SCS-2010-13

Department of Soil and Crop Sciences

2010

2010 Grain Sorghum Performance Tests in Texas

Dennis Pietsch
Director, Crop Testing
Jürg M. Blumenthal
State Sorghum Cropping Systems Specialist
Steven Labar
Research Technician II
W. L. Rooney
Professor of Plant Breeding and Genetics
Gary Peterson
Professor, Grain Sorghum Breeding and Genetics

AgriLIFE EXTENSION
Texas A&M System

AgriLIFE RESEARCH
Texas A&M System

The Texas A&M University System

2010 GRAIN SORGHUM PERFORMANCE TESTS IN TEXAS

by

Dennis Pietsch, Jurg Blumenthal, Steven Labar, W. L. Rooney, and Gary Peterson

SCS-2010-13

Respectively, Director, Crop Testing; Assistant Professor; Agricultural Research Technician II; and Professor, Plant Breeding and Genetics, Department of Soil and Crop Sciences, Texas AgriLife Research, The Texas A&M University System, College Station, Texas; Professor, Grain Sorghum Breeding and Genetics, Texas AgriLife Research, Lubbock, Texas.

TABLE OF CONTENTS

KEYWORDS: Texas, grain sorghum, performance test, yield, disease, insect resistance.

GRAIN SORGHUM PERFORMANCE TESTS IN TEXAS--2010

D. R. Pietsch, Jurg Blumenthal, Steven Labar, W. L. Rooney, and Gary Peterson

INTRODUCTION

According to the Texas Agriculture Statistics Service (1), preliminary figures indicate that Texas farmers harvested only 1.65 million acres of grain sorghum in 2010 compared to 2.05 million acres in 2009, or approximately a 19.5% decrease. The 2010 acreage is the second lowest acreage harvested in Texas over the past 10 year period. In 2007, only 1.3 million acres were harvested. Probable factors contributing to this acreage reduction include planting other commodities based on price, government supported programs, precipitation patterns, and a declining water table in the High Plains of Texas. Sometimes, especially in the High Plains of Texas, grain sorghum is used as a "catch crop" if the primary crop such as cotton has been hailed out. Harvested acreage decreased in all but four of the major production areas of Texas from 2009 to 2010. The largest reduction in harvested acreage occurred in Texas Crop Reporting District 1S (Southern High Plains, Figure 1) where acreage decreased from 510,100 acres to 85,000 acres (~83% decrease). The huge decrease in acreage can be attributed to the primary crop being hailed out in 2009 and replanted to grain sorghum. Other districts that showed a major decrease in harvested acreage occurred in District 1N, and 9 where acreage decreased 15.4%, and 48.8% respectively. The largest increase in acreage occurred in District 8S (Coastal Bend) where acreage increased from 128,100 to 345,000 acres, or 169%. Yield per acre increased in all of the major Crop Reporting Districts for 2010. The largest increase in yield occurred in Districts 1S, 8N, 8S, and 10N of 85%, 97%, 134%, and 110% respectively. The yield increase can be attributed to available soil moisture throughout the growing season compared to the drought conditions experienced in 2009.

As water for agricultural production becomes an even more important issue in Texas, farmers will be faced with both increased costs for pumping water or reduced availability of water. Given sorghum's drought tolerance and water use efficiency, sorghum is expected to be an important crop in these limited production systems. It is imperative for farmers to select sorghum hybrids specifically adapted for the production system.

To assist in the selection process, grain sorghum breeders have produced an array of sorghum hybrids that are adapted to different production systems. When selecting sorghum hybrids for production, producers should evaluate the relative strengths and weaknesses of each hybrid for these production systems. Hybrids are usually classified by maturity, height, and more recently by drought tolerance, and in some cases by grain quality. Typically mid and full season hybrids will respond favorably to additional moisture while early or short season hybrids are designed for dryland production with minimal rainfall expectations. Selecting the wrong maturity hybrid can result in poor yields in dry environments or the inability of a hybrid to produce higher yield if the weather is favorable. In addition, producers should realize that plant height and grain yield are related

and while there are exceptions, taller hybrids generally have higher yield potential. Likewise taller hybrids require greater management, but if they are coupled with good post-flowering drought tolerance (or staygreen), they will have good yield potential with better standability. As water becomes more limited, drought tolerance becomes a critical component for production. Most sorghum hybrids possess good levels of pre-flowering drought tolerance, but there is a wide variation for post-flowering drought tolerance, and in most years post flowering drought is more common in Texas. Therefore, producers should ask seed companies for the relative level of post-flowering drought tolerance (or staygreen) their hybrids possess. Finally, breeders have developed new, improved grain quality sorghums that have the potential for use in food markets. While this market is never guaranteed it is only accessed by the production of specific tan plant hybrids. A list of these hybrids is provided by the National Grain Sorghum Producers (www.sorghumgrowers.com). These hybrids have white or cream-colored grain and straw colored glumes with tan plant color. While these hybrids are not suitable in all regions, in certain environments these hybrids yield comparably to traditional hybrids and may provide additional marketing opportunities.

GRAIN SORGHUM PERFORMANCE TESTING IN TEXAS

Grain sorghum hybrids are evaluated annually for field performance at locations that are representative of Texas grain sorghum production areas (Figures 1& 2). This program is conducted by personnel from the Crop Testing Program, Texas AgriLife Research, Texas A&M University, College Station, Texas under CRIS Project 1418; and is financed by fees from participating commercial seed companies (Table 1). A committee of representatives from the seed industry, Texas AgriLife Extension, Texas AgriLife Research, corn and grain sorghum commodity chairmen, and Texas Seed Trade representatives designates all locations annually. Test sites are on privately owned farms or at Texas A&M University AgriLife Research Centers. Commercial seed companies use the State Testing Program to determine the performance of their material at several locations under different and changing environmental conditions.

Ranking order based on grain yield of a hybrid at a given location does not imply that it is recommended for that area. Data contained in this publication are a measure of relative performance of grain sorghum hybrids planted during a particular season at the locations shown.

Commercial seed companies also have the opportunity to enter a grain sorghum supplemental test. The test is planted either behind or adjacent to the performance test. Companies can have experimental hybrids evaluated at a reduced entry fee rate. Data is to be used for “in-house” purposes only and not to be published.

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 AND REPORTS

Official entry forms are made available in January 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, the Crop Testing Program at our discretion enters standard check hybrids. After the test plantings are established, each participant receives directions and planting plan information for observation of the block during the growing season.

After the data has been statistically analyzed, results from each individual test site are put on the Internet and 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. The Crop Testing Program internet address and contact is:

Website:	**http://varietytesting.tamu.edu/grainsorghum**
Phone:	**(979) 845-8505**
E-mail:	**dpietsch@ag.tamu.edu**

FIELD-PLOT TECHNIQUE

Seeds for each hybrid were hand-packaged to obtain a final plant population that was recommended for a respective area. Seeds were distributed by cones mounted on a JD 7100 Max-Emerge plot planter at most test sites.

Cultural practices were those adapted for general use in the area as determined by the cooperator. Plot lengths at planting were usually 30 feet, unless there were land restrictions. A four or five foot alleyway was cut during the growing season. Alleyways were maintained either by applying a contact herbicide, or by hoeing, or a combination of both. Field data were recorded at the appropriate time and other data collected at harvest. All locations (except Leonard) were harvested with a JD 3300 plot combine that was equipped with the Harvestmaster Classic Grain Gauge that measured plot weight, test weight and grain moisture. At Leonard, the test was hand harvested, samples brought to College Station, and threshed using a stationary plot thresher. Test weights were secured by using an official test weight apparatus

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, B=brown, Bz=bronze, Rt=red translucent, Wh=white, Wt=white translucent, Ct=cream translucent, Y=yellow.

Plant color--designated by a respective seed company for that particular hybrid. T=tan, R=red, P=purple.

Maturity class--maturity designated by a respective seed company for that particular hybrid. Early (E), medium-early (ME), medium (M), medium-late (ML), and late (L) designations are used.

Days to 50 percent flower--number of days from planting to, and including the day that an estimated 50 percent of the plants have reached anthesis.

Plant height--average number of inches from the ground to the tip of the panicle.

Panicle exsertion--average inches from the flag leaf to the base of the panicle.

Test weight--pounds per bushel (lb/bu) of grain determined from all replications.

Bird damage--visual rating or percentage, not used in yield calculations.

Lodging--a visual rating or percentage estimate of plants that were leaning more than 45°.

Number s mut--presented in Table 6A. Number of plants showing smut were counted from all replications prior to harvest and averaged for each entry.

Midge da mage--visual percentage or rating, but not used in yield calculations.

Moisture %--calculated from each plot by a moisture blade attached to the Grain Gauge System or by an approved moisture meter.

Desirability r ating--a visual rating that takes into account uniformity, eye appeal, panicle type, etc.

Sprout and grain loss rating--a visual rating, not used in yield calculations. Presented in Table 4A and 6A.

Mold rating--presented in Table 6A.

% S tand--A visual estimate taken prior to harvest from all reps and averaged.

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 at our discretion and are to be used for comparison purposes only.

Yield--determined as follows: plot weight x acre conversion factor x moisture correction factor. All yields are corrected to 14 percent moisture. Expressed as pounds per acre (lb/A).

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. C.V.'s over 20% indicate unreliable data and results usually are not published.

RESULTS

This year, nine test sites were planted and all nine sites were harvested; however, due to a high C.V., results from the Leonard test site were not published.

Detailed explanation regarding each test site can be found in the comment section of the agronomic data. You will notice that some test sites had excellent growing conditions while others such as Danevang and Gregory suffered through several major weather events which probably affected potential yields.

Due to lack of participation, the Hereford and Perryton tests were not planted, therefore no results presented.

Results for the following locations are as follows:

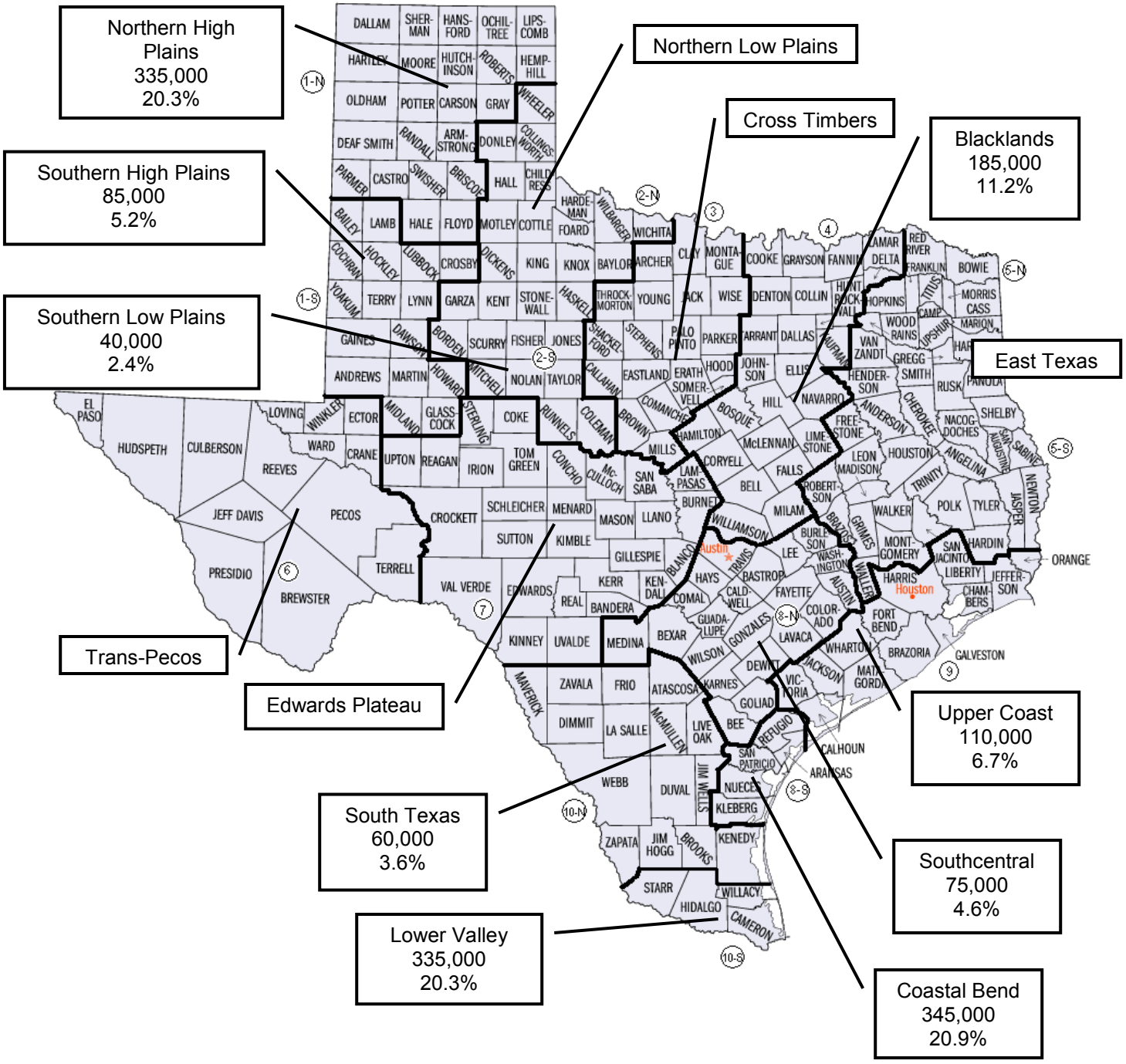
1. Tables 2-9 summarize agronomic and test data information.

2. Tables 2A-9A show performance test information from the respective locations. Some hybrids were in the experimental stage and seed were

not available in quantities for farm planting. An experimental number designated these hybrids. Individuals may contact seed companies in Table 1 for the availability of planting seed for a particular hybrid.

3. Tables 2B-9B are summaries of hybrids showing yields and ranks at respective locations for the past 3-year period. These summaries are helpful in the selection of hybrids for a particular area. Hybrids not entered for a respective year are designated (--). Computer ranked hybrids with the same yields.

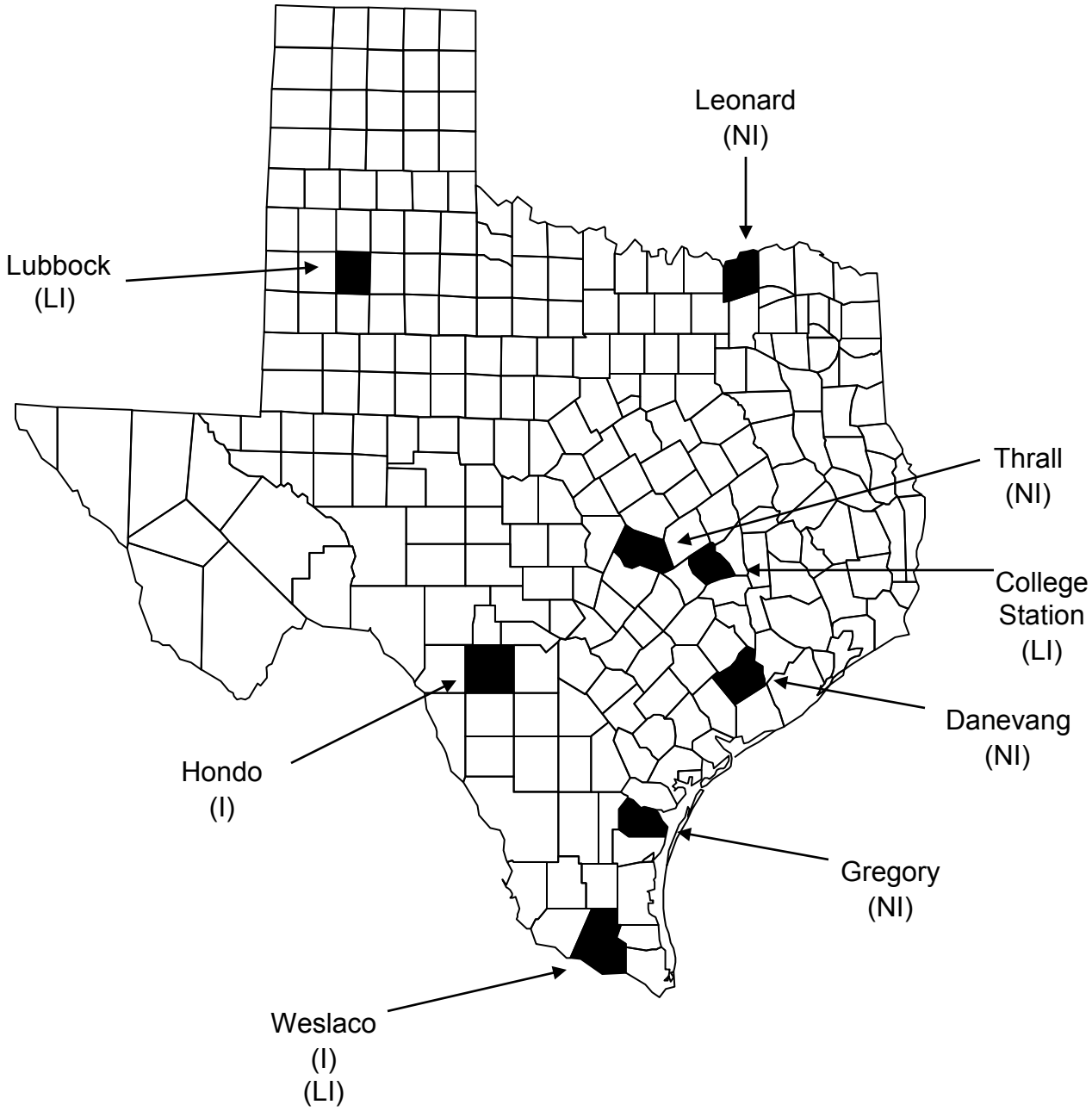
Figure 1. Acres and Percentage of Grain Sorghum Acreage Harvested, by Texas Crop Reporting Districts, 2010 (1).



