

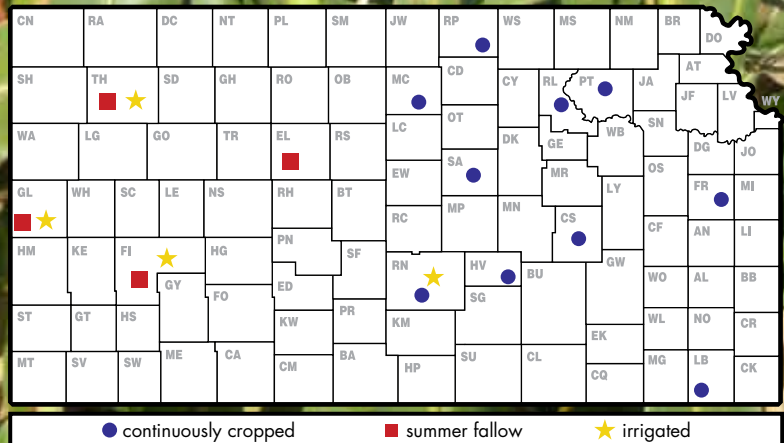
# 2009

## *Kansas Performance Tests with* **Grain Sorghum Hybrids**

*Report of Progress 1023*



**Kansas State University**  
**Agricultural Experiment Station**  
**and Cooperative Extension Service**



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#### Entries in the 2009 Kansas Grain Sorghum Performance Tests

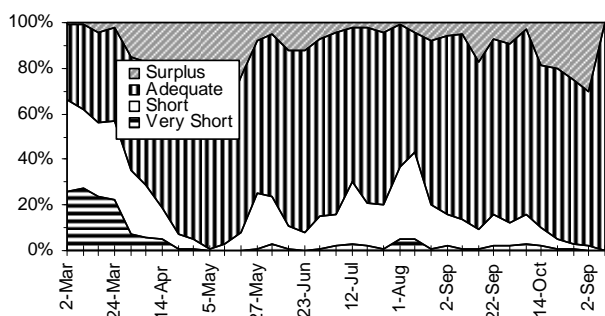
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## 2009 GRAIN SORGHUM CROP REVIEW

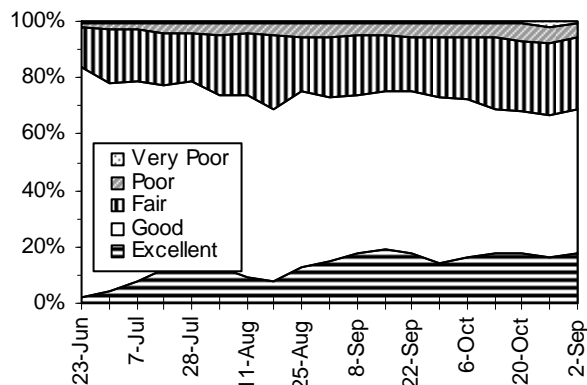
### Statewide Growing Conditions

As in 2008, the grain sorghum crop progressed very slowly for much of Kansas in 2009. Planting and emergence were delayed into June and July for most of the state. Once sorghum was planted, the unseasonably cool summer weather did not favor crop development. Many producers found that only the lower half of the heads of their sorghum crop had filled because of low temperatures during pollination. Frequent rainfall in September and October postponed harvest for much of the state (Figure 1). As of November 22, only 70% of the sorghum crop had been harvested in the state.



**Figure 1. Statewide status of topsoil moisture**

The slow progression helped sustain the quality of the 2009 grain sorghum crop throughout most of the growing season. At its lowest point, 69% of the crop was still rated as good or excellent (Figure 2). That percentage may decline, however, as wet soil conditions and slow drydown continue to delay harvest.



**Figure 2. Condition of 2009 Kansas sorghum crop**  
(Crop Weather Reports, Kansas Agricultural Statistics Service, Topeka)

### Diseases

The 2009 Kansas grain sorghum crop was mostly healthy, with production estimates up from 2008. Frequent rains early in the season, particularly in the central part of the state, caused a few problems.

A few reports of sorghum downy mildew development were received early in the season. Downy mildew is favored by saturated soil conditions during a 2- to 3-week period after emergence. Complicating the diagnosis was the fact that certain herbicides can cause a symptom mimicking downy mildew. Crazy top downy mildew was present in areas where it traditionally occurs, but again, economic damage was minimal.

Leaf health was mostly good. However, moderate to high levels of sooty stripe developed where susceptible hybrids were planted into old sorghum debris. Some late-season rust was present around the state, but cooler temperatures kept it from developing to damaging levels.

For the second year in a row, late planting combined with cooler temperatures created conditions favorable for sorghum ergot development. Fortunately, no disease had been reported by mid-November. Droughty conditions in Texas, where much of the inoculum originates from, is the likely cause for the lack of disease development.

Bacterial leaf diseases were common in many fields. Bacterial stripe, in particular, is favored by cool, rainy conditions, so its development in many fields was not a surprise. Fortunately, this disease is primarily cosmetic, and yield losses have not been associated with its development. However, some issues with grain exportation could occur later because of its presence.

Other diseases reported in 2009 included Fusarium stalk rot, Fusarium neck rot, and anthracnose.

(Doug Jardine, Kansas State University Department of Plant Pathology)

### Insects

Insect problems in sorghum started early, with scattered infestations of chinch bugs causing seedling damage.

Chinch bug populations seemed more significant than average but probably were not as bad as we anticipated from all the adult chinch bugs that were present in the fall of 2008 going into overwintering.

After the chinch bug infestations, sorghum around the state was relatively unscathed by insects until heading. Headworms, primarily corn earworms, were noted, and

localized infestations reached damaging levels. Most fields were quickly and effectively treated.

A few reports of late-season stalk-boring insects were received. These turned out to be European corn borers, which are unusual but do occur occasionally. (Jeff Whitworth, Kansas State University Department of Entomology)

### Harvest Statistics

The Kansas Agricultural Statistics Service predicted a 207.5 million-bushel crop in the October 9 Crops Report, down 3% from last year (Figure 3). The number of acres harvested was down 200,000 acres from last year, at 2.5 million. The average yield estimate of 83 bushels per acre is 5 bushels above last year's yield. If realized, this will be a new record high yield for the state of Kansas. (Kansas Agricultural Statistics Service, Topeka)

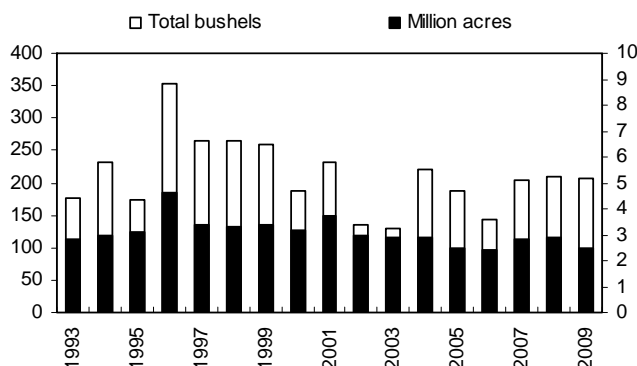


Figure 3. Historical Kansas grain sorghum production

## 2009 PERFORMANCE TESTS

### Objectives and Procedures

Grain sorghum performance tests, conducted annually by the Kansas Agricultural Experiment Station, provide farmers, extension workers, and seed industry personnel with unbiased agronomic information on many grain sorghum hybrids marketed in the state. Entry fees from private seed companies help finance the tests. Seed companies receive test announcements and entry forms in late January each year; deadlines for receipt of completed entry forms and seed are in mid-March. Because entry selection and location are voluntary, not all hybrids grown in the state are included in tests, and the same group of hybrids is not grown at all test locations.

A summary of growing-season weather data is given in individual test discussions. These data are from the nearest weather-reporting station and often are supplemented with information from the test site. Precipitation graphs include cumulative lines for 2009 and the 30-year normal in addition to daily rainfall amounts since last fall. Temperature graphs

include daily maximum and minimum temperatures compared with normal. General trends in precipitation and temperature relative to normal are readily observed in the graphs. A table with monthly totals and averages for the growing season also is included.

The growth unit, or growing degree day, concept was developed to measure the amount of heat available for growth and maturation. To calculate the daily growing degree day accumulation, add the maximum temperature and the minimum temperature for each day, divide by 2, and subtract a base temperature of 35°F. Any temperature below 35°F was considered to be 35°F.

Explanatory information precedes data summaries for each test. Tables 2 through 22 contain results from the individual performance tests. Hybrids are listed in order of increasing days to half bloom and increasing grain moisture for the current year, so hybrids of similar maturity appear together.

Figures 4 through 8 graphically summarize yield and maturity information over the past 3 years for each region. In these figures, hybrid performance is standardized by using the average of two check hybrids present in every test. The number beside each bar shows the number of tests in which a given hybrid was compared with the check hybrids. In general, the greater the number of comparisons, the greater confidence one can place in the stated performance of that hybrid. Symbols beside each bar indicate if performance of a hybrid was significantly greater (+) or lower (-) than the average performance of the check hybrids. As with individual test results, small differences should not be overemphasized. Relative ranking and large differences are better indicators of performance.

Most tests were planted at a rate 25 to 30% greater than the desired population and thinned only to remove doubles. Planting to stand enables evaluation of product performance for the entire growing season.

Three or four plots (replications) of each hybrid were grown in a randomized complete block design at each location. Each harvested plot consisted of two rows trimmed to a specific length ranging from 20 to 30 feet at the different locations. Tests were harvested with specialized plot combines equipped with automatic weighing and sampling devices.

Grain yields are reported as bushels per acre of shelled grain (56 lb/bu) adjusted to a moisture content of 12.5%. Yields also are presented as a percentage of test average to speed recognition of highest-yielding hybrids. Hybrids yielding more than 100% of the test average year after year merit consideration. Adaptation to individual farms for appropriate maturity, stalk strength, and other factors also must be considered.

The percentage of lodged stalks is reported when appropriate. Broken stalks and stalks leaning more than 45 degrees from vertical were considered lodged, although most were harvestable with modern machinery. Severely lodged stalks or dropped heads that could not be picked up by normal harvest procedures were not included in yield. Because harvest often is delayed until the latest-maturing entries are ripe, early and mid-season hybrids could lodge simply because they must wait well past their optimum harvest date.

Relative maturity is measured in terms of both number of days from planting to half bloom and grain moisture at harvest. Maturity can be critical when considering a sorghum hybrid for a specific cropping system.

Small differences in yield or other characteristics should not be overemphasized. Least significant differences (LSD) are shown at the bottom of each table. Unless two entries differ by at least the LSD shown, little confidence can be placed in one being superior to the other.

The coefficient of variability (CV) can be used to estimate the degree of confidence one can have in published data from replicated tests. In this testing program, a CV of less than 10% generally indicates reliable, uniform data, whereas a CV of 10 to 15% is not uncommon and usually indicates that data are acceptable for the rough performance comparisons desired from these tests. Tests with a CV greater than 15% still may be useful, especially in situations with low yields.

**Table 1. Entrants in the 2009 Kansas Grain Sorghum Performance Tests**

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<b>Channel Bio Corp.</b> Lincoln, NE 402-467-2517	<b>Dyna-Gro UAP-Pueblo</b> Overland Park, KS 913-227-0838	<b>Phillips Seed Farms</b> Hope, KS 785-949-2204 <a href="http://www.phillipsseed.com">www.phillipsseed.com</a>	<b>Sorghum Partners, Inc.</b> New Deal, TX 806-746-5566 <a href="http://sorghum-partners.com">sorghum-partners.com</a>
<b>Asgrow/DeKalb Monsanto Seed</b> St. Louis, MO 800-335-2676 <a href="http://www.asgrow.com">www.asgrow.com</a>	<b>Midland Kauffman Seeds</b> Haven, KS 620-465-2245	<b>Pioneer Brand Pioneer Hi-Bred, Intl., Inc.</b> Lincoln, NE 800-228-4050 <a href="http://pioneer.com">pioneer.com</a>	<b>Triumph Seed Co., Inc.</b> Ralls, TX 888-521-7333 <a href="http://triumphseed.com">triumphseed.com</a>
<b>Drussel Seed, Inc.</b> Garden City, KS 620-275-2359	<b>Ohlde Seed Farms</b> Palmer, KS 785-692-4555		

## NORTHEAST KANSAS DRYLAND GRAIN SORGHUM TEST

Agronomy North Farm, Manhattan; Jane Lingenfelter, agronomist

Reading silt loam; Soybean in 2008

150 - 30 - 0 lb/a N, P, K

Planted on 5/22/2009; Harvested on 10/18/2009

Target stand of 55,000 plants/acre; 3.8 in. spacing

Favorable conditions early in the growing season; many hybrids had not reached physiological maturity by the first freeze.

Month	Precipitation		Average Temp.		GDU	
	2009	Norm.	2009	Norm.	2009	Norm.
Nov.-Mar	5.6	6.0	36	35		
April	5.3	2.6	55	53	487	575
May	2.0	4.5	66	64	877	918
June	7.7	5.1	75	73	1171	1158
July	4.7	4.0	74	79	1347	1369
August	4.9	3.5	72	78	1187	1317
Sept.	1.5	3.8	62	70	908	1035
Oct.	2.2	2.7	48	57	668	698
Totals:	34.0	32.1	53	54	6,645	7,070

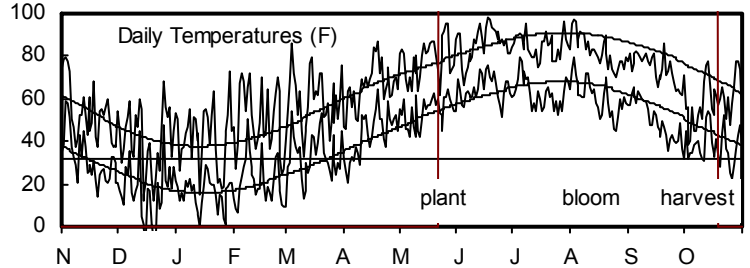
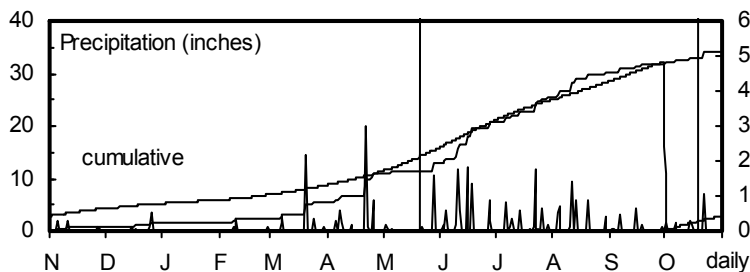


Table 2. Riley County Dryland Grain Sorghum Performance Test, 2007-2009

BRAND	NAME	YIELD AS % 2008-2009																
		ACRE YIELD, BUSHEL					OF TEST			Days Grain		Grain Test		Plnt			Pop. 1000	Hds. per
		2009	2008	2007	AVG.	AVG.	2009	2008	2007	to Blm	to Moist. %	to Blm	to Moist. %	lb/bu	in.	Ldg %		
		AVERAGE					AVERAGE			Blm %		lb/bu		%				
DEKALB	DKS37-07	117	120	112	118	116	88	96	91	68	14	70	17	61	--	--	51.0	1.2
MATURITY CHECK	MEDIUM	119	--	--	--	--	90	--	--	--	--	70	17	61	--	--	38.5	1.2
DEKALB	DKS36-06	<b>134</b>	--	--	--	--	101	--	--	--	--	71	18	59	--	--	42.7	1.3
MATURITY CHECK	EARLY	95	--	--	--	--	72	--	--	--	--	71	16	58	--	--	31.4	1.4
PIONEER	85G03	<b>137</b>	134	--	135	--	103	106	--	--	--	72	19	60	--	--	40.8	1.3
DEKALB	DKS44-20	<b>147</b>	<b>142</b>	--	144	--	111	113	--	--	--	73	21	61	--	--	45.2	1.2
PIONEER	85Y40	<b>141</b>	135	109	138	128	106	108	88	69	15	73	20	60	--	--	47.3	1.1
SORG. PARTNERS	NK6638	117	129	108	123	118	88	103	88	70	14	73	17	60	--	--	47.5	1.2
SORG. PARTNERS	X449	123	--	--	--	--	93	--	--	--	--	73	19	61	--	--	49.8	1.3
MATURITY CHECK	LATE	<b>133</b>	--	--	--	--	100	--	--	--	--	74	18	59	--	--	45.3	1.2
PIONEER	84P74	<b>144</b>	--	--	--	--	109	--	--	--	--	74	24	59	--	--	33.3	1.3
DEKALB	DKS54-00	<b>150</b>	<b>148</b>	<b>143</b>	149	147	113	118	117	72	15	75	22	59	--	--	44.9	1.4
PIONEER	84G62	<b>142</b>	126	111	134	126	107	101	90	71	15	75	21	60	--	--	45.3	1.3
DEKALB	DKS53-67	<b>147</b>	<b>138</b>	114	143	133	111	110	92	72	16	76	24	60	--	--	31.2	1.4
SORG. PARTNERS	SP6680	<b>143</b>	--	--	--	--	108	--	--	--	--	76	25	59	--	--	33.5	1.5
	AVERAGES	133	126	123	129	127	133	126	105	70	15	73	20	60	--	--	41.8	1.3
	CV (%)	9	6	7	--	--	9	6	5	--	--	1	7	1	--	--	10	10
	LSD (0.05)	18	11	12	--	--	13	8	7	--	--	1	2	1	--	--	6	0

\*Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other. Top LSD group in bold.



### NORTHEAST KANSAS DRYLAND GRAIN SORGHUM TEST

North Central Kansas Exp. Field, Belleville; Barney Gordon, agronomist; Michael Larson and Doug Stensaas, technicians

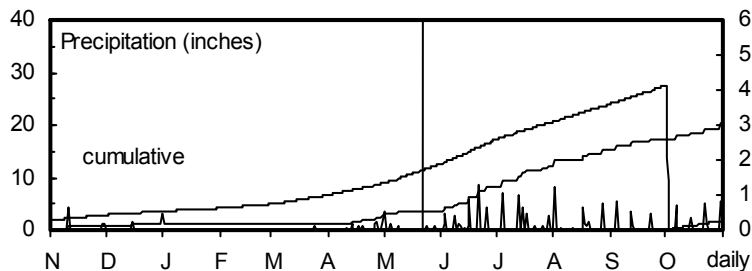
Crete silt loam; Soybean in 2008

150 - 30 - 0 lb/a N, P, K

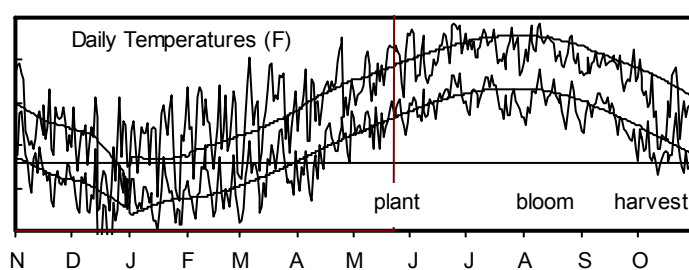
Planted on 5/22/2009; Harvested on 11/11/2009

Target stand of 50,000 plants/acre; 4.2 in. spacing

Very dry winter and spring, cooler and wetter than normal the rest of the growing season. Grain dried down slowly as wet fall conditions delayed harvest.



