

New Mexico 2017 Dryland Grain Sorghum Performance Test - Agricultural Science Center at Clovis

Investigators: A. Mesbah, A. Scott, and B. Niece

Test Description

<p>Location: County/Area: Curry Longitude: -103.22 Latitude: 34.60 Elevation: 4435 ft. Soil Name: Olton Soil Texture: clay loam Soil Depth: >60 in.</p>	<p>Management Practices: Previous Crop: fallow Planting Date: 20-Jun Harvest Date: 8-Nov</p>	<p>Growing Conditions:</p> <table border="1"> <thead> <tr> <th></th> <th>Average Temp. °F</th> <th>Precip. in.</th> <th>Irrigation in.</th> </tr> </thead> <tbody> <tr><td>January</td><td>36.5</td><td></td><td></td></tr> <tr><td>February</td><td>45.8</td><td></td><td></td></tr> <tr><td>March</td><td>51.7</td><td></td><td></td></tr> <tr><td>April</td><td>55.5</td><td></td><td></td></tr> <tr><td>May</td><td>61.4</td><td></td><td></td></tr> <tr><td>June 20-30</td><td>74.1</td><td>0.74</td><td>1.0</td></tr> <tr><td>July</td><td>77.0</td><td>2.18</td><td></td></tr> <tr><td>August</td><td>71.0</td><td>7.87</td><td></td></tr> <tr><td>September</td><td>67.0</td><td>4.13</td><td></td></tr> <tr><td>October</td><td>56.5</td><td>2.04</td><td></td></tr> <tr><td>November 1-8</td><td>50.0</td><td>0.00</td><td></td></tr> <tr><td>December</td><td>38.0</td><td></td><td></td></tr> </tbody> </table>		Average Temp. °F	Precip. in.	Irrigation in.	January	36.5			February	45.8			March	51.7			April	55.5			May	61.4			June 20-30	74.1	0.74	1.0	July	77.0	2.18		August	71.0	7.87		September	67.0	4.13		October	56.5	2.04		November 1-8	50.0	0.00		December	38.0					
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<p>Test Design: Replications: 3 Plot Length: 20 ft. Rows per Plot: 2 Row Spacing: 30 in. Seeding Rate: 29000 seed/ac</p>	<p>Production Inputs</p> <table border="1"> <thead> <tr> <th></th> <th>Rate</th> <th>Date</th> </tr> </thead> <tbody> <tr><td colspan="3">Fertilizer:</td></tr> <tr><td>Nitrogen</td><td>38 lb/a</td><td>carryover</td></tr> <tr><td>Nitrogen</td><td>30 lb/ac</td><td>18-Apr</td></tr> <tr><td>P₂O₅</td><td>20 lb/ac</td><td>18-Apr</td></tr> <tr><td>S</td><td>4.4 lb/ac</td><td>18-Apr</td></tr> <tr><td>Nitrogen</td><td>46 lb/ac</td><td>21-Jun</td></tr> <tr><td colspan="3">Herbicides:</td></tr> <tr><td>Sharpen</td><td>1.5 oz/ac</td><td>at plant</td></tr> <tr><td>Atrazine</td><td>1.5 pt/ac</td><td>at plant</td></tr> <tr><td>Glyphosate</td><td>48 oz/ac</td><td>at plant</td></tr> <tr><td>Brawl</td><td>1.5 pt/ac</td><td>21-Jun</td></tr> <tr><td colspan="3">Insecticides:</td></tr> <tr><td>Sivanto</td><td>7 oz/ac</td><td>30-Aug</td></tr> <tr><td>Dimilin</td><td>2 oz/ac</td><td>21-Jun</td></tr> </tbody> </table>		Rate	Date	Fertilizer:			Nitrogen	38 lb/a	carryover	Nitrogen	30 lb/ac	18-Apr	P ₂ O ₅	20 lb/ac	18-Apr	S	4.4 lb/ac	18-Apr	Nitrogen	46 lb/ac	21-Jun	Herbicides:			Sharpen	1.5 oz/ac	at plant	Atrazine	1.5 pt/ac	at plant	Glyphosate	48 oz/ac	at plant	Brawl	1.5 pt/ac	21-Jun	Insecticides:			Sivanto	7 oz/ac	30-Aug	Dimilin	2 oz/ac	21-Jun	<table border="1"> <tbody> <tr> <td>Seasonal Precipitation:</td> <td>17.0 in.