Notes:

A. The circled figure is the number of each Crop Reporting District.
B. The figures below each Crop Reporting District represents the district's total harvested acreage and percentage of the total harvested grain sorghum acreage in Texas.
C. The districts with no acreage presented are not considered major grain sorghum production areas. Grouped together, these districts account for 80,000 acres or 4.9% of Texas' harvested acreage (1).

Figure 2. 2010 Grain Sorghum Test Locations In Texas



I = Irrigated
NI = Non Irrigated
LI = Limited Irrigated

Table 1. Name, address, and hybrid designation for participants in the 2010 Texas Grain Sorghum Performance Test.

Company	Hybrid	Weslaco Full	Weslaco Limited	Gregory	Hondo	Danevang	College Station	Thrall	Leonard	Lubbock Limited
Bio Internacional Genetica de Semillas	BIG 766	X	X							
265 Stillwell Bend	BIG 779	X	X							
Brownsville, TX 78520										
(956) 548-2226										
semillasbig@yahoo.com										
Channel Bio LLC	5B90									X
11203 Kirby Ave.	7B11									X
Lubbock, TX 79424										
(806) 252-8041										
norm.klein@channelbio.com										
Crosbyton Seed Company	1488		X		X	X	X	X	X	
P.O. Box 429										
Crosbyton, TX 79322										
(806) 675-2308										
tdavis@crosbytonseed.com										
DynaGro Seeds CPS	772B	X				X		X		
5652 Rosalie Dr.	771B		X	X		X		X		
Waco, TX 76708	766B		X	X		X		X		
(254) 723-8348										
robb.fitzke@cpsagu.com										
Golden Acres Genetics	3545		X			X				
P.O. Box 579	3696		X	X		X	X	X	X	
Buchanan Dam, TX 78609	3464			X		X	X	X	X	
(512) 793-5205	737			X		X		X		
jallison@pegasusbb.com	3552			X		X		X		

Table 1. Name, address, and hybrid designation for participants in the 2010 Texas Grain Sorghum Performance Test.

Company	Hybrid	Weslaco Full	Weslaco Limited	Gregory	Hondo	Danevang	College Station	Thrall	Leonard	Lubbock Limited
Monsanto Company	DeKalb DKS44-20	X	X		X	X			X	
982 U.S. Hwy. 77	DeKalb DKS49-45	X	X	X	X	X	X	X	X	
Bishop, TX 78343	Asgrow A571	X	X	X	X			X		
(361) 584-2523	DeKalb DKS53-67	X	X	X	X	X	X	X	X	
rdusse@monsanto.com	DeKalb DKS54-00	X	X		X	X	X		X	
	DeKalb DKS54-03	X		X		X				
	DeKalb DKS36-06		X	X				X		
	DeKalb DKS37-07			X			X	X		
Monsanto Company	DeKalb DKS36-06									X
7159 N. 247th West Mt.	DeKalb DKS37-07									X
Hope, KS 67108	DeKalb DKS44-20									X
(316) 445-2290	DeKalb DKS49-45									X
michael.c.lenz@monsanto.com	DeKalb DKS53-67									X
Pioneer Hi-Bred Int.	84G62	X		X	X		X	X	X	X
8100 South 15th St.	83G19	X		X	X	X	X			
Lincoln, NE 68512	83P99	X		X	X		X			
(402) 328-4055	84G11					X				
william.mcclure@pioneer.com	84P74						X	X	X	
	85G01							X	X	
	85Y40									X
Pioneer Hi-Bred International, Inc	82G10	X	X							
1702 South International Blvd.	83G19		X							
Weslaco, TX 78596										
(965) 969-1569										
jorge.guzman@pioneer.com										

Table 1. Name, address, and hybrid designation for participants in the 2010 Texas Grain Sorghum Performance Test.

Company	Hybrid	Weslaco Full	Weslaco Limited	Gregory	Hondo	Danevang	College Station	Thrall	Leonard	Lubbock Limited
Syngenta Seeds	5613			X	X	X	X	X		
11055 Wayzata Blvd.	5556			X	X	X	X	X		
Minnetonka, MN 55305	H-486			X	X	X	X	X		
(402) 616-6534	5464			X	X	X	X	X		
steve.sick@syngenta.com	5308			X	X	X	X	X		
Terral Seed, Inc.	Terral TV92S82	X	X	X	X	X	X	X	X	
P.O. Box 826	Terral TV9421	X	X	X	X	X	X	X	X	
Lake Providence, LA 71254	Terral TV94S91	X	X	X	X	X	X	X	X	
(318) 559-2840	Terral TV96H81	X	X	X	X	X	X	X	X	
lmullen@terralseed.com	Terral TV96H95	X	X	X	X	X	X	X	X	
	Terral TV93S16	X	X	X	X	X	X	X	X	
	Terral TV96H91							X	X	
Triumph Seed Co., Inc.	TRX05361									X
P.O. Box 1050	TRX84732									X
Ralls, TX 79357										
(888) 521-7333										
ben@triumphseed.com										
Wilbur-Ellis Company	G10166		X	X	X	X	X	X	X	
10112 Saddle Creek Rd.	G10172		X	X	X	X	X	X	X	
Waco, TX 76708	G10173		X	X	X	X	X	X	X	
(254) 836-5410	G10261			X	X	X	X	X	X	
mcritten@wilburellis.com	G10265			X	X	X	X	X	X	
	G10267			X	X	X	X	X	X	
Texas AgriLife Research	ATx399 x RTx430	X	X	X	X	X	X	X	X	X
	ATx378 x RTx430	X	X	X	X	X	X	X	X	X
	ATx2752 x RTx430	X	X	X	X	X	X	X	X	X
	ATx631 x RTx436	X	X	X	X	X	X	X	X	X

Table 2. AGRONOMIC AND TEST INFORMATION: WESLACO

TEST:	2010 Full Irrigated Grain Sorghum Performance Test
LOCATION:	Texas A&M University Research and Extension Center, Hiler Farm, Weslaco, Texas
COOPERATORS:	Beto Garza and Eddie Hernandez
SOIL TYPE:	Raymondville clay loam
ROW WIDTH:	40"
PREVIOUS CROP:	Sugar Cane
LAND PREPARATION:	Disked, chiseled, disked, bedded
DATE PLANTED:	2-17-10 with cones mounted on an ALMACO planter using JD Max-Emerge II units. Test was planted on raised beds
PLOT LENGTH:	2 rows 25'
FERTILIZER:	1-27-10: 100+0+0 as 32+0+0 + 2 qt/A of Quick Boost & Awaken 3-22-10: 80+0+0 as 32+0+0
HERBICIDE:	3-22-10: 2 pt/A of Atrazine 4E
INSECTICIDE:	None
RAINFALL:	February = 0.96"; March = 0.10"; April = 3.38"; May = 1.54"; June = 11.02"; July = 2.61" Total = 19.61"
IRRIGATIONS:	Furrow irrigated on 3-31and 5-17, of approximately 6" each
DATE HARVESTED:	6-28-10 with JD 3300 plot combine equipped with Grain Gauge.
SIZE HARVESTED PLOT:	2 rows, 25'
TEST DESIGN:	Randomized complete block
NUMBER ENTRIES:	30
NUMBER REPLICATIONS:	4
NUMBER ROWS/PLOT:	2
TEST MEAN:	5,864 lb/A; yields corrected to 14% moisture
TEST C.V.:	9.39%

COMMENTS: This test site, located in Hidalgo County, Lower Rio Grande Valley of Texas (Texas Crop Reporting District 10-S), is one of the major grain sorghum producing areas in Texas. According to the Texas Agriculture Statistics Service, farmers in this District harvested 335,000 acres of grain sorghum (both irrigated and non-irrigated), or approximately 20.3% of Texas' 1.65 million acres in 2010.

The Weslaco grain sorghum test, conducted on one of the Texas AgriLife Research farms near Weslaco, is a very popular test site. Both U.S. and Mexico seed companies use the data extensively generated from this site to evaluate their hybrids. Texas AgriLife Research offers both a full irrigated and limited irrigated grain sorghum test. A protocol is established for each test and the criteria closely followed by personnel at the Research Center.

The protocol for this test (full irrigated) called for no more than two irrigations to be applied during the growing season. The first irrigation was to be applied at or near the boot stage and the second irrigation near grain fill. A final plant population of approximately 90-100,000 plants per acre was targeted.

Excellent yields were attained at this site due to a combination of a good fertility program, excellent plant stands, and timely rains. A pre-plant and post-plant application of fertilizer provided the necessary nutrients for continuous plant growth and development. Two irrigations of approximately 6" each (per protocol) alleviated any plant stress and contributed to final grain yields. Weeds were controlled by an application of an herbicide.

The test block was harvested on June 28, only one day before Hurricane Alex made landfall in the area. A total of 8.9" of rainfall was recorded from this major weather event, which also produced high winds. Fortunately, neither the rains, nor the wind, were issues since the test block had already been harvested.

The test mean yield was 5,864 lb/A compared to the past 3-year average of 5,305 lb/A. Eight hybrids produced between 6,028 lb/A and 7,132 lb/A. Excellent bushel weights were secured. The incidence of midge and bird damage was minimal.

****

For further information about this report, contact Mr. Dennis Pietsch, Crop Testing Director, Texas AgriLife Research, College Station, TX
(979) 845-8505, dpietsch@ag.tamu.edu
Please visit the Crop Testing web page at http://varietytesting.tamu.edu

Table 2A. 2010 Weslaco Full Irrigated Grain Sorghum Performance Test, Texas A and M University Research and Extension Center, Weslaco, Texas.

Hybrid (1)	Company or Brand Name	Maturity Class (2)	Grain Color (3)	Plant Color (4)	Days to 50% Flower	Plant Height Inches	Head Exser-tion In.	% Lodge	% Bird Damage	% Midge Damage	Desir-ability Rating (5)	% Moisture	Test Weight lb/bu	Yield lb/A
82G10	Pioneer Hi-Bred Int., Inc. (Guzman)	M	BZ	R	81	59	12	0.8	0.0	0.0	9.4	13.9	60.7	7,132
DeKalb DKS54-00	Monsanto Company	ML	BZ	P	85	61	12	0.0	0.0	0.0	9.2	14.0	58.7	6,642
DeKalb DKS54-03	Monsanto Company	ML	BZ	P	82	61	12	0.5	0.0	0.0	9.4	14.1	57.8	6,547
83P99	Pioneer Hi-Bred Int., Inc.	ML	BZ	R	81	56	11	1.0	0.0	0.0	9.1	14.7	60.5	6,439
83G19	Pioneer Hi-Bred Int., Inc.	ML	BZ	R	78	56	12	1.0	0.0	0.0	9.2	15.6	59.5	6,411
Asgrow A571	Monsanto Company	ML	R	P	78	57	11	0.0	0.0	0.0	9.0	14.0	57.3	6,301
B766	Bio Internacional Genetica	*	*	*	78	57	10	2.0	3.8	0.0	8.8	14.4	60.4	6,137
DeKalb DKS53-67	Monsanto Company	ML	BZ	P	83	55	12	0.0	0.0	0.0	8.9	14.7	60.2	6,028
Terral TV92S82	Terral Seed, Inc.	ME	BZ	P	80	57	11	0.8	0.0	0.0	8.8	13.7	59.7	5,931
Terral TV96H95	Terral Seed, Inc.	ML	BZ	P	79	56	11	0.5	0.0	0.0	9.1	14.3	59.0	5,925
Terral TV93S16	Terral Seed, Inc.	M	BZ	P	80	58	11	0.5	0.5	0.0	9.3	15.2	59.6	5,871
Fill 1	Texas AgriLife Research	ML	BZ	P	79	55	11	0.4	0.5	0.0	9.1	14.2	58.9	5,815
DeKalb DKS49-45	Monsanto Company	M	BZ	P	84	57	12	0.0	0.0	1.3	9.1	14.0	60.1	5,747
Fill 2	Texas AgriLife Research	M	BZ	*	79	56	12	0.0	0.0	0.0	9.0	13.9	59.3	5,709
Terral TV96H81	Terral Seed, Inc.	ML	R	P	79	56	9	0.0	0.0	0.0	8.7	14.4	60.7	5,706
84G62	Pioneer Hi-Bred Int., Inc.	ML	BZ	R	81	56	12	0.0	0.0	0.0	9.0	14.5	59.9	5,666
Terral TV94S91	Terral Seed, Inc.	M	R	P	78	56	11	0.8	2.0	0.0	9.4	14.3	58.5	5,653
ATx631 x RTx436	Texas AgriLife Research	ML	W	T	82	61	13	2.5	0.0	5.0	8.5	14.2	59.2	5,555
DeKalb DKS44-20	Monsanto Company	M	BZ	P	85	55	10	0.0	0.0	2.5	8.8	15.0	60.4	5,553
B779	Bio Internacional Genetica	*	*	*	79	57	10	1.5	0.3	0.0	8.5	14.7	61.7	5,477
ATx2752 x RTx430	Texas AgriLife Research	ML	BZ	P	79	57	11	3.0	0.0	0.0	8.7	14.4	59.5	5,413
ATx378 x RTx430	Texas AgriLife Research	ML	BZ	P	78	62	11	10.0	0.0	0.0	9.0	14.7	58.4	5,368
ATx399 x RTx430	Texas AgriLife Research	ML	BZ	P	78	55	11	0.0	0.0	0.0	8.5	13.4	57.2	5,038
Terral TV9421	Terral Seed, Inc.	M	BZ	P	78	54	10	0.3	1.0	0.0	8.6	13.4	59.2	4,956
Mean					79.8	56.6	11.1	0.9	0.4	0.29	9.0	14.3	59.3	5,864
C.V.					2.14	2.92	8.29	189.24	323.22	722.61	3.50	3.83	1.69	9.39
L.S.D. .05					2.48	2.39	1.33	2.51	1.71	ns	0.46	0.79	1.49	805

Note 1: All data was analyzed using REMLTOOL. L.S.D.'s are given for traits that were significantly different at P<.05.

Table 2A. 2010 Weslaco Full Irrigated Grain Sorghum Performance Test, Texas A and M University Research and Extension Center, Weslaco, Texas.

Hybrid (1)	Company or Brand Name	Maturity Class (2)	Grain Color (3)	Plant Color (4)	Days to 50% Flower	Plant Height Inches	Head Exser-tion In.	% Lodge	% Bird Damage	% Midge Damage	Desir-ability Rating (5)	% Moisture	Test Weight lb/bu	Yield lb/A

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

(1) Golden Acres GA3696 (Fill 1) was used as a fill plot seven times and DynaGro 771B (Fill 2) was used once within the test block. Fill 1 entries were analyzed separately, but combined as one entry in the table. These hybrids were entered at our discretion and are intended to be used for comparison purposes only.

(2) Maturity classification designated by respective seed companies: E=Early, M=Medium, ML=Medium Late, L=Late. Those hybrids with an asterisk (*) indicates company did not submit maturity.

(3) Grain color designated by respective seed companies: R=Red, Bz=Bronze, W=White, Cm=Cream, Y=Yellow.
Those hybrids with an asterisk (*) indicates company did not submit grain color.

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

(5) Desirability rating key is as follows: 1=Very poor, 10=Excellent

For further information about this report, contact Mr. Dennis Pietsch, Crop Testing Director, Texas AgriLife Research, College Station, TX
(979) 845-8505, DPietsch@ag.tamu.edu
Please visit the Crop Testing webpage at http://varietytesting.tamu.edu

Table 2B. Three Year Summary (2008-2010) Full Irrigated Grain Sorghum Performance Test, Weslaco, Texas.

Hybrid	Company or Brand Name	2010 Rank	2010 Yield	2009 Rank	2009 Yield	2008 Rank	2008 Yield
82G10	Pioneer Hi-Bred Int., Inc. (Guzman)	1	7,132	1	5,131	2	6,719
DeKalb DKS54-00	Monsanto Company	2	6,642	30	3,203	7	6,037
DeKalb DKS54-03	Monsanto Company	3	6,547	24	4,003	6	6,039
83P99	Pioneer Hi-Bred Int., Inc.	4	6,439	--	--	--	--
83G19	Pioneer Hi-Bred Int., Inc	5	6,411	2	5,064	13	5,798
Asgrow A571	Monsanto Company	6	6,301	4	4,820	15	5,777
B766	Bio Internacional Genetica	7	6,137	22	4,083	26	5,073
DeKalb DKS53-67	Monsanto Company	8	6,028	28	3,404	5	6,039
Terral TV92S82	Terral Seed, Inc.	9	5,931	3	5,018	--	--
Terral TV96H95	Terral Seed, Inc.	10	5,925	13	4,418	--	--
Terral TV93S16	Terral Seed, Inc.	11	5,871	16	4,337	--	--
Fill 1 (GA3696)	Texas AgriLife Research	12	5,815	6	4,744	--	--
DeKalb DKS49-45	Monsanto Company	13	5,747	--	--	--	--
Fill 2 (DG 771B)	Texas AgriLife Research	14	5,709	--	--	--	--
Terral TV96H81	Terral Seed, Inc.	15	5,706	10	4,572	--	--
84G62	Pioneer Hi-Bred Int., Inc.	16	5,666	17	4,301	1	7,006
Terral TV94S91	Terral Seed, Inc.	17	5,653	5	4,757	--	--
ATx631 x RTx436	Texas AgriLife Research	18	5,555	31	3,088	8	5,962
DeKalb DKS44-20	Monsanto Company	19	5,553	--	--	--	--
B779	Bio Internacional Genetica	20	5,477	--	--	--	--
ATx2752 x RTx430	Texas AgriLife Research	21	5,413	20	4,196	24	5,118
ATx378 x RTx430	Texas AgriLife Research	22	5,368	19	4,274	21	5,407
ATx399 x RTx430	Texas AgriLife Research	23	5,038	27	3,448	22	5,387
Terral TV9421	Terral Seed, Inc.	24	4,956	15	4,360	--	--
DG 771	DynaGro Seeds CPS	--	--	7	4,733	--	--

Table 2B. Three Year Summary (2008-2010) Full Irrigated Grain Sorghum Performance Test, Weslaco, Texas.