Month	Precipitation		Average Temp.		GDU	
	2009	Norm.	2009	Norm.	2009	Norm.
Nov.-Mar	1.3	4.9	34	32	0	0
April	1.8	2.3	51	52	482	523
May	0.6	3.7	64	63	888	886
June	4.5	4.6	73	73	1160	1149
July	5.1	3.4	73	78	1356	1368
August	2.0	3.4	73	77	1224	1310
Sept.	1.9	3.5	65	68	946	987
Oct.	3.1	1.8	47	55	640	663
Totals:	20.2	27.5	51	52	6,697	6,886



**Table 3. Republic County Dryland Grain Sorghum Performance Test, 2007-2009**

BRAND	NAME	YIELD AS % 2008-2009																
		ACRE YIELD, BUSHELS					OF TEST			Days Grain		Days Grain		Test	Plnt	Pop.	Hds.	
		2009	2008	2007	2-Yr. AVG.	3-Yr. AVG.	2009	2008	2007	Blm	to Moist.	Blm	to Moist.	Wt. lb/bu	Ht. in.	Ldg %	1000 ppa	per Plnt
							AVERAGE											
MATURITY CHECK	EARLY	171	134	127	152	144	101	87	101	58	15	64	16	57	--	0	44.4	1.2
MATURITY CHECK	MEDIUM	139	133	112	136	128	82	86	89	59	16	64	16	59	--	0	46.6	1.2
DYNA-GRO	764B	137	124	107	131	123	81	80	85	60	16	65	17	59	--	4	45.9	1.1
DEKALB	DKS37-07	180	155	129	168	155	107	101	102	59	16	66	16	60	--	0	46.3	1.2
CHANNEL	7B11	176	--	--	--	--	104	--	--	--	--	67	17	60	--	6	46.7	1.2
CHANNEL	6B10	157	--	--	--	--	93	--	--	--	--	67	16	59	--	7	44.4	1.2
DEKALB	DKS36-06	180	--	--	--	--	107	--	--	--	--	67	16	60	--	0	46.0	1.2
DYNA-GRO	766B	151	156	132	154	146	89	101	102	61	15	67	17	59	--	0	45.9	1.1
DYNA-GRO	771B	164	--	--	--	--	97	--	--	--	--	67	17	59	--	6	46.3	1.1
PHILLIPS	672	170	--	--	--	--	100	--	--	--	--	67	16	60	--	0	44.6	1.2
TRIUMPH	TRX95005	179	--	--	--	--	106	--	--	--	--	67	17	60	--	0	46.6	1.2
PIONEER	85G03	186	154	--	170	--	110	100	--	--	--	68	16	60	--	0	45.4	1.1
TRIUMPH	TRX82629	149	--	--	--	--	88	--	--	--	--	68	16	59	--	4	46.1	1.1
TRIUMPH	TRX92016	146	--	--	--	--	86	--	--	--	--	68	17	59	--	0	45.3	1.2
PHILLIPS	775	167	--	--	--	--	99	--	--	--	--	68	16	59	--	0	46.3	1.1
DEKALB	DKS44-20	176	<b>178</b>	--	177	--	104	115	--	--	--	68	16	60	--	0	46.5	1.2
PIONEER	84P74	184	--	--	--	--	109	--	--	--	--	68	17	60	--	0	45.3	1.2
TRIUMPH	TRX84732	147	--	--	--	--	87	--	--	--	--	68	17	59	--	4	45.9	1.2
TRIUMPH	TRX85131	161	--	--	--	--	95	--	--	--	--	68	17	59	--	0	46.3	1.2
OHLDE	O-587	183	170	128	176	160	108	110	102	62	16	69	16	60	--	0	45.4	1.2
OHLDE	O-575	175	166	129	170	157	103	108	102	62	16	69	16	60	--	0	45.5	1.2
DYNA-GRO	742C	148	--	--	--	--	88	--	--	--	--	69	17	59	--	0	44.7	1.2
PIONEER	85Y40	191	164	<b>143</b>	177	166	113	106	114	61	16	69	17	60	--	0	45.8	1.1
TRIUMPH	TRX95003	151	--	--	--	--	89	--	--	--	--	70	16	59	--	0	46.9	1.1
DYNA-GRO	751B	174	166	132	170	157	103	108	105	62	16	70	17	60	--	0	46.3	1.1
DEKALB	DKS54-00	186	<b>187</b>	<b>150</b>	186	174	110	121	119	62	16	70	17	60	--	0	46.2	1.1
SORG. PARTNERS	NK6638	161	141	115	151	139	95	92	92	62	16	70	17	59	--	0	45.2	1.2
SORG. PARTNERS	X449	162	--	--	--	--	96	--	--	--	--	70	17	59	--	0	46.1	1.2
OHLDE	O-567	174	162	128	168	155	103	105	102	61	15	71	16	60	--	0	44.6	1.2
PIONEER	84G62	<b>201</b>	<b>191</b>	<b>147</b>	196	180	119	123	117	62	16	71	17	61	--	0	44.6	1.1
DYNA-GRO	772B	170	176	--	173	--	100	114	--	--	--	71	16	59	--	0	46.3	1.2
MATURITY CHECK	LATE	190	172	131	181	164	112	111	104	62	16	72	17	59	--	5	45.4	1.2
TRIUMPH	TR 481	163	166	137	165	155	96	107	109	63	16	72	16	59	--	0	46.7	1.2
TRIUMPH	TRX85002	181	--	--	--	--	107	--	--	--	--	72	17	60	--	0	45.1	1.2
DYNA-GRO	778B	165	<b>181</b>	133	173	160	98	117	106	63	16	73	17	59	--	0	47.4	1.2

**Table 3 continued. Republic County Dryland Grain Sorghum Performance Test, 2007-2009**

BRAND	NAME	ACRE YIELD, BUSHEL					YIELD AS %			2008-2009									
		2-Yr.		3-Yr.		AVG.	OF TEST			Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Pop. 1000 ppa	Hds. per Plnt	
		2009	2008	2007	AVG.		2009	2008	2007										
SORG. PARTNERS	SP6680	169	--	--	--	--	100	--	--	--	--	74	17	59	--	0	45.9	1.2	
DEKALB	DKS53-67	<b>205</b>	<b>188</b>	<b>145</b>	196	179	121	122	115	62	16	74	17	60	--	7	46.1	1.1	
TRIUMPH	TRX95004	155	--	--	--	--	92	--	--	--	--	74	17	59	--	0	45.5	1.2	
TRIUMPH	TRX85001	173	--	--	--	--	102	--	--	--	--	75	16	59	--	0	45.2	1.2	
	AVERAGES	169	154	131	162	151	169	154	126	61	15	69	16	60	--	1	45.8	1.2	
	CV (%)	5	6	4	--	--	5	6	5	--	--	3	1	0	--	--	3.0	5.6	
	LSD (0.05)	14	15	9	--	--	8	10	9	--	--	3	0	0	--	1	2.5	0.1	

\*Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.  
Top LSD group in bold.



## NORTHEAST DRYLAND GRAIN SORGHUM TEST

Farmer's field, Beloit; Barney Gordon, agronomist; Michael Larson and Doug Stensaas, technicians

Harney silt loam; Wheat in 2008

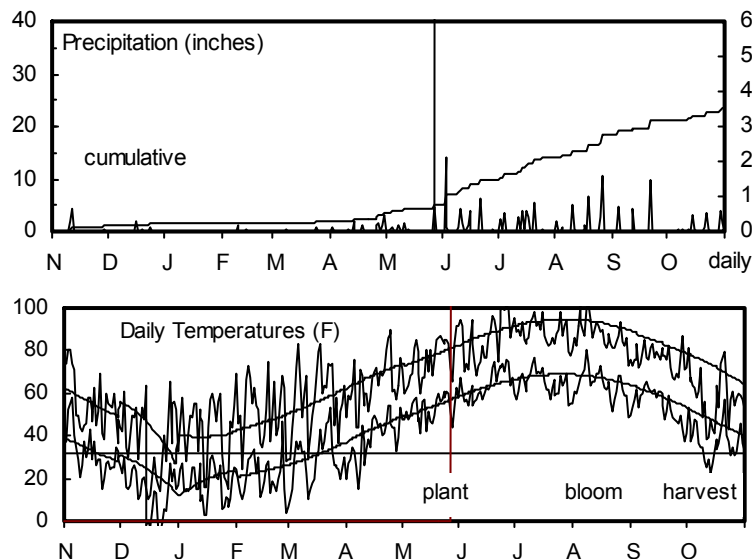
120 - 30 - 0 lb/a N, P, K

Planted on 5/28/2009; Harvested on 11/13/2009

Target stand of 50,000 plants/acre; 4.2 in. spacing

Dry in the spring; cooler than normal with some dry periods in July.

Month	Precipitation		Average Temp.		GDU	
	2009	Norm.	2009	Norm.	2009	Norm.
Nov.-Mar	1.9		36			
April	1.7		52		424	424
May	1.4		64		835	835
June	5.0		75		1197	1197
July	4.0		76		1339	1369
August	4.4		76		1232	1242
Sept.	2.8		66		971	971
Oct.	2.2		48		635	635
Totals:	23.4		53		6,633	6,673



**Table 4. Mitchell County Dryland Grain Sorghum Performance Test, 2007-2009**

BRAND	NAME	YIELD AS % 2008-2009																	
		ACRE YIELD, BUSHELS				OF TEST				Days Grain		Days Grain		Test		Plnt		Pop.	Hds.
		2-Yr.		3-Yr.		AVERAGE		to Moist.		to Moist.		Wt.		Ldg.					
		2009	2008	2007	AVG.	AVG.	2009	2008	2007	Blm	%	Blm	%	lb/bu	in.	%	1000	per	
MATURITY CHECK	EARLY	133	147	--	140	--	90	101	--	--	--	64	16	58	38	2	45.0	1.4	
MATURITY CHECK	MEDIUM	129	112	--	121	--	88	77	--	--	--	64	16	59	42	0	45.7	1.3	
DYNA-GRO	764B	136	139	--	137	--	92	93	--	--	--	65	16	60	44	0	43.8	1.4	
DYNA-GRO	742C	132	--	--	--	--	89	--	--	--	--	65	16	60	42	0	46.2	1.3	
DYNA-GRO	766B	145	<b>151</b>	--	148	--	98	103	--	--	--	65	16	60	47	1	46.7	1.3	
PHILLIPS	672	147	--	--	--	--	100	--	--	--	--	65	16	60	47	2	46.0	1.3	
DEKALB	DKS36-06	161	--	--	--	--	109	--	--	--	--	66	16	60	49	0	46.2	1.3	
DEKALB	DKS37-07	157	<b>152</b>	--	154	--	106	104	--	--	--	66	16	61	48	0	47.0	1.3	
DEKALB	DKS44-20	162	<b>153</b>	--	158	--	110	105	--	--	--	66	16	61	47	3	45.0	1.3	
OHLDE	O-575	142	<b>152</b>	--	147	--	96	104	--	--	--	66	16	60	42	0	46.7	1.3	
PHILLIPS	670	135	--	--	--	--	91	--	--	--	--	66	16	60	43	0	46.9	1.3	
PIONEER	85G03	<b>166</b>	<b>163</b>	--	165	--	112	111	--	--	--	66	13	60	47	0	45.4	1.3	
SORG. PARTNERS	X449	138	--	--	--	--	94	--	--	--	--	66	16	60	48	0	48.7	1.3	
DYNA-GRO	772B	149	<b>150</b>	--	150	--	101	103	--	--	--	67	16	60	45	1	46.2	1.3	
DYNA-GRO	778B	141	140	--	140	--	95	96	--	--	--	67	16	60	50	0	47.0	1.3	
OHLDE	O-567	146	<b>157</b>	--	151	--	98	107	--	--	--	67	16	60	43	1	46.7	1.3	
OHLDE	O-587	148	<b>161</b>	--	155	--	100	110	--	--	--	67	16	60	46	0	45.7	1.3	
PHILLIPS	775	144	--	--	--	--	97	--	--	--	--	67	16	60	45	0	49.1	1.2	
DYNA-GRO	751B	141	146	--	144	--	96	100	--	--	--	68	16	60	45	2	47.2	1.3	
PIONEER	85Y40	156	--	--	--	--	106	--	--	--	--	68	16	60	45	0	46.7	1.3	
DYNA-GRO	771B	141	--	--	--	--	96	--	--	--	--	68	16	60	45	6	46.9	1.3	
PIONEER	84P74	<b>177</b>	--	--	--	--	120	--	--	--	--	68	16	61	47	0	46.6	1.2	
SORG. PARTNERS	NK6638	140	135	--	137	--	95	93	--	--	--	68	16	60	43	0	46.9	1.3	
DEKALB	DKS54-00	<b>169</b>	<b>162</b>	--	166	--	114	111	--	--	--	69	17	61	46	0	47.9	1.2	
SORG. PARTNERS	SP6680	138	--	--	--	--	94	--	--	--	--	69	17	60	44	0	47.2	1.2	
DEKALB	DKS53-67	<b>175</b>	<b>160</b>	--	167	--	118	109	--	--	--	69	17	62	46	1	45.5	1.3	
MATURITY CHECK	LATE	139	138	--	138	--	94	94	--	--	--	70	16	59	43	0	46.1	1.3	
	AVERAGES	148	146	--	--	--	148	146	--	--	--	67	16	60	45	1	46.5	1.3	
	CV (%)	5	6	--	--	--	5	6	--	--	--	1	7	0	2	--	4.0	4.5	
	LSD (0.05)	11	14	--	--	--	8	9	--	--	--	1	2	0	2	2	2.7	0.1	

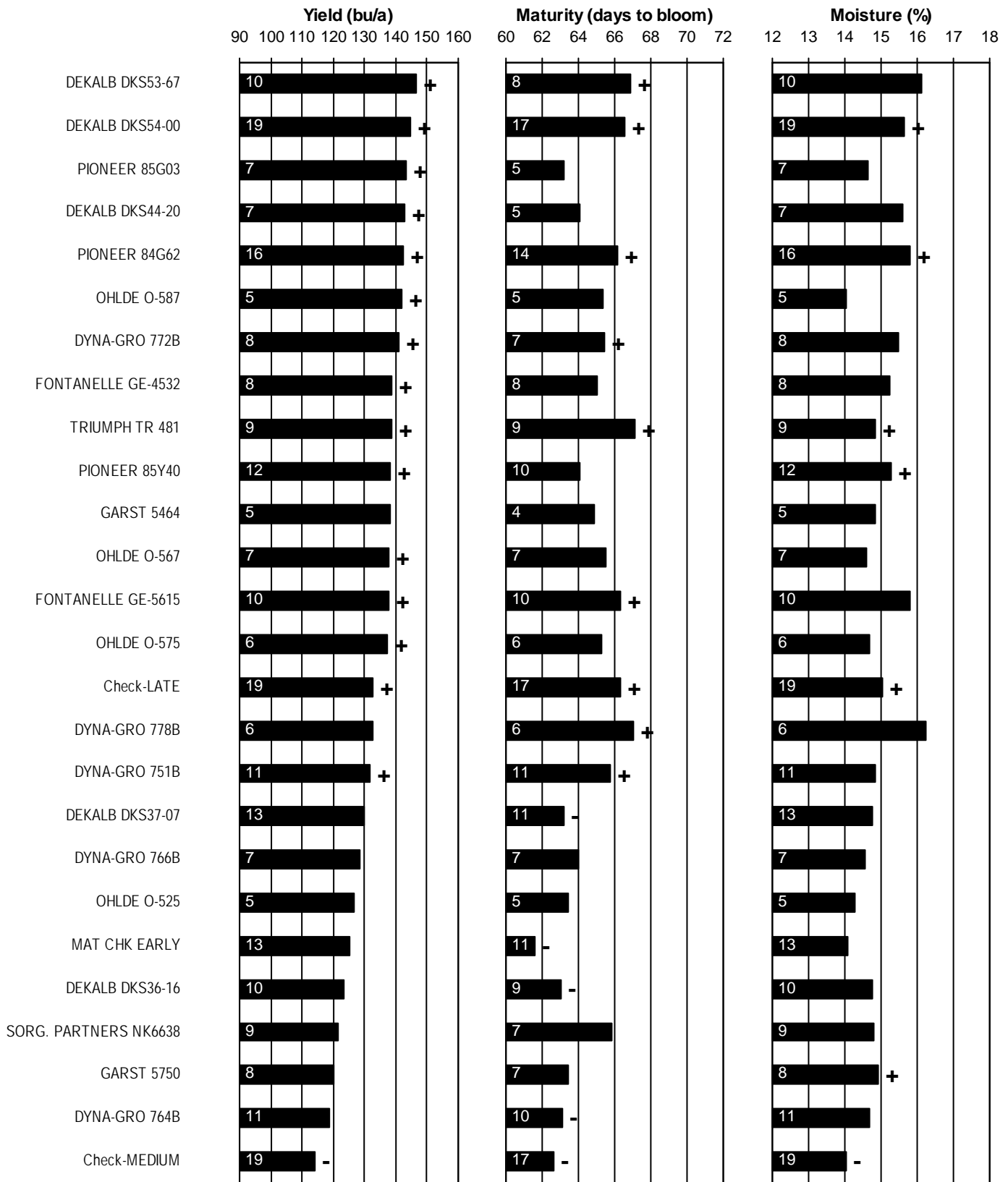
\*Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

Top LSD group in bold.

**Table 5. NORTHEAST Kansas Grain Sorghum Hybrid Yield Summary (% of test avg.), 2009**

BRAND/NAME	POT *	RLD	RPD	MTD	AVG.	BRAND/NAME	POT	RLD	RPD	MTD	AVG.
<b>CHANNEL</b>						<b>PIONEER</b>					
6B10	--	--	93	--	--	84G62	--	107	119	--	--
7B11	--	--	104	--	--	84P74	--	109	109	120	113
<b>DEKALB</b>						<b>SORG. PARTNERS</b>					
DKS36-06	--	101	107	109	105	NK6638	--	88	95	95	93
DKS37-07	--	88	107	106	100	SP6680	--	108	100	94	100
DKS44-20	--	111	104	110	108	X449	--	93	96	94	94
DKS53-67	--	111	121	118	117	<b>TRIUMPH</b>					
DKS54-00	--	113	110	114	112	TR 481	--	--	96	--	--
<b>DYNA-GRO</b>						TRX82629	--	--	88	--	--
742C	--	--	88	89	--	TRX84732	--	--	87	--	--
751B	--	--	103	96	--	TRX85001	--	--	102	--	--
764B	--	--	81	92	--	TRX85002	--	--	107	--	--
766B	--	--	89	98	--	TRX85131	--	--	95	--	--
771B	--	--	97	96	--	TRX92016	--	--	86	--	--
772B	--	--	100	101	--	TRX95003	--	--	89	--	--
778B	--	--	98	95	--	TRX95004	--	--	92	--	--
<b>OHLDE</b>						TRX95005	--	--	106	--	--
O-567	--	--	103	98	--	<b>MATURITY CHECK</b>					
O-575	--	--	103	96	--	722B	--	72	101	90	88
O-587	--	--	108	100	--	LATE	--	100	112	94	102
<b>PHILLIPS</b>						MEDIUM	--	90	82	88	87
670	--	--	--	91	--	AVERAGES (bu/a)	--	133	169	148	150
672	--	--	100	100	--	CV (%)	--	9	5	5	--
775	--	--	99	97	--	LSD (0.05)	--	13	8	8	--

\* POT = Pottawatomie Co., Emmet; abandoned  
 RLD = Riley Co., Manhattan  
 RPD = Republic Co., Belleville  
 MTD = Mitchell Co., Beloit



Values inside bars indicate the number of comparisons with checks. Symbols (+,-) indicate if statistically higher or lower than mean of checks.

