

Table A. New Mexico 2008 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: 20-May Harvest Date: 25-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>16 lb/a</td> <td>carryover</td> </tr> <tr> <td>Nitrogen</td> <td>175 lb/a</td> <td>28-Feb</td> </tr> <tr> <td>P₂O₅</td> <td>50 lb/a</td> <td>28-Feb</td> </tr> <tr> <td>S</td> <td>3 lb/a</td> <td>28-Feb</td> </tr> <tr> <td>Zn</td> <td>0.75 lb/a</td> <td>28-Feb</td> </tr> </tbody> </table> Herbicides: Atrazine 2 pt/a 20-May Glyphosate 1 qt/a 20-May Insecticides: Intrepid 2F 8 oz/a 9-Aug		Rate	Date	Fertilizer:			Nitrogen	16 lb/a	carryover	Nitrogen	175 lb/a	28-Feb	P ₂ O ₅	50 lb/a	28-Feb	S	3 lb/a	28-Feb	Zn	0.75 lb/a	28-Feb	<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 style="text-align: center;">46.9</td><td></td><td></td></tr> <tr><td>April</td><td style="text-align: center;">53.7</td><td style="text-align: center;">0.73</td><td></td></tr> <tr><td>May</td><td style="text-align: center;">62.5</td><td style="text-align: center;">1.75</td><td style="text-align: center;">1.80</td></tr> <tr><td>June</td><td style="text-align: center;">75.5</td><td style="text-align: center;">3.95</td><td style="text-align: center;">2.90</td></tr> <tr><td>July</td><td style="text-align: center;">73.0</td><td style="text-align: center;">4.74</td><td style="text-align: center;">2.60</td></tr> <tr><td>August</td><td style="text-align: center;">73.0</td><td style="text-align: center;">3.56</td><td style="text-align: center;">5.30</td></tr> <tr><td>September[†]</td><td style="text-align: center;">64.8</td><td style="text-align: center;">1.02</td><td style="text-align: center;">2.60</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/> [†] Sept. 1-25 Seasonal Precipitation: 15.8 in. Total Irrigation: 15.2 in. Date of Last Spring Frost: 11-May Date of First Fall Frost: 23-Oct Frost Free Period: 165 days		Average Temp. °F	Precip. in.	Irrigation in.	January				February				March	46.9			April	53.7	0.73		May	62.5	1.75	1.80	June	75.5	3.95	2.90	July	73.0	4.74	2.60	August	73.0	3.56	5.30	September [†]	64.8	1.02	2.60	October				November				December			
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Test Design: Replications: 3 Plot Length: 20 ft. Rows per Plot: 2 Row Spacing: 30 in. Seeding Rate: Non-BMR 100,000 seed/a BMR/Sweet Sorghum 90,000 seed/a Sweet Sorghum 75,000 seed/a																																																																											

Table B. New Mexico 2008 Irrigated Forage Sorghum Performance Test - Agricultural Science Center at Clovis

Results

Brand/Company Name	Hybrid/Variety Name	Seeding [†] Rate	Sorghum [‡] Type	Moisture			CP	NDF	NDFD 48hr	Ash	TDN	NE ₁ Mcal/lb	Milk/Ton lb/t	Milk/Acre lb/a
				Dry Forage t/a	Green Forage t/a	at Harvest %								
Sorghum Partners, Inc.	SS 405	High	Conv	13.1	35.7	63.3	7.4	56.1	60.4	6.3	60.8	0.57	2429	31858
Forage First	FS-5	High	Conv	10.7	30.9	65.4	7.6	50.3	62.0	6.1	61.7	0.57	2480	26664
Scott Seed Co.	S.S. Silage	High	Conv	10.6	30.6	65.4	7.3	50.4	61.1	6.0	62.8	0.59	2583	27354
Dyna-Gro/UAP	DG 710F	High	Conv	9.1	26.2	65.3	6.9	52.5	60.8	6.1	60.6	0.56	2410	21994
Pioneer Hi-Bred Int'l, Inc.	849F	High	Conv	8.8	24.6	64.5	8.2	51.9	58.6	6.1	61.5	0.58	2505	22200
Sweet Sorghum (Exp.)	TAMS-XH013	Low	Sweet	8.8	27.5	68.2	6.8	47.1	67.4	5.4	62.3	0.57	2474	21834
Sweet Sorghum (Exp.)	TAMS-XH010	Med	Sweet	8.7	27.5	68.3	6.6	49.9	65.8	6.1	62.2	0.57	2474	21590
Sweet Sorghum (Exp.)	TAMS-XH018	Med	Sweet	8.7	26.7	67.3	7.0	46.8	68.7	5.4	62.9	0.57	2509	21868
Sweet Sorghum (Exp.)	TAMS-XH013	Med	Sweet	8.3	27.1	69.2	6.8	49.1	67.7	6.2	61.5	0.55	2400	19984
Sweet Sorghum (Exp.)	TAMS-XH010	Low	Sweet	8.1	25.8	68.4	6.7	46.6	68.5	5.7	61.8	0.56	2421	19724
Sweet Sorghum (Exp.)	TAMS-XH005	Low	Sweet	8.1	24.1	66.9	6.7	46.5	66.7	6.1	60.9	0.55	2366	19179
Eastern Colorado Seeds, LLC	HP 95 BMR	Med	BMR	8.1	21.5	62.4	7.7	53.5	65.0	6.9	63.6	0.59	2592	20882
Coffey Forage Seeds, Inc.	FS 6810	Med	BMR	8.0	25.3	68.4	7.8	47.5	68.0	6.3	63.9	0.58	2588	20819
Sorghum Partners, Inc.	NK 300	High	Conv	7.8	22.4	65.2	7.4	52.7	60.0	7.0	61.5	0.58	2492	19427
Eastern Colorado Seeds, LLC	HP 1010 MS BMR	Med	BMR	7.8	26.8	71.1	8.2	50.9	69.0	6.7	63.8	0.58	2564	19911
Richardson Seed, Ltd.	Dairy Master BMR	Med	BMR	7.7	23.7	67.5	7.5	52.0	71.4	6.1	64.9	0.58	2609	20184
Sorghum Partners, Inc.	HIKANE II	High	Conv	7.6	25.9	70.6	7.4	50.4	65.9	6.5	61.8	0.56	2440	18501
Sweet Sorghum (Exp.)	TAMS-XH018	Low	Sweet	7.2	24.1	69.9	6.9	49.4	68.2	5.9	61.9	0.56	2419	17436
Scott Seed Co.	BMR Gold I	Med	BMR	7.1	20.5	65.7	7.4	53.3	70.0	6.1	64.4	0.58	2584	18240
Sweet Sorghum (Exp.)	TAMS-XH005	Med	Sweet	6.9	23.2	70.1	6.7	49.8	67.6	5.8	61.7	0.56	2415	16717
Trial Mean				8.7	26.5	67.1	7.2	50.4	65.4	6.1	62.3	0.57	2488	21724
LSD				1.7	3.3	4.3	0.7	3.9	3.3	0.7	1.4	0.02	119	4933
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				12.1	7.5	3.9	5.7	4.7	3.1	7.2	1.4	2.1	2.9	13.8
F Test				<0.0001	<0.0001	0.0077	0.0001	0.0004	<0.0001	0.0047	<0.0001	0.0032	0.0012	<0.0001

† Seeding rates = High = 100,000; Med = 90,000; Low = 75,000

‡ Type = Conv = Conventional; BMR = Brown Midrib; Sweet = Sweet Sorghum