

New Mexico 2010 Dryland Grain Sorghum Performance Test - Agricultural Science Center at Clovis

Investigators: M.A. Marsalis, 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: 11-Jun Harvest Date: 3-Nov Production Inputs <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">Fertilizer:</td> </tr> <tr> <td>Nitrogen</td> <td style="text-align: center;">85 lb/a</td> <td style="text-align: center;">10-Jun</td> </tr> <tr> <td>P₂O₅</td> <td style="text-align: center;">40 lb/a</td> <td style="text-align: center;">10-Jun</td> </tr> <tr> <td>S</td> <td style="text-align: center;">13 lb/a</td> <td style="text-align: center;">10-Jun</td> </tr> <tr> <td>Zn</td> <td style="text-align: center;">1 lb/a</td> <td style="text-align: center;">10-Jun</td> </tr> <tr> <td colspan="3">Herbicides:</td> </tr> <tr> <td>Bicep Lite II Mag</td> <td style="text-align: center;">3 pts/a</td> <td style="text-align: center;">11-Jun</td> </tr> <tr> <td>Yukon</td> <td style="text-align: center;">5 oz/a</td> <td style="text-align: center;">1-Jul</td> </tr> <tr> <td>Dual II Magnum</td> <td style="text-align: center;">1 pts/a</td> <td style="text-align: center;">1-Jul</td> </tr> <tr> <td colspan="3">Insecticides:</td> </tr> <tr> <td>Fanfare</td> <td style="text-align: center;">6.4 oz/a</td> <td style="text-align: center;">4-Aug</td> </tr> <tr> <td>Lorsban</td> <td style="text-align: center;">1 pts/a</td> <td style="text-align: center;">4-Aug</td> </tr> </tbody> </table>		Rate	Date	Fertilizer:			Nitrogen	85 lb/a	10-Jun	P ₂ O ₅	40 lb/a	10-Jun	S	13 lb/a	10-Jun	Zn	1 lb/a	10-Jun	Herbicides:			Bicep Lite II Mag	3 pts/a	11-Jun	Yukon	5 oz/a	1-Jul	Dual II Magnum	1 pts/a	1-Jul	Insecticides:			Fanfare	6.4 oz/a	4-Aug	Lorsban	1 pts/a	4-Aug	<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></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></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;">0.60*</td></tr> <tr><td>July</td><td style="text-align: center;">76.0</td><td style="text-align: center;">2.30</td><td></td></tr> <tr><td>August</td><td style="text-align: center;">77.0</td><td style="text-align: center;">6.83</td><td></td></tr> <tr><td>September</td><td style="text-align: center;">73.0</td><td style="text-align: center;">1.41</td><td></td></tr> <tr><td>October</td><td style="text-align: center;">59.5</td><td style="text-align: center;">0.87</td><td></td></tr> <tr><td>November†</td><td style="text-align: center;">52.3</td><td style="text-align: center;">0.00</td><td></td></tr> <tr><td>December</td><td></td><td></td><td></td></tr> <tr> <td colspan="2" style="text-align: right;">Seasonal Precipitation:</td> <td colspan="2" style="text-align: center;">16.7 in.</td> </tr> <tr> <td colspan="2" style="text-align: right;">Total Irrigation:</td> <td colspan="2" style="text-align: center;">0.60 in.</td> </tr> <tr> <td colspan="2" style="text-align: right;">Date of Last Spring Frost:</td> <td colspan="2" style="text-align: center;">9-Apr</td> </tr> <tr> <td colspan="2" style="text-align: right;">Date of First Fall Frost:</td> <td colspan="2" style="text-align: center;">28-Oct</td> </tr> <tr> <td colspan="2" style="text-align: right;">Frost Free Period:</td> <td colspan="2" style="text-align: center;">202 days</td> </tr> </tbody> </table>		Average Temp. °F	Precip. in.	Irrigation in.	January				February				March				April				May	63.0	2.34		June	77.8	2.98	0.60*	July	76.0	2.30		August	77.0	6.83		September	73.0	1.41		October	59.5	0.87		November†	52.3	0.00		December				Seasonal Precipitation:		16.7 in.		Total Irrigation:		0.60 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: 29,000 seed/a Notes: Good growing conditions Large amounts of rainfall		* Emergence and soil crust mellowing irrigations. † Nov. 1-3																																																																																																															

