

New Mexico 2020 Irrigated Forage 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: 19-May Harvest Date: 19-Sep Production Inputs <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>10 lb/ac</td> <td>carryover</td> </tr> <tr> <td>Nitrogen</td> <td>56 lb/ac</td> <td>pre-plant</td> </tr> <tr> <td>Phos</td> <td>35 lb/ac</td> <td>pre-plant</td> </tr> <tr> <td>S</td> <td>8.25 lb/ac</td> <td>pre-plant</td> </tr> <tr> <td>Chelated Zn</td> <td>2 qt/ac</td> <td>pre-plant</td> </tr> <tr> <td>Nitrogen</td> <td>90 lb/ac</td> <td>21-May</td> </tr> <tr> <td colspan="3">Herbicides:</td> </tr> <tr> <td>Atrazine</td> <td>1 pt/ac</td> <td>pre-plant</td> </tr> <tr> <td>Panther SC</td> <td>1 oz/ac</td> <td>pre-plant</td> </tr> <tr> <td>Glyphosate</td> <td>48 oz/ac</td> <td>pre-plant</td> </tr> <tr> <td>Dicamba HD</td> <td>8 oz/ac</td> <td>pre-plant</td> </tr> <tr> <td>Atrazine</td> <td>1 pt/ac</td> <td>21-May</td> </tr> <tr> <td>Buccaneer</td> <td>1 qt/ac</td> <td>21-May</td> </tr> <tr> <td>Sharpen</td> <td>1.5 oz/ac</td> <td>21-May</td> </tr> <tr> <td>Warrant</td> <td>1.5 oz/ac</td> <td>21-May</td> </tr> </tbody> </table>		Rate	Date	Fertilizer:			Nitrogen	10 lb/ac	carryover	Nitrogen	56 lb/ac	pre-plant	Phos	35 lb/ac	pre-plant	S	8.25 lb/ac	pre-plant	Chelated Zn	2 qt/ac	pre-plant	Nitrogen	90 lb/ac	21-May	Herbicides:			Atrazine	1 pt/ac	pre-plant	Panther SC	1 oz/ac	pre-plant	Glyphosate	48 oz/ac	pre-plant	Dicamba HD	8 oz/ac	pre-plant	Atrazine	1 pt/ac	21-May	Buccaneer	1 qt/ac	21-May	Sharpen	1.5 oz/ac	21-May	Warrant	1.5 oz/ac	21-May	<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>38.2</td><td></td><td></td></tr> <tr><td>February</td><td>38.0</td><td></td><td></td></tr> <tr><td>March</td><td>51.0</td><td></td><td></td></tr> <tr><td>April</td><td>52.4</td><td></td><td></td></tr> <tr><td>May 1-19</td><td>67.2</td><td>0.05</td><td>1.10</td></tr> <tr><td>June</td><td>75.8</td><td>1.16</td><td>2.00</td></tr> <tr><td>July</td><td>79.0</td><td>3.90</td><td>2.20</td></tr> <tr><td>August</td><td>79.0</td><td>0.55</td><td>7.40</td></tr> <tr><td>September 1-19</td><td>65.5</td><td>0.56</td><td>1.00</td></tr> <tr><td>October</td><td></td><td></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>6.2 in.</td> <td></td> </tr> <tr> <td>Total Irrigation:</td> <td></td> <td>13.7 in.</td> <td></td> </tr> <tr> <td>Date of Last Spring Frost:</td> <td></td> <td>18-Apr</td> <td></td> </tr> <tr> <td>Date of First Fall Frost:</td> <td></td> <td>16-Oct</td> <td></td> </tr> <tr> <td>Frost Free Period:</td> <td></td> <td>181 days</td> <td></td> </tr> </tbody> </table>		Average Temp. °F	Precip. in.	Irrigation in.	January	38.2			February	38.0			March	51.0			April	52.4			May 1-19	67.2	0.05	1.10	June	75.8	1.16	2.00	July	79.0	3.90	2.20	August	79.0	0.55	7.40	September 1-19	65.5	0.56	1.00	October				November				December				Seasonal Precipitation:		6.2 in.		Total Irrigation:		13.7 in.		Date of Last Spring Frost:		18-Apr		Date of First Fall Frost:		16-Oct		Frost Free Period:		181 days	
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Test Design:

