

# TEXAS A&M AGRI LIFE EXTENSION



## Result Demonstration Report

2016 Fort Bend County Grain Sorghum Hybrid Variety Trial

Texas A&M AgriLife Extension Service

Fort Bend County

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### Summary

Grain sorghum, because of its drought tolerance and low potential for insect pressure, has historically been used (along with corn) to rotate with cotton. Sorghum acres were down this year at 27,500 acres, county wide. With low prices, this increase will likely continue to decrease, but sorghum will still remain an important crop in Fort Bend County. As such, it is important to evaluate available varieties and other best management practices to provide producers with up-to-date information to make important production decisions.

### Objective

The objective of this demonstration plot was to evaluate seven varieties of grain sorghum for production in Fort Bend County and to provide unbiased data that local producers could reference when selecting sorghum varieties.

### Materials and Methods

Seven varieties of sorghum (Dyna-Gro M75GR47, Dekalb, 53-67, Dekalb 53-53, Alta AG3201, Alta AG1203, Terral REV 9924, Warner W-7051) were planted on March 6, 2016 at a rate seeding rate of 75,000 seeds per acre. A total of 122 lb. nitrogen, 5 lb. of phosphorus (P2O5), and 1 lb. of potassium (K2O) were applied prior to crop establishment. The experiment was arranged in a randomized complete block design with six rows (36" spacing) per treatment and three replications. While this was dryland production, 2016 was an especially rainy year with more than 28 inches of rainfall between planting and harvest. Additional climate information can be found page 1. On July 7, 2016 the plot was harvested, weighed, and tested for moisture and bushel weight. An analysis of variance (ANOVA) was performed for bushel weight, moisture and yield (adjusted to 14 percent moisture) and means were separated using Fisher's protected LSD.

## Results

There was a significant yield effect ( $p < 0.001$ ) across the seven hybrids evaluated (Table 1). There were no differences in moisture or bushel weight across the seven hybrids tested.

**Table 1:** Grain Moisture, Bushel Weight, and Yield for Grain Sorghum Hybrids Evaluated in the Fort Bend County Trial.

Company/Brand	Hybrid	Moisture (%)	Bushel Weight (lbs.)	Pounds/Acre
Terral/REV	9924	12.6	58.00	4,813 A
Warner Seeds, Inc.	W-7051	12.7	59.00	4,658 AB
Monsanto/Dekalb	DKS 53-67	12.5	58.00	4,643 AB
Monsanto/Dekalb	DKS 53-53	12.7	53.00	4,381 AB
CPS Dyna-Gro	M75GR47	12.5	58.00	4,155 BC
Advanta/Alta	AG3201	12.3	55.33	3,656 CD
Advanta/Alta	AG3201	10.2	48.67	3,288 D
Mean		12.2	55.71	4,228
CV (%)		8.000	7.000	7.100
LSD (P=.05)				533.7
Treatment Probability (P>f)		0.083	0.059	<0.001

Means followed by same letter do not significantly differ (P=.05, LSD)

## Conclusions

Among the seven hybrids, there was no yield difference among the top four hybrids, with averages of between 4,813 and 4,381 lb./acre. The overall average for the plot was 4,228 lb./acre, which was average for the 2016 crop year. The objective of this result demonstration was met and it will provide an unbiased analysis of the seven varieties of sorghum and will give producers with valuable information to select hybrids for production in Fort Bend County. Because of the continued interest in growing sorghum in Fort Bend County, this result demonstration will be continued next year.

## Acknowledgements

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