Hybrid	Company or Brand Name	2010 Rank	2010 Yield	2009 Rank	2009 Yield	2008 Rank	2008 Yield
BIG 750	Bio Internacional Genetica	--	--	8	4,596	19	5,538
3545	Golden Acres Genetics	--	--	9	4,596	20	5,444
Terral TVX92S95	Terral Seed, Inc.	--	--	11	4,550	--	--
DG 780	DynaGro Seeds CPS	--	--	12	4,454	--	--
3696	Golden Acres Genetics	--	--	14	4,405	27	4,905
BIG 735	Bio Internacional Genetica	--	--	18	4,300	23	5,141
Terral TV93S72	Terral Seed, Inc.	--	--	21	4,176	--	--
Terral TVX92S01	Terral Seed, Inc.	--	--	23	4,023	--	--
NK7633	Sorghum Partners Inc.	--	--	25	3,932	29	4,332
KS735	Sorghum Partners Inc.	--	--	26	3,584	--	--
Terral TV96H91	Terral Seed, Inc.	--	--	29	3,310	--	--
NK7829	Sorghum Partners Inc.	--	--	32	2,949	11	5,895
DKS 67	Monsanto Mexico	--	--	33	2,638	--	--
DG 778	DynaGro Seeds CPS	--	--	34	1,117	--	--
Number Entries		24		34		29	
Test Mean Yield (lb/A)			5,864		4,113		5,679

Table 3. AGRONOMIC AND TEST INFORMATION: WESLACO

TEST:	2010 Limited Irrigated Grain Sorghum Performance Test
LOCATION:	Texas A&M University Research and Extension Center, Hiler Farm, Weslaco, Texas
COOPERATORS:	Beto Garza and Eddie Hernandez
SOIL TYPE:	Raymondville clay loam
ROW WIDTH:	40"
PREVIOUS CROP:	Sugar Cane
LAND PREPARATION:	Disked, chiseled, disked, bedded
DATE PLANTED:	2-17-10 with cones mounted on an ALMACO planter using JD Max-Emerge II units. Test was planted on raised beds
PLOT LENGTH:	2 rows 25'
FERTILIZER:	1-27-10: 100+0+0 as 32+0+0 + 2 qt/A of Quick Boost & Awaken 3-22-10: 80+0+0 as 32+0+0
HERBICIDE:	3-22-10: 2 pt/A of Atrazine 4E
INSECTICIDE:	None
RAINFALL:	February = 0.96"; March = 0.10"; April = 3.38"; May = 1.54"; June = 11.02"; July = 2.61" Total = 19.61"
IRRIGATIONS:	Furrow irrigated on 3-31
DATE HARVESTED:	6-28-10 with JD 3300 plot combine equipped with Grain Gauge.
SIZE HARVESTED PLOT:	2 rows, 25'
TEST DESIGN:	Randomized complete block
NUMBER ENTRIES:	43
NUMBER REPLICATIONS:	4
NUMBER ROWS/PLOT:	2
TEST MEAN:	5,529 lb/A; yields corrected to 14% moisture
TEST C.V.:	7.26%

COMMENTS: This test site, located in Hidalgo County, Lower Rio Grande Valley of Texas (Texas Crop Reporting District 10-S), is one of the major grain sorghum producing areas in Texas. According to the Texas Agriculture Statistics Service, farmers in this District harvested 335,000 acres of grain sorghum (both irrigated and non-irrigated), or approximately 20.3% of Texas' 1.65 million acres in 2010.

The Weslaco grain sorghum test, conducted on one of the Texas AgriLife Research farms near Weslaco, is a very popular test site. Both U.S. and Mexico seed companies use the data extensively generated from this site to evaluate their hybrids. Texas AgriLife Research offers both a full irrigated and limited irrigated grain sorghum test. A protocol is established for each test and the criteria closely followed by personnel at the Research Center.

The protocol for this test (limited irrigated) called for only one irrigation to be applied to the test block during the growing season, preferably during the boot stage. A second irrigation could be applied, if needed, to alleviate plant stress if extreme drought conditions prevailed. A final plant population of approximately 60,000 plants per acre was targeted.

Excellent yields were attained at this site due to a combination of a good fertility program, excellent plant stands, and timely rains. Due to lack of rainfall in March, the test block was irrigated on March 31, prior to the boot stage. The irrigation alleviated plant stress and contributed to continuous plant growth and development. Beneficial rains on April 17, May 18, and June 7 helped alleviate additional plant stress and contributed to final grain yields. A pre-plant and post-plant application of fertilizer provided the necessary nutrients for continuous plant growth and development. Weeds were controlled by an application of an herbicide.

The test block was harvested on June 28, only one day before Hurricane Alex made landfall in the area. A total of 8.9" of rainfall was recorded from this major weather event, which also produced high winds. Fortunately, neither the rains, nor the wind, were issues since the test block had already been harvested.

The test mean yield was 5,529 lb/A compared to the past 3-year average of 4,901 lb/A. Three hybrids produced between 6,013 lb/A and 6,058 lb/A. Excellent bushel weights were secured. The incidence of midge and bird damage was minimal.

****

For further information about this report, contact Mr. Dennis Pietsch, Crop Testing Director, Texas AgriLife Research, College Station, TX
(979) 845-8505, dpietsch@ag.tamu.edu
Please visit the Crop Testing web page at http://varietytesting.tamu.edu

Table 3A. 2010 Weslaco Limited Irrigated Grain Sorghum Performance Test, Texas A and M University Research and Extension Center, Weslaco, Texas.

Hybrid (1)	Company or Brand Name	Maturity Class (2)	Grain Color (3)	Plant Color (4)	Days to 50% Flower	Plant Height Inches	Head Exser-tion In.	% Lodge	% Midge Damage	Desir-ability Rating (5)	% Moisture	Test Weight lb/bu	Yield lb/A
Terral TV96H81	Terral Seed, Inc.	ML	R	P	80	56	10	0.0	0.0	8.9	15.8	59.1	6,058
Integra G10173	Wilbur Ellis Company	L	BZ	*	83	.	.	.	.	.	15.4	60.6	6,040
DeKalb DKS53-67	Monsanto Company	ML	BZ	P	85	53	12	0.0	2.5	8.7	16.5	59.0	6,013
83G19	Pioneer Hi-Bred Int., Inc. (Guzman)	M	BZ	*	81	54	13	0.0	0.0	8.9	15.5	59.7	5,932
Integra G10172	Wilbur Ellis Company	L	R	*	78	.	.	.	.	.	15.5	60.7	5,855
DeKalb DKS49-45	Monsanto Company	M	BZ	P	86	56	12	0.0	0.0	9.1	14.4	57.9	5,844
Asgrow A571	Monsanto Company	ML	R	P	78	56	12	0.0	0.0	9.0	14.3	57.3	5,806
82G10	Pioneer Hi-Bred Int., Inc. (Guzman)	M	BZ	*	84	55	14	0.0	0.0	8.9	15.6	59.0	5,779
B766	Bio Internacional Genetica	*	*	*	81	55	11	1.3	0.0	8.9	15.2	58.7	5,632
Terral TV96H95	Terral Seed, Inc.	ML	BZ	P	80	53	12	0.0	0.0	8.9	14.8	57.4	5,626
3545	Golden Acres Genetics	M	BZ	P	85	54	12	0.0	0.0	9.1	15.8	58.6	5,605
Fill 1	Texas AgriLife Research	ML	BZ	P	79	53	12	0.1	0.0	9.0	14.9	58.0	5,554
DeKalb DKS36-06	Monsanto Company	ME	BZ	P	79	57	11	0.0	0.0	8.9	15.1	58.9	5,553
1488	Crosbyton Seed Company	ML	BZ	P	82	52	12	0.8	0.0	8.9	15.7	58.9	5,519
771B	DynaGro Seeds CPS	M	BZ		80	54	12	0.0	0.0	9.0	15.1	58.1	5,517
B779	Bio Internacional Genetica	*	*	*	85	55	11	1.8	0.0	8.6	15.7	60.7	5,506
DeKalb DKS54-00	Monsanto Company	ML	BZ	P	86	56	12	0.0	2.5	8.7	15.2	58.3	5,489
Integra G10166	Wilbur Ellis Company	M	R	*	81	.	.	.	.	.	15.5	60.8	5,483
Terral TV92S82	Terral Seed, Inc.	ME	BZ	P	82	53	12	0.0	0.0	8.6	15.1	58.5	5,441
Terral TV94S91	Terral Seed, Inc.	M	R	P	79	54	12	0.0	0.0	9.1	14.9	57.0	5,441
Terral TV93S16	Terral Seed, Inc.	M	BZ	P	84	55	13	0.5	1.8	9.0	16.0	58.8	5,413
ATx2752 x RTx430	Texas AgriLife Research	ML	BZ	P	82	55	12	0.0	0.0	8.6	14.6	58.0	5,406
Fill 2	Texas AgriLife Research	M	BZ	*	80	53	12	0.0	0.5	9.0	15.2	58.2	5,374
ATx631 x RTx436	Texas AgriLife Research	ML	W	T	85	60	13	0.0	4.3	8.6	15.1	58.1	5,328
3696	Golden Acres Genetics	ML	BZ	P	80	53	12	0.0	0.0	8.9	15.0	57.9	5,306
Terral TV9421	Terral Seed, Inc.	M	BZ	P	81	51	12	1.5	0.0	8.8	15.4	57.6	5,226
DeKalb DKS44-20	Monsanto Company	M	BZ	P	86	53	12	0.0	0.0	8.8	15.7	59.0	5,101
ATx378 x RTx430	Texas AgriLife Research	ML	BZ	P	81	59	11	4.5	0.0	8.8	15.2	57.0	4,862
ATx399 x RTx430	Texas AgriLife Research	ML	BZ	P	79	52	12	0.0	0.0	8.6	13.5	55.5	4,424

Table 3A. 2010 Weslaco Limited Irrigated Grain Sorghum Performance Test, Texas A and M University Research and Extension Center, Weslaco, Texas.

Hybrid (1)	Company or Brand Name	Maturity Class (2)	Grain Color (3)	Plant Color (4)	Days to 50% Flower	Plant Height Inches	Head Exser-tion In.	% Lodge	% Midge Damage	Desir-ability Rating (5)	% Moisture	Test Weight lb/bu	Yield lb/A
Mean					80.9	53.9	11.9	0.3	0.3	8.9	15.1	58.3	5,529
C.V.					2.48	2.89	6.16	469.35	417.30	2.10	5.39	1.48	7.26
L.S.D. .05					2.87	2.22	1.04	ns	1.73	0.27	1.19	1.26	593

Note 1: All data was analyzed using REMLTOOL. L.S.D.'s are given for traits that were significantly different at P<.05.

Note 2: Hybrid names starting or ending with an "X" denotes a commercial experimental. 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 3: A dot (.) indicates data was not recorded.

(1) Golden Acres GA3696 (Fill 1) was used as a fill plot 15 times and DynaGro 771B (Fill 2) was used once within the test block All entries for Fill 1 were analyzed separately, but combined as one entry in the table. These hybrids were entered at our discretion and are intended to be used for comparison purposes only.

(2) Maturity classification designated by respective seed companies: E=Early, M=Medium, ML=Medium Late, L=Late. Those hybrids with an asterisk (*) indicates company did not submit maturity.

(3) Grain color designated by respective seed companies: R=Red, Bz=Bronze, W=White, Cm=Cream, Y=Yellow.
Those hybrids with an asterisk (*) indicates company did not submit grain color.

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

(5) Desirability rating key is as follows: 1=Very poor, 10=Excellent

For further information about this report, contact Mr. Dennis Pietsch, Crop Testing Director, Texas AgriLife Research, College Station, TX
(979) 845-8505, DPietsch@ag.tamu.edu
Please visit the Crop Testing webpage at http://varietytesting.tamu.edu

Table 3B. Three Year Summary (2008-2010) Limited Irrigated Grain Sorghum Performance Test, Weslaco, Texas.

Hybrid	Company or Brand Name	2010 Rank	2010 Yield	2009 Rank	2009 Yield	2008 Rank	2008 Yield
Terral TV96H81	Terral Seed Inc.	1	6,058	1	4,723	--	--
Integra G10173	Wilbur Ellis Company	2	6,040	--	--	--	--
DeKalb DKS53-67	Monsanto Company	3	6,013	15	3,891	2	6,308
83G19	Pioneer Hi-Bred Int., Inc (Guzman)	4	5,932	2	4,628	4	5,909
Integra G10172	Wilbur Ellis Company	5	5,855	--	--	--	--
DeKalb DKS49-45	Monsanto Company	6	5,844	--	--	--	--
Asgrow A571	Monsanto Company	7	5,806	4	4,433	8	5,800
82G10	Pioneer Hi-Bred Int., Inc (Guzman)	8	5,779	3	4,462	1	6,471
B766	Bio Internacional Genetica	9	5,632	8	4,142	18	5,305
Terral TV96H95	Terral Seed Inc.	10	5,626	6	4,318	--	--
3545	Golden Acres Genetics	11	5,605	--	--	--	--
Fill (GA3696)	Texas AgriLife Research	12	5,554	5	4,431	--	--
DeKalb DKS36-06	Monsanto Company	13	5,553	14	3,900	--	--
1488	Crosbyton Seed Co.	14	5,519	12	3,982	--	--
771B	DynaGro Seeds CPS	15	5,517	11	4,077	--	--
B779	Bio Internacional Genetica	16	5,506	--	--	--	--
DeKalb DKS54-00	Monsanto Company	17	5,489	32	3,107	3	5,915
Integra G10166	Wilbur Ellis Company	18	5,483	--	--	--	--
Terral TV92S82	Terral Seed, Inc.	19	5,441	7	4,143	--	--
Terral TV94S91	Terral Seed, Inc.	20	5,441	9	4,111	--	--
Terral TV93S16	Terral Seed, Inc.	21	5,413	26	3,561	--	--
ATx2752 x RTx430	Texas AgriLife Research	22	5,406	20	3,783	13	5,391
Fill (DG771B)	Texas AgriLife Research	23	5,374	--	--		
ATx631 x RTx436	Texas AgriLife Research	24	5,328	35	2,737	20	5,199
3696	Golden Acres Genetics	25	5,306	--	--		
Terral TV9421	Terral Seed Inc.	26	5,226	27	3,561	--	--
DeKalb DKS44-20	Monsanto Company	27	5,101	22	3,734	10	5,763
ATx378 x RTx430	Texas AgriLife Research	28	4,862	28	3,388	25	4,943
ATx399 x RTx430	Texas AgriLife Research	29	4,424	18	3,851	21	5,161
BIG 750	Bio Internacional Genetica	--	--	10	4,110	14	5,381

Table 3B. Three Year Summary (2008-2010) Limited Irrigated Grain Sorghum Performance Test, Weslaco, Texas.

