



GRAIN SORGHUM HYBRID PERFORMANCE EVALUATION

Texas AgriLife Extension Service

Nueces County, 2011

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Summary

This test was located on the Faske Farm east of Bishop on CR 6. Soil conditions at planting were marginal. Rainfall was below normal in the growing season. Sorghum hybrids were evaluated for agronomic performance. The best performing hybrid in this test was Golden Acres 737 at 3,864 pounds per acre, while the test average was 2,615 pounds per acre.

Objective

To evaluate commercially available and experimental grain sorghum hybrids growing under Nueces County conditions in a side-by-side evaluation.

Materials and Methods

Grain sorghum hybrids were planted in a side-by-side comparison with a tester hybrid Garst 5401 planted throughout the test to account for field variability. Each plot consisted of 8 rows 700 feet in length. Seed was planted using a IH Model 92 Cyclo-Air Planter. Rainfall in the season was below normal and rainfall occurred as follows; March = 0.43 inch, April = 0 inch, May = 1.55 inches, and June = 1.06 inches for a total of 3.04 inches during growing season. The plots were machine harvested on June 28, 2011 and weights obtained from an electronic weigh wagon.

Table 1: Agronomic data for grain sorghum hybrid demonstration, Faske Farm, Nueces County, Texas, 2011.

Planting Date: 3/11/2011	Rows/Plot: 8	Row Width: 36 inch
Fertility: 250# 25-5-0 + 1qt Humate 1 gal/ac Medina Soil activator and Molasses	Herbicide: None	Previous Crop: Grain Sorghum
Planting Rate: 62,500 plants/Ac	Soil Type: Victoria clay	Insecticide: Seed treatment

Results and Discussion

Table 2. Comparison of plant population per acre, percent moisture, bushel weight, and yield per acre between hybrids, Faske Farm, Nueces County, TX, 2011.

Sorghum Hybrid	Plt Pop per Ac	Moisture %	Bu. Wt. (Lbs.)	Yield/Acre¹ (Lbs.)
Golden Acres 737	38,719	16.3	58.0	3,864
Golden Acres 3464	42,349	15.7	56.0	3,788
DeKalb DKS 37-07	37,207	16.3	59.0	3,534
B-H Genetics 5350	41,745	16.3	56.0	3,516
Triumph TRX85131	40,837	17.9	54.0	3,002
Pioneer 83G19	34,182	16.1	58.0	2,920
Pioneer 83P99	35,089	19.1	58.0	2,897
Pioneer 84P74	35,997	17.2	57.0	2,811
Golden Acres 5401	39,572	17.0	58.0	2,796
DeKalb DKS 53-67	36,300	17.7	53.0	2,795
DeKalb DKS 44-20	36,904	16.3	59.0	2,738
Golden Acres 3696	39,324	16.3	57.0	2,578
Pioneer 82P75	37,207	18.0	57.0	2,554
Golden Acres 5308	39,930	16.5	59.0	2,533
Golden Acres x2060	27,829	18.5	57.0	2,531
DeKalb DKS 49-45	39,022	17.0	50.0	2,501
Pioneer 84G62	37,812	20.9	57.0	2,364
Golden Acres 3552	37,812	16.8	56.0	2,316
Golden Acres 3545	40,837	16.9	55.0	2,295
Golden Acres 486	42,350	16.0	56.0	2,258
Golden Acres x2052	40,837	17.6	53.0	2,257
Gayland Ward 9417	33,879	16.9	57.0	2,231
Golden Acres 5464	40,534	16.8	55.0	2,179
Warner W-965-E	35,089	17.9	58.0	1,786
Golden Acres x2100	36,602	20.9	51.0	1,721
Terral-TV 96H81	41,442	16.9	57.0	1,235
AVERAGE	38,054	17.3	56.0	2,615

¹Yield per acre is reported in pounds per acre and adjusted to 14% moisture. The yields are also adjusted using accuracy testing to account for field variations.

Conclusions

Using the market price at harvest (\$10.00 per cwt), the top yielding hybrid had a value of \$386.40/acre, while the least productive hybrid was valued at \$123.50 per acre, a difference of \$262.90 per acre. This significant difference between hybrids illustrates the need to continue to evaluate hybrids for their production performance under local conditions.

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