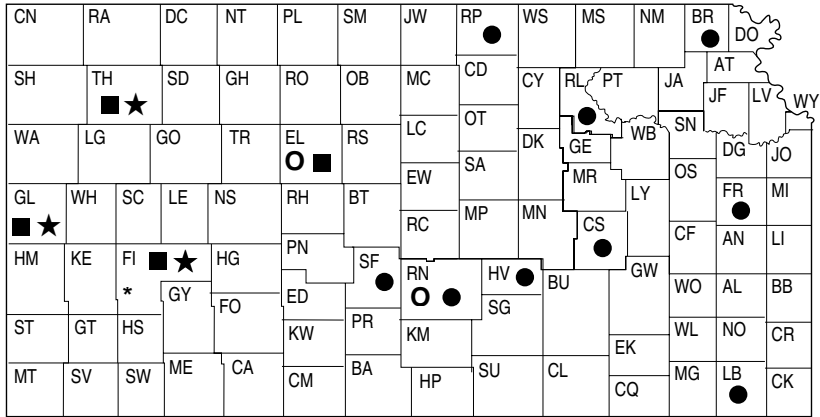




# 1996

## KANSAS PERFORMANCE TESTS WITH GRAIN AND FORAGE SORGHUM HYBRIDS



● continuously cropped land      ★ irrigated      ■ summer fallow  
 ○ forage sorghum                      \* irrigated forage sorghum

### Report of Progress 775

Agricultural Experiment Station \* Kansas State University, Manhattan \* Marc A. Johnson, Director

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# 1996 KANSAS GRAIN AND FORAGE SORGHUM PERFORMANCE TESTS

## INTRODUCTION

### TEST OBJECTIVES AND PROCEDURES

Sorghum Performance Tests, conducted annually by the Kansas Agricultural Experiment Station, provide farmers, extension workers, and private research and sales personnel with unbiased agronomic information on many of the 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 early March. Because entry selection and location are voluntary, not all hybrids grown in the state are included in tests, and hybrids are not grown uniformly at all test locations.

Individual test discussions include summaries of growing-season weather data for each location. 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 1996 and the 30-year normal in addition to the daily rainfall amounts since last fall. Temperature graphs include daily maximum and minimum temperatures compared with normal. Growing degree graphs include cumulative lines for 1996 and normal. All graphs include vertical lines indicating planting, heading, and harvest dates, if available. The graphs reveal general trends in precipitation and rainfall compared to normal. For more detailed information, a table is included with monthly totals and averages for the growing season. Comparisons of the current year's weather with long-time averages often help explain unusual plant development patterns and inconsistent performance of individual hybrids over years.

Explanatory information is given preceding data summaries for each test. Tables 1-14 contain

results from individual grain sorghum performance test locations. Hybrids are no longer separated into groups based on hybrid maturity because of the difficulty in accurately assigning a maturity class before the growing season. Rather, hybrids are now listed in order of increasing days to half bloom and increasing grain moisture for the current year so hybrids of similar maturity appear together. A yield summary (Table 15) presents yields as a percent of the average for each location. Tables 16-18 contain results from the forage sorghum tests. Table 19 summarizes silage yields from these tests over the last 3 years. Refer to Reports of Progress 629, Forage Sorghums; 678, 1993 Cattlemen's Day; and 727, 1995 Cattlemen's Day for quality information on some of these and other forage sorghum hybrids. The 1996 entrants, entries, and some additional descriptive information for both grain and forage sorghum hybrids are listed in the Appendices.

Beginning in 1995, most tests were planted at a rate 20% to 30% above the desired population and only minimally thinned. Planting to stand includes hybrid differences in stand establishment and early-season vigor in the overall performance evaluation. These differences may or may not be genetically controlled but contribute to marketed product performance in either case. As such, they are included in performance comparisons.

Tractor-powered, modified, White air-planters were used for nearly all tests. Three or four plots (replications) of each hybrid were grown at each location in a randomized complete block design. For grain sorghum tests, each harvested plot consisted of two rows trimmed to a specific length ranging from 20 to 25 feet at the different locations. Agronomists used Gleaner-E combines equipped with automatic weighing and sampling devices to harvest most tests. For forage sorghum tests, each plot consisted of four rows. The center two rows were harvested with

modified, tractor-mounted, one-row, forage choppers to estimate forage yield. Subsamples were harvested from one border row for grain yield estimates in the Reno and Ellis County forage sorghum tests.

Results for each grain sorghum test include *GRAIN YIELDS* reported as bushels per acre of shelled grain (56 lbs/bu) adjusted to a moisture content of 12.5%. *BUSHEL YIELDS* are converted also to *YIELDS AS PERCENTAGES OF THE TEST AVERAGE* to speed recognition of highest-yielding hybrids (more than 100%, the test average). The actual test average in bushels per acre is listed as the test average in the *YIELD AS % OF TEST AVERAGE* columns as a guide to actual yields. Hybrids yielding more than 100% of the test average year after year merit consideration, but adaptation to individual farms for appropriate maturity, stalk strength, and other factors also must be considered.

Forage sorghum test results include *SILAGE YIELDS* reported as tons of whole-plant silage adjusted to 70% moisture. Grain yields are reported as bushels per acre when available.

When appropriate, tables include the number of *LODGED* stalks. Both broken stalks and stalks leaning more than 45 degrees from vertical were considered *LODGED*, although most were harvestable with modern machinery.

Two characteristics contributed to estimations of relative maturity at most locations. *DAYS FROM PLANTING TO HALF BLOOM* is the number of days between planting and the date when half of the heads of a given hybrid have some florets in bloom. *GRAIN MOISTURE* at harvest also may help categorize hybrids for relative maturity, when harvest is early enough to provide a range in moisture contents among entries. Entries are listed in order of increasing maturity based on days to half bloom and harvest moisture in the current year to facilitate comparison of hybrids of like maturity. Maturity can be critical when considering a sorghum hybrid for a specific cropping system.

The *GROWTH UNIT* or *GROWING DEGREE DAY* concept was developed to measure the amount of heat available for growth and maturation. The formula used to generate the

monthly totals in individual test discussions follows: Take the maximum temperature plus the minimum temperature for each day, divide by 2, and then subtract a base temperature of about 34 (actually 1° C was used in the calculations). The purpose is to describe temperatures for the season for comparison with previous years and other locations in explaining relative rates of plant development. Research by Dr. Richard Vanderlip and his students at Kansas State University has indicated an excellent relationship between the growth units generated by these calculations and the actual rate of plant development from blooming to physiological maturity. Growth unit accumulations for the current year are compared with the long-term average or 'normal' for each test.

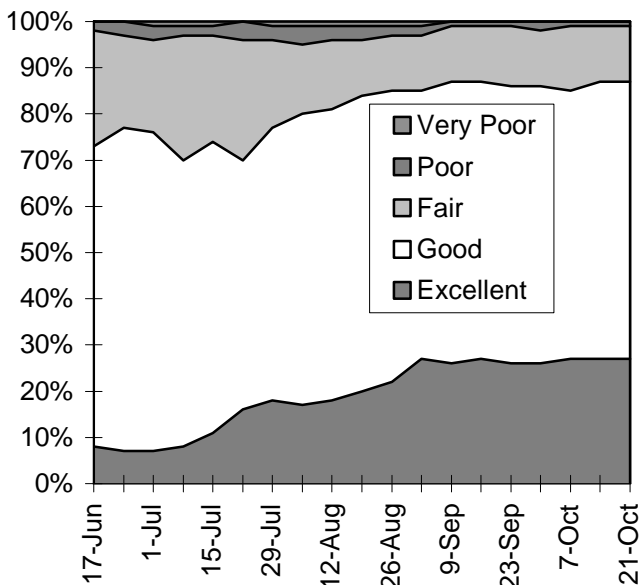
Small differences in yield or other characteristics should not be overemphasized. Least significant differences (LSD's) are shown at the bottom of each table. Unless two entries differ by at least the LSD shown, little confidence can be placed in one being superior to the other in that character. The coefficient of variability (CV) can be used to estimate the degree of confidence one may have in published data from replicated tests. For yield estimates in this testing program, CV's below 10% generally indicate reliable, uniform data, whereas CV's of 10 to 15% are not uncommon and usually indicate that data are acceptable for the rough performance comparisons desired from these tests. Tests with CV's over 15% still may be useful, but hybrid comparisons lack precision.

Results for two of the 1996 grain sorghum tests are not included in this report. The Labette County test near Parsons was invaded by chinch bugs relatively late in the season. The non-uniform nature of the infestation resulted in variable yield reductions, making the results useless for predicting hybrid performance. The Chase County test near Strong City had not yet been harvested at printing time because of prolonged fall rains and wet soil conditions. If usable results are obtained from this test, they will be distributed to state, area, and county Extension offices and participating companies as soon as they are available.

## 1996 STATEWIDE GROWING CONDITIONS

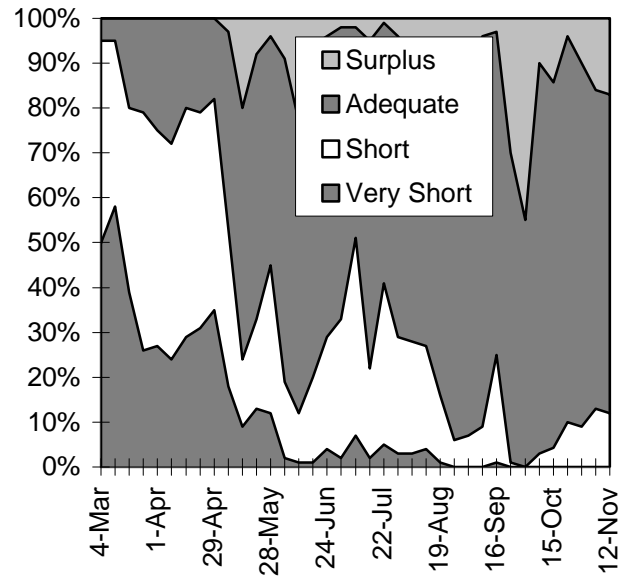
Favorable conditions during most of the growing season and an increase in acreage set the stage for a record sorghum crop. Topsoil moisture was limited across much of the state before planting (Figure 1), but May rains enabled most of the sorghum acreage to establish good stands. Favorable rainfall distribution during July and August provided sufficient moisture for potentially high yields in much of the state. Traditionally lower-yielding fallow areas in western Kansas received above-normal rainfall and often achieved yields comparable to those of irrigated or eastern Kansas fields.

Most of the crop experienced little environmental stress during the bulk of the growing season, resulting in excellent crop condition. At all times, at least 70% of the crop was rated good or excellent, and from August on, over 80% was in those categories (Figure 2).



**Figure 2. 1996 Grain sorghum crop condition.**

Warm temperatures early in the summer enabled timely planting and caused rapid growth and development. Most of the crop reached heading earlier than it did last year and earlier than the 5-



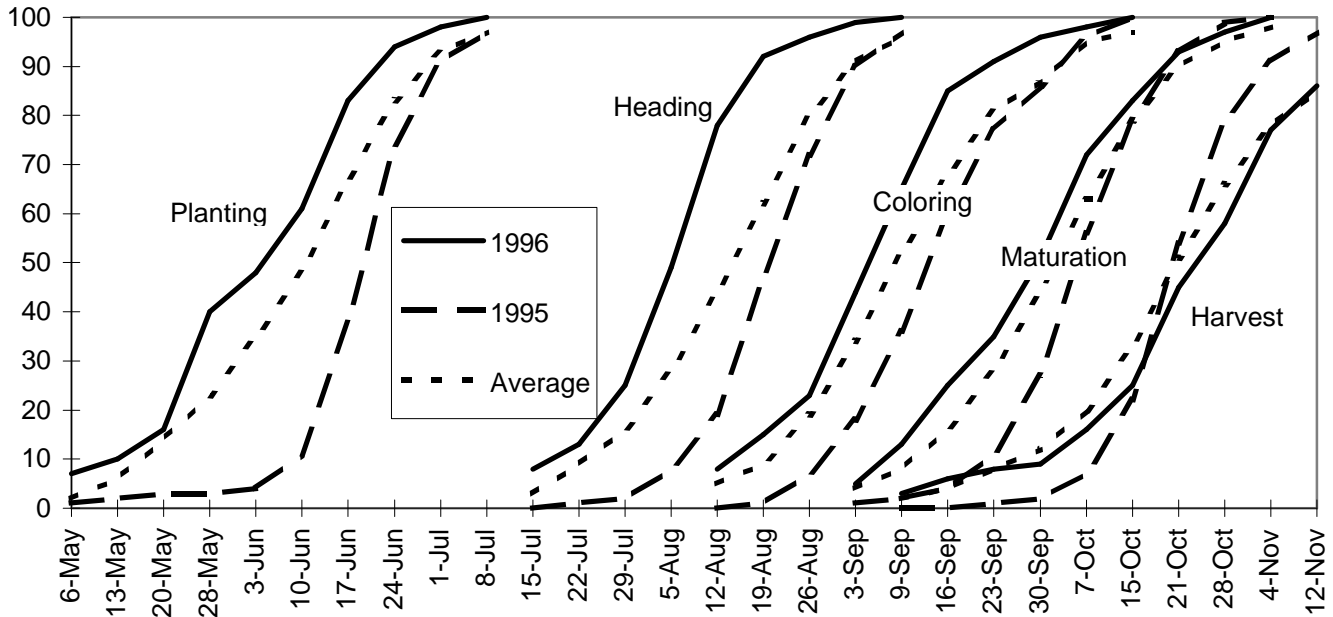
**Figure 1. Statewide topsoil moisture status.**

year average. However, relatively cool temperatures in August slowed coloring and maturation. Fall rains slowed grain drying and harvest. As a result, much of the acreage was harvested later than it had been over the last 5 years, even though crop development had been ahead of average for much of the season. (Figure 3). (From Crop-Weather reports, Kansas Agricultural Statistics, Topeka)

As usual, the sorghum insect pest problem varied from location to location. In general, chinch bug populations and damage were low because of the favorable spring and summer rains. Some early-season chinch bug problems occurred in a few south central counties, and a severe, late-season infestation occurred in some fields in Labette and Montgomery counties.

Greenbugs were found in low densities during most of the season. Light, seedling infestations were detected in several areas, but populations soon disappeared. In August, some producers sprayed for greenbugs in Nemaha, Brown, and Marshall counties.

Headworms, primarily corn earworm and some fall armyworm, were abundant in many areas. Infestations of these pests were found further north than usual. A survey conducted by Phil Sloderbeck indicated that an estimated 0.75



**Figure 3. 1996 Kansas grain sorghum crop progress.**

million acres of sorghum were treated for this pest in 1996. Cattail caterpillars were found defoliating sorghum in isolated fields in some locations, but severe defoliation by other leaf feeding species was not noted. The favorable growing conditions allowed the sorghum crop to yield well despite insect attack in many areas. (From Gerald Wilde, Department of Entomology, Kansas State University.)

Disease problems were generally below normal in the 1996 Kansas grain sorghum crop. A dry June in many areas of the state kept foliar diseases from becoming established early. As a result, problems such as sooty stripe, which have been severe in recent years, were slow to develop. Fusarium stalk rot was present at normal levels across the state. Typically, stalk rot causes a 5-10% yield loss in an average year.

The most significant disease problem in this year's crop was head mold. Frequent rains during pollination and the grain filling period were responsible for its development. Head mold is actually a complex of several different fungi. Unlike ear molds on corn, toxin production from these fungi is generally not a problem. However, they do reduce feed quality and can result in

significant dockage at the elevator. (From Douglas Jardine, Extension Plant Pathologist, Kansas State University Department of Plant Pathology.)

The November 12 Kansas Agricultural Statistics report predicted a record 368.0 million bushel crop, up 112% from 1995. This production is from 4.6 million harvested acres, up 1.5 million acres from last year. The predicted average yield of 80 bushels per acre equals the 1992 record and is 24 bushels above the 1995 average yield.

#### **ACKNOWLEDGMENTS**

*Cooperation of Research Center and Experiment Field personnel who furnished land and performed many or all of the field operations is sincerely appreciated. Technicians Edward O. Quigley and James R. Cochrane packaged seed and performed field operations for some of the tests. Student workers Linsay Allison and Matt Franko helped with seed counting, sign painting, and plot maintenance. Mary Knapp of the Weather Data Library provided much of the climatological information.*

# NORTHEASTERN KANSAS GRAIN SORGHUM TEST ON SILTY CLAY LOAM SOIL

**COUNTY:** BROWN

**LOCATION:** Cornbelt Experiment Field, Powhattan

**TEST SITE:** Grundy silty clay loam

**1995 CROP:** Soybeans

**1994 CROP:** Sorghum

**FERTILIZER (lbs/acre):** 100 N 0 P2O5 0 K2O

**PLANTING DATE:** 5/21/96

**HARVEST DATE:** 10/18/96

**COOPERATORS:**

Brian Marsh, agronomist; Steve Milne and David Zeit, technicians

**TARGET POPULATION:** 45,000 plants/acre,  
4.6 in. spacing

**STAND (% of target):** 73

**YIELD: Average (bu/a):** 107

**Range (bu/a):** 68 - 152

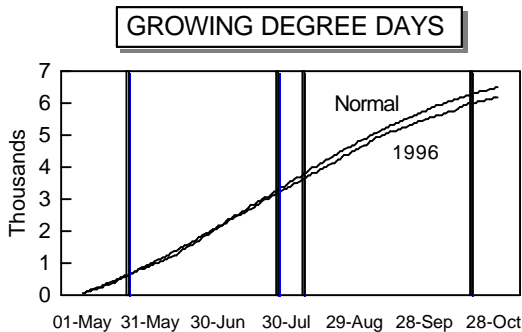
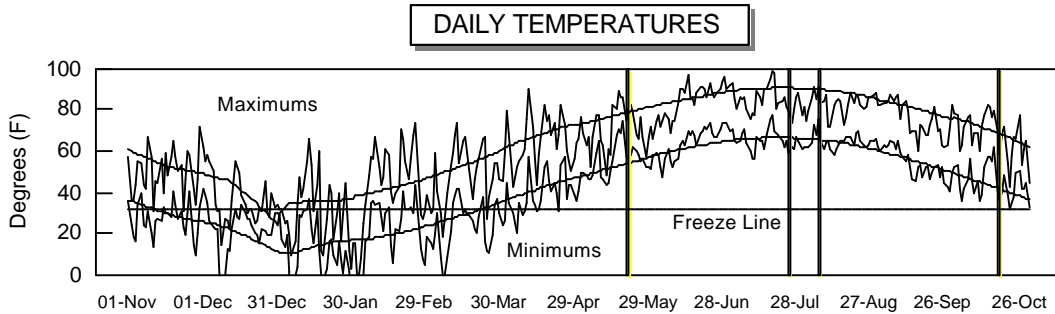
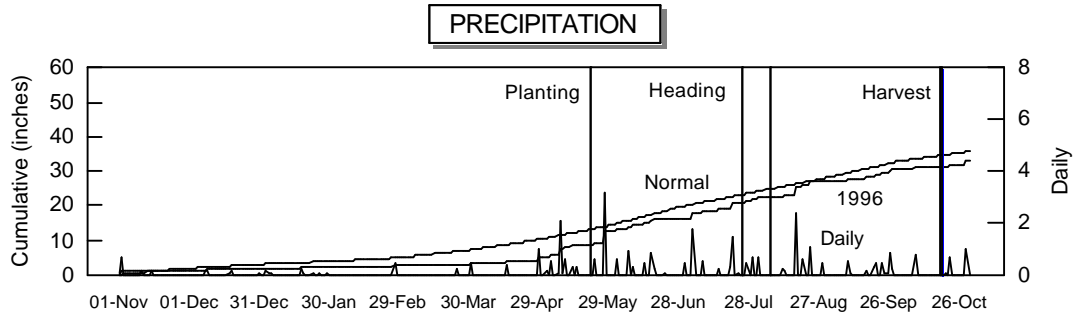
**LSD (bu/a):** 13

**CV (%):** 9

**SILK DATES:** 7/25/96 - 8/6/96

**1996 GROWING CONDITIONS:**

Good soil moisture at planting and generally favorable conditions provided the potential for good yields. Relatively cool temperatures may have slowed development during July and August.



**GROWING-SEASON WEATHER SUMMARY**

Month	Precipitation		Average Temp.		GDD	
	1996	Normal	1996	Normal	1996	Normal
April	1.8	3.1	51	55	0	0
May	7.7	4.2	62	65	865	925
June	3.4	5.4	74	73	1199	1184
July	5.8	4.1	75	78	1285	1370
August	5.5	4.2	74	76	1236	1305
Sep.	3.1	4.7	65	68	916	1011
Oct.	2.5	3.0	56	56	687	692
Season Totals	29.8	28.6	65	67	6188	6487

**TABLE 1. BROWN CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1994-1996.**

BRAND	NAME	ACRE YIELD, BUSHEL					YIELD AS % OF TEST AVERAGE			95-96		1996						
		1996	1995	1994	2-Yr.	3-Yr.	1996	1995	1994	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
					AVG.	AVG.												
ASGROW	A328	98	--	--	--	--	92	--	--	--	--	65	15	55	45	0	87	1.3
MATURITY CHECK	C 305	100	69	96	85	88	93	99	86	63	19	65	21	54	51	0	76	1.5
AGRIPRO	AP 9210	84	74	--	79	--	78	106	--	63	17	67	17	54	46	0	83	1.3
ASGROW	SENECA	98	--	--	--	--	92	--	--	--	--	67	18	54	47	0	76	1.4
MSG	O 214	80	73	97	76	83	74	105	87	64	18	67	19	54	47	0	73	1.4
MATURITY CHECK	TX3042xTX2737	83	68	101	75	84	77	98	91	64	19	67	21	54	51	0	69	1.5
NC+	6B50 (G)	89	--	--	--	--	83	--	--	--	--	68	19	54	49	0	70	1.4
MATURITY CHECK	OK11xTX2741	100	71	90	86	87	93	102	81	65	19	68	21	55	50	0	85	1.1
CARGILL	837	113	76	109	95	99	106	109	98	65	19	68	22	56	54	0	67	1.7
ICI	5616	103	--	--	--	--	96	--	--	--	--	69	19	56	48	0	75	1.3
NK	KS 711Y	94	72	--	83	--	87	103	--	67	18	70	17	55	46	0	78	1.5
PIONEER	8505	103	81	--	92	--	96	117	--	66	18	70	18	54	51	0	76	1.4
SG RESEARCH	EXP 95510	92	--	--	--	--	86	--	--	--	--	70	18	54	44	0	74	1.2
SG RESEARCH	EXP 95270	81	--	--	--	--	76	--	--	--	--	70	19	53	48	0	64	1.5
SG RESEARCH	SG 822	104	--	--	--	--	96	--	--	--	--	70	19	55	53	0	76	1.3
DEKALB	DK-35	95	--	--	--	--	89	--	--	--	--	70	20	55	48	0	81	1.3
HOEGEMEYER	671	99	65	114	82	92	92	93	102	67	19	70	20	56	51	0	73	1.3
SG RESEARCH	EXP 96121	71	--	--	--	--	66	--	--	--	--	70	21	50	46	0	65	1.6
CARGILL	775Y	121	70	110	95	100	112	101	99	66	20	70	22	56	49	0	89	1.2
PATRIOT	8530Y	81	--	--	--	--	76	--	--	--	--	70	22	54	47	0	64	1.5
GOLDEN HARVEST	H-509	107	76	--	92	--	100	110	--	66	20	70	23	55	52	0	78	1.4
AGRIPRO	AP 9670	93	--	--	--	--	87	--	--	--	--	71	15	54	50	0	70	1.5
DEKALB	DK-45	138	69	--	103	--	128	99	--	67	17	71	16	53	57	0	93	1.2
MYCOGEN	M 3838	93	66	--	80	--	87	95	--	66	16	71	17	55	48	0	68	1.4
PATRIOT	8608Y	106	--	115	--	--	98	--	103	--	--	71	20	55	51	0	70	1.4
MATURITY CHECK	RS 610	98	54	96	76	83	91	77	87	67	21	71	21	53	55	0	79	1.3
MSG	O 256	114	--	--	--	--	106	--	--	--	--	71	21	58	60	0	61	1.4
SG RESEARCH	EXP 94249	106	--	--	--	--	99	--	--	--	--	71	21	54	57	0	66	1.3
DEKALB	DK-51	99	--	97	--	--	92	--	88	--	--	71	22	57	52	0	71	1.4
NC+	7R83 (G)	144	--	--	--	--	134	--	--	--	--	71	22	55	56	0	73	1.3
MSG	G 530	68	--	--	--	--	64	--	--	--	--	71	23	55	48	0	73	1.3
PIONEER	8212Y	118	66	114	92	99	110	95	102	68	19	72	16	54	50	0	75	1.5
AGRIPRO	AP 2440	110	71	--	91	--	103	103	--	67	17	72	17	55	48	0	80	1.2
MYCOGEN	444E	114	82	114	98	103	106	118	103	68	16	72	17	54	53	0	64	1.7
TRIUMPH	TR65-G	96	74	99	85	90	90	106	89	67	17	72	17	56	54	0	66	1.5
NK	K73-J6	124	--	--	--	--	116	--	--	--	--	72	19	55	56	0	72	1.5
HOEGEMEYER	6710	79	--	--	--	--	74	--	--	--	--	72	20	54	51	0	80	1.3
DEKALB	DK-47	115	--	--	--	--	108	--	--	--	--	72	21	55	52	0	67	1.5
CARGILL	770Y	101	--	--	--	--	94	--	--	--	--	72	22	55	53	0	71	1.4

(continued)



**TABLE 1. BROWN CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1994-1996.**

BRAND	NAME	ACRE YIELD, BUSHELS						YIELD AS % OF TEST			95-96		1996					
		1996	1995	1994	2-Yr. 3-Yr.		AVERAGE			Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
					AVG.	AVG.	1996	1995	1994									
CARGILL	730	124	75	--	99	--	115	107	--	69	18	73	15	55	50	0	79	1.3
AGRIPRO	HY 2660	113	81	--	97	--	105	117	--	69	18	73	18	56	51	0	76	1.3
AGRIPRO	AP 9850	139	71	125	105	112	129	102	112	69	19	73	18	56	57	0	69	1.4
ASGROW	A425	100	--	--	--	--	93	--	--	--	--	73	19	54	52	0	72	1.3
CIBA	5549Z	131	--	--	--	--	122	--	--	--	--	73	19	55	58	0	77	1.5
DEKALB	DK-44	112	--	--	--	--	104	--	--	--	--	73	19	53	51	0	71	1.4
CARGILL	X12027 EXP	107	--	--	--	--	99	--	--	--	--	73	20	54	50	0	62	1.6
CARGILL	737	96	83	113	90	98	89	119	102	67	20	73	23	57	52	0	72	1.4
PATRIOT	8580	97	--	--	--	--	90	--	--	--	--	73	23	55	57	0	77	1.2
PIONEER	8310	96	71	--	84	--	90	102	--	68	22	73	23	55	56	0	72	1.2
MYCOGEN	1506	126	74	114	100	105	117	107	103	68	19	74	15	54	61	0	68	1.4
MSG	G 580	111	--	--	--	--	103	--	--	--	--	74	17	55	56	0	60	1.5
SG RESEARCH	EXP 94108	123	--	--	--	--	115	--	--	--	--	74	18	54	56	0	70	1.6
TRIUMPH	TR474	136	64	--	100	--	127	92	--	70	20	74	18	55	56	0	78	1.4
CARGILL	X13116 EXP	96	--	--	--	--	89	--	--	--	--	74	19	55	53	0	77	1.3
CIBA	1606	92	--	--	--	--	86	--	--	--	--	74	25	56	53	0	75	1.3
DEKALB	DK-54	152	78	129	115	119	141	112	116	70	17	75	16	54	58	0	69	1.5
DEKALB	DK-56	119	63	122	91	101	111	90	110	70	20	75	18	55	58	0	78	1.3
SG RESEARCH	SG 942	122	--	--	--	--	114	--	--	--	--	75	20	56	57	0	74	1.3
MATURITY CHECK	TX2752xTX430	114	73	113	94	100	107	104	102	70	16	76	16	54	53	0	70	1.4
MYCOGEN	3747	127	--	--	--	--	118	--	--	--	--	76	17	54	53	0	78	1.3
MATURITY CHECK	TX2752xTX2783	124	77	126	100	109	116	110	113	70	19	76	18	55	58	0	72	1.3
MYCOGEN	3800	123	--	--	--	--	114	--	--	--	--	76	18	54	54	0	72	1.4
FONTANELLE	5576C	118	79	--	98	--	109	113	--	71	21	76	20	55	53	0	69	1.5
DEKALB	DK-55	137	61	139	99	113	128	88	125	71	23	76	21	55	59	0	76	1.3
TRIUMPH	TR481	105	63	--	84	--	97	90	--	71	23	77	16	54	58	0	68	1.4
HOEGEMEYER	6878	143	80	122	111	115	133	114	110	70	19	77	19	57	52	0	68	1.4
SG RESEARCH	SG 919	103	--	--	--	--	96	--	--	--	--	77	19	55	53	0	64	1.6
PATRIOT	8638Y	103	--	--	--	--	96	--	--	--	--	78	16	53	50	0	68	1.3
AVERAGES		107	70	111	89	96	107	70	111	68	19	72	19	55	52	0	73	1.4
CV(%)		9	9	8	--	--	9	9	8	--	--	2	20	3	3	0	11	10.8
LSD(0.05)**		13	10	14	--	--	12	15	12	--	--	2	NS	2	2	NS	11	0.2

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

(G) = Seed was treated with Gaucho insecticide.