**Figure 4. NORTHEAST Kansas sorghum hybrid standardized performance summary, 2007-2009**

## SOUTHEAST KANSAS NO-TILL DRYLAND GRAIN SORGHUM TEST

East Central Kansas Experiment Field, Ottawa; Larry Maddux, agronomist; Jim Kimball, technician

Woodson silt loam; Soybean in 2008

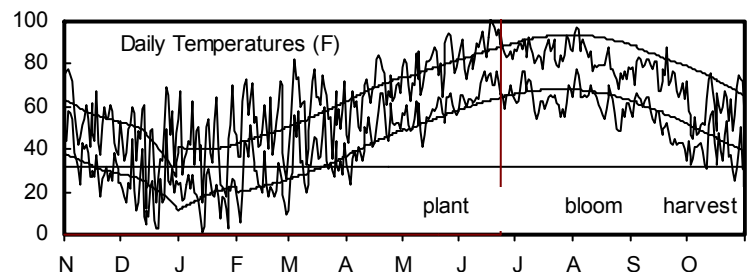
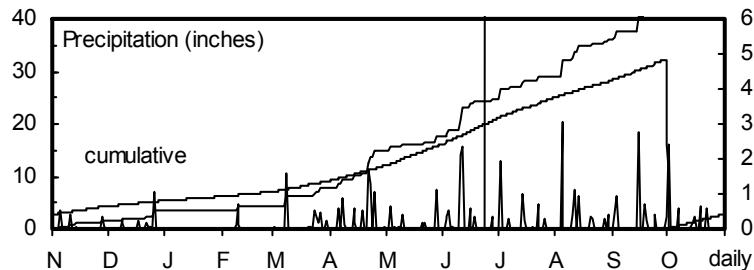
150 - 30 - 0 lb/a N, P, K

Planted on 6/24/2009; Harvested on 11/5/2009

Target stand of 55,000 plants/acre; 3.8 in. spacing

Wet conditions delayed planting and harvesting.

Month	Precipitation		Average Temp.		GDU	
	2009	Norm.	2009	Norm.	2009	Norm.
Nov.-Mar	7.9	6.4	39	37		
April	6.9	2.9	56	56	535	634
May	2.7	4.1	68	65	925	953
June	7.1	4.9	77	74	1160	1186
July	4.6	4.0	75	80	1350	1401
August	6.9	3.2	72	79	1257	1362
Sept.	5.9	4.0	64	71	930	1062
Oct.	5.0	2.6	49	59	664	754
Totals:	47.0	32.2	55	56	6,819	7,352



**Table 6. Franklin County Dryland Grain Sorghum Performance Test, 2007-2009**

BRAND	NAME	YIELD AS % 2008-2009																
		ACRE YIELD, BUSHELS					OF TEST			Days Grain			Plnt	Pop.	Hds.			
		2009	2008	2007	2-Yr. AVG.	3-Yr. AVG.	2009	2008	2007	to Blm	to Moist.	Days				Grain	Test	Wt.
MATURITY CHECK	EARLY	89	85	91	87	88	91	98	96	--	15	60	18	58	--	--	32.4	--
DEKALB	DKS36-06	99	--	--	--	--	101	--	--	--	--	61	22	54	--	--	37.3	--
DEKALB	DKS37-07	98	84	98	91	93	100	96	104	--	14	61	21	54	--	--	34.8	--
MIDLAND	4748	96	--	--	--	--	98	--	--	--	--	61	20	57	--	--	32.4	--
MIDLAND	4765	111	--	--	--	--	113	--	--	--	--	61	24	58	--	--	35.9	--
PIONEER	85G03	101	90	--	95	--	102	103	--	--	--	61	24	57	--	--	36.9	--
MATURITY CHECK	MEDIUM	109	78	83	94	90	111	89	88	--	14	62	20	56	--	--	30.3	--
PIONEER	85Y40	109	<b>110</b>	<b>110</b>	110	110	111	126	116	--	--	62	23	58	--	--	32.2	--
MIDLAND	4665	88	--	--	--	--	89	--	--	--	--	63	24	55	--	--	16.4	--
DEKALB	DKS44-20	90	82	--	86	--	92	94	--	--	--	63	22	57	--	--	31.2	--
MATURITY CHECK	LATE	<b>128</b>	79	99	104	102	131	91	104	--	--	64	22	54	--	--	32.2	--
DEKALB	DKS53-67	85	94	100	89	93	86	107	105	--	--	64	25	56	--	--	38.0	--
PIONEER	84P74	103	--	--	--	--	105	--	--	--	--	64	30	56	--	--	30.5	--
PIONEER	84G62	108	101	114	104	108	110	115	121	--	15	64	23	58	--	--	36.4	--
MIDLAND	4772	88	--	--	--	--	89	--	--	--	--	64	27	54	--	--	32.8	--
SORG. PARTNERS	NK6638	99	96	--	97	--	101	110	--	--	--	64	22	57	--	--	34.1	--
DEKALB	DKS54-00	87	87	102	87	92	89	100	108	--	16	65	28	53	--	--	25.8	--
DEKALB	DKS54-03	100	93	--	97	--	102	107	--	--	--	66	26	55	--	--	33.4	--
MIDLAND	4790	78	--	--	--	--	79	--	--	--	--	68	31	51	--	--	33.0	--
	AVERAGES	98	87	116	93	100	98	87	95	--	--	63	24	56	--	--	32.4	--
	CV (%)	6	9	9	--	--	6	9	9	--	--	2	6	2	--	--	5.0	--
	LSD (0.05)	8	11	15	--	--	8	12	13	--	--	2	2	2	--	--	2.3	--

\*Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other. Top LSD group in bold.

## SOUTHEAST KANSAS DRYLAND GRAIN SORGHUM TEST

ImMasche Research Center, Strong City; Jane Lingenfelter, agronomist; Gene Eidman, cooperater

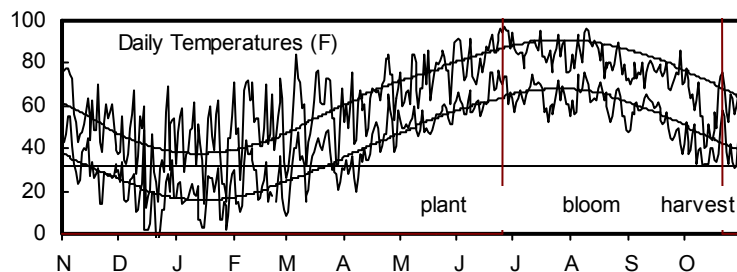
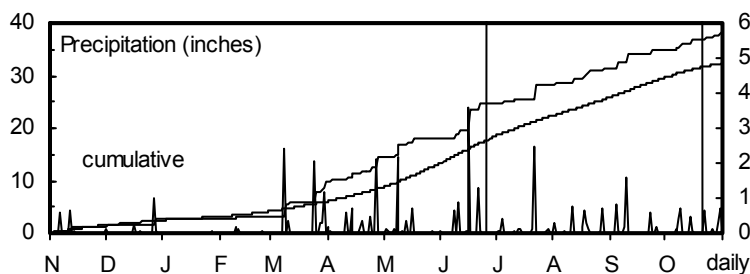
Osage silty clay; Soybean in 2008

130 - 20 - 0 lb/a N, P, K

Planted on 6/26/2009; Harvested on 10/20/2009

Target stand of 55,000 plants/acre; 3.8 in. spacing

Flooding occurred early in the season; many hybrids had not reached physiological maturity by the first freeze.



Month	Precipitation		Average Temp.		GDU	
	2009	Norm.	2009	Norm.	2009	Norm.
Nov.-Mar	10.0	6.0	37	35		
April	4.5	2.7	52	54	513	563
May	3.6	4.5	64	65	910	909
June	6.5	5.1	75	74	1185	1147
July	3.7	3.9	74	79	1329	1358
August	3.2	3.5	73	77	1247	1315
Sept.	3.4	3.8	65	70	953	1027
Oct.	3.7	2.8	50	58	654	693
Totals:	38.6	32.4	54	54	6,789	7,010

**Table 7. Chase County Dryland Grain Sorghum Performance Test, 2007-2009**

BRAND	NAME	YIELD AS % 2008-2009																
		ACRE YIELD, BUSHELS					OF TEST			Days Grain		Days Grain		Test	Plnt	Pop.	Hds.	
		2009	2008	2007	2-Yr. 3-Yr.		AVERAGE			Blm	to Moist.	Blm	to Moist.					
					AVG.	AVG.	2009	2008	2007					lb/bu	in.	Ldg	1000	per
DEKALB	DKS37-07	69	54	65	61	63	99	104	97	64	19	71	16	58	--	--	--	--
MIDLAND	4772	68	--	--	--	--	99	--	--	--	--	71	20	56	--	--	--	--
MIDLAND	4790	61	--	--	--	--	88	--	--	--	--	71	20	54	--	--	--	--
PIONEER	84P74	<b>81</b>	--	--	--	--	116	--	--	--	--	71	20	53	--	--	--	--
PIONEER	85G03	<b>77</b>	54	--	66	--	111	104	--	--	--	71	19	55	--	--	--	--
SORG. PARTNERS	SP6680	64	--	--	--	--	93	--	--	--	--	71	20	56	--	--	--	--
DEKALB	DKS36-06	64	--	--	--	--	93	--	--	--	--	72	17	56	--	--	--	--
DEKALB	DKS44-20	67	63	--	65	--	97	121	--	--	--	72	20	54	--	--	--	--
DEKALB	DKS54-03	67	55	--	61	--	97	106	--	--	--	72	20	56	--	--	--	--
MATURITY CHECK	EARLY	61	50	58	56	56	88	97	86	64	17	72	14	58	--	--	--	--
MATURITY CHECK	LATE	64	27	64	46	52	93	52	96	68	24	72	20	56	--	--	--	--
MATURITY CHECK	MEDIUM	65	29	60	47	51	94	55	90	68	20	72	20	53	--	--	--	--
MIDLAND	4665	72	--	--	--	--	104	--	--	--	--	72	20	53	--	--	--	--
MIDLAND	4748	<b>75</b>	--	--	--	--	108	--	--	--	--	72	20	54	--	--	--	--
MIDLAND	4765	<b>78</b>	--	--	--	--	112	--	--	--	--	72	20	55	--	--	--	--
PIONEER	84G62	<b>78</b>	54	65	66	66	112	103	97	68	22	72	20	53	--	--	--	--
PIONEER	85Y40	<b>75</b>	<b>75</b>	56	75	69	109	144	84	66	19	72	20	55	--	--	--	--
SORG. PARTNERS	NK6638	66	39	48	52	51	95	75	71	68	22	72	20	57	--	--	--	--
DEKALB	DKS53-67	65	57	85	61	69	94	109	127	65	18	73	20	53	--	--	--	--
DEKALB	DKS54-00	73	<b>72</b>	70	73	72	106	139	105	68	21	73	20	55	--	--	--	--
SORG. PARTNERS	X449	63	--	--	--	--	91	--	--	--	--	73	19	55	--	--	--	--
	AVERAGES	69	52	67	61	63	69	52	67	66	21	72	19	55	--	--	--	--
	CV (%)	7	9	7	--	--	7	9	7	--	--	2	3	3	--	--	--	--
	LSD (0.05)	7	7	7	--	--	10	13	11	--	--	2	1	3	--	--	--	--

\*Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other. Top LSD group in bold.

## SOUTHEAST KANSAS DRYLAND GRAIN SORGHUM TEST

Southeast Agricultural Research Center, Parsons; James Long, agronomist; Kelly Kusel, technician

Parsons silt loam; Soybean in 2008

118 - 46 - 30 lb/a N, P, K

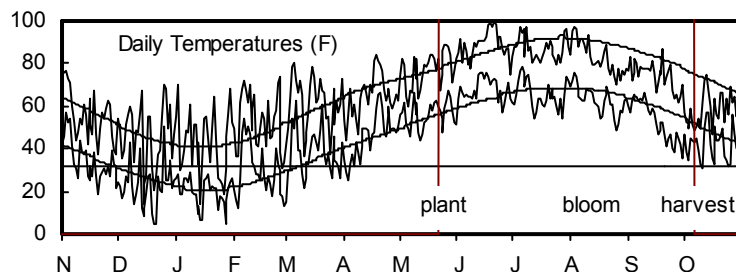
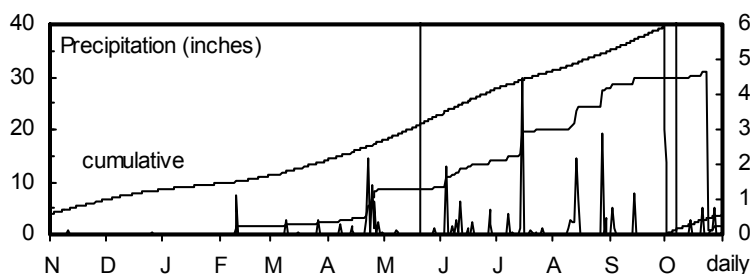
Planted on 5/22/2009; Harvested on 10/5/2009

Target stand of 45,000 plants/acre; 4.6 in. spacing

Wet conditions throughout spring and summer.

Some mouse damage to plots at emergence.

Month	Precipitation		Average Temp.		GDU	
	2009	Norm.	2009	Norm.	2009	Norm.
Nov.-Mar	2.4	10.3	40	39		
April	6.3	3.7	56	57	586	668
May	0.4	5.0	67	65	1062	952
June	5.3	4.8	78	74	1213	1178
July	5.7	3.6	76	80	1364	1385
August	7.7	3.8	73	79	1518	1345
Sept.	2.1	4.5	63	71	1146	1075
Oct.	2.1	3.6	51	60	719	772
Totals:	32.0	39.3	56	57	7,609	7,373



**Table 8. Labette County Dryland Grain Sorghum Performance Test, 2007-2009**

BRAND	NAME	YIELD AS % 2008-2009																
		ACRE YIELD, BUSHELS					OF TEST			Days Grain			Plnt Ht.	Pop. 1000 ppa	Hds. per Plnt			
		2009	2008	2007	2-Yr. AVG.	3-Yr. AVG.	2009	2008	2007	to Blm	to Moist. %	Days Blm				Days Grain	Test Wt. lb/bu	
DEKALB	DKS36-06	117	--	--	--	--	90	--	--	--	--	63	18	57	54	--	38.4	1.3
DEKALB	DKS37-07	116	117	84	117	106	89	99	91	--	16	63	18	57	52	--	38.4	1.4
MATURITY CHECK	EARLY	102	<b>136</b>	94	119	111	78	115	103	--	16	64	17	57	41	--	30.7	1.6
MATURITY CHECK	MEDIUM	110	83	59	97	84	84	70	64	--	16	64	18	57	47	--	32.8	1.2
DEKALB	DKS44-20	109	129	--	119	--	83	109	--	--	--	65	18	57	56	--	37.1	1.4
PIONEER	85G03	<b>144</b>	119	--	131	--	110	100	--	--	--	65	18	57	60	--	40.4	1.7
PIONEER	85Y40	<b>144</b>	<b>147</b>	<b>128</b>	145	140	110	124	139	--	16	66	18	57	56	--	33.5	1.4
PIONEER	84P74	121	--	--	--	--	93	--	--	--	--	67	19	56	57	--	25.3	1.5
DEKALB	DKS53-67	<b>155</b>	<b>139</b>	<b>124</b>	147	139	119	118	134	--	18	68	18	56	59	--	36.9	1.5
PIONEER	84G62	<b>150</b>	<b>140</b>	<b>120</b>	145	137	115	119	130	--	17	68	18	56	56	--	43.1	1.3
SORG. PARTNERS	NK6638	137	132	--	135	--	105	112	--	--	--	69	18	57	54	--	35.5	1.5
MATURITY CHECK	LATE	131	104	84	117	106	100	88	91	--	18	70	19	56	56	--	35.2	1.4
DEKALB	DKS54-00	<b>151</b>	136	87	143	125	115	115	95	--	18	70	18	57	62	--	37.1	1.4
DEKALB	DKS54-03	<b>142</b>	129	--	136	--	109	109	--	--	--	70	18	57	56	--	36.4	1.4
	AVERAGES	131	118	92	124	114	131	118	92	--	17	67	18	57	55	--	35.8	1.4
	CV (%)	7	7	9	--	--	7	7	9	--	--	1	3	1	3	--	15.0	10.5
	LSD (0.05)	14	13	17	--	--	10	11	18	--	--	1	1	1	3	--	7.8	0.2

\*Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

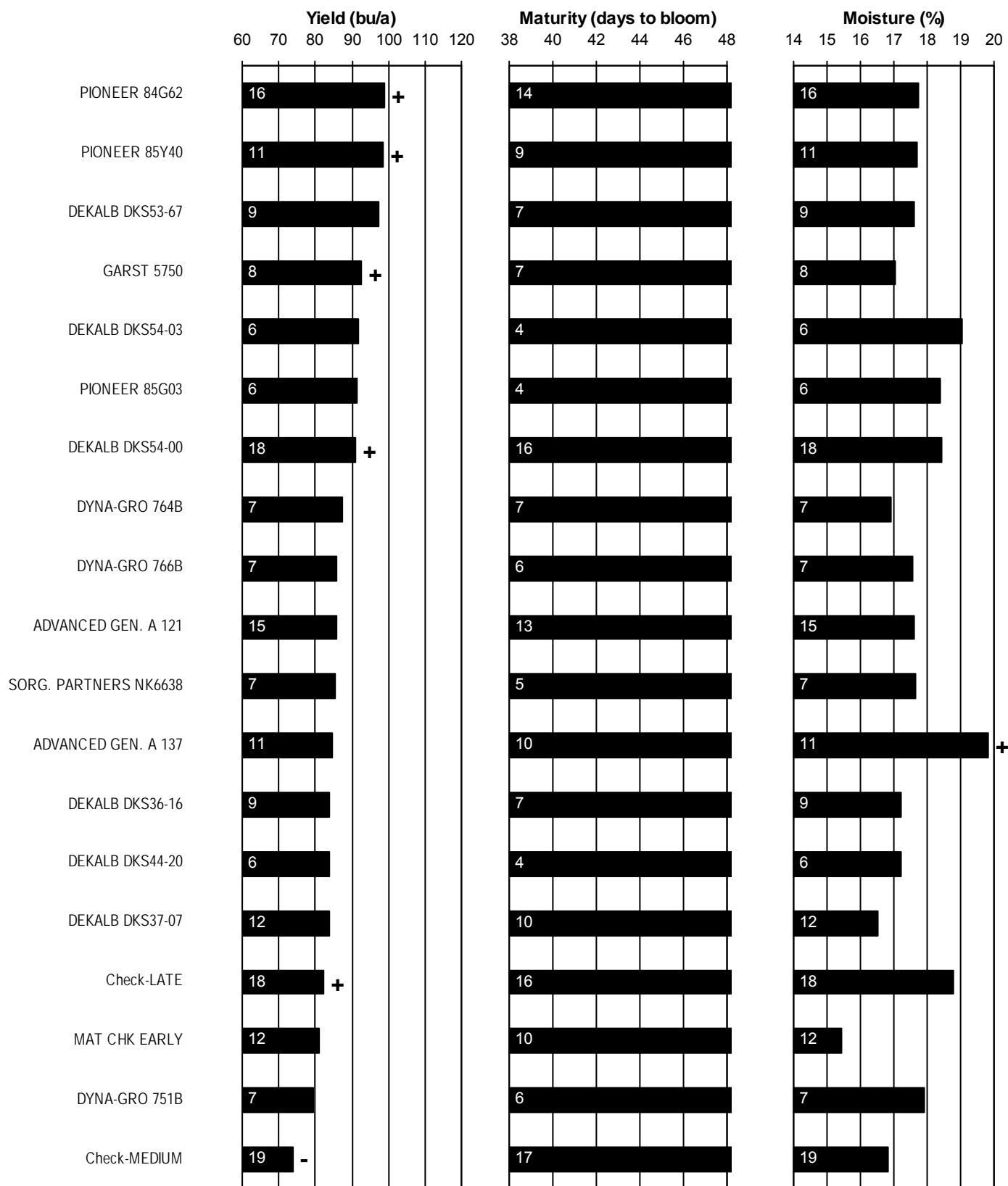
Top LSD group in bold.



