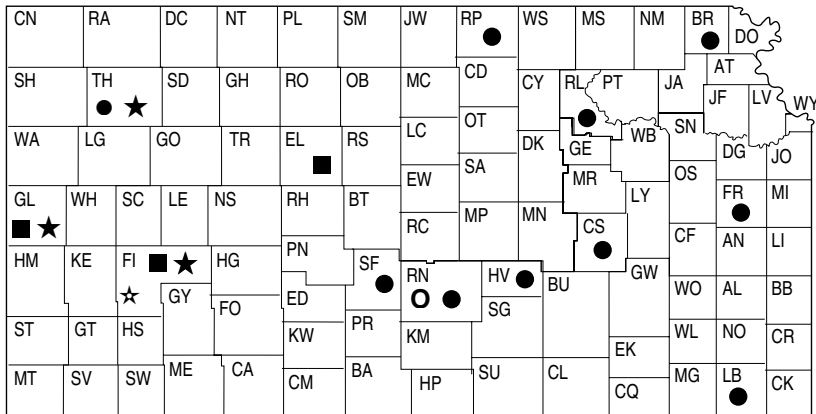




# 1994

## KANSAS PERFORMANCE TESTS WITH GRAIN AND FORAGE SORGHUM HYBRIDS



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

### Report of Progress 750

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

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# 1994 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 partially finance performance 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 the same hybrids are not grown 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 supplemented with information from the test site. Precipitation graphs include cumulative lines for 1994 and the 30-year normal and 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 1994 and normal. All graphs include vertical lines denoting planting, heading, and harvest dates if available. The graphs reveal general trends in precipitation compared to normal. For more detailed information, a small table presents 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 for each test precedes data summaries. Tables 17 and 18 include yield summaries expressed as percent of the group

average for the 1994 growing season over all the test locations. The Appendix includes a listing of the 1994 entrants, entries, and hybrid characteristics provided by the entrants.

In most tests, grain sorghum was planted at a heavy rate and thinned to desired populations several weeks after planting. This reduced the chance that seed vigor and germination of particular seed lots might influence yield and increased the probability that genetic yield potential would be measured instead. Some irrigated tests were planted to stand with no thinning.

Two-row, tractor-powered, modified, White air-planters were used for nearly all tests. Except for two locations, each test included three plots (replications) of each hybrid in a randomized complete block design. Each harvested plot consisted of two rows trimmed to a specific length ranging from 20 to 45 feet. Tests planted in Riley and Chase counties contained four replications of each entry. Agronomists used Gleaner-E combines equipped with electronic weighing and sampling devices to harvest most tests. Forage sorghum tests were harvested with modified tractor-mounted, one-row, forage choppers. Subsamples were hand harvested for grain yield estimates in the Reno County test.

Results for each test include *GRAIN YIELDS* reported as bushels per acre of shelled grain (56 lbs/bu) adjusted to a moisture content of 12.5%. *YIELDS* are converted also to *YIELD AS PERCENTAGE OF TEST AVERAGE* to speed recognition of high-yielding hybrids. Hybrids yielding more than 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 for the forage sorghum tests are reported as bushels per acre or as visual ratings.

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 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.

Beginning in 1993, entries were grouped with hybrids of similar maturity. All entries were classified as Early, Medium, or Late hybrids based on information provided by the entrant or on past performance in Kansas tests. Hybrid comparisons in 1994 tests are valid within and across maturity groupings by using the appropriate least significant difference (L.S.D.). L.S.D.'s for comparing hybrids within a group are listed at the bottom of that group. L.S.D.'s for comparing hybrids in different groups are listed at the bottom of the table. In tables 1-16, hybrids are listed in order of ascending moisture and in order of ascending bloom date within a given moisture level.

The *GROWTH UNIT* or *GROWING DEGREE DAY* concept, as developed for corn, may be used for sorghum to measure the amount of heat available for growth and maturity. The formula used to generate the growing degree days in individual test discussions is as 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.

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

All 1994 grain sorghum tests provided at least some results that could be included in this report. Occasionally, results for hybrids in one of the maturity groupings had to be discarded. Accurate results were not obtained from the Ellis County forage sorghum test because of severe drought stress. Examine introductory information for each test location carefully.

## **1994 STATEWIDE GROWING CONDITIONS**

The 1994 sorghum crop developed ahead of average for most of the season. Planting started at an average pace through most of May, but surged ahead during late May and June. Planting was nearly complete by the end of June. Some planting was delayed in the south as producers waited for rains to moisten dry seed beds. Heading began in early July in southeast Kansas and was 40% ahead of the 5-year average in early August at 85%. Harvest was well under way by mid-September in south central and southeast sorghum fields. Lodging associated with stalk rots and drought stress was evident in many fields by this time. Although the

crop often was subjected to conditions of limited rainfall, subsoil moisture enabled the production of good yields. Nearly perfect weather enabled producers to harvest the crop at a rapid pace. By mid-October, 80% of the crop was out of the field. The 5-year average for this date is 50%. By early November, nearly all of the crop had been harvested. The remaining fields were located primarily in southeast and southwest Kansas.

From early July through the end of the season, Kansas Agricultural Statistics reports rated nearly two-thirds of the crop as good or excellent. Only 3% or less of the crop was rated poor or very poor during the entire season.

(From **Crop-Weather** reports, Kansas Agricultural Statistics, Topeka.)

The two insects of primary concern to Kansas sorghum growers in 1994 were chinch bugs and greenbugs. As is often the case, chinch bugs migrated into the sorghum from senescing wheat fields in June and July. Dry conditions in many areas during this time favored increases in chinch bug populations. Some fields in southern Kansas were replanted in late June or early July because the original planting had been decimated by chinch bugs. Chinch bugs remained active through August in southeast and central Kansas. Greenbugs caused problems in western Kansas from mid-July through early September. Cutworms damaged some stands in eastern Kansas early in the season. In July and August, corn leaf aphids and spider mites were seen in central and western fields. Fall armyworm larvae infested sorghum heads in some fields in south central Kansas.

(Insect information from **Cooperative Economic Insect Survey Report**, Kansas State Board of Agriculture.)

Kansas Board of Agriculture plant pathologists reported little disease pressure on the sorghum crop in 1994. Producers in some localized areas, primarily in central and eastern Kansas, experienced problems with sooty stripe, charcoal rot, Acremonium wilt, downy mildew, and bacterial stripe. Western Kansas disease sightings included bacterial streak, downy mildew,

leaf blight, sooty stripe, maize dwarf mosaic, Fusarium head blight, and crazy top. Late-season lodging often was associated with Fusarium stalk rot, but also was found in absence of the disease. Drought stress appeared to have contributed to small, weak stems trying to support fairly large heads, leading to substantial lodging.

(Disease information from **PLANT DISEASE SURVEY REPORT**, Kansas State Board of Agriculture.)

The projected crop of 207.2 million bushels enabled Kansas to maintain its position as the top grain sorghum producing state. The 1994 production estimate was 17% higher than last year's crop from the same number of acres (2.8 million). The average yield of 74 bushels per acre is 11 bushels higher than that in 1993.

(From November 9 **Crops** report, Kansas Agricultural Statistics, Topeka.)

## **ACKNOWLEDGMENTS**

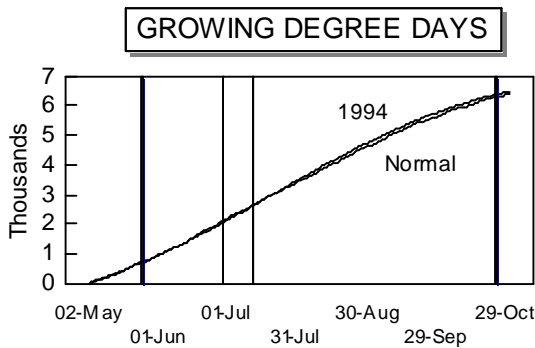
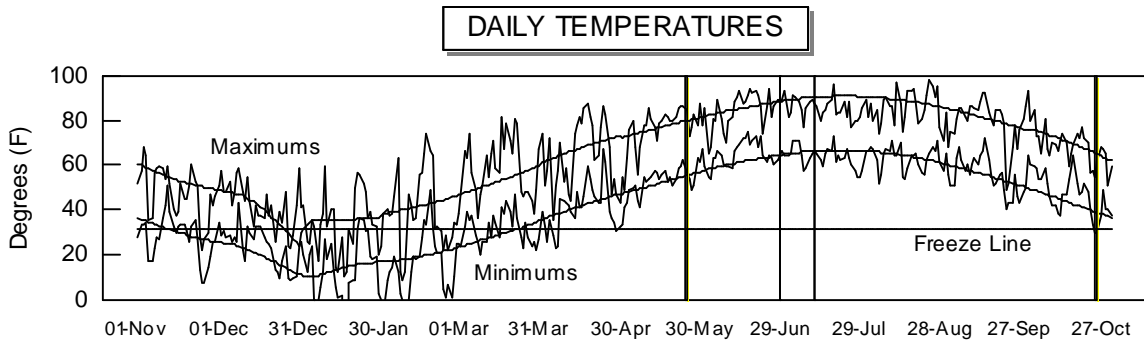
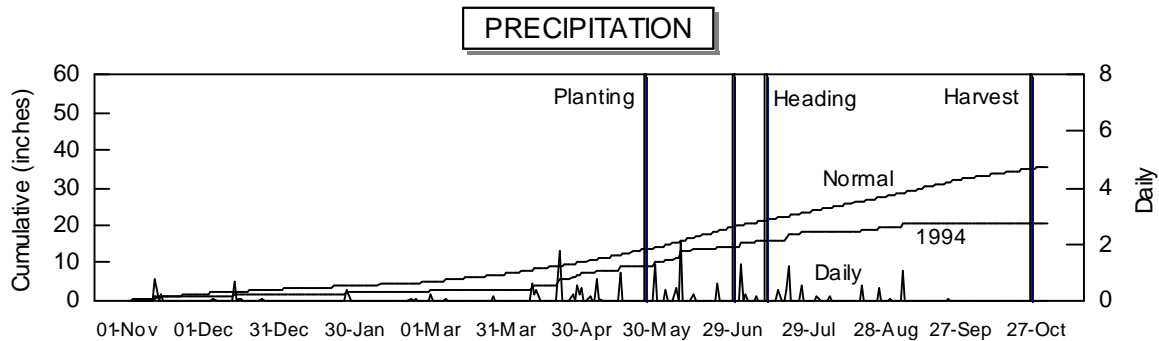
*Cooperation of Research Center and Experiment Field personnel who furnished land and performed many or all of the field operations is sincerely appreciated. Technicians Edward O. Quigley and James R. Cochrane packaged seed and performed field operations for some of the tests. Student workers Marsha Heeb, Lisa Heighert, Shuna Hughart, Melinda Fundenberger, and Dallas Rogers helped with seed counting, sign painting, and thinning. Mary Knapp of the Extension Weather Data Library provided much of the climatological information.*

# NORTHEASTERN KANSAS ON SILTY CLAY LOAM SOIL

**LOCATION:** Cornbelt Experiment Field  
9 miles southwest of Hiawatha in **Brown County**  
**COOPERATORS:** Brian Marsh, agronomist  
Steve Milne and David Zeit, technicians  
**TEST SITE:** Grundy silty clay loam  
Soybeans in 1992 and 1993  
**FERTILIZATION:** 80 lbs N/acre preplant  
**PLANTING DATE:** May 25  
**HARVEST DATE:** October 25  
**PEST CONTROL:** Good  
Furadan and Ramrod/Atrazine at planting  
**POPULATION:** 35,000 plants/acre, 6 in. spacing

	EARLY	MEDIUM	LATE	ALL
<b>STAND (%):</b>	89	90	90	90
<b>TEST YIELDS:</b>				
Avg. (bu/a):	104	108	114	111
Range (bu/a):	96-117	86-126	97-139	86-139
L.S.D. (bu/a):	10.8	13.0	13.3	13.6
C.V. (%):	5.6	7.3	7.1	7.6
<b>BLOOM DATES:</b>	6/29-7/5	7/2-7/11	7/3-7/12	6/29-7/12

**1994 GROWING CONDITIONS:**  
Problems at planting led to several short plots, but yields were adjusted accordingly to provide consistent yield estimates. Rainfall was below normal, but timely rains and stored soil moisture enabled the production of acceptable yields.



## GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1994	Normal	1994	Normal	1994	Normal
April	4.4	3.1	53	55	0	0
May	3.1	4.2	66	65	979	961
June	3.8	5.4	75	74	1229	1192
July	4.1	4.1	74	78	1250	1371
August	1.2	4.2	74	76	1265	1343
Sep.	1.1	4.6	68	68	1020	1001
Oct.	0.0	2.9	57	56	693	664
Season Totals	17.8	28.5	67	67	6438	6531

**TABLE 1. BROWN CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHEL					YIELD AS %			93-94		1994						
		1994	1993	1992	2-Yr. AVG.	3-Yr. AVG.	OF TEST AVERAGE			Mois- ture %	Days to Blm	Mois-Days ture to % Blm	Hds per Plnt	Lod- ging %	Plnt Ht. in.	Test Wt. lb/bu		
<b>EARLY HYBRIDS</b>																		
---	EARLY CHECK	C 305	96	--	--	--	--	92	--	--	--	--	15	59	1.1	0	50	62
---	EARLY CHECK	TX3042 x TX2737	101	41	135	71	92	96	67	102	16	64	15	60	1.1	0	49	62
	DELTAPINE	1490Y	103	--	--	--	--	98	--	--	--	--	15	62	1.2	0	45	61
	TRIUMPH	TR 459	117	--	--	--	--	112	--	--	--	--	15	65	1	0	44	61
	OHLDE	214	97	--	--	--	--	93	--	--	--	--	16	60	1.1	0	45	61
	PATRIOT	8608C	115	--	--	--	--	110	--	--	--	--	16	63	1.1	0	47	61
	Early Average		104	61	132	83	99	100	100	100	15	68	15	62	1.1	--	47	61
	Early C.V.(%)		6	--	--	--	--	6	--	--	--	--	3	1	4	--	2	2
	Early LSD(.05)*		11	14	18	--	--	10	23	13	--	--	NS	1	NS	--	2	NS
<b>MEDIUM HYBRIDS</b>																		
---	MED CHECK	OK11 x TX2741	90	--	--	--	--	84	--	--	--	--	15	62	1	0	44	62
---	MED CHECK	RS 610	96	56	124	76	92	89	92	95	16	66	15	62	1	0	47	59
	FONTANELLE	5040	94	75	--	84	--	87	123	--	15	67	15	62	1	0	45	60
	MYCOGEN	T-E EDEN	86	--	--	--	--	80	--	--	--	--	15	62	1	0.7	43	59
---	MED CHECK	WHTLND x TX2737	108	--	--	--	--	101	--	--	--	--	15	63	1.1	0	45	62
	DELTAPINE	1505Y	107	64	121	85	97	99	105	92	15	68	15	63	1.1	0	48	62
	WILSON	535Y	123	67	136	95	108	114	109	104	16	70	15	63	1.1	0	52	62
	CARGILL	X24002 EXP	110	--	--	--	--	103	--	--	--	--	15	64	1	0	46	61
	CARGILL	575	108	56	131	82	98	101	91	100	15	67	15	64	1.1	0	49	62
	DEKALB	DK-41y	105	67	121	86	98	98	110	92	16	69	15	64	1.1	0	48	61
	WILSON	522W	118	55	--	87	--	110	90	--	15	68	15	64	1	0	49	60
	CARGILL	737	113	--	--	--	--	105	--	--	--	--	15	65	1.1	0	49	61
	DEKALB	DK-48	107	51	145	79	101	99	83	110	16	69	15	65	1.1	0	47	62
	OHLDE	136	100	61	127	81	96	93	100	97	15	68	15	65	1.1	0	47	61
	ICI	5514Y	103	56	131	80	97	96	93	100	15	70	15	66	1.2	0	46	61
	PATRIOT	8657	96	--	--	--	--	89	--	--	--	--	15	67	1.1	0	47	62
	AGRIPRO	AP 9690	113	--	--	--	--	105	--	--	--	--	15	68	1.1	0	48	62
	PATRIOT	8703	118	--	--	--	--	110	--	--	--	--	15	68	1.3	0	50	59
	ASGROW	A570	126	--	--	--	--	117	--	--	--	--	15	69	1.1	0.3	55	62
	GRI	06943	117	--	--	--	--	109	--	--	--	--	15	69	1.1	0	49	62
	NC+	7R37E	118	--	--	--	--	109	--	--	--	--	16	67	1.2	0	50	60
	FONTANELLE	EX-6920 EXP	111	--	--	--	--	104	--	--	--	--	16	71	1.1	0	51	62
	Med. Average		108	61	132	84	100	100	100	100	15	70	15	65	1.1	0	48	61
	Med. C.V.(%)		7	--	--	--	--	7	--	--	--	--	2	2	5	390	3	2
	Med. LSD(.05)*		13	14	18	--	--	12	23	13	--	--	0	2	0.1	NS	2	NS

(continued)

**TABLE 1. BROWN CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHELS					YIELD AS %			93-94		1994					
		1994	1993	1992	2-Yr.	3-Yr.	OF TEST			Mois- ture %	Days to Blm	Mois- ture %	Days to Blm	Hds per Plnt	Lod- ging %	Plnt Ht. in.	Test Wt. lb/bu
					AVG.	AVG.	AVERAGE										
<b>LATE HYBRIDS</b>																	
HOEGEMEYER	671	114	62	130	88	102	100	88	99	15	67	15	63	1.1	0	49	61
NORTHROP-KING	KS-710	109	67	119	88	98	95	96	90	15	66	15	63	1.3	0	44	61
HYPERFORMER	HSC 1289C	99	68	--	83	--	86	112	--	16	70	15	64	1	0	48	61
OHLDE	240W	114	63	131	88	103	100	90	100	15	67	15	64	1.1	0	48	61
CARGILL	837	109	70	141	89	107	95	101	107	15	69	15	65	1.3	0	50	62
NC+	371	106	70	--	88	--	93	100	--	15	68	15	65	1.1	0	45	59
NORTHROP-KING	KS-735	115	66	--	90	--	100	94	--	15	68	15	65	1.2	0	48	62
DELTAPINE	1506	114	68	130	91	104	100	111	99	15	70	15	66	1	0	55	62
MYCOGEN	444E	114	--	--	--	--	100	--	--	--	--	15	66	1.2	0	47	61
NC+	472	112	74	--	93	--	98	105	--	15	70	15	66	1.2	0	46	61
CARGILL	857	111	68	137	89	105	97	97	104	15	70	15	67	1.2	0	47	62
HOEGEMEYER	688	129	83	--	106	--	113	118	--	15	71	15	67	1.3	0	51	61
--- LATE CHECK	TX2752 x TX430	113	71	160	92	115	99	101	122	15	71	15	68	1.1	0	50	63
DEKALB	DK-51	97	68	--	83	--	85	112	--	15	72	15	68	1.1	0	48	61
HYPERFORMER	HSC CHEROKEE	101	71	--	86	--	88	116	--	15	73	15	68	1.1	0	50	60
OHLDE	246Y	115	65	129	90	103	100	106	98	15	72	15	68	1.1	0	51	63
OHLDE	350	115	74	--	94	--	100	105	--	15	71	15	68	1.3	0.7	48	62
TRIUMPH	TR 65G	99	68	137	83	101	87	111	104	15	72	15	68	1.1	0	50	61
ASGROW	A603	106	--	--	--	--	93	--	--	--	--	15	69	1.1	0	52	62
PIONEER	8305	111	--	--	--	--	98	--	--	--	--	15	69	1.1	0	53	62
PIONEER	8212Y	114	--	--	--	--	100	--	--	--	--	15	69	1.2	0	47	61
GOLDEN HARVEST	H-444W	98	75	146	87	106	86	108	111	15	72	15	70	1.1	0	48	61
GRI	11943	114	78	--	96	--	100	111	--	14	74	15	71	1.1	0	54	62
NORTHROP-KING	KS-714Y	100	55	124	77	93	88	78	94	15	66	16	63	1.2	0	44	61
DEKALB	DK-54	129	74	--	102	--	113	106	--	16	69	16	68	1.2	0	56	60
DEKALB	DK-56	122	73	128	98	108	107	105	97	16	71	16	68	1	0	53	59
HOEGEMEYER	6878	122	65	137	94	108	107	93	104	15	70	16	68	1.1	0	48	60
ICI	5536	121	--	--	--	--	106	--	--	--	--	16	68	1.1	0	46	62
WILSON	568E	108	80	--	94	--	95	115	--	16	72	16	69	1	0	57	61
DEKALB	DK-55	139	--	--	--	--	122	--	--	--	--	16	70	1.1	0	53	59
GRI	19943	124	49	--	87	--	108	81	--	15	74	16	70	1.2	0	56	63
--- LATE CHECK	TX2752 x TX2783	126	--	--	--	--	110	--	--	--	--	16	71	1.1	0.3	54	60
FONTANELLE	5588	125	73	130	99	110	110	105	99	16	74	16	71	1.1	0.4	57	63
PATRIOT	8766	122	--	--	--	--	107	--	--	--	--	16	71	1	0	54	62
AGRIPRO	AP 9850	125	--	--	--	--	109	--	--	--	--	16	72	1.1	0.3	52	62
HYPERFORMER	HY 1320	122	--	--	--	--	107	--	--	--	--	16	72	1.1	0	51	62
Late Average		114	70	132	92	105	100	100	100	15	70	15	68	1.1	0	50	61
Late C.V.(%)		7	--	--	--	--	7	--	--	--	--	3	2	7.1	553	3	3
Late LSD(.05)*		13	10	18	--	--	12	15	13	--	--	1	2	0.1	NS	2	NS
Test Averages		111	--	132	--	--	100	--	100	--	--	15	66	1.1	0.1	49	61
C.V.(%)		8	--	--	--	--	8	--	--	--	--	3	2	6.3	526	3	3
L.S.D.(.05)**		14	--	18	--	--	--	--	13	--	--	1	2	0.1	NS	2	NS

\* L.S.D. for comparing hybrids within a maturity grouping.

\*\* L.S.D. for comparing hybrids in different maturity groups.

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



# NORTHEASTERN KANSAS ON SILT LOAM SOIL

**LOCATION:** Agronomy North Farm  
Near Manhattan in **Riley County**  
**COOPERATORS:** Kraig Roozeboom, agronomist  
Clarence Swallow, superintendent  
**TEST SITE:** Ivan silt loam  
Soybeans in 1993 and grain sorghum in 1992  
**FERTILIZATION:** 100 lbs N/acre preplant  
**PLANTING DATE:** May 12  
**HARVEST DATE:** October 21  
**PEST CONTROL:** Good  
Ramrod/Atrazine at planting  
**POPULATION:** 35,000 plants/acre, 6 in. spacing

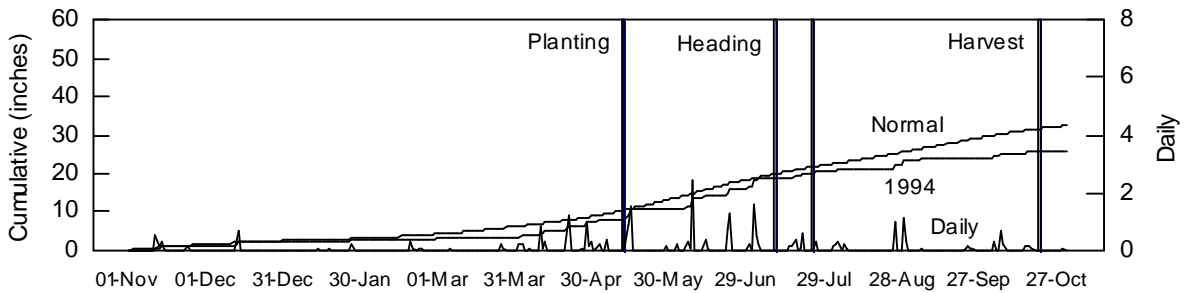
	EARLY	MEDIUM	LATE	ALL
<b>STAND (%):</b>	90	86	86	87
<b>TEST YIELDS:</b>				
Avg. (bu/a):	122	135	133	131
Range (bu/a):	105-151	112-153	109-151	105-153
L.S.D. (bu/a):	8.2	14.3	18.2	16.6
C.V. (%):	5.5	8.9	9.7	9.0

**BLOOM DATES:** 7/10-7/16 7/12-7/20 7/19-7/25 7/10-7/25

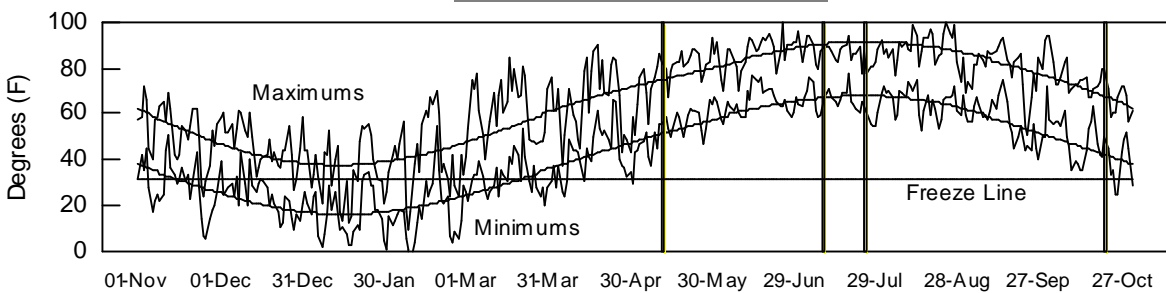
## 1994 GROWING CONDITIONS:

Heavy rains on May 14 caused crusting of the soil surface, which inhibited seedling emergence. The soil was tilled with a rotary hoe on May 20 as plants were just beginning to emerge. Stands were sufficient for the production of good dryland yields at this site. The test did not dry down rapidly, causing harvest to be delayed until late October.

