

**New Mexico 2019 Dryland Grain Sorghum Performance Test - Agricultural Science Center at Clovis**

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

**Test Description**

Location:	Management Practices:	Growing Conditions:																																																																																																																											
County/Area: Curry Longitude: -103.22 Latitude: 34.60 Elevation: 4435 ft. Soil Name: Olton Soil Texture: clay loam Soil Depth: >60 in.	Previous Crop: fallow Planting Date: 14-Jun Harvest Date: 11-Oct  <b>Production Inputs</b> <table border="1"> <thead> <tr> <th></th> <th>Rate</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td colspan="3"><b>Fertilizer:</b></td> </tr> <tr> <td>Nitrogen</td> <td>28 lb/ac</td> <td>carryover</td> </tr> <tr> <td>Nitrogen</td> <td>50 lb/ac</td> <td>16-Apr</td> </tr> <tr> <td>Phos</td> <td>20 lb/ac</td> <td>16-Apr</td> </tr> <tr> <td>S</td> <td>8 lb/ac</td> <td>16-Apr</td> </tr> <tr> <td>Chelated Zn</td> <td>3 qt/ac</td> <td>16-Apr</td> </tr> <tr> <td colspan="3"><b>Herbicides:</b></td> </tr> <tr> <td>Atrazine</td> <td>1.5 pt/ac</td> <td>at plant</td> </tr> <tr> <td>Verdict</td> <td>10 oz/ac</td> <td>at plant</td> </tr> <tr> <td>Glyphosate</td> <td>32 oz/ac</td> <td>at plant</td> </tr> <tr> <td>Huskie</td> <td>1 pt/ac</td> <td>10-Jul</td> </tr> <tr> <td>Atrazine</td> <td>1 pt/ac</td> <td>10-Jul</td> </tr> <tr> <td>Warrant</td> <td>1.5 qt/ac</td> <td>10-Jul</td> </tr> <tr> <td colspan="3"><b>Insecticides:</b></td> </tr> <tr> <td>Sivanto</td> <td>10.5 oz/ac</td> <td>30-Aug</td> </tr> <tr> <td>Onager</td> <td>20 oz/ac</td> <td>30-Aug</td> </tr> </tbody> </table>		Rate	Date	<b>Fertilizer:</b>			Nitrogen	28 lb/ac	carryover	Nitrogen	50 lb/ac	16-Apr	Phos	20 lb/ac	16-Apr	S	8 lb/ac	16-Apr	Chelated Zn	3 qt/ac	16-Apr	<b>Herbicides:</b>			Atrazine	1.5 pt/ac	at plant	Verdict	10 oz/ac	at plant	Glyphosate	32 oz/ac	at plant	Huskie	1 pt/ac	10-Jul	Atrazine	1 pt/ac	10-Jul	Warrant	1.5 qt/ac	10-Jul	<b>Insecticides:</b>			Sivanto	10.5 oz/ac	30-Aug	Onager	20 oz/ac	30-Aug	<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>38.5</td><td></td><td></td></tr> <tr><td>February</td><td>41.4</td><td></td><td></td></tr> <tr><td>March</td><td>45.7</td><td></td><td></td></tr> <tr><td>April</td><td>56.0</td><td></td><td></td></tr> <tr><td>May</td><td>63.2</td><td>1.69</td><td></td></tr> <tr><td>June</td><td>72.7</td><td>2.09</td><td></td></tr> <tr><td>July</td><td>78.0</td><td>4.45</td><td></td></tr> <tr><td>August</td><td>78.5</td><td>3.15</td><td></td></tr> <tr><td>September</td><td>74.0</td><td>0.10</td><td></td></tr> <tr><td>October 1-11</td><td>52.5</td><td>7.48</td><td></td></tr> <tr><td>November</td><td></td><td></td><td></td></tr> <tr><td>December</td><td></td><td></td><td></td></tr> <tr> <td>Seasonal Precipitation:</td> <td></td> <td>19.0 in.</td> <td></td> </tr> <tr> <td>Total Irrigation:</td> <td></td> <td>0.0 in.</td> <td></td> </tr> <tr> <td>Date of Last Spring Frost:</td> <td></td> <td>15-Apr</td> <td></td> </tr> <tr> <td>Date of First Fall Frost:</td> <td></td> <td>11-Oct</td> <td></td> </tr> <tr> <td>Frost Free Period:</td> <td></td> <td>178 days</td> <td></td> </tr> </tbody> </table>		Average Temp. °F	Precip. in.	Irrigation in.	January	38.5			February	41.4			March	45.7			April	56.0			May	63.2	1.69		June	72.7	2.09		July	78.0	4.45		August	78.5	3.15		September	74.0	0.10		October 1-11	52.5	7.48		November				December				Seasonal Precipitation:		19.0 in.		Total Irrigation:		0.0 in.		Date of Last Spring Frost:		15-Apr		Date of First Fall Frost:		11-Oct		Frost Free Period:		178 days	
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<b>Test Design:</b> Replications: 3 Plot Length: 20 ft. Rows per Plot: 2 Row Spacing: 30 in. Seeding Rate: 29000 seed/ac																																																																																																																													