**Table 9. SOUTHEAST Kansas Grain Sorghum Hybrid Yield Summary (% of test avg.), 2009**

<b>BRAND/NAME</b>	<b>FRD *</b>	<b>CHD</b>	<b>LBD</b>	<b>AVG.</b>	<b>BRAND/NAME</b>	<b>FRD</b>	<b>CHD</b>	<b>LBD</b>	<b>AVG.</b>
<b>DEKALB</b>					<b>MATURITY CHECK</b>				
DKS36-06	101	93	90	94	722B	91	88	78	86
DKS37-07	100	99	89	96	LATE	131	93	100	108
DKS44-20	92	97	83	91	MEDIUM	111	94	84	96
DKS53-67	86	94	119	100	AVERAGES (bu/a)	98	69	131	99
DKS54-00	89	106	115	103	CV (%)	6	7	7	--
DKS54-03	102	97	109	103	LSD (0.05)	8	10	10	--
<b>MIDLAND</b>									
4665	89	104	--	--					
4748	98	108	--	--					
4765	113	112	--	--					
4772	89	99	--	--					
4790	79	88	--	--					
<b>PIONEER</b>									
84G62	110	112	115	112					
84P74	105	116	93	105					
85G03	102	111	110	108					
85Y40	111	109	110	110					
<b>SORG. PARTNERS</b>									
NK6638	101	95	105	100					
SP6680	--	93	--	--					
X449	--	91	--	--					

\* FRD = Franklin Co., Ottawa      CHD = Chase Co., Strong City      LBD = Labette Co., Parsons



Values inside bars indicate the number of comparisons with checks. Symbols (+,-) indicate if statistically higher or lower than mean of checks.

**Figure 5. SOUTHEAST Kansas sorghum hybrid standardized performance summary, 2007-2009**

## CENTRAL KANSAS DRYLAND GRAIN SORGHUM TEST

Clayton Short farm, Assaria; Jane Lingenfelter, agronomist

Hord silt loam; Soybean in 2008

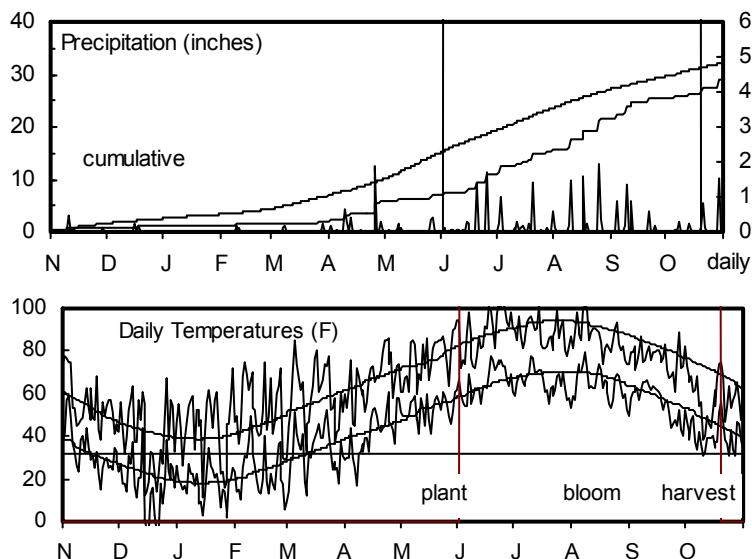
90 - 35 - 0 lb/a N, P, K

Planted on 6/2/2009; Harvested on 10/19/2009

Target stand of 50,000 plants/acre; 4.2 in. spacing

Cooler than normal but generally good growing conditions.

Month	Precipitation		Average Temp.		GDU	
	2009	Norm.	2009	Norm.	2009	Norm.
Nov.-Mar	2.0	6.9	38	37		
April	4.0	3.0	54	55	470	593
May	1.2	5.1	65	65	880	923
June	4.0	4.2	77	75	1229	1211
July	4.6	4.3	77	81	1388	1431
August	5.9	3.5	75	80	1313	1394
Sept.	4.0	2.5	67	71	992	1072
Oct.	3.4	2.6	49	58	712	727
Totals:	29.0	32.1	54	56	6,982	7,351



**Table 10. Saline County Dryland Grain Sorghum Performance Test, 2007-2009**

BRAND	NAME	YIELD AS % 2008-2009											Pop. 1000 ppa	Hds. per Pnt				
		ACRE YIELD, BUSHELS					OF TEST			Days to Blm	Grain to Moist. %	Days to Moist. %			Grain Wt. lb/bu	Plnt Ht. in.	Ldg %	
		2009	2008	2007	2-Yr. AVG.	3-Yr. AVG.	2009	2008	2007									AVERAGE
ASGROW	PULSAR	134	126	100	130	120	94	94	96	--	15	--	16	60	--	--	48.8	--
DEKALB	DKS36-06	152	--	--	--	--	107	--	--	--	--	--	17	62	--	--	52.4	--
DEKALB	DKS37-07	152	133	98	143	128	107	98	95	--	17	--	16	62	--	--	53.0	--
DEKALB	DKS44-20	<b>162</b>	<b>153</b>	--	158	--	114	114	--	--	--	--	18	61	--	--	53.7	--
DEKALB	DKS53-67	<b>168</b>	<b>153</b>	<b>121</b>	161	147	118	113	117	--	21	--	21	60	--	--	48.9	--
DEKALB	DKS54-00	151	147	109	149	136	106	109	105	--	21	--	18	60	--	--	50.8	--
DYNA-GRO	742C	124	--	--	--	--	87	--	--	--	--	--	15	60	--	--	53.4	--
DYNA-GRO	751B	159	138	111	148	136	111	102	107	--	19	--	17	60	--	--	46.5	--
DYNA-GRO	764B	151	138	101	145	130	106	103	97	--	17	--	16	60	--	--	47.5	--
DYNA-GRO	766B	149	142	--	146	--	105	105	--	--	--	--	17	61	--	--	47.3	--
DYNA-GRO	771B	156	--	--	--	--	109	--	--	--	--	--	17	60	--	--	46.2	--
DYNA-GRO	772B	145	152	--	149	--	102	113	--	--	--	--	18	61	--	--	49.2	--
DYNA-GRO	778B	156	127	--	141	--	109	94	--	--	--	--	19	60	--	--	41.7	--
MATURITY CHECK	EARLY	113	<b>143</b>	105	128	120	80	106	101	--	15	--	15	58	--	--	34.6	--
MATURITY CHECK	LATE	140	122	102	131	121	98	90	98	--	23	--	17	60	--	--	49.9	--
MATURITY CHECK	MEDIUM	134	115	86	124	112	94	85	83	--	18	--	15	60	--	--	50.2	--
PHILLIPS	672	152	--	--	--	--	106	--	--	--	--	--	17	61	--	--	42.0	--
PHILLIPS	775	154	--	--	--	--	108	--	--	--	--	--	17	60	--	--	54.6	--
PIONEER	84G62	161	<b>160</b>	<b>122</b>	160	148	113	118	118	--	21	--	21	60	--	--	49.5	--
PIONEER	84P74	<b>173</b>	--	--	--	--	121	--	--	--	--	--	21	60	--	--	47.9	--
PIONEER	85G03	157	<b>151</b>	--	154	--	110	112	--	--	--	--	18	60	--	--	47.8	--
PIONEER	85Y40	<b>171</b>	<b>156</b>	<b>128</b>	164	152	120	115	124	--	20	--	19	61	--	--	42.7	--
SORG. PARTNERS	NK6638	127	124	107	125	119	89	92	103	--	17	--	17	60	--	--	52.0	--
SORG. PARTNERS	SP6680	128	--	--	--	--	90	--	--	--	--	--	23	60	--	--	51.0	--
SORG. PARTNERS	X449	152	--	--	--	--	106	--	--	--	--	--	20	61	--	--	44.4	--
TRIUMPH	TR 452	142	130	--	136	--	100	96	--	--	--	--	16	60	--	--	51.1	--
TRIUMPH	TR 458	135	115	100	125	117	95	85	97	--	21	--	18	59	--	--	48.4	--
TRIUMPH	TR 460	134	120	--	127	--	94	89	--	--	--	--	18	61	--	--	45.0	--
TRIUMPH	TR 481	138	--	--	--	--	96	--	--	--	--	--	19	61	--	--	37.5	--
TRIUMPH	TRX82629	133	--	--	--	--	93	--	--	--	--	--	15	62	--	--	54.0	--
TRIUMPH	TRX84732	133	--	--	--	--	93	--	--	--	--	--	20	59	--	--	37.9	--
TRIUMPH	TRX85001	95	--	--	--	--	67	--	--	--	--	--	24	59	--	--	49.2	--
TRIUMPH	TRX85002	139	--	--	--	--	98	--	--	--	--	--	23	59	--	--	50.7	--
TRIUMPH	TRX85131	133	--	--	--	--	93	--	--	--	--	--	21	59	--	--	42.5	--
TRIUMPH	TRX92016	116	--	--	--	--	81	--	--	--	--	--	14	60	--	--	38.9	--

**Table 10 continued. Saline County Dryland Grain Sorghum Performance Test, 2007-2009**

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS %			2008-2009								
		2-Yr.		3-Yr.		AVG.	OF TEST			Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Pop. 1000 ppa	Hds. per Plnt
		2009	2008	2007	AVG.		2009	2008	2007									
		2009	2008	2007	AVG.	2009	2008	2007	Blm	%	Blm	%	lb/bu	in.	%	ppa	Plnt	
TRIUMPH	TRX95003	142	--	--	--	--	99	--	--	--	--	--	17	60	--	--	51.8	--
TRIUMPH	TRX95004	108	--	--	--	--	76	--	--	--	--	--	18	60	--	--	51.0	--
TRIUMPH	TRX95005	153	--	--	--	--	108	--	--	--	--	--	18	60	--	--	46.0	--
	AVERAGES	143	135	104	139	127	143	135	104	--	19	--	18	60	--	--	47.6	--
	CV (%)	6	5	7	--	--	6	5	7	--	--	--	4	1	--	--	6.0	--
	LSD (0.05)	11	9	11	--	--	8	7	10	--	--	--	1	1	--	--	3.7	--

\*Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.  
Top LSD group in bold.

## CENTRAL KANSAS NO-TILL DRYLAND GRAIN SORGHUM TEST

Harvey County Experiment Field, Hesston; Mark Claassen, agronomist; Lowell Stucky, technician

Smolan silty clay loam; Soybean in 2008

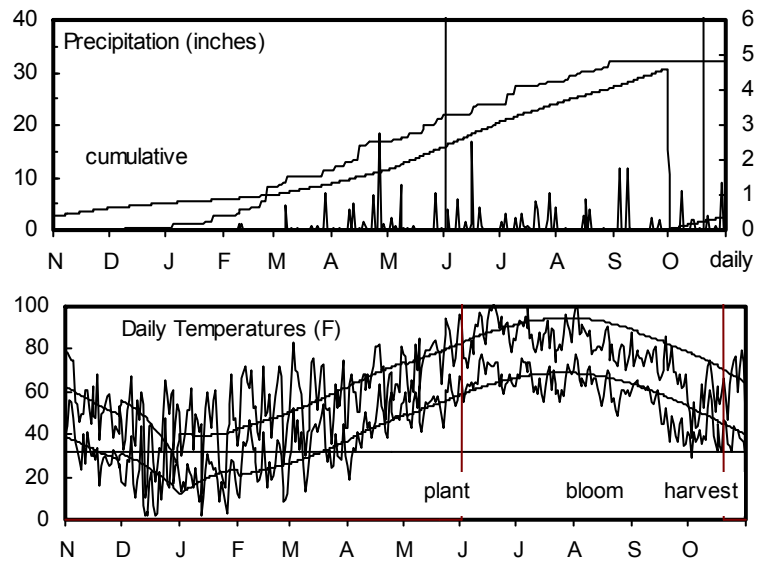
127 - 37 - 0 lb/a N, P, K

Planted on 6/2/2009; Harvested on 10/19/2009

Target stand of 37,000 plants/acre; 5.7 in. spacing

Favorable rainfall and below normal temperatures characterized the growing season. Drought stress was minimal.

Month	Precipitation		Average Temp.		GDU	
	2009	Norm.	2009	Norm.	2009	Norm.
Nov.-Mar	2.6	6.2	38	37		
April	5.8	2.6	54	56	528	631
May	3.1	4.4	66	65	897	952
June	5.3	4.7	77	75	1200	1216
July	5.3	3.7	76	81	1397	1431
August	2.0	3.1	73	80	1159	1381
Sept.	4.3	3.6	62	71	952	1079
Oct.	3.9	2.5	49	59	610	765
Totals:	32.2	30.6	54	56	6,743	7,455



**Table 11. Harvey County No-Till Dryland Grain Sorghum Performance Test, 2007-2009**

BRAND	NAME	YIELD AS % 2008-2009																
		ACRE YIELD, BUSHELS					OF TEST			AVERAGE								
		2009	2008	2007	2-Yr. AVG.	3-Yr. AVG.	2009	2008	2007	Days Blm	Grain to Moist. %	Days Blm	Grain to Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Pop. 1000 ppa	Hds. per Plnt
MATURITY CHECK	EARLY	84	<b>122</b>	109	103	105	66	104	97	56	13	62	16	56	--	--	46.2	--
ASGROW	PULSAR	103	110	<b>116</b>	106	110	81	94	103	57	14	64	16	59	--	--	45.0	--
DEKALB	DKS36-06	139	--	--	--	--	109	--	--	--	--	64	18	59	--	--	45.9	--
DYNA-GRO	742C	114	--	--	--	--	89	--	--	--	--	65	15	58	--	--	46.5	--
PIONEER	85G03	<b>143</b>	130	--	137	--	112	111	--	--	--	65	18	60	--	--	44.4	--
SORG. PARTNERS	NK5418	102	--	--	--	--	80	--	--	--	--	65	16	59	--	--	39.3	--
DEKALB	DKS44-20	133	--	--	--	--	104	--	--	--	--	65	18	60	--	--	45.2	--
DEKALB	DKS37-07	119	118	112	119	116	94	101	100	58	14	66	17	60	--	--	50.4	--
MATURITY CHECK	MEDIUM	116	<b>99</b>	107	107	107	91	85	95	59	14	66	16	59	--	--	44.3	--
OHLDE	O-587	138	117	107	128	121	108	100	95	63	15	66	16	60	--	--	41.1	--
DYNA-GRO	751B	119	<b>127</b>	113	123	120	94	109	101	62	14	67	18	59	--	--	44.0	--
DYNA-GRO	764B	129	117	108	123	118	101	100	96	57	14	67	17	58	--	--	43.7	--
DYNA-GRO	766B	<b>142</b>	119	--	131	--	111	102	--	--	--	67	18	58	--	--	43.9	--
MIDLAND	4748	138	118	<b>124</b>	128	127	108	101	110	59	14	67	17	59	--	--	40.1	--
MIDLAND	4765	126	--	--	--	--	99	--	--	--	--	67	19	59	--	--	43.6	--
PIONEER	85Y40	<b>155</b>	<b>144</b>	<b>124</b>	150	141	122	123	110	60	14	67	18	60	--	--	46.2	--
SORG. PARTNERS	X449	128	--	--	--	--	100	--	--	--	--	67	18	59	--	--	46.0	--
OHLDE	O-567	128	109	101	118	113	100	93	90	62	14	67	18	59	--	--	47.8	--
PIONEER	84G62	<b>143</b>	<b>140</b>	<b>125</b>	141	136	112	120	111	61	14	67	19	59	--	--	45.9	--
PIONEER	84P74	<b>144</b>	--	--	--	--	113	--	--	--	--	67	22	59	--	--	38.8	--
DYNA-GRO	771B	130	--	--	--	--	102	--	--	--	--	68	19	58	--	--	41.1	--
DYNA-GRO	772B	133	127	--	130	--	104	109	--	--	--	68	18	58	--	--	44.0	--
MIDLAND	4665	120	--	--	--	--	94	--	--	--	--	68	18	58	--	--	25.1	--
MATURITY CHECK	LATE	116	117	<b>117</b>	116	117	91	100	104	62	14	68	18	56	--	--	37.2	--
MIDLAND	4772	137	129	<b>131</b>	133	132	107	111	116	60	14	69	18	58	--	--	43.6	--
SORG. PARTNERS	NK7655	114	--	--	--	--	89	--	--	--	--	69	16	57	--	--	38.5	--
DEKALB	DKS53-67	132	132	106	132	123	104	113	94	61	15	69	22	59	--	--	45.3	--
DEKALB	DKS54-00	128	128	108	128	121	101	109	96	62	14	70	18	57	--	--	42.4	--
DYNA-GRO	778B	141	71	--	106	--	110	61	--	--	--	70	20	58	--	--	36.9	--
MIDLAND	4790	137	--	--	--	--	107	--	--	--	--	70	20	59	--	--	38.8	--
AVERAGES		128	117	113	122	119	128	117	113	60	14	67	18	59	--	--	42.7	--
CV (%)		6	6	8	--	--	6	6	8	--	--	1	5	1	--	--	5.0	--
LSD (0.05)		13	9	15	--	--	10	8	13	--	--	1	1	1	--	--	3.8	--

\*Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

Top LSD group in bold.

