

New Mexico 2007 Dryland Grain Sorghum Performance Test - Agricultural Science Center at Clovis

Investigators: M.A. Marsalis, A. Scott, and B. Niece

Test Description

<p>Location:</p> <p>County/Area: Curry Longitude: -103.22 Latitude: 34.60 Elevation: 4435 ft. Soil Name: Olton Soil Texture: clay loam Soil Depth: >60 in.</p> <p>Test Design:</p> <p>Replications: 3 Plot Length: 20 ft. Rows per Plot: 2 Row Spacing: 30 in. Seeding Rate: 30000 seed/a</p>	<p>Management Practices:</p> <p>Previous Crop: fallow Planting Date: 18-Jun Harvest Date: 2-Nov</p> <p>Production Inputs</p> <table border="1"> <thead> <tr> <th></th> <th>Rate</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td colspan="3">Fertilizer:</td> </tr> <tr> <td>Nitrogen</td> <td>85 lb/a</td> <td>18-Jun-07</td> </tr> <tr> <td>P₂O₅</td> <td>40 lb/a</td> <td>18-Jun-07</td> </tr> <tr> <td>S</td> <td>13 lb/a</td> <td>18-Jun-07</td> </tr> <tr> <td>Zn</td> <td>1 lb/a</td> <td>18-Jun-07</td> </tr> <tr> <td colspan="3">Herbicides:</td> </tr> <tr> <td>Aatrex</td> <td>2 pts/a</td> <td>19-Jun</td> </tr> <tr> <td colspan="3">Insecticides:</td> </tr> <tr> <td colspan="3">None</td> </tr> </tbody> </table>		Rate	Date	Fertilizer:			Nitrogen	85 lb/a	18-Jun-07	P ₂ O ₅	40 lb/a	18-Jun-07	S	13 lb/a	18-Jun-07	Zn	1 lb/a	18-Jun-07	Herbicides:			Aatrex	2 pts/a	19-Jun	Insecticides:			None			<p>Growing Conditions:</p> <table border="1"> <thead> <tr> <th></th> <th>Average Temp. °F</th> <th>Precip. in.</th> <th>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>49.0</td><td>3.70</td><td></td></tr> <tr><td>April</td><td>51.0</td><td>0.18</td><td></td></tr> <tr><td>May</td><td>66.0</td><td>2.38</td><td></td></tr> <tr><td>June</td><td>70.0</td><td>3.93</td><td>1.80</td></tr> <tr><td>July</td><td>75.0</td><td>0.94</td><td></td></tr> <tr><td>August</td><td>77.0</td><td>1.15</td><td></td></tr> <tr><td>September</td><td>71.0</td><td>4.24</td><td></td></tr> <tr><td>October</td><td>61.0</td><td>0.17</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> <tr> <td>Seasonal Precipitation:</td> <td></td> <td>10.4 in.</td> <td></td> </tr> <tr> <td>Total Irrigation:</td> <td></td> <td>1.8 in.</td> <td></td> </tr> <tr> <td>Date of Last Spring Frost:</td> <td></td> <td>26-Apr</td> <td></td> </tr> <tr> <td>Date of First Fall Frost:</td> <td></td> <td>22-Oct</td> <td></td> </tr> <tr> <td>Frost Free Period:</td> <td></td> <td>179 days</td> <td></td> </tr> </tbody> </table>		Average Temp. °F	Precip. in.	Irrigation in.	January				February				March	49.0	3.70		April	51.0	0.18		May	66.0	2.38		June	70.0	3.93	1.80	July	75.0	0.94		August	77.0	1.15		September	71.0	4.24		October	61.0	0.17		November				December				Seasonal Precipitation:		10.4 in.		Total Irrigation:		1.8 in.		Date of Last Spring Frost:		26-Apr		Date of First Fall Frost:		22-Oct		Frost Free Period:		179 days	
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Brand/Company Name	Hybrid	Maturity Class	Grain Color	Head Date	Plant Height	Head Exsertion	Desirability Rating	Moisture %	Yield lb/A	Yield bu/A	Test Weight lb/bu
