

# Non-Irrigated and Irrigated Grain Sorghum Performance at the Northeast Research Station – St. Joseph

## Location Summary

Grain yields ranged from 3,576 to 7,336 lb/a in the non-irrigated trial with a trial average of 5,991 lb/a (Table 5). In this trial, there were 12 hybrids in 2008 and five hybrids for 2007 and 2008 that were highest yielding (bolded in table). In the irrigated trial, grain yields ranged from 3,702 to 7,231 lb/a, with a trial average of 6,115 lb/a (Table 6). There were 15 hybrids in 2008 and only one hybrid for 2007 and 2008 that were highest yielding (bolded in table). There were three furrow-irrigations in the irrigated trial, June 17, July 7, and July 17. Grain sorghum in both trials was ready for harvest in early August; however, extremely wet conditions in August and early September caused very late harvest. As a result, yield was probably lost due to seed shattering. In addition, test weights were extraordinarily low, averaging 45.2 lb/bu in the non-irrigated trial and 47.7 lb/bu in the irrigated trial.

Soil Type.....Sharkey silty clay  
 Row Spacing.....40 inches  
 Seeding Rate.....6-7 seed/ft  
 Fertilization.....30-0-0-2 @  
 120 lb N/a (5/20)  
 Herbicides.....  
     Burndown (4/24): Roundup @ 1.5 qt/a  
     Pre: (5/2): Atrazine@ 2 qt/a +  
     Dual @ 1.5 pt/a;  
 Insecticides.....  
     At flowering: Four applns of Karate Z  
     @ 2 oz/a (6/26, 7/3, 7/7, and 7/14; On  
     7/3, Intruder @ 1 oz/a was combined  
     with the Karate)  
 Previous Crop.....Soybean  
 Planting Date.....April 30  
 Harvest Dates.....Sept. 8 (irrigated trial)  
                             Sept. 12 (non-irrigated trial)

