EVALUATION OF GRAIN SORGHUM HYBRIDS FOR YIELD POTENTIAL AND PROFITABILITY

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SUMMARY:

Ten grain sorghum hybrids planted on April 2, 2009 in a replicated trial yielded from 2762 - 4734 pounds per acre. At the 2009 average grain sorghum harvest market price of $5.65/cwt, the grain sorghum hybrids ranged in value from $156.05 – 267.45 per acre. Selecting from the top hybrids could potentially net over $100 more per acre over other hybrids.

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 2, 2009 replicating them four times within the demonstration. Six rows of each hybrid were planted on 38-inch centers with a Kinze 3140 Vacuum planter. The previous crop was corn.

Fertilizer included 300 lbs/acre of 35-10-0-3s applied in November. Insecticide applied included 1.0 oz/ac MustangMax on a band plus the seed company applied Poncho, Cruiser or Gaucho seed treatment. The planting rate was calibrated at 5.5 pounds per acre. Herbicide applied included 1.5 pt/acre Guardsman Max at planting banded over the row plus 1 qt/acre Atrazine broadcast one week after planting.

Harvested was on July 27, 2009 with a commercial combine. Yields were adjusted to 14 percent moisture.

RESULTS and DISCUSSIONS:

The field yielded good in spite of extremely dry conditions. Only 750 feet of the 2000 feet from each of the 6 row plots was harvested for a plot harvest size of one-third acre each. Three of the four replications were harvested and yields were computed for

final results. Harvest yields ranged from 2762 - 4734 pounds per acre. Bushel weight varied from 53.3 - 57.3 pounds per bushel and grain moisture was statistically the same for all hybrids.

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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 ten grain sorghum hybrids. Brian Adamek, Cooperator, Victoria County, TX 2009.

Seed Company	Hybrid	Moisture (%) [1/]	Bu. Wt. (lbs.) [1/]	Lbs./Acre [1/] [2/]	Crop Value $/A [3/]
Terral Seed	TV94S91	13.17 a	53.3 e	4734 a	$267.45 a
Dyna-Gro	DG771B	13.40 a	55.0 d	4632 a	261.73 a
Garst	5464	13.03 a	56.3 abc	4562 a	257.74 a
DeKalb	DKS53-67	13.67 a	57.3 a	4551 a	257.14 a
Garst	5308	13.33 a	54.7 d	4450 a	251.42 a
Golden Acres	3696	13.27 a	54.7 d	4167 ab	235.42 ab
B-H Genetics	BH5522	13.20 a	55.3 cd	4159 ab	234.99 ab
Triumph Exp	TRX85002	13.57 a	55.7 bcd	3413 bc	192.82 bc
Pogue Seed	PS222A	13.67 a	56.7 ab	2956 c	167.00 c
Integra	NK7829	13.50 a	55.0 d	2762 c	156.05 c
Mean		**13.38**	**55.4**	**4039**	**$206.00**
P>F		*0.1392*	*0.0032*	*0.0020*	228.18
LSD (P=0.05)		*NS*	*1.33*	*805*	0.0020
Standard Deviation		*0.282*	*0.94*	*568.88*	55.14
CV%		*2.11*	*1.7*	*14.09*	32.14

[1/] Means in a column followed by the same letter are not significantly different by ANOVA.
[2/] Adjusted to 14% moisture.
[3/] Crop value based on $5.65/cwt. crop average during harvest season.