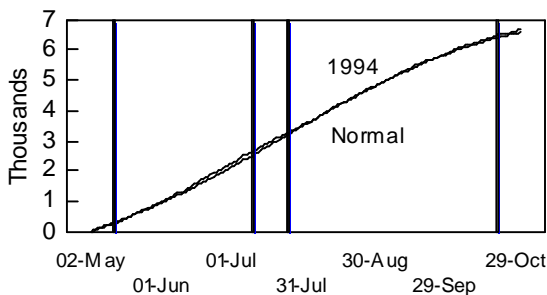
### PRECIPITATION



### DAILY TEMPERATURES



### GROWING DEGREE DAYS



### GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1994	Normal	1994	Normal	1994	Normal
April	4.2	2.7	54	55	0	0
May	3.2	4.6	67	65	1011	959
June	5.7	5.1	76	74	1266	1193
July	4.1	3.8	76	79	1297	1394
August	3.2	3.5	76	77	1358	1380
Sep.	0.4	3.8	69	69	1054	1036
Oct.	1.7	2.6	58	57	723	681
Season Totals	22.5	26.2	68	68	6709	6641

**TABLE 2. RILEY CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			93-94		1994						
		1,99	1,99	1,99	2-Yr.	3-Yr.	1,99	1,99	1,99	Mois- Days	Mois-Days	Hds Lod-	Plnt Test					
		4	3	2AVG.	2AVG.	2AVG.	4	3	2	ture to	ture to	per ging	Ht. Wt.					
									% Blm	% Blm	%	in. lb/bu						
<b>EARLY HYBRIDS</b>																		
---	EARLY CHECK	C 305	117	--	--	--	--	96	--	--	--	--	15	59	1.3	0	46	57
	DEKALB	DK-39	128	--	--	--	--	105	--	--	--	--	15	62	1.2	0	44	58
	GOLDEN HARVEST	H-403	109	--	--	--	--	89	--	--	--	--	15	62	1.1	0	44	59
	OHLDE	214	110	--	--	--	--	90	--	--	--	--	15	62	1.2	0	45	58
	ASGROW	SENECA	151	--	178	--	--	124	--	91	--	--	15	63	1.5	0	43	58
	DELTAPINE	1490Y	138	--	--	--	--	113	--	--	--	--	15	64	1.4	0	45	59
	DEKALB	DK-40y	119	93	--	106	--	97	92	--	15	66	15	65	1.1	0	45	57
---	EARLY CHECK	TX3042 x TX2737	105	103	180	104	129	86	102	92	15	61	16	60	1.2	0	50	57
	Early Average		122	101	195	112	139	100	100	100	15	65	15	62	1.2	--	45	58
	Early C.V.(%)		6	--	--	--	--	6	--	--	--	--	3	1	7.2	--	2	3
	Early LSD(.05)*		8	13	14	--	--	7	12	7	--	--	NS	1	0.1	--	1	NS
<b>MEDIUM HYBRIDS</b>																		
---	MED CHECK	RS 610	112	89	163	101	121	83	88	84	14	62	15	61	1.2	0	47	56
---	MED CHECK	WHTLND x TX2737	136	--	--	--	--	101	--	--	--	--	15	64	1.2	0	44	57
---	MED CHECK	OK11 x TX2741	130	--	--	--	--	96	--	--	--	--	15	65	1.1	0	46	58
	PIONEER	8,500	138	--	186	--	--	102	--	95	--	--	15	66	1.3	0	50	59
	CARGILL	X24002 EXP	131	--	--	--	--	97	--	--	--	--	15	67	1.1	0	46	58
	CARGILL	575	132	89	191	111	137	98	88	98	15	66	15	67	1.1	0	48	57
	DELTAPINE	1505Y	123	--	--	--	--	91	--	--	--	--	15	67	1.2	0	48	59
	ASGROW	A504	133	112	--	122	--	99	110	--	15	67	15	68	1.3	0	50	57
	CARGILL	737	152	--	--	--	--	112	--	--	--	--	15	68	1.4	0	47	57
	ICI	5514Y	153	117	186	135	152	114	116	96	15	70	15	69	1.5	0	47	58
	PIONEER	8,505	144	108	194	126	149	107	106	99	15	65	16	64	1.5	0	51	57
	DEKALB	DK-48	137	101	189	119	142	102	99	97	16	65	16	65	1.1	0	46	57
	OHLDE	136	135	103	191	119	143	100	102	98	15	67	16	67	1.3	0	48	55
	Med. Average		135	101	195	118	144	100	100	100	15	67	15	66	1.3	--	47	57
	Med. C.V.(%)		9	--	--	--	--	9	--	--	--	--	3	3	13.5	--	3	2
	Med. LSD(.05)*		14	13	14	--	--	11	12	7	--	--	NS	2	0.2	--	2	NS
<b>LATE HYBRIDS</b>																		
	MYCOGEN	466W	126	--	187	--	--	95	--	96	--	--	15	68	1.1	0	51	58
	OHLDE	246Y	121	93	189	107	134	91	92	97	16	70	15	68	1.1	0	51	58
	DELTAPINE	1,506	142	97	206	119	148	106	96	106	16	70	15	69	1.2	0	57	57
	NORTHRUP-KING	KS-735	151	--	--	--	--	114	--	--	--	--	15	69	1.4	0	50	58
	OHLDE	240W	122	90	200	106	138	92	91	103	15	67	15	69	1.1	0	51	58
	DEKALB	DK-51	137	102	--	119	--	103	100	--	15	70	15	70	1.2	0	48	57
	GOLDEN HARVEST	H-444W	142	--	--	--	--	107	--	--	--	--	15	70	1.2	0	52	58
	MYCOGEN	444E	136	107	197	122	147	102	106	101	15	69	15	70	1.4	0	49	55
	DEKALB	DK-56	123	96	204	110	141	93	97	105	16	70	15	71	1.1	0	54	59
	ICI	5,536	132	--	--	--	--	99	--	--	--	--	15	71	1.3	0	47	58
	OHLDE	134	123	--	--	--	--	92	--	--	--	--	15	71	1.2	0	52	57
	DEKALB	DK-55	148	--	--	--	--	111	--	--	--	--	15	74	1.1	0	55	57
	DEKALB	DK-58	109	98	--	103	--	82	99	--	16	72	15	74	1.5	0	51	56
	PIONEER	8,310	137	110	--	123	--	103	111	--	16	68	16	69	1.2	0	54	57
---	LATE CHECK	TX2752 x TX430	130	99	224	115	151	98	101	115	15	70	16	72	1.4	0	52	55
	CARGILL	837	147	105	216	126	156	110	106	111	16	70	16	72	1.5	0	52	58
	CARGILL	857	129	95	204	112	143	97	96	104	16	69	16	72	1.2	0	51	56
	OHLDE	350	124	105	--	115	--	93	106	--	16	70	16	72	1.4	0	51	55
---	LATE CHECK	TX2752 x TX2783	149	--	--	--	--	112	--	--	--	--	16	74	1.3	0	56	57
	Late Average		133	99	195	116	142	100	100	100	15	69	15	71	1.2	--	52	57
	Late C.V.(%)		10	--	--	--	--	10	--	--	--	--	3	2	13.8	--	3	2
	Late LSD(.05)*		18	11	14	--	--	14	12	7	--	--	NS	2	0.2	--	2	NS
	Test Averages		131	--	195	--	--	100	--	100	--	--	15	67	1.2	--	49	57
	C.V.(%)		9	--	--	--	--	9	--	--	--	--	3	2	12.7	--	3	2
	L.S.D.(.05)**		17	--	14	--	--	--	--	7	--	--	NS	2	0.2	--	2	NS

\* L.S.D. for comparing hybrids within a maturity grouping. \*\* L.S.D. for comparing hybrids in different maturity groups. Unless two varieties differ by more than the L.S.D., little confidence can be placed in one being superior to the other.

# EAST CENTRAL KANSAS ON SILT LOAM SOIL

**LOCATION:** East Central Kansas Experiment Field  
South of Ottawa in **Franklin County**

**COOPERATORS:** Keith Janssen, agronomist  
Edwin Horstick, technician

**TEST SITE:** Woodson silt loam  
Soybeans in 1993 and wheat 1992

**FERTILIZATION:** 80 lbs N/acre preplant  
23 lbs P<sub>2</sub>O<sub>5</sub>/acre preplant  
8 lbs K<sub>2</sub>O/acre preplant

**PLANTING DATE:** May 18

**HARVEST DATE:** October 25

**PEST CONTROL:** Good  
Ramrod/Atrazine at planting

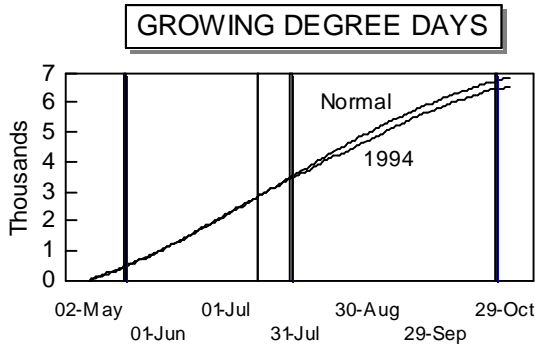
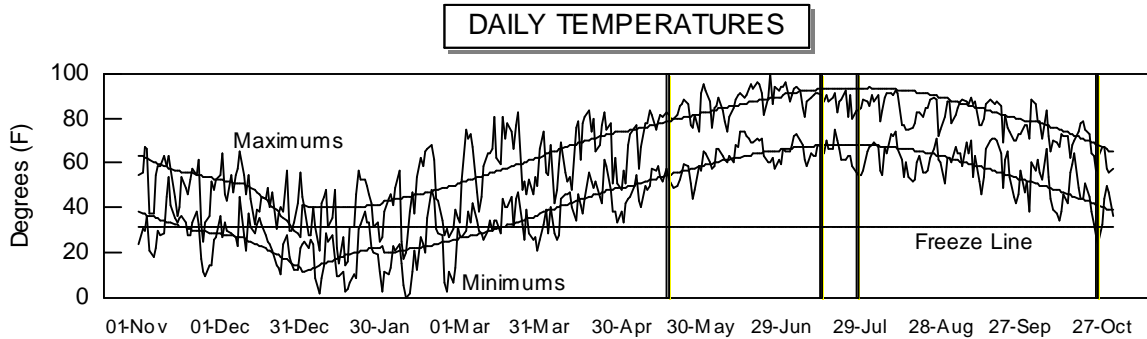
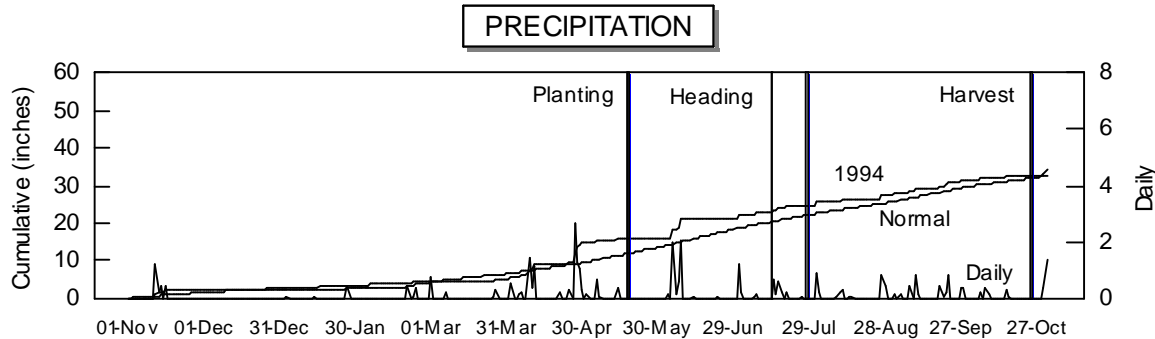
**POPULATION:** 35,000 plants/acre, 6 in. spacing

	EARLY	MEDIUM	LATE	ALL
<b>STAND (%):</b>	87	88	89	88
<b>TEST YIELDS:</b>				
Avg. (bu/a):	148	156	159	157
Range (bu/a):	135-157	134-182	140-187	134-187
L.S.D. (bu/a):	14.1	15.1	15.8	15.2
C.V. (%):	5.2	5.9	6.1	6.0

**BLOOM DATES:** 7/14-7/21 7/17-7/28 7/19-7/27 7/14-7/28

### 1994 GROWING CONDITIONS:

Heavy rains soon after planting caused some emergence problems on one end of the field. Plot yields were adjusted accordingly and provided consistent yield estimates. Adequate soil moisture during most of the growing season facilitated the production of good yields.



### GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1994	Normal	1994	Normal	1994	Normal
April	9.7	2.9	53	57	0	0
May	1.2	4.2	66	66	978	1002
June	6.3	4.9	77	75	1289	1230
July	3.2	3.9	76	80	1306	1433
August	2.3	3.2	73	79	1241	1426
Sep.	3.9	4.0	70	70	1072	1070
Oct.	2.7	2.6	58	59	710	742
Season Totals	29.3	25.9	67	69	6596	6903

**TABLE 3. FRANKLIN CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			93-94		1994						
		1,99	1,99	1,99	2-Yr.	3-Yr.	1,99	1,99	1,99	Mois- Days	Mois-Days	Hds Lod-	Plnt Test					
		4	3	2	AVG.	AVG	4	3	2	ture to	ture to	per ging	Ht. Wt.					
													%	%	Plnt	%	in. lb/bu	
<b>EARLY HYBRIDS</b>																		
GARRISON	SG-622	147	--	--	--	--	100	--	--	--	--	14	58	1.2	--	44	58	
---	EARLY CHECK	TX3042 x TX2737	148	91	155	120	131	101	98	98	15	60	14	59	1.3	--	50	60
NC+	6B67	143	--	--	--	--	97	--	--	--	--	14	62	1.2	--	43	59	
PATRIOT	8608C	157	--	--	--	--	106	--	--	--	--	14	64	1.2	--	49	60	
---	EARLY CHECK	C 305	135	--	--	--	91	--	--	--	--	15	57	1.3	--	49	57	
OHLDE	214	156	--	--	--	--	105	--	--	--	--	15	59	1.3	--	43	60	
Early Average		148	93	158	120	133	100	100	100	15	62	14	60	1.2	--	46	59	
Early C.V.(%)		5	--	--	--	--	5	--	--	--	--	2	2	10.4	--	3	1	
Early LSD(.05)*		14	15	14	--	--	10	16	9	--	--	0	2	NS	--	2	1	
<b>MEDIUM HYBRIDS</b>																		
NORTHRUP-KING	KS-555Y	154	86	--	120	--	99	93	--	14	61	14	60	1.2	--	49	60	
---	MED CHECK	OK11 x TX2741	134	--	--	--	86	--	--	--	--	14	62	1.2	--	47	59	
DELANGE	DSA 131	153	99	--	126	--	98	106	--	15	63	14	62	1.4	--	45	59	
CARGILL	737	166	--	--	--	--	107	--	--	--	--	14	63	1.3	--	47	59	
CENTURY II	GB7042-E	152	--	--	--	--	98	--	--	--	--	14	63	1.6	--	50	58	
FONTANELLE	5,040	136	87	--	111	--	87	94	--	15	63	14	63	1.1	--	47	60	
CARGILL	X24002 EXP	161	--	--	--	--	103	--	--	--	--	14	64	1.1	--	46	60	
CARGILL	575	160	87	142	123	130	103	94	90	15	64	14	64	1.1	--	49	60	
CENTURY II	GB8041-W	149	--	--	--	--	96	--	--	--	--	14	64	1.2	--	47	60	
DELANGE	DSA 125C	148	--	--	--	--	95	--	--	--	--	14	64	1.1	--	49	59	
ASGROW	A504	165	--	--	--	--	106	--	--	--	--	14	67	1.1	--	51	59	
GARRISON	SG-94041 EXP	157	--	--	--	--	101	--	--	--	--	14	70	1.1	--	46	58	
---	MED CHECK	RS 610	135	75	147	105	119	87	81	94	15	61	15	60	1.1	--	48	58
---	MED CHECK	WHTLND x TX2737	166	--	--	--	--	106	--	--	--	--	15	62	1.4	--	46	58
GARRISON	SG-833	149	--	--	--	--	96	--	--	--	--	15	63	1.2	--	47	58	
OHLDE	136	144	94	151	119	129	92	101	96	15	64	15	63	1.3	--	46	59	
DELTAPINE	1505Y	158	96	144	127	133	101	104	91	15	64	15	64	1.3	--	48	58	
PATRIOT	8,657	139	--	--	--	--	89	--	--	--	--	15	64	1.2	--	47	59	
PATRIOT	8,703	182	--	--	--	--	117	--	--	--	--	15	66	1.3	--	50	60	
ASGROW	A570	177	94	--	136	--	114	101	--	15	68	15	67	1.3	--	54	59	
FONTANELLE	EX-6920 EXP	153	--	--	--	--	98	--	--	--	--	15	68	1.1	--	52	61	
ICI	5514Y	174	93	165	134	144	112	101	104	15	67	15	68	1.5	--	49	59	
GARRISON	SG-94120 EXP	173	--	--	--	--	111	--	--	--	--	15	71	1.1	--	48	60	
Med. Average		156	93	158	124	135	100	100	100	15	65	15	64	1.2	--	48	59	
Med. C.V.(%)		6	--	--	--	--	6	--	--	--	--	3	2	8.5	--	3	1	
Med. LSD(.05)*		15	15	14	--	--	10	16	9	--	--	NS	1	0.1	--	2	1	

(continued)

**TABLE 3. FRANKLIN CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			93-94		1994					
		1,99	1,99	1,99	2-Yr.	3-Yr.	1,99	1,99	1,99	Mois- Days	Mois-Days	Hds Lod-	Plnt Test				
		4	3	2	AVG.	AVG	4	3	2	ture to	ture to	per ging	Ht. Wt.				
<b>LATE HYBRIDS</b>																	
DELTAPINE	1,506	154	93	187	123	144	97	100	119	15	63	14	63	1.2	--	56	60
HYPERFORMER	HSC 1289C	140	99	--	119	--	88	106	--	15	65	14	64	1.2	--	49	59
OHLDE	240W	142	87	140	114	123	89	87	89	15	64	14	64	1.1	--	50	60
CARGILL	837	153	104	158	129	139	96	105	100	15	66	14	65	1.3	--	52	59
HOEGEMEYER	671	146	101	--	123	--	92	101	--	14	65	14	65	1.1	--	47	60
OHLDE	350	171	112	--	142	--	108	113	--	15	66	14	65	1.3	--	49	59
--- LATE CHECK	TX2752 x TX430	158	104	167	131	143	100	105	106	14	66	14	66	1.3	--	53	59
TRIUMPH	TRX25222 EXP	172	--	--	--	--	108	--	--	--	--	14	67	1.3	--	54	59
DEKALB	DK-55	176	--	--	--	--	111	--	--	--	--	14	68	1	--	55	59
NORTHRUP-KING	KS-710	160	100	143	130	134	101	100	91	15	63	15	62	1.5	--	44	60
DEKALB	DK-51	155	103	--	129	--	98	111	--	15	65	15	64	1.3	--	50	59
HYPERFORMER	HSC CHEROKEE	171	90	--	130	--	108	97	--	15	65	15	64	1.3	--	52	60
NC+	371	150	99	--	125	--	95	100	--	14	64	15	64	1.1	--	46	59
NORTHRUP-KING	KS-714Y	156	101	139	128	132	98	101	88	14	64	15	64	1.2	--	47	60
NORTHRUP-KING	KS-735	149	115	--	132	--	94	115	--	15	64	15	64	1.2	--	49	59
TRIUMPH	TR 65G	163	98	157	130	139	103	106	99	15	64	15	64	1.1	--	49	60
CENTURY II	GB9140-E	174	--	--	--	--	109	--	--	--	--	15	65	1.4	--	49	60
ICI	5,536	152	--	--	--	--	96	--	--	--	--	15	65	1.2	--	46	59
MYCOGEN	444E	155	--	163	--	--	98	--	103	--	--	15	65	1.4	--	49	59
PIONEER	8,310	150	96	--	123	--	95	97	--	15	65	15	65	1.1	--	55	59
CARGILL	857	163	86	163	125	137	102	87	103	15	66	15	66	1.2	--	51	60
HOEGEMEYER	688	145	103	176	124	142	91	104	112	15	66	15	66	1.4	--	51	59
OHLDE	246Y	159	70	155	115	128	100	75	98	16	68	15	66	1.2	--	52	59
OHLDE	134	164	--	--	--	--	104	--	--	--	--	15	66	1.1	--	52	59
PIONEER	8,305	146	--	--	--	--	92	--	--	--	--	15	66	1.2	--	54	59
DELANGE	DSA 151	158	100	--	129	--	99	101	--	14	68	15	67	1.6	--	48	60
HOEGEMEYER	6,878	159	107	161	133	142	100	108	102	15	67	15	67	1.3	--	52	60
DEKALB	DK-58	187	106	169	147	154	118	107	107	15	68	15	68	1.3	--	52	59
DEKALB	DK-54	166	103	180	135	150	104	104	114	16	66	15	68	1.3	--	54	59
PATRIOT	8,766	171	--	--	--	--	108	--	--	--	--	15	68	1.2	--	53	61
DEKALB	DK-56	160	93	174	127	142	101	94	111	15	67	15	69	1.1	--	55	61
FONTANELLE	5,588	156	94	178	125	143	98	95	113	15	69	15	69	1.2	--	57	60
HYPERFORMER	HY 1320	150	--	--	--	--	95	--	--	--	--	15	69	1.2	--	53	61
TRIUMPH	TR 481	154	--	--	--	--	97	--	--	--	--	15	69	1.1	--	57	60
--- LATE CHECK	TX2752 x TX2783	170	--	--	--	--	107	--	--	--	--	15	70	1.1	--	54	60
TRIUMPH	TR 82G	162	--	--	--	--	102	--	--	--	--	15	70	1.2	--	53	61
Late Average		159	100	158	129	139	100	100	100	15	66	15	66	1.2	--	52	60
Late C.V.(%)		6	--	--	--	--	6	--	--	--	--	2	2	10.4	--	3	1
Late LSD(.05)*		16	14	14	--	--	10	14	9	--	--	1	1	0.2	--	2	1
Test Averages		157	--	158	--	--	100	--	100	--	--	15	65	1.2	--	50	59
C.V.(%)		6	--	--	--	--	6	--	--	--	--	2	2	9.8	--	3	1
L.S.D.(.05)**		15	--	14	--	--	--	--	9	--	--	1	2	0.2	--	3	1

\* L.S.D. for comparing hybrids within a maturity grouping.

\*\* L.S.D. for comparing hybrids in different maturity groups.

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

# EAST CENTRAL KANSAS ON SILTY CLAY SOIL

**LOCATION:** ImMasche Research Center  
East of Strong City in **Chase County**  
**COOPERATORS:** Kraig Roozeboom, agronomist  
Gene Edman, tennant  
**TEST SITE:** Osage silty clay  
Corn in 1992 and soybeans in 1993  
**FERTILIZATION:** 50 lbs N/acre preplant  
32 lbs N/acre at planting  
**PLANTING DATE:** May 27  
**HARVEST DATE:** October 28  
**PEST CONTROL:** Fair  
Furadan and Ramrod/Atrazine at planting  
**POPULATION:** 35,000 plants/acre, 6 in. spacing

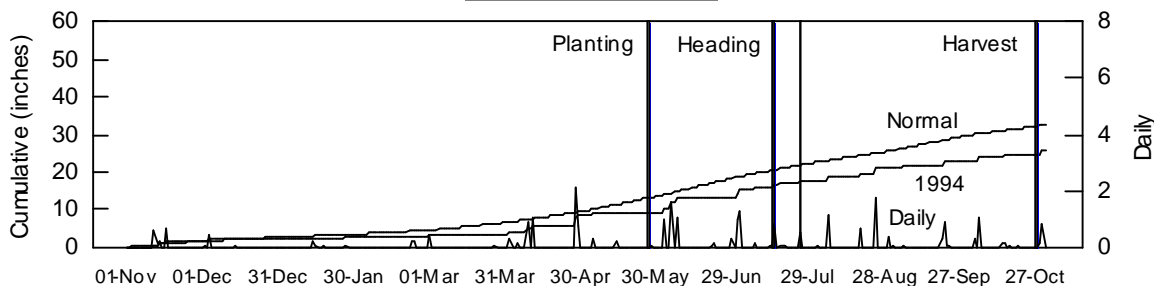
	EARLY	MEDIUM	LATE	ALL
<b>STAND (%):</b>	88	89	87	87
<b>TEST YIELDS:</b>				
Avg. (bu/a):	89	87	97	95
Range (bu/a):	--	66-109	70-111	66-111
L.S.D. (bu/a):	--	19.4	22.0	22.0
C.V. (%):	--	15.2	16.0	16.5

**BLOOM DATES:** 7/15-7/21 7/18-7/24 7/21-7/26 7/15-7/26

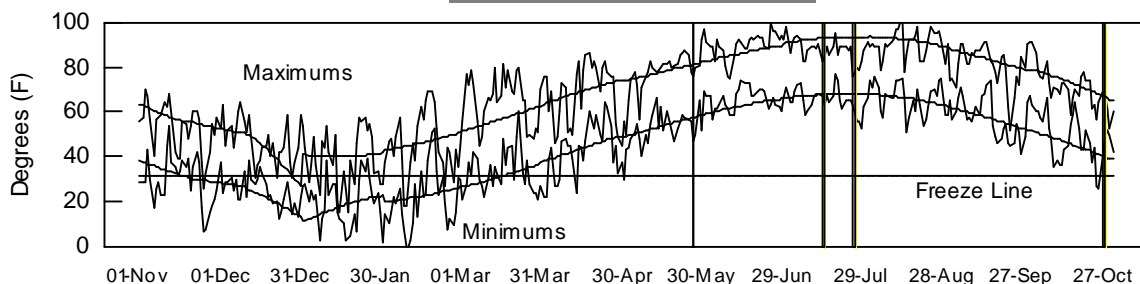
## 1994 GROWING CONDITIONS:

This test was planted into a very dry seedbed. Emergence was uneven, with many plants emerging much later than others. Strong winds in July caused some lodging. Lodging related to drought stress began in late August. Many plants had few green leaves long before harvest, but others had green heads, preventing early harvest. A combination of poor stands and severe lodging prevented the collection of usable yield estimates for the early hybrids.