# NORTHEASTERN KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL

**COUNTY:** RILEY

**LOCATION:** Agronomy North Farm near Manhattan

**TEST SITE:** Reading silt loam

**1995 CROP:** Soybeans

**1994 CROP:** Sorghum

**FERTILIZER (lbs/acre):** 100 N 0 P2O5 0 K2O

**PLANTING DATE:** 5/21/96

**HARVEST DATE:** 11/8/96

**COOPERATORS:**

Kraig Roozeboom, agronomist; Karl Mannschreck, superintendent

**TARGET POPULATION:** 40,000 plants/acre,  
5.2 in. spacing

**STAND (% of target):** 118

**YIELD: Average (bu/a):** 142

**Range (bu/a):** 111 - 169

**LSD (bu/a):** 10

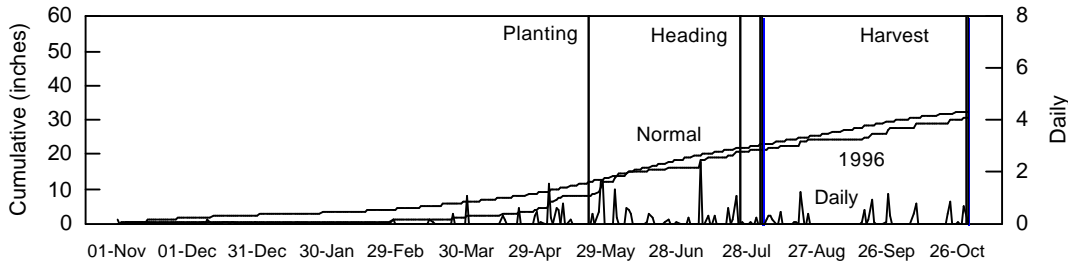
**CV (%):** 6

**SILK DATES:** 7/25/96 - 8/3/96

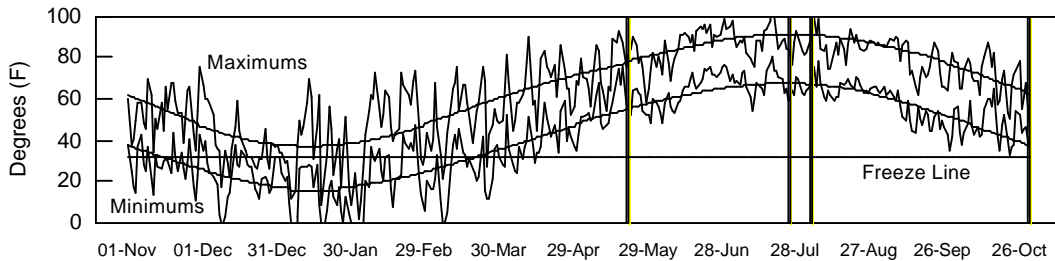
**1996 GROWING CONDITONS:**

Favorable soil moisture conditions resulted in good stands. Accumulated soil moisture minimized the adverse affects of below-normal June rainfall. Good rains in July and August resulted in little stress during stem elongation, heading, and grain filling. Relatively warm, sunny conditions with no frost in September and most of October prolonged the grain filling period. Wet grain delayed harvest until late October and November, when rains started and further delayed harvest.

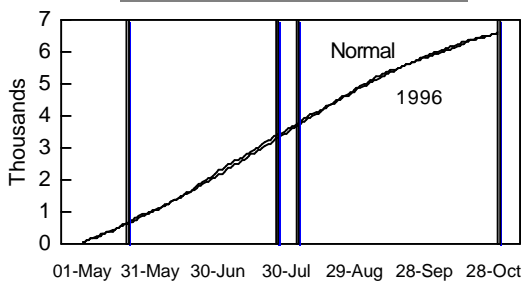
**PRECIPITATION**



**DAILY TEMPERATURES**



**GROWING DEGREE DAYS**



**GROWING-SEASON WEATHER SUMMARY**

Month	Precipitation		Average Temp.		GDD	
	1996	Normal	1996	Normal	1996	Normal
April	1.8	2.7	53	54	0	0
May	8.0	4.6	66	65	959	924
June	3.8	5.1	76	73	1258	1185
July	5.1	3.9	78	79	1370	1392
August	3.2	3.5	76	77	1299	1340
Sep.	3.2	3.8	65	69	944	1047
Oct.	3.1	2.8	58	57	754	710
Season Totals	28.1	26.3	67	68	6584	6596

**TABLE 2. RILEY CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1994-1996.**

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			95-96		1996						
		1996	1995	1994	2-Yr.	3-Yr.	1996	1995	1994	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Final Ldg %	Hds per Plnt	
					AVG.	AVG.												
MATURITY CHECK	C 305	129	137	117	133	128	91	96	89	62	15	65	16	54	53	1	112	1.5
ASGROW	A328	139	128	--	134	--	98	90	--	63	14	66	15	60	46	0	122	1.3
MATURITY CHECK	TX3042xTX2737	137	142	105	140	128	96	100	80	64	14	66	15	58	55	1	115	1.4
ASGROW	SENECA	135	136	151	136	141	95	95	115	65	14	68	15	59	45	0	118	1.2
DEKALB	DK-35	145	--	--	--	--	102	--	--	--	--	68	15	59	46	0	122	1.3
GRI	47967	129	--	--	--	--	90	--	--	--	--	68	15	58	51	0	94	1.5
MATURITY CHECK	RS 610	136	121	112	129	123	95	85	85	65	14	68	15	55	54	2	120	1.2
SG RESEARCH	EXP 95510	129	--	--	--	--	91	--	--	--	--	68	15	57	43	0	119	1.2
PIONEER	8500	146	141	138	144	142	102	99	105	65	15	68	16	59	52	1	125	1.4
PIONEER	8505	144	152	144	148	147	101	107	110	65	14	69	15	60	52	0	125	1.3
GRI	58967	148	--	--	--	--	104	--	--	--	--	69	16	58	51	1	102	1.4
MATURITY CHECK	OK11xTX2741	131	130	130	131	130	92	91	99	66	15	69	16	57	47	0	123	1.1
CARGILL	737	141	151	152	146	148	99	106	116	67	14	70	15	57	51	0	119	1.1
CARGILL	770Y	143	--	--	--	--	100	--	--	--	--	70	15	53	53	0	119	1.2
CARGILL	775Y	143	133	131	138	136	100	94	100	68	14	70	15	57	47	0	129	1.2
CARGILL	730	140	158	--	149	--	98	111	--	69	14	70	15	58	53	0	115	1.3
DEKALB	DK-51	146	142	137	144	142	103	99	105	68	14	70	15	58	55	0	127	1.2
DEKALB	DK-40y	146	137	119	141	134	102	96	90	67	14	70	15	60	52	1	114	1.2
GRI	23977	138	145	--	141	--	97	102	--	68	14	70	15	57	56	1	96	1.5
MATURITY CHECK	TX2752xTX430	137	160	130	148	142	96	112	99	69	15	70	15	58	57	1	115	1.3
SG RESEARCH	EXP 96121	111	--	--	--	--	78	--	--	--	--	70	15	51	46	0	121	1.2
SG RESEARCH	SG 822	146	--	--	--	--	102	--	--	--	--	70	15	59	53	1	120	1.2
CARGILL	837	139	150	147	145	145	98	105	112	69	15	70	16	58	59	1	130	1.1
CIBA	5549Z	137	--	--	--	--	97	--	--	--	--	70	16	58	60	5	129	1.2
DEKALB	DK-44	145	--	--	--	--	102	--	--	--	--	70	16	59	51	2	111	1.2
DEKALB	DK-45	161	156	--	159	--	113	110	--	68	15	70	16	59	59	0	127	1.1
DEKALB	DK-47	130	--	--	--	--	91	--	--	--	--	70	16	57	51	4	125	1.2
MYCOGEN	444E	157	139	136	148	144	110	98	104	68	15	70	16	59	56	0	103	1.4
NK	K73-J6	158	--	--	--	--	111	--	--	--	--	70	16	59	59	1	124	1.3
NORTHRUP KING	KS 735	146	146	151	146	148	102	103	115	69	15	70	16	58	53	1	122	1.3
CIBA	1606	134	--	--	--	--	94	--	--	--	--	71	15	58	55	2	116	1.2
PIONEER	8414	136	--	--	--	--	96	--	--	--	--	71	15	59	52	0	119	1.3
GRI	16977	148	149	--	148	--	104	105	--	70	15	71	16	57	59	0	112	1.3
MATURITY CHECK	TX2752xTX2783	146	153	149	150	150	103	107	114	70	16	71	16	59	59	4	116	1.1
MYCOGEN	1506	144	161	142	153	149	101	113	108	68	15	71	16	58	66	2	113	1.3
SG RESEARCH	SG 942	138	--	--	--	--	97	--	--	--	--	71	16	60	57	5	129	1.1
SG RESEARCH	EXP 95270	130	--	--	--	--	91	--	--	--	--	72	15	58	47	0	115	1.2
ASGROW	A425	142	--	--	--	--	100	--	--	--	--	72	16	60	53	2	109	1.3
CARGILL	X12027 EXP	156	--	--	--	--	109	--	--	--	--	72	16	59	51	0	123	1.1
GRI	58943	145	--	--	--	--	102	--	--	--	--	72	16	59	58	1	94	1.5
NC+	7R83 (G)	157	--	--	--	--	110	--	--	--	--	72	16	59	57	2	116	1.2
SG RESEARCH	EXP 94249	146	--	--	--	--	103	--	--	--	--	72	16	59	62	0	112	1.2
SG RESEARCH	SG 919	156	--	--	--	--	110	--	--	--	--	73	16	60	56	0	131	1.1
SG RESEARCH	EXP 94108	148	--	--	--	--	104	--	--	--	--	73	17	56	58	3	127	1.1
DEKALB	DK-55	169	137	148	153	152	119	96	113	72	17	74	16	59	63	0	130	1.1
AVERAGES		142	143	131	143	139	142	143	131	68	15	70	16	58	54	1	118	1.2
CV(%)		6	6	9	--	--	6	6	9	--	--	1	2	2	2	132	8	6.6
LSD(0.05)**		10	11	17	--	--	7	8	13	--	--	1	0	2	1	2	10	0.1

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

(G) = Seed was treated with Gaucho insecticide.

# EAST CENTRAL KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL

**COUNTY:** FRANKLIN

**LOCATION:** East Central Kansas Experiment Field, Ottawa

**TEST SITE:** Woodson silt loam

**1995 CROP:** Soybeans

**1994 CROP:** Sorghum

**FERTILIZER (lbs/acre):** 80 N 0 P2O5 0 K2O

**PLANTING DATE:** 6/5/96

**HARVEST DATE:** 11/26/96

**COOPERATORS:**

Keith Janssen, agronomist; Edwin Horstick, technician

**TARGET POPULATION:** 40,000 plants/acre,  
5.2 in. spacing

**STAND (% of target):** 115

**YIELD: Average (bu/a):** 131

**Range (bu/a):** 96 - 155

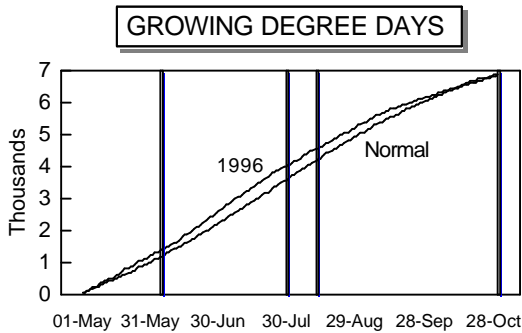
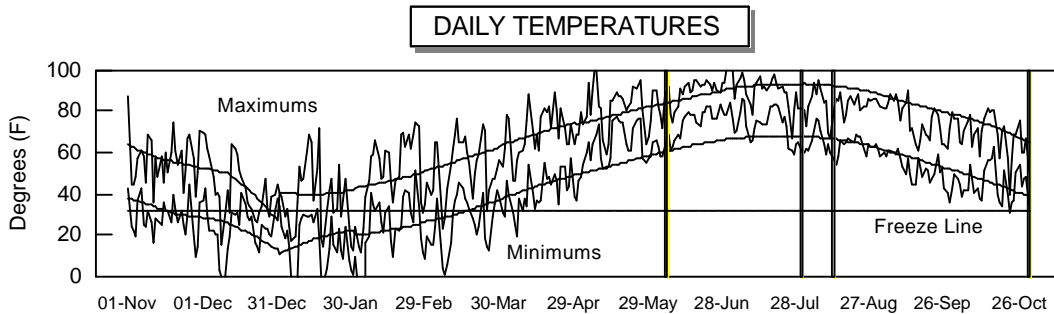
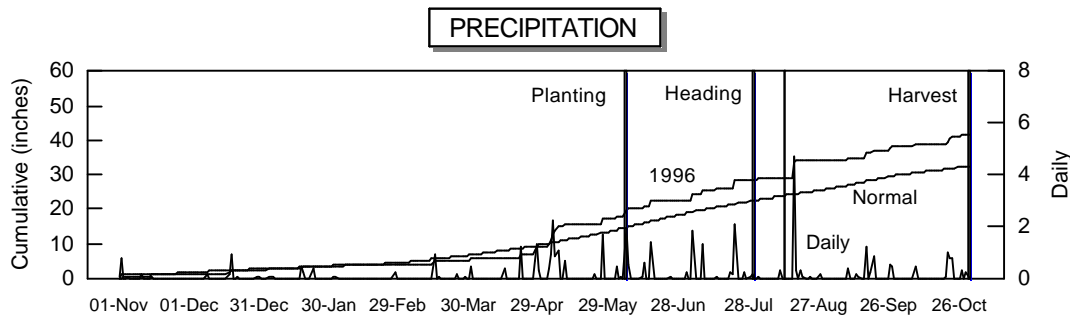
**LSD (bu/a):** 11

**CV (%):** 7

**SILK DATES:** 7/30/96 - 8/12/96

**1996 GROWING CONDITONS:**

The test was planted just prior to a heavy rain, but emergence and resulting stands did not seem to be adversely affected. Frequent rains in July and August minimized moisture stress during pollination and grain fill. Slow maturation and grain drying delayed harvest until November rains began. Continued rains postponed harvest until late November when the ground finally froze.



## GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1996	Normal	1996	Normal	1996	Normal
April	4.3	2.9	55	57	0	0
May	7.9	4.2	72	66	1155	965
June	5.1	4.9	81	75	1397	1222
July	6.3	4.0	82	80	1496	1431
August	5.8	3.2	74	79	1241	1386
Sep.	3.7	4.1	64	70	896	1080
Oct.	3.5	2.7	56	59	695	773
Season Totals	36.6	26.0	69	69	6879	6856

**TABLE 3. FRANKLIN CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1994-1996.**

BRAND	NAME	ACRE YIELD, BUSHEL						YIELD AS % OF TEST AVERAGE			95-96		1996						
		1996	1995	1994	2-Yr.	3-Yr.	1996	1995	1994	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt	
					AVG.	AVG.													
MATURITY CHECK	C 305	96	73	135	85	101	73	72	86	56	19	55	19	51	52	9	91	1.5	
AGRIPRO	AP 9210	117	--	--	--	--	90	--	--	--	--	56	18	58	48	5	122	1.2	
MSG	O 214	122	108	156	115	129	93	107	99	56	18	56	18	58	49	2	132	1.1	
NK	KS 585	123	116	--	120	--	94	115	--	57	18	56	18	59	50	5	128	1.2	
CENTURY II	GB5543-E	99	78	--	88	--	75	77	--	56	20	56	20	53	57	13	116	1.3	
MATURITY CHECK	OK11xTX2741	123	94	134	108	117	94	93	86	58	18	57	18	57	50	4	110	1.2	
MATURITY CHECK	TX3042xTX2737	109	104	148	107	121	84	103	95	57	18	57	18	56	51	12	105	1.3	
MATURITY CHECK	RS 610	99	58	135	78	97	76	57	86	58	20	57	20	53	55	13	105	1.3	
CENTURY II	GB7042-E	117	96	152	106	122	89	95	97	59	18	58	18	56	53	6	116	1.3	
DEKALB	DK-35	142	--	--	--	--	108	--	--	--	--	58	18	59	50	3	114	1.3	
DELANGE	DSA 115C	127	--	--	--	--	97	--	--	--	--	58	18	57	49	5	117	1.1	
NC+	6B67 (G)	120	--	--	--	--	92	--	--	--	--	58	18	55	49	2	132	1.1	
NORTHRUP KING	KS 710	130	110	160	120	133	99	108	102	59	18	58	18	57	49	4	122	1.3	
DELANGE	DSA 131	127	105	153	116	128	97	104	98	59	18	58	19	57	47	6	113	1.2	
NORTHRUP KING	KS 555Y	128	117	154	123	133	98	116	98	59	17	59	17	58	53	4	121	1.1	
PIONEER	8500	135	119	--	127	--	103	117	--	59	18	59	18	59	52	4	104	1.4	
CENTURY II	GB9140-E	116	82	174	99	124	89	81	111	61	19	59	19	58	58	5	133	1.1	
HOEGEMEYER	671	134	102	146	118	127	103	100	93	60	18	59	19	57	53	6	124	1.1	
PATRIOT	8530Y	109	--	--	--	--	83	--	--	--	--	59	19	52	46	14	97	1.3	
AGRIPRO	HY 2660	136	--	--	--	--	104	--	--	--	--	60	18	58	53	3	124	1.2	
CARGILL	775Y	129	107	161	118	132	98	106	103	61	18	60	18	57	50	6	123	1.1	
CARGILL	737	128	109	166	118	134	98	107	106	60	18	60	18	57	51	4	112	1.2	
DEKALB	DK-51	136	103	155	119	131	104	101	99	60	18	60	18	54	51	4	111	1.3	
DELANGE	DSA 125C	121	96	148	108	122	92	95	95	60	18	60	18	56	53	10	109	1.1	
HOEGEMEYER	6710	129	--	--	--	--	99	--	--	--	--	60	18	55	50	5	121	1.1	
NC+	371 (G)	134	--	--	--	--	103	--	--	--	--	60	18	58	49	9	131	1.1	
NK	KS 711Y	119	104	--	111	--	91	102	--	61	18	60	18	58	46	6	121	1.2	
PIONEER	8310	136	124	150	130	137	104	122	96	60	18	60	18	57	59	4	126	1.1	
TRIUMPH	TR459	135	106	--	120	--	103	104	--	59	18	60	18	58	47	1	120	1.1	
AGRIPRO	AP 2440	116	--	--	--	--	89	--	--	--	--	60	19	57	50	4	129	1.1	
DEKALB	DK-45	114	123	--	118	--	87	121	--	59	18	60	19	56	58	11	116	1.1	
DEKALB	DK-47	155	--	--	--	--	118	--	--	--	--	60	19	59	54	3	123	1.2	
MYCOGEN	444E	129	106	155	117	130	98	105	99	60	18	60	19	55	53	10	104	1.2	
NORTHRUP KING	KS 735	132	103	149	117	128	101	102	95	60	19	60	19	58	52	5	118	1.1	
PATRIOT	8608Y	129	--	157	--	--	99	--	100	--	--	60	19	56	53	5	114	1.1	
CENTURY II	GB8041-W	130	111	149	121	130	100	110	95	61	19	60	20	53	52	5	123	1.1	
CARGILL	770Y	139	--	--	--	--	107	--	--	--	--	61	18	56	52	2	117	1.1	
CARGILL	730	144	124	--	134	--	110	123	--	61	18	61	18	56	52	3	114	1.1	

(continued)

**TABLE 3. FRANKLIN CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1994-1996.**

BRAND	NAME	ACRE YIELD, BUSHEL			YIELD AS % OF TEST AVERAGE			95-96		1996								
		1996	1995	1994	2-Yr. AVG.	3-Yr. AVG.	1996	1995	1994	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
CARGILL	837	139	103	153	121	132	106	101	98	60	18	61	19	57	53	3	100	1.4
NC+	7R83 (G)	113	--	--	--	--	87	--	--	--	--	61	19	56	55	12	112	1.2
NK	K73-J6	141	--	--	--	--	108	--	--	--	--	61	19	58	57	5	117	1.2
PATRIOT	8580	137	--	--	--	--	105	--	--	--	--	61	19	58	55	2	108	1.1
CARGILL	X12027 EXP	132	--	--	--	--	101	--	--	--	--	62	18	56	49	6	124	1.1
DEKALB	DK-58	138	107	187	122	144	106	105	119	62	18	62	18	57	54	7	105	1.2
DELANGE	DSA 151	140	107	158	124	135	107	106	100	62	18	62	18	57	53	3	105	1.3
GARST	5514Y	114	107	174	111	132	87	106	111	62	18	62	18	57	50	15	114	1.3
MATURITY CHECK	TX2752xTX430	142	118	158	130	140	109	117	101	61	18	62	18	58	54	3	112	1.2
MSG	O 256	148	--	--	--	--	113	--	--	--	--	62	18	57	60	5	96	1.3
MYCOGEN	1506	139	118	154	129	137	106	117	98	61	18	62	18	57	62	7	100	1.4
PIONEER	8212Y	147	--	--	--	--	113	--	--	--	--	62	18	59	51	2	117	1.2
TRIUMPH	TR82-G	145	--	162	--	--	111	--	103	--	--	62	18	59	58	4	111	1.1
DEKALB	DK-54	149	102	166	125	139	114	101	106	63	19	62	19	58	61	3	111	1.2
FONTANELLE	5576C	152	101	--	127	--	117	100	--	62	18	62	19	57	53	4	115	1.1
MATURITY CHECK	TX2752xTX2783	142	70	170	106	128	109	69	109	62	18	62	19	59	57	3	112	1.1
TRIUMPH	TR474	147	86	172	116	135	113	85	110	63	18	62	19	57	56	5	119	1.2
DEKALB	DK-56	151	100	160	126	137	116	99	102	63	18	63	18	58	60	3	107	1.1
AGRIPRO	AP 9850	144	--	--	--	--	110	--	--	--	--	63	19	59	57	4	111	1.1
TRIUMPH	TR481	143	--	154	--	--	109	--	98	--	--	63	19	59	57	4	121	1.1
HOEGEMEYER	6878	144	110	159	127	137	110	108	101	62	18	64	19	57	54	2	126	1.1
DEKALB	DK-55	145	103	176	124	141	111	102	112	64	19	64	20	54	60	6	110	1.1
PATRIOT	8638Y	117	--	--	--	--	90	--	--	--	--	68	20	54	47	3	77	1.3
AVERAGES		131	101	157	116	130	131	101	157	60	18	60	18	57	53	5	115	1.2
CV(%)		7	8	6	--	--	7	8	6	--	--	1	4	2	3	55	8	7.9
LSD(0.05)**		11	13	15	--	--	8	13	10	--	--	1	1	2	2	3	11	0.1

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

(G) = Seed was treated with Gaucho insecticide.

# NORTH CENTRAL KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL

**COUNTY:** REPUBLIC

**LOCATION:** North Central Kansas Experiment Field, Belleville

**TEST SITE:** Crete silt loam

**1995 CROP:** Wheat

**1994 CROP:** Oats

**FERTILIZER (lbs/acre):** 150 N 30 P2O5 0 K2O

**PLANTING DATE:** 6/5/96

**HARVEST DATE:** 10/16/96

**COOPERATORS:**

Barney Gordon, agronomist; Michael Larson and Allan Milner, technicians

**TARGET POPULATION:** 35,000 plants/acre,  
6.0 in. spacing

**STAND (% of target):** 110

**YIELD: Average (bu/a):** 138

**Range (bu/a):** 108 - 160

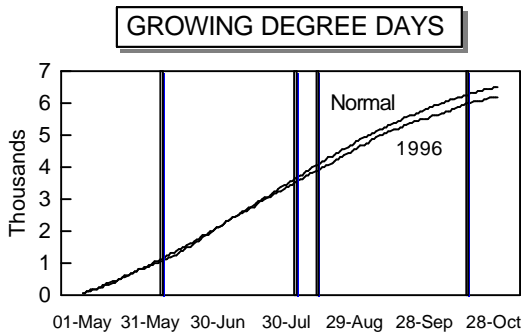
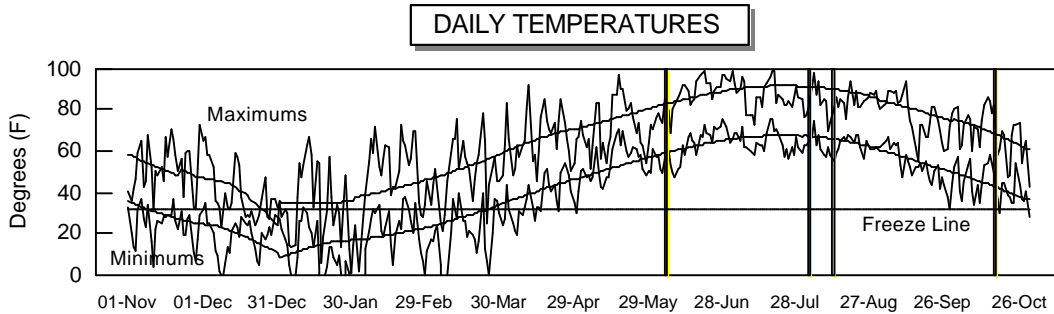
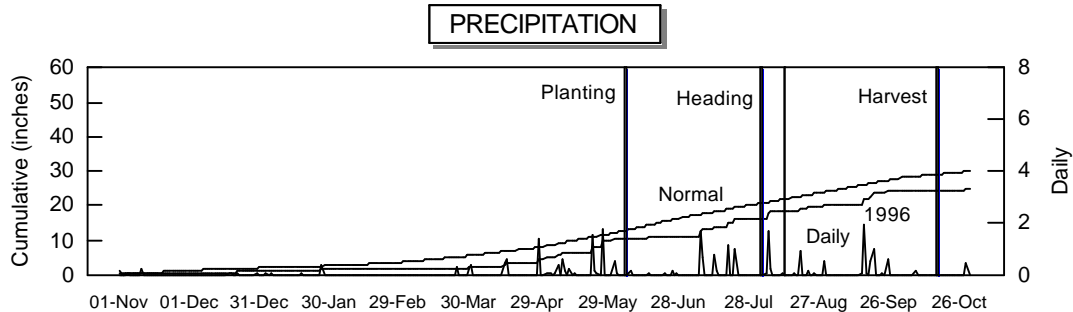
**LSD (bu/a):** 13

**CV (%):** 7

**SILK DATES:** 8/2/96 - 8/12/96

**1996 GROWING CONDITIONS:**

Good May rainfall set up ideal planting conditions in early June resulting in good stands. June was very dry, but July and August had above-normal rainfall. Some Fusarium stalk rot was noted late in the season, but the test was harvested before significant lodging occurred.



## GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1996	Normal	1996	Normal	1996	Normal
April	2.8	2.5	51	53	0	0
May	5.1	4.0	62	64	866	902
June	1.0	4.6	74	74	1209	1188
July	5.4	3.8	76	79	1307	1398
August	3.8	3.7	74	77	1232	1335
Sep.	4.1	3.9	64	67	914	1004
Oct.	0.6	2.0	56	56	683	678
Season Totals	22.7	24.5	65	67	6210	6505



**TABLE 4. REPUBLIC CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1994-1996.**

BRAND	NAME	ACRE YIELD, BUSHEL						YIELD AS % OF TEST AVERAGE			95-96		1996					
		1996	1995	1994	2-Yr.	3-Yr.	1996	1995	1994	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Final Ldg %	Hds Stand per Plnt	
					AVG.	AVG.												
FONTANELLE	4425	120	126	--	123	--	87	113	--	60	14	58	17	59	44	0	108	1.6
KAYSTAR	KS-502	137	--	--	--	--	99	--	--	--	--	59	16	59	47	0	107	1.7
MATURITY CHECK	OK11xTX2741	112	113	138	113	121	82	101	96	62	14	59	16	59	43	0	117	1.5
MATURITY CHECK	RS 610	108	108	141	108	119	79	97	98	61	14	59	17	58	46	0	109	1.6
MATURITY CHECK	C 305	124	124	138	124	129	90	112	96	61	15	59	17	58	43	0	112	1.6
NK	KS 585	139	125	--	132	--	101	112	--	61	14	59	17	59	42	0	116	1.6
MSG	O 214	127	126	149	126	134	92	113	104	61	15	59	18	59	43	0	108	1.6
MATURITY CHECK	TX3042xTX2737	134	117	124	126	125	97	105	86	61	14	60	16	59	45	0	108	1.5
CIBA	1486	122	--	--	--	--	88	--	--	--	--	60	17	58	42	0	108	1.7
DEKALB	DK-39	114	117	133	115	121	83	105	93	62	14	60	17	59	42	0	113	1.5
GARST	5631Y	134	--	--	--	--	97	--	--	--	--	60	17	59	43	0	110	1.6
GRI	58967	132	--	--	--	--	96	--	--	--	--	60	17	59	45	0	110	1.6
KAYSTAR	KS-520C	118	--	--	--	--	86	--	--	--	--	60	17	58	43	0	103	1.6
NORTHROP KING	KS 560Y	130	--	130	--	--	94	--	90	--	--	60	17	59	39	0	111	1.7
PIONEER	8500	153	--	--	--	--	111	--	--	--	--	60	17	59	44	0	112	1.5
CARGILL	647	135	125	--	130	--	98	112	--	61	15	60	18	58	44	0	106	1.8
CARGILL	627	134	--	--	--	--	97	--	--	--	--	60	18	57	46	0	114	1.5
DEKALB	DK-35	144	--	--	--	--	104	--	--	--	--	60	18	58	42	0	112	1.6
DEKALB	DK-40y	144	113	150	129	136	104	102	104	63	15	60	18	58	46	0	113	1.4
PIONEER	8505	157	127	154	142	146	114	114	107	62	15	60	18	59	43	0	112	1.7
PIONEER	8414	154	--	--	--	--	112	--	--	--	--	60	18	59	48	0	116	1.7
SG RESEARCH	EXP 95510	127	--	--	--	--	92	--	--	--	--	60	18	57	41	0	103	1.6
TRIUMPH	TR445	135	--	--	--	--	98	--	--	--	--	60	18	58	47	0	108	1.5
CARGILL	737	137	124	155	131	139	99	111	108	63	14	61	17	58	40	0	106	1.7
KAYSTAR	KS-525	139	--	--	--	--	101	--	--	--	--	61	17	58	44	0	116	1.7
MYCOGEN	M 3838	126	--	--	--	--	91	--	--	--	--	61	17	59	42	0	104	1.6
SG RESEARCH	EXP 96121	118	--	--	--	--	86	--	--	--	--	61	17	56	44	0	111	1.6
CARGILL	770Y	143	--	--	--	--	104	--	--	--	--	61	18	58	45	0	109	1.7
DEKALB	DK-45	159	108	--	134	--	115	97	--	64	15	61	18	58	51	0	115	1.6
KAYSTAR	KS-528	129	--	--	--	--	94	--	--	--	--	61	18	58	45	0	111	1.6
MYCOGEN	1505Y	144	112	149	128	135	104	101	104	64	15	61	18	58	45	0	113	1.5
TRIUMPH	TR65-G	138	113	--	126	--	100	101	--	64	15	61	18	58	45	0	111	1.6
TRIUMPH	TR462	138	--	--	--	--	100	--	--	--	--	61	18	58	49	0	113	1.6
CARGILL	775Y	149	103	--	126	--	108	93	--	64	15	61	19	57	47	0	109	1.6
DEKALB	DK-47	158	--	--	--	--	114	--	--	--	--	61	19	58	45	0	107	1.6
GRI	47977	145	126	--	135	--	105	113	--	63	15	61	19	57	48	0	107	1.7
HOEGEMEYER	671	137	96	132	117	122	99	87	92	65	15	61	19	58	47	0	110	1.6
ICI	5616	143	125	148	134	138	103	112	103	62	15	61	19	57	42	0	108	1.6
SG RESEARCH	SG 822	150	--	--	--	--	109	--	--	--	--	61	19	59	49	0	106	1.7

(continued)



**TABLE 4. REPUBLIC CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1994-1996.**

BRAND	NAME	ACRE YIELD, BUSHEL						YIELD AS % OF TEST			95-96		1996					
		1996	1995	1994	2-Yr. 3-Yr.		AVERAGE			Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
					AVG.	AVG.	1996	1995	1994									
CARGILL	730	160	126	--	143	--	116	113	--	64	15	62	18	58	47	0	106	1.7
DEKALB	DK-44	140	--	--	--	--	101	--	--	--	--	62	18	58	42	0	104	1.6
HOEGEMEYER	6874	138	--	--	--	--	100	--	--	--	--	62	18	58	44	0	111	1.7
KAYSTAR	KS-540Y	136	--	--	--	--	99	--	--	--	--	62	18	58	47	0	108	1.6
MYCOGEN	1506	141	127	184	134	150	102	114	128	64	15	62	18	58	50	0	107	1.6
SG RESEARCH	EXP 94249	151	--	--	--	--	109	--	--	--	--	62	18	58	49	0	110	1.7
SG RESEARCH	EXP 95270	121	--	--	--	--	88	--	--	--	--	62	18	57	45	0	113	1.6
TRIUMPH	TR459	134	124	--	129	--	97	111	--	63	15	62	18	58	41	0	109	1.5
CARGILL	X12027 EXP	144	--	--	--	--	104	--	--	--	--	62	19	57	43	0	118	1.6
GRI	23977	149	89	--	119	--	108	80	--	65	15	62	19	57	47	0	108	1.6
MSG	G 580	145	--	--	--	--	105	--	--	--	--	62	19	58	51	0	105	1.6
NK	KS 711Y	140	104	--	122	--	102	94	--	65	16	62	19	58	41	0	113	1.6
HOEGEMEYER	6710	138	92	137	115	123	100	83	96	64	16	62	20	57	46	0	117	1.6
CIBA	5549Z	141	--	--	--	--	102	--	--	--	--	63	18	58	45	0	110	1.8
FONTANELLE	5576C	144	107	--	125	--	104	96	--	65	15	63	18	57	46	0	111	1.7
SG RESEARCH	EXP 94108	139	--	--	--	--	100	--	--	--	--	63	18	57	48	0	107	1.8
SG RESEARCH	SG 919	149	--	--	--	--	108	--	--	--	--	63	18	58	49	0	110	1.5
DEKALB	DK-58	150	102	164	126	139	109	92	115	67	16	64	19	57	46	0	116	1.6
GRI	58943	138	--	--	--	--	100	--	--	--	--	64	19	58	49	0	101	1.7
MATURITY CHECK	TX2752xTX430	154	124	157	139	145	112	111	109	66	15	64	19	57	52	0	106	1.8
MSG	O 256	139	--	--	--	--	101	--	--	--	--	64	19	57	47	0	112	1.5
CIBA	1606	133	--	--	--	--	96	--	--	--	--	65	19	57	47	0	110	1.5
GRI	16977	149	--	--	--	--	108	--	--	--	--	65	19	57	47	0	108	1.7
MATURITY CHECK	TX2752xTX2783	132	108	149	120	130	96	97	104	68	16	67	19	57	45	0	103	1.7
TRIUMPH	TR474	144	90	--	117	--	104	81	--	68	16	67	19	57	46	0	105	1.7
SG RESEARCH	SG 942	130	--	--	--	--	94	--	--	--	--	68	20	57	46	0	103	1.6
AVERAGES		138	111	144	125	131	138	111	144	64	15	61	18	58	45	0	110	1.6
CV(%)		7	8	8	--	--	7	8	8	--	--	2	5	1	7	0	6	7.3
LSD(0.05)**		13	15	19	--	--	9	13	14	--	--	1	1	1	4	NS	NS	NS

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

# NORTH CENTRAL KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL

**COUNTY:** ELLIS

**LOCATION:** Agricultural Research Center, Hays

**TEST SITE:** Harney silt loam

**1995 CROP:** Fallow

**1994 CROP:** Sorghum

**FERTILIZER (lbs/acre):** 80 N 0 P2O5 0 K2O

**PLANTING DATE:** 5/23/96

**HARVEST DATE:** 10/23/96

**COOPERATORS:**

Kenneth Kofoid, agronomist

**TARGET POPULATION:** 35,000 plants/acre,  
6.0 in. spacing

**STAND (% of target):** NA

**YIELD: Average (bu/a):** 112

**Range (bu/a):** 53 - 156

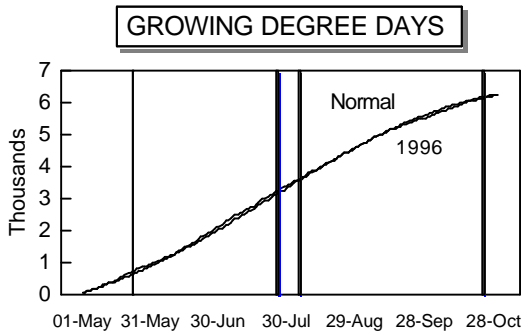
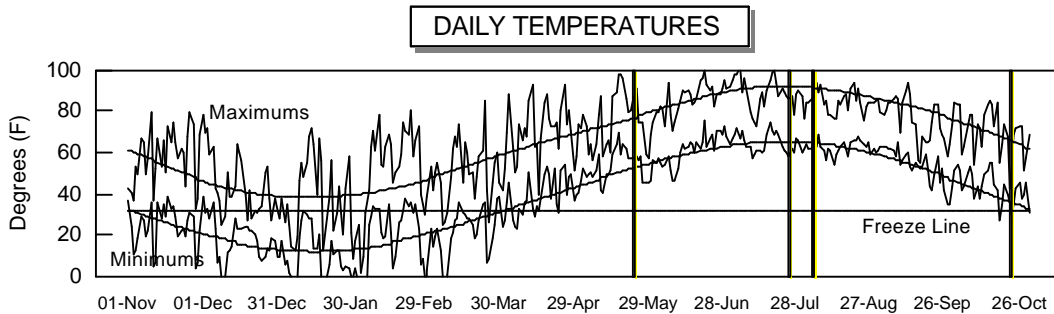
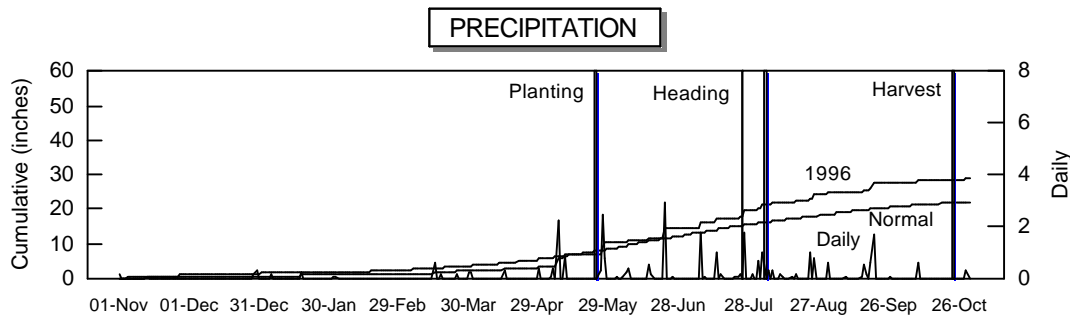
**LSD (bu/a):** 13

**CV (%):** 8

**SILK DATES:** 7/25/96 - 8/4/96

**1996 GROWING CONDITONS:**

This test was planted in extremely dry soil. Heavy rains after planting caused soil crusting, which resulted in rather poor stands. Rainfall was above-normal during the rest of the growing season and caused prolific tillering. The test was subjected to essentially no drought or heat stress during any part of the growing season, and plant growth was excellent.



## GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1996	Normal	1996	Normal	1996	Normal
April	1.0	1.9	54	51	0	0
May	7.0	3.2	63	62	898	842
June	4.3	3.8	73	72	1184	1141
July	5.1	3.3	77	78	1332	1366
August	4.4	2.8	74	76	1227	1301
Sep.	3.7	2.2	64	67	910	995
Oct.	0.9	1.4	57	55	705	638
Season Totals	26.6	18.5	66	66	6256	6281

**TABLE 5. ELLIS CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1994-1996.**

BRAND	NAME	ACRE YIELD, BUSHEL									YIELD AS %			1996						
		1996			1995			1994			OF TEST			Days	Grain	Days	Grain	Test	Plnt	Hds
		1996	1995	1994	2-Yr. AVG.	3-Yr. AVG.	AVERAGE	1996	1995	1994	Blm	Moist.	Blm	Moist.	lb/bu	Ht. in.	per Plnt			
NK	KS 310	86	72	--	79	--	77	104	--	63	14	63	16	56	38	3.4				
MATURITY CHECK	C 305	81	73	123	77	92	72	105	100	62	15	63	17	54	43	2.9				
MATURITY CHECK	TX3042xTX2737	123	65	132	94	107	110	93	108	66	13	64	13	60	48	2.0				
NC+	6B50 (G)	104	--	--	--	--	93	--	--	--	--	64	13	58	46	2.1				
NK	K35-Y5	85	--	--	--	--	75	--	--	--	--	64	13	57	34	2.8				
PIONEER	8699	81	69	--	75	--	72	100	--	65	13	65	14	57	43	2.5				
PIONEER	8505	108	75	--	91	--	96	107	--	65	13	65	14	60	46	2.2				
NC+	5B74E (G)	87	--	--	--	--	78	--	--	--	--	65	15	57	36	2.5				
MATURITY CHECK	RS 610	81	68	117	75	89	72	98	95	65	15	65	16	55	44	2.5				
ASGROW	A328	53	69	--	61	--	47	99	--	65	18	65	23	52	43	3.5				
DEKALB	DK-38y	118	65	127	92	103	105	94	103	67	13	66	13	58	41	2.4				
NC+	Y363 (G)	124	--	--	--	--	110	--	--	--	--	66	13	59	46	2.3				
ASGROW	SENECA	105	64	129	85	99	94	93	105	67	14	66	14	61	43	2.5				
GOLDEN HARVEST	H-403	107	73	--	90	--	95	106	--	66	14	66	14	60	41	2.0				
GOLDEN WORLD	GW 5972	111	--	--	--	--	99	--	--	--	--	66	14	60	44	2.1				
DEKALB	DK-35	114	--	--	--	--	101	--	--	--	--	67	13	60	40	2.1				
CARGILL	737	126	--	112	--	--	112	--	92	--	--	67	14	59	41	2.0				
CASTERLINE	SR 313	135	--	--	--	--	120	--	--	--	--	67	14	60	52	1.8				
GOLDEN WORLD	GW 5960	108	--	--	--	--	96	--	--	--	--	67	14	58	45	2.6				
MYCOGEN	M 3838	100	66	--	83	--	89	95	--	69	14	67	14	60	39	1.9				
NK	KS 585	121	--	--	--	--	108	--	--	--	--	67	14	61	39	2.4				
ASGROW	A425	101	--	--	--	--	90	--	--	--	--	67	15	56	49	2.6				
DEKALB	DK-40y	108	70	132	89	103	96	100	108	68	13	68	13	59	47	1.9				
CARGILL	770Y	112	--	--	--	--	100	--	--	--	--	68	14	56	43	2.2				
DEKALB	DK-39	131	69	130	100	110	117	100	106	69	14	68	14	60	42	2.3				
HOEGEMEYER	6874	143	--	--	--	--	127	--	--	--	--	68	14	61	49	2.1				
MATURITY CHECK	OK11xTX2741	97	65	98	81	87	86	94	80	68	14	68	14	59	43	2.0				
MSG	G 580	127	--	--	--	--	113	--	--	--	--	68	14	60	53	2.0				
ICI	5616	90	79	143	84	104	80	113	117	68	14	68	15	57	43	1.8				
MSG	O 256	137	--	--	--	--	122	--	--	--	--	68	15	57	55	2.2				
NC+	6Y83I (G)	78	--	--	--	--	70	--	--	--	--	68	17	55	49	2.4				
CARGILL	X13116 EXP	97	--	--	--	--	87	--	--	--	--	69	13	61	54	1.9				
CARGILL	X12027 EXP	149	--	--	--	--	132	--	--	--	--	69	14	60	47	2.1				
DEKALB	DK-44	119	--	--	--	--	106	--	--	--	--	69	14	60	47	1.7				
DEKALB	DK-45	109	71	--	90	--	97	102	--	69	14	69	14	59	53	2.0				
MYCOGEN	1505Y	122	66	141	94	109	108	95	115	73	15	69	14	59	45	2.2				
MSG	G 530	103	--	--	--	--	92	--	--	--	--	69	15	57	42	1.6				
CARGILL	730	120	74	--	97	--	107	107	--	71	13	70	13	60	49	2.0				
HOEGEMEYER	671	140	51	136	95	109	124	74	111	73	14	70	13	59	46	2.0				
ASGROW	A571	156	--	--	--	--	139	--	--	--	--	70	14	60	52	1.9				
CARGILL	775Y	125	68	--	97	--	111	98	--	74	14	70	14	59	45	1.9				
CASTERLINE	EXP 737	127	--	--	--	--	113	--	--	--	--	70	14	60	47	1.9				
HOEGEMEYER	6710	126	75	--	101	--	113	108	--	72	14	70	14	57	47	2.0				
MATURITY CHECK	TX2752xTX430	142	70	131	106	114	126	101	107	73	14	70	14	60	51	1.9				
MATURITY CHECK	TX2752xTX2783	140	63	119	102	107	125	91	97	74	14	73	14	61	52	1.6				
AVERAGES		112	70	122	91	101	112	70	122	69	14	67	14	58	45	2.2				
CV(%)		8	8	10	--	--	8	8	10	--	--	2	8	3	6	16.1				
LSD(0.05)**		13	9	20	--	--	11	13	16	--	--	2	2	2	4	0.5				

\*\* Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.  
(G) = Seed was treated with Gaucho insecticide.

# SOUTH CENTRAL KANSAS GRAIN SORGHUM TEST ON SILTY CLAY LOAM SOIL

**COUNTY:** HARVEY

**LOCATION:** Harvey County Experiment Field, Hesston

**TEST SITE:** Ladysmith silty clay loam

**1995 CROP:** Oats

**1994 CROP:** Sorghum

**FERTILIZER (lbs/acre):** 100 N 32 P2O5 0 K2O

**PLANTING DATE:** 6/12/95

**HARVEST DATE:** 10/24/96

**COOPERATORS:**

Mark Claassen, agronomist; Kevin Duerksen and Lowell Stucky, technicians

**TARGET POPULATION:** 30,000 plants/acre,

7.0 in. spacing

**STAND (% of target):** 103

**YIELD: Average (bu/a):** 125

**Range (bu/a):** 94 - 145

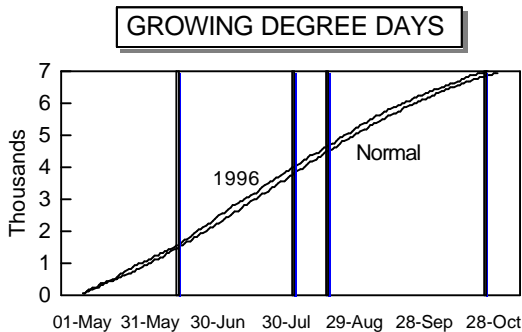
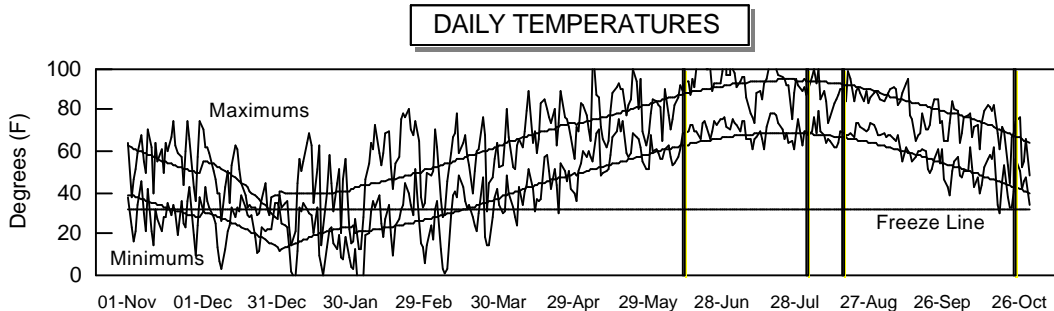
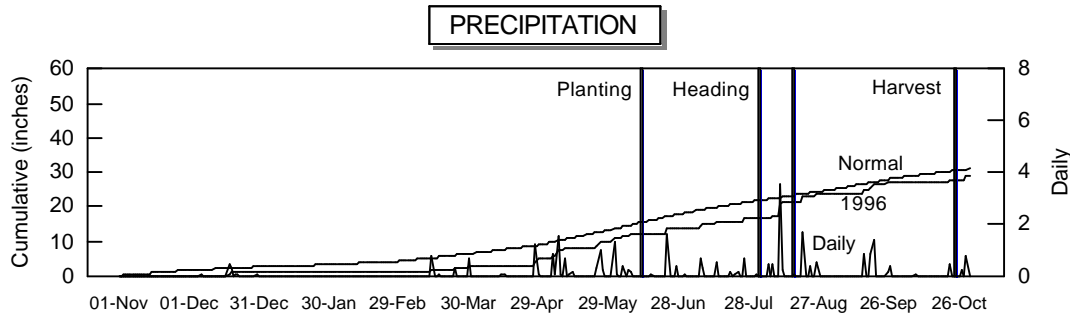
**LSD (bu/a):** 11

**CV (%):** 6

**SILK DATES:** 8/1/96 - 8/16/96

**1996 GROWING CONDITONS:**

Following an extremely dry winter, rainfall from late April through early June restored soil moisture levels, but also delayed sorghum planting. Sorghum emergence was rapid under warm, moist conditions. Some moisture stress occurred in July, but August brought abundant rainfall. During the July - September period, maximum air temperatures averaged nearly 3 degrees below normal, while minimum temperatures were slightly above normal. The season as a whole was conducive to high yields with little or no lodging. A light corn ear worm infestation did not appear to impact yields significantly.



**GROWING-SEASON WEATHER SUMMARY**

Month	Precipitation		Average Temp.		GDD	
	1996	Normal	1996	Normal	1996	Normal
April	2.0	2.6	56	56	0	0
May	4.9	4.5	70	66	1094	963
June	4.2	4.7	78	76	1324	1251
July	2.6	3.6	81	81	1457	1460
August	7.4	3.0	79	79	1391	1407
Sep.	3.5	3.7	69	71	1051	1098
Oct.	1.5	2.6	58	59	757	780
Season Totals	25.9	24.6	70	70	7075	6959

**TABLE 6. HARVEY CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1994-1996.**

BRAND	NAME	ACRE YIELD, BUSHELS						YIELD AS % OF TEST AVERAGE			95-96		1996					
		1996	1995	1994	2-Yr.	3-Yr.	1996	1995	1994	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
					AVG.	AVG.												
NK	KS 310	94	--	--	--	--	75	--	--	--	--	50	14	60	38	0	109	1.4
ASGROW	A328	108	--	--	--	--	86	--	--	--	--	52	14	61	41	0	123	1.3
MATURITY CHECK	C 305	111	96	95	103	101	89	104	100	53	13	52	14	59	47	0	99	1.6
AGRIPRO	AP 9210	126	--	109	--	--	101	--	114	--	--	53	14	61	43	0	123	1.2
ASGROW	SENECA	114	--	--	--	--	91	--	--	--	--	53	14	62	41	0	108	1.4
MSG	O 214	125	96	119	110	113	100	104	124	56	13	53	14	61	42	0	118	1.2
MATURITY CHECK	RS 610	112	67	77	89	85	90	72	80	57	13	54	14	59	45	0	107	1.3
MATURITY CHECK	OK11xTX2741	118	29	70	74	72	95	31	73	57	13	54	14	61	44	0	107	1.1
MATURITY CHECK	TX3042xTX2737	126	62	99	94	96	101	68	103	58	13	54	14	60	47	0	87	1.7
NK	KS 585	140	99	--	120	--	112	107	--	58	13	54	14	61	43	0	112	1.5
AGRIPRO	AP 9670	127	--	--	--	--	102	--	--	--	--	55	14	60	43	1	105	1.3
DEKALB	DK-35	131	--	--	--	--	105	--	--	--	--	55	14	60	41	0	98	1.6
GRI	47967	109	--	--	--	--	87	--	--	--	--	55	14	60	45	0	78	1.6
NC+	6B67 (G)	114	--	--	--	--	91	--	--	--	--	55	14	59	41	0	115	1.1
PIONEER	8505	131	92	105	111	109	105	100	110	57	13	55	14	61	46	0	107	1.3
PIONEER	8500	135	90	105	113	110	108	98	110	57	13	55	14	61	47	0	114	1.3
PIONEER	8414	128	--	--	--	--	102	--	--	--	--	55	14	61	47	0	113	1.2
GRI	58967	115	--	--	--	--	92	--	--	--	--	55	15	60	45	0	87	1.6
AGRIPRO	HY 2660	129	--	--	--	--	103	--	--	--	--	56	14	61	44	0	124	1.1
CARGILL	647	130	109	--	119	--	104	118	--	58	13	56	14	61	46	0	116	1.2
CARGILL	737	125	117	112	121	118	100	128	117	60	13	56	14	60	44	0	98	1.5
GOLDEN HARVEST	H-509	120	--	--	--	--	96	--	--	--	--	56	14	61	46	0	111	1.3
HOEGEMEYER	6874	120	--	--	--	--	96	--	--	--	--	56	14	61	44	0	116	1.1
NORTHROP KING	KS 560Y	127	104	113	116	115	102	113	118	60	13	56	14	61	38	0	108	1.6
NORTHROP KING	KS 710	135	114	92	125	114	108	124	96	60	13	56	14	61	41	0	102	1.7
SG RESEARCH	EXP 94249	127	--	--	--	--	101	--	--	--	--	56	15	60	45	0	99	1.2
AGRIPRO	AP 9690	128	--	--	--	--	102	--	--	--	--	57	14	60	43	0	95	1.3
AGRIPRO	AP 2440	113	--	--	--	--	90	--	--	--	--	57	14	61	42	0	122	1.1
DELANGE	DSA 125C	111	88	93	99	97	88	95	97	62	13	57	14	61	44	0	99	1.3
HOEGEMEYER	671	124	94	83	109	100	99	102	87	62	13	57	14	60	45	0	115	1.1
CARGILL	627	114	115	--	115	--	91	125	--	60	14	57	15	60	45	0	108	1.3
CASTERLINE	SR 313	131	--	--	--	--	104	--	--	--	--	57	15	60	45	0	102	1.3
CARGILL	770Y	128	--	--	--	--	102	--	--	--	--	58	13	59	46	0	110	1.3

(continued)

**TABLE 6. HARVEY CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1994-1996.**

BRAND	NAME	ACRE YIELD, BUSHEL					YIELD AS % OF TEST AVERAGE			95-96		1996						
		1996	1995	1994	2-Yr.	3-Yr.	1996	1995	1994	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
					AVG.	AVG.												
ASGROW	A571	123	--	--	--	--	99	--	--	--	--	58	14	59	47	2	121	1.1
CARGILL	730	124	--	--	--	--	99	--	--	--	--	58	14	60	44	0	105	1.3
CARGILL	775Y	126	93	--	109	--	101	101	--	63	13	58	14	61	43	0	121	1.1
DEKALB	DK-40y	118	57	109	87	94	94	62	113	60	13	58	14	59	46	0	82	1.8
DEKALB	DK-45	141	80	--	110	--	113	87	--	59	13	58	14	60	47	0	114	1.2
DELANGE	DSA 115C	130	--	--	--	--	104	--	--	--	--	58	14	61	42	0	92	1.4
ICI	5616	124	97	111	110	110	99	105	116	61	13	58	14	60	44	0	99	1.2
MATURITY CHECK	TX2752xTX430	129	68	93	99	97	103	74	97	61	13	58	14	59	48	0	98	1.5
MATURITY CHECK	TX2752xTX2783	131	88	97	110	105	105	96	101	62	13	58	14	61	49	0	107	1.2
MSG	O 256	135	--	--	--	--	108	--	--	--	--	58	14	60	49	0	103	1.2
MYCOGEN	M 3838	126	--	--	--	--	101	--	--	--	--	58	14	61	42	0	97	1.3
NORTHROP KING	KS 714Y	129	98	--	113	--	103	107	--	62	13	58	14	60	42	0	83	1.8
DEKALB	DK-47	139	--	--	--	--	111	--	--	--	--	58	15	61	45	0	106	1.4
TRIUMPH	TR459	122	--	--	--	--	97	--	--	--	--	58	16	61	41	0	106	1.2
ASGROW	A425	132	--	--	--	--	106	--	--	--	--	59	14	60	43	0	102	1.3
CASTERLINE	EXP 737	113	--	--	--	--	90	--	--	--	--	59	14	60	44	0	90	1.4
DEKALB	DK-44	116	--	--	--	--	93	--	--	--	--	59	14	60	43	0	100	1.2
GRI	16977	126	--	--	--	--	100	--	--	--	--	59	14	58	48	0	92	1.6
GRI	23977	117	94	--	105	--	93	102	--	62	13	59	14	59	50	0	76	1.7
MYCOGEN	1506	141	121	115	131	126	113	131	120	60	13	59	15	60	50	0	94	1.4
NC+	7R83 (G)	126	--	--	--	--	101	--	--	--	--	59	15	59	49	0	96	1.2
DELANGE	DSA 151	129	--	--	--	--	103	--	--	--	--	60	14	59	48	0	89	1.6
NK	KS 711Y	127	136	--	131	--	101	147	--	63	13	60	14	61	39	0	112	1.5
CASTERLINE	SR 315E	126	--	121	--	--	101	--	127	--	--	61	14	59	44	0	113	1.2
MSG	G 580	127	--	--	--	--	102	--	--	--	--	61	14	60	49	0	89	1.5
GRI	58943	119	--	--	--	--	95	--	--	--	--	62	15	61	48	0	84	1.5
CARGILL	X12027 EXP	131	--	--	--	--	105	--	--	--	--	63	15	59	44	0	108	1.2
HOEGEMEYER	6878	145	99	--	122	--	116	107	--	63	14	63	15	60	47	0	115	1.3
GARST	5514Y	137	--	--	--	--	110	--	--	--	--	64	14	60	44	0	109	1.4
DEKALB	DK-56	141	100	92	120	111	113	108	96	67	14	65	15	61	52	0	88	1.4
NORTHROP KING	X9332 EXP	131	--	--	--	--	105	--	--	--	--	65	16	60	43	0	69	2.5
AVERAGES		125	92	96	109	104	125	92	96	60	13	57	14	60	45	0	103	1.4
CV(%)		6	12	10	--	--	6	12	10	--	--	1	2	1	3	610	7	8.4
LSD(0.05)**		11	17	15	--	--	9	19	16	--	--	1	0	1	2	NS	10	0.2

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

(G) = Seed was treated with Gaucho insecticide.

