	6484
F-300G	FRONTIER HYBRIDS, INC.	81	4522	–	–	–	–
A807 x Tx430	Tx. Agri. Exp. Stat. (DR)	82	4489	–	–	–	–
A8201-2 x R6078	Tx. Agri. Exp. Stat. (DR)	83	4469	75	4598	53	6538

Table 9B. Lubbock-Limited Irrigation (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
A8618 x RTx430	Tx. Agri. Exp. Stat. (FM)	84	4414	–	–	–	–
A8618 x RTx434	Tx. Agri. Exp. Stat. (FM)	85	4405	–	–	–	–
A8618 x R8618	Tx. Agri. Exp. Stat. (FM)	86	4259	–	–	–	–
630	Cargill Hybrid Seeds	87	3860	–	–	43	6681
S9750	The New Northrup King	–	–	14	5856	4	7996
AVar x RTx435	Tx. Agri. Exp. Stat.	–	–	23	5663	20	7214
DR 1125	Cargill Hybrid Seeds	–	–	31	5569	27	7046
WAC 715DR	AgriPro Seeds	–	–	32	5540	3	8056
ATx631 x RTx435	Tx. Agri. Exp. Stat.	–	–	35	5508	21	7211
8260	Pioneer Hi-Bred International, Inc.	–	–	36	5506	83	6035
ATx2752 x Tx2864	Tx. Agri. Exp. Stat.	–	–	38	5476	90	5807
ATx629 x R8503	Tx. Agri. Exp. Stat.	–	–	51	5244	13	7436
T-E Y-101-G	TAYLOR EVANS SEED COMPANY	–	–	52	5220	81	6076
8452	Pioneer Hi-Bred International, Inc.	–	–	54	5201	49	6608
W-844-E	GEORGE WARNER SEED CO., INC.	–	–	60	5132	77	6151
A1 x TAM428	Tx. Agri. Exp. Stat.	–	–	62	5071	85	6020
W-917-E	GEORGE WARNER SEED CO., INC.	–	–	77	4528	62	6366
A1 x R3224	Tx. Agri. Exp. Stat.	–	–	78	4513	73	6187
A1 x Tx435	Tx. Agri. Exp. Stat.	–	–	88	3540	30	6956
ATx399 x Tx2863	Tx. Agri. Exp. Stat.	–	–	89	3525	66	6322
RS610	Tx. Agri. Exp. Stat.	–	–	91	1827	86	5959
Number of Entries:		87		91		96	
Test Mean Yield:			5227		5202		6671

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

TABLE 10. AGRONOMIC AND TEST INFORMATION: LUBBOCK-DRYLAND

TEST:	1990 Dryland Grain Sorghum Performance Test
LOCATION:	Texas A&M University Agricultural Research and Extension Center, Lubbock, Texas
COOPERATORS:	G.C. Peterson and J.W. Jones
SOIL TYPE:	Amarillo fine sandy loam
ROW WIDTH:	40"
PREVIOUS CROP:	Sorghum
LAND PREPARATION:	shredded sorghum stalks from previous year, disc-bedded on top of old beds, listed rows
DATE PLANTED:	7-2-90; cone planter
DATE THINNED:	
PLOT LENGTH:	17'
FERTILIZER:	Applied 80-80-0 per acre before planting
HERBICIDE:	None
INSECTICIDE:	Applied 6.5 lb/A Counter 15G (terbufos) at planting. Ground application of Lorsban for midge and greenbugs
RAINFALL:	May = 0.82"; June = 0.20"; July = 5.79"; August = 1.48"; September = 1.46"; October=2.08"; November=1.27" Total = 13.1"
IRRIGATIONS:	One post plant, July 6, to establish stand
DATE HARVESTED:	12-5-90
SIZE HARVESTED PLOT:	1/1000 acre
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	82
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	2
MEAN PLANT POP.:	26,000 plants/A

GENERAL INFORMATION: Due to the hot, dry weather in June, this test was not planted until July 2. Plant stands were established with a July 6 post-planting irrigation. Due to environmental conditions, the test was planted at a different test site than normally used for this test. The test received 10.81" of rain during the growing season. Some late maturity hybrids were damaged in the first freeze (October 22). Due to the high incidence of bird damage in Rep III, only the first two reps were used to determine yield and agronomic characteristics. Caution should be used in interpreting the results due to the high C.V. Plant stands and agronomic expression was generally good. There was little lodging in the test.

Table 10A. DRYLAND GRAIN SORGHUM PERFORMANCE TEST:LUBBOCK, TEXAS, 1990

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 %	% STAND	TEST WT. lb/bu	MOIS-TURE %	% THR	GRAIN PER ACRE lb/A	STAT. SIG., 0.05 *****
A1 x (Tx2536 x R1177)2	Tx. Agri. Exp. Stat.(EC)	W	P	ML	68	44	4	10.0	92.5	53.0	10.8	69.2	2751	A
Exp 3159x	GroAgri Seed Company	Bz	P	ME	66	36	2	25.0	95.0	57.4	11.0	69.3	2454	A-B
8452	Pioneer Hi-Bred Int Inc	Bz	P	M	68	36	2	10.0	100.0	56.8	11.3	67.9	2380	A-C
A1 x R8505	Tx. Agri. Exp. Stat.(DR)	W	R	ML	70	44	4	20.0	95.0	51.8	10.6	65.1	2362	A-D
ATx631 x R8504	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	69	43	3	12.5	97.5	55.7	11.3	66.9	2342	A-E
ATx399 x Tx2737	Tx. Agri. Exp. Stat.(DR)	R	P	ML	66	34	1	7.5	100.0	54.5	11.1	65.5	2321	A-F
XSW89	Pioneer Hi-Bred Int Inc	Ct	R	M	67	39	3	22.5	95.0	56.6	11.5	64.3	2310	A-F
SENECA	ASGROW SEED COMPANY	Bz	P	ME	66	37	4	27.5	100.0	58.8	11.2	72.0	2286	A-G
A1 x Tx2794	Tx. Agri. Exp. Stat.(DR)	W	P	ML	69	43	3	5.0	100.0	50.7	10.3	70.1	2268	A-H
A1 x Tx435	Tx. Agri. Exp. Stat.(DR)	W	R	ML	66	47	5	5.0	100.0	53.2	11.0	70.0	2235	A-I
Macho	Big Crop Seed Company	Bz	P	ME	65	38	5	5.0	100.0	52.9	11.1	67.0	2175	A-J
A1 x Tx2737	Tx. Agri. Exp. Stat.(DR)	W	P	ML	68	43	4	17.5	90.0	56.0	11.2	66.9	2169	A-J
618Y	Cargill Hybrid Seeds	Ct	P	ME	70	39	5	10.0	92.5	55.9	11.1	63.6	2136	A-J
KS 710	The New Northrup King	R	*	ML	65	34	2	17.5	97.5	55.4	11.0	68.9	2132	A-J
KS 714Y	The New Northrup King	W	*	ML	66	36	3	12.5	100.0	54.8	11.2	68.2	2113	A-J
847	Cargill Hybrid Seeds	Bz	R	ML	68	41	3	5.0	100.0	50.2	10.5	61.0	2094	A-J
SG-822	Garrison Seed Company	Ct	P	M	66	41	4	2.5	90.0	54.5	10.9	66.7	2067	A-K
A1 x Tx430	Tx. Agri. Exp. Stat.(DR)	W	R	ML	70	45	3	5.0	97.5	50.7	10.6	66.5	2061	A-K
T-E Eden	TAYLOR EVANS SEED CO.	R	P	ME	64	33	3	10.0	100.0	55.7	10.8	66.9	2055	A-K
F-270G	FRONTIER HYBRIDS, INC.	Bz	T	ME	65	38	2	20.0	97.5	57.3	11.3	67.2	2053	A-K
XP5049(x)	ASGROW SEED COMPANY	WH	P	M	68	38	4	10.0	87.5	55.2	11.5	69.8	2028	A-K
A1 x P37-3	Tx. Agri. Exp. Stat.(DR)	W	*	ML	67	44	6	7.5	92.5	50.2	10.3	69.7	2022	A-K
8500	Pioneer Hi-Bred Int Inc	R	P	M	67	38	4	12.5	97.5	57.0	10.7	68.7	2011	A-K
SG-688	Garrison Seed Company	Bz	*	ME	66	41	5	25.0	90.0	55.0	11.1	66.6	2011	A-K
DEKALB DK 41Y	DEKALB Plant Genetics	Y	P	M	68	38	3	32.5	90.0	56.0	11.2	59.0	2000	A-L
A35 x Tx2783	Tx. Agri. Exp. Stat.(DR)	R	P	ML	67	46	3	2.5	90.0	51.4	11.4	65.3	1990	A-L
Jacques 377W	Jacques Seed Company	Ct	P	ME	65	40	4	15.0	92.5	56.3	11.4	63.0	1954	A-L
A1 x 850G4300-5	Tx. Agri. Exp. Stat.(DR)	R	P	ML	68	47	5	25.0	95.0	49.7	10.2	61.8	1934	A-L
607E	Cargill Hybrid Seeds	Bz	P	ME	67	36	3	12.5	97.5	56.0	11.0	66.1	1886	A-L
T-E X150	TAYLOR EVANS SEED CO.	R	P	E	69	36	2	10.0	100.0	53.5	10.6	62.4	1854	A-L
W-632-W	GEORGE WARNER SEED CO.	Ct	R	M	66	38	4	5.0	100.0	54.0	11.0	62.9	1847	A-L
A1 x (Tx2536 x R1177)3	Tx. Agri. Exp. Stat.(EC)	W	P	ML	66	42	2	10.0	100.0	52.2	11.1	66.2	1828	A-M
DEKALB DK-40Y	DEKALB Plant Genetics	Y	P	ME	68	38	2	15.0	100.0	56.3	11.3	61.4	1823	A-M
8573	Pioneer Hi-Bred Int Inc	Bz	P	ME	65	41	5	10.0	100.0	54.8	11.0	66.4	1801	A-M
A35 x Tx430	Tx. Agri. Exp. Stat.(DR)	R	P	ML	67	45	4	12.5	100.0	54.1	11.1	56.6	1787	A-M
DEKALB X-950(x)	DEKALB Plant Genetics	Bz	P	ME	67	38	4	10.0	100.0	54.3	11.0	57.2	1777	A-M
5511	Garst Seed Company	Bz	P	M	68	37	3	25.0	100.0	53.7	10.9	61.8	1758	A-M
GSC 1214	GroAgri Seed Company	Ct	P	ME	67	38	3	5.0	92.5	56.6	11.5	61.2	1750	A-M
Rio Bravo	Western Heritage Seed Co	Bz	*	ML	67	47	2	22.5	85.0	49.9	10.8	60.9	1743	A-M
ATx3042 x Tx2737	Tx. Agri. Exp. Stat.(DR)	R	P	ME	72	43	5	15.0	95.0	55.7	10.8	62.4	1743	A-M

