

Table 8A. New Mexico 2013 Irrigated Forage Sorghum Performance Test - Agricultural Science Center at Clovis

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

Test Description

<p>Location:</p> <p>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:</p> <p>Previous Crop: fallow Planting Date: 20-May Harvest Date: 30-Sep</p> <hr/> <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>75 lb/a</td> <td>carryover</td> </tr> <tr> <td>Nitrogen</td> <td>125 lb/a</td> <td>20-May</td> </tr> <tr> <td>P₂O₅</td> <td>55 lb/a</td> <td>20-May</td> </tr> <tr> <td>S</td> <td>20 lb/a</td> <td>20-May</td> </tr> <tr> <td>Zn</td> <td>2 qt/a</td> <td>20-May</td> </tr> <tr> <td colspan="3">Herbicides:</td> </tr> <tr> <td>Aatrex</td> <td>2 pt/a</td> <td>21-May</td> </tr> <tr> <td>Yukon</td> <td>5 oz/a</td> <td>18-Jun</td> </tr> <tr> <td>Brawl</td> <td>1 pt/a</td> <td>18-Jun</td> </tr> <tr> <td colspan="3">Insecticides:</td> </tr> <tr> <td>Oberon 4 SC</td> <td>8 oz/a</td> <td>4-Aug</td> </tr> <tr> <td>Prevathon</td> <td>20 oz/a</td> <td>4-Aug</td> </tr> </tbody> </table>		Rate	Date	Fertilizer:			Nitrogen	75 lb/a	carryover	Nitrogen	125 lb/a	20-May	P ₂ O ₅	55 lb/a	20-May	S	20 lb/a	20-May	Zn	2 qt/a	20-May	Herbicides:			Aatrex	2 pt/a	21-May	Yukon	5 oz/a	18-Jun	Brawl	1 pt/a	18-Jun	Insecticides:			Oberon 4 SC	8 oz/a	4-Aug	Prevathon	20 oz/a	4-Aug	<p>Growing Conditions:</p> <hr/> <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></td><td></td><td></td></tr> <tr><td>February</td><td></td><td></td><td></td></tr> <tr><td>March</td><td></td><td></td><td></td></tr> <tr><td>April</td><td></td><td></td><td></td></tr> <tr><td>May</td><td>64.0</td><td>0.45</td><td>1.15</td></tr> <tr><td>June</td><td>74.7</td><td>1.67</td><td>0.70</td></tr> <tr><td>July</td><td>74.0</td><td>3.26</td><td>4.00</td></tr> <tr><td>August</td><td>75.0</td><td>1.49</td><td>4.60</td></tr> <tr><td>September</td><td>69.0</td><td>4.25</td><td>1.30</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> </tbody> </table> <hr/> <p>Seasonal Precipitation: 11.1 in. Total Irrigation: 11.8 in.</p> <p>Date of Last Spring Frost: 3-May Date of First Fall Frost: 19-Oct Frost Free Period: 169 days</p>		Average Temp. °F	Precip. in.	Irrigation in.	January				February				March				April				May	64.0	0.45	1.15	June	74.7	1.67	0.70	July	74.0	3.26	4.00	August	75.0	1.49	4.60	September	69.0	4.25	1.30	October				November				December			
	Rate	Date																																																																																														
Fertilizer:																																																																																																
Nitrogen	75 lb/a	carryover																																																																																														
Nitrogen	125 lb/a	20-May																																																																																														
P ₂ O ₅	55 lb/a	20-May																																																																																														
S	20 lb/a	20-May																																																																																														
Zn	2 qt/a	20-May																																																																																														
Herbicides:																																																																																																
Aatrex	2 pt/a	21-May																																																																																														
Yukon	5 oz/a	18-Jun																																																																																														
Brawl	1 pt/a	18-Jun																																																																																														
Insecticides:																																																																																																
Oberon 4 SC	8 oz/a	4-Aug																																																																																														
Prevathon	20 oz/a	4-Aug																																																																																														
	Average Temp. °F	Precip. in.	Irrigation in.																																																																																													
January																																																																																																
February																																																																																																
March																																																																																																
April																																																																																																
May	64.0	0.45	1.15																																																																																													
June	74.7	1.67	0.70																																																																																													
July	74.0	3.26	4.00																																																																																													
August	75.0	1.49	4.60																																																																																													
September	69.0	4.25	1.30																																																																																													
October																																																																																																
November																																																																																																
December																																																																																																
<p>Test Design:</p> <p>Replications: 3 Plot Length: 20 ft. Rows per Plot: 2 Row Spacing: 30 in. Seeding Rate: 75000 seed/a</p>																																																																																																

