EVALUATION OF GRAIN SORGHUM HYBRIDS FOR YIELD POTENTIAL AND PROFITABILITY

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SUMMARY:

In an evaluation of ten top grain sorghum hybrids planted on April 6, 2006, growing conditions were dry at planting turning to wet at harvest with yield ranging from 3621 - 5019 pounds/acre with a market value ranging from $149.55 - $207.28 per acre.

OBJECTIVE:

To determine the yield potential of the top grain sorghum hybrids offered by area seed companies. This demonstration will provide producers with research information on all major hybrids under uniform situations comparing locally and in a standardized grain sorghum demonstration in the Coastal Bend Extension District 11.

MATERIALS and METHODS:

Ten grain sorghum hybrids were planted April 6, 2006 with a check hybrid planted four times throughout the field to adjust for field variance with accuracy testing. Six rows of each hybrid were planted on 38-inch centers with a John Deere planter. The previous crop was soybeans.

Fertilizer applied included 450 lbs/a of 24-8-0-2 on December 12, 2005. Insecticide applied included banded 0.6 oz/a of Mustang Max. The planting rate was calibrated at 6 pounds/acre. Herbicides applied included banded 1 pt/a of Guardsman Max and 1/2 pt/a of Roundup.

The varieties were sprayed for sorghum midge with Mustang Max on three dates: June 7, 10, and 13, 2006 at the rate of 1 gallon/100 acres for first two dates and 1 gallon/50 acres on the last date.

Harvest took place with a combine on August 16, 2006. Yields were converted to 14 % moisture and field accuracy checking. Plant population and height were noted.

RESULTS and DISCUSSIONS:

Soil moisture was fair at planting except on the lower end of the field in the heavier soils were it was very dry. Apparently the heavy, fast rain which fell 10 days prior to planting ran off the powder dry seed beds and soaked into the furrows verses soaking evenly as it did in the mixed soil on the upper end of the field. As a result, the planter was moved off the bed center by about 4 inches to plant in a more consistent soil moisture. Even still, there were skips within many of the varieties in the heavier soils.

The season remained dry until June and thereafter remained wet. By harvest time, the lower end of the field was standing in water six inches deep. Rains continued through sorghum maturation which caused seed sprouting in the head. Some seed (approximately 10 %) was lost due to sprouting and falling from the head. Harvest yields ranged from 3621 - 5019 pounds/acre.

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DISCLAIMER CLAUSE:

Trade names of commercial products used in this report are included only for better understanding and clarity. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Texas A&M University System is implied. Readers should realize that results from one experiment do not represent conclusive evidence that the same response would occur where conditions vary.

Table 1. Evaluation of grain sorghum hybrids. Brian Adamek, Cooperator, Victoria County, TX 2006.

Seed Company	Variety	Bushel Weight	Moisture %	Pop. X 1000	Inches Plant Height	Adjusted Yield [a/]	Value $/Acre [b/]
Pioneer	84G50	53	12.4	59	54	5019	207.28
Triumph	TR463	51	9.5	53	51	5002	206.58
DeKalb	DK5400	52	13.7	55	56	4872	201.21
Frontier	F5D5	53	9.6	52	50	4708	194.44
NC+	7B51	50	11.9	56	56	4617	190.68
Asgrow	571	52	12.2	53	53	4357	179.94
Croplan	514	53	12.1	51	53	4344	179.41
Golden Acres	3545	51	12.2	55	50	4220	174.29
Garst	N5354	52	12.6	53	50	3903	161.19
Garst	5360	52	12.8	57	50	3621	149.55

[a/] Adjusted for 14 % moisture and field accuracy checking.
[b/] Value based on $4.13/cwt.