

Evaluation of seed treatments in dryland grain sorghum production, Clay Center, NE, 2006

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Background information pertaining to dryland sorghum seed treatment evaluations at Clay Center, NE during 2006.

Agronomic

Hybrid:	NC+ 6B50
Row Spacing:	30 inches
Row Orientation:	North-South
Planting Date:	No-tilled into wheat stubble on 19 May 2006
Planter:	8-row 7300 JD Maximerge II vacuum planter
Planting Depth:	1¼ inch
Previous Crop:	Wheat
Application Equipment:	<u>Seed Treatment:</u> <ul style="list-style-type: none">• Commercially treated: (Trt #1, #2).
Soil Information:	Butler and Crete silt loam
Herbicides Applied:	Roundup WeatherMax @ 22 ounces/acre and AMS @ 17 lbs/100 gal on May 5 2006; Dual II Magnum @ 1.3 pt/acre and atrazine @ 1.8 lbs/acre on 21 May 2006; Paramount @ 7 oz/acre and crop oil concentrate @ 1 qt/acre on 19 June 2006
Fertilizer Applied:	120 lbs N/acre on 21 May 2006

Data Collection:

Insect Populations:	Seedling insects (i.e., wireworm, etc.) and greenbug populations were very low throughout the growing season.
Plant Population:	The total number of plants within a 200 sq ft sub-sample of each plot were recorded and converted to plants per acre on 12 June 2006.
Harvest Evaluations:	Plots were machine harvested on 03 October. Percent moisture and lbs of grain were recorded and converted to 56 lbs/bu @ 14% moisture to evaluate yield.

Experimental Design

Design:	Randomized Complete Block Replicated four times
Plot Size:	16 rows x 448 feet
Statistical Analyses:	PROC MIXED, with mean separation using the differences of least square means (MIXED; p t >0.05).

Environmental

Conditions at planting:

Soil surface condition: Excellent-Moist

Record of Rainfall: (April 6 - September 22*)

<u>Date</u>	<u>Amount (Inches)</u>	<u>Month</u>	<u>Total (Inches)</u>
April 6	0.30	April	2.00
April 24	0.30	May	2.50
April 25	0.20	June	2.25
April 28	1.20	July	3.35
May 2	0.55	August	5.15
May 6	0.20	September*	<u>3.00</u>
May 8	0.35	<i>Total</i>	18.25
May 24	0.45		
May 26	0.35		
May 28	0.60		
June 11	0.20		
June 16	0.20		
June 17	1.40		
June 21	0.20		
June 24	0.25		
July 8	0.50		
July 10	1.00		
July 14	0.45		
July 21	1.40		
August 1	0.75		
August 6	0.15		
August 8	1.25		
August 13	0.50		
August 17	2.25		
August 19	0.25		
September 9	1.25		
September 10	0.65		
September 16	0.25		
September 22	<u>0.85</u>		
<i>Total</i>	18.25		

2006 Dryland Sorghum Seed Treatment Evaluations at Clay Center, NE

Trt#	Product ²	Rate of Product	Placement	Yield ^{1,3} (bu/acre) (03 October)	Plants ¹ Per Acre (12 June)
2	Cruiser 5FS	5.1 oz/cwt	ST	131.1	63,075
1	Gaucho ST	8.0 oz/cwt	ST	130.0	63,293
3	Untreated	-----	—	130.3	62,139
LSD(0.05)				NS	NS
Treatment Probability				0.9329	0.0739

¹Means in column are not statistically different using the differences of least square means (MIXED; p|t|>0.05

²Seed treatments #1 and #2 were commercially applied.

³Plots were machine harvested on 03 October. Percent moisture and lbs of grain were recorded and converted to 56 lbs/bu @ 14% moisture.