Table 10A. DRYLAND GRAIN SORGHUM PERFORMANCE TEST:LUBBOCK, TEXAS, 1990

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 %	% STAND	TEST WT. lb/bu	MOIS-TURE %	% THR	GRAIN PER ACRE lb/A	STAT. SIG., 0.05 *****
T-E Empire	TAYLOR EVANS SEED CO.	R	P	ME	64	33	4	15.0	95.0	56.2	10.9	66.0	1731	A-M
ATx631 x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	69	44	5	12.5	89.5	53.8	11.8	57.0	1715	A-M
A8618 x RTx430	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	67	41	3	10.0	100.0	53.7	10.7	62.1	1694	A-M
AOK11 x Tx2794	Tx. Agri. Exp. Stat.(DR)	W	P	ML	70	42	3	7.5	95.0	50.4	10.6	62.3	1690	A-M
T-E Y-60	TAYLOR EVANS SEED CO.	Ct	P	ME	69	40	3	17.5	95.0	53.5	11.2	62.2	1643	A-M
T-E X8883	TAYLOR EVANS SEED CO.	R	P	E	66	34	1	7.5	95.0	53.5	10.7	62.6	1641	A-M
ORO Amigo	ORO Hybrids	Bz	P	ML	68	39	2	12.5	97.5	51.9	10.8	59.2	1631	A-M
A1 x R3224sh	Tx. Agri. Exp. Stat.(DR)	R	P	ML	66	42	2	22.5	100.0	49.8	10.0	51.8	1618	A-M
ATx378 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	71	42	2	27.5	100.0	51.4	10.9	60.0	1611	A-M
630	Cargill Hybrid Seeds	Bz	P	ME	68	38	3	15.0	95.0	54.1	10.8	61.3	1548	A-M
XP4039(x)	ASGROW SEED COMPANY	R	R	M	68	41	4	35.0	87.5	48.5	10.3	55.1	1540	B-M
ORO Baron	ORO Hybrids	Rt	R	ML	71	39	2	7.5	100.0	49.0	10.4	54.9	1504	B-M
AVar x R8504	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	69	46	5	10.0	85.0	56.3	11.7	54.3	1496	B-M
ORO G Xtra	ORO Hybrids	Bz	P	ML	66	36	2	30.0	100.0	50.5	10.7	56.5	1493	B-M
A.Arg34 x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	67	41	4	12.5	97.5	53.3	10.8	56.3	1471	B-M
A8618 x RTx435	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	72	41	5	10.0	95.0	50.4	10.5	53.4	1436	B-M
CHECK 1	Tx. Agri. Exp. Stat.	R	*	M	71	40	3	10.0	100.0	53.4	10.7	62.4	1405	B-M
Blanco Grande	Big Crop Seed Company	W	P	M	66	37	3	12.5	92.5	52.8	10.8	58.8	1354	B-M
AVar x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	69	47	4	27.5	95.0	51.6	11.1	54.4	1339	B-M
W-624-Y	GEORGE WARNER SEED CO.	Ct	R	M	67	41	4	22.5	100.0	55.5	11.3	56.7	1335	B-M
Rio Grande	Western Heritage Seed Co	Bz	*	ME	69	39	2	30.0	97.5	50.1	10.7	55.1	1313	B-M
A4R x Tx430	Tx. Agri. Exp. Stat.(DR)	R	P	ML	69	40	3	30.0	97.5	53.4	10.6	52.9	1294	B-M
ATx631 x 80C2241	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	68	45	3	5.0	97.5	49.0	11.5	48.9	1266	B-M
ATx626 x R8503	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	70	41	4	15.0	92.5	51.4	10.8	56.0	1245	B-M
SG-932	Garrison Seed Company	Bz	P	ML	66	42	3	30.0	95.0	51.1	10.8	55.5	1209	C-M
ORO Ivory	ORO Hybrids	Ct	P	M	68	40	5	15.0	92.5	48.7	10.4	53.2	1187	C-M
ATx399 x Tx2536	Tx. Agri. Exp. Stat.(DR)	R	P	ML	70	33	2	20.0	100.0	50.7	10.5	51.4	1178	C-M
AVar x 80C2241	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	66	44	5	0.0	100.0	48.8	11.3	51.5	1161	D-M
F-300G	FRONTIER HYBRIDS, INC.	Bz	T	M	67	36	3	17.5	95.0	45.1	9.9	52.3	1149	E-M
ATx631 x R8511	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	70	44	4	30.0	95.0	49.7	11.8	44.4	1141	E-M
575	Cargill Hybrid Seeds	Ct	P	M	70	40	3	15.0	100.0	51.8	10.8	51.7	1118	F-M
A1 x R8503	Tx. Agri. Exp. Stat.(DR)	R	P	ML	71	42	4	17.5	97.5	53.3	11.0	55.6	1089	G-M
A8618 x RTx434	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	70	41	6	10.0	100.0	45.5	9.7	50.3	1085	G-M
A1 x (Tx2536 x R1177)1	Tx. Agri. Exp. Stat.(EC)	W	P	ML	68	41	2	22.5	97.5	48.9	9.8	53.0	1080	G-M
Delta Pine G-1492	DELTA & PINE LAND CO.	Bz	P	ME	65	34	1	13.5	97.5	54.1	10.6	57.2	1069	H-M
ATx2752 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	71	39	2	30.0	100.0	44.7	9.8	51.0	1067	H-M
Ultima	Big Crop Seed Company	R	R	M	69	38	2	15.0	95.0	48.9	10.3	50.4	1056	I-M
GSA 1180	GroAgri Seed Company	Bz	P	E	70	35	4	17.5	100.0	48.2	10.2	56.8	1004	J-M
A35 x R8505	Tx. Agri. Exp. Stat.(DR)	R	P	ML	66	43	5	55.0	100.0	50.8	11.4	42.8	993	J-M

Table 10A. DRYLAND GRAIN SORGHUM PERFORMANCE TEST:LUBBOCK, TEXAS, 1990

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 %	% STAND	TEST WT. lb/bu	MOIS-TURE %	% THR	GRAIN PER ACRE lb/A	STAT. SIG., 0.05 *****
A1 x Tx2783	Tx. Agri. Exp. Stat.(DR)	R	R	ML	67	47	2	15.0	90.0	49.5	10.3	51.2	880	K-M
ATx399 x RTx430	Tx. Agri. Exp. Stat.(FM)	Bz	P	ML	67	37	1	37.5	100.0	45.2	9.8	46.4	799	L-M
A8618 x R8618	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	66	38	4	7.5	97.5	46.6	9.9	41.9	625	M

TEST MEAN= 1673 TEST C.V.=28.7 LSD .05=956.0

Note: 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-46 was entered as a check hybrid at our discretion. It is 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 10B. Three-year summary, Dryland Grain Sorghum Performance Test, Lubbock, Texas.

