

Table 8A. New Mexico 2014 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: 24-Jun Harvest Date: 16-Oct Production Inputs <hr/> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Rate</th> <th style="text-align: center;">Date</th> </tr> </thead> <tbody> <tr> <td colspan="3">Fertilizer:</td> </tr> <tr> <td style="padding-left: 20px;">Nitrogen</td> <td style="text-align: center;">160 lb/a</td> <td style="text-align: center;">23-Jun</td> </tr> <tr> <td style="padding-left: 20px;">P₂O₅</td> <td style="text-align: center;">45 lb/a</td> <td style="text-align: center;">23-Jun</td> </tr> <tr> <td style="padding-left: 20px;">S</td> <td style="text-align: center;">27 lb/ac</td> <td style="text-align: center;">23-Jun</td> </tr> <tr> <td style="padding-left: 20px;">Zn</td> <td style="text-align: center;">3 qt/a</td> <td style="text-align: center;">23-Jun</td> </tr> <tr> <td colspan="3">Herbicides:</td> </tr> <tr> <td style="padding-left: 20px;">Bicep Lite II Mag</td> <td style="text-align: center;">3 pt/ac</td> <td style="text-align: center;">24-Jun</td> </tr> <tr> <td style="padding-left: 20px;">Aatrex</td> <td style="text-align: center;">1.5 pt/ac</td> <td style="text-align: center;">31-Jul</td> </tr> <tr> <td colspan="3">Insecticides:</td> </tr> <tr> <td style="padding-left: 20px;">None</td> <td></td> <td></td> </tr> </tbody> </table>		Rate	Date	Fertilizer:			Nitrogen	160 lb/a	23-Jun	P ₂ O ₅	45 lb/a	23-Jun	S	27 lb/ac	23-Jun	Zn	3 qt/a	23-Jun	Herbicides:			Bicep Lite II Mag	3 pt/ac	24-Jun	Aatrex	1.5 pt/ac	31-Jul	Insecticides:			None			<hr/> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Average Temp. °F</th> <th style="text-align: center;">Precip. in.</th> <th style="text-align: center;">Irrigation in.</th> </tr> </thead> <tbody> <tr><td>January</td><td style="text-align: center;">35.0</td><td></td><td></td></tr> <tr><td>February</td><td style="text-align: center;">38.4</td><td></td><td></td></tr> <tr><td>March</td><td style="text-align: center;">45.1</td><td></td><td></td></tr> <tr><td>April</td><td style="text-align: center;">53.6</td><td></td><td></td></tr> <tr><td>May</td><td style="text-align: center;">62.9</td><td></td><td></td></tr> <tr><td>June</td><td style="text-align: center;">73.2</td><td style="text-align: center;">3.1</td><td style="text-align: center;">0.90</td></tr> <tr><td>July</td><td style="text-align: center;">75.0</td><td style="text-align: center;">2.2</td><td style="text-align: center;">2.00</td></tr> <tr><td>August</td><td style="text-align: center;">75.0</td><td style="text-align: center;">0.6</td><td style="text-align: center;">8.70</td></tr> <tr><td>September</td><td style="text-align: center;">67.0</td><td style="text-align: center;">2.7</td><td style="text-align: center;">1.50</td></tr> <tr><td>October</td><td style="text-align: center;">60.0</td><td style="text-align: center;">0.0</td><td style="text-align: center;">0.00</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 style="text-align: right;"> Seasonal Precipitation: 8.6 in. Total Irrigation: 13.1 in. </p> <p style="text-align: right;"> Date of Last Spring Frost: 14-May Date of First Fall Frost: 11-Nov Frost Free Period: 181 days </p>		Average Temp. °F	Precip. in.	Irrigation in.	January	35.0			February	38.4			March	45.1			April	53.6			May	62.9			June	73.2	3.1	0.90	July	75.0	2.2	2.00	August	75.0	0.6	8.70	September	67.0	2.7	1.50	October	60.0	0.0	0.00	November				December			
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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																																																																																							