Table 8B. New Mexico 2013 Irrigated Forage Sorghum Performance Test - Agricultural Science Center at Clovis

Results

Brand/Company Name	Hybrid/Variety Name	Sorghum [†] Type	Maturity [§] Group	Moisture			CP %	NDF %	NDFD 48hr %	Ash %	TDN %	NE _l Mcal/lb	Milk/Ton lb/t	Milk/Acre lb/a
				Dry Forage t/a	Green Forage t/a	at Harvest %								
Sorg. Part./Chromatin	1990	Conv	L	11.5	44.9	74.3	8.5	60.1	64.0	5.3	58.4	0.595	2658	30612
Sorg. Part./Chromatin	SS 405	Conv	L	10.0	23.9	58.4	9.0	46.8	58.3	4.5	63.1	0.647	2949	29744
Sorg. Part./Chromatin	Trudan Headless	Conv	PS	9.5	31.2	69.4	9.2	52.4	61.3	5.2	59.7	0.609	2728	26033
Forage First	FS-5	Conv	M	9.3	22.9	60.6	8.9	43.4	61.7	4.9	63.0	0.645	2966	26659
Warner Seeds	2-Way	Conv	M	8.4	22.3	62.4	8.4	48.5	66.1	6.1	63.4	0.650	3032	25647
CPS Dyna-Gro	FX12151	Conv	L	8.0	19.6	59.3	9.0	47.0	64.3	5.7	63.0	0.645	2986	23944
Browning Seed, Inc.	Silage Master	Conv	ML	7.4	22.4	67.0	8.7	46.4	63.1	5.2	64.1	0.658	3055	22674
DuPont/Pioneer	849F	Conv	ML	7.1	19.5	63.7	8.6	53.3	63.5	5.9	60.9	0.622	2829	20183
CPS Dyna-Gro	705F	Conv	ME	7.1	18.5	61.7	8.9	47.5	64.5	5.6	63.9	0.656	3059	21681
Browning Seed, Inc.	Bundle King	Conv	M	7.0	20.4	65.7	9.1	45.6	65.5	5.7	63.1	0.647	3005	21146
Sorg. Part./Chromatin	X840	Conv	L	6.9	15.2	54.6	10.0	45.7	67.3	6.1	65.3	0.671	3179	22081
CPS Dyna-Gro	FX12152	BMR	ML	6.8	20.0	65.8	9.2	44.7	68.9	5.1	67.5	0.696	3352	22864
Sorg. Part./Chromatin	NK300	Conv	ME	6.7	17.1	60.6	8.6	46.2	63.9	5.5	63.3	0.649	3006	20240
Sorg. Part./Chromatin	NK8416	Conv	L	6.5	14.3	54.6	10.1	46.5	67.2	6.3	65.0	0.668	3155	20441
Sorg. Part./Chromatin	NK9916	Conv	L	6.2	14.1	55.7	9.7	48.4	66.4	6.3	63.2	0.648	3022	18806
DuPont/Pioneer	841F	Conv	M	6.1	20.7	70.8	9.7	47.6	66.1	5.6	66.4	0.684	3251	19691
Warner Seeds	2-Way BMR Sterile	BMR	M	5.4	16.5	67.5	9.1	44.8	66.8	5.9	62.1	0.636	2945	15703
Trial Mean				7.7	21.4	63.1	9.1	47.9	64.6	5.6	63.3	0.649	3011	22832
LSD				1.9	4.5	4.4	0.8	4.9	2.8	0.8	2.3	0.025	159	6287
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				15.0	12.6	4.2	5.4	6.2	2.6	8.8	2.2	2.4	3.2	16.6
F Test				<0.0001	<0.0001	<0.0001	0.0023	<0.0001	<0.0001	0.0036	<0.0001	<0.0001	<0.0001	0.0025

[†] Sorghum Type: Conv = Conventional, BMR = Brown Midrib

[§] Maturity Group: E = Early, M = Medium, L = Late, PS = Photoperiod Sensitive