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
A1 x (Tx2536 x R1177)-2	Tx. Agri. Exp. Stat. (EC)	1	2751	–	–	–	–
Exp 3159x	GroAgri Seed Company	2	2454	–	–	–	–
8452	Pioneer Hi-Bred International, Inc.	3	2380	7	3055	1	3129
A1 x R8505	Tx. Agri. Exp. Stat. (DR)	4	2362	–	–	–	–
ATx631 x R8504	Tx. Agri. Exp. Stat. (FM)	5	2342	39	2492	–	–
ATx399 x Tx2737	Tx. Agri. Exp. Stat. (DR)	6	2321	28	2668	12	2881
XSW89	Pioneer Hi-Bred International, Inc.	7	2310	–	–	–	–
SENECA	ASGROW SEED COMPANY	8	2286	50	2266	–	–
A1 x Tx2794	Tx. Agri. Exp. Stat. (DR)	9	2268	18	2785	–	–
A1 x Tx435	Tx. Agri. Exp. Stat. (DR)	10	2235	63	2101	26	2698
Macho	Big Crop Seed Company	11	2175	–	–	–	–
A1 x Tx2737	Tx. Agri. Exp. Stat. (DR)	12	2169	43	2400	–	–
618Y	Cargill Hybrid Seeds	13	2136	–	–	–	–
KS 710	The New Northrup King	14	2132	–	–	–	–
KS 714Y	The New Northrup King	15	2113	–	–	–	–
847	Cargill Hybrid Seeds	16	2094	14	2869	–	–
SG-822	Garrison Seed Company	17	2067	34	2531	–	–
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	18	2061	33	2542	2	3085
T-E Eden	TAYLOR EVANS SEED COMPANY	19	2055	–	–	–	–
F-270G	FRONTIER HYBRIDS, INC.	20	2053	30	2602	–	–
XP5049(x)	ASGROW SEED COMPANY	21	2028	57	2167	–	–
A1 x P37-3	Tx. Agri. Exp. Stat. (DR)	22	2022	–	–	–	–
8500	Pioneer Hi-Bred International, Inc.	23	2011	8	3049	–	–
SG-688	Garrison Seed Company	24	2011	59	2145	56	2401
DEKALB DK-41Y	DEKALB Plant Genetics	25	2000	11	2988	7	2918
A35 x Tx2783	Tx. Agri. Exp. Stat. (DR)	26	1990	–	–	–	–
Jacques 377W	Jacques Seed Company	27	1954	–	–	–	–
A1 x 850G4300-5	Tx. Agri. Exp. Stat. (DR)	28	1934	–	–	–	–

Table 10B. Lubbock-Dryland (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
607E	Cargill Hybrid Seeds	29	1886	–	–	–	–
T-E X150	TAYLOR EVANS SEED COMPANY	30	1854	71	1961	–	–
W-632-W	GEORGE WARNER SEED CO., INC.	31	1847	45	2378	8	2912
A1 x (Tx2536 x R1177)-3	Tx. Agri. Exp. Stat. (EC)	32	1828	–	–	–	–
DEKALB DK-40Y	DEKALB Plant Genetics	33	1823	27	2673	–	–
8573	Pioneer Hi-Bred International, Inc.	34	1801	17	2838	–	–
A35 x Tx430	Tx. Agri. Exp. Stat. (DR)	35	1787	13	2952	21	2771
DEKALB X-950(x)	DEKALB Plant Genetics	36	1777	–	–	–	–
5511	Garst Seed Company	37	1758	3	3444	9	2908
GSC 1214	GroAgri Seed Company	38	1750	–	–	–	–
Rio Bravo	Western Heritage Seed Company	39	1743	20	2733	–	–
ATx3042 x Tx2737	Tx. Agri. Exp. Stat. (DR)	40	1743	52	2244	61	2354
T-E Empire	TAYLOR EVANS SEED COMPANY	41	1731	–	–	–	–
ATx631 x R8505	Tx. Agri. Exp. Stat. (FM)	42	1715	6	3228	79	2114
A8618 x RTx430	Tx. Agri. Exp. Stat. (FM)	43	1694	–	–	–	–
AOK11 x Tx2794	Tx. Agri. Exp. Stat. (DR)	44	1690	–	–	–	–
T-E Y-60	TAYLOR EVANS SEED COMPANY	45	1643	4	3261	5	2931
T-E X8883	TAYLOR EVANS SEED COMPANY	46	1641	–	–	–	–
ORO Amigo	ORO Hybrids	47	1631	–	–	–	–
A1 x R3224sh	Tx. Agri. Exp. Stat. (DR)	48	1618	44	2400	42	2581
ATx378 x RTx430	Tx. Agri. Exp. Stat. (FM)	49	1611	9	3038	–	–
630	Cargill Hybrid Seeds	50	1548	–	–	82	2038
XP4039(x)	ASGROW SEED COMPANY	51	1540	58	2161	–	–
ORO Baron	ORO Hybrids	52	1504	49	2294	34	2651
AVar x R8504	Tx. Agri. Exp. Stat. (FM)	53	1496	–	–	–	–
ORO G Xtra	ORO Hybrids	54	1493	76	1720	19	2792
A.Arg34 x R8505	Tx. Agri. Exp. Stat. (FM)	55	1471	–	–	–	–

Table 10B. Lubbock-Dryland (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
A8618 x RTx435	Tx. Agri. Exp. Stat. (FM)	56	1436	82	1571	–	–
DEKALB DK-46	DEKALB Plant Genetics	57	1405	23	2723	60	2369
Blanco Grande	Big Crop Seed Company	58	1354	–	–	–	–
AVar x R8505	Tx. Agri. Exp. Stat. (FM)	59	1339	–	–	–	–
W-624-Y	GEORGE WARNER SEED CO., INC.	60	1335	–	–	–	–
Rio Grande	Western Heritage Seed Company	61	1313	67	2004	–	–
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	62	1294	–	–	–	–
ATx631 x 80C2241	Tx. Agri. Exp. Stat. (FM)	63	1266	48	2327	27	2695
ATx626 x R8503	Tx. Agri. Exp. Stat. (FM)	64	1245	37	2494	48	2517
SG-932	Garrison Seed Company	65	1209	–	–	–	–
ORO Ivory	ORO Hybrids	66	1187	–	–	–	–
ATx399 x Tx2536	Tx. Agri. Exp. Stat. (DR)	67	1178	2	3794	58	2385
AVar x 80C2241	Tx. Agri. Exp. Stat. (FM)	68	1161	41	2438	–	–
F-300G	FRONTIER HYBRIDS, INC.	69	1149	–	–	–	–
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	70	1141	19	2749	–	–
575	Cargill Hybrid Seeds	71	1180	–	–	–	–
A1 x R8503	Tx. Agri. Exp. Stat. (DR)	72	1089	51	2260	–	–
A8618 x RTx434	Tx. Agri. Exp. Stat. (FM)	73	1085	–	–	–	–
A1 x (Tx2536 x R1177)-1	Tx. Agri. Exp. Stat. (EC)	74	1080	–	–	–	–
Delta Pine G-1492	DELTA & PINE LAND COMPANY	75	1069	–	–	–	–
ATx2752 x RTx430	Tx. Agri. Exp. Stat. (FM)	76	1067	5	3244	31	2675
Ultima	Big Crop Seed Company	77	1056	–	–	–	–
GSA 1180	GroAgri Seed Company	78	1004	–	–	–	–
A35 x R8505	Tx. Agri. Exp. Stat. (DR)	79	993	–	–	–	–
A1 x Tx2783	Tx. Agri. Exp. Stat. (DR)	80	880	–	–	–	–
ATx399 x RTx430	Tx. Agri. Exp. Stat. (FM)	81	799	26	2686	–	–
A8618 x R8618	Tx. Agri. Exp. Stat. (FM)	82	625	–	–	–	–
ST D701G	AgriPro Seeds	–	–	1	3801	51	2492