Hybrid	Company or Brand Name	2010 Rank	2010 Yield	2009 Rank	2009 Yield	2008 Rank	2008 Yield
KS 735	Sorghum Partners Inc.	--	--	13	3,916	--	--
WX3310	Warner Seeds	--	--	16	3,868	--	--
Terral TVX92S95	Terral Seed, Inc.	--	--	17	3,851	--	--
Terral TVX92S01	Terral Seed, Inc.	--	--	19	3,783	--	--
BIG 735	Bio Internacional Genetica	--	--	21	3,778	16	5,316
NK7633	Sorghum Partners Inc.	--	--	23	3,683	--	--
DeKalb DKS37-07	Monsanto Company	--	--	24	3,608	24	5,000
X1888	Crosbyton Seed Co.	--	--	25	3,592	--	--
DeKalb DKS54-03	Monsanto Company	--	--	29	3,364	12	5,605
Terral TV93S72	Terral Seed, Inc.	--	--	30	3,279	--	--
Terral TV96H91	Terral Seed, Inc.	--	--	31	3,250	--	--
WX3286	Warner Seeds	--	--	33	2,977	--	--
WX4303	Warner Seeds	--	--	34	2,869	--	--
WX3255	Warner Seeds	--	--	36	2,730	--	--
NK7829	Sorghum Partners Inc.	--	--	37	2,725	--	--
WX4254	Warner Seeds	--	--	38	2,708	--	--
WX4305	Warner Seeds	--	--	39	2,210	--	--
Check (DG 778)	Texas AgriLife Research	--	--	40	2,116	--	--
Number Entries		29		40		32	
Test Mean Yield (lb/A)			5,529		3,674		5,188

Table 4. AGRONOMIC AND TEST INFORMATION: GREGORY

TEST:	2010 Dryland Grain Sorghum Performance Test
LOCATION:	Allan Hunt Farm, Gregory, Texas
COOPERATORS:	Allan Hunt and Duane Campion
SOIL TYPE:	Victoria clay
ROW WIDTH:	38"
PREVIOUS CROP:	Fallow
LAND PREPARATION:	Full Conventional Till; shred stalks, deep plowed, disked, field cultivated, and planted flat
DATE PLANTED:	3-24-10, planted flat with cones mounted on an Almaco planter using JD Max-Emerge II units.
PLANT POPULATION:	Seeds were packaged to obtain a final population of approximately 75,000-80,000 plants/A
PLOT LENGTH:	2 rows 26'
FERTILIZER:	350 lb/A of 20-10-0, applied pre-plant
HERBICIDE:	13 oz/A of Outlook + .5 lb/A Atrazine were broadcast with fertilizer, pre-plant
INSECTICIDE:	An aerial application of Karate at label rate was applied for stink bugs
RAINFALL:	Rainfall was recorded about 4 miles west of the test block. A total of 19” of rainfall was recorded from 1-1-10 to 7-31-10
DATE HARVESTED:	7-15-10 with JD 3300 plot combine equipped with Grain Gauge
SIZE HARVESTED PLOT:	2 rows, 26' long
TEST DESIGN:	Randomized complete block
NUMBER ENTRIES:	40
NUMBER REPLICATIONS:	4
NUMBER ROWS/PLOT:	2
TEST MEAN:	5,890 lb/A; yields corrected to 14% moisture
TEST C.V.:	6.19%

COMMENTS: Outstanding yields were attained at this test site despite erratic weather conditions during the growing season. Due to wet soil conditions, the test block was not planted until March 24. The planting date is approximately three weeks later than the optimum planting date for this area.

Seedling emergence was rapid and early plant growth resulted from available soil moisture. Continued plant growth and development resulted from additional rainfall and a good fertilization program. Weeds and grass were controlled by applying pre-plant herbicides.

Due to optimum growing conditions during the early part of the growing season, the number of days to achieve 50% flowering ranged from only 62 days to 72 days. Midge damage was not observed in the test block. Excellent weather conditions prevailed after flowering; however, a severe thunderstorm accompanied by very high winds was reported. It appeared several areas of the test block experienced “micro-bursts” of wind that caused lodging within the test block. Surrounding fields in the area also experienced lodging from this event. Lodging notes were taken from all four reps and presented in the following table.

On June 29, approximately one week prior to harvest, the test block received between 8-9” of rainfall associated with Hurricane Alex. This rain event, in addition to another rain event from a tropical storm, resulted in grain loss from certain hybrids. In all, a total of approximately 11-12” of rain was recorded at the test site from these two rain events, thus reducing potential yields. A grain loss and sprout rating was taken one day prior to harvest (July 14) from all four replications, averaged, and presented in the following table. A desirability rating was taken and ratings also presented in the following table.

Despite the grain loss from the two rain events, excellent yields were still recorded. The test mean yield was 5,890 lb/A. Excellent bushel weights were also attained. This was a very uniform test as reflected by the C.V. of 6.19%.

Appreciation is expressed to Mr. Duane Campion, CEA, San Patricio County for assisting in collecting flower data and monitoring the test site.

****

For further information about this report, contact Mr. Dennis Pietsch, Crop Testing Director, Texas AgriLife Research, College Station, TX
(979) 845-8505, dpietsch@ag.tamu.edu
Please visit the Crop Testing web page at http://varietytesting.tamu.edu

Table 4A. 2010 Gregory Grain Sorghum Performance Test, Allan Hunt Farm, Gregory, Texas.

Hybrid (1)	Company or Brand Name	Maturity Class (2)	Grain Color (3)	Plant Color (4)	Days to 50% Flower	Plant Height Inches	Head Exser-tion In.	% Lodge (5)	Sprout and Grain Loss Rating (6)	Desir-ability Rating (7)	% Moisture	Test Weight lb/bu	Yield lb/A
G10166	Wilbur-Ellis Company	M	R	*	65	49	7	0.0	1.1	9.4	14.1	59.5	6,917
DeKalb DKS49-45	Monsanto Company	M	BZ	P	68	56	6	0.8	1.0	9.5	14.5	59.0	6,747
5556	Syngenta Seeds	M	R	R	65	48	6	0.0	1.0	9.2	14.5	59.8	6,738
83P99	Pioneer Hi-Bred Int., Inc.	ML	BZ	R	71	51	3	2.0	1.0	8.8	15.3	58.5	6,467
Terral TV96H95	Terral Seed Inc.	ML	BZ	P	65	51	6	0.8	1.4	9.2	14.3	57.6	6,403
DeKalb DKS53-67	Monsanto Company	ML	BZ	P	67	52	5	2.5	1.0	8.9	15.5	60.2	6,279
5308	Syngenta Seeds	L	BZ	R	65	51	4	1.8	1.5	9.1	13.5	57.2	6,272
DeKalb DKS54-03	Monsanto Company	ML	BZ	P	69	54	6	0.0	1.0	9.3	14.2	55.4	6,263
Fill	Texas AgriLife Research	ML	BZ	P	64	51	6	0.8	1.9	9.1	13.8	57.8	6,204
Terral TV96H81	Terral Seed Inc.	ML	R	P	63	52	6	3.8	1.9	8.6	13.7	59.0	6,170
84G62	Pioneer Hi-Bred Int., Inc.	ML	BZ	R	66	48	3	4.5	1.3	9.0	14.3	59.6	6,145
ATx631 x RTx436	Texas AgriLife Research	ML	W	T	69	56	5	0.0	2.1	8.8	14.5	58.7	6,125
G10261	Wilbur-Ellis Company	ME	R	*	64	48	6	0.3	1.4	9.1	14.9	57.5	6,106
771B	DynaGro Seeds CPS	M	BZ		63	51	6	1.0	2.0	9.2	13.4	57.8	6,092
G10267	Wilbur-Ellis Company	ML	BZ	*	63	52	6	3.0	1.8	9.0	14.1	59.2	6,046
G10173	Wilbur-Ellis Company	L	BZ	*	72	53	6	0.0	1.0	8.8	14.8	58.4	6,021
3696	Golden Acres Genetics	ML	BZ	P	64	52	7	1.8	1.9	9.0	13.4	57.9	5,966
Terral TV9421	Terral Seed Inc.	M	BZ	P	63	50	8	3.3	2.9	8.4	12.5	54.8	5,957
DeKalb DKS37-07	Monsanto Company	ME	BZ	P	63	50	7	1.8	1.9	8.8	14.7	59.9	5,933
ATx399 x RTx430	Texas AgriLife Research	ML	BZ	P	64	50	6	0.0	2.0	8.3	12.9	55.2	5,886
5613	Syngenta Seeds	M	R	R	66	50	7	2.0	2.3	9.0	13.0	58.3	5,876
DeKalb DKS36-06	Monsanto Company	ME	BZ	P	62	52	8	8.8	2.5	8.6	14.5	58.7	5,827
766B	DynaGro Seeds CPS	M	BZ		66	52	7	2.3	2.5	9.0	13.5	57.9	5,794
3464	Golden Acres Genetics	M	BZ	P	62	45	7	0.5	2.5	8.8	13.8	57.3	5,734
5464	Syngenta Seeds	ML	BZ	R	66	53	6	14.5	1.6	8.8	14.7	57.9	5,720

Table 4A. 2010 Gregory Grain Sorghum Performance Test, Allan Hunt Farm, Gregory, Texas.

Hybrid (1)	Company or Brand Name	Maturity Class (2)	Grain Color (3)	Plant Color (4)	Days to 50% Flower	Plant Height Inches	Head Exser-tion In.	% Lodge (5)	Sprout and Grain Loss Rating (6)	Desir-ability Rating (7)	% Moisture	Test Weight lb/bu	Yield lb/A
Terral TV92S82	Terral Seed Inc.	ME	BZ	P	66	52	6	2.0	2.4	8.9	13.4	57.4	5,720
G10265	Wilbur-Ellis Company	M	R	*	62	45	5	0.0	2.8	8.9	13.7	56.5	5,614
G10172	Wilbur-Ellis Company	L	R	*	64	55	8	26.3	1.5	8.6	15.8	62.1	5,600
Asgrow A571	Monsanto Company	ML	R	P	63	49	7	0.8	2.5	8.4	13.0	55.4	5,597
3552	Golden Acres Genetics	M	BZ	P	64	49	5	0.0	2.3	9.0	14.4	57.9	5,488
ATx2752 x RTx430	Texas AgriLife Research	ML	BZ	P	65	53	4	16.3	1.8	8.6	14.0	58.3	5,454
83G19	Pioneer Hi-Bred Int., Inc.	ML	BZ	R	65	52	4	35.0	1.8	8.6	16.5	58.3	5,214
H-486	Syngenta Seeds	ML	R	R	63	50	6	0.8	2.8	8.8	14.2	58.8	5,203
Terral TV93S16	Terral Seed Inc.	M	BZ	P	65	52	6	25.0	2.1	8.7	16.1	59.0	5,195
Terral TV94S91	Terral Seed Inc.	M	R	P	63	50	6	2.0	2.9	8.6	13.9	57.7	5,086
ATx378 x RTx430	Texas AgriLife Research	ML	BZ	P	65	57	7	22.5	1.9	8.3	14.5	56.9	4,691
737	Golden Acres Genetics	M	BZ	P	62	44	7	0.0	3.8	7.0	12.6	56.5	4,444
Mean					64.7	50.8	5.8	4.7	1.9	8.8	14.1	58.0	5,890
C.V.					1.31	2.73	17.88	149.38	18.43	2.90	5.22	1.99	6.19
L.S.D. .05					1.22	1.98	1.49	10.07	0.50	0.37	1.07	1.68	530

Note 1: All data was analyzed using REMLTOOL. L.S.D.'s are given for traits that were significantly different at P<.05.

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

(1) Golden Acres GA3696 was used as a fill plot four times. These plots were analyzed separately, but combined as one entry in the table. This hybrid was entered at our discretion and is intended to be used for comparison purposes only.

(2) Maturity classification designated by respective seed companies: E=Early, M=Medium, ML=Medium Late, L=Late. Those hybrids with an asterisk (*) indicates company did not submit maturity.

(3) Grain color designated by respective seed companies: R=Red, Bz=Bronze, W=White, Cm=Cream, Y=Yellow. Those hybrids with an asterisk (*) indicates company did not submit grain color.

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

Table 4A. 2010 Gregory Grain Sorghum Performance Test, Allan Hunt Farm, Gregory, Texas.

Hybrid (1)	Company or Brand Name	Maturity Class (2)	Grain Color (3)	Plant Color (4)	Days to 50% Flower	Plant Height Inches	Head Exser-tion In.	% Lodge (5)	Sprout and Grain Loss Rating (6)	Desir-ability Rating (7)	% Moisture	Test Weight lb/bu	Yield lb/A

submit plant color.

(5) Lodging was taken prior to harvest with visual percentages taken from all four replications. Lodging occurred as a result of very high winds, and/or micro-bursts, during a thunderstorm in early-June.

(6) This is a combination of sprouting damage and grain loss caused by Hurricane Alex on 6-29 in addition to rainfall from a tropical disturbance prior to harvest. A total of approximately 11-12" of rainfall was recorded at the test block from these two rain events. A visual rating based on a scale of 1-5 was taken at harvest. The rating scale is: 1= little or no grain loss; 5= severe grain loss.

(7) Desirability rating key is as follows: 1=Very poor, 10=Excellent

For further information about this report, contact Mr. Dennis Pietsch, Crop Testing Director, Texas AgriLife Research, College Station, TX
(979) 845-8505, DPietsch@ag.tamu.edu
Please visit the Crop Testing webpage at http://varietytesting.tamu.edu

Table 4B. Three Year Summary (2008-2010) Grain Sorghum Performance Test, Gregory, Texas.

Hybrid	Company or Brand Name	2010 Rank	2010 Yield	2009 Rank	2009 Yield	2008 Rank	2008 Yield
G10166	Wilbur-Ellis Company	1	6,917	--	--	--	--
DeKalb DKS49-45	Monsanto Company	2	6,747	--	--	--	--
5556	Syngenta Seeds	3	6,738	--	--	--	--
83P99	Pioneer Hi-Bred Int., Inc.	4	6,467	--	--	--	--
Terral TV96H95	Terral Seed Inc.	5	6,403	--	--	--	--
DeKalb DKS53-67	Monsanto Company	6	6,279	--	--	26	3,956
5308	Syngenta Seeds	7	6,272	--	--	--	--
DeKalb DKS54-03	Monsanto Company	8	6,263	--	--	12	4,660
Fill (GA3696)	Texas AgriLife Research	9	6,204	--	--	--	--
Terral TV96H81	Terral Seed Inc.	10	6,170	--	--	--	--
84G62	Pioneer Hi-Bred Int., Inc.	11	6,145	--	--	3	4,993
ATx631 x RTx436	Texas AgriLife Research	12	6,125	--	--	19	4,404
G10261	Wilbur-Ellis Company	13	6,106	--	--	--	--
771B	DynaGro Seeds CPS	14	6,092	--	--	--	--
G10267	Wilbur-Ellis Company	15	6,046	--	--	--	--
G10173	Wilbur-Ellis Company	16	6,021	--	--	--	--
3696	Golden Acres Genetics	17	5,966	--	--	--	--
Terral TV9421	Terral Seed Inc.	18	5,957	--	--	--	--
DeKalb DKS37-07	Monsanto Company	19	5,933	--	--	11	4,690
ATx399 x RTx430	Texas AgriLife Research	20	5,886	--	--	22	4,050
5613	Syngenta Seeds	21	5,876	--	--	--	--
DeKalb DKS36-06	Monsanto Company	22	5,827	--	--	--	--
766B	DynaGro Seeds CPS	23	5,794	--	--	--	--
3464	Golden Acres Genetics	24	5,734	--	--	--	--
5464	Syngenta Seeds	25	5,720	--	--	21	4,273
Terral TV92S82	Terral Seed Inc.	26	5,720	--	--	--	--
G10265	Wilbur-Ellis Company	27	5,614	--	--	--	--
G10172	Wilbur-Ellis Company	28	5,600	--	--	--	--
Asgrow A571	Monsanto Company	29	5,597	--	--	9	4,747
3552	Golden Acres Genetics	30	5,488	--	--	13	4,658

Table 4B. Three Year Summary (2008-2010) Grain Sorghum Performance Test, Gregory, Texas.

Hybrid	Company or Brand Name	2010 Rank	2010 Yield	2009 Rank	2009 Yield	2008 Rank	2008 Yield
ATx2752 x RTx430	Texas AgriLife Research	31	5,454	--	--	6	4,933
83G19	Pioneer Hi-Bred Int., Inc.	32	5,214	--	--	14	4,569
H-486	Syngenta Seeds	33	5,203	--	--	--	--
Terral TV93S16	Terral Seed Inc.	34	5,195	--	--	--	--
Terral TV94S91	Terral Seed Inc.	35	5,086	--	--	--	--
ATx378 x RTx430	Texas AgriLife Research	36	4,691	--	--	8	4,854
737	Golden Acres Genetics	37	4,444	--	--	20	4,297
Number Entries		37		--		26	
Test Mean Yield (lb/A)			5,890		--		4,575

Note: 2009 Test lost due to drought

Table 5.	AGRONOMIC AND TEST INFORMATION: HONDO
TEST:	2010 Irrigated Grain Sorghum Performance Test near Sabinal, Texas
LOCATION:	Tom Verstuyst Farm
COOPERATORS:	Tom Verstuyst and Jason Ott
SOIL TYPE:	Knippa clay loam
ROW WIDTH:	30"
PREVIOUS CROP:	Grain Sorghum
LAND PREPARATION:	n/a
DATE PLANTED:	3-31-10 with cones mounted on an ALMACO planter using JD Max-Emerge II units
PLANT POPULATION:	Seeds were packaged to obtain a final plant population of approximately 90,000 plants per acre
PLOT LENGTH:	2 rows 32'
FERTILIZER:	Sidedress 27 gal/A of 20+10+0
HERBICIDE:	Applied Outlook at label rate, pre-emerge Applied Peak at label rate prior to flowering stage
INSECTICIDE:	None, seeds were requested to be treated with a seed insecticide
RAINFALL:	n/a
IRRIGATIONS:	Applied 2.5” during the growing season
DATE HARVESTED:	8-9-10 with JD 3300 plot combine equipped with Grain Gauge
SIZE HARVESTED PLOT:	2 rows, 32'
TEST DESIGN:	Randomized complete block
NUMBER ENTRIES:	30
NUMBER REPLICATIONS:	4
NUMBER ROWS/PLOT:	2
TEST MEAN:	3,348 lb/A; yield corrected to 14% moisture
TEST C.V.:	14.55%

COMMENTS: Yields at this site do not reflect the potential of grain sorghum at this location. Initially, the test was to be planted in Medina County, however due to lack of cooperator interest, the test was moved north of Sabinal in Uvalde County.