# SOUTH CENTRAL KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL

**COUNTY:** RENO

**LOCATION:** South Central Kansas Experiment Field, Hutchinson

**TEST SITE:** Ost silt loam

**1995 CROP:** Wheat

**1994 CROP:** Oats

**FERTILIZER (lbs/acre):** 120 N 40 P2O5 0 K2O

**PLANTING DATE:** 5/31/96

**HARVEST DATE:** 10/9/96

**COOPERATORS:**

William Heer, agronomist; Brian Wade, technician

**TARGET POPULATION:** 35,000 plants/acre,  
6.0 in. spacing

**STAND (% of target):** 122

**YIELD: Average (bu/a):** 129

**Range (bu/a):** 98 - 150

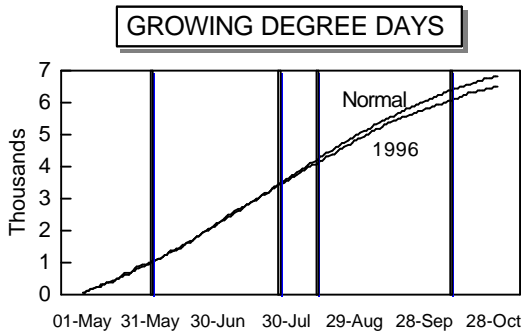
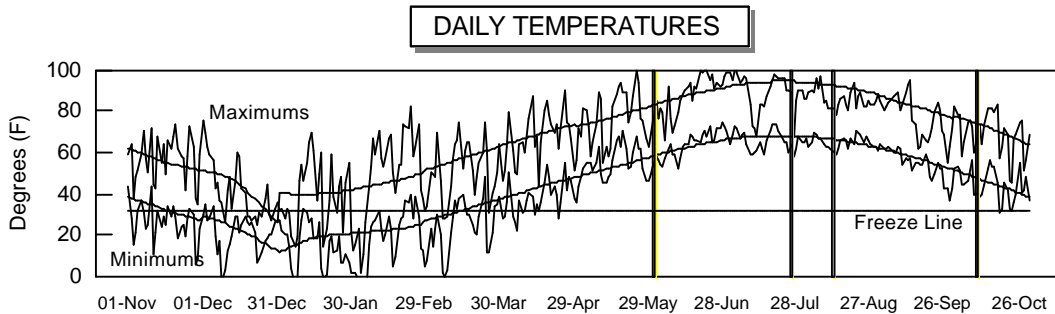
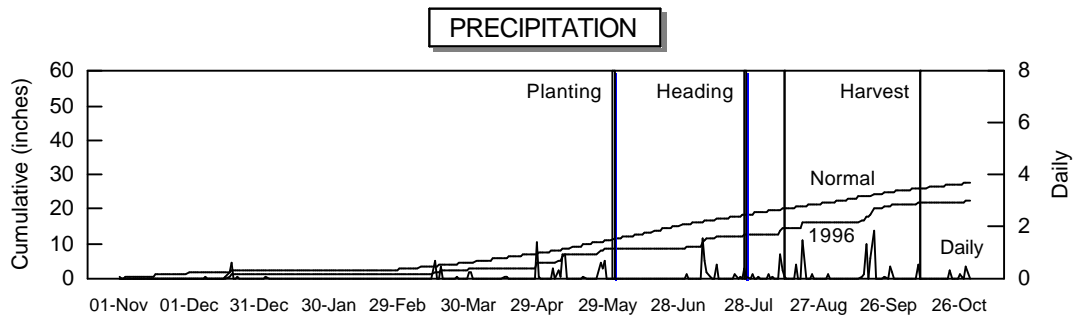
**LSD (bu/a):** 9

**CV (%):** 6

**SILK DATES:** 7/26/96 - 8/12/96

**1996 GROWING CONDITONS:**

The test was planted on the day of the last significant rainfall before a month-long dry spell during June. Stands were good, but the young plants were somewhat stressed by the dry conditions. July and August had above-average rainfall and below-normal temperatures. Some early hybrids may have experienced slight bird damage before harvest.



## GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1996	Normal	1996	Normal	1996	Normal
April	1.8	2.6	52	56	0	0
May	4.4	3.9	65	65	960	940
June	0.0	4.3	76	75	1252	1234
July	3.8	3.4	78	81	1359	1454
August	3.6	3.1	75	79	1286	1385
Sep.	4.9	3.3	66	70	952	1072
Oct.	1.4	2.5	57	58	711	748
Season Totals	20.0	23.1	67	69	6518	6833



**TABLE 7. RENO CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1994-1996.**

BRAND	NAME	ACRE YIELD, BUSHELS						YIELD AS % OF TEST			95-96		1996						
		1996	1995	1994	2-Yr.	3-Yr.	AVERAGE	1996	1995	1994	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
					AVG.	AVG.													
NK	KS 310	98	--	--	--	--	76	--	--	--	--	56	16	58	41	0	129	1.0	
CENTURY II	GB5543-E	108	107	--	107	--	84	109	--	56	16	58	16	58	50	0	118	1.1	
MATURITY CHECK	C 305	100	97	88	99	95	78	100	105	55	17	58	17	55	45	1	95	1.3	
ASGROW	SENECA	110	112	87	111	103	85	115	104	58	15	59	16	60	40	1	127	1.0	
MATURITY CHECK	TX3042xTX2737	113	101	79	107	98	88	104	94	58	15	59	16	59	47	0	106	1.1	
ASGROW	A328	113	99	--	106	--	88	102	--	57	15	59	17	57	41	0	140	1.1	
NK	KS 585	119	97	--	108	--	92	100	--	58	16	59	17	60	42	0	137	1.1	
NORTHROP KING	KS 560Y	121	88	81	105	97	94	91	96	59	15	60	15	59	40	1	123	1.1	
GOLDEN WORLD	GW 5960	118	--	--	--	--	92	--	--	--	--	60	16	57	44	0	119	1.1	
NC+	6B50 (G)	128	--	--	--	--	99	--	--	--	--	60	16	59	44	1	129	1.1	
GOLDEN WORLD	GW 5972	124	--	--	--	--	96	--	--	--	--	60	17	59	47	0	121	1.1	
MATURITY CHECK	OK11xTX2741	110	88	82	99	93	85	90	97	58	16	60	17	57	46	0	115	1.0	
CARGILL	737	137	104	92	120	111	107	106	110	60	15	61	16	58	44	0	134	1.0	
CENTURY II	GB7042-E	134	84	91	109	103	104	86	108	59	15	61	16	59	48	1	128	1.1	
DEKALB	DK-35	117	--	--	--	--	91	--	--	--	--	61	16	60	43	0	115	1.2	
NORTHROP KING	KS 710	130	93	81	112	101	101	95	96	61	15	61	16	59	42	0	128	1.1	
CENTURY II	GB9140-E	143	93	79	118	105	111	96	93	62	15	62	16	60	49	0	130	1.1	
PIONEER	8500	129	102	100	116	110	101	105	119	59	15	62	16	60	46	1	128	1.1	
PIONEER	8414	125	--	--	--	--	97	--	--	--	--	62	17	59	47	1	131	1.1	
PIONEER	8446	123	103	--	113	--	95	105	--	61	15	62	17	59	43	1	113	1.1	
MATURITY CHECK	RS 610	113	78	76	96	89	88	80	90	60	14	63	16	58	45	0	114	1.1	
CARGILL	647	132	119	--	125	--	103	122	--	61	15	64	16	60	46	0	131	1.0	
CENTURY II	GB8041-W	127	103	78	115	103	99	105	93	63	16	64	16	58	44	0	128	1.1	
HOEGEMEYER	6874	137	--	--	--	--	107	--	--	--	--	64	16	60	46	0	135	1.0	
HOEGEMEYER	671	130	93	--	111	--	101	95	--	64	16	64	16	60	45	0	119	1.1	
MYCOGEN	M 3838	136	--	--	--	--	106	--	--	--	--	64	16	59	44	1	115	1.1	
NORTHROP KING	KS 714Y	127	90	77	108	98	99	92	91	63	16	64	16	60	44	0	110	1.2	
TRIUMPH	TR445	139	--	--	--	--	108	--	--	--	--	64	16	60	49	0	126	1.0	
DEKALB	DK-45	143	104	--	123	--	111	107	--	62	16	64	17	59	49	1	128	1.1	
NC+	6B67 (G)	119	--	--	--	--	93	--	--	--	--	64	17	57	42	0	142	1.0	
TRIUMPH	TR462	140	--	--	--	--	109	--	--	--	--	64	17	60	46	0	133	1.1	
PIONEER	8310	137	103	--	120	--	106	106	--	63	16	65	17	58	48	0	124	1.1	

(continued)



**TABLE 7. RENO CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1994-1996.**

BRAND	NAME	ACRE YIELD, BUSHEL						YIELD AS % OF TEST AVERAGE			95-96		1996					
		1996	1995	1994	2-Yr.	3-Yr.	1996	1995	1994	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
					AVG.	AVG.												
ASGROW	A425	135	--	--	--	--	105	--	--	--	--	66	16	60	46	0	114	1.0
CARGILL	X13116 EXP	109	--	--	--	--	85	--	--	--	--	66	16	59	47	2	129	1.1
CARGILL	775Y	122	100	--	111	--	95	103	--	65	15	66	16	59	46	1	123	1.0
DEKALB	DK-44	140	--	--	--	--	109	--	--	--	--	66	16	60	45	1	123	1.1
DELANGE	DSA 125C	123	102	91	112	105	95	104	108	64	16	66	16	59	46	1	113	1.1
DELANGE	DSA 115C	131	--	--	--	--	102	--	--	--	--	66	16	60	42	0	114	1.0
GARST	5631Y	136	--	--	--	--	106	--	--	--	--	66	16	61	43	1	127	1.1
NK	KS 711Y	128	100	--	114	--	100	103	--	64	15	66	16	61	42	0	125	1.1
ICI	5616	128	95	88	112	104	100	98	105	62	16	66	17	59	44	2	112	1.1
CARGILL	770Y	127	--	--	--	--	99	--	--	--	--	67	16	58	45	1	128	1.1
DEKALB	DK-40y	126	94	80	110	100	98	97	95	62	16	67	16	60	45	0	109	1.1
MATURITY CHECK	TX2752xTX2783	144	90	66	117	100	112	93	78	65	16	67	17	60	47	2	121	1.1
ASGROW	A571	144	--	--	--	--	112	--	--	--	--	67	18	58	44	0	133	1.0
CARGILL	X12027 EXP	131	--	--	--	--	102	--	--	--	--	68	16	59	42	0	133	1.0
MATURITY CHECK	TX2752xTX430	140	96	73	118	103	109	99	87	65	15	68	16	59	46	0	120	1.1
CARGILL	730	137	111	--	124	--	107	114	--	65	16	68	17	58	43	1	116	1.1
NC+	7R83 (G)	146	--	--	--	--	114	--	--	--	--	68	17	59	47	0	125	1.0
TRIUMPH	TR459	134	87	92	111	105	105	90	109	63	16	68	18	59	41	0	124	1.0
CARGILL	627	140	118	--	129	--	109	121	--	64	16	69	16	58	46	0	130	1.1
MYCOGEN	1506	150	109	97	130	119	117	112	115	64	17	69	17	58	51	0	111	1.1
DEKALB	DK-56	142	102	80	122	108	110	105	95	68	16	70	18	58	50	1	118	1.1
HOEGEMEYER	6878	135	88	--	111	--	105	90	--	66	17	70	18	58	45	0	129	1.1
NORTHRUP KING	X9332 EXP	129	--	--	--	--	100	--	--	--	--	70	19	57	43	0	79	1.5
TRIUMPH	TR481	143	108	90	125	113	111	111	107	68	18	73	18	59	47	0	124	1.0
AVERAGES		129	97	84	113	103	129	97	84	62	16	64	17	59	45	0	122	1.1
CV(%)		6	8	8	--	--	6	8	8	--	--	3	4	2	5	246	8	6.0
LSD(0.05)**		9	12	12	--	--	7	12	14	--	--	2	1	2	2	NS	11	0.1

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

(G) = Seed was treated with Gaucho insecticide.

# SOUTH CENTRAL KANSAS GRAIN SORGHUM TEST ON SANDY LOAM SOIL

**COUNTY:** STAFFORD

**LOCATION:** Sandyland Experiment Field, St. John

**TEST SITE:** Naron loamy fine sand

**1995 CROP:** Wheat

**1994 CROP:** Wheat

**FERTILIZER (lbs/acre):** 143 N 46 P2O5 0 K2O

**PLANTING DATE:** 6/5/96

**HARVEST DATE:** 10/29/96

**COOPERATORS:**

Victor Martin, agronomist; Jerry Dove and Yogi Behr, technicians

**TARGET POPULATION:** 36,000 plants/acre,  
5.8 in. spacing

**STAND (% of target):** 110

**YIELD: Average (bu/a):** 127

**Range (bu/a):** 98 - 157

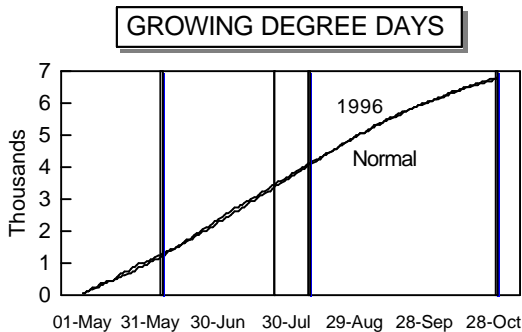
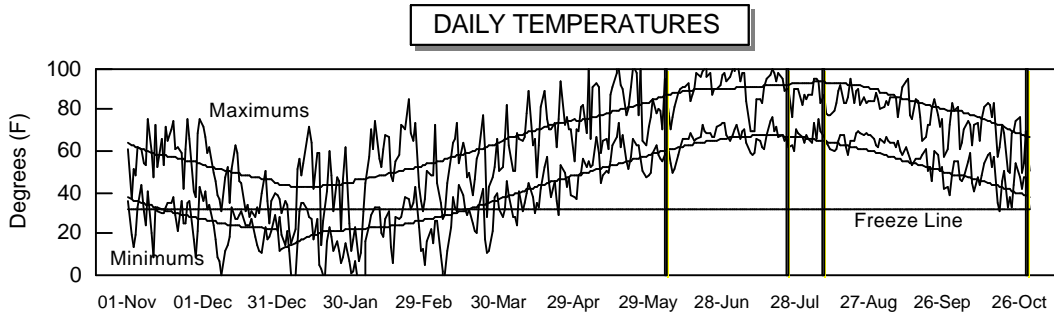
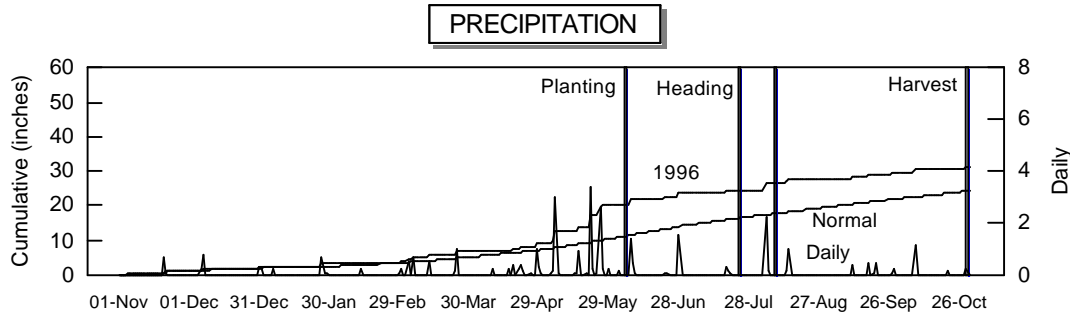
**LSD (bu/a):** 10

**CV (%):** 7

**SILK DATES:** 7/24/96 - 8/8/96

**1996 GROWING CONDITONS:**

Cool, wet spring weather delayed planting by 2 weeks. Most of the summer weather was favorable for sorghum growth. Cool, wet weather again in the fall delayed maturity and harvest. Some Fusarium stalk rot and corn borers were noted, but neither caused much damage.



**GROWING-SEASON WEATHER SUMMARY**

Month	Precipitation		Average Temp.		GDD	
	1996	Normal	1996	Normal	1996	Normal
April	2.8	2.0	54	57	0	0
May	10.9	3.4	69	66	1057	971
June	3.6	3.7	76	76	1267	1252
July	0.5	2.9	78	79	1378	1407
August	3.5	2.5	76	78	1303	1356
Sep.	1.6	2.5	68	69	1013	1044
Oct.	1.5	2.2	58	59	738	769
Season Totals	24.4	19.1	68	69	6757	6800

**TABLE 8. STAFFORD CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1994-1996.**

BRAND	NAME	ACRE YIELD, BUSHEL									YIELD AS %			95-96		1996					
		1996			1995			1994			OF TEST			Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Final Ldg %	Hds per Plnt
		1996	1995	1994	2-Yr. AVG.	3-Yr. AVG.	AVERAGE	1996	1995	1994											
ASGROW	A328	110	40	--	75	--	86	62	--	55	14	49	14	60	45	1	111	1.0			
CENTURY II	GB5543-E	108	66	93	87	89	85	102	109	54	14	50	14	60	55	1	105	1.0			
MATURITY CHECK	C 305	102	54	73	78	77	80	84	86	53	14	50	14	57	50	0	104	1.0			
MATURITY CHECK	OK11xTX2741	117	49	78	83	81	92	76	91	57	13	50	14	59	48	0	102	1.0			
PIONEER	8699	113	92	--	102	--	89	142	--	53	15	50	14	60	49	0	128	1.0			
MSG	O 214	114	69	95	92	93	90	107	111	56	14	51	14	60	47	0	106	1.0			
NK	KS 585	139	76	--	108	--	109	118	--	56	14	51	14	61	47	0	122	1.0			
NC+	6B50 (G)	121	--	--	--	--	95	--	--	--	--	52	14	59	48	1	112	1.0			
ASGROW	SENECA	116	--	83	--	--	92	--	97	--	--	53	14	61	47	0	120	1.0			
DEKALB	DK-35	132	--	--	--	--	104	--	--	--	--	54	14	58	47	0	123	1.0			
CARGILL	647	129	70	--	99	--	102	108	--	60	14	56	14	59	55	0	118	1.0			
CENTURY II	GB7042-E	132	54	98	93	95	104	84	115	62	14	56	14	59	50	1	126	1.0			
HOEGEMEYER	6874	130	--	--	--	--	102	--	--	--	--	56	14	61	52	1	116	1.0			
MATURITY CHECK	RS 610	117	69	71	93	86	92	108	84	57	14	56	14	57	49	1	113	1.0			
MATURITY CHECK	TX3042xTX2737	126	74	78	100	93	99	115	92	59	14	56	14	59	50	1	96	1.0			
PIONEER	8500	133	73	87	103	98	104	113	103	59	13	56	14	60	51	1	111	1.0			
DELANGE	DSA 115C	130	--	--	--	--	103	--	--	--	--	56	15	60	45	0	104	1.0			
MYCOGEN	1482	116	54	89	85	86	91	83	105	60	14	56	15	58	47	0	105	1.0			
NORTHRUP KING	KS 710	138	73	86	106	99	109	113	101	62	14	56	15	60	48	0	132	1.0			
CARGILL	737	117	--	76	--	--	92	--	89	--	--	58	14	58	48	0	115	1.0			
GARST	5631Y	133	--	--	--	--	105	--	--	--	--	58	14	60	45	0	114	1.0			
MYCOGEN	M 3838	126	67	--	96	--	99	103	--	64	14	58	14	60	45	0	92	1.0			
CARGILL	775Y	129	70	--	100	--	101	109	--	63	14	58	15	59	48	1	111	1.0			
CENTURY II	GB8041-W	122	53	91	87	89	96	82	107	62	15	58	15	58	48	1	104	1.0			
NORTHRUP KING	KS 560Y	117	60	81	88	86	92	93	95	62	14	58	15	59	42	1	118	1.0			
NORTHRUP KING	KS 714Y	131	73	92	102	99	104	113	108	62	15	58	15	59	46	0	100	1.0			
CIBA	1486	98	--	--	--	--	77	--	--	--	--	59	13	57	43	0	102	1.0			
CENTURY II	GB9140-E	131	60	79	95	90	103	93	92	63	14	59	14	60	51	0	111	1.0			
MSG	G 530	128	--	--	--	--	100	--	--	--	--	59	14	61	45	0	103	1.0			
ICI	5616	139	78	--	109	--	110	121	--	65	15	59	15	58	47	0	104	1.0			
NC+	7R37E (G)	135	--	--	--	--	106	--	--	--	--	59	15	60	51	0	117	1.0			
PIONEER	8414	129	--	--	--	--	102	--	--	--	--	59	15	57	48	1	114	1.0			
ASGROW	A571	136	--	--	--	--	107	--	--	--	--	60	15	57	49	0	105	1.0			
ASGROW	A425	130	--	--	--	--	102	--	--	--	--	60	15	58	47	1	105	1.0			
DEKALB	DK-45	119	56	--	88	--	94	87	--	64	14	60	15	58	49	2	93	1.0			
DEKALB	DK-40y	117	52	89	84	86	92	81	104	65	14	60	15	58	47	0	101	1.0			
HOEGEMEYER	671	142	71	--	106	--	112	109	--	64	14	60	15	59	47	0	105	1.0			
NK	KS 711Y	144	56	--	100	--	113	87	--	64	14	60	15	61	45	0	123	1.0			
CARGILL	627	125	90	--	108	--	99	140	--	63	15	60	16	56	46	0	113	1.0			
DEKALB	DK-44	119	--	--	--	--	94	--	--	--	--	61	15	58	47	0	102	1.0			
CARGILL	730	129	--	--	--	--	102	--	--	--	--	62	14	59	47	0	107	1.0			
HOEGEMEYER	6878	157	51	--	104	--	124	79	--	65	14	62	15	59	51	1	128	1.0			
MATURITY CHECK	TX2752xTX2783	136	56	78	96	90	107	87	91	66	14	62	15	59	52	1	94	1.0			
MATURITY CHECK	TX2752xTX430	141	59	102	100	100	111	91	120	66	14	62	15	58	52	0	113	1.0			
MSG	O 256	134	--	--	--	--	106	--	--	--	--	62	16	58	56	0	98	1.0			
NORTHRUP KING	X9332 EXP	137	--	--	--	--	108	--	--	--	--	62	17	58	47	0	120	1.0			
DEKALB	DK-56	144	67	95	106	102	114	105	111	68	15	64	16	58	51	0	89	1.0			
AVERAGES		127	65	85	96	92	127	65	85	61	14	57	15	59	48	0	110	1.0			
CV(%)		7	19	16	--	--	7	19	16	--	--	3	4	2	4	202	10	0.0			
LSD(0.05)**		10	19	22	--	--	8	30	26	--	--	2	1	1	2	NS	12	NS			

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

(G) = Seed was treated with Gaucho insecticide.

# NORTHWESTERN KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL, FALLOW

**COUNTY:** THOMAS

**LOCATION:** Northwest Research-Extension Center, Colby

**TEST SITE:** Keith silt loam

**1995 CROP:** Fallow

**1994 CROP:** Sunflowers

**FERTILIZER (lbs/acre):** 50 N 20 P2O5 0 K2O

**PLANTING DATE:** 6/5/96

**HARVEST DATE:** 10/25/96

**COOPERATORS:**

Patrick Evans, agronomist

**TARGET POPULATION:** 23,000 plants/acre,  
9.1 in. spacing

**STAND (% of target):** 94

**YIELD: Average (bu/a):** 117

**Range (bu/a):** 88 - 142

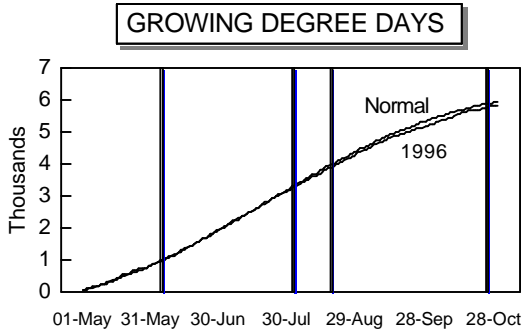
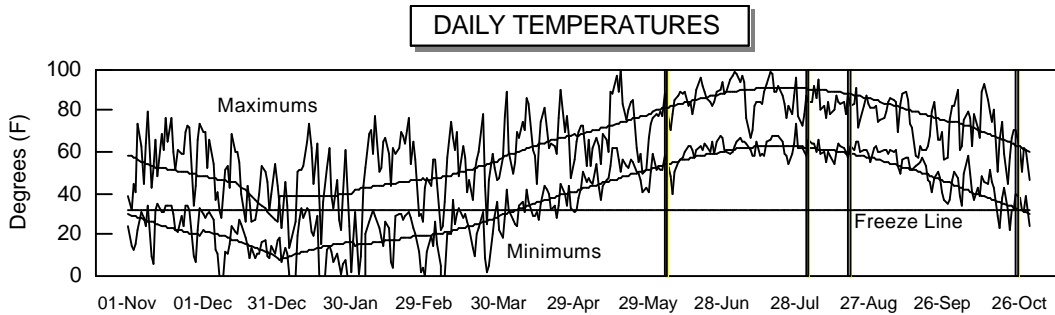
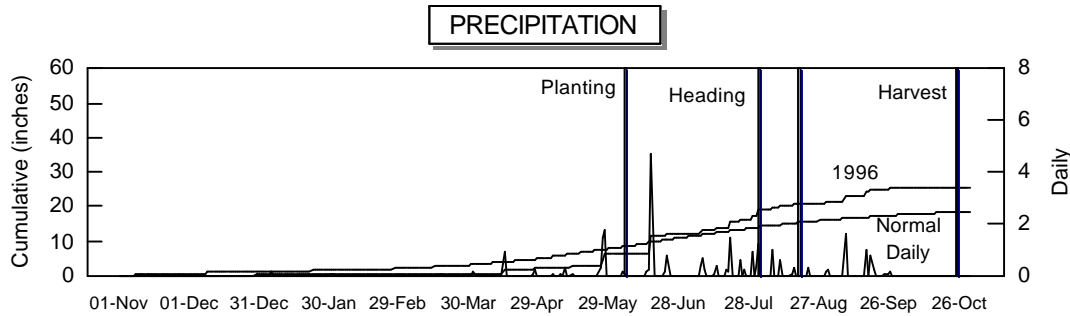
**LSD (bu/a):** 12

**CV (%):** 7

**SILK DATES:** 8/1/96 - 8/18/96

**1996 GROWING CONDITONS:**

May rains provided good planting conditions and good stand establishment. Cool, wet, summer weather delayed maturity so that all plots were still green at the time of the October 17 frost. Corn ear worms were noted in some heads, but damage was minimal.



## GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1996	Normal	1996	Normal	1996	Normal
April	1.4	1.8	51	49	0	0
May	4.0	2.9	59	60	771	781
June	6.0	3.1	71	70	1121	1093
July	5.1	3.0	75	76	1268	1317
August	4.0	2.2	72	74	1175	1241
Sep.	4.0	1.5	62	65	855	928
Oct.	0.0	1.1	54	53	630	574
Season						
Totals	24.6	15.6	64	64	5820	5934

**TABLE 9. THOMAS CO. FALLOW GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1994-96.**

BRAND	NAME	YIELD AS %									95-96		1996						
		ACRE YIELD, BUSHEL						OF TEST			Days Grain to Blm	Moist. %	Days Grain to Blm	Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
		1996	1995	1994	2-Yr. AVG.	3-Yr. AVG.	1996	1995	1994	AVERAGE									
NK	KS 310	93	88	--	91	--	80	121	--	58	12	57	15	59	40	0	99	1.9	
NK	K35-Y5	106	--	--	--	--	91	--	--	--	--	60	15	58	40	0	83	3.6	
PIONEER	8771	110	92	137	101	113	94	127	108	62	12	60	15	58	45	0	90	3.2	
CARGILL	576	88	--	--	--	--	75	--	--	--	--	62	15	58	39	0	94	2.0	
PIONEER	8699	112	105	137	108	118	96	144	108	63	12	63	15	58	43	0	98	2.7	
MATURITY CHECK	RS 610	98	85	112	91	98	84	117	88	64	14	63	18	56	45	0	101	2.1	
NC+	5B74E (G)	113	--	--	--	--	97	--	--	--	--	63	18	57	41	0	89	2.3	
DEKALB	DK-35	121	--	--	--	--	103	--	--	--	--	64	18	57	41	0	93	2.3	
MATURITY CHECK	TX3042xTX2737	106	82	133	94	107	91	112	105	66	13	64	18	57	44	0	97	2.1	
AGRIPRO	AP 9210	115	--	--	--	--	98	--	--	--	--	64	19	57	43	0	98	1.9	
NC+	6B50 (G)	138	--	--	--	--	118	--	--	--	--	64	19	56	45	0	100	2.2	
NC+	Y363 (G)	122	--	--	--	--	104	--	--	--	--	64	19	56	45	0	100	2.5	
MYCOGEN	M 3838	112	83	--	97	--	96	114	--	67	13	65	17	58	41	0	92	2.0	
CARGILL	627	116	93	--	105	--	99	128	--	66	14	65	19	57	43	0	88	2.1	
MATURITY CHECK	OK11xTX2741	110	76	125	93	104	94	105	99	67	13	66	17	58	43	0	99	1.6	
MYCOGEN	1482	107	88	125	98	107	91	121	99	66	13	66	17	57	43	0	95	1.8	
CARGILL	647	124	--	--	--	--	106	--	--	--	--	66	18	57	45	0	98	1.9	
DEKALB	DK-39	124	78	143	101	115	106	107	112	68	14	66	19	56	41	0	83	2.7	
DEKALB	DK-38y	109	78	122	93	103	93	107	96	67	14	66	20	54	41	0	84	2.9	
DEKALB	DK-44	115	--	--	--	--	98	--	--	--	--	67	18	57	44	0	91	1.9	
ICI	5616	108	75	134	91	106	92	103	106	68	14	67	18	58	43	0	89	1.8	
CARGILL	X12027 EXP	128	--	--	--	--	110	--	--	--	--	68	19	57	41	0	97	2.2	
NC+	6Y83I (G)	135	--	--	--	--	116	--	--	--	--	68	19	55	47	0	99	2.3	
AGRIPRO	AP 2440	113	--	--	--	--	96	--	--	--	--	69	17	57	43	0	102	1.8	
MATURITY CHECK	C 305	102	92	122	97	105	88	126	96	65	13	69	17	56	43	2	93	2.2	
DEKALB	DK-40y	119	74	137	96	110	102	102	108	69	14	69	19	57	43	0	71	2.6	
CARGILL	737	113	65	140	89	106	97	89	111	70	15	69	20	55	42	0	91	2.1	
AGRIPRO	HY 2660	129	--	--	--	--	111	--	--	--	--	70	19	57	43	0	93	1.9	
DEKALB	DK-45	119	68	--	93	--	102	93	--	70	14	70	19	56	47	0	93	1.9	
CARGILL	X13116 EXP	108	--	--	--	--	92	--	--	--	--	71	19	57	45	0	93	2.4	
CARGILL	770Y	131	--	--	--	--	112	--	--	--	--	72	19	56	44	0	89	2.4	
CARGILL	775Y	137	37	--	87	--	117	50	--	74	15	72	21	56	44	0	99	1.8	
CARGILL	730	137	--	--	--	--	117	--	--	--	--	73	20	54	44	0	100	2.3	
MATURITY CHECK	TX2752xTX2783	137	42	112	89	97	117	58	88	75	15	74	21	55	49	0	101	2.0	
MATURITY CHECK	TX2752xTX430	142	55	130	98	109	122	75	102	74	16	74	23	52	47	0	100	2.3	
AGRIPRO	AP 9690	113	--	--	--	--	97	--	--	--	--	74	24	53	45	0	92	1.9	
AVERAGES		117	73	127	95	106	117	73	127	68	13	67	18	56	43	0	94	2.2	
CV(%)		7	12	6	--	--	7	12	6	--	--	4	6	2	3	370	7	10.5	
LSD(0.05)**		12	15	12	--	--	10	20	10	--	--	4	2	1	2	0	9	0.3	

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

(G) = Seed was treated with Gaucho insecticide.

# NORTHWESTERN KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL, IRRIGATED

**COUNTY:** THOMAS

**LOCATION:** Northwest Research-Extension Center, Colby

**TEST SITE:** Keith silt loam

**1995 CROP:** Soybeans

**1994 CROP:** Sorghum

**FERTILIZER (lbs/acre):** 100 N 20 P2O5 0 K2O

**PLANTING DATE:** 6/4/96

**HARVEST DATE:** 10/24/96

**COOPERATORS:**

Patrick Evans, agronomist

**TARGET POPULATION:** 70,000 plants/acre,  
3.0 in. spacing

**STAND (% of target):** 91

**YIELD: Average (bu/a):** 136

**Range (bu/a):** 106 - 163

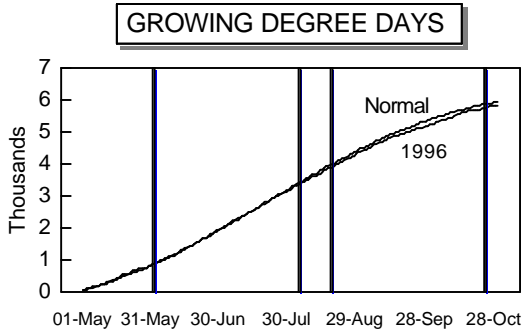
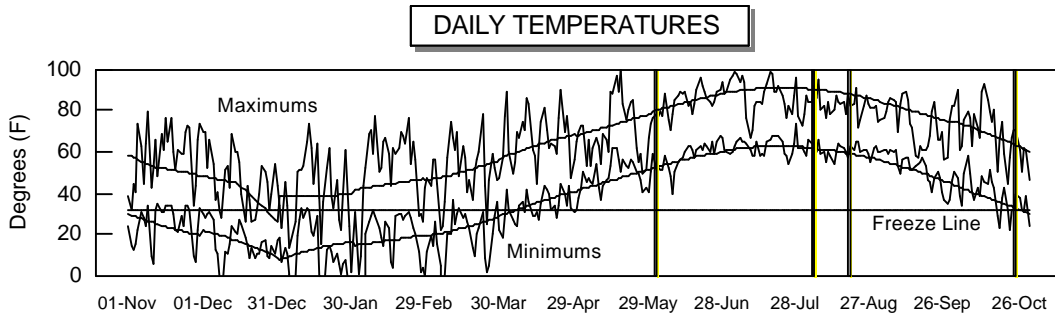
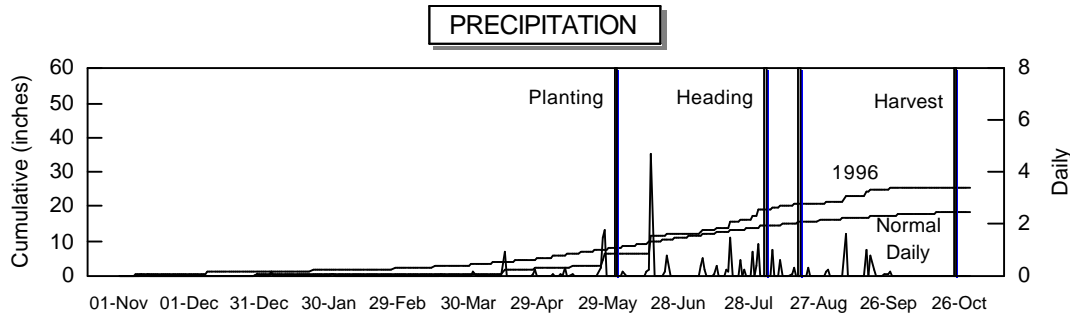
**LSD (bu/a):** 9

**CV (%):** 5

**SILK DATES:** 8/4/96 - 8/18/96

**1996 GROWING CONDITIONS:**

The winter and early spring months were very dry. An irrigation in April filled the soil profile prior to planting. Cool, wet conditions prevailed for most of the growing season, resulting in little crop stress. Corn ear worms were controlled with insecticide.



## GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1996	Normal	1996	Normal	1996	Normal
April	1.4	1.8	51	49	0	0
May	4.0	2.9	59	60	771	781
June	6.0	3.1	71	70	1121	1093
July	5.1	3.0	75	76	1268	1317
August	4.0	2.2	72	74	1175	1241
Sep.	4.0	1.5	62	65	855	928
Oct.	0.0	1.1	54	53	630	574
Season						
Totals	24.6	15.6	64	64	5820	5934

**TABLE 10. THOMAS CO. IRRIGATED GRAIN SORGHUM PERFORMANCE TEST RESULTS, 94-96.**

BRAND	NAME	ACRE YIELD, BUSHEL						YIELD AS % OF TEST AVERAGE			95-96		1996				Final Hds Stand per Pint	
		1996	1995	1994	2-Yr.	3-Yr.	1996	1995	1994	Days to Blm	Grain to Moist. %	Days to Blm	Grain to Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %		
					AVG.	AVG.												
MATURITY CHECK	C 305	106	98	140	102	115	78	110	84	61	12	61	15	57	47	0	81	1.1
MATURITY CHECK	RS 610	106	85	130	96	107	78	96	79	65	12	64	15	57	48	0	99	1.0
MATURITY CHECK	TX3042xTX2737	107	89	155	98	117	79	101	94	65	12	64	15	58	47	0	84	1.1
PIONEER	8505	116	110	147	113	124	85	124	89	65	13	64	16	60	45	0	91	1.1
NK	KS 585	126	--	--	--	--	93	--	--	--	--	67	17	59	45	0	97	1.1
DEKALB	DK-47	132	--	--	--	--	98	--	--	--	--	67	18	59	48	0	94	1.1
MATURITY CHECK	OK11xTX2741	117	91	154	104	121	86	103	93	68	13	68	17	58	46	0	100	1.0
CARGILL	X12027 EXP	123	--	--	--	--	91	--	--	--	--	69	17	57	47	0	98	1.0
MYCOGEN	1506	131	110	152	121	131	97	124	92	69	14	69	17	58	53	0	92	1.0
CARGILL	770Y	126	--	--	--	--	93	--	--	--	--	70	18	56	48	0	91	0.9
CARGILL	737	133	105	--	119	--	98	118	--	72	14	71	19	57	47	0	97	1.1
DEKALB	DK-54	148	85	173	117	135	109	96	105	72	15	71	19	57	53	0	78	1.1
CARGILL	775Y	138	65	--	101	--	101	73	--	75	14	72	20	56	45	0	99	1.0
PIONEER	8282	153	72	--	112	--	112	81	--	73	15	72	20	57	53	0	99	1.0
PIONEER	8310	141	88	161	114	130	104	99	97	72	15	72	21	57	53	0	95	1.1
CARGILL	730	145	--	--	--	--	107	--	--	--	--	73	19	56	49	0	87	1.1
DEKALB	DK-56	143	80	176	112	133	105	91	107	74	14	73	19	58	52	0	69	1.1
DEKALB	DK-55	149	85	179	117	138	110	96	108	74	14	73	19	56	54	0	97	1.0
ASGROW	A570	151	90	206	121	149	112	101	124	76	14	74	20	56	56	0	90	1.0
ASGROW	XP6105 EXP	141	--	--	--	--	104	--	--	--	--	74	20	55	54	0	73	1.1
MATURITY CHECK	TX2752xTX430	155	67	184	111	136	115	76	112	75	15	74	20	55	51	0	97	1.0
MATURITY CHECK	TX2752xTX2783	163	94	189	128	148	120	106	114	75	15	74	20	58	54	0	92	1.0
ASGROW	A571	154	--	--	--	--	114	--	--	--	--	75	21	55	53	0	98	1.0
DEKALB	DK-58	150	--	175	--	--	111	--	106	--	--	75	21	54	53	0	83	1.1
AVERAGES		136	89	165	112	130	136	89	165	71	14	70	19	57	50	0	91	1.1
CV(%)		5	10	5	--	--	5	10	5	--	--	2	3	1	3	398	7	7.9
LSD(0.05)**		9	15	12	--	--	6	17	7	--	--	1	1	1	2	NS	9	NS

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



# WEST CENTRAL KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL, FALLOW

**COUNTY:** GREELEY

**LOCATION:** Southwest Research-Extension Center, Tribune

**TEST SITE:** Ulysses silt loam

**1995 CROP:** Fallow

**1994 CROP:** Sorghum

**FERTILIZER (lbs/acre):** 60 N 0 P2O5 0 K2O

**PLANTING DATE:** 6/6/96

**HARVEST DATE:** 11/12/96

**COOPERATORS:**

Alan Schlegel, agronomist; David Frickel, research associate

**TARGET POPULATION:** 23,000 plants/acre,  
9.1 in. spacing

**STAND (% of target):** NA

**YIELD: Average (bu/a):** 110

**Range (bu/a):** 87 - 130

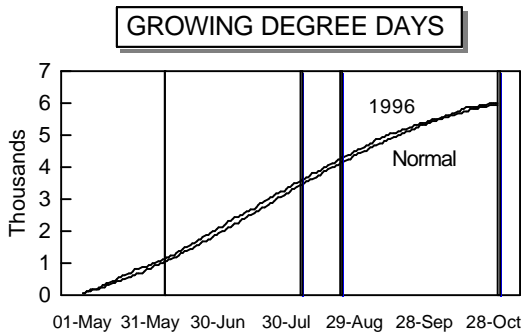
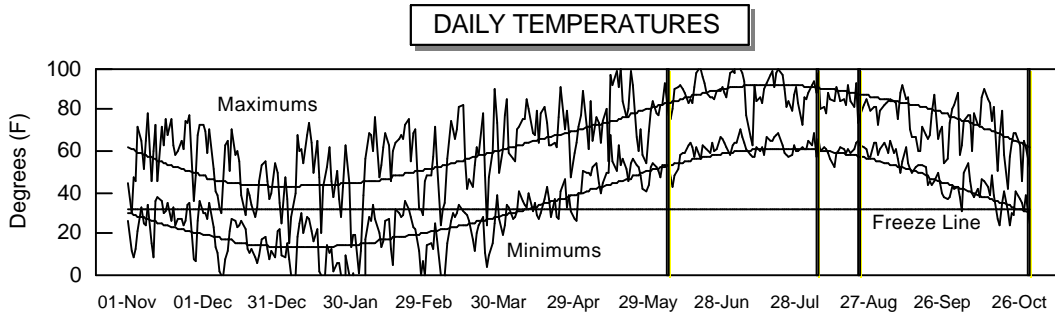
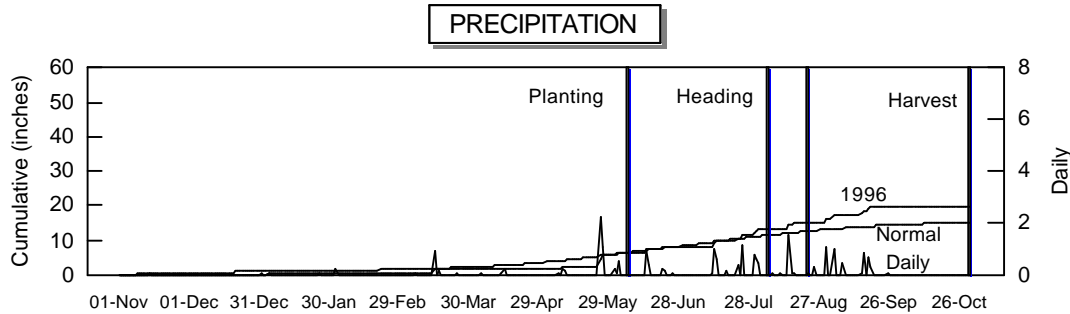
**LSD (bu/a):** 10

**CV (%):** 7

**SILK DATES:** 8/5/96 - 8/22/96

**1996 GROWING CONDITONS:**

The initial May 24 planting had to be replanted after heavy rains. Above-normal rainfall during July and August resulted in outstanding dryland yields for this location.



**GROWING-SEASON WEATHER SUMMARY**

Month	Precipitation		Average Temp.		GDD	
	1996	Normal	1996	Normal	1996	Normal
April	0.3	1.3	52	50	0	0
May	3.7	2.4	63	60	890	786
June	2.4	2.5	72	70	1150	1093
July	4.0	2.5	76	76	1294	1307
August	4.2	2.2	73	74	1205	1231
Sep.	3.4	1.3	63	65	873	944
Oct.	0.0	0.7	54	53	606	597
Season Totals	18.0	12.9	65	64	6018	5958



**TABLE 11. GREELEY CO. FAL. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1994-96.**

BRAND	NAME	ACRE YIELD, BUSHEL			YIELD AS % OF TEST AVERAGE					95-96		1996					
		1996	1995	1994	2-Yr. AVG.	3-Yr. AVG.	1996	1995	1994	Days to Blm	Grain to Moist. %	Days to Blm	Grain to Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Hds per Plnt
MATURITY CHECK	C 305	93	38	67	65	66	85	85	93	63	11	60	14	57	43	55	2.3
PIONEER	8771	93	38	77	66	69	85	87	107	63	11	60	14	59	42	42	2.9
PIONEER	8699	99	48	82	73	76	90	107	114	64	11	61	13	60	43	25	2.7
NK	KS 310	95	53	--	74	--	87	119	--	64	11	62	14	60	43	6	2.2
NK	K35-Y5	100	--	--	--	--	91	--	--	--	--	62	14	60	40	9	3.2
MATURITY CHECK	RS 610	87	27	50	57	55	79	62	69	67	11	63	14	58	42	82	2.1
GARST	5631Y	120	--	--	--	--	109	--	--	--	--	64	14	61	41	3	2.3
MATURITY CHECK	TX3042xTX2737	107	39	69	73	72	98	87	96	66	11	64	14	59	45	48	2.5
PIONEER	8557Y	114	--	--	--	--	104	--	--	--	--	64	14	60	42	5	2.8
DEKALB	DK-35	108	--	--	--	--	99	--	--	--	--	65	14	60	40	23	2.4
MYCOGEN	M 3838	120	49	--	85	--	110	111	--	67	11	65	14	61	41	6	2.2
DEKALB	DK-38y	86	45	85	65	72	78	101	118	67	11	66	14	57	41	10	2.8
MYCOGEN	1482	115	45	76	80	79	105	101	105	68	11	66	14	60	40	6	2.2
PIONEER	8505	110	54	--	82	--	100	123	--	67	11	66	14	61	42	6	2.4
DEKALB	DK-39	115	43	74	79	77	105	97	102	69	11	68	14	59	44	14	2.5
CARGILL	627	110	47	--	78	--	100	107	--	70	11	69	14	59	44	12	2.2
MATURITY CHECK	OK11xTX2741	124	54	73	89	84	113	123	102	72	11	69	14	60	43	18	2.2
CARGILL	576	99	--	--	--	--	90	--	--	--	--	70	14	59	40	5	2.3
CARGILL	647	121	--	--	--	--	110	--	--	--	--	70	14	60	43	38	2.4
CARGILL	X12027 EXP	121	--	--	--	--	110	--	--	--	--	70	14	59	43	6	2.4
DEKALB	DK-44	116	--	--	--	--	106	--	--	--	--	70	14	59	42	9	2.3
DEKALB	DK-40y	104	35	78	69	72	95	79	108	71	12	70	14	59	42	18	2.4
GOLDEN WORLD	GW 5972	108	--	--	--	--	98	--	--	--	--	70	14	61	41	29	2.1
CARGILL	737	117	50	79	84	82	107	113	110	73	12	71	14	59	43	23	2.2
CARGILL	770Y	115	--	--	--	--	105	--	--	--	--	71	14	59	45	9	2.3
DEKALB	DK-45	107	47	--	77	--	98	106	--	72	12	72	14	59	44	76	2.2
GOLDEN WORLD	GW 5960	110	--	--	--	--	100	--	--	--	--	72	14	59	43	19	2.0
CARGILL	730	130	--	--	--	--	119	--	--	--	--	74	14	58	44	12	2.3
CARGILL	X13116 EXP	109	--	--	--	--	99	--	--	--	--	74	14	59	43	29	2.2
CARGILL	775Y	122	45	--	84	--	112	103	--	77	11	75	14	58	42	6	2.3
MATURITY CHECK	TX2752xTX430	122	49	80	86	84	112	111	111	78	11	76	14	58	44	70	2.2
MATURITY CHECK	TX2752xTX2783	110	25	64	67	66	100	57	89	80	11	77	14	58	46	83	2.3
AVERAGES		110	44	72	77	75	110	44	72	70	11	68	14	59	42	25	2.4
CV(%)		7	14	13	--	--	7	14	13	--	--	2	2	1	4	32	7.5
LSD(0.05)**		10	13	15	--	--	9	29	20	--	--	1	0	1	2	10	0.2

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

# WEST CENTRAL KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL, IRRIGATED

**COUNTY:** GREELEY

**LOCATION:** Southwest Research-Extension Center, Tribune

**TEST SITE:** Ulysses silt loam

**1995 CROP:** Fallow

**1994 CROP:** Sorghum

**FERTILIZER (lbs/acre):** 120 N 0 P2O5 0 K2O

**PLANTING DATE:** 6/6/96

**HARVEST DATE:** 11/8/96

**COOPERATORS:**

Alan Schlegel, agronomist; David Frickel, research associate

**TARGET POPULATION:** 70,000 plants/acre,  
3.0 in. spacing

**STAND (% of target):** NA

**YIELD: Average (bu/a):** 104

**Range (bu/a):** 82 - 124

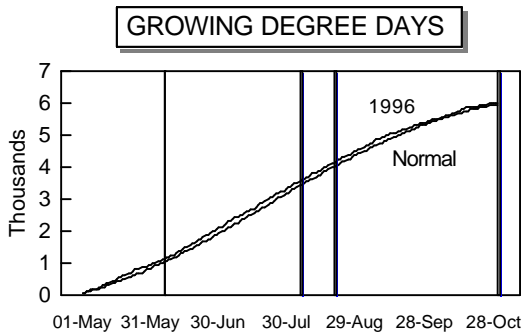
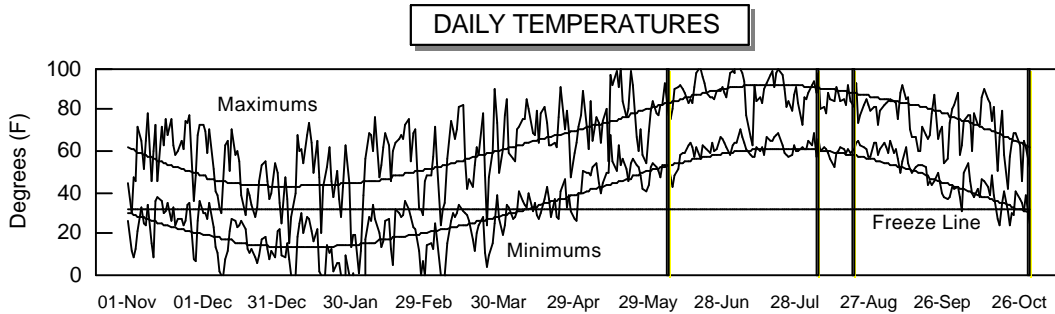
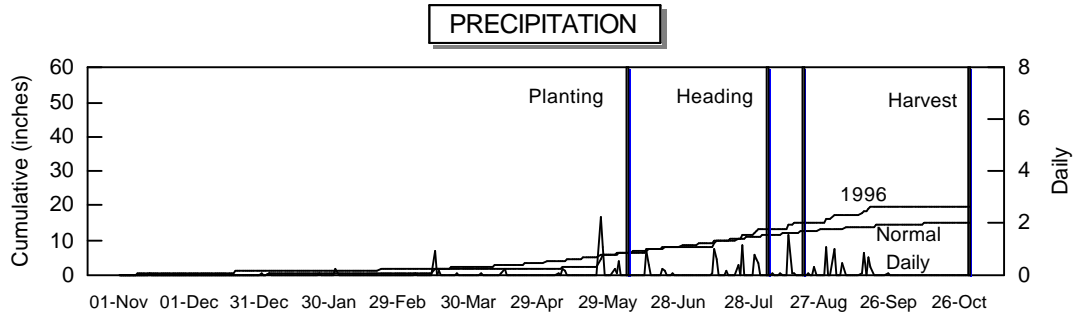
**LSD (bu/a):** 15

**CV (%):** 12

**SILK DATES:** 8/5/96 - 8/20/96

**1996 GROWING CONDITONS:**

Dry winter and spring conditions required prewatering to fill the soil profile. Favorable soil conditions facilitated good crop growth.



