

Dryland Grain Sorghum Variety Trial Perryton, TX – 2010

Brent Bean¹, Jake Becker², Scott Strawn³, Jurg Blumenthal⁴, and Dennis Pietsch⁵

Cooperator: James Born

LOCATION:	Perryton, TX
SOIL TYPE:	Sherm silty clay loam
PREVIOUS CROP:	Wheat
ROW WIDTH:	30 inches
LAND PREPARATION:	No-till
DATE PLANTED:	June 26, 2010
SEEDING RATE:	30,000 seed per acre
PLOT SIZE:	Two rows by 25 ft
FERTILIZER:	35lbs Nitrogen & 15lbs Phosphorous applied in spring
HERBICIDE:	Burn-down with 1.25lb Atrazine applied immediately after planting
INSECTICIDE:	None
RAINFALL:	7.29 inches
DATE HARVESTED:	Nov. 11, 2010 – Mechanical harvest (Massey Ferguson Plot Combine)
TEST DESIGN:	Randomized complete block
NUMBER ENTRIES:	24
NUMBER REPLICATIONS:	4
NUMBER ROWS/PLOT:	2
TEST MEAN:	6,267 lb/acre
TEST YIELD C.V.:	7.84%

COMMENTS:

This was the second year a dryland grain sorghum variety trial was planted near Perryton, TX. The trial was not harvested in 2009 due to poor emergence. The test was planted on no-till fallowed ground with excellent soil moisture. Growing season rainfall was 7.29 inches and timely rainfalls of over 0.5 inch provided good growing conditions throughout the season (Figure 1). No lodging was observed among any of the varieties.. Overall, the trial was representative of grain sorghum yields around the area. No insect or significant disease infestations were observed in the trial. Grain was collected on the first two replications for test weight and moisture. All samples averaged 9.5% moisture, and test weight ranged from 61 to 57 lbs/bushel (Table 1). Yield ranged from 7,168 lb/acre to 3,896 lb/acre (Figure 2). Eight hybrids yielded greater than 6,500 lb/acre. These were DKS 37-07,85G01, 6B10, 85G46, BH3822, TR452, BH5224, and 86G32. The same trial was conducted at Bushland, TX, Lubbock, TX and Clovis, NM.

Acknowledgements: Study was partially funded by the United Sorghum Checkoff Program.

¹ Professor and Extension Agronomist, Amarillo, TX. bbean@tamu.edu. 806-677-5600.

² Texas AgriLife Research assistant. Amarillo, TX.

³ Ochiltree County Extension Agent.

⁴ Associate Professor and Extension Systems Agronomist, College Station, TX.

⁵ Director of Crop Testing Program, College Station, TX.