## CENTRAL KANSAS NO-TILL DRYLAND GRAIN SORGHUM TEST

South Central Kansas Experiment Field, Hutchinson; William Heer, agronomist

Ost loam; Soybean in 2008

120 - 40 - 0 lb/a N, P, K

Planted on 5/21/2009; Harvested on 10/20/2009

Target stand of 40,000 plants/acre; 5.2 in. spacing

Growing conditions were generally favorable for most of the season, resulting in fairly good yields.

Month	Precipitation		Average Temp.		GDU	
	2009	Norm.	2009	Norm.	2009	Norm.
Nov.-Mar	0.5	4.4	39	37		
April	5.1	2.6	54	55	509	617
May	3.2	3.8	66	65	892	927
June	3.9	4.3	78	75	1213	1196
July	3.0	3.5	77	81	1355	1416
August	3.2	3.1	73	79	1272	1361
Sept.	5.4	3.3	63	70	924	1053
Oct.	2.8	2.4	49	58	666	732
Totals:	27.1	27.3	54	56	6,831	7,302

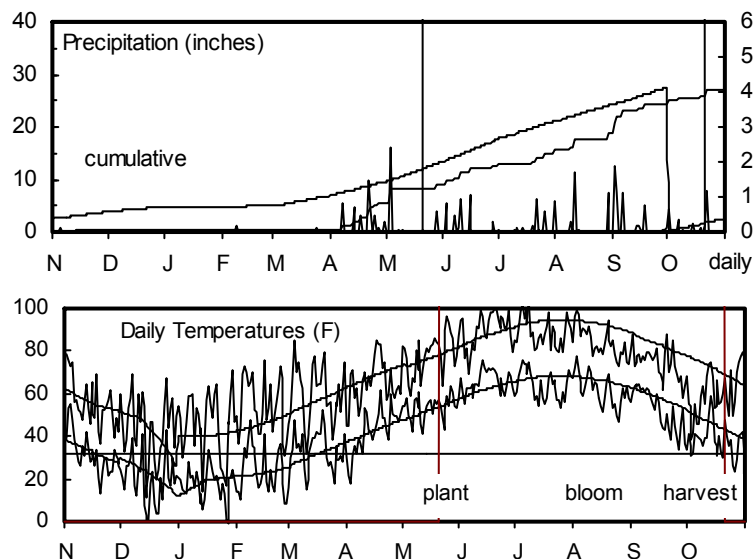


Table 12. Reno County Dryland Grain Sorghum Performance Test, 2007-2009

BRAND	NAME	YIELD AS % 2008-2009																
		ACRE YIELD, BUSHELS					OF TEST			Days Grain Test			Plnt Ht.	Ldg %	Pop. 1000 ppa	Hds. per Pint		
		2009	2008	2007	2-Yr. AVG.	3-Yr. AVG.	2009	2008	2007	Days Blm	Grain to Moist. %	Days Blm					Grain to Moist. %	Test Wt. lb/bu
DEKALB	DKS37-07	111	108	43	110	87	107	96	118	62	14	61	15	59	--	--	43.9	--
MATURITY CHECK	EARLY	69	116	32	92	72	66	103	88	62	13	61	15	56	--	--	36.7	--
MIDLAND	4748	90	106	32	98	76	87	94	87	62	14	61	14	59	--	--	45.2	--
MIDLAND	4765	98	--	--	--	--	93	--	--	--	--	61	15	59	--	--	45.4	--
ASGROW	PULSAR	104	94	35	99	78	99	83	98	61	14	62	15	58	--	--	44.1	--
DEKALB	DKS36-06	79	--	--	--	--	75	--	--	--	--	62	15	59	--	--	47.3	--
DEKALB	DKS44-20	110	127	--	118	--	105	113	--	--	--	62	16	59	--	--	40.1	--
PIONEER	85G03	121	<b>138</b>	--	130	--	116	122	--	--	--	62	16	59	--	--	43.9	--
SORG. PARTNERS	X449	110	--	--	--	--	105	--	--	--	--	62	15	60	--	--	39.3	--
TRIUMPH	TR438	94	--	--	--	--	90	--	--	--	--	62	14	59	--	--	35.6	--
TRIUMPH	TRX82629	101	--	--	--	--	96	--	--	--	--	62	14	59	--	--	40.4	--
DEKALB	DKS53-67	<b>122</b>	<b>148</b>	<b>56</b>	135	109	117	131	156	64	15	63	15	60	--	--	46.0	--
MATURITY CHECK	LATE	114	<b>108</b>	34	111	85	109	96	94	64	14	63	14	58	--	--	43.3	--
MATURITY CHECK	MEDIUM	96	<b>86</b>	38	91	73	92	77	104	63	13	63	14	58	--	--	32.8	--
MIDLAND	4665	81	--	--	--	--	78	--	--	--	--	63	15	58	--	--	26.6	--
OHLDE	O-567	99	125	47	112	90	95	111	129	63	13	63	14	58	--	--	34.3	--
OHLDE	O-587	99	<b>124</b>	42	112	88	95	110	116	64	14	63	15	59	--	--	37.9	--
PIONEER	84G62	<b>127</b>	123	35	125	95	121	109	97	64	14	63	15	60	--	--	45.6	--
PIONEER	85Y40	<b>134</b>	<b>146</b>	39	140	106	128	130	108	--	--	63	15	58	--	--	45.3	--
SORG. PARTNERS	NK6638	111	117	--	114	--	106	104	--	--	--	63	14	58	--	--	39.6	--
TRIUMPH	TRX83774	65	--	--	--	--	62	--	--	--	--	63	14	58	--	--	46.2	--
TRIUMPH	TRX95003	112	--	--	--	--	107	--	--	--	--	63	15	60	--	--	39.2	--
DEKALB	DKS54-00	<b>126</b>	<b>140</b>	42	133	103	120	124	116	64	15	64	15	59	--	--	49.1	--
MIDLAND	4772	<b>126</b>	115	43	120	95	120	103	119	64	14	64	15	59	--	--	45.0	--
PIONEER	84P74	<b>123</b>	--	--	--	--	118	--	--	--	--	64	16	60	--	--	38.3	--
MIDLAND	4790	<b>125</b>	--	--	--	--	119	--	--	--	--	65	15	60	--	--	41.5	--
SORG. PARTNERS	SP6680	102	--	--	--	--	98	--	--	--	--	66	16	59	--	--	39.9	--
TRIUMPH	TR481	76	--	--	--	--	72	--	--	--	--	66	15	59	--	--	26.3	--
TRIUMPH	TRX85002	109	--	--	--	--	104	--	--	--	--	67	16	59	--	--	37.5	--
	AVERAGES	105	113	36	--	--	105	113	36	63	14	63	15	59	--	--	40.6	--
	CV (%)	9	8	19	--	--	9	8	19	--	--	3	3	1	--	--	7.0	--
	LSD (0.05)	13	13	9	--	--	12	11	26	--	--	2	1	1	--	--	3.9	--

\*Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other. Top LSD group in bold.



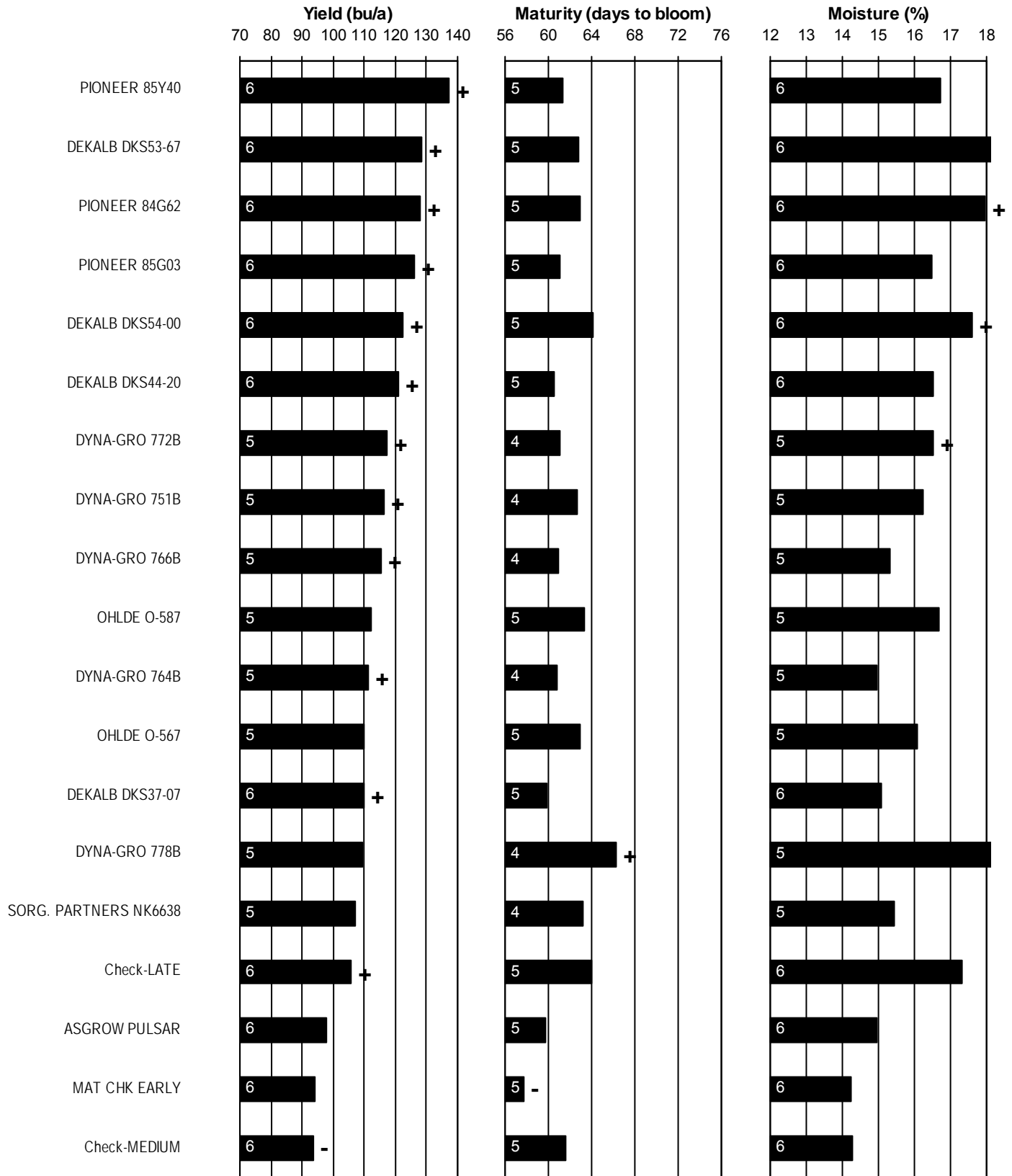
**Table 13. CENTRAL Kansas Sorghum Hybrid Yield Summary (% of test avg.), 2009**

BRAND/NAME	SAD*	HVD	RND	AVG.	BRAND/NAME	SAD	HVD	RND	AVG.
<b>ASGROW</b>					<b>TRIUMPH</b>				
PULSAR	94	81	99	91	TR 438	--	--	90	--
<b>DEKALB</b>					TR 452	100	--	--	--
DKS36-06	107	109	75	97	TR 458	95	--	--	--
DKS37-07	107	94	107	102	TR 460	94	--	--	--
DKS44-20	114	104	105	108	TR 481	96	--	72	--
DKS53-67	118	104	117	113	TRX82629	93	--	96	--
DKS54-00	106	101	120	109	TRX83774	--	--	62	--
<b>DYNA-GRO</b>					TRX84732	93	--	--	--
742C	87	89	--	--	TRX85001	67	--	--	--
751B	111	94	--	--	TRX85002	98	--	104	--
764B	106	101	--	--	TRX85131	93	--	--	--
766B	105	111	--	--	TRX92016	81	--	--	--
771B	109	102	--	--	TRX95003	99	--	107	--
772B	102	104	--	--	TRX95004	76	--	--	--
778B	109	110	--	--	TRX95005	108	--	--	--
<b>MIDLAND</b>					<b>MATURITY CHECK</b>				
4665	--	94	78	--	EARLY	80	66	66	70
4748	--	108	87	--	LATE	98	91	109	99
4765	--	99	93	--	MEDIUM	94	91	92	92
4772	--	107	120	--	AVERAGES (bu/a)	143	128	105	125
4790	--	107	119	--	CV (%)	6	6	9	--
<b>OHLDE</b>					LSD (0.05)	8	10	12	--
O-567	--	100	95	--					
O-587	--	108	95	--					
<b>PHILLIPS</b>									
672	106	--	--	--					
775	108	--	--	--					
<b>PIONEER</b>									
84G62	113	112	121	115					
84P74	121	113	118	117					
85G03	110	112	116	113					
85Y40	120	122	128	123					
<b>SORG. PARTNERS</b>									
NK5418	--	80	--	--					
NK6638	89	--	106	--					
NK7655	--	89	--	--					
SP6680	90	--	98	--					
X449	106	100	105	104					

\* SAD = Saline Co., Assaria

HVD = Harvey Co., Hesston

RND = Reno Co., Hutchinson



Values inside bars indicate the number of comparisons with checks. Symbols (+,-) indicate if statistically higher or lower than mean of checks.

**Figure 6. CENTRAL Kansas sorghum hybrid standardized performance summary, 2007-2009**

## WEST KANSAS FALLOW GRAIN SORGHUM TEST

Agricultural Research Center, Hays; Wayne Aschwege, technician

Harney silt loam; Fallow in 2008

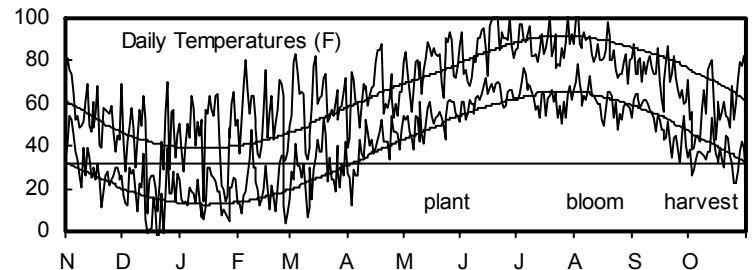
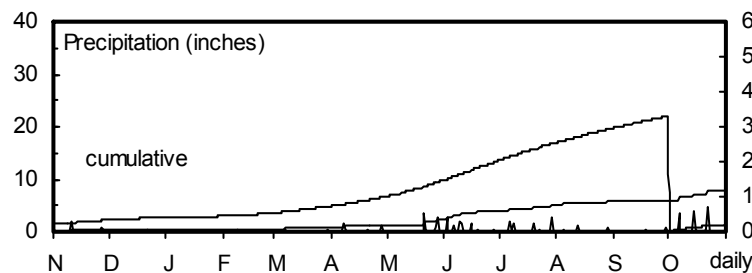
80 - 0 - 0 lb/a N, P, K

Planted on 5/21/2009; Harvested on 12/3/2009

Target stand of 35,000 plants/acre; 6.0 in. spacing

The test did not receive the increased rainfall enjoyed by most of the state.

Month	Precipitation		Average Temp.		GDU	
	2009	Norm.	2009	Norm.	2009	Norm.
Nov.-Mar	0.7	3.5	37	33		
April	0.5	1.8	52	50	466	478
May	1.1	3.1	66	61	827	833
June	1.6	3.8	75	71	1181	1109
July	1.4	3.4	75	78	1342	1344
August	0.4	2.8	73	76	1203	1286
Sept.	0.2	2.3	62	68	902	984
Oct.	2.0	1.3	47	55	620	625
Totals:	7.9	21.9	53	52	6,542	6,659



**Table 14. Ellis County Fallow Grain Sorghum Performance Test, 2007-2009**

BRAND	NAME	YIELD AS % 2008-2009																		
		ACRE YIELD, BUSHELS					OF TEST			Days Grain		Days Grain		Test		Plnt		Pop.		Hds.
		2009	2008	2007	2-Yr. AVG.	3-Yr. AVG.	AVERAGE			to	Moist.	to	Moist.	Wt.	Ht.	Ldg	1000	per		
							2009	2008	2007	Blm	%	Blm	%	lb/bu	in.	%	ppa	Plnt		
DEKALB	DKS28-05	129	--	--	--	--	94	--	--	--	--	62	8	55	41	--	36.5	1.6		
PIONEER	86G32	127	115	--	121	--	93	97	--	--	--	66	13	56	47	--	38.9	1.5		
DEKALB	DKS29-28	114	90	85	102	96	83	76	80	53	9	66	11	55	37	--	35.6	1.4		
PRODUCERS	PH246W	131	--	--	--	--	95	--	--	--	--	68	12	57	46	--	34.8	1.3		
SORG. PARTNERS	SP3303	91	--	--	--	--	66	--	--	--	--	68	12	56	39	--	22.7	1.5		
DEKALB	DKS37-07	136	111	<b>118</b>	124	122	99	94	112	59	12	68	15	58	47	--	30.5	1.5		
MATURITY CHECK	EARLY	121	116	106	119	114	88	97	100	56	11	68	12	54	39	--	39.8	1.4		
DEKALB	DKS36-06	<b>143</b>	--	--	--	--	104	--	--	--	--	69	15	58	48	--	36.0	1.5		
DYNA-GRO	722B	114	125	--	120	--	83	106	--	--	--	69	11	54	37	--	34.5	1.5		
OHLDE	O-525	141	124	106	133	124	103	104	100	61	11	70	13	58	46	--	31.5	1.5		
ASGROW	PULSAR	125	103	105	114	111	91	87	99	56	11	70	13	58	42	--	37.2	1.4		
DYNA-GRO	766B	130	126	112	128	123	95	106	106	61	12	70	14	58	45	--	29.5	1.5		
OHLDE	O-530	<b>142</b>	112	95	127	116	103	94	90	62	11	71	13	59	43	--	40.5	1.2		
SORG. PARTNERS	NK5418	<b>141</b>	--	--	--	--	103	--	--	--	--	71	12	57	41	--	32.3	1.7		
MATURITY CHECK	MEDIUM	126	112	95	119	111	92	94	90	63	11	72	15	57	42	--	33.1	1.3		
PHILLIPS	670	123	--	--	--	--	89	--	--	--	--	72	12	57	44	--	37.2	1.3		
CHANNEL	6B10	<b>160</b>	--	--	--	--	116	--	--	--	--	72	14	59	43	--	41.5	1.2		
DYNA-GRO	742C	<b>146</b>	--	--	--	--	106	--	--	--	--	72	13	57	42	--	39.0	1.3		
PHILLIPS	672	128	--	--	--	--	93	--	--	--	--	72	13	58	44	--	38.7	1.2		
PIONEER	85Y40	<b>148</b>	<b>150</b>	<b>121</b>	149	140	107	126	115	63	12	72	14	59	46	--	36.7	1.4		
DEKALB	DKS44-20	<b>156</b>	123	--	140	--	113	104	--	--	--	73	14	61	48	--	40.9	1.3		
DYNA-GRO	764B	<b>149</b>	118	--	134	--	108	99	--	--	--	73	14	57	43	--	32.1	1.7		
TRIUMPH	TRX95003	<b>143</b>	--	--	--	--	104	--	--	--	--	73	15	58	50	--	41.2	1.2		
OHLDE	O-567	<b>157</b>	<b>136</b>	106	147	133	114	115	100	63	11	74	14	59	45	--	32.9	1.4		
DYNA-GRO	772B	<b>150</b>	125	--	138	--	109	106	--	--	--	74	14	58	49	--	31.2	1.6		
PHILLIPS	775	136	--	--	--	--	98	--	--	--	--	74	15	58	48	--	31.4	1.4		
PIONEER	85G03	<b>156</b>	--	--	--	--	113	--	--	--	--	74	17	58	47	--	40.6	1.3		
OHLDE	O-587	136	--	--	--	--	99	--	--	--	--	75	14	57	48	--	32.1	1.4		
PRODUCERS	PH256	138	--	--	--	--	100	--	--	--	--	75	14	56	46	--	27.7	1.8		
DYNA-GRO	771B	<b>159</b>	--	--	--	--	115	--	--	--	--	75	14	58	47	--	34.5	1.5		
OHLDE	O-575	<b>143</b>	<b>133</b>	109	138	128	104	112	103	66	12	75	14	58	46	--	36.5	1.2		
CHANNEL	7B11	143	--	--	--	--	104	--	--	--	--	76	15	61	48	--	37.2	1.3		
PRODUCERS	PH266	<b>152</b>	--	--	--	--	110	--	--	--	--	76	14	56	43	--	33.8	1.4		
MATURITY CHECK	LATE	125	122	101	124	116	91	102	95	--	--	77	14	56	42	--	30.9	1.4		
SORG. PARTNERS	SP6680	<b>142</b>	--	--	--	--	103	--	--	--	--	80	16	58	45	--	33.3	1.4		

