EVALUATION OF GRAIN SORGHUM HYBRIDS FOR YIELD POTENTIAL AND PROFITABILITY

Brian Adamek, Cooperator (2005)
Joe D. Janak, County Extension Agent - Ag/NR
Sam Womble, County Extension Agent - NR
Stephen Biles, Calhoun, Refugio & Victoria Extension IPM Agent
Steve Livingston, Extension Agronomist
Victoria County

SUMMARY:

In an evaluation of twelve top grain sorghum hybrids planted on March 29, 2005, growing conditions were on the dry side resulting in some lodging reported in some hybrids and yields ranging from 4346 - 5746 pounds/ac with an market value ranging from $159.06 -210.30 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:

Twelve grain sorghum hybrids were planted March 29, 2005 with a check hybrid planted four times throughout the field to adjust for field variance with accuracy testing. Eight rows of each hybrid were planted on 38-inch centers with a Kinze Show planter. The previous crop was corn and soil moisture was good at planting.

Fertilizer applied included 4005 lbs/acre of 24-8-0-2s and 45 lbs/ac of 9-30-0+Zn Starter. Insecticide applied included banded 0.8 oz/ac of Mustang Max. The planting rate was calibrated at 78,000 seeds/acre. Herbicides applied included 24oz/ac of Guardsman Max. Varieties were pre-treated with either Cruiser (C) or Gaucho (G) seed treatments.

Harvest was with a combine on July 14, 2005. Yields were adjusted for accuracy testing and converted to 14 percent moisture. Due to a dry growing season and lodging, adjustments were made in setting the combine header height to harvest all grain.

RESULTS and DISCUSSIONS:

The 2005 production season was normal to above normal in rainfall and soil moisture for the beginning of the spring season. Unfortunately rainfall nearly ceased after mid-March with only two one-inch rains carrying the crop through harvest, limiting yields. While yields were good ranging from 4346 - 5746 pounds/ac other areas receiving more rain reported higher yields. The extended dry season caused several of the sorghum varieties to lodge as reported in Table 1. The combine header was lowered to pick up nearly all lodged sorghum so the lodged sorghum yields are near 100 percent of their actual production. Percent lodging was reported by the combine operator with an estimate percent lodging, or if two number are reported the first is the average lodging for the variety and the second is the highest lodging seen within areas of the variety.

ACKNOWLEDGMENTS:

Appreciation is expressed to contributing seed companies, Dr. Steve Livingston, Extension Agronomist, to combine operator J. D. Schovajsa and Brian Adamek, cooperator.

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 2005.

Seed Company	Hybrid	% Moist.	Bushel Wt. Lbs/Bu	% Lodging	Adjusted Yield Lbs/Ac 1/	Crop Value $/Ac 2/
DeKalb	DKS 54-00	15.0	58	2	5746	$210.30
Garst	5360	15.0	59	0	5728	209.64
Golden Acres	3827	14.9	60	0, a)	5681	207.92
B-H Genetics	5533	14.6	58	1	5678	207.81
Asgrow	A571	15.0	57	5	5338	195.37
Triumph	TRX44631	14.9	59	5	5233	191.53
Asgrow (Ck)	570	14.9	59	17	5170	189.22
Pioneer	83G15N281	14.8	59	30	5151	188.53
NC+	8R18	15.3	59	20/80	4567	167.15
Seed Resource	SR541	15.0	59	25/90	4495	164.52
Semillas Boomerang	BB555	14.5	59	10/80	4346	159.06

1/ Adjusted for accuracy testing and to 14 percent moisture.
2/ Crop value based on $3.66 per hundred weight.
a) Had reduced head exertion and harvested more sorghum leaves than other varieties.