

Table A. New Mexico 2010 Irrigated Forage Sorghum Performance Test - Agricultural Science Center at Clovis

Investigators: M.A. Marsalis, R.E. Kirksey, B. Niece, and A. Scott

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: 27-May Harvest Date: 15-Sep <hr/> 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>Nitrogen</td> <td>10 lb/a</td> <td>carryover</td> </tr> <tr> <td>Nitrogen</td> <td>180 lb/a</td> <td>1-May</td> </tr> <tr> <td>P₂O₅</td> <td>40 lb/a</td> <td>1-May</td> </tr> <tr> <td>Zn</td> <td>1 lb/a</td> <td>1-May</td> </tr> </tbody> </table> Herbicides: <table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td>Atrazine</td> <td>2 pt/a</td> <td>28-May</td> </tr> <tr> <td>Yukon</td> <td>5 oz/a</td> <td>22-Jun</td> </tr> <tr> <td>Dual II Mag</td> <td>1 pt/a</td> <td>22-Jun</td> </tr> </tbody> </table> Insecticides: <table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td>Intrepid</td> <td>8 oz/a</td> <td>4-Aug</td> </tr> <tr> <td>Lorsban</td> <td>1 pt/a</td> <td>4-Aug</td> </tr> <tr> <td>Oberon</td> <td>8 oz/a</td> <td>4-Aug</td> </tr> </tbody> </table>		Rate	Date	Fertilizer:			Nitrogen	10 lb/a	carryover	Nitrogen	180 lb/a	1-May	P ₂ O ₅	40 lb/a	1-May	Zn	1 lb/a	1-May	Atrazine	2 pt/a	28-May	Yukon	5 oz/a	22-Jun	Dual II Mag	1 pt/a	22-Jun	Intrepid	8 oz/a	4-Aug	Lorsban	1 pt/a	4-Aug	Oberon	8 oz/a	4-Aug	<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></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 style="text-align: center;">63.0</td><td style="text-align: center;">2.34</td><td style="text-align: center;">0.65</td></tr> <tr><td>June</td><td style="text-align: center;">77.8</td><td style="text-align: center;">2.98</td><td style="text-align: center;">2.60</td></tr> <tr><td>July</td><td style="text-align: center;">76.0</td><td style="text-align: center;">2.30</td><td style="text-align: center;">3.25</td></tr> <tr><td>August</td><td style="text-align: center;">77.0</td><td style="text-align: center;">6.83</td><td style="text-align: center;">0.75</td></tr> <tr><td>September</td><td style="text-align: center;">74.0</td><td style="text-align: center;">0.00</td><td style="text-align: center;">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> </tbody> </table> <p>† Sept. 1-15</p> <table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="text-align: right;">Seasonal Precipitation</td> <td style="text-align: right;">14.5 in.</td> </tr> <tr> <td style="text-align: right;">Total Irrigation</td> <td style="text-align: right;">8.3 in.</td> </tr> </tbody> </table> <table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="text-align: right;">Date of Last Spring Frost:</td> <td style="text-align: right;">9-Apr</td> </tr> <tr> <td style="text-align: right;">Date of First Fall Frost:</td> <td style="text-align: right;">28-Oct</td> </tr> <tr> <td style="text-align: right;">Frost Free Period:</td> <td style="text-align: right;">202 days</td> </tr> </tbody> </table>		Average Temp. °F	Precip. in.	Irrigation in.	January				February				March				April				May	63.0	2.34	0.65	June	77.8	2.98	2.60	July	76.0	2.30	3.25	August	77.0	6.83	0.75	September	74.0	0.00	1.00	October†				November				December				Seasonal Precipitation	14.5 in.	Total Irrigation	8.3 in.	Date of Last Spring Frost:	9-Apr	Date of First Fall Frost:	28-Oct	Frost Free Period:	202 days
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Test Design: Replications: 3 Plot Length: 20 ft. Rows per Plot: 2 Row Spacing: 30 in. Seeding Rate: 90,000 seed/a																																																																																																				

Table B. New Mexico 2010 Irrigated Forage Sorghum Performance Test - Agricultural Science Center at Clovis**Results**

Brand/Company Name	Hybrid/Variety Name	Sorghum [†] Type	Moisture			CP	NDF	NDFD 48hr	Ash	TDN	NE _i Mcal/lb	Milk/Ton lb/t	Milk/Acre lb/a
			Dry Forage t/a	Green Forage t/a	at Harvest %								
Forage First	FS-5	Conv	8.9	23.4	62.4	7.4	48.5	67.5	5.7	66.5	0.69	3266	28919
Pioneer Hi-Bred Int.	849F	Conv	8.6	20.3	57.8	7.9	49.7	64.4	5.4	65.7	0.67	3184	27299
Eastern Colorado Seeds	HP95BMR	BMR	8.3	17.9	53.6	7.4	50.4	70.4	6.6	67.7	0.70	3376	28160
Warner Seeds, Inc.	2 way F104	Conv	8.2	19.1	57.3	7.9	46.5	65.8	6.2	66.0	0.68	3220	26315
Eastern Colorado Seeds	HP1010BMR	BMR	7.0	20.0	64.8	7.7	52.9	73.2	7.3	68.3	0.71	3438	24201
Pioneer Hi-Bred Int.	841F	Conv	6.9	17.1	59.3	7.9	51.1	66.8	6.9	65.3	0.67	3171	22017
B-H Genetics	BH 312FBD	BMR	6.5	18.9	65.5	8.2	51.1	69.5	7.5	66.5	0.68	3282	21298
B-H Genetics	BH 304FB	BMR	6.1	17.6	65.5	7.6	52.8	71.9	7.7	67.6	0.70	3375	20543
Eastern Colorado Seeds	HP120BMR DW	BMR	5.9	17.4	65.9	8.2	50.9	69.5	7.4	66.7	0.69	3294	19492
	Trial Mean		7.4	19.1	61.3	7.8	50.4	68.8	6.8	66.7	0.69	3290	24249
	LSD		1.5	3.1	3.8	0.4	NS	1.9	1.3	NS	NS	143	5412
	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		11.5	9.5	3.5	3.2	5.2	1.6	11.1	1.6	1.9	2.5	12.9
	F Test		0.0023	0.0126	<0.0001	0.0074	0.1620	<0.0001	0.0133	0.0552	0.0786	0.0124	0.0103

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