**Table 14 continued. Ellis County Fallow Grain Sorghum Performance Test, 2007-2009**

BRAND	NAME	ACRE YIELD, BUSHEL					YIELD AS %			2008-2009								
		2-Yr.		3-Yr.		AVG.	OF TEST			Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Pop. 1000 ppa	Hds. per Plnt
		2009	2008	2007	AVG.		2009	2008	2007									
TRIUMPH	TRX85002	<b>157</b>	--	--	--	--	114	--	--	--	--	82	16	59	46	--	38.1	1.3
	AVERAGES	138	119	106	93	97	138	119	106	62	11	72	14	57	44	--	35.0	1.4
	CV (%)	10	10	8	--	--	10	10	8	--	--	3	8	2	5	--	19.0	15.1
	LSD (0.05)	19	17	12	--	--	14	15	11	--	--	3	1	2	3	--	9.5	0.3

\*Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.  
Top LSD group in bold.

## WEST KANSAS FALLOW GRAIN SORGHUM TEST

Northwest Research-Extension Center, Colby; Patrick Evans, agronomist

Keith silt loam; Fallow in 2008

40 - 25 - 0 lb/a N, P, K

Planted on 6/1/2009; Harvested on 11/6/2009

Target stand of 25,000 plants/acre; 8.4 in. spacing

Cooler than normal temperatures throughout the growing season delayed maturity of the hybrids.

Month	Precipitation		Average Temp.		GDU	
	2009	Norm.	2009	Norm.	2009	Norm.
Nov.-Mar	0.7	2.4	36	32		
April	3.8	1.4	49	49	422	421
May	4.6	2.9	62	59	738	762
June	3.4	3.4	71	70	1043	1054
July	2.2	3.1	74	76	1294	1285
August	2.7	2.1	71	74	1146	1216
Sept.	1.5	1.6	60	66	865	910
Oct.	2.1	0.4	44	53	555	556
Totals:	21.1	17.4	51	51	6,063	6,204

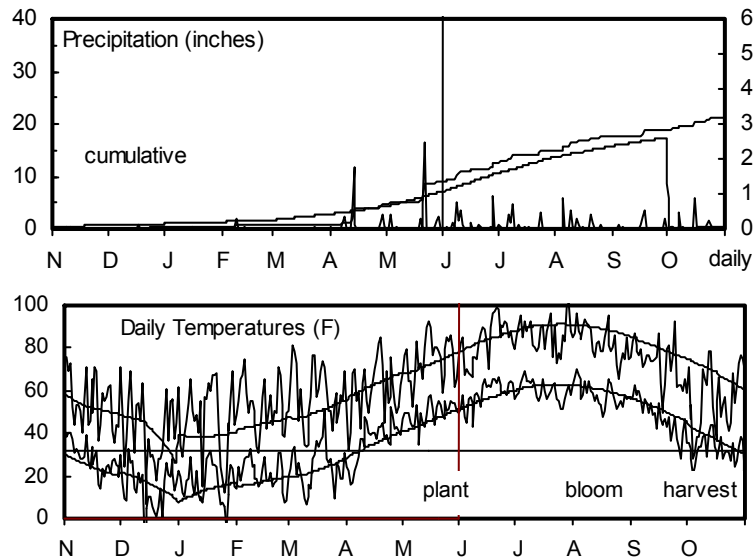


Table 15. Thomas County Fallow Grain Sorghum Performance Test, 2007-2009

BRAND	NAME	YIELD AS % 2008-2009																			
		ACRE YIELD, BUSHELS					OF TEST			Days Grain		Days Grain		Test		Plnt		Pop.		Hds.	
		2009	2008	2007	2-Yr. AVG.	3-Yr. AVG.	2009	2008	2007	AVERAGE	Blm	to Moist. %	Blm	to Moist. %	lb/bu	Ht. in.	Ldg %	1000 ppa	per	Plnt	
DEKALB	DKS29-28	122	--	--	--	--	96	--	--	--	--	65	9	59	39	--	44.5	1.1			
DEKALB	DKS28-05	<b>143</b>	--	--	--	--	113	--	--	--	--	65	9	57	44	--	46.3	1.3			
MATURITY CHECK	EARLY	103	141	89	122	111	81	100	93	68	9	67	10	58	39	--	31.1	1.3			
PIONEER	86G32	127	141	--	134	--	100	100	--	--	--	67	10	59	46	--	44.9	1.2			
ASGROW	PULSAR	<b>136</b>	135	87	135	119	107	96	90	69	9	68	10	58	43	--	43.2	1.3			
SORG. PARTNERS	SP3303	95	--	--	--	--	75	--	--	--	--	69	9	59	42	--	17.8	1.6			
DEKALB	DKS37-07	<b>137</b>	156	92	146	128	107	111	96	74	10	69	10	59	45	--	36.5	1.3			
CHANNEL	6B10	<b>147</b>	--	--	--	--	116	--	--	--	--	70	10	57	43	--	40.0	1.1			
DEKALB	DKS36-06	<b>135</b>	--	--	--	--	106	--	--	--	--	70	10	58	46	--	29.8	1.5			
SORG. PARTNERS	X444	123	--	--	--	--	97	--	--	--	--	70	9	58	41	--	30.1	1.5			
SORG. PARTNERS	KS 310	127	--	--	--	--	100	--	--	--	--	70	9	59	42	--	35.4	1.1			
DEKALB	DKS44-20	131	145	--	138	--	104	103	--	--	--	70	12	60	45	--	32.2	1.2			
PRODUCERS	PH246W	114	--	--	--	--	89	--	--	--	--	71	9	59	46	--	35.6	1.0			
MATURITY CHECK	MEDIUM	127	145	90	136	121	100	103	94	73	12	73	10	58	44	--	32.5	1.1			
CHANNEL	7B11	<b>135</b>	--	--	--	--	106	--	--	--	--	73	12	59	48	--	36.0	1.2			
PRODUCERS	PH256	126	--	--	--	--	99	--	--	--	--	73	10	59	46	--	29.4	1.6			
PIONEER	85Y40	<b>135</b>	140	<b>119</b>	138	131	106	99	124	78	13	74	11	60	45	--	41.3	1.2			
PIONEER	85G03	131	--	--	--	--	103	--	--	--	--	74	12	57	47	--	46.2	1.1			
PRODUCERS	PH266	119	--	--	--	--	94	--	--	--	--	76	8	53	47	--	36.6	1.1			
MATURITY CHECK	LATE	126	136	<b>120</b>	131	127	100	96	126	76	13	79	8	52	48	--	42.6	1.0			
	AVERAGES	127	141	96	134	121	127	141	96	75	12	70	10	58	44	--	36.6	1.2			
	CV (%)	7	11	9	--	--	7	11	9	--	--	1	8	1	2	--	16.0	13.9			
	LSD (0.05)	13	21	12	--	--	10	15	12	--	--	1	1	1	2	--	8.3	0.2			

\*Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.  
Top LSD group in bold.

## WEST KANSAS FALLOW GRAIN SORGHUM TEST

Southwest Research-Extension Center, Tribune; Alan Schlegel, agronomist; Lucas Haag; technician

Richfield silt loam; Fallow in 2008

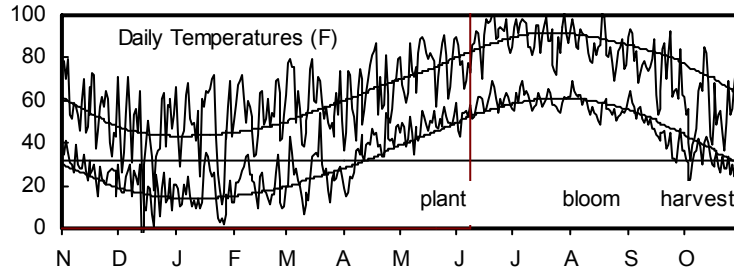
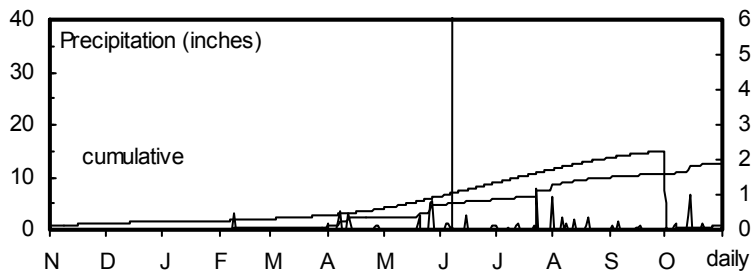
90 - 20 - 0 lb/a N, P, K

Planted on 6/8/2009; Harvested on 11/24/2009

Target stand of 25,000 plants/acre; 8.4 in. spacing

Hail on July 8 and August 26. Received good rainfall later in the season but did not get the heat units needed to finish strong.

Month	Precipitation		Average Temp.		GDU	
	2009	Norm.	2009	Norm.	2009	Norm.
Nov.-Mar	0.7	2.1	37	34		
April	1.8	1.3	50	49	456	430
May	2.2	2.3	63	59	788	772
June	1.2	2.5	72	70	1103	1063
July	2.7	2.6	75	76	1326	1287
August	1.4	2.3	71	74	1145	1209
Sept.	0.5	1.3	60	66	848	934
Oct.	2.1	0.7	45	53	580	588
Totals:	12.5	15.0	52	52	6,246	6,283



**Table 16. Greeley County Dryland Grain Sorghum Performance Test, 2007-2009**

BRAND	NAME	YIELD AS % 2008-2009																		
		ACRE YIELD, BUSHELS					OF TEST			Days Grain		Days Grain		Test		Plnt		Pop.		Hds.
		2009	2008	2007	2-Yr. AVG.	3-Yr. AVG.	AVERAGE			Blm	to Moist.	Blm	to Moist.	Wt.	Ht.	Ldg	1000	per	Plnt	
							2009	2008	2007		%		%	lb/bu	in.	%	ppa			
DEKALB	DKS28-05	<b>87</b>	--	--	--	--	119	--	--	--	--	66	16	53	48	54	29.0	1.6		
SORG. PARTNERS	SP3303	55	--	--	--	--	75	--	--	--	--	66	16	54	43	1	21.2	1.6		
DEKALB	DKS29-28	79	--	--	--	--	108	--	--	--	--	67	16	55	41	2	26.6	1.8		
PIONEER	86G32	81	66	--	74	--	111	85	--	--	--	67	18	53	50	97	27.1	1.8		
ASGROW	PULSAR	81	86	89	83	85	111	111	101	60	13	67	17	53	48	28	27.3	1.8		
DEKALB	DKS36-06	<b>91</b>	--	--	--	--	125	--	--	--	--	68	17	53	55	46	29.5	1.6		
MATURITY CHECK	EARLY	79	69	83	74	77	108	88	94	66	13	68	16	52	41	9	25.9	1.9		
DEKALB	DKS37-07	80	98	103	89	94	110	125	116	72	13	69	17	53	50	32	28.7	1.6		
TRIUMPH	TRX92016	71	--	--	--	--	97	--	--	--	--	69	16	55	44	1	22.4	1.6		
PRODUCERS	PH246W	80	--	--	--	--	110	--	--	--	--	69	16	55	50	3	27.4	1.4		
DRUSSEL SEED	DSS B64	<b>85</b>	<b>96</b>	54	90	78	116	124	61	69	13	70	17	49	47	27	23.4	2.0		
CHANNEL	6B10	81	--	--	--	--	111	--	--	--	--	71	16	50	49	18	26.6	1.6		
DEKALB	DKS44-20	74	<b>102</b>	--	88	--	101	131	--	--	--	71	16	53	50	38	27.8	1.5		
SORG. PARTNERS	NK5418	<b>87</b>	--	--	--	--	119	--	--	--	--	71	17	52	46	10	25.3	2.1		
DRUSSEL SEED	DSS B6506	81	86	82	84	83	111	111	93	72	13	71	17	52	50	45	23.3	1.7		
PHILLIPS	672	81	--	--	--	--	111	--	--	--	--	71	17	52	52	23	26.8	1.5		
PRODUCERS	PH256	80	--	--	--	--	109	--	--	--	--	71	18	52	53	43	24.6	1.9		
TRIUMPH	TRX82629	74	--	--	--	--	101	--	--	--	--	72	17	51	45	2	26.8	1.5		
OHLDE	O-530	76	--	--	--	--	104	--	--	--	--	72	16	53	47	1	29.4	1.3		
SORG. PARTNERS	X444	72	--	--	--	--	99	--	--	--	--	72	17	50	42	3	22.8	2.0		
OHLDE	O-525	<b>85</b>	--	--	--	--	116	--	--	--	--	72	16	52	49	2	29.8	1.4		
PHILLIPS	775	69	--	--	--	--	94	--	--	--	--	74	18	50	52	12	27.7	1.3		
CHANNEL	7B11	66	--	--	--	--	90	--	--	--	--	74	19	50	56	44	26.9	1.5		
TRIUMPH	TRX84732	66	--	--	--	--	90	--	--	--	--	74	17	49	47	4	27.1	1.9		
PIONEER	85Y40	80	81	90	81	84	110	104	101	72	13	75	18	51	51	27	27.9	1.7		
MATURITY CHECK	MEDIUM	54	78	87	66	73	74	100	98	76	14	76	17	46	47	6	23.6	1.6		
OHLDE	O-567	70	--	--	--	--	96	--	--	--	--	76	17	50	50	2	29.8	1.3		
PIONEER	85G03	55	--	--	--	--	76	--	--	--	--	78	18	47	50	5	27.7	1.7		
PRODUCERS	PH266	49	--	--	--	--	67	--	--	--	--	79	19	42	51	5	26.6	1.5		
TRIUMPH	TRX95003	44	--	--	--	--	61	--	--	--	--	79	20	45	56	34	24.6	1.3		
MATURITY CHECK	LATE	53	68	47	61	56	73	87	53	83	14	79	17	43	52	10	26.4	1.5		
	AVERAGES	73	78	89	76	80	73	78	89	71	13	72	17	51	49	20	26.5	1.6		
	CV (%)	8	14	11	--	--	8	14	11	--	--	1	4	2	3	--	8.0	10.3		
	LSD (0.05)	8	15	20	--	--	11	19	22	--	--	1	1	2	2	18	2.9	0.2		

\*Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

Top LSD group in bold.



## WEST KANSAS FALLOW GRAIN SORGHUM TEST

Southwest Research-Extension Center, Garden City; Monty Spangler, technician

Keith silt loam; Fallow in 2008

100 - 0 - 0 lb/a N, P, K

Planted on 6/3/2009; Harvested on 10/20/2009

Target stand of 35,000 plants/acre; 6.0 in. spacing

Extremely dry winter until March. Hailstorms on July 17 and September 7 caused leaf and grain losses.