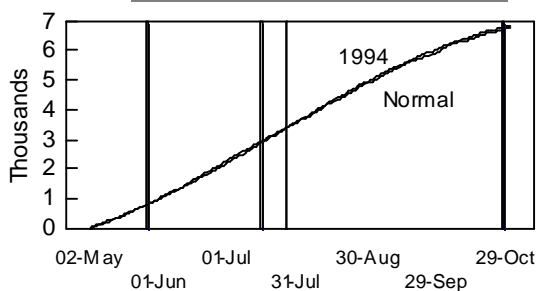
### PRECIPITATION



### DAILY TEMPERATURES



### GROWING DEGREE DAYS



### GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1994	Normal	1994	Normal	1994	Normal
April	5.3	2.9	56	57	0	0
May	0.5	4.2	67	66	1009	1002
June	5.1	4.9	78	75	1316	1230
July	3.1	3.9	76	80	1308	1433
August	4.0	3.2	77	79	1391	1426
Sep.	1.4	4.0	70	70	1065	1070
Oct.	2.8	2.7	58	59	729	742
Season Totals	22.1	25.9	69	69	6817	6903

**TABLE 4. CHASE CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHEL					YIELD AS %			93-94		1994					
		1994	1993	1992	2-Yr. AVG.	3-Yr. AVG.	OF TEST AVERAGE			Mois- ture %	Days to Blm	Mois- Days to Blm	Hds per Plnt	Lod- ging %	Plnt Ht. in.	Test Wt. lb/bu	
							1994	1993	1992								
<b>EARLY HYBRIDS</b>																	
OHLDE	214	--	--	--	--	--	--	--	--	--	--	13	52	1.2	7.6	43	59
OHLDE	222C	--	--	--	--	--	--	--	--	--	--	13	53	1.4	10.1	41	59
DEKALB	DK-40y	--	91	143	--	--	--	98	100	15	58	13	55	1.5	19	44	60
---	EARLY CHECK C 305	--	--	--	--	--	--	--	--	--	--	14	49	1.4	26.1	46	59
---	EARLY CHECK TX3042 x TX2737	--	91	146	--	--	--	98	101	15	55	14	52	1.4	28.6	47	60
DEKALB	DK-39	--	--	--	--	--	--	--	--	--	--	14	53	1.4	11.3	41	59
ICI	5616	--	99	134	--	--	--	106	93	15	54	14	53	1.3	25.4	43	59
Early Average		89	93	144	--	--	100	100	100	15	56	13	52	1.4	18.3	44	59
Early C.V.(%)		18	--	--	--	--	18	--	--	--	--	2	2	17.4	102	4	2
Early LSD(.05)*		NS	15	19	--	--	--	16	13	--	--	NS	1	NS	NS	2	NS
<b>MEDIUM HYBRIDS</b>																	
---	MED CHECK RS 610	66	96	127	81	96	75	103	88	15	55	13	52	1.4	29.8	44	57
HOEGEMEYER	6650	67	--	--	--	--	76	--	--	--	--	13	54	1.4	38.3	44	60
---	MED CHECK OK11 x TX2741	72	--	--	--	--	82	--	--	--	--	13	55	1.2	26	42	59
DELANGE	DSA 125C	94	--	--	--	--	107	--	--	--	--	13	57	1.4	14.6	47	60
HOEGEMEYER	6710	89	74	145	82	103	102	80	101	16	58	13	57	1.3	14.7	43	58
PIONEER	8522Y	86	--	--	--	--	99	--	--	--	--	13	57	1.3	3	42	60
PIONEER	8505	105	100	--	103	--	120	108	--	16	57	14	54	1.5	4.4	43	59
---	MED CHECK WHTLND x TX2737	109	--	--	--	--	124	--	--	--	--	14	56	1.5	14	43	59
OHLDE	136	100	--	143	--	--	115	--	99	--	--	14	58	1.3	14.5	44	58
Med. Average		87	93	144	90	108	100	100	100	16	57	13	55	1.3	17.7	43	59
Med. C.V.(%)		15	--	--	--	--	15	--	--	--	--	1	3	11.8	87.4	5	2
Med. LSD(.05)*		19	15	19	--	--	22	16	13	--	--	0	2	NS	NS	NS	NS
<b>LATE HYBRIDS</b>																	
DEKALB	DK-55	109	--	--	--	--	112	--	--	--	--	13	57	1.3	4.1	47	59
NORTHRUP-KING	KS-735	102	--	--	--	--	105	--	--	--	--	13	55	1.3	14.6	46	59
DELANGE	DSA 151	103	112	148	108	121	106	103	103	15	58	13	56	1.3	18.4	45	60
DELTAPINE	1506	107	105	164	106	125	109	113	114	16	59	13	56	1.3	1.7	52	59
NORTHRUP-KING	KS-714Y	97	106	142	102	115	100	97	98	14	57	13	56	1.4	15.7	47	60
---	LATE CHECK TX2752 x TX430	95	111	162	103	123	98	102	112	15	58	13	58	1.4	22.1	43	59
MYCOGEN	466W	99	--	--	--	--	102	--	--	--	--	13	58	1.2	2.8	46	59
TRIUMPH	TR 481	100	--	--	--	--	102	--	--	--	--	13	58	1.5	2	50	60
OHLDE	240W	70	--	145	--	--	72	--	101	--	--	13	59	1.2	26.2	45	60
NORTHRUP-KING	KS-710	111	108	154	110	125	114	99	107	15	55	14	55	1.6	9.1	44	60
DEKALB	DK-56	104	112	160	108	125	107	102	111	15	59	14	57	1.2	8.5	48	60
HOEGEMEYER	6622	74	--	--	--	--	76	--	--	--	--	14	57	1.6	44.9	45	58
HOEGEMEYER	671	98	107	144	103	116	101	98	100	15	57	14	57	1.2	19.2	47	60
PIONEER	8310	95	121	--	108	--	97	111	--	15	57	14	57	1.3	1.2	47	59
OHLDE	246Y	93	--	137	--	--	96	--	95	--	--	14	58	1.3	5.2	46	58
TRIUMPH	TR 82G	104	--	--	--	--	107	--	--	--	--	14	58	1.4	21.7	48	61
TRIUMPH	TR 65G	100	--	--	--	--	103	--	--	--	--	14	58	1.2	11.2	45	60
MYCOGEN	444E	87	--	--	--	--	89	--	--	--	--	14	59	1.4	13.4	43	58
---	LATE CHECK TX2752 x TX2783	103	--	--	--	--	106	--	--	--	--	14	60	1.3	1.6	47	62
Late Average		97	109	144	103	117	100	100	100	15	58	13	57	1.3	12.8	46	59
Late C.V.(%)		16	--	--	--	--	16	--	--	--	--	2	5	13.1	109	5	2
Late LSD(.05)*		22	10	19	--	--	23	9	13	--	--	0	NS	0.2	16.4	3	NS
Test Averages		95	--	144	--	--	100	--	100	--	--	13	56	1.3	16.1	45	59
C.V.(%)		17	--	--	--	--	17	--	--	--	--	1	4	13.3	96.6	5	2
L.S.D.(.05)**		22	--	19	--	--	--	--	13	--	--	0	3	0.3	21.9	3	2

\* L.S.D. for comparing hybrids within a maturity grouping.

\*\* L.S.D. for comparing hybrids in different maturity groups.

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

# SOUTHEASTERN KANSAS ON SILT LOAM SOIL

**LOCATION:** Southeast Agricultural Research Center  
Near Parsons in **Labette County**

**COOPERATORS:** Kenneth Kelley, agronomist  
L.W. Lomas, head

**TEST SITE:** Parsons silt loam  
Double-cropped wheat and soybeans in 1992-93

**FERTILIZATION:** 100 lbs N/acre preplant  
60 lbs P<sub>2</sub>O<sub>5</sub>/acre preplant  
60 lbs K<sub>2</sub>O/acre preplant

**PLANTING DATE:** June 9

**HARVEST DATE:** October 10

**PEST CONTROL:** Good

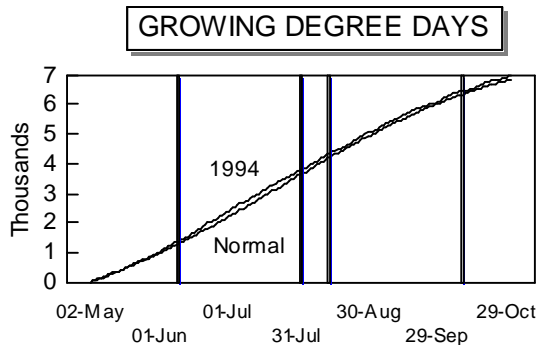
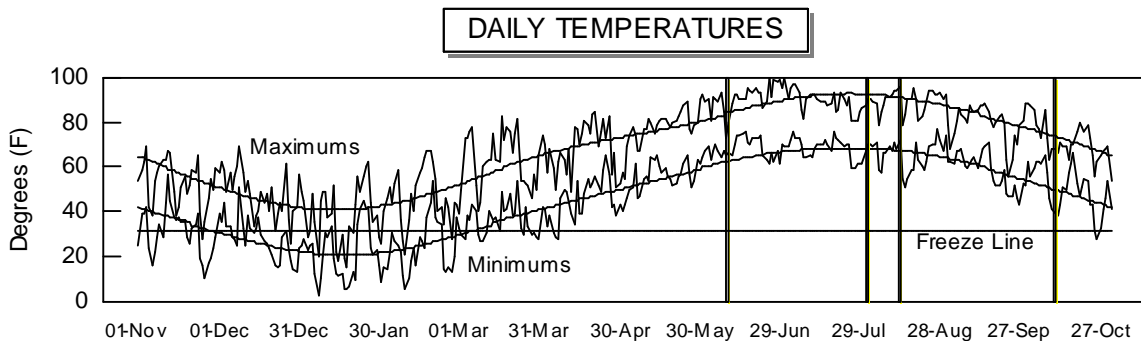
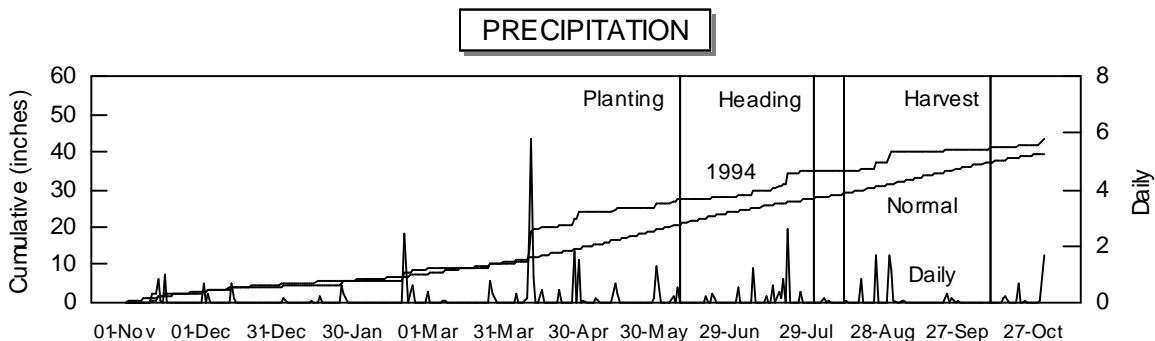
Furadan and Ramrod/Atrazine at planting

**POPULATION:** 35,000 plants/acre, 6 in. spacing

	EARLY	MEDIUM	LATE	ALL
<b>STAND (%):</b>	99	99	98	98
<b>TEST YIELDS:</b>				
Avg. (bu/a):	125	130	133	130
Range (bu/a):	103-140	114-141	118-151	103-151
L.S.D. (bu/a):	9.2	10.4	9.2	10.4
C.V. (%):	4.1	4.8	4.1	4.9
<b>BLOOM DATES:</b>	8/1-8/6	8/5-8/11	8/7-8/13	8/1-8/13

## 1994 GROWING CONDITIONS:

This test experienced favorable growing conditions and was never stressed. Diseases and insects caused little or no damage. No significant lodging had occurred by harvest.



## GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1994	Normal	1994	Normal	1994	Normal
April	13.6	3.8	56	58	0	0
May	2.6	5.0	68	66	1040	1001
June	1.4	4.7	80	75	1375	1223
July	6.7	3.5	79	80	1382	1419
August	5.5	3.9	77	78	1372	1412
Sep.	0.8	4.5	69	70	1055	1086
Oct.	2.9	3.6	60	59	780	759
Season Totals	33.5	29.1	70	69	7004	6899



**TABLE 5. LABETTE CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHEL					YIELD AS %			93-94		1994					
		1994	1993	1992	2-Yr. AVG.	3-Yr. AVG.	OF TEST AVERAGE			Mois- ture %	Days to Blm	Mois-Days ture to %	Blm	Hds per Plnt	Lod- ging %	Plnt Ht. in.	Test Wt. lb/bu
							1994	1993	1992								
<b>EARLY HYBRIDS</b>																	
--- EARLY CHECK	TX3042 x TX2737	127	94	139	110	120	101	97	93	15	54	15	56	1.5	2	54	58
OHLDE	159	103	--	--	--	--	82	--	--	--	--	15	57	1.2	0.9	48	57
OHLDE	222C	120	--	--	--	--	96	--	--	--	--	15	58	1.3	0.4	49	59
--- EARLY CHECK	C 305	123	--	--	--	--	98	--	--	--	--	16	53	1.6	1.4	53	56
CENTURY II	GB5543-E	134	--	--	--	--	107	--	--	--	--	16	57	1.6	2	56	59
NC+	6B50	124	--	--	--	--	99	--	--	--	--	16	57	1.4	1.3	50	58
OHLDE	214	140	--	--	--	--	112	--	--	--	--	16	57	1.6	1	50	59
DEKALB	DK-40y	131	86	--	109	--	105	89	--	15	56	16	58	1.6	1.4	53	58
Early Average		125	97	150	111	124	100	100	100	15	55	16	57	1.5	1.3	52	58
Early C.V.(%)		4	--	--	--	--	4	--	--	--	--	3	1	6.9	78.6	3	1
Early LSD(.05)*		9	9	11	--	--	7	9	8	--	--	NS	1	0.1	NS	2	1
<b>MEDIUM HYBRIDS</b>																	
NORTHRUP-KING	KS-555Y	133	85	--	109	--	103	88	--	15	55	15	58	1.4	0.2	55	59
NORTHRUP-KING	KS-560Y	128	93	--	110	--	99	96	--	15	55	15	58	1.8	0.7	49	58
DELANGE	DSA 125C	115	--	--	--	--	88	--	--	--	--	15	60	1.2	0.2	53	58
--- MED CHECK	OK11 x TX2741	130	--	--	--	--	101	--	--	--	--	16	57	1.3	1.7	52	58
--- MED CHECK	RS 610	114	84	129	99	109	88	87	86	15	54	16	57	1.3	0.4	52	57
--- MED CHECK	WHTLND x TX2737	131	--	--	--	--	101	--	--	--	--	16	58	1.5	1.2	51	58
PIONEER	8500	133	101	143	117	126	103	105	95	16	56	16	58	1.5	0.8	54	60
CARGILL	737	132	--	--	--	--	102	--	--	--	--	16	59	1.3	1.3	53	58
CARGILL	X24002 EXP	133	--	--	--	--	103	--	--	--	--	16	60	1.4	0.6	52	58
CENTURY II	GB7042-E	121	--	--	--	--	93	--	--	--	--	16	60	1.6	0.4	51	57
DELTAPINE	1505Y	127	87	140	107	118	98	90	93	15	56	16	60	1.4	1.2	53	59
CARGILL	575	139	88	134	114	120	108	91	89	15	57	16	61	1.4	0.8	54	59
CENTURY II	GB8041-W	128	--	--	--	--	98	--	--	--	--	16	61	1.4	1.9	52	58
NC+	7R37E	139	--	--	--	--	108	--	--	--	--	16	61	1.4	0.4	55	59
ASGROW	A570	141	--	--	--	--	109	--	--	--	--	16	63	1.3	0.8	57	59
Med. Average		130	97	150	113	125	100	100	100	15	56	16	59	1.4	0.8	53	58
Med. C.V.(%)		5	--	--	--	--	5	--	--	--	--	1	1	6.5	99.8	3	1
Med. LSD(.05)*		10	9	11	--	--	8	9	8	--	--	0	1	0.1	NS	2	1

(continued)

**TABLE 5. LABETTE CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHELS					YIELD AS %			93-94		1994					
		1994	1993	2-Yr. 3-Yr.		1994	OF TEST		Mois- Days ture to % Blm	Mois-Days ture to % Blm	Hds per Plnt	Lod- ging %	Plnt Ht. in.	Test Wt. lb/bu			
				1992	AVG.		AVG.	1992							1993	1992	
<b>LATE HYBRIDS</b>																	
MYCOGEN	466W	118	--	--	--	--	89	--	--	--	--	15	60	1.4	0.6	53	59
GOLDEN HARVEST	H-505BW	127	93	--	110	--	95	96	--	15	57	15	61	1.4	0.2	54	59
NORTHRUP-KING	KS-710	126	104	124	115	118	95	106	82	15	55	16	59	1.9	0.8	52	58
CARGILL	837	132	89	171	110	131	99	91	114	16	58	16	60	1.5	1.8	56	59
DELTAPINE	1506	150	95	174	123	140	112	99	116	16	58	16	60	1.4	0.4	61	59
ICI	5536	136	--	--	--	--	102	--	--	--	--	16	60	1.5	1.9	52	59
MYCOGEN	444E	138	106	157	122	133	103	110	104	16	57	16	60	1.4	0.8	54	58
NC+	272	120	93	--	107	--	90	95	--	16	56	16	60	1.4	1	50	58
TRIUMPH	TR 65G	136	101	147	118	128	102	105	98	16	58	16	60	1.3	0.9	55	59
DEKALB	DK-51	128	96	--	112	--	96	100	--	15	57	16	61	1.3	0.2	54	58
HOEGEMEYER	671	132	93	--	113	--	99	95	--	15	57	16	61	1.3	1.4	54	59
HYPERFORMER	HSC 1289C	128	103	--	115	--	96	106	--	15	58	16	61	1.4	1.1	55	58
NORTHRUP-KING	KS-735	125	101	--	113	--	94	103	--	15	58	16	61	1.4	0.2	54	59
---	LATE CHECK TX2752 x TX430	129	106	163	117	133	97	108	109	15	59	16	62	1.4	0.8	56	58
HOEGEMEYER	688	130	100	161	115	130	97	102	107	15	58	16	62	1.4	0.6	56	58
PIONEER	8212Y	133	--	--	--	--	99	--	--	--	--	16	62	1.3	1.1	51	59
ASGROW	A603	139	--	--	--	--	104	--	--	--	--	16	63	1.4	1.3	54	58
CARGILL	857	130	95	153	112	126	97	97	102	16	59	16	63	1.6	1.6	54	59
DELANGE	DSA 151	127	102	168	115	132	95	104	112	15	59	16	63	1.5	0.2	55	58
OHLDE	134	140	--	--	--	--	105	--	--	--	--	16	63	1.4	0	58	58
GOLDEN HARVEST	H-444W	135	--	--	--	--	101	--	--	--	--	16	64	1.3	0.2	57	59
TRIUMPH	TRX25222 EXP	143	--	--	--	--	107	--	--	--	--	16	64	1.4	0	57	59
DEKALB	DK-56	133	93	152	113	126	100	95	101	16	60	16	65	1.3	0.2	60	59
HYPERFORMER	HSC CHEROKEE	137	103	--	120	--	102	107	--	16	59	17	61	1.3	0.5	55	59
DEKALB	DK-58	145	98	157	122	134	109	100	105	16	58	17	62	1.5	1	59	58
HOEGEMEYER	6878	133	104	156	119	131	100	107	104	17	60	17	63	1.3	0.7	55	58
PIONEER	8305	136	--	--	--	--	102	--	--	--	--	17	63	1.3	0.5	58	57
---	LATE CHECK TX2752 x TX2783	131	--	--	--	--	98	--	--	--	--	17	64	1.3	0.7	57	59
HYPERFORMER	HY 1320	135	--	--	--	--	101	--	--	--	--	17	64	1.3	0.6	56	59
TRIUMPH	TR 82G	133	--	--	--	--	100	--	--	--	--	17	64	1.3	0.5	58	59
DEKALB	DK-54	151	114	162	132	142	113	117	108	17	61	17	65	1.4	0	61	59
TRIUMPH	TR 481	134	--	--	--	--	100	--	--	--	--	17	65	1.4	0.8	59	59
Late Average		133	98	150	116	127	100	100	100	16	58	16	62	1.4	0.7	56	59
Late C.V.(%)		4	--	--	--	--	4	--	--	--	--	2	1	7.4	102	2	1
Late LSD(.05)*		9	9	11	--	--	7	10	8	--	--	0	1	0.1	NS	2	1
Test Averages		131	--	150	--	--	100	--	100	--	--	16	61	1.4	0.8	54	58
C.V.(%)		5	--	--	--	--	5	--	--	--	--	2	1	7.1	96.3	3	1
L.S.D.(.05)**		10	--	11	--	--	--	--	8	--	--	1	1	0.2	NS	2	1

\* L.S.D. for comparing hybrids within a maturity grouping.

\*\* L.S.D. for comparing hybrids in different maturity groups.

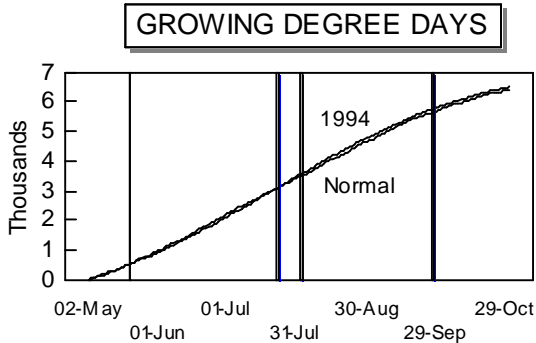
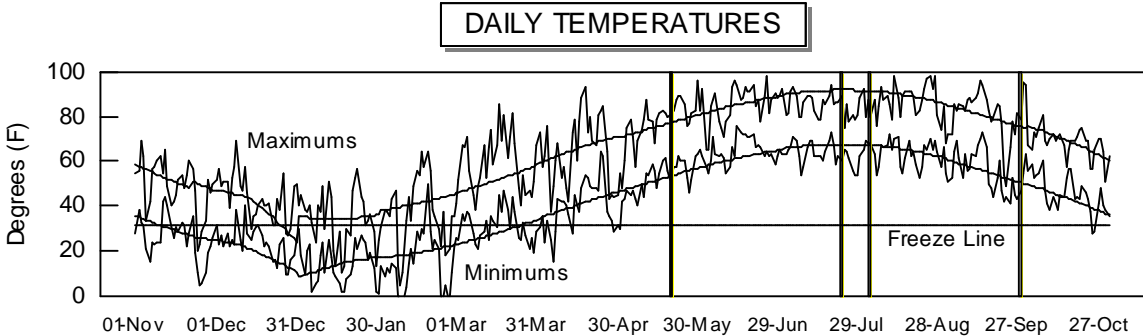
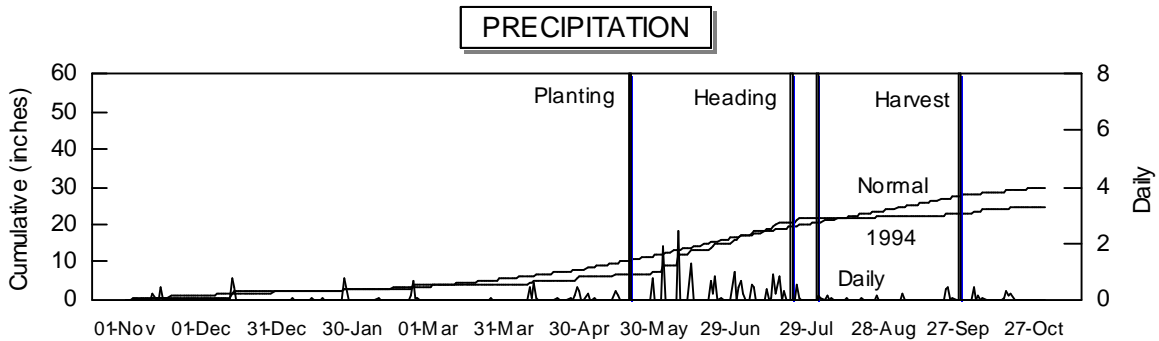
Unless two varieties differ by more than the L.S.D., little confidence can be placed in one being superior to the other.

# NORTH CENTRAL KANSAS ON SILT LOAM SOIL

**LOCATION:** North Central Experiment Field  
West of Belleville in **Republic County**  
**COOPERATORS:** Barney Gordon, agronomist  
Michael Larson and Allan Milner, technicians  
**TEST SITE:** Crete silt loam  
Wheat in 1993 and oats in 1992  
**FERTILIZATION:** 120 lbs N/acre preplant  
30 lbs P<sub>2</sub>O<sub>5</sub>/acre at planting  
**PLANTING DATE:** May 20  
**HARVEST DATE:** September 28  
**PEST CONTROL:** Good  
Temik and Ramrod/Atrazine at planting  
**POPULATION:** 35,000 plants/acre, 6 in. spacing

	EARLY	MEDIUM	LATE	ALL
<b>STAND (%):</b>	95	94	95	95
<b>TEST YIELDS:</b>				
Avg. (bu/a):	139	142	152	144
Range (bu/a):	119-157	117-166	121-184	117-184
L.S.D. (bu/a):	13.1	22.8	12.1	19.4
C.V. (%):	5.5	11.6	4.7	8.3
<b>BLOOM DATES:</b>	7/23-7/25	7/25-7/30	7/29-8/2	7/23-8/2

**1994 GROWING CONDITIONS:**  
Timely planting, good stands, and favorable weather conditions all contributed to outstanding yields for dryland sorghum at this location. Some sooty stripe was detected. Postheading moisture stress fostered the development of charcoal rot and Fusarium stalk rot. Plots were harvested before lodging occurred.



## GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1994	Normal	1994	Normal	1994	Normal
April	2.0	2.5	52	54	0	0
May	1.5	4.0	66	64	992	937
June	8.5	4.6	75	74	1233	1196
July	5.6	3.8	74	79	1242	1400
August	0.6	3.7	75	77	1301	1374
Sep.	1.0	3.8	68	67	1030	994
Oct.	1.4	2.0	56	56	674	649
Season Totals	20.6	24.4	67	67	6470	6551

**TABLE 6. REPUBLIC CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1990-94.**

BRAND	HYBRID	ACRE YIELD, BUSHELS					YIELD AS %			93-94		1994					
		1994	1993	1990	2-Yr. AVG.	3-Yr. AVG.	1994	1993	1990	Mois- Days ture to % Blm	Mois-Days ture to % Blm	Hds per Plnt	Lod- ging %	Plnt Ht. in.	Test Wt. lb/bu		
<b>EARLY HYBRIDS</b>																	
GOLDEN HARVEST	H-388W	119	--	--	--	--	86	--	--	--	--	16	64	1.4	0	45	60
GOLDEN HARVEST	H-403	155	--	--	--	--	112	--	--	--	--	16	64	1.7	0	45	60
ICI	5616	148	126	--	137	--	107	104	--	16	66	16	64	1.3	0	45	60
MYCOGEN	T-E ELITE	125	112	--	119	--	90	93	--	16	65	16	64	1.6	0	45	60
---	EARLY CHECK C 305	138	--	--	--	--	100	--	--	--	--	16	65	1.6	0	45	59
---	EARLY CHECK TX3042 x TX2737	124	141	96	132	120	89	116	94	17	66	16	65	1.7	0	48	60
CARGILL	607E	148	123	108	136	126	107	101	106	16	66	16	65	1.6	0	44	59
DEKALB	DK-39	133	--	--	--	--	96	--	--	--	--	16	65	1.7	0	45	59
DELTAPINE	1490Y	150	--	--	--	--	109	--	--	--	--	16	65	2.1	0	46	60
NC+	Y363	141	133	--	137	--	102	110	--	17	66	16	65	1.9	0	47	60
NC+	6B50	157	--	--	--	--	113	--	--	--	--	16	65	1.8	0	46	59
NORTHROP-KING	KS-383Y	119	110	99	115	109	86	91	97	16	66	16	65	1.3	0	43	60
OHLDE	222C	129	117	--	123	--	93	96	--	17	66	16	65	1.4	0	44	60
OHLDE	214	149	124	--	137	--	108	102	--	16	64	16	65	1.5	0	45	60
OHLDE	159	120	116	--	118	--	86	96	--	16	66	16	65	1.6	0	42	59
PIONEER	8699	150	136	--	143	--	108	112	--	16	66	16	65	1.8	0	46	60
TRIUMPH	TRX22412 EXP	140	--	--	--	--	101	--	--	--	--	16	66	1.8	0	45	59
DEKALB	DK-40y	150	136	100	143	128	108	112	99	17	67	17	65	1.8	0	46	60
Early Average		139	121	101	130	120	100	100	100	16	66	16	65	1.7	--	45	60
Early C.V.(%)		6	--	--	--	--	6	--	--	--	--	3	1	12.1	--	2	1
Early LSD(.05)*		13	17	17	--	--	10	14	16	--	--	1	NS	0.3	--	1	1
<b>MEDIUM HYBRIDS</b>																	
---	MED CHECK OK11 x TX2741	138	--	--	--	--	97	--	--	--	--	16	67	1.2	0	48	59
HOEGEMEYER	6650	117	--	--	--	--	83	--	--	--	--	17	66	1.7	0	50	59
---	MED CHECK RS 610	141	124	85	132	117	99	95	84	16	69	17	67	1.7	0	48	59
---	MED CHECK WHTLND x TX2737	139	--	--	--	--	98	--	--	--	--	17	67	1.7	0	47	59
MYCOGEN	T-E HARDY	154	101	--	127	--	109	77	--	17	69	17	67	1.6	0	46	59
NORTHROP-KING	KS-555Y	139	130	96	134	121	98	98	94	16	69	17	67	1.8	0	52	59
PIONEER	8505	154	133	--	144	--	109	101	--	17	69	17	67	2.1	0	50	59
CARGILL	575	135	129	104	132	123	95	98	103	17	70	17	68	1.7	0	53	59
DELTAPINE	1505Y	149	119	--	134	--	105	90	--	17	69	17	68	1.6	0	50	59
NORTHROP-KING	KS-524	124	121	--	122	--	87	92	--	17	70	17	68	1.6	0	47	59
ASGROW	A504	148	139	106	144	131	104	106	105	17	71	17	69	1.5	0	52	59
CARGILL	727	142	129	--	135	--	100	98	--	17	71	17	70	1.7	0	48	59
CARGILL	737	155	--	--	--	--	109	--	--	--	--	17	70	1.6	0	47	59
CARGILL	797	130	115	--	122	--	91	87	--	17	72	17	70	1.7	0	47	58
OHLDE	136	147	137	--	142	--	104	104	--	17	71	17	70	1.5	0	49	59
ASGROW	A570	166	--	--	--	--	117	--	--	--	--	17	71	2	0	51	59
HOEGEMEYER	6710	137	111	104	124	117	97	84	102	17	72	17	71	1.8	0	48	59
NORTHROP-KING	KS-560Y	130	106	--	118	--	91	81	--	17	69	18	67	1.8	0	45	59
ICI	5514Y	153	137	--	145	--	108	104	--	17	72	18	71	2.1	0	48	59
Med. Average		142	132	101	137	125	100	100	100	17	70	17	69	1.7	--	49	59
Med. C.V.(%)		12	--	--	--	--	12	--	--	--	--	4	1	13.4	--	3	2
Med. LSD(.05)*		NS	13	17	--	--	NS	10	16	--	--	NS	1	0.3	--	2	NS

(continued)

**TABLE 6. REPUBLIC CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1990-94.**

BRAND	HYBRID	ACRE YIELD, BUSHELS					YIELD AS %			93-94		1994					
		1994	1993	2-Yr. 3-Yr.		1994	1993	1990	OF TEST		Mois- Days ture to % Blm	Mois-Days ture to % Blm	Hds per Plnt	Lod- ging %	Plnt Ht. in.	Test Wt. lb/bu	
				AVG.	AVG.				AVERAGE	AVERAGE							
<b>LATE HYBRIDS</b>																	
PIONEER	8446	131	--	--	--	--	86	--	--	--	--	17	70	1.9	0	50	59
GOLDEN HARVEST	H-444W	160	138	115	149	138	106	113	113	16	73	17	71	1.6	0	52	60
HOEGEMEYER	6622	121	111	--	116	--	80	84	--	17	71	17	71	2.1	0	48	59
HYPERFORMER	HSC CHEROKEE	153	136	--	145	--	101	104	--	17	72	17	71	1.6	0	49	59
MYCOGEN	466W	148	--	--	--	--	97	--	--	--	--	17	71	1.6	0	52	60
NORTHROP-KING	KS-735	149	--	--	--	--	98	--	--	--	--	17	71	1.9	0	50	58
OHLDE	240W	131	113	--	122	--	86	92	--	16	72	17	71	1.6	0	52	59
CARGILL	837	148	136	106	142	130	97	111	105	17	73	17	72	1.9	0	52	59
DEKALB	DK-51	141	150	--	146	--	93	114	--	17	72	17	72	1.5	0	50	59
DELTAPINE	1506	184	154	118	169	152	121	117	116	17	71	18	70	1.5	0	55	59
OHLDE	134	153	154	112	153	140	101	125	110	17	73	18	70	1.6	0	53	59
DEKALB	DK-55	164	--	--	--	--	108	--	--	--	--	18	71	1.4	0	52	58
HOEGEMEYER	671	132	125	104	128	120	87	102	102	17	73	18	71	1.5	0	51	59
MYCOGEN	444E	159	--	--	--	--	105	--	--	--	--	18	72	1.8	0	51	59
OHLDE	350	167	129	--	148	--	110	105	--	17	73	18	72	1.7	0	50	58
---	LATE CHECK TX2752 x TX2783	149	--	--	--	--	98	--	--	--	--	18	73	1.5	0	52	59
---	LATE CHECK TX2752 x TX430	157	132	93	144	127	104	107	91	17	74	18	73	2.1	0	50	58
DEKALB	DK-56	165	140	119	152	141	108	114	117	17	74	18	73	1.5	0	53	59
DEKALB	DK-58	164	133	--	149	--	108	109	--	17	75	18	74	1.8	0	54	58
HYPERFORMER	HY 1320	161	--	--	--	--	106	--	--	--	--	18	74	1.7	0	51	59
Late Average		152	123	101	137	125	100	100	100	17	73	18	72	1.7	--	52	59
Late C.V.(%)		5	--	--	--	--	5	--	--	--	--	4	2	9.9	--	5	1
Late LSD(.05)*		12	12	17	--	--	8	10	16	--	--	1	2	0.2	--	NS	1
Test Averages		144	--	101	--	--	100	--	100	--	--	17	68	1.7	--	49	59
C.V.(%)		8	--	--	--	--	8	--	--	--	--	3	2	11.8	--	4	1
L.S.D.(.05)**		19	--	17	--	--	0	--	16	--	--	1	2	0.3	--	3	NS

\* L.S.D. for comparing hybrids within a maturity grouping.

\*\* L.S.D. for comparing hybrids in different maturity groups.

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

**NORTH CENTRAL KANSAS  
ON SILT LOAM SOIL**

**LOCATION:** Agricultural Research Center - Hays  
South of Hays in **Ellis County**

**COOPERATORS:** Kenneth Kofoid, agronomist  
Patrick Coyne, head

**TEST SITE:** Harney silt loam  
Fallow in 1993 and sorghum in 1992

**FERTILIZATION:** 50 lbs N/acre preplant

**PLANTING DATE:** May 23

**HARVEST DATE:** October 11

**PEST CONTROL:** Good

**POPULATION:** 35,000 plants/acre, 6 in. spacing

**EARLY MEDIUM LATE ALL**

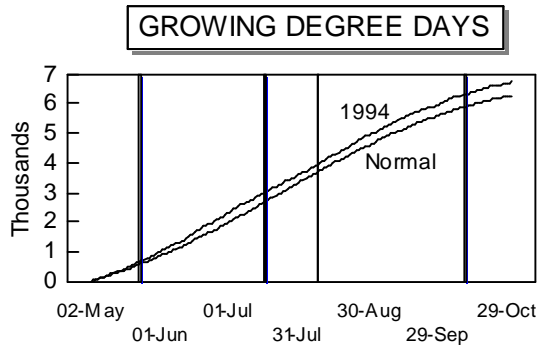
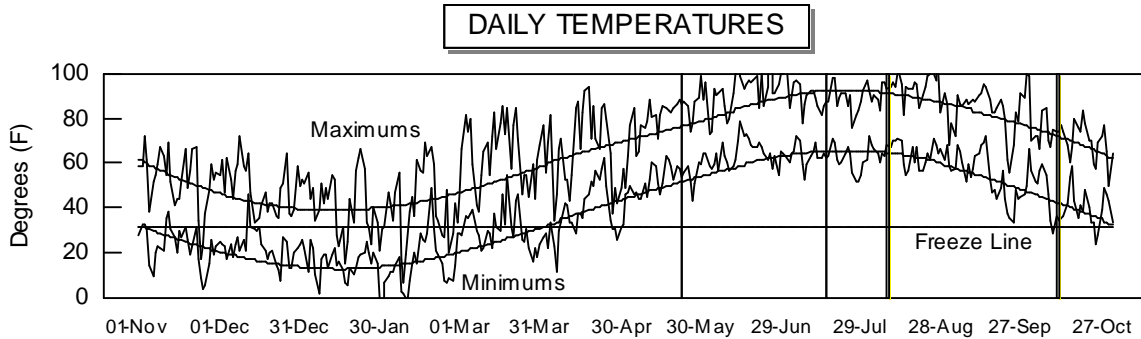
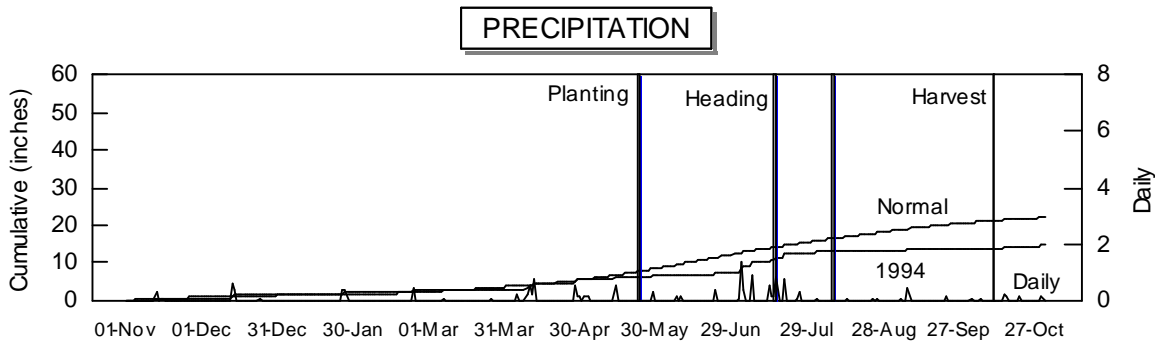
**TEST YIELDS:**

Avg. (bu/a):	124	123	119	122
Range (bu/a):	97-143	91-147	84-136	84-147
L.S.D. (bu/a):	19.2	18.0	15.6	19.7
C.V. (%):	9.4	10.7	7.7	9.9

**BLOOM DATES:** 7/16-7/28 7/19-8/8 7/26-8/8 7/16-8/8

**1994 GROWING CONDITIONS:**

Dry soil conditions at and after planting resulted in poor emergence for many plots. June, August, and September were dry. Stored soil moisture and July rains carried the crop to harvest.