Table 10B. Lubbock-Dryland (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
A1 x R8507	Tx. Agri. Exp. Stat.	–	–	15	2866	83	2019
ATx629 x R8503	Tx. Agri. Exp. Stat.	–	–	25	2695	69	2275
W-844-E	GEORGE WARNER SEED CO., INC.	–	–	31	2598	33	2664
ST 3308	AgriPro Seeds	–	–	32	2576	3	3014
2030	The New Northrup King	–	–	35	2527	70	2250
T-E 35	TAYLOR EVANS SEED COMPANY	–	–	36	2494	22	2768
DR 1125	Cargill Hybrid Seeds	–	–	38	2492	14	2865
ST 686	AgriPro Seeds	–	–	40	2481	20	2785
X62380	AgriPro Seeds	–	–	46	2359	13	2867
T-E 42	TAYLOR EVANS SEED COMPANY	–	–	47	2333	63	2346
2656	The New Northrup King	–	–	53	2214	15	2831
A1 x Tx7078	Tx. Agri. Exp. Stat.	–	–	54	2186	44	2572
5517	Garst Seed Company	–	–	55	2181	81	2086
ATx2755 x Tx2873	Tx. Agri. Exp. Stat.	–	–	65	2077	28	2695
ATx2801 x Tx2873	Tx. Agri. Exp. Stat.	–	–	68	2000	85	1791
ATx630 x R3338wx	Tx. Agri. Exp. Stat.	–	–	69	1993	59	2374
A35 x Tx435	Tx. Agri. Exp. Stat.	–	–	75	1815	65	2332
ATx631 x RTx435	Tx. Agri. Exp. Stat.	–	–	78	1675	16	2824
40	Cargill Hybrid Seeds	–	–	81	1575	35	2642
Number of Entries:		82		86		86	
Test Mean Yield:			1673		2401		2530

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

TABLE 11. AGRONOMIC AND TEST INFORMATION: DUMAS

TEST:	1990 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:	Wheat in fall of 1988 and baled in 1989
LAND PREPARATION:	disked, sweep, chiseled, and bedded
DATE PLANTED:	5-23-90, by hand
DATE THINNED:	6-19-90; thinned to approximately 90,000 plants/acre
PLOT LENGTH:	30'
FERTILIZER:	Applied 250 lb/A anhydrous ammonia
HERBICIDE:	Applied 2.0 lb/A of AAtrex 90 (atrazine)
INSECTICIDE:	None
RAINFALL:	Estimated to be between 2-3" during growing season
IRRIGATIONS:	Pre-plant and 3 irrigations of approximately 4"/irrigation
DATE HARVESTED:	10-17-90, by hand
SIZE HARVESTED PLOT:	1/1,000 acre
TEST DESIGN:	Randomized block
NUMBER ENTRIES:	80
NUMBER REPLICATIONS:	3
NUMBER ROWS/PLOT:	3
TEST MEAN:	7,490 lb/A; yields corrected to 13% moisture
TEST C. V.:	8.6 percent

GENERAL INFORMATION: This test is located in a major grain sorghum production area in Texas and is representative of conditions of the Northern High Plains. According to preliminary figures, the Northern High Plains will account for 21.8% of Texas' grain sorghum acreage in 1990.

Above average yields were achieved despite record high temperatures during the growing season. An optimum planting date was achieved and seedling emergence was rapid. Outstanding plant stands were attained after thinning but extended periods of record high temperatures in June warranted several irrigations to be applied to reduce early plant stress. Timely rainfall in July and August was beneficial for continuous plant growth and development.

The test mean yield was 7,490 lb/A compared to the past 2-year average of 7,371 lb/A with fifteen hybrids producing over 8,000 lb/A. The incidence of smut and lodging was very low. Bird damage was minimal in the test.

Table 11A. GRAIN SORGHUM PERFORMANCE TEST: DUMAS, TEXAS, 1990

HYBRID (*)	COMPANY OR BRAND NAME	GRN CLR **	PLANT COLOR ***	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	78	62	8	100.0	59.8	14.5	73.0	8798	A
ATx399 x Tx2536	Tx. Agri. Exp. Stat.(DR)	R	P	ML	69	47	7	100.0	55.8	13.2	69.0	8487	A-B
T-E Wahoo	TAYLOR EVANS SEED CO.	Wh	P	L	76	55	8	100.0	60.7	14.3	74.2	8420	A-C
GSC 3605	GroAgri Seed Company	W	R	ML	75	55	8	100.0	60.6	14.2	70.2	8238	A-D
SG-932	Garrison Seed Company	Bz	P	ML	70	51	8	100.0	60.0	13.0	72.5	8236	A-D
9200Y	RICHARDSON SEEDS, INC.	Ct	T	ML	74	51	9	100.0	60.1	13.3	69.7	8216	A-E
A1 x Tx2783	Tx. Agri. Exp. Stat.(DR)	R	R	ML	73	61	5	100.0	61.5	13.9	73.2	8155	A-F
Delta Pine G-1711E	DELTA & PINE LAND CO.	Bz	P	ML	71	52	8	100.0	59.5	13.2	72.2	8119	A-F
ATx631 x R8511	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	73	58	10	100.0	60.0	14.4	67.3	8088	A-F
Ultima	Big Crop Seed Company	R	R	M	70	52	6	100.0	60.2	13.0	75.5	8086	A-F
A4R x Tx430	Tx. Agri. Exp. Stat.(DR)	R	P	ML	69	52	13	100.0	59.0	13.0	74.9	8081	A-F
KS 786	The New Northrup King	R	*	L	72	50	7	100.0	58.1	14.6	68.7	8067	A-F
CHECK 2	Tx. Agri. Exp. Stat.	R	R	ML	72	55	5	100.0	60.8	14.6	76.7	8037	A-F
W-917-E	GEORGE WARNER SEED CO.	R	R	L	73	53	7	100.0	60.7	13.9	77.9	8026	A-F
AVar x BOC2241	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	81	69	10	100.0	59.2	15.8	71.4	8022	A-F
ATx631 x BSEO361	Tx. Agri. Exp. Stat.(DR)	W	T	ML	75	59	9	100.0	60.5	14.8	67.5	7991	A-F
AVar x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	80	62	10	100.0	59.7	14.3	70.8	7980	A-F
CHECK 3	Tx. Agri. Exp. Stat.		*		73	52	8	100.0	60.0	14.0	71.9	7976	A-F
8379	Pioneer Hi-Bred Int Inc	Bz	P	ML	76	49	9	100.0	60.3	14.1	70.2	7954	A-F
SG-942	Garrison Seed Company	Bz	R	ML	73	53	5	95.0	60.6	15.1	76.5	7942	A-F
ORO G Xtra	ORO Hybrids	Bz	P	ML	70	49	6	100.0	59.9	13.1	70.4	7927	A-F
CHECK 1	Tx. Agri. Exp. Stat.	Bz	R	M	71	54	11	100.0	59.8	12.9	75.9	7916	A-F
8278	Pioneer Hi-Bred Int Inc	Bz	P	ML	71	52	9	100.0	60.9	12.9	74.9	7820	A-G
ST D701G	AgriPro Seeds	Bz	T	ML	71	48	6	95.0	59.0	13.2	72.0	7803	A-G
OSAGE	ASGROW SEED COMPANY	R	R	M	73	53	8	100.0	60.5	13.2	76.4	7723	A-H
Delta Pine G-1616	DELTA & PINE LAND CO.	Bz	P	ML	74	55	8	100.0	58.1	13.2	69.4	7718	A-H
ORO Amigo	ORO Hybrids	Bz	P	ML	70	50	8	100.0	59.7	12.8	71.5	7715	A-H
GSC 3150	GroAgri Seed Company	Bz	P	ML	70	48	8	100.0	59.8	13.2	71.1	7712	A-H
Towhead	Conlee Seed Company, Inc	W	P	ML	76	50	9	100.0	59.3	13.5	69.9	7665	A-I
W-844-E	GEORGE WARNER SEED CO.	R	R	ML	70	51	9	100.0	60.0	12.8	75.8	7637	A-I
SG-822	Garrison Seed Company	Ct	P	M	76	53	10	100.0	59.8	13.9	72.6	7618	A-J
DEKALB DK-56	DEKALB Plant Genetics	R	R	ML	74	58	9	100.0	59.4	13.8	69.8	7589	A-J
A8618 x RTx430	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	73	50	8	100.0	57.4	12.3	70.9	7588	A-J
CHECK 4	Tx. Agri. Exp. Stat.		*		74	55	10	100.0	59.1	13.7	67.3	7572	A-J
ATx378 x RTx430	Tx. Agri. Exp. Stat.(FM)	R	P	ML	69	57	11	100.0	59.1	13.0	72.7	7545	A-J
847	Cargill Hybrid Seeds	Bz	R	ML	72	52	9	100.0	60.5	13.4	75.9	7532	A-J
ORO Baron	ORO Hybrids	Rt	R	ML	71	51	9	100.0	60.1	13.1	76.1	7506	A-J
Jacques 606E	Jacques Seed Company	Bz	P	ML	70	52	9	100.0	59.9	13.1	74.0	7478	B-J
8761 Ex	Big Crop Seed Company	R	P	ML	73	55	7	100.0	60.0	14.1	71.0	7477	B-J
T-E 77-E	TAYLOR EVANS SEED CO.	R	P	ML	70	51	8	100.0	60.0	13.0	73.7	7470	B-J