Month	Precipitation		Average Temp.		GDU	
	2009	Norm.	2009	Norm.	2009	Norm.
Nov.-Mar	0.6	2.8	38	34		
April	4.5	1.6	52	50	456	472
May	1.4	2.9	64	61	837	831
June	3.2	3.0	74	72	1128	1115
July	3.2	2.5	77	78	1310	1321
August	1.4	2.2	73	75	1231	1260
Sept.	1.4	1.6	62	68	902	973
Oct.	2.6	1.0	47	54	641	620
Totals:	18.2	17.6	53	52	6,505	6,592

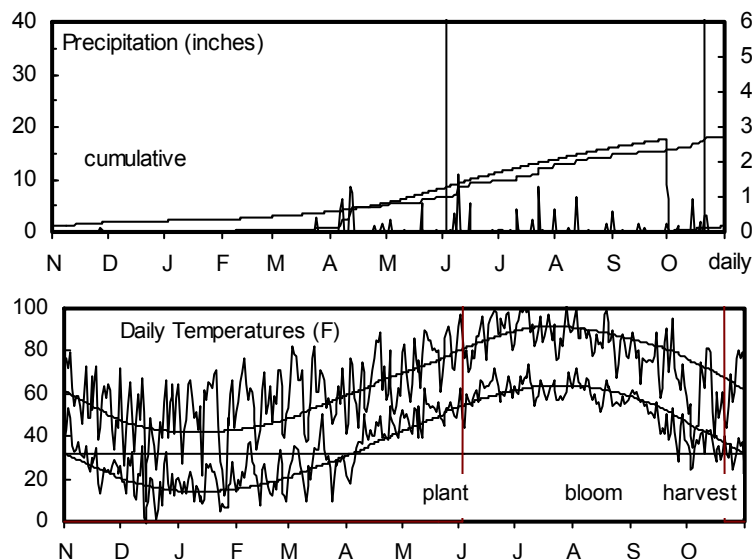


Table 17. Finney County Fallow Grain Sorghum Performance Test, 2007-2009

BRAND	NAME	YIELD AS % 2008-2009																
		ACRE YIELD, BUSHELS				OF TEST			Days Grain		Days Grain		Test		Plnt		Pop. 1000	Hds. per
		2009	2008	2007	2-Yr. AVG.	2009	2008	2007	Blm	to Moist. %	Blm	to Moist. %	lb/bu	in.	Ldg %			
DEKALB	DKS28-05	41	--	--	--	89	--	--	--	--	51	12	50	38	66	25.1	1.4	
DEKALB	DKS29-28	29	63	58	46	61	80	89	61	12	56	13	53	38	50	24.0	1.5	
PIONEER	86G32	39	73	--	56	84	93	--	--	--	58	15	54	41	58	26.3	1.4	
MATURITY CHECK	EARLY	25	<b>89</b>	61	57	54	114	92	61	14	59	12	52	32	86	25.6	1.4	
SORG. PARTNERS	SP3303	42	--	--	--	90	--	--	--	--	59	13	55	37	61	20.5	1.3	
ASGROW	PULSAR	43	77	59	60	93	98	89	65	12	60	14	52	40	66	26.1	1.4	
DEKALB	DKS37-07	50	77	62	63	107	98	94	66	14	60	16	55	43	45	26.4	1.5	
DEKALB	DKS36-06	57	--	--	--	123	--	--	--	--	61	15	54	45	48	26.6	1.3	
DRUSSEL SEED	DSS B6506	57	65	73	61	124	83	111	66	13	62	13	56	43	26	25.9	1.3	
DRUSSEL SEED	DSS B64	55	72	64	63	118	91	98	69	15	62	12	50	40	73	24.1	1.6	
MIDLAND	4765	38	--	--	--	83	--	--	--	--	62	15	55	41	50	25.2	1.4	
DEKALB	DKS44-20	<b>59</b>	76	--	68	127	96	--	--	--	62	14	55	40	41	26.4	1.4	
MIDLAND	4748	51	--	--	--	110	--	--	--	--	62	14	56	43	18	25.9	1.2	
SORG. PARTNERS	X444	39	--	--	--	83	--	--	--	--	62	12	53	39	20	22.0	1.4	
PIONEER	85Y40	52	63	62	58	112	80	93	68	15	63	15	58	44	58	27.3	1.5	
SORG. PARTNERS	NK5418	44	--	--	--	95	--	--	--	--	63	11	52	39	59	23.8	1.6	
MIDLAND	4772	45	--	--	--	97	--	--	--	--	63	15	55	42	40	24.1	1.4	
MATURITY CHECK	MEDIUM	58	79	77	68	124	100	117	71	15	64	13	54	40	59	26.2	1.3	
MIDLAND	4665	43	--	--	--	93	--	--	--	--	64	16	55	40	34	17.7	1.8	
PIONEER	85G03	<b>63</b>	--	--	--	135	--	--	--	--	64	16	57	42	9	26.0	1.6	
MIDLAND	4790	40	--	--	--	85	--	--	--	--	67	16	54	42	26	23.5	1.5	
MATURITY CHECK	LATE	54	<b>100</b>	<b>79</b>	<b>77</b>	115	127	119	73	14	68	13	54	40	9	26.3	1.3	
	AVERAGES	46	79	66	63	4	79	66	67	15	61	14	54	40	45	24.8	1.4	
	CV (%)	7	11	10	--	7	11	10	--	--	2	11	2	3	--	8.0	13.0	
	LSD (0.05)	5	12	9	--	10	15	14	--	--	1	2	2	2	30	2.8	0.3	

\*Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

Top LSD group in bold.

**Table 18. WEST Kansas Grain Sorghum Hybrid Yield Summary (% of test avg.), 2009**

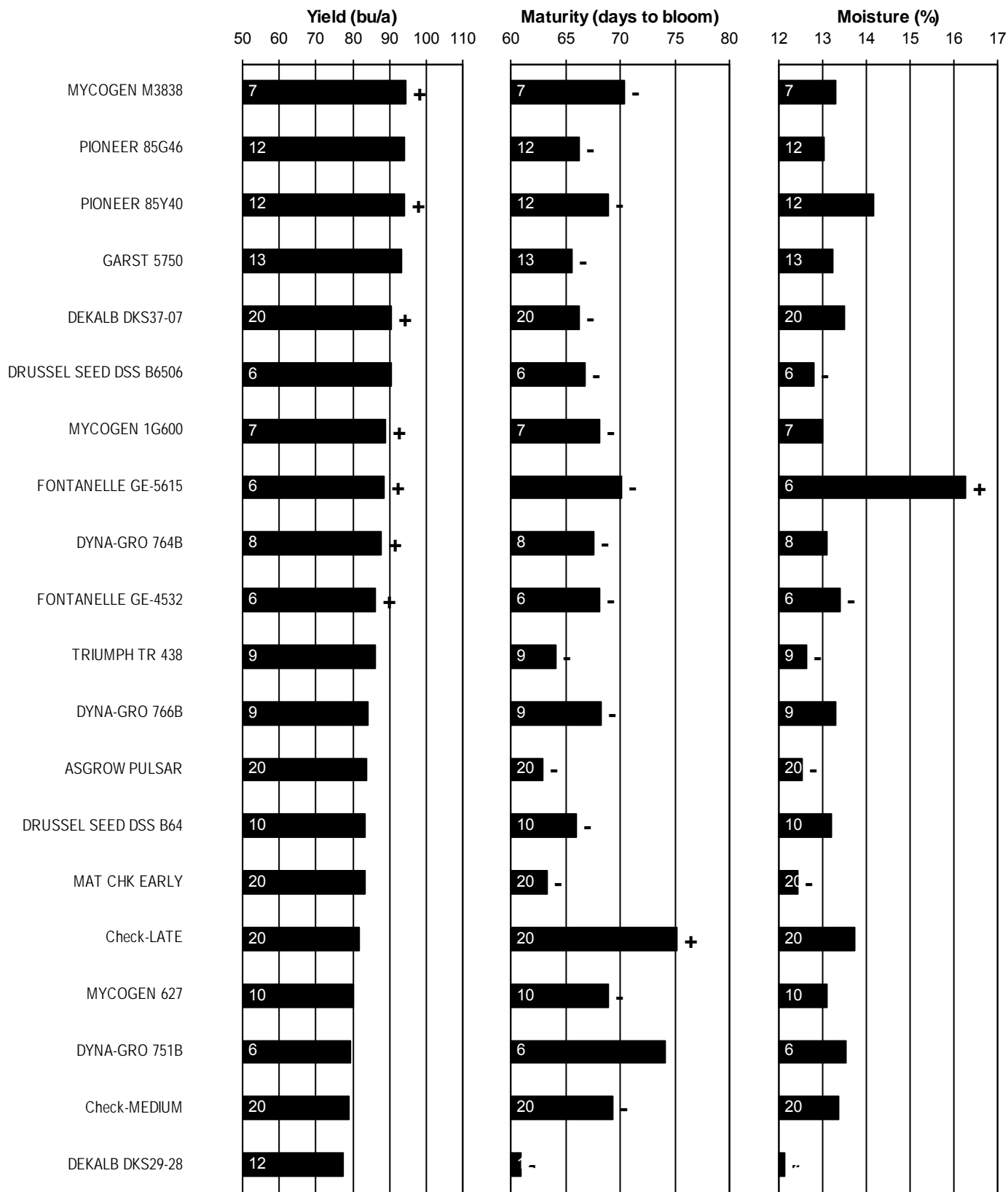
BRAND/NAME	ELD*	THD	GRD	FND	AVG.	BRAND/NAME	ELD	THD	GRD	FND	AVG.
<b>ASGROW</b>						<b>PIONEER</b>					
PULSAR	91	107	111	93	100	85G03	113	103	76	135	107
<b>CHANNEL</b>						<b>PRODUCERS</b>					
6B10	116	116	111	--	--	85Y40	107	106	110	112	109
7B11	104	106	90	--	--	86G32	93	100	111	84	97
<b>DEKALB</b>						<b>PH246W</b>					
DKS28-05	94	113	119	89	104	PH256	100	99	109	--	--
DKS29-28	83	96	108	61	87	PH266	110	94	67	--	--
DKS36-06	104	106	125	123	115	<b>SOrg. PARTNERS</b>					
DKS37-07	99	107	110	107	106	KS 310	--	100	--	--	--
DKS44-20	113	104	101	127	111	NK5418	103	--	119	95	--
<b>DRUSSEL SEED</b>						<b>SP3303</b>					
DSS B64	--	--	116	118	--	SP6680	103	--	--	--	--
DSS B6506	--	--	111	124	--	X444	--	97	99	83	--
<b>DYNA-GRO</b>						<b>TRIUMPH</b>					
722B	83	--	--	--	--	TRX82629	--	--	101	--	--
742C	106	--	--	--	--	TRX84732	--	--	90	--	--
764B	108	--	--	--	--	TRX85002	114	--	--	--	--
766B	95	--	--	--	--	TRX92016	--	--	97	--	--
771B	115	--	--	--	--	TRX95003	104	--	61	--	--
772B	109	--	--	--	--	<b>MATURITY CHECK</b>					
<b>MIDLAND</b>						<b>EARLY</b>					
4665	--	--	--	93	--	LATE	91	100	73	115	95
4748	--	--	--	110	--	MEDIUM	91	100	74	124	97
4765	--	--	--	83	--	<b>AVERAGES (bu/a)</b>					
4772	--	--	--	97	--	CV (%)	10	7	8	7	--
4790	--	--	--	85	--	LSD (0.05)	14	10	11	10	--
<b>OHLDE</b>						<b>PHILLIPS</b>					
O-525	103	--	116	--	--	670	89	--	--	--	--
O-530	103	--	104	--	--	672	93	--	111	--	--
O-567	114	--	96	--	--	775	98	--	94	--	--
O-575	104	--	--	--	--						
O-587	99	--	--	--	--						

\* ELD = Ellis Co., Hays

THD = Thomas Co., Colby

GRD = Greeley Co., Tribune

FND = Finney Co., Garden City



Values inside bars indicate the number of comparisons with checks. Symbols (+,-) indicate if statistically higher or lower than mean of checks.

**Figure 7. WEST Kansas sorghum hybrid standardized performance summary, 2007-2009**

### SOUTH CENTRAL KANSAS NO-TILL IRRIGATED GRAIN SORGHUM TEST

South Central Kansas Experiment Field, Hutchinson; William Heer, agronomist; Richard Seck, cooperater

Ost loam; Soybean in 2008

170 - 0 - 0 lb/a N, P, K

Planted on 5/21/2009; Harvested on 11/27/2009

Target stand of 90,000 plants/acre; 2.3 in. spacing

Harvest was significantly delayed by wet conditions.

Month	Precipitation		Average Temp.		GDU	
	2009	Norm.	2009	Norm.	2009	Norm.
Nov.-Mar	0.5	4.4	39	37		
April	5.1	2.6	54	55	503	617
May	3.2	3.8	66	65	888	927
June	3.9	4.3	78	75	1213	1196
July	3.0	3.5	77	81	1355	1416
August	3.2	3.1	73	79	1272	1361
Sept.	5.4	3.3	63	70	949	1053
Oct.	2.8	2.4	49	58	666	732
Totals:	27.1	27.3	54	56	6,846	7,302

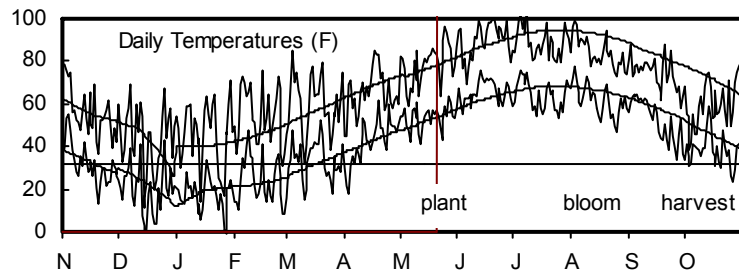
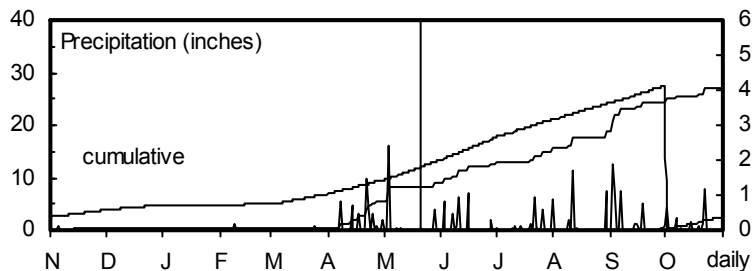


Table 19. Reno County No-Till Irrigated Grain Sorghum Performance Test, 2007-2009

BRAND	NAME	YIELD AS % 2008-2009																
		ACRE YIELD, BUSHELS				OF TEST			Days Grain			Days Grain			Test	Plnt	Pop.	Hds.
		2009	2008	2007	2-Yr. AVG.	2009	2008	2007	Blm	to Moist.	%	Blm	to Moist.	lb/bu	in.	%	ppa	per
DEKALB	DKS44-20	120	119	--	119	--	94	107	--	--	--	66	17	61	--	--	52.6	1.5
MATURITY CHECK	EARLY	89	80	66	84	78	70	72	79	62	15	68	16	59	--	--	59.0	1.1
MATURITY CHECK	MEDIUM	98	91	68	94	86	76	81	82	65	15	69	16	59	--	--	56.8	1.1
MIDLAND	4748	116	99	72	108	96	91	89	89	64	15	72	16	60	--	--	59.1	1.3
DYNA-GRO	771B	135	--	--	--	--	106	--	--	--	--	72	16	59	--	--	52.0	1.3
MIDLAND	4772	126	118	84	122	109	99	106	101	67	16	73	16	60	--	--	52.7	1.2
PIONEER	85Y40	124	125	72	125	107	97	112	86	66	16	73	16	60	--	--	56.6	1.3
DEKALB	DKS53-67	<b>146</b>	125	<b>106</b>	136	126	114	112	128	68	18	73	16	61	--	--	69.7	1.2
DYNA-GRO	772B	125	<b>132</b>	--	128	--	98	118	--	--	--	73	16	59	--	--	59.2	1.2
DYNA-GRO	751B	133	118	77	125	109	104	106	93	67	16	74	16	60	--	--	62.6	1.1
PIONEER	84P74	125	--	--	--	--	98	--	--	--	--	74	16	61	--	--	50.4	1.4
PIONEER	84G62	<b>145</b>	<b>140</b>	<b>102</b>	143	129	114	126	123	66	17	74	16	60	--	--	59.5	1.2
MIDLAND	4765	121	--	--	--	--	94	--	--	--	--	74	16	60	--	--	53.0	1.3
MIDLAND	4665	111	--	--	--	--	87	--	--	--	--	75	16	59	--	--	31.2	1.3
SORG. PARTNERS	X698	121	--	--	--	--	95	--	--	--	--	75	17	60	--	--	47.6	1.3
MATURITY CHECK	LATE	<b>144</b>	126	87	135	119	113	113	105	68	17	76	16	59	--	--	60.4	1.0
DEKALB	DKS54-03	<b>156</b>	<b>143</b>	--	149	--	122	129	--	--	--	77	17	60	--	--	59.8	1.3
DEKALB	DKS54-00	<b>146</b>	<b>132</b>	96	139	125	114	119	115	67	17	78	16	60	--	--	63.6	1.2
DYNA-GRO	778B	<b>153</b>	120	<b>102</b>	136	125	120	108	123	71	20	80	16	60	--	--	45.0	1.2
MIDLAND	4790	129	--	--	--	--	101	--	--	--	--	80	16	60	--	--	65.0	1.0
TRIUMPH	TR481	111	110	--	111	--	87	98	--	--	--	81	16	60	--	--	46.2	1.1
SORG. PARTNERS	SP6680	<b>152</b>	--	--	--	--	119	--	--	--	--	81	17	61	--	--	55.6	1.2
TRIUMPH	TRX85001	110	--	--	--	--	86	--	--	--	--	85	17	59	--	--	58.2	1.1
	AVERAGES	128	111	83	119	107	128	111	83	67	17	75	16	60	--	--	55.5	1.2
	CV (%)	8	8	12	--	--	8	8	12	--	--	4	1	1	--	--	6.0	6.2
	LSD (0.05)	15	13	14	--	--	12	11	16	--	--	4	0	0	--	--	4.6	0.1

\*Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other. Top LSD group in bold.

## WEST KANSAS IRRIGATED GRAIN SORGHUM TEST

Northwest Research-Extension Center, Colby; Patrick Evans, agronomist

Keith silt loam; Fallow in 2008

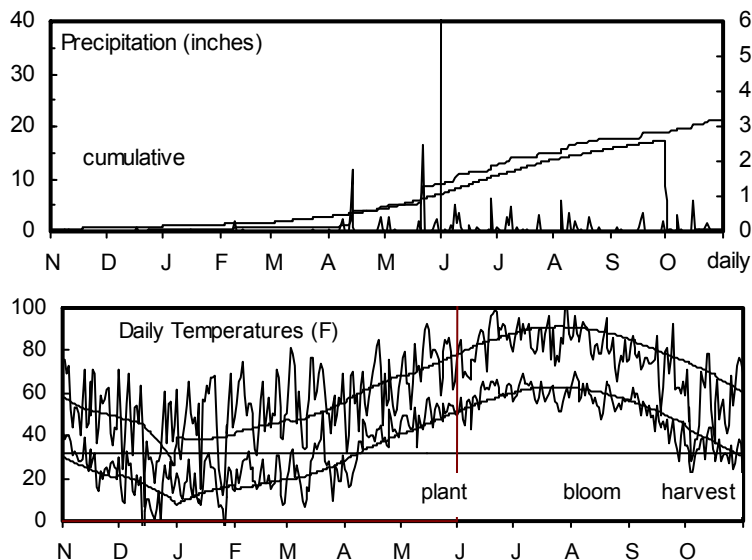
200 - 45 - 0 lb/a N, P, K

Planted on 6/1/2009; Harvested on 11/6/2009

Target stand of 90,000 plants/acre; 2.3 in. spacing

Cooler than normal temperatures throughout the growing season delayed maturity of the hybrids.

