

**Table 13A. New Mexico 2017 Dryland Forage Sorghum Performance Test - Agricultural Science Center at Clovis**

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

**Test Description**

<b>Location:</b>	<b>Management Practices:</b>	<b>Growing Conditions:</b>																																																																																																				
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: 20-Jun Harvest Date: 25-Oct  <b>Production Inputs</b> <table border="1" 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"><b>Fertilizer:</b></td> </tr> <tr> <td>Nitrogen</td> <td>46 lb/a</td> <td>carryover</td> </tr> <tr> <td>Nitrogen</td> <td>30 lb/ac</td> <td>18-Apr</td> </tr> <tr> <td>P<sub>2</sub>O<sub>5</sub></td> <td>20 lb/ac</td> <td>18-Apr</td> </tr> <tr> <td>S</td> <td>4.4 lb/ac</td> <td>18-Apr</td> </tr> <tr> <td>Zn</td> <td>1 qt/ac</td> <td>18-Apr</td> </tr> <tr> <td>Nitrogen</td> <td>45 lb/ac</td> <td>at plant</td> </tr> <tr> <td>S</td> <td>8 lb/ac</td> <td>at plant</td> </tr> </tbody> </table> <b>Herbicides:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td>Glyphosate</td> <td>48 oz/ac</td> <td>30-Apr</td> </tr> <tr> <td>Detonate</td> <td>8 oz/ac</td> <td>30-Apr</td> </tr> <tr> <td>Sharpen</td> <td>1.5 oz/ac</td> <td>19-Jun</td> </tr> <tr> <td>Atrazine</td> <td>1.5 pt/ac</td> <td>19-Jun</td> </tr> <tr> <td>Glyphosate</td> <td>48 oz/ac</td> <td>19-Jun</td> </tr> </tbody> </table> <b>Insecticides:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td>Sivanto</td> <td>7 oz/ac</td> <td>30-Apr</td> </tr> <tr> <td>Dimilin</td> <td>2 oz/ac</td> <td>at plant</td> </tr> </tbody> </table>		Rate	Date	<b>Fertilizer:</b>			Nitrogen	46 lb/a	carryover	Nitrogen	30 lb/ac	18-Apr	P <sub>2</sub> O <sub>5</sub>	20 lb/ac	18-Apr	S	4.4 lb/ac	18-Apr	Zn	1 qt/ac	18-Apr	Nitrogen	45 lb/ac	at plant	S	8 lb/ac	at plant	Glyphosate	48 oz/ac	30-Apr	Detonate	8 oz/ac	30-Apr	Sharpen	1.5 oz/ac	19-Jun	Atrazine	1.5 pt/ac	19-Jun	Glyphosate	48 oz/ac	19-Jun	Sivanto	7 oz/ac	30-Apr	Dimilin	2 oz/ac	at plant	<table border="1" 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>36.5</td><td></td><td></td></tr> <tr><td>February</td><td>45.8</td><td></td><td></td></tr> <tr><td>March</td><td>51.7</td><td></td><td></td></tr> <tr><td>April</td><td>55.5</td><td></td><td></td></tr> <tr><td>May</td><td>61.4</td><td></td><td></td></tr> <tr><td>June 20-30</td><td>74.1</td><td>0.74</td><td>1.0</td></tr> <tr><td>July</td><td>77.0</td><td>2.18</td><td></td></tr> <tr><td>August</td><td>71.0</td><td>7.87</td><td></td></tr> <tr><td>September</td><td>67.0</td><td>4.13</td><td></td></tr> <tr><td>October 1-25</td><td>56.5</td><td>2.04</td><td></td></tr> <tr><td>November</td><td>50.0</td><td></td><td></td></tr> <tr><td>December</td><td>38.0</td><td></td><td></td></tr> </tbody> </table> Seasonal Precipitation: 17.0 in. Total Irrigation: 1.0 in.  Date of Last Spring Frost: 1-May Date of First Fall Frost: 10-Oct Frost Free Period: 162 days		Average Temp. °F	Precip. in.	Irrigation in.	January	36.5			February	45.8			March	51.7			April	55.5			May	61.4			June 20-30	74.1	0.74	1.0	July	77.0	2.18		August	71.0	7.87		September	67.0	4.13		October 1-25	56.5	2.04		November	50.0			December	38.0		
	Rate	Date																																																																																																				
<b>Fertilizer:</b>																																																																																																						
Nitrogen	46 lb/a	carryover																																																																																																				
Nitrogen	30 lb/ac	18-Apr																																																																																																				
P <sub>2</sub> O <sub>5</sub>	20 lb/ac	18-Apr																																																																																																				
S	4.4 lb/ac	18-Apr																																																																																																				
Zn	1 qt/ac	18-Apr																																																																																																				
Nitrogen	45 lb/ac	at plant																																																																																																				
S	8 lb/ac	at plant																																																																																																				
Glyphosate	48 oz/ac	30-Apr																																																																																																				
Detonate	8 oz/ac	30-Apr																																																																																																				
Sharpen	1.5 oz/ac	19-Jun																																																																																																				
Atrazine	1.5 pt/ac	19-Jun																																																																																																				
Glyphosate	48 oz/ac	19-Jun																																																																																																				
Sivanto	7 oz/ac	30-Apr																																																																																																				
Dimilin	2 oz/ac	at plant																																																																																																				
	Average Temp. °F	Precip. in.	Irrigation in.																																																																																																			
January	36.5																																																																																																					
February	45.8																																																																																																					
March	51.7																																																																																																					
April	55.5																																																																																																					
May	61.4																																																																																																					
June 20-30	74.1	0.74	1.0																																																																																																			
July	77.0	2.18																																																																																																				
August	71.0	7.87																																																																																																				
September	67.0	4.13																																																																																																				
October 1-25	56.5	2.04																																																																																																				
November	50.0																																																																																																					
December	38.0																																																																																																					
<b>Test Design:</b> Replications: 3 Plot Length: 20 ft. Rows per Plot: 2 Row Spacing: 30 in. Seeding Rate: 50000 seed/a																																																																																																						