Table 11A. GRAIN SORGHUM PERFORMANCE TEST: DUMAS, TEXAS, 1990

HYBRID (*)	COMPANY OR BRAND NAME	GRN CLR **	PLANT COLOR ***	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 *****
ATx2752 x RTx430	Tx. Agri. Exp. Stat.(FM)	R	P	ML	71	51	5	100.0	59.2	14.0	69.2	7458	B-J
GSC 1313	GroAgri Seed Company	R	R	ML	70	49	8	100.0	59.6	13.1	76.5	7451	B-J
NC+ 371	NC+ Hybrids	Wt	*	M	76	49	7	100.0	59.3	13.3	70.7	7396	B-J
XP5049(x)	ASGROW SEED COMPANY	WH	P	M	78	52	8	100.0	60.3	14.0	72.0	7381	B-J
GS 712	ASGROW SEED COMPANY	Bz	P	ML	75	51	8	100.0	58.1	13.6	70.3	7368	B-J
Blanco Grande	Big Crop Seed Company	W	P	M	74	49	9	100.0	59.1	13.4	70.0	7359	B-J
8313	Pioneer Hi-Bred Int Inc	Bz	P	ML	72	47	7	100.0	60.3	13.5	72.0	7347	B-J
5319	Garst Seed Company	Bz	P	ML	73	50	7	100.0	59.5	13.8	67.7	7329	B-J
Rustler	Conlee Seed Company, Inc	R	P	M	71	50	5	100.0	58.8	13.4	71.4	7328	B-J
2665	The New Northrup King	R	P	ML	71	46	7	100.0	58.9	13.2	72.0	7322	B-J
GSC 3148	GroAgri Seed Company	R	P	ML	71	46	7	100.0	54.8	12.6	70.2	7321	B-J
T-E 76	TAYLOR EVANS SEED CO.	R	P	M	69	48	8	100.0	56.3	12.6	70.8	7314	B-J
ADK11 x R8505	Tx. Agri. Exp. Stat.(DR)	W	P	ML	74	54	13	100.0	59.7	12.9	73.3	7255	B-J
AP 9830	AgriPro Seeds	Ct	T	ML	72	51	9	95.0	57.6	12.9	71.0	7252	B-J
ATx631 x 80C2241	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	74	61	9	100.0	59.2	14.9	65.3	7189	B-J
X15277	Cargill Hybrid Seeds	Bz	P	ML	70	52	8	100.0	58.6	12.8	71.0	7177	B-J
T-E Y-75	TAYLOR EVANS SEED CO.	R	R	M	73	52	9	100.0	59.6	14.1	73.5	7170	B-J
ATx399 x Tx2737	Tx. Agri. Exp. Stat.(DR)	R	P	ML	73	46	9	135.0	58.2	13.6	68.2	7167	B-J
ST 686	AgriPro Seeds	Bz	R	M	72	54	9	100.0	60.3	13.2	76.2	7146	C-J
TOPAZ	ASGROW SEED COMPANY	Bz	R	M	71	53	11	100.0	60.7	13.4	70.7	7145	C-J
W-632-W	GEORGE WARNER SEED CO.	Ct	R	M	75	49	8	100.0	58.9	13.5	70.2	7139	C-J
ATx399 x RTx430	Tx. Agri. Exp. Stat.(FM)	R	P	ML	69	49	8	100.0	56.1	12.6	66.8	7121	C-J
F-524	FRONTIER HYBRIDS, INC.	Bz	P	L	73	51	8	100.0	59.3	14.0	67.8	7078	D-J
Maxima	Big Crop Seed Company	Bz	P	ML	70	51	7	100.0	58.9	13.4	67.1	7073	D-J
A1 x Tx430	Tx. Agri. Exp. Stat.(DR)	W	R	ML	68	54	10	100.0	58.6	12.8	66.0	7071	D-J
ATx631 x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	71	56	10	100.0	59.9	13.7	64.9	7034	D-J
Jacques 477W	Jacques Seed Company	Ct	P	ML	76	50	9	100.0	58.8	13.5	69.5	7022	D-J
ATx631 x R8504	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	69	57	11	95.0	59.8	13.4	62.6	7007	D-J
F-300G	FRONTIER HYBRIDS, INC.	Bz	T	M	69	47	8	100.0	54.3	12.5	67.0	6999	D-J
A8618 x R8618	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	76	52	11	100.0	56.2	12.9	66.4	6988	D-J
A1 x R8505	Tx. Agri. Exp. Stat.(DR)	W	R	ML	70	55	9	100.0	60.2	13.7	66.2	6984	D-J
ATx626 x R8503	Tx. Agri. Exp. Stat.(FM)	Rt	R	M	68	52	8	95.0	60.3	13.4	75.6	6984	D-J
A8618 x RTx435	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	80	54	7	100.0	55.2	14.4	64.8	6964	D-J
6670	Cargill Hybrid Seeds	Bz	P	ML	73	48	7	100.0	58.8	13.8	69.1	6897	E-J
A.Arg34 x R8505	Tx. Agri. Exp. Stat.(FM)	Wt	T	M	77	58	12	100.0	59.4	13.7	69.9	6867	F-J
AVar x R8504	Tx. Agri. Exp. Stat.(FM)	Rt	T	M	81	57	12	100.0	58.4	16.3	65.1	6566	G-J
KS 737	The New Northrup King	R	P	ML	73	49	8	100.0	58.5	13.2	61.5	6475	H-J
SG-922	Garrison Seed Company	Bz	P	ML	68	48	9	100.0	57.5	12.7	68.9	6472	H-J
630	Cargill Hybrid Seeds	Bz	P	ME	68	45	10	100.0	60.2	13.6	70.8	6346	I-J

Table 11A. GRAIN SORGHUM PERFORMANCE TEST: DUMAS, TEXAS, 1990

HYBRID (*)	COMPANY OR BRAND NAME	GRN CLR **	PLANT COLOR ***	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 *****
A8618 x RTx434	Tx. Agri. Exp. Stat.(FM)	Rt	R	ML	76	58	11	100.0	56.9	12.7	64.5	6304	J

TEST MEAN= 7490 TEST C.V.= 8.6 LSD .05=1033.5

Note: 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.

