

New Mexico 2018 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: 11-Jun Harvest Date: 19-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>35.2</td><td></td><td></td></tr> <tr><td>February</td><td>40.3</td><td></td><td></td></tr> <tr><td>March</td><td>49.3</td><td></td><td></td></tr> <tr><td>April</td><td>52.8</td><td></td><td></td></tr> <tr><td>May</td><td>69.4</td><td></td><td></td></tr> <tr><td>June 11-30</td><td>76.1</td><td>0.51</td><td></td></tr> <tr><td>July</td><td>76.5</td><td>3.05</td><td></td></tr> <tr><td>August</td><td>74.5</td><td>3.94</td><td></td></tr> <tr><td>September</td><td>68.5</td><td>1.64</td><td></td></tr> <tr><td>October</td><td>56.0</td><td>3.99</td><td></td></tr> <tr><td>November 1-19</td><td>43.0</td><td>0.17</td><td></td></tr> <tr><td>December</td><td>37.5</td><td></td><td></td></tr> <tr><td>Seasonal Precipitation:</td><td></td><td>13.3 in.</td><td></td></tr> <tr><td>Total Irrigation:</td><td></td><td>0.0 in.</td><td></td></tr> </tbody> </table>		Average Temp. °F	Precip. in.	Irrigation in.	January	35.2			February	40.3			March	49.3			April	52.8			May	69.4			June 11-30	76.1	0.51		July	76.5	3.05		August	74.5	3.94		September	68.5	1.64		October	56.0	3.99		November 1-19	43.0	0.17		December	37.5			Seasonal Precipitation:		13.3 in.		Total Irrigation:		0.0 in.	
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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>9 lb/a</td><td>carryover</td></tr> <tr><td>Nitrogen</td><td>30 lb/ac</td><td>19-Feb</td></tr> <tr><td>P₂O₅</td><td>20 lb/ac</td><td>19-Feb</td></tr> <tr><td>S</td><td>4 lb/ac</td><td>19-Feb</td></tr> <tr><td>Zn</td><td>1 qt/ac</td><td>19-Feb</td></tr> <tr><td>Nitrogen</td><td>75 lb/ac</td><td>8-Jun</td></tr> <tr><td colspan="3">Herbicides:</td></tr> <tr><td>Glyphosate</td><td>40 oz/ac</td><td>8-Jun</td></tr> <tr><td>Sharpen</td><td>1.5 oz/ac</td><td>8-Jun</td></tr> <tr><td>Starane</td><td>6.4 oz/ac</td><td>8-Jun</td></tr> <tr><td>Atrazine</td><td>1 pt/ac</td><td>8-Jun</td></tr> <tr><td>Brawl</td><td>1.3 pt/ac</td><td>12-Jun</td></tr> <tr><td colspan="3">Insecticides:</td></tr> <tr><td>Sivanto</td><td>10.5 oz/ac</td><td>15-Aug</td></tr> <tr><td>Prevathon</td><td>20 oz/ac</td><td>15-Aug</td></tr> <tr><td>Sivanto</td><td>10.5 oz/ac</td><td>24-Sep</td></tr> </tbody> </table>		Rate	Date	Fertilizer:			Nitrogen	9 lb/a	carryover	Nitrogen	30 lb/ac	19-Feb	P ₂ O ₅	20 lb/ac	19-Feb	S	4 lb/ac	19-Feb	Zn	1 qt/ac	