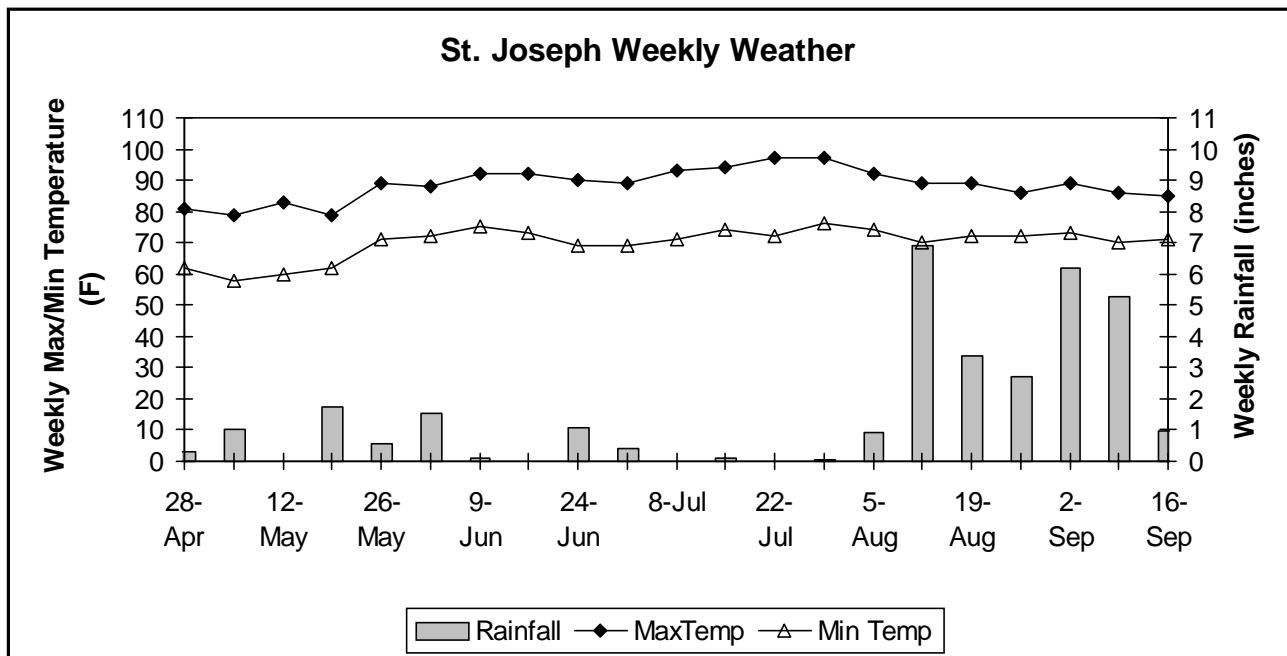


Table 5. Non-irrigated grain sorghum hybrid performance trial at St. Joseph, 2008.

Brand/hybrid	2008 Yield <sup>1</sup>	2-Yr avg <sup>2</sup>	Grain moist	Test wt	Head date	Head exert	Plant ht	Head type <sup>4</sup>
	-----lb/a-----		%	lb/bu	DAP <sup>3</sup>	inches	inches	
<b>Terral TV1050</b>	<b>7,336</b>	6,756	13.6	41.8	58	5	58	3.0
<b>Dekalb DKS53-67</b>	<b>6,974</b>	<b>7,146*</b>	15.3	49.4	62	5	59	2.5
<b>Dekalb DKS54-00</b>	<b>6,909</b>	<b>7,490*</b>	15.1	44.9	65	5	60	3.0
<b>Golden Acres 3696</b>	<b>6,837</b>	-	13.8	45.4	56	4	56	3.5
<b>Pioneer brand 84G62</b>	<b>6,581</b>	<b>6,841*</b>	14.4	48.6	61	2	55	3.5
<b>Terral TV93S72</b>	<b>6,470</b>	6,249	15.4	45.2	57	8	52	3.5
<b>Dekalb DKS54-03</b>	<b>6,368</b>	-	13.3	40.9	64	7	58	3.5
<b>NC+ 8R18</b>	<b>6,352</b>	<b>7,206*</b>	13.0	44.0	62	8	63	3
<b>Dyna-Gro DGGX07163</b>	<b>6,320</b>	-	14.0	44.9	55	6	57	3.5
<b>Asgrow A571</b>	<b>6,317</b>	<b>6,720*</b>	13.0	43.7	59	10	58	3.5
<b>Terral TV96H81</b>	<b>6,285</b>	6,150	14.2	46.2	59	5	57	4.0
<b>Pioneer brand 82G10</b>	<b>6,269</b>	-	13.6	47.5	62	2	57	3.0
Dyna-Gro DG751B	6,195	6,112	15.0	44.5	58	4	59	4.0
Pioneer brand 83G66	6,136	-	15.0	47.6	60	4	60	3.0
Terral TV9421	6,103	5,663	12.9	41.1	56	5	56	4.0
Dyna-Gro DGGX07664	5,919	-	13.6	47.0	57	6	50	3.5
Terral TV94S91	5,911	-	14.1	47.4	57	7	57	3.5
Dyna-Gro DG780B	5,735	6,113	14.9	45.4	62	6	58	4.0
Garst 5515	5,723	-	13.8	42.4	59	6	55	3.0
Terral TV96H91	5,704	5,858	14.6	46.9	63	8	57	4.5
NC+ 7R83	5,697	6,007	12.8	41.0	59	9	58	3.5
Dyna-Gro DGGX08170	5,155	-	16.3	51.5	58	8	62	3.5
Dyna-Gro DG758B	5,145	5,568	14.6	48.2	57	4	55	3.5
Garst 5464	5,091	-	14.3	44.8	57	7	57	4.0
Dyna-Gro DG778B	4,669	-	15.6	44.3	67	6	63	3.0
Golden Acres 3552	3,576	-	14.5	47.1	58	7	58	3.5
Average	5,991	-	14.2	45.2	59	6	57	3.0
CV,%	11	-	6	4	2	28	2	9
LSD (0.10)	1,084	-	1.3	3.3	2	3	2	1.0

<sup>1</sup>Hybrids in bold are the highest yielding for this location in 2008.