Most of the farmers in the Winter Garden Area plant on 36" rows spacing, but this test was conducted on 30" row spacing. The test was also conducted using a center pivot irrigation system instead of furrow irrigation.

Conditions at planting were not ideal, thus optimum plant stands were not obtained. Although a pre-emerge herbicide was applied, weeds and grass were an issue. During the growing season, beneficial rainfall and timely irrigations provided necessary moisture for plant growth and development. The test block was cultivated once, but weeds continued to be a major issue. A herbicide (Peak) was applied prior to the flowering stage. Broadleaf weed control was fair.

Due to unexplainable reasons, flowering was inconsistent within individual plots and between reps which contributed to erratic flowering notes. The test block also had feral hog damage which reduced potential yields. Yields were erratic between replications, thus contributing to a high test C.V.

The test mean yield was only 3,348 lb/A compared to the past 3-year average of 5,715 lb/A from tests conducted in Medina County. Although yields are considered below average, test weights were outstanding. The test range for bushel weights ranged from 59.0 lb/bu to 64.4 lb/bu with the mean being 61.2 lb/bu.

Appreciation is expressed to Mr. Jason Ott, Texas AgriLife Extension Agent, Medina County for helping monitor the test block and collecting flowering notes.

****

For further information about this report, contact Mr. Dennis Pietsch, Crop Testing Director, Texas AgriLife Research, College Station, TX
(979) 845-8505, dpietsch@ag.tamu.edu
Please visit the Crop Testing web page at http://varietytesting.tamu.edu

Table 5A. 2010 Hondo (Sabinal) Grain Sorghum Performance Test, Tom Verstuyst Farm, Sabinal, Texas.

Hybrid	Company or Brand Name	Maturity Class (1)	Grain Color (2)	Plant Color (3)	Days to 50% Flower	Plant Height Inches	Head Exser-tion In.	% Lodge	% Moisture	Test Weight lb/bu	Yield lb/A
DeKalb DKS49-45	Monsanto Company	M	BZ	P	73	55	8	0.0	12.4	62.8	4,253
Terral TV96H81	Terral Seed Inc.	ML	R	P	73	56	9	0.0	12.5	61.7	4,070
84G62	Pioneer Hi-Bred Int., Inc	ML	BZ	R	74	52	5	0.0	12.6	62.3	4,037
DeKalb DKS53-67	Monsanto Company	ML	BZ	P	74	52	6	0.0	12.7	64.4	4,009
ATx2752 x RTx430	Texas AgriLife Research	ML	BZ	P	73	55	6	0.0	11.7	60.4	3,997
Asgrow A571	Monsanto Company	ML	R	P	73	56	11	0.0	11.5	59.8	3,987
DeKalb DKS44-20	Monsanto Company	M	BZ	P	72	56	8	0.0	12.8	63.1	3,819
83G19	Pioneer Hi-Bred Int., Inc	ML	BZ	R	75	55	6	0.0	11.8	61.1	3,807
G10172	Wilbur-Ellis Company	L	R	*	73	57	9	1.3	12.4	62.5	3,648
DeKalb DKS54-00	Monsanto Company	ML	BZ	P	76	61	11	0.0	12.5	62.3	3,635
5464	Syngenta Seeds	ML	BZ	R	72	55	9	0.0	12.1	62.3	3,548
5308	Syngenta Seeds	L	BZ	R	72	53	7	0.0	11.7	60.3	3,493
Terral TV9421	Terral Seed Inc.	M	BZ	P	72	49	7	0.0	12.0	61.3	3,471
83P99	Pioneer Hi-Bred Int., Inc	ML	BZ	R	77	54	5	0.0	12.6	62.0	3,400
H-486	Syngenta Seeds	ML	R	R	72	53	7	0.0	11.9	61.3	3,355
Terral TV94S91	Terral Seed Inc.	M	R	P	73	50	8	0.0	11.7	60.6	3,333
ATx378 x RTx430	Texas AgriLife Research	ML	BZ	P	74	61	7	0.0	11.9	60.3	3,284
Terral TV96H95	Terral Seed Inc.	ML	BZ	P	73	54	8	0.0	11.6	60.0	3,282
G10267	Wilbur-Ellis Company	ML	BZ	*	73	53	6	1.3	11.9	60.6	3,236
Terral TV92S82	Terral Seed Inc.	ME	BZ	P	72	53	10	0.0	11.6	60.6	3,216
G10265	Wilbur-Ellis Company	M	R	*	72	48	7	0.0	11.3	59.0	3,139
G10173	Wilbur-Ellis Company	L	BZ	*	74	55	10	0.0	11.7	60.1	3,077
G10166	Wilbur-Ellis Company	M	R	*	71	47	8	0.0	12.1	62.6	3,058
G10261	Wilbur-Ellis Company	ME	R	*	71	51	8	0.0	12.1	61.7	2,862
1488	Crosbyton Seed Co.	ML	BZ	P	73	52	6	4.9	11.9	60.3	2,805

Table 5A. 2010 Hondo (Sabinal) Grain Sorghum Performance Test, Tom Verstuyst Farm, Sabinal, Texas.

Hybrid	Company or Brand Name	Maturity Class (1)	Grain Color (2)	Plant Color (3)	Days to 50% Flower	Plant Height Inches	Head Exser-tion In.	% Lodge	% Moisture	Test Weight lb/bu	Yield lb/A
Terral TV93S16	Terral Seed Inc.	M	BZ	P	73	53	8	1.3	12.2	62.1	2,802
5613	Syngenta Seeds	M	BZ	R	71	54	9	1.6	11.4	59.0	2,757
ATx399 x RTx430	Texas AgriLife Research	ML	BZ	P	73	50	7	0.0	12.0	59.3	2,621
ATx631 x RTx436	Texas AgriLife Research	ML	W	T	76	60	7	2.5	12.1	61.2	2,237
5556	Syngenta Seeds	M	R	R	73	47	7	1.3	12.3	61.9	2,216
Mean					73.0	53.4	7.6	0.5	12.0	61.2	3,348
C.V.					2.05	3.53	19.52	340.61	3.18	1.65	14.55
L.S.D. .05					2.17	2.87	2.25	ns	0.58	1.58	744

Note 1: All data was analyzed using REMLTOOL. L.S.D.'s are given for traits that were significantly different at P<.05.

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

(1) Maturity classification designated by respective seed companies: E=Early, M=Medium, ML=Medium Late, L=Late. Those hybrids with an asterisk (*) indicates company did not submit maturity.

(2) Grain color designated by respective seed companies: R=Red, Bz=Bronze, W=White, Cm=Cream, Y=Yellow.
Those hybrids with an asterisk (*) indicates company did not submit grain color.

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

For further information about this report, contact Mr. Dennis Pietsch, Crop Testing Director, Texas AgriLife Research, College Station, TX
(979) 845-8505, DPietsch@ag.tamu.edu
Please visit the Crop Testing webpage at http://varietytesting.tamu.edu

Table 5B. Three Year Summary (2008-2010) Grain Sorghum Performance Test, Hondo (Sabinal), Texas.

Hybrid	Company or Brand Name	2010 Rank	2010 Yield	2009 Rank	2009 Yield	2008 Rank	2008 Yield
DeKalb DKS49-45	Monsanto Company	1	4,253	--	--	--	--
Terral TV96H81	Terral Seed Inc.	2	4,070	5	6,966	--	--
84G62	Pioneer Hi-Bred Int., Inc.	3	4,037	3	7,099	7	5,418
DeKalb DKS53-67	Monsanto Company	4	4,009	26	6,003	3	5,925
ATx2752 x RTx430	Texas AgriLife Research	5	3,997	2	7,233	13	5,154
Asgrow A571	Monsanto Company	6	3,987	4	7,094	1	6,327
DeKalb DKS44-20	Monsanto Company	7	3,819	21	6,257	2	6,077
83G19	Pioneer Hi-Bred Int., Inc.	8	3,807	9	6,796	15	4,317
G10172	Wilbur-Ellis Company	9	3,648	--	--	--	--
DeKalb DKS54-00	Monsanto Company	10	3,635	20	6,278	8	5,344
5464	Syngenta Seeds	11	3,548	--	--	--	--
5308	Syngenta Seeds	12	3,493	--	--	--	--
Terral TV9421	Terral Seed Inc.	13	3,471	13	6,721	--	--
83P99	Pioneer Hi-Bred Int., Inc.	14	3,400	--	--	--	--
H-486	Syngenta Seeds	15	3,355	--	--	--	--
Terral TV94S91	Terral Seed Inc.	16	3,333	18	6,421	--	--
ATx378 x RTx430	Texas AgriLife Research	17	3,284	15	6,662	10	5,237
Terral TV96H95	Terral Seed Inc.	17	3,282	--	--	--	--
G10267	Wilbur-Ellis Company	19	3,236	--	--	--	--
Terral TV92S82	Terral Seed Inc.	20	3,216	23	6,176	--	--
G10265	Wilbur-Ellis Company	21	3,139	--	--	--	--
G10173	Wilbur-Ellis Company	22	3,077	--	--	--	--
G10166	Wilbur-Ellis Company	23	3,058	--	--	--	--
G10261	Wilbur-Ellis Company	24	2,862	--	--	--	--
1488	Crosbyton Seed Company	25	2,805	7	6,885	--	--
Terral TV93S16	Terral Seed Inc.	26	2,802	--	--	--	--
5613	Syngenta Seeds	27	2,757	--	--	--	--
ATx399 x RTx430	Texas AgriLife Research	28	2,621	17	6,500	9	5,285
ATx631 x RTx436	Texas AgriLife Research	29	2,237	25	6,100	12	5,178
5556	Syngenta Seeds	30	2,216	--	--	--	--

Table 5B. Three Year Summary (2008-2010) Grain Sorghum Performance Test, Hondo (Sabinal), Texas.

Hybrid	Company or Brand Name	2010 Rank	2010 Yield	2009 Rank	2009 Yield	2008 Rank	2008 Yield
KS735	Sorghum Partners Inc.	--	--	1	7,259	--	--
Fill 1 (GA3696)	Texas AgriLife Research	--	--	6	6,901	--	--
DG 780	DynaGro Seeds CPS	--	--	8	6,882	--	--
Fill 2 (GA3696)	Texas AgriLife Research	--	--	10	6,786	--	--
DG 771	DynaGro Seeds CPS	--	--	11	6,755	--	--
Terral TVX96H95	Terral Seed Inc.	--	--	12	6,754	--	--
Terral TV96H91	Terral Seed Inc.	--	--	14	6,662	--	--
Terral TVX92S95	Terral Seed Inc.	--	--	16	6,546	--	--
Terral TXX92S01	Terral Seed Inc.	--	--	19	6,345	--	--
NK7633	Sorghum Partners Inc.	--	--	22	6,196	--	--
DG 778	DynaGro Seeds CPS	--	--	24	6,128	--	--
Terral TVX93S16	Terral Seed Inc.	--	--	27	5,815	--	--
Terral TV93S72	Terral Seed Inc.	--	--	28	5,783	--	--
NK7829	Sorghum Partners Inc.	--	--	29	5,701	11	5,182
Number of Entries		30		29		15	
Test Mean Yield (lb/A)			3,348		6,554		5,405

Table 6.	AGRONOMIC AND TEST INFORMATION: DANEVANG
TEST:	2010 Dryland Grain Sorghum Performance Test
LOCATION:	Dean Hansen Farm, Danevang, Texas
COOPERATOR:	Dean Hansen
SOIL TYPE:	Lake Charles clay
ROW WIDTH:	Raised 40” seedbeds
PREVIOUS CROP:	Cotton
LAND PREPARATION:	Due to very wet conditions during the fall and winter, and prior to planting, there was no land preparation; therefore the same beds (stale beds) were used
DATE PLANTED:	3-29-10, planted with cones mounted on an Almaco planter using JD Max-Emerge II units.
PLANT POPULATION:	Seeds were packaged to obtain a final population of approximately 80,000-85,000 plants/A
PLOT LENGTH:	2 rows 26'
FERTILIZER:	Applied 350 lb/A of 30+0+0+2(S), pre-plant
HERBICIDE:	Applied 20 oz/A of Guardsman Max on a 20” band at planting Broadcast 1 oz/A of Peak + 1 qt/A of Atrazine when sorghum was 14” tall
INSECTICIDE:	None, seeds were required to be treated with a seed insecticide
RAINFALL:	Rainfall was not recorded at the test site, but approximately .5 miles away by Mr. Mickey Christensen. Special thanks to Mr. Christensen for providing us with the rainfall data. August ’09 = .64”; Sept = 6.25”; Oct = 7.91”; Nov = 4.02”; Dec = 4.84”; Jan ’10 = 3.47”; Feb = 3.35”; March = 1.63”; April = .52”; May = 7.88”; June = 4.65”; July = 11.65”; August = 3.96” Total = 60.77”
DATE HARVESTED:	8-5-10 with a JD 3300 plot combine equipped with Grain Gauge
SIZE HARVESTED PLOT:	2 rows, 26' long
TEST DESIGN:	Randomized complete block
NUMBER ENTRIES:	40
NUMBER REPLICATIONS:	4
NUMBER ROWS/PLOT:	2
TEST MEAN:	5,046 lb/A; yields corrected to 14% moisture
TEST C.V.:	7.37%

COMMENTS: This site, located in Wharton County, is a major grain sorghum producing area in Texas. Commercial seed companies use this location to enhance their testing program whereby hybrids can be evaluated for genetic and phenotypic traits.

Due to wet soil conditions from fall and winter rainfall, the field was not prepared. Instead, the same beds (stale beds) were used in 2010 as in 2009. Additional rainfall in early-March delayed the planting date until March 29, which is approximately three weeks later than the optimum planting date. The test block was sprayed prior to planting to "burn-down" existing weeds and grass.

Rapid seedling emergence and early plant growth resulted in excellent plant stands. Continued plant growth and development resulted from timely rains throughout the growing season. No plant stress was observed. The number of days to 50% flower ranged from 64-73 days from planting. Most hybrids flowered within the first week of June. Despite the late planting date, midge was not a problem in the test.

The test block progressed very well and exhibited excellent yield potential until approximately 10" of rainfall was recorded associated with Hurricane Alex in late-June and early-July. A week later, another tropical depression dumped another 6" of rainfall on the test block. These two rain events resulted in grain sprouting, grain loss, and severe weathering to occur. On July 14, sprout and grain loss rating notes were taken from all four replications. Ratings were based on a scale of 1-5 and results presented in the following table. Also, on July 17, Dr. Tom Isakeit, Professor, Texas AgriLife Extension Plant Pathologist, Texas A&M University, College Station, Texas, randomly collected several panicles from all plots in all four replications. The samples were taken back to College Station, threshed, and a mold rating obtained using a stereoscope. A rating of 1-5 was used and results also presented in the following table. The test block was scheduled to be harvested in late July; however, another rain event occurred. The test block received another 2" of rain, thus delaying harvest. In all, approximately 20" of rainfall was recorded from the three rain events.

On August 3 desirability notes were recorded from all replications. The test block was finally harvested on August 5. Despite the untimely rain events at or near physiological maturity, the test mean was still 5,046 lb/A. The mean test weight was only 49.6 lb/bu; however, there were eight hybrids that had a test weight between 52.3 and 56.7 lb/bu. It is interesting to note there appears to be a direct correlation between sprout damage, mold rating, desirability, and yield. Some hybrids exhibited excellent weathering ability, while other hybrids were severely affected as reflected by the test weights. Head smut was observed in the test block and counts were made prior to harvest from all four replications, averaged, and also presented in the following table. Lodging and bird damage was not observed.

***

For further information about this report, contact Mr. Dennis Pietsch, Crop Testing Director, Texas AgriLife Research, College Station, TX
(979) 845-8505, dpietsch@ag.tamu.edu
Please visit the Crop Testing web page at http://varietytesting.tamu.edu

Table 6A. 2010 Danevang Grain Sorghum Performance Test, Dean Hansen Farm, Danevang, Texas.