**GROWING-SEASON WEATHER SUMMARY**

Month	Precipitation		Average Temp.		GDD	
	1996	Normal	1996	Normal	1996	Normal
April	0.3	1.3	52	50	0	0
May	3.7	2.4	63	60	890	786
June	2.4	2.5	72	70	1150	1093
July	4.0	2.5	76	76	1294	1307
August	4.2	2.2	73	74	1205	1231
Sep.	3.4	1.3	63	65	873	944
Oct.	0.0	0.7	54	53	606	597
Season Totals	18.0	12.9	65	64	6018	5958

**TABLE 12. GREELEY CO. IRR. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1993-96.**

BRAND	NAME	ACRE YIELD, BUSHEL					YIELD AS % OF TEST			94-96		1996				
		1996	1994	1993	2-Yr.	3-Yr.	AVERAGE			Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/ bu	Plnt Ht. in.	Ldg %
					AVG.	AVG.	1996	1994	1993							
MATURITY CHECK	C 305	93	129	--	111	--	90	89	--	62	13	60	13	57	48	41
MATURITY CHECK	RS 610	82	106	114	94	101	79	73	96	63	14	61	13	58	47	98
MATURITY CHECK	TX3042xTX2737	85	144	129	115	119	82	99	108	64	14	62	13	58	47	68
PIONEER	8505	107	130	134	118	124	103	89	113	65	14	62	13	61	48	5
MYCOGEN	1506	95	149	132	122	125	91	102	111	67	14	66	14	60	53	91
CARGILL	X12027 EXP	122	--	--	--	--	117	--	--	--	--	67	13	60	44	4
DEKALB	DK-47	102	--	--	--	--	98	--	--	--	--	68	13	60	49	36
MATURITY CHECK	OK11xTX2741	105	141	--	123	--	101	97	--	71	14	68	13	60	45	8
DEKALB	DK-54	106	146	--	126	--	102	100	--	71	15	69	14	60	53	61
PIONEER	8282	105	--	--	--	--	101	--	--	--	--	70	14	58	55	5
DEKALB	DK-55	84	143	--	113	--	81	98	--	73	14	71	13	59	51	96
PIONEER	8310	111	156	123	134	130	107	107	104	75	15	71	14	59	54	23
CARGILL	730	116	--	--	--	--	112	--	--	--	--	73	14	59	48	11
MATURITY CHECK	TX2752xTX2783	113	176	--	144	--	109	121	--	79	15	74	13	60	52	100
DEKALB	DK-58	97	158	116	128	124	94	109	98	79	16	74	14	58	52	80
MATURITY CHECK	TX2752xTX430	120	162	124	141	135	115	111	104	77	15	74	14	59	50	81
SG RESEARCH	EXP 94120	124	--	--	--	--	120	--	--	--	--	75	14	59	48	1
AVERAGES		104	146	119	125	123	104	146	119	72	14	69	13	59	50	48
CV(%)		12	5	--	--	--	12	5	--	--	--	2	1	1	5	35
LSD(0.05)**		15	13	--	--	--	14	9	--	--	--	1	0	0	3	20

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

# SOUTHWESTERN KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL, FALLOW

**COUNTY:** FINNEY

**LOCATION:** Southwest Research-Extension Center, Garden City

**TEST SITE:** Keith silt loam

**1995 CROP:** Fallow

**1994 CROP:** Sorghum

**FERTILIZER (lbs/acre):** 60 N 0 P2O5 0 K2O

**PLANTING DATE:** 6/3/96

**HARVEST DATE:** 10/23/96

**COOPERATORS:**

Merle Witt, agronomist

**TARGET POPULATION:** 23,000 plants/acre,  
9.1 in. spacing

**STAND (% of target):** 157

**YIELD: Average (bu/a):** 103

**Range (bu/a):** 89 - 119

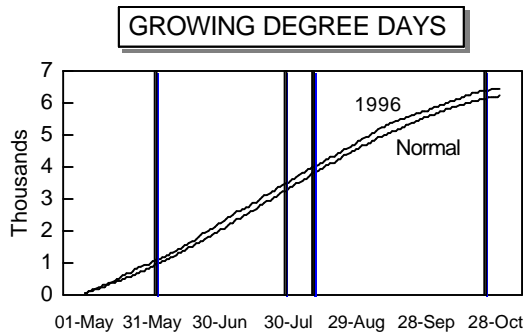
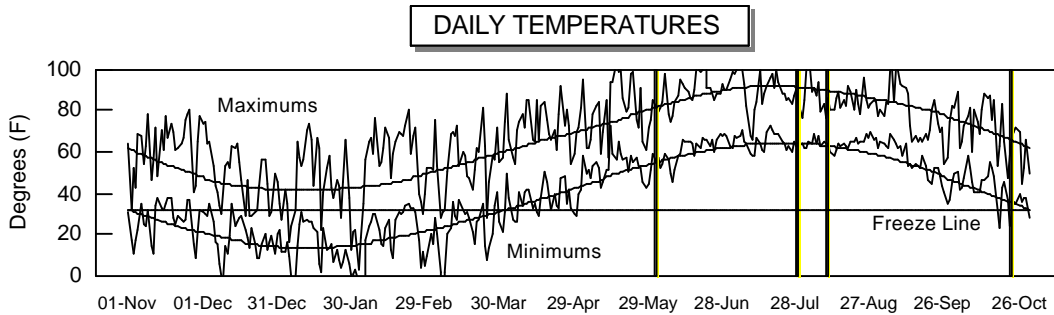
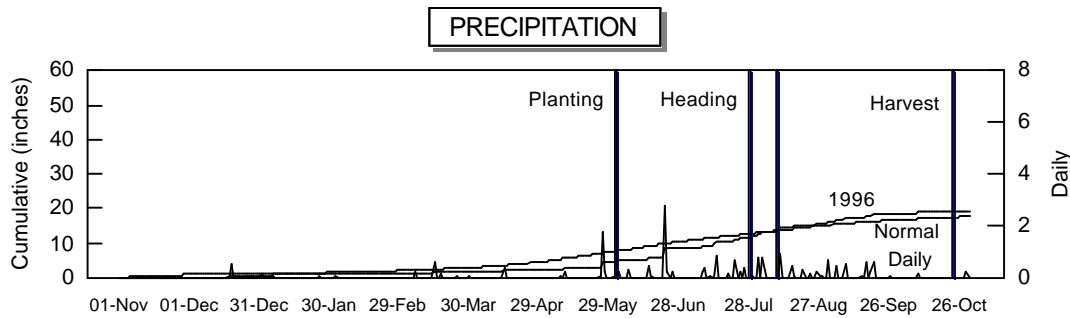
**LSD (bu/a):** 15

**CV (%):** 11

**SILK DATES:** 7/28/96 - 8/9/96

**1996 GROWING CONDITIONS:**

May rains facilitated excellent emergence and stands. Spring and summer conditions were favorable for sorghum growth. The test was free from insects, disease, wind, and moisture stress. Low numbers of corn ear worms were found in panicles in August and September.



## GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1996	Normal	1996	Normal	1996	Normal
April	0.4	1.7	54	51	0	0
May	2.3	2.9	66	62	970	842
June	4.2	2.9	75	72	1235	1145
July	3.0	2.5	77	78	1337	1352
August	3.6	2.2	75	75	1286	1275
Sep.	3.2	1.6	66	67	961	986
Oct.	0.4	1.0	56	54	681	632
Season						
Totals	17.2	14.8	67	66	6469	6231

**TABLE 13. FINNEY CO. FALLOW GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1994-96.**

BRAND	NAME	ACRE YIELD, BUSHEL					YIELD AS % OF TEST			95-96		1996					
		1996	1995	1994	2-Yr.	3-Yr.	AVERAGE			Days to Blm	Grain to Moist. %	Days to Blm	Grain to Moist. %	Test Wt. lb/bu	Plant Ht. in.	Ldg %	Final Stand %
					AVG.	AVG.	1996	1995	1994								
MATURITY CHECK	C 305	89	45	61	67	65	86	78	76	61	12	55	11	60	45	2	145
PIONEER	8699	94	61	74	78	76	92	106	92	62	12	56	11	61	42	1	153
PIONEER	8771	96	45	88	70	76	93	78	109	62	12	57	12	60	45	4	155
MATURITY CHECK	RS 610	102	55	68	78	75	99	96	84	64	12	58	12	59	45	2	192
CARGILL	647	113	--	--	--	--	109	--	--	--	--	60	12	61	46	0	164
CARGILL	627	90	63	--	77	--	88	110	--	67	12	60	12	60	43	9	141
GARST	5631Y	93	--	--	--	--	90	--	--	--	--	60	12	61	43	0	148
GOLDEN WORLD	GW 5960	119	--	--	--	--	116	--	--	--	--	60	12	61	43	0	171
PIONEER	8500	100	62	89	81	84	97	108	111	65	12	60	12	61	45	1	202
MYCOGEN	M 3838	110	74	--	92	--	107	129	--	66	11	61	11	62	44	0	129
DEKALB	DK-38y	96	50	71	73	72	94	87	88	66	12	61	12	59	41	2	136
DEKALB	DK-39	95	54	81	75	77	93	95	101	67	12	61	12	61	42	6	138
DEKALB	DK-45	101	60	--	80	--	98	104	--	67	12	61	12	61	49	2	177
GOLDEN WORLD	GW 5972	100	--	--	--	--	97	--	--	--	--	61	12	61	45	0	143
ICI	5616	111	66	100	89	92	108	116	124	66	12	61	12	61	43	0	133
MATURITY CHECK	TX3042xTX2737	92	54	59	73	68	89	95	73	66	12	61	12	61	45	5	139
MATURITY CHECK	OK11xTX2741	108	54	73	81	78	105	94	91	66	12	61	12	61	44	1	154
NK	KS 585	115	--	--	--	--	112	--	--	--	--	61	12	62	43	1	170
TRIUMPH	TR445	97	--	--	--	--	95	--	--	--	--	61	12	61	44	8	125
TRIUMPH	TR459	92	68	70	80	77	90	118	87	66	12	61	12	61	45	3	152
CIBA	1486	94	--	--	--	--	91	--	--	--	--	62	11	60	42	1	149
CARGILL	737	107	73	91	90	91	104	128	113	68	11	62	12	60	43	0	147
CARGILL	770Y	107	--	--	--	--	104	--	--	--	--	62	12	61	46	1	169
DEKALB	DK-44	104	--	--	--	--	101	--	--	--	--	62	12	61	42	1	139
DEKALB	DK-40y	100	63	--	81	--	97	109	--	67	12	62	12	60	45	3	108
PIONEER	8414	110	--	--	--	--	107	--	--	--	--	62	12	61	46	1	166
CARGILL	X12027 EXP	107	--	--	--	--	104	--	--	--	--	63	11	60	42	1	230
CASTERLINE	EXP 783	96	--	--	--	--	93	--	--	--	--	63	12	60	49	3	224
TRIUMPH	TR462	109	--	--	--	--	106	--	--	--	--	63	13	61	47	4	161
CARGILL	X13116 EXP	95	--	--	--	--	93	--	--	--	--	64	12	61	46	2	136
CASTERLINE	SR 319E	117	90	102	104	103	114	157	126	69	12	64	13	61	48	4	142
CARGILL	730	112	--	--	--	--	109	--	--	--	--	65	12	61	46	1	171
MATURITY CHECK	TX2752xTX430	115	53	89	84	86	111	93	110	71	12	65	12	60	46	2	164
CARGILL	775Y	106	59	--	82	--	103	103	--	70	12	66	13	61	46	0	160
MATURITY CHECK	TX2752xTX2783	109	44	101	76	85	106	78	125	72	13	67	13	61	48	0	171
AVERAGES		103	57	81	80	80	103	57	81	67	12	62	12	61	45	2	157
CV(%)		11	12	10	--	--	11	12	10	--	--	3	5	1	3	151	13
LSD(0.05)**		15	11	13	--	--	15	20	17	--	--	2	1	1	2	4	27

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

# SOUTHWESTERN KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL, IRRIGATED

**COUNTY:** FINNEY

**LOCATION:** Southwest Research-Extension Center, Garden City

**TEST SITE:** Keith silt loam

**1995 CROP:** Fallow

**1994 CROP:** Sorghum

**FERTILIZER (lbs/acre):** 100 N 0 P2O5 0 K2O

**PLANTING DATE:** 6/4/96

**HARVEST DATE:** 10/28/96

**COOPERATORS:**

Merle Witt, agronomist

**TARGET POPULATION:** 70,000 plants/acre,

3.0 in. spacing

**STAND (% of target):** 138

**YIELD: Average (bu/a):** 118

**Range (bu/a):** 87 - 140

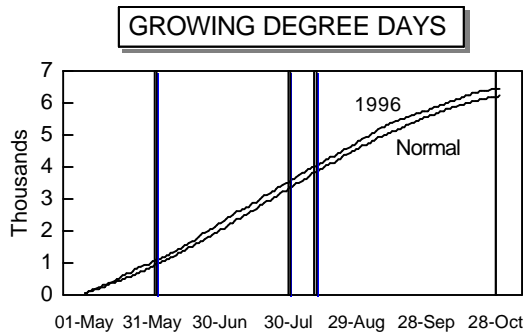
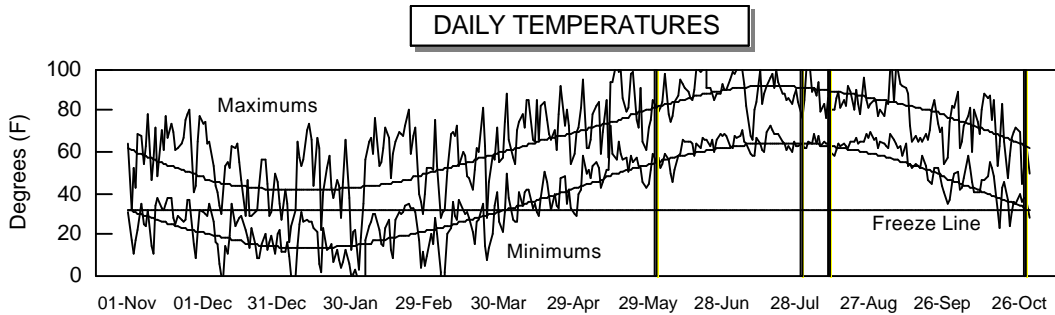
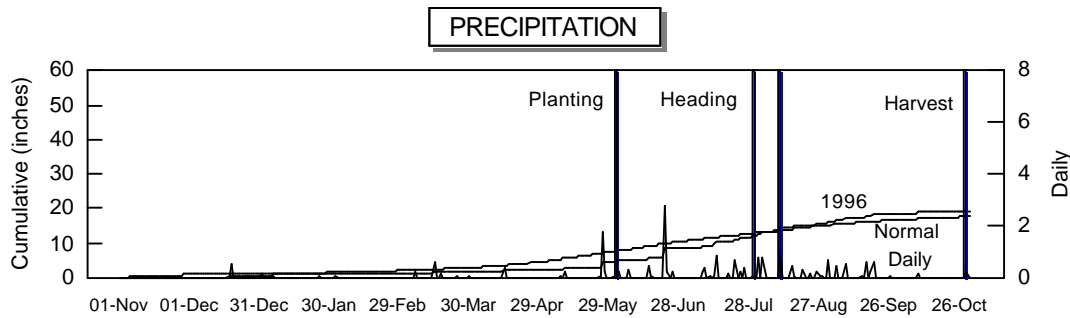
**LSD (bu/a):** 12

**CV (%):** 8

**SILK DATES:** 7/30/96 - 8/10/96

**1996 GROWING CONDITIONS:**

May rains facilitated excellent emergence and stands. Spring and summer conditions were favorable for sorghum growth. The test was free from insects, disease, wind, and moisture stress. Low numbers of corn ear worms were found in panicles in August and September.



## GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1996	Normal	1996	Normal	1996	Normal
April	0.4	1.7	54	51	0	0
May	2.3	2.9	66	62	970	842
June	4.2	2.9	75	72	1235	1145
July	3.0	2.5	77	78	1337	1352
August	3.6	2.2	75	75	1286	1275
Sep.	3.2	1.6	66	67	961	986
Oct.	0.4	1.0	56	54	681	632
Season						
Totals	17.2	14.8	67	66	6469	6231

**TABLE 14. FINNEY CO. IRR. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1994-1996.**

BRAND	NAME	ACRE YIELD, BUSHEL			YIELD AS % OF TEST AVERAGE			95-96		1996				Final Stand %			
		1996	1995	1994	2-Yr. AVG.	3-Yr. AVG.	1996	1995	1994	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %		Test Wt. lb/bu	Plnt Ht. in.	Ldg %
MATURITY CHECK	C 305	92	78	119	85	96	78	98	85	59	11	56	12	59	47	0	130
MATURITY CHECK	RS 610	87	69	113	78	90	74	88	80	62	11	57	12	59	49	0	157
GRI	47967	108	--	--	--	--	92	--	--	--	--	60	12	61	46	0	114
MATURITY CHECK	TX3042xTX2737	97	78	109	88	95	83	99	78	64	11	60	12	61	49	0	126
MATURITY CHECK	OK11xTX2741	87	77	116	82	93	74	97	83	65	11	61	12	61	45	0	170
CIBA	5549Z	117	--	--	--	--	99	--	--	--	--	61	13	61	52	0	154
GRI	58967	101	--	--	--	--	86	--	--	--	--	61	13	60	47	0	113
GRI	23977	122	--	--	--	--	104	--	--	--	--	63	12	60	51	0	116
DEKALB	DK-47	106	--	--	--	--	90	--	--	--	--	63	13	62	45	0	144
MYCOGEN	444E	120	74	135	97	110	102	94	96	66	11	63	13	61	50	0	114
MYCOGEN	1506	117	99	147	108	121	99	126	105	66	12	63	13	60	52	0	131
PIONEER	8282	134	101	--	118	--	114	128	--	68	12	63	13	61	51	0	150
GRI	16977	115	--	--	--	--	98	--	--	--	--	64	12	60	51	0	126
ASGROW	A571	115	--	--	--	--	98	--	--	--	--	64	13	60	52	0	148
ASGROW	A570	132	66	161	99	119	112	84	114	69	11	64	13	61	55	0	145
CARGILL	837	112	--	128	--	--	95	--	91	--	--	64	13	61	52	0	141
CARGILL	X12027 EXP	130	--	--	--	--	111	--	--	--	--	64	13	60	47	0	159
CASTERLINE	SR 324E	126	102	169	114	133	108	129	120	68	12	64	13	61	49	0	159
NK	K73-J6	131	--	--	--	--	112	--	--	--	--	64	13	61	51	0	145
PIONEER	8310	124	88	162	106	125	105	111	116	68	12	64	13	61	49	0	137
TRIUMPH	TR481	124	92	145	108	121	106	117	103	68	12	64	13	61	54	0	139
MYCOGEN	3747	111	--	--	--	--	94	--	--	--	--	65	12	60	49	0	155
CARGILL	730	111	92	--	101	--	94	117	--	69	12	65	13	61	48	0	143
DEKALB	DK-58	118	82	145	100	115	100	103	103	69	11	65	13	60	51	0	127
GRI	58943	117	--	--	--	--	99	--	--	--	--	65	13	61	52	0	114
MATURITY CHECK	TX2752xTX2783	121	73	150	97	115	103	92	107	69	12	65	13	63	52	0	149
MYCOGEN	3800	132	--	--	--	--	112	--	--	--	--	65	13	61	52	0	162
DEKALB	DK-55	140	84	174	112	133	119	106	124	69	11	66	13	60	53	0	139
MATURITY CHECK	TX2752xTX430	111	59	143	85	104	95	75	102	69	11	66	13	61	49	0	150
ASGROW	XP6105 EXP	112	--	--	--	--	95	--	--	--	--	67	13	60	51	0	130
CIBA	1606	119	--	--	--	--	101	--	--	--	--	67	13	60	48	0	132
DEKALB	DK-56	125	84	157	105	122	106	107	111	70	12	67	13	61	51	0	131
DEKALB	DK-54	136	66	151	101	117	115	84	107	70	12	67	13	62	52	0	125
SG RESEARCH	EXP 94120	125	--	--	--	--	106	--	--	--	--	67	13	61	48	0	107
PIONEER	8118	131	79	149	105	119	111	100	106	71	12	67	14	60	56	0	160
TRIUMPH	TR82-G	128	61	140	95	110	109	78	100	71	12	67	14	61	51	0	133
AVERAGES		118	79	141	98	112	118	79	141	68	12	64	13	61	50	0	138
CV(%)		8	14	7	--	--	8	14	7	--	--	3	3	1	5	0	8
LSD(0.05)**		12	18	15	--	--	10	22	11	--	--	2	0	1	3	NS	14

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

**TABLE 15. YIELD AS % OF TEST AVERAGE FROM GRAIN SORGHUM TESTS, 1996.**

BRAND	NAME	EAST			CENTRAL					FALLOW			IRRIGATED		
		BRO	RIL	FRA	REP	ELL	HAR	REN	STA	THO	GRE	FIN	THO	GRE	FIN
AGRIPRO	AP 2440	103	--	89	--	--	90	--	--	96	--	--	--	--	--
AGRIPRO	AP 9210	78	--	90	--	--	101	--	--	98	--	--	--	--	--
AGRIPRO	AP 9670	87	--	--	--	--	102	--	--	--	--	--	--	--	--
AGRIPRO	AP 9690	--	--	--	--	--	102	--	--	97	--	--	--	--	--
AGRIPRO	AP 9850	129	--	110	--	--	--	--	--	--	--	--	--	--	--
AGRIPRO	HY 2660	105	--	104	--	--	103	--	--	111	--	--	--	--	--
ASGROW	A328	92	98	--	--	47	86	88	86	--	--	--	--	--	--
ASGROW	A425	93	100	--	--	90	106	105	102	--	--	--	--	--	--
ASGROW	A570	--	--	--	--	--	--	--	--	--	--	--	112	--	112
ASGROW	A571	--	--	--	--	139	99	112	107	--	--	--	114	--	98
ASGROW	SENECA	92	95	--	--	94	91	85	92	--	--	--	--	--	--
ASGROW	XP6105 EXP	--	--	--	--	--	--	--	--	--	--	--	104	--	95
CARGILL	576	--	--	--	--	--	--	--	--	75	90	--	--	--	--
CARGILL	627	--	--	--	97	--	91	109	99	99	100	88	--	--	--
CARGILL	647	--	--	--	98	--	104	103	102	106	110	109	--	--	--
CARGILL	730	115	98	110	116	107	99	107	102	117	119	109	107	112	94
CARGILL	737	89	99	98	99	112	100	107	92	97	107	104	98	--	--
CARGILL	770Y	94	100	107	104	100	102	99	--	112	105	104	93	--	--
CARGILL	775Y	112	100	98	108	111	101	95	101	117	112	103	101	--	--
CARGILL	837	106	98	106	--	--	--	--	--	--	--	--	--	--	95
CARGILL	X12027 EXP	99	109	101	104	132	105	102	--	110	110	104	91	117	111
CARGILL	X13116 EXP	89	--	--	--	87	--	85	--	92	99	93	--	--	--
CASTERLINE	EXP 737	--	--	--	--	113	90	--	--	--	--	--	--	--	--
CASTERLINE	EXP 783	--	--	--	--	--	--	--	--	--	--	93	--	--	--
CASTERLINE	SR 313	--	--	--	--	120	104	--	--	--	--	--	--	--	--
CASTERLINE	SR 315E	--	--	--	--	--	101	--	--	--	--	--	--	--	--
CASTERLINE	SR 319E	--	--	--	--	--	--	--	--	--	--	114	--	--	--
CASTERLINE	SR 324E	--	--	--	--	--	--	--	--	--	--	--	--	--	108
CENTURY II	GB5543-E	--	--	75	--	--	--	84	85	--	--	--	--	--	--
CENTURY II	GB7042-E	--	--	89	--	--	--	104	104	--	--	--	--	--	--
CENTURY II	GB8041-W	--	--	100	--	--	--	99	96	--	--	--	--	--	--
CENTURY II	GB9140-E	--	--	89	--	--	--	111	103	--	--	--	--	--	--
CIBA	1486	--	--	--	88	--	--	--	77	--	--	91	--	--	--
CIBA	1606	86	94	--	96	--	--	--	--	--	--	--	--	--	101
CIBA	5549Z	122	97	--	102	--	--	--	--	--	--	--	--	--	99
DEKALB	DK-35	89	102	108	104	101	105	91	104	103	99	--	--	--	--
DEKALB	DK-38y	--	--	--	--	105	--	--	--	93	78	94	--	--	--
DEKALB	DK-39	--	--	--	83	117	--	--	--	106	105	93	--	--	--
DEKALB	DK-40y	--	102	--	104	96	94	98	92	102	95	97	--	--	--
DEKALB	DK-44	104	102	--	101	106	93	109	94	98	106	101	--	--	--
DEKALB	DK-45	128	113	87	115	97	113	111	94	102	98	98	--	--	--
DEKALB	DK-47	108	91	118	114	--	111	--	--	--	--	--	98	98	90
DEKALB	DK-51	92	103	104	--	--	--	--	--	--	--	--	--	--	--
DEKALB	DK-54	141	--	114	--	--	--	--	--	--	--	--	109	102	115
DEKALB	DK-55	128	119	111	--	--	--	--	--	--	--	--	110	81	119
DEKALB	DK-56	111	--	116	--	--	113	110	114	--	--	--	105	--	106
DEKALB	DK-58	--	--	106	109	--	--	--	--	--	--	--	111	94	100
DELANGE	DSA 115C	--	--	97	--	--	104	102	103	--	--	--	--	--	--
DELANGE	DSA 125C	--	--	92	--	--	88	95	--	--	--	--	--	--	--
DELANGE	DSA 131	--	--	97	--	--	--	--	--	--	--	--	--	--	--
DELANGE	DSA 151	--	--	107	--	--	103	--	--	--	--	--	--	--	--
FONTANELLE	4425	--	--	--	87	--	--	--	--	--	--	--	--	--	--
FONTANELLE	5576C	109	--	117	104	--	--	--	--	--	--	--	--	--	--

(continued)



**TABLE 15. YIELD AS % OF TEST AVERAGE FROM GRAIN SORGHUM TESTS, 1996.**

BRAND	NAME	EAST			CENTRAL					FALLOW			IRRIGATED		
		BRO	RIL	FRA	REP	ELL	HAR	REN	STA	THO	GRE	FIN	THO	GRE	FIN
GARST	5514Y	--	--	87	--	--	110	--	--	--	--	--	--	--	--
GARST	5631Y	--	--	--	97	--	--	106	105	--	109	90	--	--	--
GOLDEN HARVEST	H-403	--	--	--	--	95	--	--	--	--	--	--	--	--	--
GOLDEN HARVEST	H-509	100	--	--	--	--	96	--	--	--	--	--	--	--	--
GOLDEN WORLD	GW 5960	--	--	--	--	96	--	92	--	--	100	116	--	--	--
GOLDEN WORLD	GW 5972	--	--	--	--	99	--	96	--	--	98	97	--	--	--
GRI	16977	--	104	--	108	--	100	--	--	--	--	--	--	--	98
GRI	23977	--	97	--	108	--	93	--	--	--	--	--	--	--	104
GRI	47967	--	90	--	--	--	87	--	--	--	--	--	--	--	92
GRI	47977	--	--	--	105	--	--	--	--	--	--	--	--	--	--
GRI	58943	--	102	--	100	--	95	--	--	--	--	--	--	--	99
GRI	58967	--	104	--	96	--	92	--	--	--	--	--	--	--	86
HOEGEMEYER	671	92	--	103	99	124	99	101	112	--	--	--	--	--	--
HOEGEMEYER	6710	74	--	99	100	113	--	--	--	--	--	--	--	--	--
HOEGEMEYER	6874	--	--	--	100	127	96	107	102	--	--	--	--	--	--
HOEGEMEYER	6878	133	--	110	--	--	116	105	124	--	--	--	--	--	--
ICI	5536	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ICI	5616	96	--	--	103	80	99	100	110	92	--	108	--	--	--
KAYSTAR	KS-502	--	--	--	99	--	--	--	--	--	--	--	--	--	--
KAYSTAR	KS-520C	--	--	--	86	--	--	--	--	--	--	--	--	--	--
KAYSTAR	KS-525	--	--	--	101	--	--	--	--	--	--	--	--	--	--
KAYSTAR	KS-528	--	--	--	94	--	--	--	--	--	--	--	--	--	--
KAYSTAR	KS-540Y	--	--	--	99	--	--	--	--	--	--	--	--	--	--
MSG	G 530	64	--	--	--	92	--	--	100	--	--	--	--	--	--
MSG	G 580	103	--	--	105	113	102	--	--	--	--	--	--	--	--
MSG	O 214	74	--	93	92	--	100	--	90	--	--	--	--	--	--
MSG	O 256	106	--	113	101	122	108	--	106	--	--	--	--	--	--
MYCOGEN	1482	--	--	--	--	--	--	--	91	91	105	--	--	--	--
MYCOGEN	1505Y	--	--	--	104	108	--	--	--	--	--	--	--	--	--
MYCOGEN	1506	117	101	106	102	--	113	117	--	--	--	--	97	91	99
MYCOGEN	3747	118	--	--	--	--	--	--	--	--	--	--	--	--	94
MYCOGEN	3800	114	--	--	--	--	--	--	--	--	--	--	--	--	112
MYCOGEN	444E	106	110	98	--	--	--	--	--	--	--	--	--	--	102
MYCOGEN	M 3838	87	--	--	91	89	101	106	99	96	110	107	--	--	--
NC+	371 (G)	--	--	103	--	--	--	--	--	--	--	--	--	--	--
NC+	5B74E (G)	--	--	--	--	78	--	--	--	97	--	--	--	--	--
NC+	6B50 (G)	83	--	--	--	93	--	99	95	118	--	--	--	--	--
NC+	6B67 (G)	--	--	92	--	--	91	93	--	--	--	--	--	--	--
NC+	6Y83I (G)	--	--	--	--	70	--	--	--	116	--	--	--	--	--
NC+	7R37E (G)	--	--	--	--	--	--	--	106	--	--	--	--	--	--
NC+	7R83 (G)	134	110	87	--	--	101	114	--	--	--	--	--	--	--
NC+	Y363 (G)	--	--	--	--	110	--	--	--	104	--	--	--	--	--
NK	K35-Y5	--	--	--	--	75	--	--	--	91	91	--	--	--	--
NK	K73-J6	116	111	108	--	--	--	--	--	--	--	--	--	--	112
NK	KS 310	--	--	--	--	77	75	76	--	80	87	--	--	--	--
NK	KS 585	--	--	94	101	108	112	92	109	--	--	112	93	--	--
NK	KS 711Y	87	--	91	102	--	101	100	113	--	--	--	--	--	--
NORTHROP KING	KS 555Y	--	--	98	--	--	--	--	--	--	--	--	--	--	--
NORTHROP KING	KS 560Y	--	--	--	94	--	102	94	92	--	--	--	--	--	--
NORTHROP KING	KS 710	--	--	99	--	--	108	101	109	--	--	--	--	--	--
NORTHROP KING	KS 714Y	--	--	--	--	--	103	99	104	--	--	--	--	--	--
NORTHROP KING	KS 735	--	102	101	--	--	--	--	--	--	--	--	--	--	--
NORTHROP KING	X9332 EXP	--	--	--	--	--	105	100	108	--	--	--	--	--	--