19-Feb	Nitrogen	75 lb/ac	8-Jun	Herbicides:			Glyphosate	40 oz/ac	8-Jun	Sharpen	1.5 oz/ac	8-Jun	Starane	6.4 oz/ac	8-Jun	Atrazine	1 pt/ac	8-Jun	Brawl	1.3 pt/ac	12-Jun	Insecticides:			Sivanto	10.5 oz/ac	15-Aug	Prevathon	20 oz/ac	15-Aug	Sivanto	10.5 oz/ac	24-Sep	<p>Date of Last Spring Frost: 16-Apr Date of First Fall Frost: 15-Oct Frost Free Period: 182 days</p>						
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Brand/Company Name	Hybrid/Variety Name	Grain Yield bu/a	Grain Yield lb/a	Moisture	Test Weight lb/bu	Plant Height in	Head Exertion in	Lodging %	Heading Date
				at Harvest %					
Dyna-Gro Seeds	GX17948	113.0 ***	6330 ***	14.6	58.5 *	21.7 *	5.0	0	8-Aug
Advanta Seeds	ADV XG602	112.9 *	6323 *	14.2	56.9 *	20.7 *	7.3 *	0	16-Aug
Golden Acres	2620C	112.7 *	6310 *	12.9	56.6 *	16.0	7.7 *	0	11-Aug
Golden Acres	2730B	109.1 *	6109 *	13.5	58.2 *	16.7	7.0 *	0	15-Aug
Dyna-Gro Seeds	M69GR88	107.5 *	6020 *	15.1	56.5 *	21.0 *	4.3	0	12-Aug
Browning Seed, Inc.	Phoenix	105.3 *	5897 *	13.8	58.3 *	18.7	8.7 ***	0	16-Aug
Dyna-Gro Seeds	M74GB17	103.7 *	5809 *	14.8	57.4 *	19.0	6.3	0	16-Aug
Advanta Seeds	ADV XG001	102.9 *	5761 *	14.5	58.5 *	15.0	7.3 *	0	17-Aug
Dyna-Gro Seeds	M60GB31	99.2 *	5555 *	13.9	57.6 *	17.3	6.3	0	17-Aug
Dyna-Gro Seeds	GX17968	97.6 *	5465 *	14.1	57.2 *	20.0	7.7 *	0	7-Aug
Dyna-Gro Seeds	GX17962	97.2 *	5442 *	14.0	58.6 ***	16.3	5.0	0	10-Aug
Dyna-Gro Seeds	M60GB88	93.2 *	5217 *	12.9	58.0 *	17.0	5.7	0	17-Aug
Advanta Seeds	AG 1203	91.4 *	5119 *	13.8	57.9 *	18.7	6.0	0	12-Aug
Dyna-Gro Seeds	M68GR41	89.8 *	5033 *	15.5	54.8 *	17.3	2.3	0	9-Aug
Browning Seed, Inc.	775 W	89.1 *	4989 *	13.3	57.6 *	15.7	6.0	0	14-Aug
Dyna-Gro Seeds	GX17379	84.7 *	4747 *	15.3	51.5 *	16.7	1.3	0	18-Aug
Dyna-Gro Seeds	GX16833	84.6 *	4738 *	15.3	54.7 *	24.3 ***	2.3	0	23-Aug ***
Advanta Seeds	AG 1201	82.8 *	4640 *	13.0	56.4 *	16.3	5.0	0	15-Aug
Advanta Seeds	ADV XG629	78.9 *	4416 *	13.1	57.6 *	17.7	5.0	0	13-Aug
Browning Seed, Inc.	Blaze	78.1 *	4375 *	14.2	58.0 *	16.0	5.7	0	12-Aug
Browning Seed, Inc.	Challenger BMX	77.3 *	4327 *	14.5	51.0	21.0 *	5.7	0	8-Aug
Dyna-Gro Seeds	M73GR55	59.5	3330	17.0 ***	35.8	22.7 *	2.3	0	11-Aug
	Trial Mean	94.1	5270	14.2	55.8	13.3	5.5	0.0	13-Aug
	LSD (P > 0.05)	50.2	2808.0	0.8	7.5	4.0	2.2	0.0	3.2
	CV	32.3	32.3	3.4	8.1	13.3	24.3	0.0	0.9
	F Test	0.8661	0.8664	<0.0001	0.0002	0.0006	<0.0001	<0.0001	<0.0001

*** Highest numerical value in the column.

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