Hybrid (1)	Company or Brand Name	Maturity Class (2)	Grain Color (3)	Plant Color (4)	Days to 50% Flower	Plant Height Inches	Head Exser-tion In.	No. Smut Per Plot (5)	Sprout and Grain Loss Rating (6)	Mold Rating (7)	Desir-ability Rating (8)	% Moisture	Test Weight lb/bu	Yield lb/A
G10172	Wilbur-Ellis Company	L	R	*	66	64	9	0.00	1.9	3.3	8.8	13.3	56.7	6,208
84G11	Pioneer Hi-Bred Int., Inc.	ML	BZ	R	66	55	5	0.00	1.9	3.8	8.3	12.2	52.9	5,915
G10166	Wilbur-Ellis Company	M	R	*	64	52	7	0.00	2.4	3.8	8.1	11.7	52.9	5,877
Terral TV96H81	Terral Seed Inc.	ML	R	P	66	58	6	0.00	1.9	3.6	8.8	11.8	51.6	5,816
ATx378 x RTx430	Texas AgriLife Research	ML	BZ	P	68	67	9	3.25	2.4	4.3	8.3	12.4	48.1	5,746
DeKalb DKS53-67	Monsanto Company	ML	BZ	P	69	56	6	2.50	2.3	3.6	8.5	12.2	55.2	5,548
ATx2752 x RTx430	Texas AgriLife Research	ML	BZ	P	68	58	5	0.50	2.8	4.1	7.8	11.2	48.3	5,401
83G19	Pioneer Hi-Bred Int., Inc.	ML	BZ	R	67	56	5	0.00	2.1	4.0	8.1	11.4	50.3	5,391
Fill	Texas AgriLife Research	ML	BZ	P	65	57	6	1.08	3.0	n/a	7.7	11.2	50.1	5,340
1488	Crosbyton Seed Co.	ML	BZ	P	67	55	7	0.25	2.6	4.0	7.6	11.2	48.9	5,301
5556	Syngenta Seeds	M	R	R	65	52	7	0.25	2.8	3.8	8.0	11.5	52.3	5,270
Terral TV96H95	Terral Seed Inc.	ML	BZ	P	66	57	6	0.50	2.8	4.0	7.8	11.0	49.1	5,269
5308	Syngenta Seeds	L	BZ	R	67	57	7	0.50	2.8	4.0	7.6	10.9	49.3	5,245
DeKalb DKS49-45	Monsanto Company	M	BZ	P	68	62	7	1.00	2.5	3.8	8.4	11.1	50.5	5,238
G10267	Wilbur-Ellis Company	ML	BZ	*	67	56	5	0.50	2.9	3.9	7.8	11.7	49.4	5,234
G10261	Wilbur-Ellis Company	ME	R	*	65	52	7	0.25	2.8	3.5	8.4	11.7	50.4	5,194
G10265	Wilbur-Ellis Company	M	R	*	66	49	5	0.00	2.4	3.0	8.5	11.3	50.2	5,148
3696	Golden Acres Genetics	ML	BZ	P	66	56	7	0.25	3.1	4.1	7.8	11.6	49.4	5,114
3464	Golden Acres Genetics	M	BZ	P	66	50	4	0.00	2.4	3.5	8.1	10.4	48.3	5,113
ATx399 x RTx430	Texas AgriLife Research	ML	BZ	P	66	54	8	1.75	3.0	4.0	7.6	10.5	48.1	5,101
Terral TV9421	Terral Seed Inc.	M	BZ	P	64	60	9	1.00	3.5	4.1	7.4	10.3	47.6	5,090
DeKalb DKS44-20	Monsanto Company	M	BZ	P	67	59	9	0.75	2.6	3.6	8.4	11.1	50.6	5,079
3545	Golden Acres Genetics	M	BZ	P	65	59	9	5.50	3.5	4.0	7.5	10.8	50.7	5,072
771B	DynaGro Seeds CPS	M	BZ	*	67	57	7	0.50	2.9	4.1	8.0	11.6	48.8	5,053
G10173	Wilbur-Ellis Company	L	BZ	*	69	58	8	1.00	2.3	3.6	8.1	11.0	47.3	5,035

Table 6A. 2010 Danevang Grain Sorghum Performance Test, Dean Hansen Farm, Danevang, Texas.

Hybrid (1)	Company or Brand Name	Maturity Class (2)	Grain Color (3)	Plant Color (4)	Days to 50% Flower	Plant Height Inches	Head Exser-tion In.	No. Smut Per Plot (5)	Sprout and Grain Loss Rating (6)	Mold Rating (7)	Desir-ability Rating (8)	% Moisture	Test Weight lb/bu	Yield lb/A
ATx631 x RTx436	Texas AgriLife Research	ML	W	T	73	67	7	1.50	3.0	3.8	8.0	13.3	50.9	4,975
Terral TV93S16	Terral Seed Inc.	M	BZ	P	66	57	8	3.50	3.1	4.1	7.5	11.3	49.9	4,972
H-486	Syngenta Seeds	ML	R	R	66	53	6	0.50	2.6	3.8	8.0	11.5	52.8	4,813
772B	DynaGro Seeds CPS	M	BZ	*	67	58	7	2.50	3.1	3.9	7.5	11.0	48.8	4,779
DeKalb DKS54-00	Monsanto Company	ML	BZ	P	69	58	8	1.50	2.6	3.8	7.8	10.9	50.1	4,766
3552	Golden Acres Genetics	M	BZ	P	67	55	6	1.75	2.1	3.8	8.2	11.9	52.6	4,764
5464	Syngenta Seeds	ML	BZ	R	67	59	8	4.50	3.0	4.1	7.5	12.0	49.3	4,763
Terral TV94S91	Terral Seed Inc.	M	R	P	65	53	6	0.75	2.6	3.9	8.1	11.6	52.3	4,752
DeKalb DKS54-03	Monsanto Company	ML	BZ	P	70	57	9	0.25	2.8	4.0	7.6	10.3	46.9	4,662
766B	DynaGro Seeds CPS	M	BZ	*	66	58	9	2.25	4.8	4.3	7.0	10.0	43.8	3,763
737	Golden Acres Genetics	M	BZ	P	66	51	7	1.50	4.3	4.1	6.8	11.0	44.4	3,640
Terral TV92S82	Terral Seed Inc.	ME	BZ	P	65	58	9	2.50	4.6	4.5	7.0	9.3	43.3	3,360
5613	Syngenta Seeds	M	R	R	66	58	8	2.25	4.4	4.5	6.9	9.9	43.3	3,343
Mean					66.4	56.7	6.9	1.2	2.9	3.9	7.9	11.3	49.64	5,046
C.V.					1.30	3.17	17.16	102.02	15.30	8.38	4.73	6.50	3.55	7.37
L.S.D. .05					1.23	2.57	1.70	1.78	0.63	0.47	0.53	1.06	2.57	538.2

Note 1: All data was analyzed using REMLTOOL. L.S.D.'s are given for traits that were significantly different at P<.05.

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

(1) Golden Acres GA3696 was used as a fill plot three times. These plots were analyzed separately, but combined as one entry in the table. This hybrid was entered at our discretion and is intended to be used for comparison purposes only.

(2) Maturity classification designated by respective seed companies: E=Early, M=Medium, ML=Medium Late, L=Late. Those hybrids with an asterisk (*) indicates company did not submit maturity.

(3) Grain color designated by respective seed companies: R=Red, Bz=Bronze, W=White, Cm=Cream, Y=Yellow. Those hybrids with an asterisk (*) indicates company did not submit grain color.

Table 6A. 2010 Danevang Grain Sorghum Performance Test, Dean Hansen Farm, Danevang, Texas.

Hybrid (1)	Company or Brand Name	Maturity Class (2)	Grain Color (3)	Plant Color (4)	Days to 50% Flower	Plant Height Inches	Head Exser-tion In.	No. Smut Per Plot (5)	Sprout and Grain Loss Rating (6)	Mold Rating (7)	Desir-ability Rating (8)	% Moisture	Test Weight lb/bu	Yield lb/A

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

(5) Smut counts were taken on August 2 from all four replications and averaged.

(6) This is a combination of sprouting damage and grain loss caused by Hurricane Alex on 6-29 in addition to rainfall from a tropical disturbance. Visual readings were taken on July 14. A total of approximately 19" of rainfall was recorded at the test block from these two rain events. The rating scale is: 1= little or no grain loss; 5= severe grain loss.

(7) Dr. Tom Isakeit, Professor and Texas AgriLife Extension Plant Pathologist, Texas A&M University, College Station, Texas collected random panicles from all entries in all four replications (except the fill entry) on July 17. He took the samples to his lab in College Station, Texas. At the lab he threshed all of the panicles and used a stereoscope to obtain a grain mold rating. The rating was based on a rating on 1-5. The key is as follows:
1 = seed bright with no mold and no discoloration due to weathering;
2= seed is not as bright and has little or no mold, but has some discoloration due to weathering;
3= seed not bright, some mold and some discoloration;
4= seed almost entirely covered in mold and is deteriorating;
5= seed is covered entirely with mold, is deteriorated and looks dead.

(8) Desirability rating were taken on August 3 from all four replications and averaged. The test was harvested on August 4 & 5. The rating key is as follows: 1=Very poor, 10=Excellent

For further information about this report, contact Mr. Dennis Pietsch, Crop Testing Director, Texas AgriLife Research, College Station, TX (979) 845-8505, DPietsch@ag.tamu.edu
Please visit the Crop Testing webpage at http://varietytesting.tamu.edu

Table 6B. Three Year Summary (2008-2010) Grain Sorghum Performance Test, Danevang, Texas.

Hybrid	Company or Brand Name	2010 Rank	2010 Yield	2009 Rank	2009 Yield	2008 Rank	2008 Yield
G10172	Wilbur-Ellis Company	1	6,208	--	--	--	--
84G11	Pioneer Hi-Bred Int., Inc.	2	5,915	1	4,734	14	5,096
G10166	Wilbur-Ellis Company	3	5,877	--	--	--	--
Terral TV96H81	Terral Seed Inc.	4	5,816	--	--	--	--
ATx378 x RTx430	Texas AgriLife Research	5	5,746	3	4,299	18	4,918
DeKalb DKS53-67	Monsanto Company	6	5,548	17	3,821	23	4,786
ATx2752 x RTx430	Texas AgriLife Research	7	5,401	4	4,272	4	5,432
83G19	Pioneer Hi-Bred Int., Inc.	8	5,391	6	4,043	5	5,390
Fill (GA 3696)	Texas AgriLife Research	9	5,340	21	3,679	--	--
1488	Crosbyton Seed Co.	10	5,301	2	4,670	8	5,307
5556	Syngenta Seeds	11	5,270	--	--	--	--
Terral TV96H95	Terral Seed Inc.	12	5,269	--	--	--	--
5308	Syngenta Seeds	13	5,245	11	3,966	--	--
DeKalb DKS49-45	Monsanto Company	14	5,238	--	--	--	--
G10267	Wilbur-Ellis Company	15	5,234	--	--	--	--
G10261	Wilbur-Ellis Company	16	5,194	--	--	--	--
G10265	Wilbur-Ellis Company	17	5,148	--	--	--	--
3696	Golden Acres Genetics	18	5,114	8	3,991	11	5,165
3464	Golden Acres Genetics	19	5,113	31	3,201	--	--
ATx399 x RTx430	Texas AgriLife Research	20	5,101	24	3,638	10	5,229
Terral TV9421	Terral Seed Inc.	21	5,090	16	3,837	6	5,386
DeKalb DKS44-20	Monsanto Company	22	5,079	15	3,840	13	5,106
3545	Golden Acres Genetics	23	5,072	27	3,330	21	4,819
771B	DynaGro Seeds CPS	24	5,053	--	--	--	--
G10173	Wilbur-Ellis Company	25	5,035	--	--	--	--

Table 6B. Three Year Summary (2008-2010) Grain Sorghum Performance Test, Danevang, Texas.

Hybrid	Company or Brand Name	2010 Rank	2010 Yield	2009 Rank	2009 Yield	2008 Rank	2008 Yield
ATx631 x RTx436	Texas AgriLife Research	26	4,975	22	3,677	12	5,139
Terral TV93S16	Terral Seed Inc.	27	4,972	--	--	--	--
H-486	Syngenta Seeds	28	4,813	--	--	--	--
772B	DynaGro Seeds CPS	29	4,779	--	--	19	4,915
DeKalb DKS54-00	Monsanto Company	30	4,766	23	3,660	27	4,536
3552	Golden Acres Genetics	31	4,764	5	4,113	28	4,452
5464	Syngenta Seeds	32	4,763	12	3,912	15	5,075
Terral TV94S91	Terral Seed Inc.	33	4,752	9	3,973	25	4,761
DeKalb DKS54-03	Monsanto Company	34	4,662	32	3,146	2	5,741
766B	DynaGro Seeds CPS	35	3,763	--	--	--	--
737	Golden Acres Genetics	36	3,640	--	--	--	--
Terral TV92S82	Terral Seed Inc.	37	3,360	20	3,742	22	4,818
5613	Syngenta Seeds	38	3,343	--	--	--	--
Terral TVX96H95	Terral Seed Inc.	--	--	7	4,019	--	--
DG 771	DynaGro Seeds CPS	--	--	10	3,966	--	--
Terral TXX92S01	Terral Seed Inc.	--	--	13	3,892	--	--
Terral TV93S72	Terral Seed Inc.	--	--	14	3,866	24	4,776
Terral TV96H81	Terral Seed Inc.	--	--	18	3,776	16	5,048
Terral TVX93S16	Terral Seed Inc.	--	--	19	3,751	--	--
Asgrow A571	Monsanto Company	--	--	25	3,582	7	5,375
DeKalb DKS36-06	Monsanto Company	--	--	26	3,389	--	--
Terral TV96H91	Terral Seed Inc.	--	--	28	3,320	--	--
NK7633	Sorghum Partners, Inc.	--	--	29	3,257	--	--
Terral TVX92S95	Terral Seed Inc.	--	--	30	3,242	--	--
DeKalb DKS37-07	Monsanto Company	--	--	33	3,034	20	4,869
NK8831	Sorghum Partners, Inc.	--	--	34	1,939	26	4,603
NK7829	Sorghum Partners, Inc.	--	--	35	1,771	--	--
Number Entries		38		35		30	
Test Mean Yield (lb/A)			5,046		3,669		5,008

Table 7.	AGRONOMIC AND TEST INFORMATION: COLLEGE STATION
TEST:	2010 Limited Irrigated Grain Sorghum Performance Test
LOCATION:	Texas A&M University Farm
COOPERATORS:	W.L. Rooney, and S.D. Collins
SOIL TYPE:	Ships clay loam
ROW WIDTH:	30"
PREVIOUS CROP:	Forage Sorghum
LAND PREPARATION:	Chiseled, disked, bedded, hipped, cultivated and rod-weeded
DATE PLANTED:	3-31-10 with cones mounted on an ALMACO planter using JD Max-Emerge II units
PLANT POPULATION:	Seeds were packaged to obtain a plant population of approximately 85,000 plants per acre
PLOT LENGTH:	2 rows 18.5'
FERTILIZER:	150 lb/A of 10-34-0-4 (Zn), March 12, 2010 440 lb/A of 32-0-0 on May 4, 2010
HERBICIDE:	Applied 3.0 pt/A of Atrazine 4L + 1.3 pt/A Brawl on 3-31-10 Applied 3.0 pt/A Prowl H2O on May 14, 2010
INSECTICIDE:	Applied 6 lb/A Counter 20CR at planting Applied 2.0 oz/A of Karate for midge on 6-24-10
RAINFALL:	September ’09 = 3.74”; October = 10.38”; November = 3.00”; December = 4.06”; January ’10 = 3.18”; February = 3.66”; March = 2.30”; April = 1.00”; May = 3.00”; June = 5.89”; July = 2.49”; August = .33” Total = 43.03”
IRRIGATIONS:	None
DATE HARVESTED:	8-20-10 and 8-23-10 with JD 3300 plot combine equipped with Harvestmaster Grain Gauge System
SIZE HARVESTED PLOT:	2 rows, 18.5'
TEST DESIGN:	Randomized complete block
NUMBER ENTRIES:	32
NUMBER REPLICATIONS:	4
NUMBER ROWS/PLOT:	2
TEST MEAN:	6,581 lb/A; yields corrected to 14% moisture
TEST C.V.:	10.49%

COMMENTS: This test site, conducted on the Texas AgriLife Research Farm, is designated as a limited irrigated grain sorghum test. The protocol for this site calls for no more than two irrigations to be applied to the test throughout the growing season.

The season started with a full soil profile of moisture due to above normal rainfall from September 2009 to February 2010. During this time span, 28.02" of rainfall was recorded. An optimum planting date was achieved and seedling emergence was rapid. Excellent plant growth and development resulted from timely rainfall in April and May. A good fertilization program provided the necessary plant nutrients necessary for continued plant development. Weeds and grass were controlled by applying herbicides at the appropriate time.

The test block was scheduled to be irrigated in mid-May; however two significant rain events on May 14 & 15 totaling 2.92" provided ample moisture for continuous plant growth and development. Timely rainfall in June and July contributed to grain fill and enhanced final yields. With the timely and beneficial rains, no irrigations were applied to the test block. For the time period of September 2009 thru August 2010, a total of 43.03" of rain was recorded at the test block. The test block warranted one application of an insecticide which reduced midge populations.

The test mean yield was 6,581 lb/A compared to the past 3-year average of 5,878 lb/A. Five hybrids produced between 7,036 lb/A and 7,816 lb/A. Good bushel weights were attained. Lodging was observed in the test, but the incidence was minimal.

***

For further information about this report, contact Mr. Dennis Pietsch, Crop Testing Director, Texas AgriLife Research, College Station, TX
(979) 845-8505, croptest@neo.tamu.edu
Please visit the Crop Testing web page at http://varietytesting.tamu.edu

Table 7A. 2010 College Station Grain Sorghum Performance Test, Texas A and M University Farm, College Station, Texas.