</td> </tr> <tr> <td>Total Irrigation:</td> <td>1.0 in.</td> </tr> <tr> <td>Date of Last Spring Frost:</td> <td>1-May</td> </tr> <tr> <td>Date of First Fall Frost:</td> <td>10-Oct</td> </tr> <tr> <td>Frost Free Period:</td> <td>162 days</td> </tr> </tbody> </table>	Seasonal Precipitation:	17.0 in.	Total Irrigation:	1.0 in.	Date of Last Spring Frost:	1-May	Date of First Fall Frost:	10-Oct	Frost Free Period:	162 days
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Brand/Company Name	Hybrid/Variety Name	Grain Yield bu/a	Grain Yield lb/a	Moisture		Plant Height in	Head Exertion in	Lodging %	Heading Date
				at Harvest %	Test Weight lb/bu				
Pioneer	85P05	143.4 ***	8033 ***	19.8 ***	53.9 *	17.6 *	5.8	0	14-Aug *
DeKalb	37-07	134.9 *	7558 *	18.3 *	51.7 *	22.7	8.0 *	0	15-Aug *
NuTech Seed, LLC	GS 663	133.6 *	7485 *	18.1 *	53.4 *	26.3 *	7.2	0	13-Aug *
Alta Seeds	ADV G1150	133.5 *	7475 *	18.0 *	50.2	24.9	8.7 *	0	17-Aug *
Dyna-Gro Seed	M60GB31	132.8 *	7438 *	17.9 *	54.3 *	25.5	8.3 *	0	15-Aug *
Dyna-Gro Seed	GX17818	132.4 *	7418 *	17.8 *	52.1 *	29.2 ***	7.5 *	0	21-Aug *
Dyna-Gro Seed	M60GB88	130.5 *	7310 *	17.5 *	50.5	26.7 *	7.5 *	0	6-Jul
NuTech Seed, LLC	GS 693	129.9 *	7271 *	17.4	54.2 *	27.0 *	6.8	0	19-Aug *
Chromatin, Inc.	SP 68M57	129.1 *	7229 *	17.3	52.6 *	23.6	5.9	0	16-Aug *
NuTech Seed, LLC	GS 636	128.7 *	7208 *	17.2	53.6 *	24.1	8.2 *	0	19-Aug *
Alta Seeds	AG 1203	124.6	6976	16.5	53.8 *	24.5	7.9 *	0	19-Aug *
Dyna-Gro Seed	M60GB31	124.4	6966	16.5	53.5 *	24.0	6.8	0	16-Aug *
Dyna-Gro Seed	GX16535	124.2	6958	16.5	52.0 *	27.3 *	8.7 *	0	18-Aug *
Dyna-Gro Seed	M74GB17	115.9	6490	15.1	54.1 *	27.4 *	7.6 *	0	21-Aug ***
Chromatin, Inc.	SP 34A19	114.5	6413	14.9	45.6	19.8	7.8 *	0	13-Aug *
Chromatin, Inc.	SP 31A15	113.6	6364	14.8	44.3	23.3	7.3	0	11-Aug *
NuTech Seed, LLC	GS 725	113.4	6350	14.8	54.4 ***	25.7 *	7.1	0	20-Aug *
Chromatin, Inc.	SP 33S40	112.2	6284	14.6	53.9 *	22.5	9.7 *	0	17-Aug *
Dyna-Gro Seed	M60GB88	111.2	6225	14.4	49.7	22.0	8.3 *	0	11-Aug *
Dyna-Gro Seed	M59GB57	106.6	5973	13.7	50.9	20.1	7.1	0	11-Aug *
Chromatin, Inc.	CHR0163	99.1	5551	12.5	48.0	19.5	4.2	0	13-Aug *
Chromatin, Inc.	SP 25C10	83.4	4669	10.3	49.1	14.7	8.5 *	0	8-Aug *
Chromatin, Inc.	CHR0039	83.4	4669	10.3	47.0	15.7	9.8 ***	0	9-Aug *
	Trial Mean	119.8	6709	15.8	51.4	23.7	7.6	0.0	13-Aug
	LSD (P > 0.05)	15.0	842.2	2.4	3.2	4.2	2.5	0.0	22.3
	CV	7.6	7.6	9.2	3.7	10.8	19.7	0.0	6.0
	F Test	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.02	0.0869	0.1859

*** Highest numerical value in the column.

* Not significantly different from the highest numerical value in the column based on the 5% LSD.