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Hybrid	Company or Brand Name	Maturity Class	Head Date	Plant Height	Head Exsertion	Moisture	Yield	Yield	Test Weight
				in.*	in.	%	lb/A	bu/A	lb/bu
ATx2752 x RTx430	Tx. Agri. Exp. Stat.	ML	17-Aug	27.4	2.4	12.6	5981	106.8	47.4
B-H 3822	B-H Genetics	M	15-Aug	27.7	2.5	14.4	5512	98.4	48.4
ATx399 x RTx430	Tx. Agri. Exp. Stat.	ML	16-Aug	25.7	2.8	11.5	5465	97.6	45.6
85G01	Pioneer Hi-Bred Int., Inc	M	14-Aug	24.5	0.0	15.5	5450	97.3	50.9
B-H 5350	B-H Genetics	M	16-Aug	27.6	1.8	11.3	5321	95.0	42.2
6B10	Channel Bio LLC	M	13-Aug	23.4	0.0	13.0	5320	95.0	52.0
TR438	Triumph Seed Co. Inc.	ME	12-Aug	24.7	1.3	13.4	5287	94.4	51.5
86G32	Pioneer Hi-Bred Int., Inc	ME	12-Aug	25.7	0.4	13.3	5287	94.4	50.9
85G46	Pioneer Hi-Bred Int., Inc	M	14-Aug	25.9	0.0	15.6	5258	93.9	53.0
DeKalb DKS37-07	Monsanto Company	ME	13-Aug	25.1	0.0	13.3	5232	93.4	48.6
TR463	Triumph Seed Co. Inc.	M	16-Aug	29.4	4.9	13.9	5202	92.9	49.3
ATx378 x RTx430	Tx. Agri. Exp. Stat.	ML	16-Aug	25.9	2.4	12.3	5091	90.9	46.8
TR452	Triumph Seed Co. Inc.	M	12-Aug	23.8	2.5	14.0	4913	87.7	50.6
DeKalb DKS44-20	Monsanto Company	M	14-Aug	26.9	0.5	13.0	4890	87.3	52.6
5B90	Channel Bio LLC	ME	13-Aug	23.8	0.8	14.4	4806	85.8	51.1
7B11	Channel Bio LLC	M	15-Aug	27.3	4.1	15.0	4721	84.3	51.0
Asgrow Pulsar	Monsanto Company	ME	14-Aug	23.5	1.3	11.7	4590	82.0	48.1
B-H 5227	B-H Genetics	M	13-Aug	22.3	2.5	14.6	4537	81.0	52.0
B-H 5224	B-H Genetics	ME	14-Aug	28.0	2.1	13.5	4489	80.2	50.9
87P06	Pioneer Hi-Bred Int., Inc	E	12-Aug	23.0	0.4	13.3	4442	79.3	51.8
DeKalb DKS28-05	Monsanto Company	E	11-Aug	24.9	3.1	12.8	4378	78.2	50.8
B-H 3808	B-H Genetics	ME	13-Aug	25.1	3.8	13.2	4327	77.3	49.7
DeKalb DKS29-28	Monsanto Company	E	11-Aug	23.0	1.3	12.9	4249	75.9	50.0
TR458	Triumph Seed Co. Inc.	M	13-Aug	23.9	5.2	16.3	4145	74.0	49.1
ATx631 x RTx436	Tx. Agri. Exp. Stat.	ML	18-Aug	28.0	6.2	14.7	3935	70.3	46.7
	Trial Mean		14-Aug	25.4	2.1	13.6	4913	87.7	49.6
	LSD			2.2	3.5	1.5	538	9.6	1.7
	LSD P >			0.05	0.05	0.05	0.05	0.05	0.05
	CV			0.6	8.5	44.3	5.1	6.7	2.1
	F Test		<0.0001	0.0056	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

* Plant height is measured from the ground to the top of the leaf canopy.