Hybrid	Company or Brand Name	Maturity Class (1)	Grain Color (2)	Plant Color (3)	Days to 50% Flower	Plant Height Inches	Head Exser-tion In.	% Lodge	Desir-ability Rating (4)	% Moisture	Test Weight lb/bu	Yield lb/A
83P99	Pioneer Hi-Bred Int., Inc	ML	BZ	R	74	54	3	0.0	8.9	13.4	56.8	7,816
83G19	Pioneer Hi-Bred Int., Inc	ML	BZ	R	71	54	5	0.0	9.0	12.5	57.1	7,555
84G62	Pioneer Hi-Bred Int., Inc	ML	BZ	R	72	53	2	0.0	8.7	12.9	57.3	7,431
84P74	Pioneer Hi-Bred Int., Inc	ML	R	R	69	53	6	0.0	8.8	13.0	58.8	7,348
G10172	Wilbur-Ellis Company	L	R	*	72	61	7	3.8	8.9	13.8	58.3	7,036
Terral TV96H81	Terral Seed Inc.	ML	R	P	71	56	6	1.8	9.0	12.4	56.2	6,991
G10267	Wilbur-Ellis Company	ML	BZ	*	71	53	5	0.8	8.7	12.0	56.0	6,914
G10173	Wilbur-Ellis Company	L	BZ	*	74	54	6	1.3	8.8	12.6	55.7	6,828
5556	Syngenta Seeds	M	R	R	70	48	7	0.0	8.6	12.8	57.3	6,820
DeKalb DKS53-67	Monsanto Company	ML	BZ	P	72	56	5	0.0	8.9	13.1	59.1	6,819
Terral TV92S82	Terral Seed Inc.	ME	BZ	P	70	51	7	1.3	8.8	11.7	54.6	6,727
DeKalb DKS49-45	Monsanto Company	M	BZ	P	72	56	7	0.0	8.9	12.6	56.9	6,703
1488	Crosbyton Seed Co.	ML	BZ	P	71	53	6	0.5	8.8	12.3	56.2	6,644
DeKalb DKS54-00	Monsanto Company	ML	BZ	P	73	58	7	0.0	8.9	12.6	56.9	6,643
ATx2752 x RTx430	Texas AgriLife Research	ML	BZ	P	72	54	4	1.3	8.8	12.3	55.1	6,630
3696	Golden Acres Genetics	ML	BZ	P	71	53	6	0.0	8.9	12.1	55.6	6,575
5308	Syngenta Seeds	L	BZ	R	70	55	6	1.3	8.5	12.2	55.3	6,555
G10265	Wilbur-Ellis Company	M	R	*	70	45	5	0.0	8.6	12.0	54.3	6,461
Terral TV9421	Terral Seed Inc.	M	BZ	P	71	54	8	0.5	8.6	12.0	54.8	6,436
H-486	Syngenta Seeds	ML	R	R	71	53	5	0.0	8.7	12.1	53.6	6,417
5464	Syngenta Seeds	ML	BZ	R	70	53	6	0.0	8.6	12.3	58.0	6,398
Terral TV94S91	Terral Seed Inc.	M	R	P	71	50	6	0.0	8.9	12.0	55.3	6,396
Terral TV93S16	Terral Seed Inc.	M	BZ	P	70	54	7	0.0	8.6	12.6	56.6	6,317
3464	Golden Acres Genetics	M	BZ	P	70	47	6	0.0	8.6	11.9	53.9	6,295
Terral TV96H95	Terral Seed Inc.	ML	BZ	P	71	52	5	0.0	8.6	12.6	55.3	6,281
G10261	Wilbur-Ellis Company	ME	R	*	69	48	7	0.0	8.6	12.0	56.3	6,081
ATx378 x RTx430	Texas AgriLife Research	ML	BZ	P	72	62	7	15.0	8.9	12.9	56.2	6,079
DeKalb DKS37-07	Monsanto Company	ME	BZ	P	69	50	6	0.0	8.6	13.0	59.0	6,072
G10166	Wilbur-Ellis Company	M	R	*	69	48	7	0.0	8.5	12.6	57.1	5,950
ATx399 x RTx430	Texas AgriLife Research	ML	BZ	P	71	52	6	0.0	8.7	11.5	53.5	5,902

Table 7A. 2010 College Station Grain Sorghum Performance Test, Texas A and M University Farm, College Station, Texas.

Hybrid	Company or Brand Name	Maturity Class (1)	Grain Color (2)	Plant Color (3)	Days to 50% Flower	Plant Height Inches	Head Exser-tion In.	% Lodge	Desir-ability Rating (4)	% Moisture	Test Weight lb/bu	Yield lb/A
5613	Syngenta Seeds	M	BZ	R	71	53	9	2.0	8.6	12.4	56.7	5,833
ATx631 x RTx436	Texas AgriLife Research	ML	W	T	75	57	5	1.3	7.8	12.9	56.9	5,653
Mean					71.0	53.0	5.9	1.0	8.7	12.5	56.3	6,581
C.V.					1.10	5.18	16.78	312.58	2.45	4.05	2.13	10.49
L.S.D. .05					1.13	3.96	1.43	4.30	0.31	0.73	1.74	1,006

Note 1: All data was analyzed using REMLTOOL. L.S.D.'s are given for traits that were significantly different at P<.05.

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

(1) Maturity classification designated by respective seed companies: E=Early, M=Medium, ML=Medium Late, L=Late. Those hybrids with an asterisk (*) indicates company did not submit maturity.

(2) Grain color designated by respective seed companies: R=Red, Bz=Bronze, W=White, Cm=Cream, Y=Yellow.
Those hybrids with an asterisk (*) indicates company did not submit grain color.

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

(4) Desirability rating key is as follows: 1=Very poor, 10=Excellent

For further information about this report, contact Mr. Dennis Pietsch, Crop Testing Director, Texas AgriLife Research, College Station, TX
(979) 845-8505, DPietsch@ag.tamu.edu
Please visit the Crop Testing webpage at http://varietytesting.tamu.edu

Table 7B. Three Year Summary (2008-2010) Grain Sorghum Performance Test, College Station, Texas.

Hybrid	Company or Brand Name	2010 Rank	2010 Yield	2009 Rank	2009 Yield	2008 Rank	2008 Yield
83P99	Pioneer Hi-Bred Int., Inc.	1	7,816	--	--	--	--
83G19	Pioneer Hi-Bred Int., Inc.	2	7,555	12	5,731	6	6,892
84G62	Pioneer Hi-Bred Int., Inc.	3	7,431	19	5,534	4	7,008
84P74	Pioneer Hi-Bred Int., Inc.	4	7,348	13	5,729	--	--
G10172	Wilbur-Ellis Company	5	7,036	--	--	--	--
Terral TV96H81	Terral Seed, Inc.	6	6,991	3	6,365	--	--
G10267	Wilbur-Ellis Company	7	6,914	--	--	--	--
G10173	Wilbur-Ellis Company	8	6,828	--	--	--	--
5556	Syngenta Seeds	9	6,820	24	5,375	--	--
DeKalb DKS53-67	Monsanto Company	10	6,819	27	5,068	10	6,545
Terral TV92S82	Terral Seed, Inc.	11	6,727	5	6,257	--	--
DeKalb DKS49-45	Monsanto Company	12	6,703	--	--	--	--
1488	Crosbyton Seed Company	13	6,644	2	6,616	2	7,014
DeKalb DKS54-00	Monsanto Company	14	6,643	--	--	16	5,954
ATx2752 x RTx430	Texas AgriLife Research	15	6,630	6	6,195	3	7,010
3696	Golden Acres Genetics	16	6,575	18	5,588	5	6,991
5308	Syngenta Seeds	17	6,555	--	--	--	--
G10265	Wilbur-Ellis Company	18	6,461	--	--	--	--
Terral TV9421	Terral Seed, Inc.	19	6,436	22	5,489	--	--
H-486	Syngenta Seeds	20	6,417	--	--	--	--
5464	Syngenta Seeds	21	6,398	--	--	--	--
Terral TV94S91	Terral Seed, Inc.	22	6,396	11	5,740	--	--
Terral TV93S16	Terral Seed, Inc.	23	6,317	14	5,714	--	--
3464	Golden Acres Genetics	24	6,295	25	5,352	--	--
Terral TV96H95	Terral Seed, Inc.	25	6,281	4	6,289	--	--
G10261	Wilbur-Ellis Company	26	6,081	--	--	--	--
ATx378 x RTx430	Texas AgriLife Research	27	6,079	1	6,931	7	6,789
Dekalb DKS37-07	Monsanto Company	28	6,072	--	--	--	--
G10166	Wilbur-Ellis Company	29	5,950	--	--	--	--
ATx399 x RTx430	Texas AgriLife Research	30	5,902	20	5,533	9	6,552

Table 7B. Three Year Summary (2008-2010) Grain Sorghum Performance Test, College Station, Texas.

Hybrid	Company or Brand Name	2010 Rank	2010 Yield	2009 Rank	2009 Yield	2008 Rank	2008 Yield
5613	Syngenta Seeds	31	5,833	16	5,669	--	--
ATx631 x RTx436	Texas AgriLife Research	32	5,653	31	4,367	20	5,329
Terral TVX92X01	Terral Seed, Inc.	--	--	7	6,021	--	--
Fill (DG 780)	Texas AgriLife Research	--	--	8	5,980	--	--
Terral TV96H91	Terral Seed, Inc.	--	--	9	5,797	--	--
DG 780	DynaGro Seeds CPS	--	--	10	5,791	--	--
DG 771	DynaGro Seeds CPS	--	--	15	5,677	--	--
NK7633	Sorghum Partners, Inc.	--	--	17	5,591	--	--
Check (Pioneer 84G62)	Texas AgriLife Research	--	--	21	5,522	11	6,542
A571	Monsanto Company	--	--	23	5,375	17	5,930
Terral TV93S72	Terral Seed, Inc.	--	--	26	5,325	--	--
Terral TVX92S95	Terral Seed, Inc.	--	--	28	5,040	--	--
NK7829	Sorghum Partners, Inc.	--	--	29	4,773	--	--
NK8831	Sorghum Partners, Inc.	--	--	30	4,731	--	--
DG 778	DynaGro Seeds CPS	--	--	32	3,822	--	--
Number Entries		32		32		20	
Test Mean Yield (lb/A)			6,581		5,593		6,478

Table 8. AGRONOMIC AND TEST INFORMATION: THRALL

TEST:	2010 Dryland Grain Sorghum Performance Test
LOCATION:	Stiles Farm Foundation, Thrall, Texas
COOPERATOR:	Archie Abrameit
SOIL TYPE:	Burleson clay
ROW WIDTH:	38” stale seedbed
PREVIOUS CROP:	Cotton
LAND PREPARATION:	Due to very wet conditions during the fall and winter, and prior to planting, there was no land preparation; therefore the same beds (stale beds) were used
DATE PLANTED:	3-30-10, planted with cones mounted on an Almaco planter using JD Max-Emerge II units.
PLANT POPULATION:	Seeds were packaged to obtain a final population of approximately 75,000 plants/A
PLOT LENGTH:	2 rows 26’
FERTILIZER:	100-20-10
HERBICIDE:	Broadcast 1 lb/A Atrazine +22oz/A glyphosate on 10-25-09 Sprayed 1.3 pt/A Dual Magnum + 1 qt/A Roundup, pre-emerge
INSECTICIDE:	None, seeds were required to be treated with a seed insecticide
RAINFALL:	September ’09 = 5.5”; October = 4.94”; November = 1.52”; December = 1.41”; January = 3.10”; February = 1.80"; March = 2.15"; April = 1.5”; May = 1.0"; June = 2.60"; July = 1.50” August = 0.5” Total = 27.52”".
DATE HARVESTED:	8-9-10 with a JD 3300 plot combine equipped with Grain Gauge
SIZE HARVESTED PLOT:	2 rows, 26' long
TEST DESIGN:	Randomized complete block
NUMBER ENTRIES:	40
NUMBER REPLICATIONS:	4
NUMBER ROWS/PLOT:	2
TEST MEAN:	4,856 lb/A; yields corrected to 14% moisture
TEST C.V.:	10.75%

COMMENTS: Just like the corn test, this non-irrigated test site was also moved from Granger to Thrall. Conditions at this site are representative of conditions of the Central Texas Blacklands, Texas Crop Reporting District 4. This year farmers in District 4 harvested 185,000 acres of grain sorghum, or 11.2% of Texas 1.65 million acres.

Good yields were attained at this location despite erratic weather conditions throughout the growing season. Due to wet soil conditions from fall and winter rainfall, no tillage operations were performed to the test block. Instead, the same beds (stale beds) were used this year as in 2009. Rainfall in early-March delayed the planting date until March 30, which is approximately three weeks later than the optimum planting date for this area.

Seedling emergence and early plant growth resulted from ample soil moisture. However, hot and dry conditions soon followed which rapidly depleted soil moisture. The test block received only 2.5" of rainfall between April 1 and May 31, but severe moisture stress was not observed. The number of days to achieve 50% flowering was approximately 69 days. Due to the late planting date, midge damage was not observed. The test block received 2.6" of rain in June which contributed to final yields.

The test mean yield was 4,856 lb/A with 15 hybrids producing between 5,065 and 5,619 lb/A. For some unexplainable reason, test weights were very erratic between reps and within reps. Some hybrids exhibited severe weathering damage, and in some instances grain sprouting, especially on the west side of the test block, while other hybrids showed little or no damage. Weathering and/or grain quality notes were not taken. The test weight values probably do not reflect the potential bushel weight of each hybrid. Desirability ratings were taken just prior to harvest and presented in the following table. Lodging was observed in the test block and also presented in the following table.

***

For further information about this report, contact Mr. Dennis Pietsch, Crop Testing Director, Texas AgriLife Research, College Station, TX
(979) 845-8505, dpietsch@ag.tamu.edu
Please visit the Crop Testing web page at http://varietytesting.tamu.edu

Table 8A. 2010 Thrall Grain Sorghum Performance Test, Stiles Farm Foundation, Thrall, Texas.

Hybrid (1)	Company or Brand Name	Maturity Class (2)	Grain Color (3)	Plant Color (4)	Days to 50% Flower	Plant Height Inches	Head Exser-tion In.	% Lodge	Desir-ability Rating (5)	% Moisture	Test Weight lb/bu (6)	Yield lb/A
1488	Crosbyton Seed Co.	ML	BZ	P	69	51	5	1.3	8.8	11.3	54.8	5,619
G10172	Wilbur-Ellis Company	L	R	*	69	55	7	6.3	8.8	12.6	57.9	5,396
85G01	Pioneer Hi-Bred Int., Inc.	ML	BZ	R	68	49	4	0.0	8.7	10.6	55.7	5,340
3464	Golden Acres Genetics	M	BZ	P	70	45	5	0.0	8.3	10.8	52.4	5,322
Asgrow 571	Monsanto Company	ML	R	P	72	53	8	1.3	8.8	10.9	53.3	5,242
Fill	Texas AgriLife Research	ML	BZ	P	68	51	6	0.8	8.6	11.1	53.7	5,229
772B	DynaGro Seeds CPS	M	BZ	*	69	51	6	0.0	8.6	11.1	55.7	5,220
5308	Syngenta Seeds	L	BZ	R	69	52	6	2.0	8.7	11.5	55.0	5,215
Terral TV96H95	Terral Seed Inc.	ML	BZ	P	69	51	6	2.0	8.7	11.0	55.2	5,199
84G62	Pioneer Hi-Bred Int., Inc.	ML	BZ	R	70	50	3	0.0	8.8	11.7	53.1	5,186
G10267	Wilbur-Ellis Company	ML	BZ	*	69	49	5	0.8	8.5	11.3	52.9	5,157
Fill	Texas AgriLife Research	ML	BZ	P	69	51	6	1.3	8.6	11.2	53.8	5,147
Terral TV93S16	Terral Seed Inc.	M	BZ	P	69	52	6	0.0	8.8	12.2	55.9	5,120
Terral TV9421	Terral Seed Inc.	M	BZ	P	68	49	7	0.0	8.5	11.2	54.4	5,096
ATx378 x RTx430	Texas AgriLife Research	ML	BZ	P	69	59	7	5.0	9.1	11.5	56.4	5,065
DeKalb DKS53-67	Monsanto Company	ML	BZ	P	71	51	4	0.0	8.3	11.8	55.7	4,967
Terral TV96H91	Terral Seed Inc.	ML	BZ	P	70	51	9	3.8	8.7	11.1	57.8	4,961
771B	DynaGro Seeds CPS	M	BZ	*	70	51	7	1.8	8.7	11.3	55.9	4,947
84P74	Pioneer Hi-Bred Int., Inc.	ML	BZ	R	68	50	6	0.0	8.6	11.2	56.7	4,942
G10265	Wilbur-Ellis Company	M	R	*	70	45	5	0.0	8.5	10.9	53.6	4,933
ATx2752 x RTx430	Texas AgriLife Research	ML	BZ	P	71	53	4	3.8	8.7	10.9	55.9	4,867
G10261	Wilbur-Ellis Company	ME	R	*	68	47	6	0.0	8.5	11.1	54.5	4,827
3696	Golden Acres Genetics	ML	BZ	P	69	51	6	2.5	8.6	11.3	53.6	4,822
Terral TV96H81	Terral Seed Inc.	ML	R	P	69	51	5	20.0	8.3	13.8	54.3	4,802
DeKalb DKS36-06	Monsanto Company	ME	BZ	P	66	50	8	0.0	8.5	11.3	56.6	4,782
5464	Syngenta Seeds	ML	BZ	R	69	52	7	0.0	8.6	10.9	55.8	4,763
ATx399 x RTx430	Texas AgriLife Research	ML	BZ	P	70	50	6	1.3	8.5	11.4	53.0	4,717
DeKalb DKS37-07	Monsanto Company	ME	BZ	P	67	47	6	0.0	8.2	11.2	54.9	4,670
5556	Syngenta Seeds	M	R	R	68	47	8	0.0	8.4	11.8	55.4	4,655
Terral TV94S91	Terral Seed Inc.	M	R	P	70	49	6	0.0	8.5	11.0	52.3	4,650

Table 8A. 2010 Thrall Grain Sorghum Performance Test, Stiles Farm Foundation, Thrall, Texas.