* DOUGLASS W. KING dk 775, Golden Harvest H-515E, AgriPro ST 3308 and Golden Harvest H-505BWC 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	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
DEKALB DK-66	DEKALB Plant Genetics	1	8798	65	7112	3	8281
ATx399 x Tx2536	Tx. Agri. Exp. Stat. (DR)	2	8487	76	6912	64	7048
T-E Wahoo	TAYLOR EVANS SEED COMPANY	3	8420	–	–	–	–
GSC 3605	GroAgri Seed Company	4	8238	–	–	–	–
SG-932	Garrison Seed Company	5	8236	59	7202	48	7489
9200Y	RICHARDSON SEEDS, INC.	6	8216	–	–	–	–
A1 x Tx2783	Tx. Agri. Exp. Stat. (DR)	7	8155	–	–	–	–
Delta Pine G-1711E	DELTA & PINE LAND COMPANY	8	8119	–	–	–	–
ATx631 x R8511	Tx. Agri. Exp. Stat. (FM)	9	8088	4	8220	6	8171
Ultima	Big Crop Seed Company	10	8086	–	–	–	–
A4R x Tx430	Tx. Agri. Exp. Stat. (DR)	11	8081	–	–	–	–
KS 786	The New Northrup King	12	8067	–	–	–	–
dk 775	DOUGLASS W. KING COMPANY	13	8037	8	7945	–	–
W-917-E	GEORGE WARNER SEED CO., INC.	14	8026	14	7822	–	–
AVar x 80C2241	Tx. Agri. Exp. Stat. (FM)	15	8022	1	8650	–	–
ATx631 x 86EO361	Tx. Agri. Exp. Stat. (DR)	16	7991	–	–	–	–
AVar x R8505	Tx. Agri. Exp. Stat. (FM)	17	7980	–	–	–	–
H-515 E	Golden Harvest Seed Company	18	7978	–	–	–	–
8379	Pioneer Hi-Bred International, Inc,	19	7954	7	7987	–	–
SG-942	Garrison Seed Company	20	7942	3	8222	–	–
ORO G Xtra	ORO Hybrids	21	7927	62	7172	45	7500
ST 3308	AgriPro Seeds	22	7916	26	7522	57	7294
8278	Pioneer Hi-Bred International, Inc.	23	7820	23	7568	–	–
ST D701G	AgriPro Seeds	24	7803	27	7512	15	7895
OSAGE	ASGROW SEED COMPANY	25	7723	41	7339	7	8125

Table 11B. Dumas, Texas (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
Delta Pine G-1616	DELTA & PINE LAND COMPANY	26	7718	–	–	–	–
ORO Amigo	ORO Hybrids	27	7715	–	–	–	–
GSC 3150	GroAgri Seed Company	28	7712	46	7288	–	–
Towhead	Conlee Seed Company, Inc.	29	7665	32	7453	28	7732
W-844-E	GEORGE WARNER SEED CO., INC.	30	7637	37	7365	2	8348
SG-822	Garrison Seed Company	31	7618	–	–	–	–
DEKALB DK-56	DEKALB Plant Genetics	32	7589	–	–	–	–
A8618 x RTx430	Tx. Agri. Exp. Stat. (FM)	33	7588	–	–	–	–
H-505BWC	Golden Harvest Seed Company	34	7572	–	–	–	–
ATx378 x RTx430	Tx. Agri. Exp. Stat. (FM)	35	7545	12	7876	58	7281
847	Cargill Hybrid Seeds	36	7532	33	7429	–	–
ORO Baron	ORO Hybrids	37	7506	60	7194	12	8004
Jacques 606E	Jacques Seed Company	38	7478	77	6883	–	–
8761 Ex	Big Crop Seed Company	39	7477	–	–	–	–
T-E 77-E	TAYLOR EVANS SEED COMPANY	40	7470	34	7412	–	–
ATx2752 x RTx430	Tx. Agri. Exp. Stat. (FM)	41	7458	44	7301	53	7340
GSC 1313	GroAgri Seed Company	42	7451	45	7297	–	–
NC+ 371	NC+ Hybrids	43	7396	–	–	–	–
XP5049(x)	ASGROW SEED COMPANY	44	7381	50	7253	–	–
GS 712	ASGROW SEED COMPANY	45	7368	24	7551	39	7559
Blanco Grande	Big Crop Seed Company	46	7359	–	–	–	–
8313	Pioneer Hi-Bred International, Inc.	47	7347	19	7658	–	–
5319	Garst Seed Company	48	7329	–	–	–	–
Rustler	Conlee Seed Company, Inc.	49	7328	78	6865	23	7811
2665	The New Northrup King	50	7322	64	7113	35	7631

Table 11B. Dumas, Texas (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
GSC 3148	GroAgri Seed Company	51	7321	79	6864	–	–
T-E 76	TAYLOR EVANS SEED COMPANY	52	7314	83	6726	–	–
AOK11 x R8505	Tx. Agri. Exp. Stat. (DR)	53	7255	–	–	–	–
AP 9830	AgriPro Seeds	54	7252	–	–	–	–
ATx631 x 80C2241	Tx. Agri. Exp. Stat. (FM)	55	7189	9	7916	29	7729
X15277	Cargill Hybrid Seeds	56	7177	–	–	–	–
T-E Y-75	TAYLOR EVANS SEED COMPANY	57	7170	52	7235	26	7747
ATx399 x Tx2737	Tx. Agri. Exp. Stat. (DR)	58	7167	85	6663	–	–
ST 686	AgriPro Seeds	59	7146	16	7730	10	8095
TOPAZ	ASGROW SEED COMPANY	60	7145	20	7638	19	7871
W-632-W	GEORGE WARNER SEED CO., INC.	61	7139	69	7037	–	–
ATx399 x RTx430	Tx. Agri. Exp. Stat. (FM)	62	7121	81	6829	44	7522
F-524	FRONTIER HYBRIDS, INC.	63	7078	55	7215	24	7800
Maxima	Big Crop Seed Company	64	7073	21	7607	60	7244
A1 x Tx430	Tx. Agri. Exp. Stat. (DR)	65	7071	31	7488	75	6185
ATx631 x R8505	Tx. Agri. Exp. Stat. (FM)	66	7034	5	8148	1	8524
Jacques 477W	Jacques Seed Company	67	7022	39	7355	–	–
ATx631 x R8504	Tx. Agri. Exp. Stat. (FM)	68	7007	35	7397	49	7462
F-300G	FRONTIER HYBRIDS, INC.	69	6999	–	–	–	–
A8618 X R8618	Tx. Agri. Exp. Stat. (FM)	70	6988	–	–	–	–
A1 x R8505	Tx. Agri. Exp. Stat. (DR)	71	6984	–	–	–	–
ATx626 x R8503	Tx. Agri. Exp. Stat. (FM)	72	6984	66	7103	76	6174
A8618 x RTx435	Tx. Agri. Exp. Stat. (FM)	73	6964	11	7890	–	–
6670	Cargill Hybrid Seeds	74	6897	36	7370	25	7770
A.Arg34 x R8505	Tx. Agri. Exp. Stat. (FM)	75	6867	–	–	–	–

Table 11B. Dumas, Texas (Continued)

HYBRID	COMPANY	1990 RANK	1990 YIELD	1989 RANK	1989 YIELD	1988 RANK	1988 YIELD
AVar x R8504	Tx. Agri. Exp. Stat. (FM)	76	6566	–	–	–	–
KS 737	The New Northrup King	77	6475	61	7194	32	7706
SG-922	Garrison Seed Company	78	6472	–	–	37	7616
630	Cargill Hybrid Seeds	79	6346	68	7073	56	7300
A8618 x RTx434	Tx. Agri. Exp. Stat. (FM)	80	6304	–	–	–	–
A1 x R2241	Tx. Agri. Exp. Stat.	–	–	13	7861	65	7042
ATx629 x R8503	Tx. Agri. Exp. Stat.	–	–	17	7726	62	7164
S9750	The New Northrup King	–	–	29	7497	41	7544
AP 985G	AgriPro Seeds	–	–	42	7329	63	7086
8260	Pioneer Hi-Bred International, Inc.	–	–	43	7312	9	8117
ATx631 x RTx435	Tx. Agri. Exp. Stat.	–	–	51	7242	74	6253
T-E Y-101-G	TAYLOR EVANS SEED COMPANY	–	–	53	7221	55	7315
DN 31	DyNA Seeds, Ltd.	–	–	56	7209	43	7524
ATx2752 x Tx2864	Tx. Agri. Exp. Stat.	–	–	63	7129	27	7741
T-E DINERO	TAYLOR EVANS SEED COMPANY	–	–	71	7005	66	6871
Delta Pine G-1711	DELTA & PINE LAND COMPANY	–	–	73	6950	18	7880
AP 965G	AgriPro Seeds	–	–	74	6941	40	7547
ATx630 x R3338wx	Tx. Agri. Exp. Stat.	–	–	82	6772	69	6767
40	Cargill Hybrid Seeds	–	–	87	6358	38	7613
RS610	Tx. Agri. Exp. Stat.	–	–	88	6336	80	3535
Number Entries:		80		88		80	
Test Mean Yield:			7490		7346		7395

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, 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 of hybrids in these areas.

TABLE S1. GRAIN SORGHUM AGRONOMIC AND TEST INFORMATION, 1990.