<sup>2</sup>Hybrids in bold with an asterisk (\*) are the highest yielding in both 2007 and 2008.

<sup>3</sup>DAP=days after planting.

<sup>4</sup>Head type, 1-5; 1=compact ...5=open.

Table 6. Irrigated grain sorghum hybrid performance trial at St. Joseph, 2008.

Brand/hybrid	2008 Yield <sup>1</sup>	2-Yr avg <sup>2</sup>	Grain moist	Test wt	Head date	Head exert	Plant ht	Head type <sup>4</sup>
	-----lb/a-----		%	lb/bu	DAP <sup>3</sup>	inches	inches	
<b>Terral TV96H81</b>	<b>7,231</b>	6,727	13.7	48.4	56	5	62	3.5
<b>Dekalb DKS54-00</b>	<b>7,227</b>	<b>7,907*</b>	15.4	47.7	65	8	64	3.0
<b>Terral TV9421</b>	<b>7,184</b>	6,238	15.7	45.9	56	7	59	3.5
<b>NC+ 8R18</b>	<b>7,077</b>	7,238	13.7	48.5	62	7	65	2.5
<b>Dekalb DKS53-67</b>	<b>6,885</b>	7,276	13.4	50.0	61	6	62	2.5
<b>Dyna-Gro DG751B</b>	<b>6,881</b>	6,581	15.0	47.3	56	9	63	2.5
<b>Garst 5464</b>	<b>6,873</b>	-	15.1	48.8	58	8	62	4.0
<b>Dekalb DKS54-03</b>	<b>6,743</b>	-	14.3	45.0	63	11	64	3.5
<b>Terral TV1050</b>	<b>6,650</b>	6,669	11.2	44.4	58	5	62	3.0
<b>Terral TV93S72</b>	<b>6,646</b>	5,930	14.7	47.7	55	10	56	3.0
<b>NC+ 7R83</b>	<b>6,537</b>	6,781	14.3	44.9	60	8	59	3.0
<b>Dyna-Gro DGGX07163</b>	<b>6,261</b>	-	15.9	47.8	55	8	59	3.5
<b>Dyna-Gro DG780B</b>	<b>6,206</b>	6,625	12.4	46.7	63	3	64	3.0
<b>Terral TV96H91</b>	<b>6,181</b>	6,448	15.2	51.5	62	8	60	3.5
<b>Pioneer brand 83G66</b>	<b>6,171</b>	-	16.5	48.0	59	7	64	3.0
Dyna-Gro DGGX08170	5,887	-	13.5	52.3	58	8	70	3.0
Golden Acres 3696	5,808	-	14.2	47.5	56	7	61	3.5
Dyna-Gro DG758B	5,768	6,005	15.6	52.0	57	8	58	3.5
Pioneer brand 82G10	5,726	-	12.0	46.9	62	4	61	2.5
Pioneer brand 84G62	5,696	6,693	12.2	48.9	58	6	60	3.5
Asgrow A571	5,571	6,499	11.8	43.2	59	9	60	2.5
Dyna-Gro DGGX07664	5,295	-	14.2	47.1	57	9	53	4.0
Terral TV94S91	5,282	-	15.2	48.8	57	7	59	3.5
Garst 5515	5,263	-	14.2	46.5	58	8	58	3.5
Golden Acres 3552	4,251	-	13.0	49.4	57	6	61	4.0
Dyna-Gro DG778B	3,702	-	15.9	48.2	68	6	69	2.0
Average	6,115	-	14.2	47.7	59	7	61	3.0
CV,%	11	-	16	4	2	26	3	14
LSD (0.10)	1,124	-	NS <sup>5</sup>	3.2	2	3	3	1.0

<sup>1</sup>Hybrids in bold are the highest yielding for this location in 2008.

<sup>2</sup>Hybrids in bold with an asterisk (\*) are the highest yielding in both 2007 and 2008.

<sup>3</sup>DAP=days after planting.

<sup>4</sup>Head type, 1-5; 1=compact ...5=open.

<sup>5</sup>NS=Non-significant.