(continued)

**TABLE 15. YIELD AS % OF TEST AVERAGE FROM GRAIN SORGHUM TESTS, 1996.**

BRAND	NAME	EAST			CENTRAL					FALLOW			IRRIGATED		
		BRO	RIL	FRA	REP	ELL	HAR	REN	STA	THO	GRE	FIN	THO	GRE	FIN
PATRIOT	8530Y	76	--	83	--	--	--	--	--	--	--	--	--	--	--
PATRIOT	8580	90	--	105	--	--	--	--	--	--	--	--	--	--	--
PATRIOT	8608Y	98	--	99	--	--	--	--	--	--	--	--	--	--	--
PATRIOT	8638Y	96	--	90	--	--	--	--	--	--	--	--	--	--	--
PIONEER	8118	--	--	--	--	--	--	--	--	--	--	--	--	--	111
PIONEER	8212Y	110	--	113	--	--	--	--	--	--	--	--	--	--	--
PIONEER	8282	--	--	--	--	--	--	--	--	--	--	--	112	101	114
PIONEER	8310	90	--	104	--	--	--	106	--	--	--	--	104	107	105
PIONEER	8414	--	96	--	112	--	102	97	102	--	--	107	--	--	--
PIONEER	8446	--	--	--	--	--	--	95	--	--	--	--	--	--	--
PIONEER	8500	--	102	103	111	--	108	101	104	--	--	97	--	--	--
PIONEER	8505	96	101	--	114	96	105	--	--	--	100	--	85	103	--
PIONEER	8557Y	--	--	--	--	--	--	--	--	--	104	--	--	--	--
PIONEER	8699	--	--	--	--	72	--	--	89	96	90	92	--	--	--
PIONEER	8771	--	--	--	--	--	--	--	--	94	85	93	--	--	--
SG RESEARCH	EXP 94108	115	104	--	100	--	--	--	--	--	--	--	--	--	--
SG RESEARCH	EXP 94120	--	--	--	--	--	--	--	--	--	--	--	--	120	106
SG RESEARCH	EXP 94249	99	103	--	109	--	101	--	--	--	--	--	--	--	--
SG RESEARCH	EXP 95270	76	91	--	88	--	--	--	--	--	--	--	--	--	--
SG RESEARCH	EXP 95510	86	91	--	92	--	--	--	--	--	--	--	--	--	--
SG RESEARCH	EXP 96121	66	78	--	86	--	--	--	--	--	--	--	--	--	--
SG RESEARCH	SG 822	96	102	--	109	--	--	--	--	--	--	--	--	--	--
SG RESEARCH	SG 919	96	110	--	108	--	--	--	--	--	--	--	--	--	--
SG RESEARCH	SG 942	114	97	--	94	--	--	--	--	--	--	--	--	--	--
TRIUMPH	TR445	--	--	--	98	--	--	108	--	--	--	95	--	--	--
TRIUMPH	TR459	--	--	103	97	--	97	105	--	--	--	90	--	--	--
TRIUMPH	TR462	--	--	--	100	--	--	109	--	--	--	106	--	--	--
TRIUMPH	TR474	127	--	113	104	--	--	--	--	--	--	--	--	--	--
TRIUMPH	TR481	97	--	109	--	--	--	111	--	--	--	--	--	--	106
TRIUMPH	TR65-G	90	--	--	100	--	--	--	--	--	--	--	--	--	--
TRIUMPH	TR82-G	--	--	111	--	--	--	--	--	--	--	--	--	--	109
MATURITY CHECK	C 305	93	91	73	90	72	89	78	80	88	85	86	78	90	78
MATURITY CHECK	OK11xTX2741	93	92	94	82	86	95	85	92	94	113	105	86	101	74
MATURITY CHECK	RS 610	91	95	76	79	72	90	88	92	84	79	99	78	79	74
MATURITY CHECK	TX2752xTX2783	116	103	109	96	125	105	112	107	117	100	106	120	109	103
MATURITY CHECK	TX2752xTX430	107	96	109	112	126	103	109	111	122	112	111	115	115	95
MATURITY CHECK	TX3042xTX2737	77	96	84	97	110	101	88	99	91	98	89	79	82	83
AVERAGES		107	142	131	138	112	125	129	127	117	110	103	136	104	118
CV(%)		9	6	7	7	8	6	6	7	7	7	11	5	12	8
LSD(0.05)**		12	7	8	9	11	9	7	8	10	9	15	6	14	10

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

Test averages are in bushels per acre to facilitate comparison of yield levels across locations.

Test location codes:

BRO = Brown Co. Test, Cornbelt Exp. Field, Powhattan  
 RIL = Riley Co. Test, Agronomy North Farm, Manhattan  
 FRA = Franklin Co. Test, East Central Exp. Field, Ottawa  
 REP = Republic Co. Test, North Central Exp. Field, Belleville  
 ELL = Ellis Co. Test, Ag. Research Center, Hays  
 HAR = Harvey Co. Test, Harvey Co. Exp. Field, Hesston

REN = Reno Co. Test, South Central Exp. Field, Hutchinson  
 STA = Stafford Co. Test, Sandyland Exp. Field, St. John  
 THO = Thomas Co. Test, NW Res.-Ext. Center, Colby  
 GRE = Greeley Co. Test, SW Res.-Ext. Center, Tribune  
 FIN = Finney Co. Test, SW Res.-Ext. Center, Garden City

# NORTH CENTRAL KANSAS FORAGE SORGHUM TEST ON SILT LOAM SOIL

**COUNTY:** ELLIS

**LOCATION:** Agricultural Research Center, Hays

**TEST SITE:** Harney silt loam

**1995 CROP:** Fallow

**1994 CROP:** Sorghum

**FERTILIZER (lbs/acre):** 80 N 0 P2O5 0 K2O

**PLANTING DATE:** 5/23/96

**HARVEST DATE:** 9/26/96

**COOPERATORS:**

Kenneth Kofoid, agronomist

**TARGET POPULATION:** 35,000 plants/acre,  
6.0 in. spacing

**STAND (% of target):** 82

**YIELD: Average (ton/a):** 25

**Range (ton/a):** 19 - 30

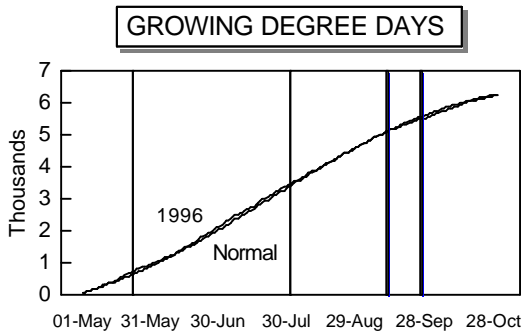
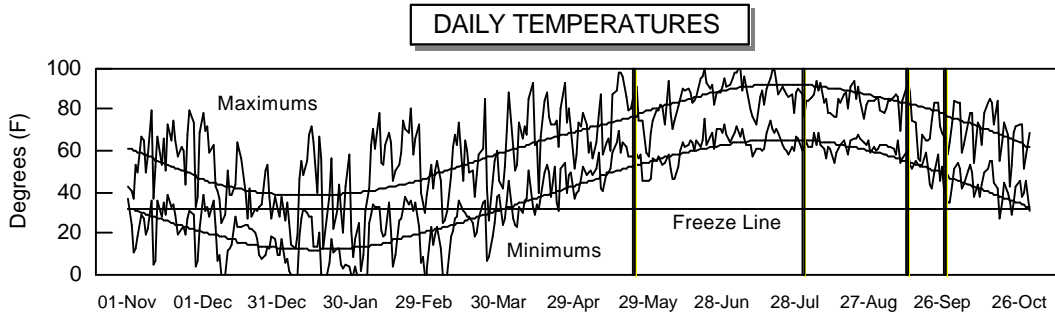
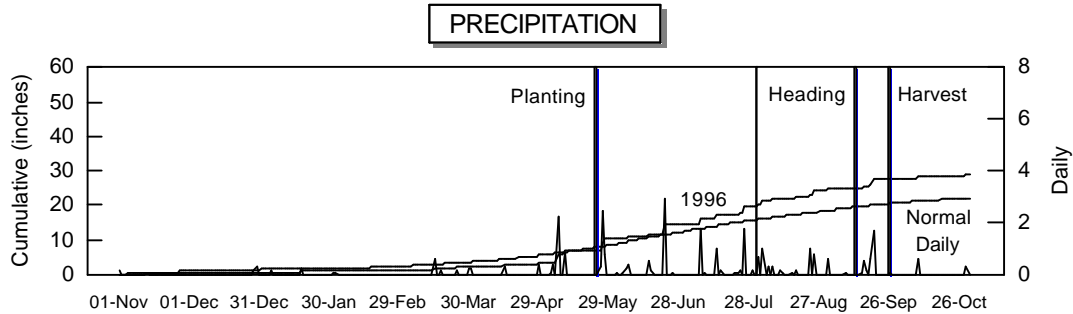
**LSD (ton/a):** 3

**CV (%):** 9

**SILK DATES:** 8/4/96 - 9/11/96

**1996 GROWING CONDITIONS:**

This test was planted in extremely dry soil. Heavy rains after planting caused soil crusting, which resulted in rather poor stands. Rainfall was above-normal during the rest of the growing season and caused prolific tillering. The test was subjected to essentially no drought or heat stress during any part of the growing season, and plant growth was excellent as indicated by plant height. Forage yields were impressive.



## GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1996	Normal	1996	Normal	1996	Normal
April	1.0	1.9	54	51	0	0
May	7.0	3.2	63	62	898	842
June	4.3	3.8	73	72	1184	1141
July	5.1	3.3	77	78	1332	1366
August	4.4	2.8	74	76	1227	1301
Sep.	3.7	2.2	64	67	910	995
Oct.	0.9	1.4	57	55	705	638
Season Totals	26.6	18.5	66	66	6256	6281

**TABLE 16. ELLIS CO. FORAGE SORGHUM PERFORMANCE TEST RESULTS, 1994-1996.**

BRAND	NAME	SILAGE YIELD									95-96		1996					
		tons/acre at 70% moisture						% Average			Days to Blm	Dry Mat. %	Days to Blm	Dry Mat. %	Plnt Ht. in.	Ldg %	Final Stand %	Grain Yld Rate
		1996	1995	1994	2-Yr. AVG.	3-Yr. AVG.	%	1996	1995	1994								
<b>EARLY HYBRIDS</b>																		
BUFFALO	CANEX	21	13	--	17	--	85	104	--	75	30	73	29	91	0	76	1	
MYCOGEN	GREENLEAF.AP	21	12	--	16	--	86	97	--	76	40	73	40	67	0	95	3	
MATURITY CHECK	EARLY SUMAC	19	11	--	15	--	77	88	--	73	29	74	27	89	0	64	1	
DEKALB	FS-5	26	14	--	20	--	105	119	--	82	30	75	32	97	0	84	3	
MATURITY CHECK	ROX ORANGE	20	11	--	15	--	80	90	--	81	27	75	26	90	0	67	2	
BUFFALO	CANEX II	20	--	--	--	--	81	--	--	--	--	76	28	93	0	76	2	
PIONEER	849F	24	13	--	18	--	97	105	--	80	32	76	33	95	0	92	3	
DEKALB	FS-2	19	12	--	15	--	76	99	--	78	31	77	29	70	0	70	3	
Early Averages		21	12	--	16	--	86	99	--	78	31	75	31	86	0	78	2	
Early CV(%)		6	10	--	--	--	6	10	--	--	--	2	5	7	0	11	--	
Early LSD(0.05)*		2	2	--	--	--	7	15	--	--	--	2	2	9	NS	12	--	
<b>MEDIUM HYBRIDS</b>																		
MYCOGEN	GREENLEAF.S	23	15	--	19	--	92	121	--	85	29	82	28	99	0	87	1	
MATURITY CHECK	ATLAS	23	12	--	17	--	92	98	--	--	26	84	26	102	0	64	2	
MYCOGEN	T-E MILK-A-LOT	29	13	--	21	--	120	104	--	84	35	90	31	74	0	93	3	
NORTHRUP KING	NK 300	28	--	--	--	--	114	--	--	--	--	91	30	75	0	77	3	
NORTHRUP KING	X901	28	--	--	--	--	114	--	--	--	--	92	28	75	0	87	2	
MYCOGEN	GREENLEAF	26	14	--	20	--	105	114	--	85	35	93	29	91	0	77	3	
NC+	NUTRI-TON	30	--	--	--	--	120	--	--	--	--	94	25	93	0	92	1	
NC+	NUTRI-CHOICE	28	--	--	--	--	115	--	--	--	--	94	26	80	0	101	2	
Med. Averages		27	12	--	20	--	109	104	--	85	31	90	28	86	0	85	2	
Med. CV(%)		10	9	--	--	--	10	9	--	--	--	2	7	4	0	9	--	
Med. LSD(0.05)*		4	2	--	--	--	16	13	--	--	--	3	3	5	NS	11	--	
<b>LATE HYBRIDS</b>																		
MYCOGEN	T-E SILOMAKER	28	13	--	21	--	116	107	--	86	30	93	27	96	0	96	3	
CENTURY II	HYGRACHOP	26	13	--	20	--	106	110	--	--	25	96	24	112	0	85	2	
PIONEER	839F	23	--	--	--	--	93	--	--	--	--	97	24	84	0	82	1	
DEKALB	FS-25E	26	13	--	20	--	106	109	--	95	25	98	24	108	0	85	1	
MYCOGEN	ORO RED TOP	27	12	--	20	--	111	103	--	--	25	98	24	140	0	77	1	
CENTURY II	SWEETALL	26	12	--	19	--	107	101	--	--	25	99	24	143	0	80	1	
PIONEER	819F	26	11	--	18	--	105	93	--	--	23	111	22	114	0	81	2	
Late Averages		26	12	--	19	--	106	99	--	93	26	99	24	114	0	84	2	
Late CV(%)		8	11	--	--	--	8	11	--	--	--	1	3	7	0	13	--	
Late LSD(0.05)*		NS	2	--	--	--	NS	15	--	--	--	2	1	12	NS	NS	--	
<b>ALL HYBRIDS</b>																		
Averages		25	12	--	18	--	25	12	--	84	29	87	28	95	0	82	2	
CV(%)		9	10	--	--	--	9	10	--	--	--	2	6	7	0	12	--	
LSD(0.05)**		3	2	--	--	--	12	17	--	--	--	2	2	9	NS	13	--	

Grain yields rated 1-3; 1 = <50 bu/a, 2 = 50-100 bu/a, 3 = >100 bu/a, unreplicated.

\* LSD for comparing hybrids within a maturity group.

\*\* LSD for comparing hybrids in different maturity groups.

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

# SOUTH CENTRAL KANSAS FORAGE SORGHUM TEST ON SILT LOAM SOIL

**COUNTY:** RENO

**LOCATION:** South Central Kansas Experiment Field, Hutchinson

**TEST SITE:** Ost silt loam

**1995 CROP:** Wheat

**1994 CROP:** Sorghum

**FERTILIZER (lbs/acre):** 120 N 40 P2O5 0 K2O

**PLANTING DATE:** 5/31/96

**HARVEST DATE:** 10/1/96

**COOPERATORS:**

William Heer, agronomist; Brian Wade, technician

**TARGET POPULATION:** 35,000 plants/acre,

6.0 in. spacing

**STAND (% of target):** 119

**YIELD: Average (ton/a):** 14

**Range (ton/a):** 11 - 20

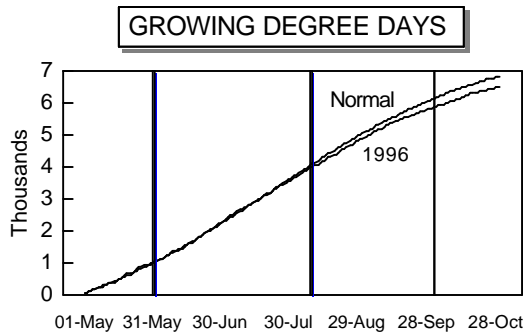
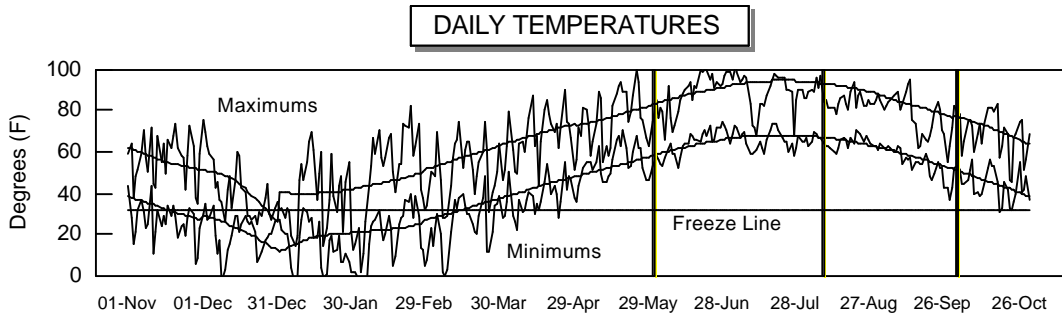
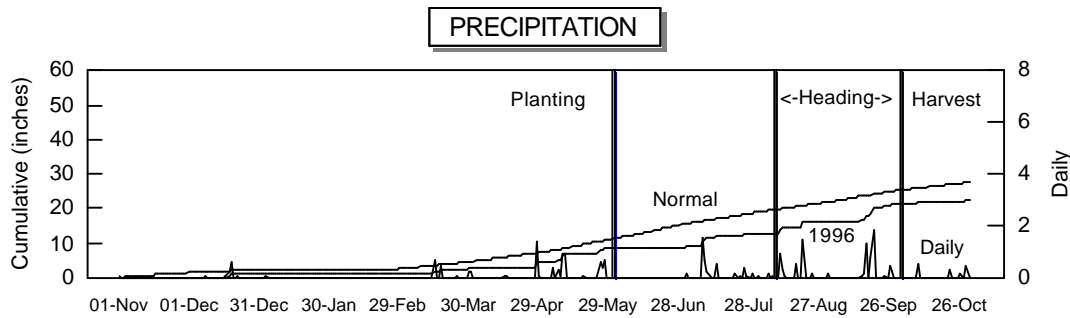
**LSD (ton/a):** 1

**CV (%):** 8

**SILK DATES:** 8/8/96 - 10/1/96

**1996 GROWING CONDITIONS:**

The test was planted on the day of the last significant rainfall before a month-long dry spell during June. Stands were good, but the young plants were somewhat stressed by the dry conditions. July and August had above-average rainfall and below-normal temperatures.



## GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1996	Normal	1996	Normal	1996	Normal
April	1.8	2.6	52	56	0	0
May	4.4	3.9	65	65	960	940
June	0.0	4.3	76	75	1252	1234
July	3.8	3.4	78	81	1359	1454
August	3.6	3.1	75	79	1286	1385
Sep.	4.9	3.3	66	70	952	1072
Oct.	1.4	2.5	57	58	711	748
Season						
Totals	20.0	23.1	67	69	6518	6833

**TABLE 17. RENO CO. FORAGE SORGHUM PERFORMANCE TEST RESULTS, 1994-1996.**

BRAND	NAME	SILAGE YIELD									95-96		1996					
		tons/acre at 70% moisture						% Average			Days to Blm	Dry Mat. %	Days to Blm	Dry Mat. %	Plnt Ht. in.	Ldg %	Final Stand %	Grain Yld bu/a
		1996	1995	1994	2-Yr. AVG.	3-Yr. AVG.	1996	1995	1994									
<b>EARLY HYBRIDS</b>																		
MYCOGEN	GREENLEAF.AP	13	10	--	12	--	88	95	--	67	43	69	44	58	0	133	95	
BUFFALO	CANEX	13	11	21	12	15	89	100	110	67	33	70	34	85	11	133	52	
MATURITY CHECK	EARLY SUMAC	11	9	19	10	13	76	78	99	67	31	70	31	79	3	113	42	
DEKALB	FS-5	15	12	24	13	17	105	108	123	69	32	72	34	85	0	131	73	
DEKALB	FS-2	13	11	22	12	15	88	97	115	70	33	74	34	66	0	90	103	
PIONEER	849F	13	8	--	11	--	91	72	--	70	33	74	33	82	1	139	77	
MATURITY CHECK	ROX ORANGE	10	10	18	10	13	70	91	92	71	28	75	29	75	2	100	37	
BUFFALO	CANEX II	11	--	14	--	--	79	--	73	--	--	76	32	85	5	119	47	
Early Averages		12	10	21	11	14	86	94	107	69	33	73	34	77	3	120	66	
Early CV(%)		7	13	7	--	--	7	13	7	--	--	2	3	5	118	5	23	
Early LSD(0.05)*		1	2	2	--	--	8	17	12	--	--	2	2	6	5	9	22	
<b>MEDIUM HYBRIDS</b>																		
MYCOGEN	GREENLEAF.S	16	10	--	13	--	109	95	--	75	31	80	33	90	5	136	73	
NORTHROP KING	NK 300	14	--	--	--	--	97	--	--	--	--	82	30	66	0	116	30	
MYCOGEN	T-E MILK-A-LOT	15	10	17	12	14	102	91	90	82	32	83	38	62	1	122	62	
MATURITY CHECK	ATLAS	13	10	17	12	14	92	92	91	78	27	84	29	96	4	69	41	
NORTHROP KING	X901	14	--	--	--	--	93	--	--	--	--	85	28	68	0	122	6	
MYCOGEN	GREENLEAF	16	12	--	14	--	108	106	--	83	32	86	35	78	2	114	50	
NC+	NUTRI-CHOICE	18	--	--	--	--	127	--	--	--	--	89	31	71	1	137	60	
NC+	NUTRI-TON	20	--	--	--	--	138	--	--	--	--	91	29	90	3	119	57	
Med. Averages		16	10	18	13	15	108	96	94	83	29	85	32	78	2	117	47	
Med. CV(%)		8	10	10	--	--	8	10	52	--	--	2	6	5	89	6	35	
Med. LSD(0.05)*		2	NS	2	--	--	12	14	10	--	--	2	3	5	3	9	24	
<b>LATE HYBRIDS</b>																		
MYCOGEN	T-E SILOMAKER	16	11	20	14	16	114	97	104	84	29	86	33	84	4	134	44	
CENTURY II	HYGRACHOP	15	13	17	14	15	103	122	88	87	27	91	30	106	14	136	34	
DEKALB	FS-25E	17	13	20	15	17	119	115	106	94	25	91	28	103	4	117	45	
MYCOGEN	ORO RED TOP	14	12	--	13	--	100	113	--	88	24	91	26	116	58	116	25	
PIONEER	839F	13	--	--	--	--	90	--	--	--	--	91	30	70	0	122	30	
CENTURY II	SWEETALL	15	12	20	14	16	107	113	102	94	23	94	26	120	64	128	28	
PIONEER	819F	17	11	--	14	--	116	99	--	115	23	123	26	106	4	100	0	
Late Averages		15	12	19	14	15	107	109	98	92	26	95	28	101	21	122	30	
Late CV(%)		5	8	6	--	--	5	8	6	--	--	2	3	5	93	5	60	
Late LSD(0.05)*		1	1	1	--	--	7	13	6	--	--	3	1	8	29	9	NS	
<b>ALL HYBRIDS</b>																		
Averages		14	11	19	13	15	14	11	19	82	29	84	31	84	8	119	48	
CV(%)		8	10	9	--	--	8	10	9	--	--	2	5	5	142	6	38	
LSD(0.05)**		1	2	2	--	--	9	17	11	--	--	2	2	5	12	8	19	

\* LSD for comparing hybrids within a maturity group.

\*\* LSD for comparing hybrids in different maturity groups.

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

# SOUTHWESTERN KANSAS FORAGE SORGHUM TEST ON SILT LOAM SOIL, IRRIGATED

**TARGET POPULATION:** 70,000 plants/acre,  
3.0 in. spacing

**STAND (% of target):** 128

**YIELD: Average (ton/a):** 32

**Range (ton/a):** 25 - 41

**LSD (ton/a):** 4

**CV (%):** 9

**SILK DATES:** 8/1/96 - 9/1/96

**1996 GROWING CONDITIONS:**

May rains facilitated excellent emergence and stands. Spring and summer conditions were favorable for sorghum growth and were free from insects, disease, wind, and moisture stress.