Figure 1. Growing season rainfall near Perryton, TX- 2010

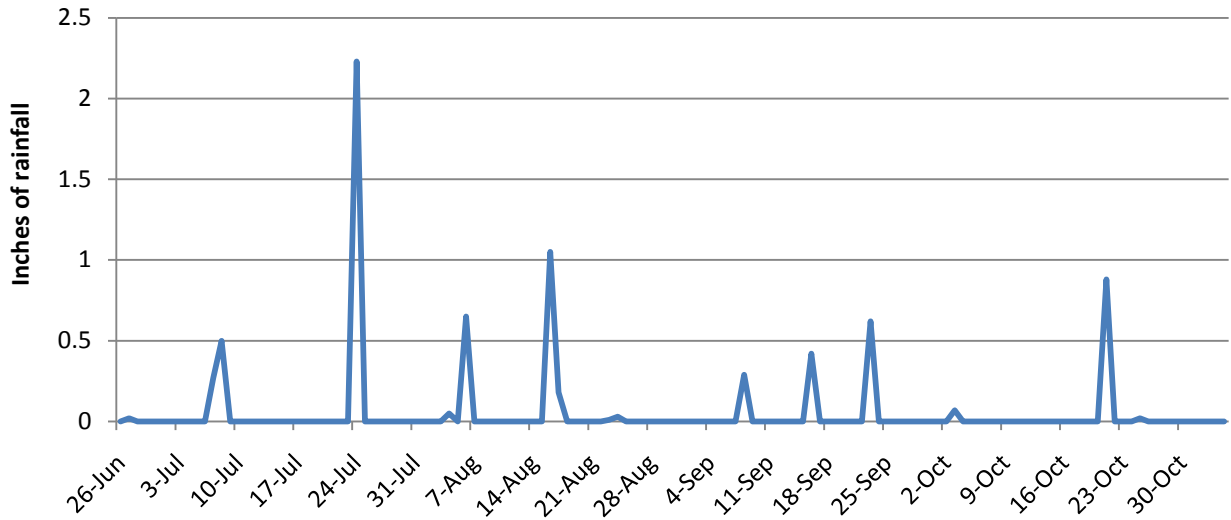


Figure 2. Dryland grain sorghum variety trial near Perryton, TX - 2010

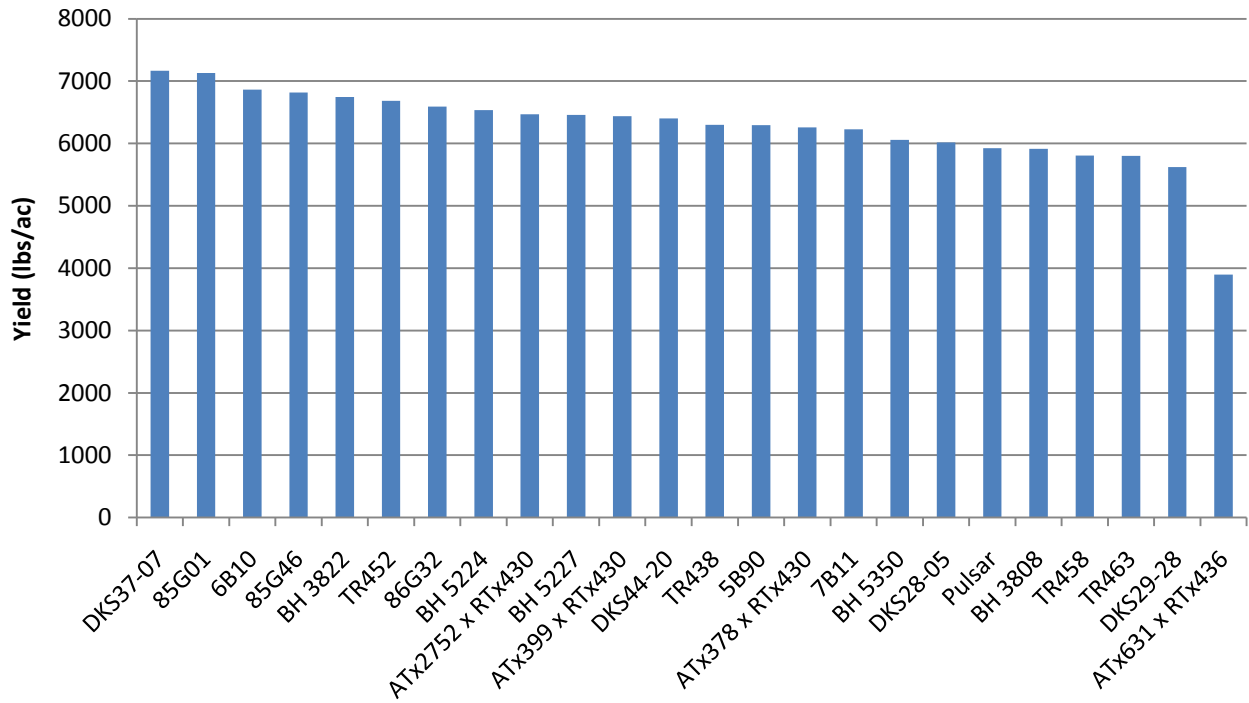


Table 1. Dryland grain sorghum trial near Perryton, TX, 2010.

Entry No.	Hybrid Name	Company	Flowering Date	% Lodged	Peduncle Lth (in)*	Test Weight (lbs/bu)	Yield (lbs/ac)
1	BH 3822	B-H Genetics	2-Sep	0	1.75 fgh	58.70 a-d	6745 a-d
2	BH 3808	B-H Genetics	2-Sep	0	4 a	57.43 b-g	5912 fgh
3	BH 5224	B-H Genetics	4-Sep	0	0.75 ij	59.82 abc	6535 a-f
4	BH 5227	B-H Genetics	4-Sep	0	2.75 cde	58.41 a-e	6457 b-g
5	BH 5350	B-H Genetics	2-Sep	0	2.25 efg	55.03 e-i	6059 d-h
6	5B90	Channel Bio LLC	30-Aug	0	2.25 efg	56.72 c-h	6292 c-h
7	6B10	Channel Bio LLC	4-Sep	0	1.25 hij	54.32 ghi	6864 abc
8	7B11	Channel Bio LLC	6-Sep	0	3 b-e	59.82 abc	6229 c-h
9	DKS28-05	Monsanto Company	28-Aug	0	3.5 abc	51.64 i	6019 e-h
10	DKS29-28	Monsanto Company	28-Aug	0	3.38 a-d	59.26 abc	5620 h
11	DKS44-20	Monsanto Company	2-Sep	0	2.25 efg	59.82 abc	6402 c-g
12	DKS37-07	Monsanto Company	30-Aug	0	2.75 cde	59.82 abc	7168 a
13	Pulsar	Monsanto Company	28-Aug	0	3.75 ab	61.09 a	5927 fgh
14	86G32	Pioneer Hi-Bred Int., Inc	28-Aug	0	2.5 def	55.45 d-h	6593 a-f
15	85G46	Pioneer Hi-Bred Int., Inc	30-Aug	0	1.5 ghi	58.56 a-d	6816 abc
16	85G01	Pioneer Hi-Bred Int., Inc	30-Aug	0	0.5 j	60.39 ab	7129 ab
17	TR458	Triumph Seed Co., Inc	6-Sep	0	2.75 cde	60.25 ab	5807 gh
18	TR463	Triumph Seed Co., Inc	10-Sep	0	1.25 hij	54.60 f-i	5800 gh
19	TR438	Triumph Seed Co., Inc	2-Sep	0	1.75 fgh	58.70 a-d	6300 c-h
20	TR452	Triumph Seed Co., Inc	2-Sep	0	2.5 def	57.43 b-g	6684 a-e
21	ATx399 x RTx430	Texas AgriLife Research	10-Sep	0	1.25 hij	57.99 a-f	6436 b-g
22	ATx378 x RTx430	Texas AgriLife Research	10-Sep	0	1.75 fgh	53.90 hi	6256 c-h
23	ATx2752 x RTx430	Texas AgriLife Research	12-Sep	0	0.75 ij	57.99 a-f	6471 b-g
24	ATx631 x RTx436	Texas AgriLife Research	14-Sep	0	3.25 a-d	56.72 c-h	3896 i
Mean					2.22	57.66	6,267
CV					29.87	2.93	7.84

*Means followed by the same letter in each column do not differ significantly at $P \geq 0.05$.