Table 8B. New Mexico 2014 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 %									
Sorghum Partners	SPX 903	Conv	PS	7.2	26.6	72.9	7.7	65.1	59.2	4.0	56.5	0.573	2478	17889	
Sorghum Partners	1990	Conv	PS	7.1	26.6	73.2	8.3	61.7	60.1	4.8	58.4	0.594	2620	18558	
Sorghum Partners	SPX 901	Conv	PS	7.0	25.8	73.0	7.5	64.7	59.2	3.8	56.8	0.576	2498	17434	
CPS Dyna-Gro	F 75 FS 13	Conv	M	7.0	21.5	67.4	10.3	48.1	58.2	5.0	63.0	0.646	2940	20480	
Sorghum Partners	Sordan Headless (SxS)	Conv	PS	6.9	26.8	74.2	7.6	65.2	57.4	4.2	55.5	0.563	2396	16606	
Sorghum Partners	SPX 902	Conv	PS	6.9	25.7	73.1	7.3	65.4	58.9	3.8	56.5	0.574	2479	17155	
Browning Seed Inc.	Silage Master	Conv	ML	6.8	22.9	70.3	8.6	49.2	58.8	4.0	59.3	0.605	2681	18221	
CPS Dyna-Gro	705 F	Conv	ME	6.6	22.3	70.3	9.7	46.8	56.3	4.2	62.4	0.639	2874	18988	
Sorghum Partners	SPX 904	Conv	PS	6.5	24.5	73.3	7.0	70.4	57.0	3.7	55.7	0.565	2403	15680	
Sorghum Partners	SPX-29313	Conv	L	6.5	23.4	72.4	7.5	62.6	55.6	3.2	54.5	0.551	2304	14797	
Sorghum Partners	SS 405	Conv	L	6.5	22.5	70.9	8.1	60.9	55.6	3.2	57.8	0.588	2543	16491	
Sorghum Partners	NK 300	Conv	M	6.5	20.4	68.0	9.1	54.3	59.3	4.5	62.1	0.636	2882	18778	
Winfield/Croplan	3551	Conv	*	6.3	20.2	68.6	9.5	45.5	58.1	4.4	64.2	0.659	3025	18980	
Sorghum Partners	X 942 BMR (SxS)	BMR	PS	6.1	28.5	78.7	10.0	59.3	58.7	6.1	55.8	0.565	2423	14725	
DuPont Pioneer	849 F	Conv	ML	6.0	16.6	63.4	9.3	45.7	55.9	3.4	63.7	0.654	2967	17924	
Sorghum Partners	Trudan Headless (SxS)	Conv	PS	5.9	20.1	70.6	7.5	64.3	57.2	3.8	55.7	0.565	2406	14207	
Advanta	AF 7101	BMR	E	5.9	15.0	60.6	9.4	44.1	61.6	3.6	67.0	0.690	3253	19081	
Warner Seed	Sweet Bee BMR	BMR	ML	5.8	21.5	72.9	9.9	46.9	65.3	5.4	62.9	0.645	2994	17405	
Sorghum Partners	SDH 2942 BMR (SxS)	BMR	PS	5.8	24.8	76.6	7.8	60.8	63.2	4.7	57.2	0.581	2566	14880	
Advanta	AF 7401	BMR	L	5.7	19.8	71.3	10.1	48.3	62.3	5.5	62.5	0.640	2938	16720	
Sorghum Partners	SD 1741 BMR (SxS)	BMR	PS	5.7	18.2	68.9	8.3	57.4	61.3	3.9	58.7	0.598	2654	15034	
Browning Seed Inc.	Sweet Sioux BMR (SxS)	BMR	M	5.6	17.8	68.5	8.9	52.6	63.1	4.3	59.8	0.610	2747	15377	
CPS Dyna-Gro	F 75 FS28 BMR	BMR	M	5.6	15.6	64.5	9.2	47.0	65.6	3.3	68.5	0.707	3396	18830	
Browning Seed Inc.	Tridan (SxS)	Conv	M	5.3	13.7	61.5	8.2	52.0	55.7	3.0	62.2	0.637	2856	15127	
Sorghum Partners	SPX 3903	Conv	L	5.2	21.4	75.6	10.0	48.4	65.5	5.7	62.7	0.643	2979	15618	
DuPont Pioneer	841 F	Conv	M	5.2	19.2	73.1	10.3	49.6	58.9	5.1	62.4	0.639	2903	15287	
Sorghum Partners	SPX 3902	Conv	L	5.1	18.5	72.4	9.7	48.6	65.4	4.4	61.3	0.627	2875	14700	
Advanta	AF 7202	BMR	M	5.0	14.2	64.6	9.1	40.9	59.6	3.6	66.8	0.688	3221	16201	
Winfield/Croplan	BMR 3631 (BD)	BMR	*	5.0	20.0	74.8	9.9	49.1	64.6	5.0	61.4	0.627	2874	14401	
Browning Seed Inc.	Bundle King	Conv	M	4.9	15.0	67.6	9.0	46.4	58.7	3.6	65.1	0.669	3095	15026	
Sorghum Partners	SPX 3952 (SxS)	Conv	M	4.7	15.9	70.3	9.2	50.7	63.0	4.4	59.7	0.609	2743	12912	
Winfield/Croplan	BMR 108 (BD)	BMR	*	4.6	17.1	73.0	9.9	45.6	60.1	4.9	62.7	0.642	2930	13515	
Advanta	AF 7102	BMR	M	4.2	13.2	68.6	9.1	43.8	62.9	4.9	65.8	0.676	3175	13385	
Browning Seed Inc.	Cadan 99 B (SxS)	Conv	ME	3.9	9.3	58.3	7.9	53.2	53.5	3.0	60.5	0.618	2715	10460	
Browning Seed Inc.	Sweet Sioux WMR (SxS)	Conv	M	3.5	9.3	62.6	7.5	60.0	53.8	2.9	58.7	0.598	2587	9005	
Trial Mean				5.8	19.8	69.9	8.8	53.6	59.7	4.2	60.7	0.620	2783	15997	
LSD				1.4	4.5	2.8	0.8	5.9	2.4	0.8	2.3	0.026	178	4258	
LSD P >				0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
CV				15.2	14.0	2.5	5.4	6.7	2.4	11.7	2.3	2.6	3.9	16.3	
F Test				<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

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

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