Replications: 3
 Plot Length: 20 ft.
 Rows per Plot: 2
 Row Spacing: 30 in.
 Seeding Rate: 75,000 seed/a

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Results

Brand/Company Name	Hybrid/Variety Name	Sorghum Type	Maturity Group	Dry	Green	Moisture	CP	NDF	NDFD	Ash	TDN	NE ₁	Milk/Ton	Milk/Acre
				Forage	Forage	at Harvest			48hr					
				t/a	t/a	%	%	%	%	%	%	Mcal/lb	lb/t	lb/a
Dyna-Gro Seed	Super Sile 30	FS	ME	9.8	29.7	67.0	7.9	52.0	64.5	5.0	65.1	0.670	3142	30955
Dyna-Gro Seed	Fullgraze II BMR	SxS	MF	9.6	30.1	68.3	6.8	59.6	70.3	5.3	64.0	0.653	3108	29674
Dyna-Gro Seed	Fullgraze II	SxS	MF	9.4	26.1	63.9	6.2	66.0	64.2	4.7	60.1	0.613	2782	26247
S&W Seed Co.	SS405	FS	F	9.2	23.3	65.0	7.2	58.8	64.5	4.6	64.3	0.660	3084	28303
Dyna-Gro Seed	Super Sile 20	FS	MF	9.2	30.2	69.6	6.6	54.9	65.6	5.6	61.9	0.630	2920	26759
Dyna-Gro Seed	TopTon	FS	F	9.0	29.7	69.6	6.0	53.3	68.3	5.7	61.6	0.633	2919	26285
Dyna-Gro Seed	Danny Boy II BMR	SxS	PS	8.9	38.0	76.5	7.1	61.3	70.2	6.9	62.5	0.640	3001	26736
Dyna-Gro Seed	F72FS05 (SCA)	FS	ME	7.7	22.5	65.9	8.3	50.5	65.6	4.5	67.8	0.700	3343	25608
S&W Seed Co.	NK300	FS	ME	7.4	18.5	59.6	8.4	47.6	68.2	4.5	69.8	0.723	3505	25990
S&W Seed Co.	SP 3905 BD BMR	FS	ME	6.7	20.0	66.7	8.7	42.9	73.4	5.0	70.3	0.726	3584	23852
Dyna-Gro Seed	F71FS72 BMR	FS	E	6.6	19.6	66.8	8.5	43.6	73.9	5.4	70.7	0.730	3611	23667
Dyna-Gro Seed	F74FS23 BMR	FS	M	6.4	21.9	70.5	7.4	47.7	73.9	7.0	63.6	0.653	3107	20025
S&W Seed Co.	SP 3904 BD BMR	FS	MF	6.4	23.8	72.9	8.9	50.8	71.3	6.3	68.2	0.700	3415	21978
Dyna-Gro Seed	F70FS91 BMR	FS	E	6.3	20.2	68.8	7.1	54.3	74.1	5.9	65.9	0.680	3270	20655
Dyna-Gro Seed	F72FS25 BMR	FS	M	6.1	22.5	72.8	9.2	50.4	70.9	6.7	67.6	0.696	3373	20689
Dyna-Gro Seed	Super Sweet 10	SxS	ME	5.6	17.4	68.0	7.6	53.8	65.0	5.9	62.8	0.646	2981	16566
Dyna-Gro Seed	Dynagraze II	SxS	ME	5.2	15.0	65.7	8.5	53.3	64.8	5.0	65.4	0.673	3167	16535
Dyna-Gro Seed	First Graze	SxS	ME	5.2	16.5	68.6	7.8	55.2	64.7	6.2	62.4	0.640	2948	15262
Trial Mean				7.5	23.8	68.1	7.7	53.1	68.5	5.56	65.2	0.670	3181	23654
LSD				1.1	3.1	3.6	0.92	4.8	2.43	0.79	2.81	0.030	209	4131
LSD P >				0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
CV				9.2	7.8	3.2	7.2	5.5	2.1	8.6	2.6	2.760	4.0	10.5
F Test				0.3839	0.1703	0.299	0.0024	0.3278	0.325	0.1437	0.1245	0.094	0.1309	0.1788