Hybrid (1)	Company or Brand Name	Maturity Class (2)	Grain Color (3)	Plant Color (4)	Days to 50% Flower	Plant Height Inches	Head Exser-tion In.	% Lodge	Desir-ability Rating (5)	% Moisture	Test Weight lb/bu (6)	Yield lb/A
DeKalb DKS49-45	Monsanto Company	M	BZ	P	71	52	5	0.0	8.8	11.1	54.1	4,574
H-486	Syngenta Seeds	ML	R	R	70	47	5	0.0	8.3	11.6	50.5	4,567
G10166	Wilbur-Ellis Company	M	R	*	68	46	8	0.0	8.4	11.0	55.7	4,470
3552	Golden Acres Genetics	M	BZ	P	70	49	5	0.0	8.4	11.3	51.1	4,460
737	Golden Acres Genetics	M	BZ	P	69	44	5	0.0	7.0	10.9	53.2	4,363
G10173	Wilbur-Ellis Company	L	BZ	*	71	51	7	3.8	8.4	10.1	52.5	4,293
5613	Syngenta Seeds	M	R	R	68	50	7	0.8	8.4	11.5	52.2	4,254
766B	DynaGro Seeds CPS	M	BZ	*	68	49	8	0.0	8.2	10.3	51.2	4,250
Terral TV92S82	Terral Seed Inc.	ME	BZ	P	68	50	9	0.0	8.4	11.3	48.6	4,158
ATx631 x RTx436	Texas AgriLife Research	ML	W	T	74	58	6	0.0	7.9	11.0	54.6	3,999
Mean					69.1	50.1	6.0	1.5	8.5	11.3	54.2	4,856
C.V.					1.14	3.21	16.83	174.79	3.26	7.85	4.22	10.75
L.S.D. .05					1.13	2.30	1.44	3.63	0.40	1.27	3.29	750

Note 1: All data was analyzed using REMLTOOL. L.S.D.'s are given for traits that were significantly different at P<.05.

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

(1) Golden Acres GA3696 was used as a fill entry in the test at our discretion. It is intended to be used for comparison purposes only.

(2) Maturity classification designated by respective seed companies: E=Early, M=Medium, ML=Medium Late, L=Late. Those hybrids with an asterisk (*) indicates company did not submit maturity.

(3) Grain color designated by respective seed companies: R=Red, Bz=Bronze, W=White, Cm=Cream, Y=Yellow.
Those hybrids with an asterisk (*) indicates company did not submit grain color.

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

(5) Desirability rating key is as follows: 1=Very poor, 10=Excellent

Table 8A. 2010 Thrall Grain Sorghum Performance Test, Stiles Farm Foundation, Thrall, Texas.

Hybrid (1)	Company or Brand Name	Maturity Class (2)	Grain Color (3)	Plant Color (4)	Days to 50% Flower	Plant Height Inches	Head Exser-tion In.	% Lodge	Desir-ability Rating (5)	% Moisture	Test Weight lb/bu (6)	Yield lb/A

(6) Test weight readings were erratic between and within the four reps of the test block. It appears grain quality was affected by rainfall prior to harvest, particularly on the west side of the test block. Weathering and/or grain quality rating were not taken prior to harvest. These values probably do not reflect the potential bushel weight of each hybrid.

For further information about this report, contact Mr. Dennis Pietsch, Crop Testing Director, Texas AgriLife Research, College Station, TX
(979) 845-8505, DPietsch@ag.tamu.edu
Please visit the Crop Testing webpage at http://varietytesting.tamu.edu

Table 8B. Three Year Summary (2008-2010) Grain Sorghum Perfomance Test, Thrall, Texas.

Hybrid	Company or Brand Name	2010 Rank	2010 Yield	2009 Rank	2009 Yield	2008 Rank	2008 Yield
1488	Crosbyton Seed Company	1	5,619	--	--	2	5,931
G10172	Wilbur-Ellis Company	2	5,396	--	--	--	--
85G01	Pioneer Hi-Bred Int., Inc.	3	5,340	--	--	16	5,079
3464	Golden Acres Genetics	4	5,322	--	--	--	--
Asgrow 571	Monsanto Company	5	5,242	--	--	4	5,664
772B	DynaGro Seeds CPS	6	5,220	--	--	--	--
5308	Syngenta Seeds	7	5,215	--	--	--	--
Terral TV96H95	Terral Seed Inc.	8	5,199	--	--	--	--
Fill (GA3696)	Texas AgriLife Research	9	5,188	--	--	--	--
84G62	Pioneer Hi-Bred Int., Inc.	10	5,186	--	--	1	6,418
G10267	Wilbur-Ellis Company	11	5,157	--	--	--	--
Terral TV93S16	Terral Seed Inc.	12	5,120	--	--	--	--
Terral TV9421	Terral Seed Inc.	13	5,096	--	--	--	--
ATx378 x RTx430	Texas AgriLife Research	14	5,065	--	--	17	5,077
DeKalb DKS53-67	Monsanto Company	15	4,967	--	--	15	5,147
Terral TV96H91	Terral Seed Inc.	16	4,961	--	--	--	--
771B	DynaGro Seeds CPS	17	4,947	--	--	--	--
84P74	Pioneer Hi-Bred Int., Inc.	18	4,942	--	--	--	--
G10265	Wilbur-Ellis Company	19	4,933	--	--	--	--
ATx2752 x RTx430	Texas AgriLife Research	20	4,867	--	--	7	5,546
G10261	Wilbur-Ellis Company	21	4,827	--	--	--	--
3696	Golden Acres Genetics	22	4,822	--	--	3	5,876
Terral TV96H81	Terral Seed Inc.	23	4,802	--	--	--	--
DeKalb DKS36-06	Monsanto Company	24	4,782	--	--	--	--
5464	Syngenta Seeds	25	4,763	--	--	5	5,627

Table 8B. Three Year Summary (2008-2010) Grain Sorghum Perfomance Test, Thrall, Texas.

Hybrid	Company or Brand Name	2010 Rank	2010 Yield	2009 Rank	2009 Yield	2008 Rank	2008 Yield
ATx399 x RTx430	Texas AgriLife Research	26	4,717	--	--	6	5,616
DeKalb DKS37-07	Monsanto Company	27	4,670	--	--	10	5,448
5556	Syngenta Seeds	28	4,655	--	--	--	--
Terral TV94S91	Terral Seed Inc.	29	4,650	--	--	--	--
DeKalb DKS49-45	Monsanto Company	30	4,574	--	--	--	--
H-486	Syngenta Seeds	31	4,567	--	--	--	--
G10166	Wilbur-Ellis Company	32	4,470	--	--	--	--
3552	Golden Acres Genetics	33	4,460	--	--	11	5,438
737	Golden Acres Genetics	34	4,363	--	--	--	--
G10173	Wilbur-Ellis Company	35	4,293	--	--	--	--
5613	Syngenta Seeds	36	4,254	--	--	--	--
766B	DynaGro Seeds CPS	37	4,250	--	--	--	--
Terral TV92S82	Terral Seed Inc.	38	4,158	--	--	--	--
ATx631 x RTx436	Texas AgriLife Research	39	3,999	--	--	14	5,271
Number of Entries		39		--		20	
Test Mean Yield (lb/A)			4,856		--		5,416

Note: 2009 Test was harvested, but due to high CV, results were not published

Table 9. AGRONOMIC AND TEST INFORMATION: LUBBOCK

TEST:	2010 Irrigated Grain Sorghum Performance Test
LOCATION:	Texas AgriLife Research Center, Lubbock, Texas
COOPERATORS:	Dr. Gary Peterson and Mr. Mark Stelter
SOIL TYPE:	Amarillo loam
ROW WIDTH:	40”
PREVIOUS CROP:	Sorghum
LAND PREPARATION:	Chiseled, disked, bedded
DATE PLANTED:	May 27, 2010
PLANT POPULATION:	Seeds were packaged to obtain a final plant population of 85,000 plants per acre
PLOT LENGTH:	17'
FERTILIZER:	80-0-0 (liquid N) applied April 7, 2010
HERBICIDE:	Applied 1.0 qt/A of MiloPro before planting Applied 1pt/A of Dual over-the-top four weeks after planting
INSECTICIDE:	None
RAINFALL:	May-1.25 “, June-2.55 “, July-7.59”, August-2.30”, Total=13.69 “
IRRIGATIONS:	No pre-plant irrigation. One in-season irrigation on June 18 of approximately 4.5”
DATE HARVESTED:	10-7-10 with a JD 3300 combine equipped with Harvestmaster Grain Gauge System
SIZE HARVESTED PLOT:	17 feet
TEST DESIGN:	Randomized complete block
NUMBER ENTRIES:	15
NUMBER REPLICATIONS:	4
NUMBER ROWS/PLOT:	2
TEST MEAN:	5,473 lb/A
TEST C.V.:	19.17%

COMMENTS: According to Dr. Gary Peterson, collaborator for the test, “this was a good test.” The test was planted on May 27 into an excellent prepared seedbed. Normal test protocol called for one pre-plant and two post-plant irrigations to be applied to the test block during the growing season. However, due to excellent rainfall prior to planting, the need to pre-irrigate the test block was eliminated. Due to timely rainfall throughout the growing season, only one irrigation of approximately 4.5” was applied to the test block on June 18. This irrigation in addition to the timely rainfall events, insured continuous plant growth and development and contributed to final yields.

There was no bird damage in the test. Lodging was recorded just prior to harvest and presented in the following table. The test mean yield was 5,473 lb/A compared to the past 3-year average of 5,033 lb/A.

Due to the higher than normal C.V., caution should be used in interpreting the data.

****

For further information about this report, contact Mr. Dennis Pietsch, Crop Testing Director, Texas AgriLife Research, College Station, TX
(979) 845-8505, dpietsch@ag.tamu.edu
Please visit the Crop Testing web page at http://varietytesting.tamu.edu

Table 9A. 2010 Lubbock Limited Irrigated Grain Sorghum Performance Test, Texas AgriLife Research Center, Lubbock, Texas.

Hybrid	Company or Brand Name	Maturity Class (1)	Grain Color (2)	Plant Color (3)	Days to 50% Flower	Plant Height Inches	Head Exser-tion In.	% Lodging	% Moisture	Test Weight lb/bu	Yield lb/A
DeKalb DKS53-67	Monsanto Company	ML	BZ	P	65	50	1	0.0	14.1	61.6	6,598
84G62	Pioneer Hi-Bred Int., Inc.	ML	BZ	R	63	48	0	0.0	13.2	60.8	6,479
DeKalb DKS36-06	Monsanto Company	ME	BZ	P	59	53	4	0.0	13.9	61.4	6,425
DeKalb DKS37-07	Monsanto Company	ME	BZ	P	58	48	2	0.0	13.5	61.2	6,138
85Y40	Pioneer Hi-Bred Int., Inc.	M	W	R	62	49	2	3.8	13.8	61.3	5,802
DeKalb DKS44-20	Monsanto Company	M	BZ	P	63	49	2	0.0	13.6	61.0	5,620
5B90	Channel Bio LLC	M	BZ	P	60	48	2	0.0	14.1	60.0	5,522
DeKalb DKS49-45	Monsanto Company	M	BZ	P	63	50	1	0.0	14.2	60.8	5,424
ATx2752 x RTx430	Texas AgriLife Research	ML	BZ	P	63	49	2	0.0	13.3	60.5	5,415
TRX05361	Triumph Seed Co., Inc.	ML	BZ	P	63	52	3	1.3	14.1	59.6	5,335
TRX84732	Triumph Seed Co., Inc.	ML	R	P	63	48	2	0.0	13.3	60.2	5,163
ATx399 x RTx430	Texas AgriLife Research	ML	BZ	P	64	47	1	1.3	13.3	58.9	5,111
ATx378 x RTx430	Texas AgriLife Research	ML	BZ	P	62	54	2	2.5	13.1	58.9	4,912
7B11	Channel Bio LLC	M	BZ	P	63	53	3	0.0	13.5	62.2	4,901
ATx631 x RTx436	Texas AgriLife Research	ML	W	T	63	50	1	0.0	14.0	61.8	3,251
Mean					62.22	49.78	1.78	0.58	13.64	60.67	5,473
C.V.					5.14	7.50	96.49	268.89	4.63	1.99	19.17
L.S.D. .05					ns	ns	ns	2.38	ns	1.83	1,591

Note 1: All data was analyzed using REMLTOOL. L.S.D.'s are given for traits that were significantly different at P<.05.

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

(1) Maturity classification designated by respective seed companies: E=Early, M=Medium, ML=Medium Late, L=Late. Those hybrids with an asterisk (*) indicates company did not submit maturity.

(2) Grain color designated by respective seed companies: R=Red, Bz=Bronze, W=White, Cm=Cream, Y=Yellow.
Those hybrids with an asterisk (*) indicates company did not submit grain color.

Table 9A. 2010 Lubbock Limited Irrigated Grain Sorghum Performance Test, Texas AgriLife Research Center, Lubbock, Texas.

Hybrid	Company or Brand Name	Maturity Class (1)	Grain Color (2)	Plant Color (3)	Days to 50% Flower	Plant Height Inches	Head Exser-tion In.	% Lodging	% Moisture	Test Weight lb/bu	Yield lb/A

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

For further information about this report, contact Mr. Dennis Pietsch, Crop Testing Director, Texas AgriLife Research, College Station, TX
(979) 845-8505, dpietsch@ag.tamu.edu
Please visit the Crop Testing webpage at http://varietytesting.tamu.edu

Table 9B. Three Year Summary (2008-2010), Limited Irrigated Grain Sorghum Performance Test, Lubbock, Texas.

Hybrid	Company or Brand Name	2010 Rank	2010 Yield	2009 Rank	2009 Yield	2008 Rank	2008 Yield
DeKalb DKS53-67	Monsanto Company	1	6,598	--	--	--	--
84G62	Pioneer Hi-Bred Int., Inc.	2	6,479	1	7,355	--	--
DeKalb DKS36-06	Monsanto Company	3	6,425	--	--	--	--
DeKalb DKS37-07	Monsanto Company	4	6,138	11	5,951	8	4,626
85Y40	Pioneer Hi-Bred Int., Inc.	5	5,802	2	6,967	--	--
DeKalb DKS44-20	Monsanto Company	6	5,620	3	6,713	--	--
5B90	Channel Bio LLC	7	5,522	--	--	--	--
DeKalb DKS49-45	Monsanto Company	8	5,424	--	--	--	--
ATx2752 x RTx430	Texas AgriLife Research	9	5,415	7	6,328	4	5,030
TRX05361	Triumph Seed Co., Inc.	10	5,335	--	--	--	--
TRX84732	Triumph Seed Co., Inc.	11	5,163	--	--	--	--
ATx399 x RTx430	Texas AgriLife Research	12	5,111	6	6,382	14	4,483
ATx378 x RTx430	Texas AgriLife Research	13	4,912	9	6,199	2	5,365
7B11	Channel Bio LLC	14	4,901	--	--	--	--
ATx631 x RTx436	Texas AgriLife Research	15	3,251	12	5,889	20	4,244
NK7633	Sorghum Patners, Inc.	--	--	4	6,477	7	4,664
NK5418	Sorghum Patners, Inc.	--	--	5	6,449	9	4,544
Fill (DKS37-07)	Texas AgriLife Research	--	--	8	6,233	--	--
84P74	Pioneer Hi-Bred Int., Inc.	--	--	10	6,166	--	--
TRX85001	Triumph Seed Co., Inc.	--	--	13	5,753	--	--
NK7829	Sorghum Patners, Inc.	--	--	14	5,682	22	4,054
F270E	Frontier Hybrids	--	--	15	5,592	--	--
F222E	Frontier Hybrids	--	--	16	5,387	--	--
F303C	Frontier Hybrids	--	--	17	5,122	--	--
TRX95004	Triumph Seed Co., Inc.	--	--	18	4,655	--	--
Number of Entries		15		18		33	
Test Mean Yield (lb/A)			5,473		6,088		4,211

LITERATURE CITED

1. Texas Agricultural Facts. November 12, 2010

ACKNOWLEDGMENTS

Appreciation for assistance and cooperation in conducting these tests is expressed to the following.

Farmers: Dean Hansen (Danevang Test), Allan Hunt (Gregory Test), Tom Verstuyst (Hondo Test).

Texas AgriLife Research Personnel: Orry Arthur, Delroy Collins, Beto Garza, Mark Stelter, and Russell Sutton.

Texas AgriLife Extension Personnel: Archie Abrameit, Duane Campion, Dr. Dennis Coker, Peter McGuill, Jason Ott, Jared Ripple, and Bob Whitney.

Appreciation is also expressed to Monsanto Company for providing the herbicide Roundup, that was used to maintain alleyways at the test sites.

Appreciation is also expressed to Clint Borden, Erika Delk, Joseph Fuller, Dale Herrington, and Kayla Smith for contributing to this manuscript.

Special appreciation is expressed to Katrina Horn for preparing this manuscript.

Produced by the Department of Soil and Crop Sciences.
Additional publications may be viewed at http://soilcrop.tamu.edu

Issued in furtherance of Cooperative Extension Work in Agriculture and Home Economics, Acts of Congress of May 8, 1914, as amended, and June 30, 1914, in cooperation with the United States Department of Agriculture, Edward G. Smith, Director, Texas AgriLife Extension Service, the Texas A&M System.