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:	Fallow	Fallow
TEST DESIGN:	Randomized complete block	Randomized complete block
LAND PREPARATION:	Disked and bedded	Disked and bedded
DATE PLANTED:	April 12	April 25
PLOT SIZE:	2 rows, 32" x 20'	2 rows, 32" x 20'
NUMBER REPLICATIONS:	3	3
FERTILIZER:	150-60-60 preplant on April 9 100-0-0 on July 30 after main-crop stubble shredded	14-42-42 preplant on March 22 65-0-0 on May 22 50-0-0 on May 29
HERBICIDE:	2.0 pt/A Dual 8E and 3.0 pt/A AAtrex 4L preemergence on April 13 2.0 pt/A Basagran on April 24	2.0 pt/A Dual 8E and 2.4 pt/A AAtrex 4L preemergence on April 25
INSECTICIDE:	7 lb/A Furadan 15G on April 12 1.0 pt/A Lorsban 4E on June 19 for webworm	7 lb/A Furadan 15G on April 25 0.5 pt/A Lorsban 4E on July 3,10, and 17
RAINFALL (inches):	Feb. = 3.51, Mar. = 4.98 Apr. = 3.58, May = 3.55 June = 5.46, July = 4.52 Aug. = 0.36, Sept. = 5.30 Oct. = 4.65, Nov. = 4.72	Feb. = 3.86, Mar. = 3.82 Apr. = 5.07, May = 2.37 June = 0.97, July = 2.51
DATE HARVESTED:	July 26 (main-crop) November 19 (ratoon-crop)	August 9
SIZE HARVESTED PLOT:	0.0025 acres	0.00125 acres
MEAN PLANT POP./A:	70000	70000
TEST MEAN (lb/A):	4380 (main-crop) 2000 (ratoon-crop)	1710
	All yields adjusted to 13% moisture at both locations	
STD. ERROR OF MEAN:	500 lb/A (main-crop) 170 lb/A (ratoon-crop)	270 lb/A
TEST CV:	19.6% (main-crop) 14.5% (ratoon-crop)	27.8%
LSD(0.1):	1240 lb/A (main-crop) 420 lb/A (ratoon-crop)	730 lb/A

TABLE S2. GRAIN SORGHUM PERFORMANCE TEST, BEAUMONT, 1990.

Entry	Company or brand name	Days to 50% flower	Plant height (in.)	Panicle exs. (in.)	Panicle length (in.)	Bird damage (%)	Desir. rating (1-5)*	Main-crop test wt. (lb/bu)	Ratoon test wt. (lb/bu)	Main-crop yield (lb/A)	Ratoon yield (lb/A)	Total yield (lb/A)
GS 712	Asgrow Seed	60	55	6	10	12	2.7	52.5	55.4	5420	1970	7390
ST-3308	AgriPro	64	55	4	11	2	1.5	56.4	56.2	5340	1800	7140
T-E Y-75	Taylor-Evans	59	53	5	10	22	2.0	54.6	55.6	5220	1740	6960
Topaz	Asgrow Seed	60	51	4	11	22	2.7	52.5	56.0	5130	1970	7100
Wings	HyPerformer	60	53	4	10	20	2.7	52.9	54.7	5130	2110	7240
Cherokee	HyPerformer	60	55	6	10	13	2.2	54.0	55.8	5010	1550	6560
G-1711	Delta & Pine Land	60	51	4	10	10	3.0	54.1	54.4	4960	2390	7350
SG 942	Garrison Seed	59	56	3	10	22	3.0	54.1	56.3	4930	1660	6590
WAC 686	SeedTec Int.	58	57	7	11	10	2.2	54.1	55.4	4860	1960	6820
TS 488	Texas Seed	58	52	5	10	18	2.7	55.4	55.8	4700	1800	6500
AVar x 80C2241	TAES	62	60	6	11	8	2.2	54.1	56.8	4680	2300	6980
ATx629 x RTx434	TAES	65	63	4	12	7	2.8	52.1	53.4	4610	2280	6890
A83E x RTx430	TAES	60	71	9	10	10	3.7	49.4	53.3	4460	2680	7140
Pioneer 8313	Pioneer Hi-Bred	61	48	3	13	15	1.7	55.0	56.9	4440	2550	6990
A2Tx632 x SC103-12E	TAES	58	57	3	13	10	3.0	53.3	53.0	4340	1190	5530
Pioneer 8300	Pioneer Hi-Bred	60	55	6	13	13	3.0	53.2	55.5	4330	2220	6550
NK 2665	Northrup King	61	50	3	10	10	3.0	52.6	54.7	4290	1760	6050
Osage	Asgrow Seed	59	53	7	10	18	2.2	53.4	55.0	4140	1430	5570
A35 x RTx430	TAES	60	55	7	11	7	2.5	54.3	56.0	4100	1830	5930
ATx378 x RTx434	TAES	63	59	6	11	13	2.8	52.4	53.7	4090	1680	5770
A8618 x SC103-12E	TAES	60	52	4	13	5	2.0	53.0	49.0	4020	1460	5480
SG 932	Garrison Seed	59	56	4	10	37	3.0	50.2	54.4	3820	2550	6370
ATx631 x Dorado	TAES	64	83	3	14	38	3.8	52.9	53.5	3680	1770	5450
ATx2752 x SC103-12E	TAES	55	57	8	10	13	3.0	51.1	54.2	3500	2360	5860
A28602 x SC103-12E	TAES	59	64	8	11	20	3.5	48.1	54.1	3400	2530	5930
Pioneer 8278	Pioneer Hi-Bred	54	45	9	11	20	4.0	53.7	57.8	3270	1370	4640
ATx378 x SC103-12E	TAES	55	61	7	10	18	3.3	52.8	54.8	3200	2700	5900
ATx631 x RTx435	TAES	65	61	2	14	4	2.8	48.8	53.0	2350	1760	4110

MAIN-CROP TEST MEAN = 4380 (500) lb/A CV = 19.6% LSD(0.1) = 1240 lb/A
RATOON-CROP TEST MEAN = 2000 (170) lb/A CV = 14.5% LSD(0.1) = 420 lb/A

* Desirability rating (1 = excellent, 5 = very poor).

TABLE S3. GRAIN SORGHUM PERFORMANCE TEST, EAGLE LAKE, 1990.

Entry	Company or brand name	Plant height (in.)	Panicle exs. (in.)	Panicle length (in.)	Desir. rating (1-5)*	Test wt. (lb/bu)	Yield (lb/A)
AVar x 80C2241	TAES	45	3	9	3.5	61.1	3050 +
A83E x RTx430	TAES	48	3	9	3.2	58.0	2750
SG 942	Garrison Seed	40	1	8	3.4	59.5	2500
GS 712	Asgrow Seed	35	2	8	3.5	58.7	2370
G-1711	Delta & Pine Land	36	2	8	3.5	57.8	2320
Wings	HyPerformer	37	0	9	4.0	58.4	2190
Cherokee	HyPerformer	37	2	8	3.3	59.2	2170
ATx631 x RTx435	TAES	43	4	11	3.5	58.0	2130 +
TS 488	Texas Seed	37	2	8	3.3	59.1	2040
ST-3308	AgriPro	41	1	9	3.5	59.1	1980 ++
T-E Y-75	Taylor-Evans	36	2	7	3.2	59.0	1810
ATx378 x RTx434	TAES	38	2	7	3.8	57.8	1730
WAC 686	SeedTec Int.	38	2	8	3.8	59.0	1660
Pioneer 8300	Pioneer Hi-Bred	38	1	9	3.3	58.7	1520
Pioneer 8313	Pioneer Hi-Bred	35	2	9	3.8	58.6	1480
Topaz	Asgrow Seed	35	0	8	4.8	59.1	1440
ATx378 x SC103-12E	TAES	40	1	8	3.5	55.7	1430
ATx629 x RTx434	TAES	40	1	8	3.3	56.8	1420
NK 2665	Northrup King	34	2	7	4.2	58.0	1400 ++
ATx2752 x SC103-12E	TAES	37	3	9	3.5	56.6	1360 ++
A35 x RTx430	TAES	40	2	9	3.7	54.6	1340
A28602 x SC103-12E	TAES	42	2	9	4.0	56.5	1240 ++
Osage	Asgrow Seed	34	1	7	4.7	56.4	1190
SG 932	Garrison Seed	35	0	7	4.5	59.2	1120 ++
A2Tx632 x SC103-12E	TAES	37	1	8	4.0	55.4	870
ATx631 x Dorado	TAES	49	1	8	4.0	53.3	650
A8618 x SC103-12E	TAES	34	1	8	4.7	NA	0
Pioneer 8278	Pioneer Hi-Bred	34	2	8	5.0	NA	0

TEST MEAN = 1710 (270) lb/A CV = 27.8% LSD(0.1) = 730 lb/A

* Desirability rating (1 = excellent, 5 = very poor)
\+ Yield data derived from only 1 replication
++ Yield data derived from 2 replications.