**Table 13B. New Mexico 2017 Dryland Forage Sorghum Performance Test - Agricultural Science Center at Clovis**

**Results**

Brand/Company Name	Hybrid/Variety Name	Sorghum <sup>†</sup> Type	Maturity <sup>§</sup> Group	Brown Midrib	Moisture			CP	NDF	NDFD 48hr	Ash	TDN	NE <sub>i</sub>	Milk/Ton	Milk/Acre
					Dry Forage	Green Forage	at Harvest								
					t/a	t/a	%	%	%	%	%	Mcal/lb	lb/t	lb/a	
Dyna-Gro Seed	705F	FS	ME	Conv	5.8	18.6	68.6	8.4	49.5	62.1	6.1	61.5	0.629	2864	16774
NuTech Seed, LLC	FS300	FS	ML	Conv	5.6	17.5	68.1	8.4	52.2	61.6	5.5	62.3	0.638	2916	16344
NuTech Seed, LLC	PrimeCut	SxS	PS	Conv	5.6	23.1	75.8	7.9	59.3	62.5	6.7	57.1	0.580	2549	14180
Dyna-Gro Seed	F74FS23 BMR	FS	M	BMR	5.3	18.2	71.1	8.4	51.2	68.8	6.5	62.7	0.642	3005	16017
Alta Seeds	AF7401	FS	L	BMR	5.2	17.8	70.5	9.1	47.3	71.3	6.8	66.2	0.681	3270	17160
Blue River Hybrids	Blackhawk	SxS	ML	BMR	5.0	15.9	68.7	7.9	55.5	64.4	5.7	61.8	0.633	2906	14489
Blue River Hybrids	Seahawk	SxS	ML	BMR	4.9	12.6	61.0	7.6	54.8	60.0	5.5	60.5	0.618	2775	13617
NuTech Seed, LLC	FSB310	FS	ML	BMR	4.8	16.8	71.4	9.7	48.7	68.6	6.9	64.4	0.662	3126	14924
Alta Seeds	XF7103	FS	E	BMR	4.6	11.0	58.4	8.7	42.3	68.5	5.7	66.3	0.682	3256	14982
Dyna-Gro Seed	F76FS77 BMR	FS	ML	BMR	4.5	16.3	72.1	8.2	52.1	71.9	6.9	65.2	0.670	3207	14568
Alta Seeds	XF7302	FS	M	BMR	4.3	15.7	72.6	9.0	52.9	70.1	7.4	64.6	0.664	3153	13501
Dyna-Gro Seed	Fullgraze BMR	SxS	M	BMR	4.1	15.5	73.1	8.3	53.4	69.8	5.9	60.4	0.617	2848	11786
Blue River Hybrids	Pelican	SxS	ML	BMR	4.1	11.9	64.9	8.8	51.1	66.2	6.3	62.6	0.642	2978	12303
Blue River Hybrids	Nighthawk	SxS	L	BMR	4.0	12.5	68.2	9.2	52.9	68.5	7.0	63.4	0.650	3049	12140
Dyna-Gro Seed	Dual Forage SCA	GS	ML	Conv	3.9	10.2	60.3	8.2	46.7	64.7	5.6	65.7	0.676	3186	12596
Alta Seeds	XF7303	FS	M	BMR	3.8	13.4	71.2	8.6	51.9	67.8	7.2	64.4	0.661	3117	12009
Trial Mean					4.7	15.4	68.5	8.5	51.4	66.7	6.4	63.1	0.646	3013	14212
LSD					1.1	3.5	3.1	1.0	5.0	4.6	1.3	2.5	0.027	192	3736
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					13.8	13.5	2.7	7.2	5.9	4.1	11.9	2.3	2.5	3.8	15.8
F Test					0.0056	<.0001	<.0001	0.0263	<.0001	<.0001	0.0250	<.0001	<.0001	<.0001	0.0735

<sup>†</sup> Sorghum Type: FS = Forage Sorghum, BD = Brachytic Dwarf, SxS = Sorghum-Sudangrass Hybrid, HPM = Hybrid Pearl Millet, GS = Grain Sorghum

<sup>§</sup> Maturity Group: E = Early, M = Medium, L = Late, PS = Photoperiod Sensitive

Brown Midrib Trait: BMR = Brown Midrib, Conv = Conventional