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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				
Dyna-Gro	GX18395	140.7 ***	7881 ***	15.6 ***	60.7 *	22.0	2.7	0	7-Aug
Dyna-Gro	GX19981	139.6 *	7818 *	14.3 *	61.9 *	24.7	2.0	0	11-Aug *
Dyna-Gro	M69GB38	135.8 *	7608 *	14.6 *	62.0 *	27.3 *	8.3 *	0	10-Aug *
Dyna-Gro	GX18991	134.4 *	7527 *	14.2 *	63.1 ***	26.3 *	4.0	0	10-Aug *
Dyna-Gro	M57GB19	129.5 *	7254 *	11.8	59.2	22.0	6.0	0	4-Aug
Dyna-Gro	M69GR88	129.1 *	7227 *	14.9 *	60.8 *	26.3 *	5.0	0	12-Aug ***
Golden Acres	2730B	125.1 *	7005 *	11.8	57.0	21.0	7.0 *	0	1-Aug
Advanta Seeds	ADV G2106	122.7 *	6869 *	13.1	56.2	20.3	4.7	0	5-Aug
Dyna-Gro	M60GB31	121.5	6803	12.6	58.8	23.0	4.3	0	6-Aug
Golden Acres	2620C	121.2	6784	12.3	58.7	21.7	6.3	0	30-Jul
Advanta Seeds	AG 1203	118.7	6645	11.9	61.3 *	22.3	2.3	0	8-Aug *
Golden Acres	3020B	117.2	6561	13.4	61.3 *	25.7	5.3	0	8-Aug *
Dyna-Gro	GX17973	117.0	6554	12.2	60.9 *	28.7 ***	6.3	0	6-Aug
Advanta Seeds	AG 1201	115.9	6489	12.0	58.2	20.3	2.7	0	2-Aug
Dyna-Gro	M74GB17	115.6	6471	14.3 *	58.6	25.0	5.7	0	10-Aug *
Sorghum Partners	SP 68M57	114.4	6406	12.6	58.0	21.0	4.0	0	2-Aug
Sorghum Partners	SP 43M80	114.3	6399	13.2	57.0	18.7	3.3	0	27-Jul
Sorghum Partners	SP 31A15	113.7	6366	12.5	57.3	20.0	3.7	0	5-Aug
Dyna-Gro	M62GB77	112.2	6284	13.4	59.7	22.3	6.0	0	6-Aug
Advanta Seeds	ADV XG9127	111.8	6259	14.6 *	59.0	24.3	8.7 ***	0	9-Aug *
Advanta Seeds	ADV XG629	106.9	5982	12.3	57.4	19.7	2.0	0	3-Aug
Advanta Seeds	ADV G1150	103.9	5816	12.3	54.7	20.7	7.0 *	0	8-Aug *
Sorghum Partners	SP 33S40	101.9	5706	11.5	59.46	21.7	6.0	0	1-Aug
	Trial Mean	120.1	6727	13.1	59.2	22.8	4.9	0.0	5-Aug
	LSD (P > 0.05)	19.0	1064.8	1.9	3.1	2.7	1.9	0.0	4.8
	CV	9.6	9.6	8.8	3.2	7.3	23.9	0.0	1.3
	F Test	0.0037	0.0036	0.0006	<0.0001	<0.0001	<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.