**COUNTY:** FINNEY

**LOCATION:** Southwest Research-Extension Center, Garden City

**TEST SITE:** Keith silt loam

**1995 CROP:** Sorghum

**1994 CROP:** Sorghum

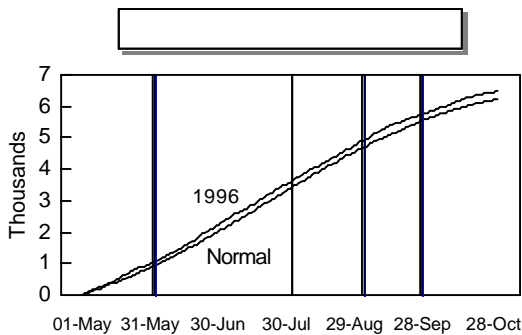
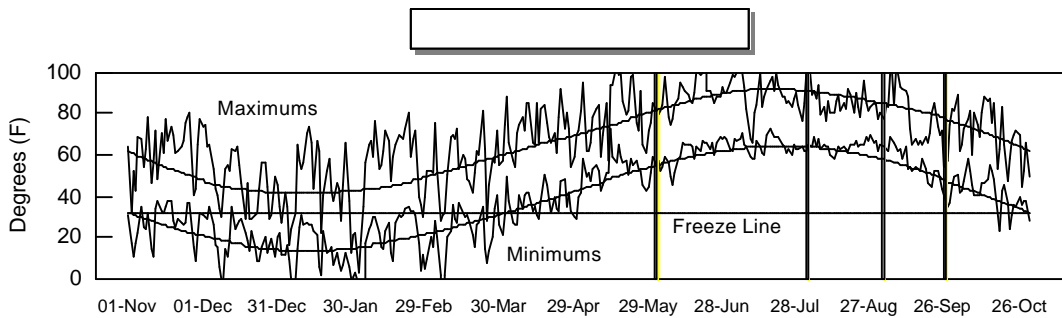
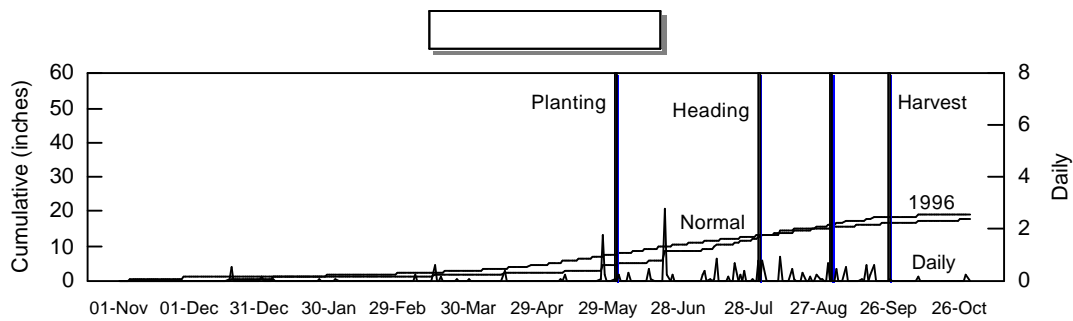
**FERTILIZER (lbs/acre):** 100 N 0 P2O5 0 K2O

**PLANTING DATE:** 6/1/96

**HARVEST DATE:** 9/26/96

**COOPERATORS:**

Merle Witt, agronomist



Month	Precipitation		Average Temp.		GDD	
	1996	Normal	1996	Normal	1996	Normal
April	0.4	1.7	54	51	0	0
May	2.3	2.9	66	62	970	842
June	4.2	2.9	75	72	1235	1145
July	3.0	2.5	77	78	1337	1352
August	3.6	2.2	75	75	1286	1275
Sep.	3.2	1.6	66	67	961	986
Oct.	0.4	1.0	56	54	681	632
Season						
Totals	17.2	14.8	67	66	6469	6231



**TABLE 18. FINNEY CO. FORAGE SORGHUM PERFORMANCE TEST RESULTS, 1994-1996.**

BRAND	NAME	SILAGE YIELD									95-96		1996					
		tons/acre at 70% moisture						% Average			Days to Blm	Dry Mat. %	Days to Blm	Dry Mat. %	Plnt Ht. in.	Ldg %	Final Stand %	Grain Yld Rate
		1996	1995	1994	2-Yr. AVG.	3-Yr. AVG.	%	1996	1995	1994								
<b>EARLY HYBRIDS</b>																		
BUFFALO	CANEX	34	25	30	29	29	105	110	94	67	30	61	31	103	0	121	2	
MATURITY CHECK	EARLY SUMAC	31	20	26	25	25	97	88	81	67	30	62	29	96	7	133	2	
MYCOGEN	GREENLEAF.AP	38	26	--	32	--	118	116	--	68	37	63	37	99	0	132	3	
PIONEER	849F	33	23	--	28	--	102	104	--	69	30	63	31	113	0	143	2	
BUFFALO	CANEX II	30	--	28	--	--	94	--	87	--	--	64	29	110	0	130	2	
DEKALB	FS-2	28	17	27	23	24	89	78	86	69	26	64	27	93	0	102	3	
MATURITY CHECK	ROX ORANGE	32	19	28	25	26	99	83	90	70	27	64	28	89	0	125	2	
DEKALB	FS-5	32	21	34	27	29	101	95	106	72	27	67	29	115	0	127	2	
Early Averages		32	22	30	27	28	100	98	94	69	30	64	30	102	1	127	2	
Early CV(%)		10	14	12	--	--	10	14	12	--	--	1	11	2	490	12	--	
Early LSD(0.05)*		NS	4	4	--	--	NS	20	13	--	--	1	5	3	NS	NS	--	
<b>MEDIUM HYBRIDS</b>																		
MYCOGEN	GREENLEAF.S	28	23	--	25	--	87	102	--	74	26	68	25	109	0	133	2	
MATURITY CHECK	ATLAS	25	19	33	22	26	79	83	105	75	23	69	24	105	0	99	2	
MYCOGEN	T-E MILK-A-LOT	31	20	31	25	27	95	91	98	79	27	78	28	92	0	131	3	
MYCOGEN	GREENLEAF	31	23	--	27	--	97	102	--	82	26	78	26	115	0	120	2	
NORTHROP KING	X901	31	--	--	--	--	97	--	--	--	--	78	27	91	0	147	3	
NORTHROP KING	NK 300	30	--	--	--	--	93	--	--	--	--	78	26	97	0	123	3	
NC+	NUTRI-TON	28	--	--	--	--	86	--	--	--	--	79	23	103	23	132	3	
NC+	NUTRI-CHOICE	32	--	--	--	--	99	--	--	--	--	79	28	95	0	131	3	
Med. Averages		29	21	31	25	27	92	93	98	80	25	76	26	101	3	127	3	
Med. CV(%)		7	8	12	--	--	7	8	12	--	--	2	7	3	490	8	--	
Med. LSD(0.05)*		3	3	4	--	--	10	12	13	--	--	2	3	4	NS	15	--	
<b>LATE HYBRIDS</b>																		
MYCOGEN	T-E SILOMAKER	41	19	34	30	31	129	84	107	82	25	79	28	117	0	132	3	
PIONEER	839F	28	--	--	--	--	87	--	--	--	--	82	24	87	0	128	3	
MYCOGEN	ORO RED TOP	33	23	--	28	--	104	104	--	86	23	83	24	125	17	122	2	
CENTURY II	SWEETALL	26	27	34	27	29	80	122	106	87	24	85	24	121	0	129	2	
CENTURY II	HYGRACHOP	41	27	41	34	36	127	120	128	86	25	85	25	124	17	146	2	
DEKALB	FS-25E	36	25	35	30	32	111	113	110	90	23	88	25	119	0	126	3	
PIONEER	819F	41	21	--	31	--	127	93	--	94	22	92	23	123	0	127	1	
Late Averages		35	24	35	29	31	109	107	109	87	24	85	25	117	5	130	2	
Late CV(%)		8	17	15	--	--	8	17	15	--	--	3	9	3	296	11	--	
Late LSD(0.05)*		4	NS	8	--	--	13	NS	24	--	--	4	NS	5	NS	NS	--	
<b>ALL HYBRIDS</b>																		
Averages		32	22	32	27	29	32	22	32	78	26	74	27	106	3	128	2	
CV(%)		9	15	18	--	--	9	15	18	--	--	2	10	3	418	11	--	
LSD(0.05)**		4	5	NS	--	--	12	24	NS	--	--	2	4	4	16	19	--	

Grain yields rated 1-3; 1 = low, 2 = medium, 3 = high, unreplicated.

\* LSD for comparing hybrids within a maturity group.

\*\* LSD for comparing hybrids in different maturity groups.

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



**TABLE 19. YIELD AS % OF TEST AVERAGE FROM FORAGE SORGHUM TESTS, 1994-1996.**

BRAND	NAME	ELLIS			RENO				FINNEY				Overall Average
		1996	1995	Avg.	1996	1995	1994	Avg.	1996	1995	1994	Avg.	
<b>EARLY HYBRIDS</b>													
BUFFALO	CANEX	85	104	95	89	100	110	100	105	110	94	103	100
BUFFALO	CANEX II	81	--	--	79	--	73	--	94	--	87	--	--
CASTERLINE	SUCANE	--	88	--	--	110	--	--	--	108	--	--	--
DEKALB	FS-2	76	99	87	88	97	115	100	89	78	86	84	91
DEKALB	FS-5	105	119	112	105	108	123	112	101	95	106	101	108
MYCOGEN	GREENLEAF.AP	86	97	91	88	95	--	--	118	116	--	--	--
PIONEER	849F	97	105	101	91	72	--	--	102	104	--	--	--
STAR	MAGNUM	--	--	--	--	--	104	--	--	--	93	--	--
MATURITY CHECK	EARLY SUMAC	77	88	82	76	78	99	84	97	88	81	89	85
MATURITY CHECK	ROX ORANGE	80	90	85	70	91	92	84	99	83	90	90	87
Early Averages		86	99	92	86	94	107	96	100	98	94	97	95
Early CV(%)		6	10	--	7	13	7	--	10	14	12	--	--
Early LSD(0.05)*		7	15	--	8	17	12	--	NS	20	13	--	--
<b>MEDIUM HYBRIDS</b>													
CASTERLINE	DURO	--	100	--	--	91	96	--	--	77	86	--	--
MYCOGEN	GREENLEAF	105	114	109	108	106	--	--	97	102	--	--	--
MYCOGEN	GREENLEAF.S	92	121	106	109	95	--	--	87	102	--	--	--
MYCOGEN	T-E MILK-A-LOT	120	104	112	102	91	90	94	95	91	98	95	99
NC+	965F	--	--	--	--	--	99	--	--	--	101	--	--
NC+	NUTRI-CHOICE	115	--	--	127	--	--	--	99	--	--	--	--
NC+	NUTRI-TON	120	--	--	138	--	--	--	86	--	--	--	--
NC+	X950F	--	--	--	--	--	97	--	--	--	88	--	--
NORTHRUP KING	NK 300	114	--	--	97	--	--	--	93	--	--	--	--
NORTHRUP KING	X901	114	--	--	93	--	--	--	97	--	--	--	--
NORTHRUP KING	X920 EXP	--	85	--	--	99	--	--	--	103	--	--	--
MATURITY CHECK	ATLAS	92	98	95	92	92	91	91	79	83	105	89	91
Med. Averages		109	104	106	108	96	94	99	92	93	98	94	99
Med. CV(%)		10	9	--	8	10	52	--	7	8	12	--	--
Med. LSD(0.05)*		16	13	--	12	14	10	--	10	12	13	--	--
<b>LATE HYBRIDS</b>													
CASTERLINE	SILOPLUS	--	--	--	--	--	94	--	--	--	82	--	--
CASTERLINE	SUPERSILE	--	103	--	--	118	108	--	--	110	106	--	--
CENTURY II	HYGRACHOP	106	110	108	103	122	88	104	127	120	128	125	113
CENTURY II	SWEETALL	107	101	104	107	113	102	107	80	122	106	103	105
DEKALB	FS-25E	106	109	107	119	115	106	113	111	113	110	111	111
GARRISON	SUGAR T	--	--	--	--	--	99	--	--	--	128	--	--
MYCOGEN	ORO RED TOP	111	103	107	100	113	--	--	104	104	--	--	--
MYCOGEN	T-E SILOMAKER	116	107	111	114	97	104	105	129	84	107	106	107
NORTHRUP KING	KF429	--	86	--	--	103	99	--	--	122	117	--	--
PIONEER	819F	105	93	99	116	99	--	--	127	93	--	--	--
PIONEER	838F	--	76	--	--	97	--	--	--	92	--	--	--
PIONEER	839F	93	--	--	90	--	--	--	87	--	--	--	--
Late Averages		106	99	102	107	109	98	105	109	107	109	108	106
Late CV(%)		8	11	--	5	8	6	--	8	17	15	--	--
Late LSD(0.05)*		NS	15	--	7	13	6	--	13	NS	24	--	--
<b>ALL HYBRIDS</b>													
Averages		25	12	18	14	11	19	15	32	22	32	29	21
CV(%)		9	10	--	8	10	9	--	9	15	18	--	--
LSD(0.05)**		12	17	--	9	17	11	--	12	24	NS	--	--

\* LSD for comparing hybrids within a maturity group.

\*\* LSD for comparing hybrids in different maturity groups.

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

Test means are in tons per acre to facilitate comparison of yield levels across locations.

APPENDIX 1: Entrants in the 1996 Kansas Sorghum Performance Tests

<p><b>AgriPro</b>            Temple Abney            AgriPro Seeds, Inc.            Front St., P.O. Box 2212            Hereford, TX 79045            800-858-4603</p>	<p><b>Ciba</b>            Ciba Seeds            211 Landmark Dr.            Suite D4            Normal, IL 61761-2160            309-454-1223</p>	<p><b>Golden World</b>            George Pechacek            Crosbyton Seed            P.O. Box 429            Crosbyton, TX 79322            806-675-2308</p>	<p><b>NC+</b>            Wes Zart            NC+ Hybrids            P.O. Box 4408            Lincoln, NE 68504            402-467-2517</p>
<p><b>Asgrow</b>            Geoff Thomas            Asgrow Seed Company            1-27 North West Service Rd.            Plainview, TX 79072            806-293-2647</p>	<p><b>DeKalb</b>            Charles Courtney            DeKalb Plant Genetics Corp.            R.R. 2, BOX 56            Lubbock, TX 79415            806-763-3336</p>	<p><b>Hoegemeyer</b>            Don Moeller            Hoegemeyer Hybrids            1755 Hoegemeyer Rd.            Hooper, NE 68031-2125            402-654-3399</p>	<p><b>Northrup King</b>            Marcus Schwartz            Northrup King Co.            1060 Wheatland            Buhler, KS 67522            316-543-2707</p>
<p><b>Buffalo</b>            Art Armbrust            Sharp Bros. Seed Company            Box 140            Healy, KS 67850            316-398-2231</p>	<p><b>DeLange</b>            Steve Ahring            Delange Seed (AGSECO)            P.O. Box 7            Girard, KS 66743            316-724-6223</p>	<p><b>ICI</b>            ICI Seeds            2369 330th St.            Slater, IA 50244            800-831-6630</p>	<p><b>Patriot</b>            Ruth Chessman            Patriot Seed, Inc.            208 S. Worrell, Box 97            Bowen, IL 62316            217-842-5612</p>
<p><b>Cargill</b>            Matthew N. Ries            Cargill Hybrid Seeds            P.O. Box 5645, MS 16            Minneapolis, MN 55440-5645            612-742-6727</p>	<p><b>Fontanelle</b>            Steven P. Pike            Fontanelle Hybrids            R.R. 1, Box 18            Nickerson, NE 68044            402-721-1410</p>	<p><b>Kaystar</b>            Ken King            Kaystar Seed            P.O. Box 947            Huron, SD 57350            605-352-8791</p>	<p><b>Pioneer</b>            Jim Schrib            Pioneer Hi-Bred Intl., Inc.            1616 S. Kentucky St.            Suite C-150            Amarillo, TX 79102            806-356-0160</p>
<p><b>Casterline</b>            Carl Casterline            Casterline Seeds, Inc.            Box 1377            1st &amp; Maple            Dodge City, KS 67801            800-444-4137</p>	<p><b>GRI</b>            Charles Lay            Genetic Resources, Inc.            1606 County Road 600 N.            P.O. Box 229            Philo, IL 61864            217-684-2783</p>	<p><b>MSG</b>            Leonard Luebker            Midwest Seed Genetics, Inc.            P.O. Box 518            Carroll, IA 51401            800-369-8218</p>	<p><b>SG Research</b>            Jerry O'Rear            SG Research            P.O. Drawer 2420            Hereford, TX 79045            806-364-0560</p>
<p><b>Century II</b>            Robert Jacquinet            Greenbush Seed&amp;Supply, Inc            315 S. Adams            P.O. Box 661            Hutchinson, KS 67504-0661            316-662-6659</p>	<p><b>Golden Harvest</b>            Bill Green            J.C. Robinson Seed Co.            100 J.C. Robinson Blvd.            P.O. Box A            Waterloo, NE 68069            800-228-9906</p>	<p><b>Mycogen</b>            A. James Allison            Mycogen Plant Sciences            P.O. Box 68            505 South 87th            Tulia, TX 79088            806-995-4111</p>	<p><b>Triumph</b>            James Phillips            Triumph Seed Co. Inc.            P.O. Box 1050            Rails, TX 79357            806-253-2584</p>

## APPENDIX 2: Entries in the 1996 Kansas Grain Sorghum Performance Tests

<b>AGRIPRO</b>						<b>DEKALB</b>					
	Grain	End.	Mat.	Days	G-bug*		Grain	End.	Mat.	Days	G-bug
AP 9210	B	HY	ME	62	E	DK-35	B	HY	E	67	E
AP 2440	C	HY	ME	63	E	DK-38y	Y	Y	E	68	E
HY 2660	R	HY	M	68	E	DK-39	B	HY	E	68	E
AP 9670	C	HY	M	70	E	DK-40y	Y	Y	E	70	E
AP 9690	C	HY	ML	72	E	DK-44	B	HY	M	71	E
AP 9850	R	HY	L	74	E	DK-45	B	HY	M	72	E
						DK-47	B	HY	M	72	E
						DK-51	B	HY	M	73	E
						DK-54	B	HY	L	75	E
						DK-55	B	HY	L	75	E
						DK-56	B	HY	L	76	E
						DK-58	B	HY	L	77	E
<b>ASGROW</b>						<b>DELANGE</b>					
	Grain	End.	Mat.	Days	G-bug*		Grain	End.	Mat.	Days	G-bug
A328	R	W	E		E	DSA 115C	C	HY	ME	59	E
A425	R	W	E		E	DSA 125C	C	HY	M	64	E
A571	R	W	M		-	DSA 131	B	HY	M	65	C
XP6105 EXP	R	W	L		-	DSA 151	B	HY	ML	67	E
SENECA	R	HY	E	64	-						
A570	R	W	M	70	-						
<b>CARGILL</b>						<b>FONTANELLE</b>					
	Grain	End.	Mat.	Days	G-bug*		Grain	End.	Mat.	Days	G-bug
576	B	HY	E	59	EI	4425	B	HY	E	60	E
627	B	HY	E	62	EI	5576C	B	HY	L	68	E
647	B	HY	E	62	E						
X13116 EXP	Y	Y	E	63	EI						
730	B	HY	M	65	EI						
737	B	HY	M	65	-						
770Y	W	HY	M	65	EI						
775Y	W	HY	M	65	-						
X12027 EXP	B	HY	M	65	EI						
837	B	HY	L	68	-						
<b>CASTERLINE</b>						<b>GARST</b>					
	Grain	End.	Mat.	Days	G-bug*		Grain	End.	Mat.	Days	G-bug
SR 315E	B	HY	M	62	E	5631Y	Y	Y	E	63	E
SR 313	R	W	M	64	E	5514Y	Y	Y	M	68	C
SR 319E	B	W	M	64	E						
EXP 737	C	Y	M	65	E						
EXP 783	R	W	L	66	E						
SR 324E	B	W	L	66	E						
<b>CENTURY II</b>						<b>GOLDEN HARVEST</b>					
	Grain	End.	Mat.	Days	G-bug*		Grain	End.	Mat.	Days	G-bug
GB5543-E	R	W	E	55	E	H-403	B	HY	E	64	E
GB7042-E	R	W	M	70	E	H-509	R	HY	L	70	E
GB8041-W	Y	W	M	80	C						
GB9140-E	R	W	L	91	E						
<b>CIBA</b>						<b>GOLDEN WORLD</b>					
	Grain	End.	Mat.	Days	G-bug*		Grain	End.	Mat.	Days	G-bug
1486	Y	Y	M	60	EI	GW 5960	Y	Y	E	63	E
1606	B	Y	L	62	EI	GW 5972	R	W	E	63	E
5549Z	B	Y	L	62	E						
<b>GRI</b>						<b>HOEGEMEYER</b>					
	Grain	End.	Mat.	Days	G-bug*		Grain	End.	Mat.	Days	G-bug
23977	B	HY	M	67	E	6710	R	Y	M	65	S
47967	B	HY	M	67	E	671	C	Y	M	66	S
47977	B	HY	M	68	E	6878	B	Y	L	68	E
58943	B	HY	M	68	E	6874	R	Y	L	69	E
58967	B	HY	M	69	E						
16977	B	HY	M	70	E						

\*Grain = Grain color: Bronze, Cream, Red, Yellow, White; End. = Endosperm color: White, Yellow, Hetero-Yellow; Mat. = Relative maturity: Early, Medium, Late; Days = Days to half bloom; G-bug = Greenbug biotype resistance: Resistant, Susceptible, biotype E, biotype I. Blank spaces indicate that the information was not provided. Most information was provided by entrants.

(continued)

## APPENDIX 2: Entries in the 1996 Kansas Grain Sorghum Performance Tests

ICI	Grain	End.	Mat.	Days	G-bug*	PATRIOT	Grain	End.	Mat.	Days	G-bug
5616	R	W	M	65	-	8530Y	C	Y	E	53	-
5536	B	HY	M	68	E	8580	R	Y	M	58	-
<b>KAYSTAR</b>	<b>Grain</b>	<b>End.</b>	<b>Mat.</b>	<b>Days</b>	<b>G-bug*</b>	8608Y	C	Y	M	60	-
KS-502	R	Y	E	60	E	8638Y	Y	Y	M	63	E
KS-520C	C	HY	M	70	C	<b>PIONEER</b>	<b>Grain</b>	<b>End.</b>	<b>Mat.</b>	<b>Days</b>	<b>G-bug</b>
KS-525	R	Y	M	70	E	8771	B	Y	E	62	E
KS-528	R	Y	M	70	E	8699	B	Y	E	65	E
KS-540Y	C	HY	L	80	C	8557Y	W	Y	E	66	E
<b>MSG</b>	<b>Grain</b>	<b>End.</b>	<b>Mat.</b>	<b>Days</b>	<b>G-bug*</b>	8500	R	W	M	68	-
O 214	R	Y	E	60	E	8505	R	W	M	68	E
G 530	C	HY	E	64	E	8414	R	W	M	69	E
O 256	Y	W	M	65	E	8446	B	Y	M	69	E
G 580	Y	Y	M	68	-	8212Y	Y	Y	L	71	-
<b>MYCOGEN</b>	<b>Grain</b>	<b>End.</b>	<b>Mat.</b>	<b>Days</b>	<b>G-bug*</b>	8282	R	W	L	72	-
1482	B	W	ME	58	E	8310	R	W	L	72	E
M 3838	C	HY	M	60	E	8118	B	Y	L	75	E
1505Y	C	HY	M	61	E	<b>SG RESEARCH</b>	<b>Grain</b>	<b>End.</b>	<b>Mat.</b>	<b>Days</b>	<b>G-bug</b>
1506	B	HY	M	62	E	EXP 96121	B	HY	E	62	-
3800	B	HY	ML	68	E	EXP 95510	C	Y	E	63	-
444E	B	HY	ML	68	E	EXP 95270	C	Y	E	65	-
3747	B	HY	ML	69	EI	SG 919	R	W	M	68	E
<b>NC+</b>	<b>Grain</b>	<b>End.</b>	<b>Mat.</b>	<b>Days</b>	<b>G-bug*</b>	EXP 94108	R	W	M	69	E
5B74E (G)	B	HY	E	60	E	EXP 94249	B	HY	M	69	-
6B50 (G)	B	HY	E	62	?	EXP 94120	Y	Y	M	70	E
6B67 (G)	B	HY	M	64	?	SG 822	C	Y	M	70	-
Y363 (G)	Y	Y	M	64	?	SG 942	R	W	L	72	E
6Y83I (G)	Y	Y	M	67	I	<b>TRIUMPH</b>	<b>Grain</b>	<b>End.</b>	<b>Mat.</b>	<b>Days</b>	<b>G-bug</b>
371 (G)	C	HY	M	70	?	TR459	B	W	E	64	E
7R37E (G)	R	W	M	70	E	TR445	W	W	ME	66	E
7R83 (G)	R	W	M	72	?	TR462	R	W	M	70	E
<b>NK</b>	<b>Grain</b>	<b>End.</b>	<b>Mat.</b>	<b>Days</b>	<b>G-bug*</b>	TR65-G	R	W	M	70	E
KS 310	B	HY	E	65	E	TR481	R	W	ML	72	E
K35-Y5	C	HY	E	68	E	TR474	W	W	ML	73	E
KS 585	B	HY	M	70	E	TR82-G	R	W	ML	73	E
KS 711Y	C	HY	M	71	E	<b>MATURITY CHECK</b>	<b>Grain</b>	<b>End.</b>	<b>Mat.</b>	<b>Days</b>	<b>G-bug</b>
K73-J6	B	HY	L	73	E	C 305	R		E	60	
<b>NORTHRUP KING</b>	<b>Grain</b>	<b>End.</b>	<b>Mat.</b>	<b>Days</b>	<b>G-bug*</b>	TX3042xTX2737	B	W	E	65	S
KS 555Y	C	HY	M	70	E	RS 610	R	W	M	68	S
KS 560Y	C	HY	M	71	E	OK11xTX2741	W	W	M	69	S
KS 710	B	HY	M	72	E	TX2752xTX430	B	W	L	73	S
KS 714Y	C	HY	M	72	E	TX2752xTX2783	R	W	L	74	E
KS 735	B	HY	L	73	E						
X9332 EXP	B	HY	L	74	E						

\*Grain = Grain color: Bronze, Cream, Red, Yellow, White; End. = Endosperm color: White, Yellow, Hetero-Yellow; Mat. = Relative maturity: Early, Medium, Late; Days = Days to half bloom; G-bug = Greenbug biotype resistance: Resistant, Susceptible, biotype E, biotype I. Blank spaces indicate that the information was not provided. Most information was provided by entrants.

## APPENDIX 3: Entries in the 1996 Kansas Forage Sorghum Performance Tests

<b>BUFFALO</b>	<b>Grain color</b>	<b>End. color</b>	<b>Maturity</b>	<b>Days 1/2 bloom</b>	<b>Greenbug</b>	<b>Fertility*</b>
CANEX	T	W	E	77	?	S
CANEX II	T	W	E	85	?	S
<b>CENTURY II</b>	<b>Grain color</b>	<b>End. color</b>	<b>Maturity</b>	<b>Days 1/2 bloom</b>	<b>Greenbug</b>	<b>Fertility*</b>
SWEETALL	R		M		S	S
HYGRACHOP	R		L	80	S	F
<b>DEKALB</b>	<b>Grain color</b>	<b>End. color</b>	<b>Maturity</b>	<b>Days 1/2 bloom</b>	<b>Greenbug</b>	<b>Fertility*</b>
FS-2	B	HY	E	70		F
FS-5	T	W	E	70	RE	F
FS-25E	T	W	L	85	RE	F
<b>MYCOGEN</b>	<b>Grain color</b>	<b>End. color</b>	<b>Maturity</b>	<b>Days 1/2 bloom</b>	<b>Greenbug</b>	<b>Fertility*</b>
GREENLEAF.AP	B	W	E	70	S	F
GREENLEAF.S	?	W	M	70	S	S
T-E MILK-A-LOT	B	W	M	70		F
GREENLEAF	B	W	M	78	S	F
T-E SILOMAKER	B	W	L	85		F
ORO RED TOP KANDY	B	W	L	90		F
<b>NC+</b>	<b>Grain color</b>	<b>End. color</b>	<b>Maturity</b>	<b>Days 1/2 bloom</b>	<b>Greenbug</b>	<b>Fertility*</b>
NUTRI-CHOICE II	T	W	M	80		F
NUTRI-TON	T	W	M	85		F
<b>NORTHRUP KING</b>	<b>Grain color</b>	<b>End. color</b>	<b>Maturity</b>	<b>Days 1/2 bloom</b>	<b>Greenbug</b>	<b>Fertility*</b>
NK 300	R	W	M			F
X901	R	Y	M			F
<b>PIONEER</b>	<b>Grain color</b>	<b>End. color</b>	<b>Maturity</b>	<b>Days 1/2 bloom</b>	<b>Greenbug</b>	<b>Fertility*</b>
849F	R	Y	M	71	E	F
839F	R	Y	L	87	E	F
819F	W	W	L	88		F
<b>MATURITY CHECK</b>	<b>Grain color</b>	<b>End. color</b>	<b>Maturity</b>	<b>Days 1/2 bloom</b>	<b>Greenbug</b>	<b>Fertility*</b>
EARLY SUMAC	R		E	67		F
ROX ORANGE	O		E	72		F
ATLAS	R		M	79		F

\*Grain color: Bronze, Cream, Red, Tan, Yellow, White; End. color = Endosperm color: White, Yellow, Hetero-Yellow; Maturity = Relative maturity: Early, Medium, Late; Days 1/2 bloom = Days to half bloom; Greenbug = Greenbug biotype resistance: Resistant, Susceptible, biotype E, biotype I. Fertility: Sterile, Fertile.

Blank spaces indicate that the information was not available. Most information was provided by entrants.

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