Month	Precipitation		Average Temp.		GDU	
	2009	Norm.	2009	Norm.	2009	Norm.
Nov.-Mar	0.7	2.4	36	32		
April	3.8	1.4	49	49	427	421
May	4.6	2.9	62	59	733	762
June	3.4	3.4	71	70	1043	1054
July	2.2	3.1	74	76	1273	1285
August	2.7	2.1	71	74	1150	1216
Sept.	1.5	1.6	60	66	865	910
Oct.	2.1	0.4	44	53	555	556
Totals:	21.1	17.4	51	51	6,047	6,204



**Table 20. Thomas County Irrigated Grain Sorghum Performance Test, 2007-2009**

BRAND	NAME	YIELD AS % 2008-2009																
		ACRE YIELD, BUSHELS					OF TEST			Days Grain			Plnt	Pop.	Hds.			
		2009	2008	2007	2-Yr. AVG.	3-Yr. AVG.	2009	2008	2007	AVERAGE	to Blm	to Moist. %				Days Blm	Grain %	Test lb/bu
MATURITY CHECK	EARLY	152	175	183	164	170	86	105	96	67	10	65	13	56	42	--	74.6	1.1
CHANNEL	6B10	<b>195</b>	--	--	--	--	110	--	--	--	--	67	15	58	50	--	82.3	1.1
SORG. PARTNERS	X449	172	--	--	--	--	97	--	--	--	--	68	18	59	56	--	85.1	1.1
DEKALB	DKS44-20	176	149	--	162	--	100	90	--	--	--	69	15	58	52	--	79.8	1.1
PIONEER	84P74	<b>189</b>	--	--	--	--	107	--	--	--	--	69	17	59	52	--	85.2	1.0
CHANNEL	7B11	151	--	--	--	--	85	--	--	--	--	69	19	58	56	--	74.4	1.1
MATURITY CHECK	MEDIUM	176	172	157	174	168	100	103	82	72	9	70	13	57	48	--	79.6	1.0
DEKALB	DKS54-00	<b>182</b>	<b>208</b>	<b>211</b>	195	200	103	125	110	78	10	70	15	57	54	--	73.9	1.1
PIONEER	85Y40	177	176	200	176	184	100	106	104	77	10	70	16	59	51	--	86.6	1.0
SORG. PARTNERS	NK7633	175	--	--	--	--	99	--	--	--	--	71	13	55	51	--	79.6	1.0
DEKALB	DKS53-67	<b>187</b>	<b>187</b>	<b>219</b>	187	198	106	112	114	81	12	71	15	58	51	--	77.0	1.1
PIONEER	84G62	<b>192</b>	157	209	175	186	109	95	109	83	11	71	16	58	51	--	77.9	1.2
DEKALB	DKS54-03	<b>181</b>	<b>197</b>	--	189	--	103	119	--	--	--	72	14	57	54	--	74.5	1.0
MATURITY CHECK	LATE	<b>178</b>	177	199	178	185	101	107	104	74	10	72	14	57	53	--	78.2	1.1
SORG. PARTNERS	SP6680	166	--	--	--	--	94	--	--	--	--	72	14	57	53	--	75.2	1.1
	AVERAGES	177	166	192	171	178	177	166	192	78	10	70	15	58	51	--	78.9	1.1
	CV (%)	7	11	7	--	--	7	11	7	--	--	2	11	2	2	--	13.0	13.2
	LSD (0.05)	17	25	19	--	--	10	15	10	--	--	2	2	2	2	--	14.4	0.2

\*Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.  
 Top LSD group in bold.

## WEST KANSAS IRRIGATED GRAIN SORGHUM TEST

Southwest Research-Extension Center, Garden City; Monty Spangler, technician

Keith silt loam; Fallow in 2008

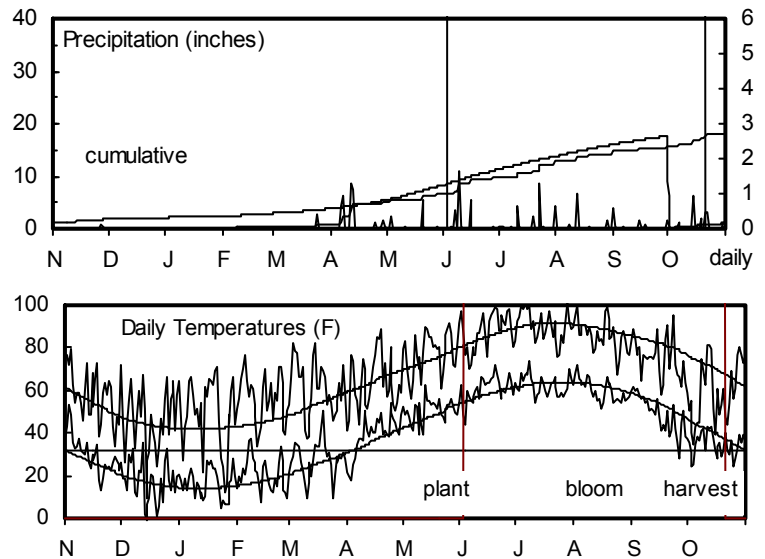
100 - 0 - 0 lb/a N, P, K

Planted on 6/3/2009; Harvested on 10/20/2009

Target stand of 70,000 plants/acre; 3.0 in. spacing

Extremely dry winter until March. Hailstorms on July 17 and September 7 caused leaf and grain losses.

Month	Precipitation		Average Temp.		GDU	
	2009	Norm.	2009	Norm.	2009	Norm.
Nov.-Mar	0.6	2.8	38	34		
April	4.5	1.6	52	50	447	472
May	1.4	2.9	64	61	827	831
June	3.2	3.0	74	72	1128	1115
July	3.2	2.5	77	78	1317	1321
August	1.4	2.2	73	75	1231	1260
Sept.	1.4	1.6	62	68	915	973
Oct.	2.9	1.0	47	54	631	620
Totals:	18.5	17.6	53	52	6,497	6,592



**Table 21. Finney County Irrigated Grain Sorghum Performance Test, 2007-2009**

BRAND	NAME	YIELD AS % 2008-2009																		
		ACRE YIELD, BUSHELS					OF TEST			Days Grain		Days Grain		Test		Plnt		Pop.		Hds.
		2009	2008	2007	2-Yr. AVG.	3-Yr. AVG.	2009	2008	2007	Blm	%	Blm	%	lb/bu	in.	Ldg	1000 ppa	per Plnt		
MATURITY CHECK	EARLY	96	<b>137</b>	157	117	130	71	112	103	62	11	59	12	48	44	1	47.7	1.6		
CHANNEL	6B10	128	--	--	--	--	95	--	--	--	--	60	12	44	50	0	41.9	1.8		
MIDLAND	4748	117	111	145	114	124	87	91	96	65	11	61	12	50	54	1	44.7	1.7		
MIDLAND	4765	120	--	--	--	--	89	--	--	--	--	61	13	47	50	1	47.1	1.5		
MIDLAND	4665	126	--	--	--	--	94	--	--	--	--	62	12	45	51	0	38.3	1.7		
PIONEER	85Y40	142	92	156	117	130	106	75	102	67	12	62	14	51	51	0	48.4	1.7		
DEKALB	DKS44-20	129	129	--	129	--	96	105	--	--	--	62	13	52	53	0	51.4	1.5		
MATURITY CHECK	MEDIUM	126	113	134	119	124	93	93	88	69	11	62	11	45	50	0	42.6	1.5		
MIDLAND	4772	127	<b>136</b>	156	131	140	94	111	103	68	12	62	13	48	54	1	41.2	1.7		
PIONEER	84P74	141	--	--	--	--	105	--	--	--	--	62	16	48	52	1	48.8	1.6		
SORG. PARTNERS	NK5418	125	--	--	--	--	93	--	--	--	--	63	13	48	48	0	43.7	1.8		
CHANNEL	7B11	124	--	--	--	--	92	--	--	--	--	63	14	52	55	2	48.7	1.5		
DEKALB	DKS54-00	137	<b>139</b>	151	138	142	102	114	99	68	11	63	11	42	57	0	48.3	1.5		
TRIUMPH	TRX85131	<b>151</b>	--	--	--	--	112	--	--	--	--	63	13	44	51	1	45.7	1.6		
DEKALB	DKS54-03	<b>149</b>	130	--	139	--	111	106	--	--	--	64	12	45	55	0	52.0	1.6		
PIONEER	84G62	<b>147</b>	112	158	129	139	109	92	104	69	11	64	13	46	50	0	46.5	1.8		
SORG. PARTNERS	X449	141	--	--	--	--	105	--	--	--	--	64	12	45	55	0	47.5	1.7		
MATURITY CHECK	LATE	<b>150</b>	125	<b>167</b>	138	147	112	103	110	71	11	64	13	49	53	0	49.4	1.7		
DEKALB	DKS53-67	<b>152</b>	<b>148</b>	165	150	155	113	121	109	68	12	65	15	52	51	0	49.8	1.6		
MIDLAND	4790	136	--	--	--	--	101	--	--	--	--	66	14	51	59	0	42.9	1.6		
TRIUMPH	TRX85001	140	--	--	--	--	104	--	--	--	--	69	15	48	57	1	46.0	1.4		
SORG. PARTNERS	SP6680	<b>155</b>	--	--	--	--	115	--	--	--	--	70	16	46	52	1	45.3	1.7		
	AVERAGES	134	122	152	128	136	134	122	152	68	12	63	13	48	52	0	46.3	1.6		
	CV (%)	5	11	5	--	--	5	11	5	--	--	2	13	11	2	--	9.5	8.2		
	LSD (0.05)	10	19	11	--	--	8	16	7	--	--	2	2	7	2	1	6.2	0.2		

\*Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

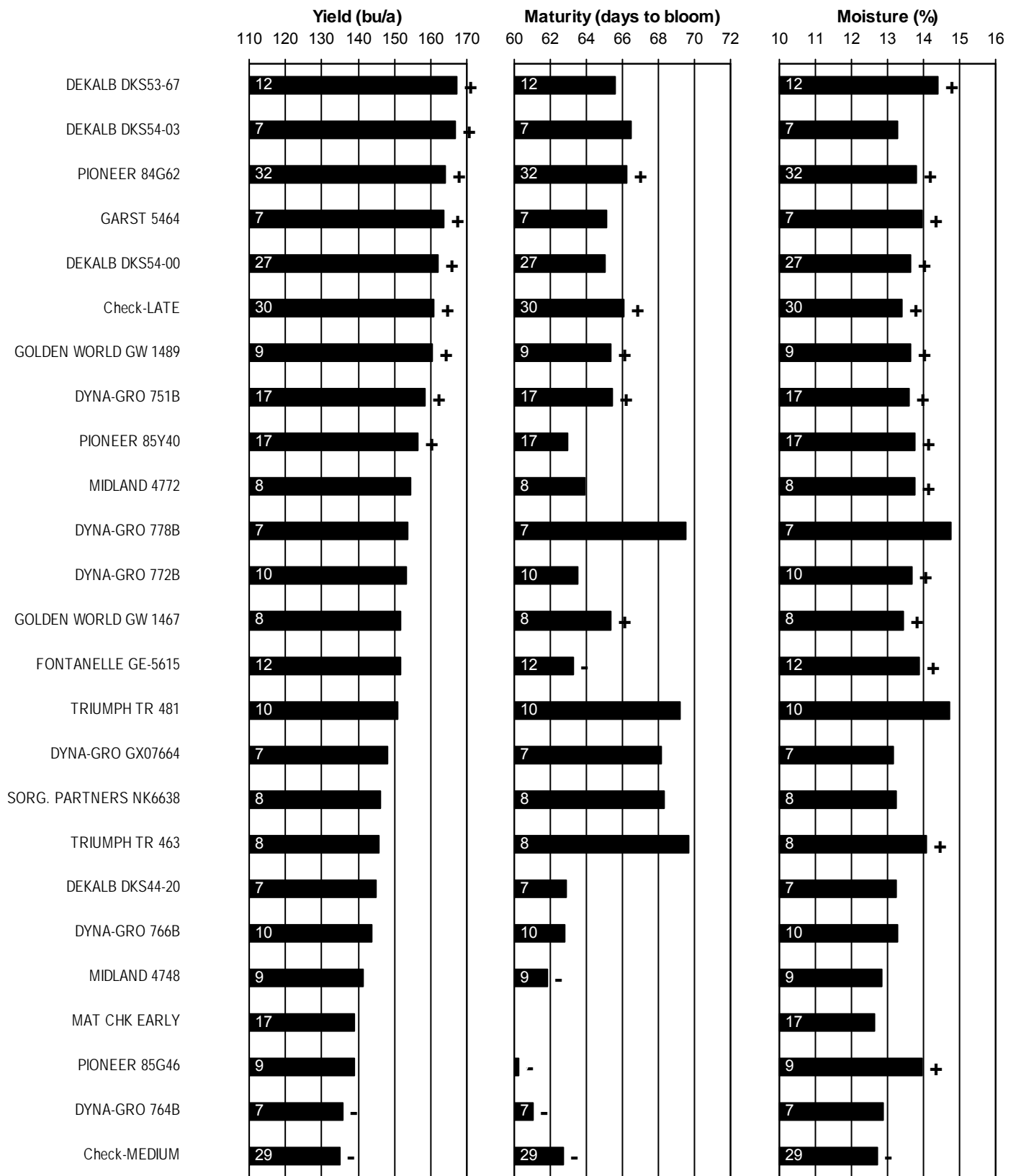
Top LSD group in bold.



**Table 22. Kansas IRRIGATED Grain Sorghum Hybrid Yield Summary (% of test avg.), 2009**

BRAND/NAME	RNI*	THI	GRI	FNI	AVG.	BRAND/NAME	RNI	THI	GRI	FNI	AVG.
<b>CHANNEL</b>						<b>MATURITY CHECK</b>					
6B10	--	110	--	95	--	EARLY	70	86	--	71	76
7B11	--	85	--	92	--	LATE	113	101	--	112	108
<b>DEKALB</b>						<b>MEDIUM</b>					
DKS44-20	94	100	--	96	96	AVERAGES (bu/a)	128	177	--	134	146
DKS53-67	114	106	--	113	111	CV (%)	8	7	--	5	--
DKS54-00	114	103	--	102	106	LSD (0.05)	12	10	--	8	--
DKS54-03	122	103	--	111	112						
<b>DYNA-GRO</b>											
751B	104	--	--	--	--						
771B	106	--	--	--	--						
772B	98	--	--	--	--						
778B	120	--	--	--	--						
<b>MIDLAND</b>											
4665	87	--	--	94	--						
4748	91	--	--	87	--						
4765	94	--	--	89	--						
4772	99	--	--	94	--						
4790	101	--	--	101	--						
<b>PIONEER</b>											
84G62	114	109	--	109	111						
84P74	98	107	--	105	103						
85Y40	97	100	--	106	101						
<b>SORG. PARTNERS</b>											
NK5418	--	--	--	93	--						
NK7633	--	99	--	--	--						
SP6680	119	94	--	115	110						
X449	--	97	--	105	--						
X698	95	--	--	--	--						
<b>TRIUMPH</b>											
TR 481	87	--	--	--	--						
TRX85001	86	--	--	104	--						
TRX85131	--	--	--	112	--						

\* RNI = Reno Co., Hutchinson      THI = Thomas Co., Colby      FNI = Finney Co., Garden City  
GRI = Greeley Co., Tribune; abandoned, iron chlorosis.



Values inside bars indicate the number of comparisons with checks. Symbols (+,-) indicate if statistically higher or lower than mean of checks.

**Figure 8. Kansas IRRIGATED sorghum hybrid standardized performance summary, 2007-2009**

**Table 23. Entries in the 2009 Kansas Grain Sorghum Performance Tests\***

BRAND	GC	EC	PC	Mat.	Days	GB	BRAND	GC	EC	PC	Mat.	Days	GB
<b>ASGROW</b>							<b>PIONEER</b>						
PULSAR	B	HY	P	E	68	CEI	84P74	-	-	-	-	-	-
<b>CHANNEL</b>							86G32	R	W	P	E	65	-
6B10	B	HY	P	ME	62	-	85G03	R	W	P	M	69	-
7B11	B	HY	P	M	68	-	85Y40	W	Y	P	M	70	-
<b>DEKALB</b>							84G62	B	Y	P	L	72	E
DKS28-05	B	HY	P	E	58	-	<b>PRODUCERS</b>						
DKS29-28	B	HY	P	E	58	CE	PH246W	W	-	P	E	58	C, E
DKS36-06	B	HY	P	E	63	-	PH256	R	-	P	M	62	C, E
DKS37-07	B	HY	P	E	67	CEI	PH266	C	-	P	M	63	C, D
DKS44-20	B	HY	P	M	67	-	<b>SORG. PARTNERS</b>						
DKS53-67	B	HY	P	L	71	CEI	KS 310	B	HY	P	E	57	CE
DKS54-03	B	HY	P	L	74	-	SP3303	C	Y	T	E	59	C
DKS54-00	B	HY	P	L	75	CEI	NK5418	B	HY	P	M	66	CE
<b>DRUSSEL SEED</b>							X444	B	HY	P	M	67	C, E
DSS B64	B	W	P	ME	64	C	X449	B	HY	P	M	67	C, E
DSS B6506	B	W	P	ME	65	CDE	NK6638	B	HY	P	M	70	C
<b>DYNA-GRO</b>							SP6680	B	HY	P	M	70	C, E
722B	B	HY	T	E	60	CE	X698	B	HY	P	M	70	C, E
742C	C	HY	P	ME	63	C	NK7633	B	HY	P	ML	73	C
764B	B	HY	T	ME	64	CDE	NK7655	C	Y	P	ML	73	C
766B	B	HY	T	ME	65	CDE	<b>TRIUMPH</b>						
771B	B	-	P	M	65	-	TR 458	-	-	-	-	-	-
772B	B	HY	T	M	68	CE	TRX82629	-	-	-	-	-	-
751B	B	W	T	ML	69	CE	TRX83774	B	-	P	M	-	-
778B	B	HY	T	ML	74	CE	TRX84732	-	-	-	-	-	-
<b>MIDLAND</b>							TRX85001	-	-	-	-	-	-
4665	B	W	P	M	63	C	TRX85002	-	-	-	-	-	-
4748	B	-	P	M	65	CDE	TRX85131	-	-	-	-	-	-
4765	R	-	-	M	66	C	TRX92016	-	-	-	-	-	-
4772	B	-	P	M	68	CE	TRX95003	-	-	-	-	-	-
4790	R	-	-	L	75	C, E	TRX95004	-	-	-	-	-	-
<b>OHLDE</b>							TRX95005	-	-	-	-	-	-
O-525	B	W	P	E	64	-	TR 438	B	W	P	E	60	CE
O-530	C	Y	P	ME	67	CE	TR 452	R	W	P	ME	60	CE
O-567	B	W	P	M	70	CEIK	TR 460	Y	W	P	M	62	CEI
O-575	R	W	P	M	70	-	TR 481	R	W	P	ML	72	CE
O-587	R	W	P	ML	72	-	<b>MATURITY CHECK</b>						
<b>PHILLIPS</b>							EARLY	R	W	P	E	65	E
672	B	B	P	M	64	EI	MEDIUM	W	W	P	M	69	-
670	C	B	T	M	65	E, I	LATE	B	W	P	L	73	-
775	B	B	P	M	67	EI							

\* Information provided by entrants:  
 GC = grain color: bronze, cream, red, yellow, white  
 EC = endosperm color: white, yellow, hetero-yellow  
 PC = plant color: purple, tan  
 Mat. = relative maturity: early, medium, late  
 Days = days to half bloom  
 GB = resistance to specific greenbug biotypes: C, E, I, K, etc.

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