TABLE S4

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, 1990

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 22 ft net
Plot Spacing:	Single row on 40-inch spaced beds
Soil Type:	Pullman clay loam
Previous Crop:	Sorghum
Fertilizer:	183 lb/A 10-34-0, 148 lbs N/A as anhydrous ammonia
Herbicide:	1 lb ai/A Propazine, 1 pt ai/A Prowl layby,
Insecticide:	1 lb ai/A Counter 15G preplant, 1/2 pt/A Lorsban Aug 10, 23
Irrigations:	Pre-emergence plus 3.8, 2.8, 3.6, 2.3, 3.0, and 2.2 acre in/A applications Jun 25, Jul 17, 25, and Aug 7, 21, 28
Planting Date:	May 23
Plant Population:	74,217 avg plts/A
Harvest Date:	October 29

RESULTS & DISCUSSION:

Table 1 contains all agronomic data recorded in 1990.

Yields were excellent in the test with a mean of 7994 lbs/A. This was slightly lower than three previous years.

Sparse rainfall, high summer temperatures, greenbugs, and stalk rot damaged and lowered yields. A significant difference is noted for lodged plants in Table 1.

The systemic insecticide, Counter, was applied preplant for greenbug control. Two application of Lorsban were applied for control of greenbugs.

Some bird damage was noted primarily on hybrids away from bird repelling balloons intermittently spaced in the field.

1/1000 of an acre from each 3-row plot was hand-harvested. All lodged plants were included in the yield. Grain yields were adjusted to 13% moisture and converted to poounds per acre.

Table S5. Grain yield and other agronomic data for forty-nine hybrids evaluted under irrigation at the Texas Agriculutral Experiment Station, Halfway, Texas, 1990.

Company or Brand Name	Hybrid Designation	Grain Yield lb/A 1	Duncan's 5% Level 2	Days To 50% Flower 3	Plant Height (In)	Head Exs. In. 4	Height Unif. 5	Head Type 6	Bird Damage %	Mois-ture %	Matu-rity 7	Lodg-ing %
Tx. Agri. Exp. Stat.	ATx2752 x Tx2783	8718	A	73	57	3	3.3	3.0	0.0	12.5	ML	23.5
Triumph Seed Co.	Two 80-D	8707	A	70	56	8	2.3	2.3	0.0	12.3	ML	4.3
Garrison Seed Co.	SG-942	8689	A	69	56	4	3.7	3.0	0.3	12.8	L	20.2
Tx. Agri. Exp. Stat.	A1 x Tx2783	8553	A-B	71	61	4	4.3	3.0	0.0	12.0	ML	11.0
Tx. Agri. Exp. Stat.	ATx378 x Tx2862	8541	A-B	72	59	5	4.0	3.0	1.0	12.3	ML	5.2
Tx. Agri. Exp. Stat.	ATx2752 x Tx430	8541	A-B	69	56	6	3.0	2.7	0.0	12.0	ML	7.5
Tx. Agri. Exp. Stat.	AVG1 x R8505	8499	A-C	76	65	8	4.7	3.0	0.3	12.4	ML	25.9
TAYLOR EVANS SEED CO.	T-E 77-E	8494	A-C	68	56	6	3.0	3.0	0.3	11.5	L	3.4
GEORGE WARNER SEED CO.	W-917-E	8472	A-C	69	60	7	3.7	3.0	3.0	12.1	L	26.4
Tx. Agri. Exp. Stat.	ATx631 x R8505	8459	A-C	71	63	10	5.0	3.0	0.3	11.7	ML	35.9
GroAgri Seed Company	GSC 3150	8408	A-C	67	57	7	3.0	3.0	0.3	12.1	ML	5.2
SEEDCO Corporation	SC 710	8380	A-D	69	55	7	3.3	3.0	0.3	12.0	M	25.6
Tx. Agri. Exp. Stat.	AOK11 x Tx2737	8347	A-D	69	55	7	3.0	3.0	0.0	11.7	ML	0.0
SEEDCO Corporation	SC 705	8344	A-D	70	55	5	3.0	3.0	0.7	11.7	ML	15.1
ASGROW SEED COMPANY	OSAGE	8284	A-D	71	56	9	1.7	3.0	0.0	12.3	M	2.2
The New Northrup King	2665	8263	A-D	69	48	3	2.7	2.3	0.0	11.6	ML	1.8
Big Crop Seed Company	Ultima	8259	A-D	70	54	6	3.0	3.0	0.0	11.9	M	9.7
Big Crop Seed Company	Maxima	8249	A-D	70	57	6	3.0	3.0	0.0	11.9	L	5.8
GroAgri Seed Company	GSC 1313	8208	A-D	69	55	6	3.3	3.0	0.0	11.9	M	9.0
GroAgri Seed Company	GSC 3605	8184	A-E	72	56	8	3.3	2.3	0.0	12.0	ML	3.9

Table S5. (Continued)

Company or Brand Name	Hybrid Designation	Grain Yield lb/A 1	Duncan's 5% Level 2	Days To 50% Flower 3	Plant Height (In)	Head Exs. In. 4	Height Unif. 5	Head Type 6	Bird Damage %	Mois-ture %	Matu-rity 7	Lodg-ing %
Tx. Agri. Exp. Stat.	ATx378 x Tx7000	8176	A-E	72	59	11	5.0	3.0	0.0	11.1	ML	14.7
The New Northrup King	S9750	8148	A-E	69	56	5	3.0	2.7	0.0	11.9	L	12.5
Tx. Agri. Exp. Stat.	A4R x Tx430	8147	A-E	66	53	11	2.0	2.7	0.3	11.9	ML	3.7
Conlee Seed Company	Towhead	8140	A-E	71	56	11	3.7	3.0	0.0	11.7	ML	1.1
Garrison Seed Company	SG-932	8097	A-E	69	55	7	3.0	3.0	0.7	12.0	L	23.6
Big Crop Seed Company	Blanco Grande	8095	A-E	70	53	9	2.7	3.0	0.0	11.5	M	3.2
Tx. Agri. Exp. Stat.	A1 x R8505	7993	A-E	69	58	7	2.7	3.3	1.7	12.0	ML	4.4
Tx. Agri. Exp. Stat.	ATx378 x Tx2864	7938	A-E	68	55	4	4.0	2.3	0.3	11.8	ML	0.0
GEORGE WARNER SEED CO.	W-876-DR	7925	A-E	68	56	7	3.0	3.0	0.3	11.5	L	12.5
DEKALB Plant Genetics	R-059	7856	A-E	71	57	6	3.7	3.0	0.3	11.6	L	29.8
ASGROW SEED COMPANY	GS 712	7824	A-E	70	55	6	3.7	3.0	0.0	11.8	M	16.8
Tx. Agri. Exp. Stat.	ATx631 x 86EO361	7792	A-E	73	60	7	4.7	3.0	0.3	12.9	ML	30.5
DEKALB Plant Genetics	DK-66	7785	A-E	76	62	5	4.7	3.0	0.0	11.8	L	64.1
Tx. Agri. Exp. Stat.	A1 x Tx430	7779	A-E	65	58	6	3.0	3.0	0.0	11.3	ML	6.7
Tx. Agri. Exp. Stat.	ATx2792 x Tx2783	7774	A-E	71	57	6	4.0	3.0	0.0	12.3	ML	24.8
FRONTIER HYBRIDS, INC.	F-524	7741	A-E	69	56	7	3.0	3.0	0.0	12.1	L	7.8
Garrison Seed Company	SG-822	7705	A-F	71	53	9	3.0	3.0	0.0	11.6	M	2.0
Conlee Seed Company, Inc.	Rustler	7663	A-F	70	56	7	3.0	3.0	4.3	12.1	L	2.0
ASGROW SEED COMPANY	XP5049	7653	A-F	73	52	8	2.0	3.0	0.0	12.0	M	0.0
The New Northrup King	KS 737	7513	A-F	70	55	8	3.0	3.0	0.0	11.6	ML	23.2

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