		(1)	(2)		Inches	In.	(3)	%	lb/A	bu/A	lb/bu
DynaGro Seed	DG 762B	M	BZ	11-Aug	31	0	6.3	10.9	2616	46.7	56.9
Pioneer Hi-Bred	86G08	ME	R	8-Aug	29	0	6.3	10.3	2116	37.8	59.3
Triumph Seed Co.	TR463	M	R	17-Sep	37	2	4.3	17.8	1962	35.0	46.2
Pioneer Hi-Bred	85G46	M	R	8-Aug	29	0	8.0	12.3	1955	34.9	56.5
Sorghum Partners	KS585	M	BZ	19-Aug	27	0	5.3	14.0	1899	33.9	53.5
Monsanto	Asgrow Pulsar	E	BZ	7-Aug	28	0	7.0	10.6	1779	31.8	59.2
DynaGro Seed	DG 754B	M	BZ	22-Aug	28	0	3.3	11.8	1724	30.8	56.0
Monsanto	DeKalb DKS 37-07	ME	BZ	10-Aug	27	0	6.7	11.2	1623	29.0	57.5
Tx. Agri. Exp. Stat.	ATx2752xRT430	ML	BZ	9-Sep	28	0	3.0	15.1	1538	27.5	52.1
NC+ Hybrids Inc.	NC+5B37	E	BZ	6-Aug	29	0	4.3	11.3	1537	27.4	58.6
Triumph Seed Co.	TR438	ME	BZ	9-Aug	29	0	5.3	10.7	1509	26.9	57.0
NC+ Hybrids Inc.	NC+ 5B89	E	BZ	6-Aug	27	0	6.0	12.1	1486	26.5	58.0
NC+ Hybrids Inc.	NC+ 6B50	ME	BZ	18-Aug	30	0	5.0	12.9	1426	25.5	54.6
Sorghum Partners	NK4420	ME	BZ	8-Aug	27	0	5.7	11.8	1397	24.9	58.5
Sorghum Partners	SP3303	ME	CT	7-Aug	28	0	6.3	10.9	1386	24.8	60.2
DOW/Mycogen	M3838	ME	CT	8-Aug	29	0	7.0	11.0	1338	23.9	59.4
Sorghum Partners	NK7633	ML	BZ	19-Aug	29	0	4.3	11.5	1275	22.8	55.0
Sorghum Partners	KS310	E	BZ	9-Aug	26	0	4.3	10.3	1258	22.5	61.1
NC+ Hybrids Inc.	NC+ 7C22	M	CT	26-Aug	27	0	4.0	11.4	1160	20.7	53.2
Triumph Seed Co.	TR459	M	BZ	8-Aug	27	1	6.0	12.0	1127	20.1	59.4
DOW/Mycogen	1G557	E	BZ	6-Aug	27	0	4.0	11.1	1126	20.1	58.5
Tx. Agri. Exp. Stat.	ATx378xRTx430	ML	BZ	2-Sep	30	0	3.3	13.1	1119	20.0	51.7
Triumph Seed Co.	TR458	M	R	14-Aug	28	0	4.7	11.7	1110	19.8	56.6
DOW/Mycogen	627	ME	BZ	10-Aug	26	1	5.0	11.4	1086	19.4	56.9
Sorghum Partners	NK5418	M	BZ	11-Aug	24	0	4.7	11.1	1069	19.1	58.0
DOW/Mycogen	1G600	ME	BZ	20-Aug	28	0	3.3	11.4	973	17.4	57.4
Monsanto	DeKalb DKS 29-28	E	BZ	5-Aug	25	0	4.3	11.3	952	17.0	58.6
NC+ Hybrids Inc.	NC+ Y363	ME	Y	9-Aug	27	0	3.7	11.8	902	16.1	58.8
DOW/Mycogen	737	M	BZ	1-Sep	28	0	2.7	11.8	854	15.3	55.3
Tx. Agri. Exp. Stat.	ATx631xRT436	ML	W	25-Aug	32	1	2.3	14.0	822	14.7	54.5
DynaGro Seed	DG 758B	M	BZ	27-Aug	29	0	3.3	13.4	800	14.3	54.6
Monsanto	DeKalb DK 44	M	BZ	23-Aug	27	0	3.0	11.6	736	13.1	57.8
Sorghum Partners	NK7829	ML	BZ	21-Aug	26	0	2.7	11.8	711	12.7	57.3
Pioneer Hi-Bred	85Y40	M	W	18-Aug	26	0	2.0	12.4	693	12.4	56.9
Sorghum Partners	NK6638	M	BZ	12-Sep	30	0	2.7	13.6	645	11.5	55.1
Tx. Agri. Exp. Stat.	ATx399xRTx430	ML	BZ	3-Sep	25	0	1.7	11.5	615	11.0	56.6
	Trial Mean			17-Aug	28.0	0.16	4.5	12.0	1287	23.0	56.6
	LSD			13.1	ns	0.62	2.9	2.2	ns	ns	3.8
	LSD P >			0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	CV			3.5	11.4	242.7	39.9	11.2	51.9	51.9	4.1
	F Test			< 0.0001	0.0542	< 0.0001	0.0013	< 0.0001	0.0899	0.0899	< 0.0001

(1) Maturity classification designated by respective seed companies: E=Early, M=Medium, ML=Medium Late, L=Late.

(2) Grain color designated by respective seed companies: R=Red, BZ=Bronze, W=White, CT=Cream translucent.

(3) Desirability rating key is as follows: 1=Very poor, 10=Excellent