**GROWING-SEASON WEATHER SUMMARY**

Month	Precipitation		Average Temp.		GDD	
	1994	Normal	1994	Normal	1994	Normal
April	2.7	1.9	52	51	0	0
May	1.0	3.2	67	62	1024	875
June	0.7	3.8	78	72	1334	1149
July	5.5	3.3	76	78	1295	1368
August	0.3	2.8	78	76	1410	1339
Sep.	0.7	2.2	69	67	1052	984
Oct.	0.9	1.3	56	54	674	610
Season Totals	11.8	18.4	68	66	6787	6325

**TABLE 7. ELLIS CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHEL					YIELD AS %			93-94		1994						
		1994	1993	1992	2-Yr. AVG.	3-Yr. AVG.	OF TEST			Mois- ture %	Days to Blm	Mois- ture %	Days to Blm	Hds per Plnt	Lod- ging %	Plnt Ht. in.	Test Wt. lb/bu	
							1994	1993	1992									AVERAGE
<b>EARLY HYBRIDS</b>																		
---	EARLY CHECK	C 305	123	--	--	--	--	99	--	--	--	--	11	57	1.3	18.4	43	58
	GARRISON	SG-622	115	--	--	--	--	93	--	--	--	--	11	63	1.1	18	42	59
	CARGILL	607E	113	119	135	116	122	91	93	91	13	66	11	64	1.3	15.1	39	58
	DEKALB	DK-38y	127	131	119	129	126	102	103	81	14	65	11	64	1.8	21	37	58
	DELTAPINE	1460A	110	--	--	--	--	89	--	--	--	--	11	64	1.2	3.1	43	60
	ICI	5643	97	147	--	122	--	79	115	--	13	66	11	65	1.1	57.7	43	59
	NORTHRUP-KING	KS-383Y	129	128	133	129	130	104	101	90	14	66	11	65	1.4	7.9	34	59
	TRIUMPH	TRX22412 EXP	113	--	--	--	--	91	--	--	--	--	12	63	1.2	7.8	41	60
---	EARLY CHECK	TX3042 x TX2737	132	133	104	133	123	107	105	70	14	64	12	64	1.5	14.2	47	59
	DEKALB	DK-40y	132	138	159	135	143	107	108	108	14	68	12	64	1.4	1.5	41	60
	DELTAPINE	1482	113	130	144	121	129	91	102	97	14	66	12	64	1.3	1.4	44	60
	MYCOGEN	T-E ELITE	115	112	--	113	--	93	88	--	13	65	12	64	1.6	13.2	42	59
	OHLDE	159	111	114	--	112	--	90	89	--	13	66	12	64	1	16.1	37	59
	ASGROW	SENECA	129	--	141	--	--	104	--	96	--	--	12	65	1.5	2.8	42	61
	DELTAPINE	1490Y	130	--	--	--	--	105	--	--	--	--	12	65	1.6	2.8	41	60
	GOLDEN HARVEST	H-388W	122	126	--	124	--	99	94	--	13	67	12	65	1.2	21	43	60
	NC+	Y363	129	--	--	--	--	105	--	--	--	--	12	65	1.8	3.3	47	60
	OHLDE	214	142	137	--	139	--	115	107	--	14	66	12	65	1.3	15.2	41	60
	DEKALB	DK-39	130	--	--	--	--	105	--	--	--	--	12	66	1.6	26.7	41	60
	NC+	6B50	138	--	--	--	--	112	--	--	--	--	12	66	1.2	10.8	42	59
	OHLDE	222C	127	132	--	129	--	103	103	--	13	66	12	66	1.3	1.9	38	60
	ICI	5616	143	136	151	140	143	116	107	102	14	69	12	69	1.1	0	43	59
	Early Average		124	127	148	126	133	100	100	100	14	66	12	64	1.4	12.7	42	59
	Early C.V.(%)		9	--	--	--	--	9	--	--	--	--	4	1	17.3	108	5	1
	Early LSD(.05)*		19	17	18	--	--	16	13	12	--	--	1	1	0.3	19	3	1
<b>MEDIUM CHECK</b>																		
	HOEGEMEYER	6650	91	--	--	--	--	74	--	--	--	--	11	65	1.5	53.4	45	59
	CARGILL	727	138	137	153	138	143	112	102	104	14	72	11	73	1.4	4.4	42	58
---	MED CHECK	RS 610	117	116	112	116	115	95	86	76	13	63	12	60	1.4	5.7	43	58
	CROSBYTON	GW5770	102	--	--	--	--	83	--	--	--	--	12	64	1.2	9.6	42	60
	NORTHRUP-KING	KS-555Y	112	--	122	--	--	91	--	83	--	--	12	64	1.5	28.6	46	60
	NORTHRUP-KING	KS-560Y	117	123	144	120	128	95	91	97	14	65	12	64	1.6	2.9	38	60
	PIONEER	8500	129	137	--	133	--	104	102	--	13	65	12	64	1.7	3.3	43	60
	CASTERLINE	SR317EW	120	--	--	--	--	97	--	--	--	--	12	65	1.3	2	39	59
	MYCOGEN	T-E HARDY	110	122	--	116	--	89	91	--	13	66	12	65	1.4	2	39	60
---	MED CHECK	OK11 x TX2741	98	--	--	--	--	80	--	--	--	--	12	66	1.2	40	43	59
	CROSBYTON	GW5970	110	--	--	--	--	89	--	--	--	--	12	68	1.1	7	43	60
	CARGILL	737	112	--	--	--	--	91	--	--	--	--	12	69	1.3	17.6	39	58
	GRI	06943	125	--	--	--	--	102	--	--	--	--	12	70	1.1	21.6	43	60
	GARRISON	SG-833	130	--	--	--	--	105	--	--	--	--	12	71	1.6	12.4	41	59
	OHLDE	136	123	--	--	--	--	100	--	--	--	--	12	72	1.4	9.3	41	59
---	MED CHECK	WHTLND x TX2737	130	--	--	--	--	106	--	--	--	--	12	75	1.3	9.9	39	59
	CARGILL	575	139	132	163	136	145	113	98	111	14	73	12	75	1.3	2.3	45	60
	CARGILL	797	135	130	157	132	140	110	96	106	14	76	12	77	1.2	24	41	58
	DEKALB	DK-41y	131	141	157	136	143	106	105	106	15	70	13	69	1.5	10.1	43	60
	DELTAPINE	1505Y	141	--	--	--	--	114	--	--	--	--	13	71	1.5	3.9	43	60
	GARRISON	SG-94120 EXP	139	--	--	--	--	113	--	--	--	--	13	79	1.2	0	43	58
	GARRISON	SG-94041 EXP	147	--	--	--	--	119	--	--	--	--	13	80	1.3	1.3	42	58
	ASGROW	A504	138	--	--	--	--	112	--	--	--	--	14	77	1.2	2.7	45	60
	Med. Average		123	135	148	129	135	100	100	100	14	70	12	70	1.4	11.9	42	59
	Med. C.V.(%)		11	--	--	--	--	11	--	--	--	--	2	1	10.2	69.9	5	1
	Med. LSD(.05)*		18	11	18	--	--	15	8	12	--	--	0	1	0.2	11.4	3	1

(continued)

**TABLE 7. ELLIS CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHELS					YIELD AS %			93-94		1994					
		1994	1993	2-Yr. 3-Yr.		AVG.	OF TEST			Mois- ture %	Days to Blm	Mois- Days to %	Days to %	Hds per Plnt	Lod- ging %	Plnt Ht. in.	Test Wt. lb/bu
				1992	AVG.		1994	1993	1992								
<b>LATE HYBRIDS</b>																	
HOEGEMEYER	6878	107	--	--	--	--	91	--	--	--	--	11	71	1.3	33.1	42	59
CARGILL	837	127	--	--	--	--	107	--	--	--	--	12	68	1.4	14.6	45	59
MYCOGEN	444E	124	--	--	--	--	105	--	--	--	--	12	70	1.4	27.4	41	60
--- LATE CHECK	TX2752 x TX430	131	148	173	139	151	111	110	118	15	74	12	72	1.4	16.5	44	59
GRI	16943	103	--	--	--	--	87	--	--	--	--	12	72	1.3	44.6	45	58
TRIUMPH	TR 55Y	84	--	--	--	--	71	--	--	--	--	12	72	1.2	56.8	43	58
GRI	19943	128	--	--	--	--	108	--	--	--	--	12	73	1.3	17.7	51	59
HOEGEMEYER	671	136	--	--	--	--	115	--	--	--	--	12	73	1.2	1	45	61
--- LATE CHECK	TX2752 x TX2783	119	--	--	--	--	100	--	--	--	--	12	80	1.2	32.6	43	60
DELTAPINE	1506	128	129	167	128	141	108	96	113	15	67	13	67	1.3	0.9	49	60
HOEGEMEYER	6622	116	--	--	--	--	98	--	--	--	--	13	69	1.5	20.1	44	61
Late Average		119	135	148	127	134	100	100	100	14	71	12	71	1.3	24.1	45	60
Late C.V.(%)		8	--	--	--	--	8	--	--	--	--	4	1	12.1	51	4	1
Late LSD(.05)*		16	11	18	--	--	13	8	12	--	--	NS	1	NS	17.3	3	1
Test Averages		122	--	148	--	--	100	--	100	--	--	12	68	1.3	14.6	42	59
C.V.(%)		10	--	--	--	--	10	--	--	--	--	3	1	13.8	78.8	5	1
L.S.D.(.05)**		20	--	18	--	--	--	--	12	--	--	1	1	0.3	18.7	3	1

\* L.S.D. for comparing hybrids within a maturity grouping.

\*\* L.S.D. for comparing hybrids in different maturity groups.

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



# SOUTH CENTRAL KANSAS ON SILTY CLAY LOAM SOIL

**LOCATION:** Harvey County Experiment Field  
West of Hesston in **Harvey County**

**COOPERATORS:** Mark Claassen, agronomist  
Robert McNeill and Lowell Stucky, technicians

**TEST SITE:** Ladysmith silty clay loam  
Spring oats in 1993 and sorghum in 1992

**FERTILIZATION:** 100 lbs N/acre preplant  
32 lbs P<sub>2</sub>O<sub>5</sub>/acre preplant

**PLANTING DATE:** June 10

**HARVEST DATE:** Early hybrids on 9/22  
Medium and Late hybrids on 9/30

**PEST CONTROL:** Good  
Temik in furrow at planting

**POPULATION:** 28,600 plants/acre, 7 in. spacing

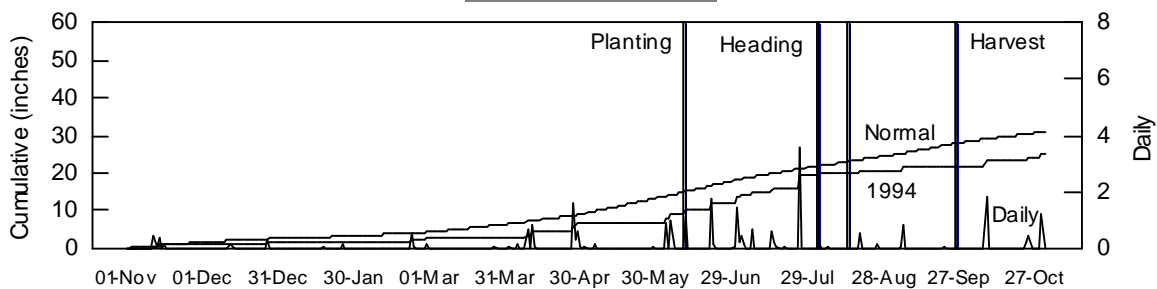
	EARLY	MEDIUM	LATE	ALL
<b>STAND (%):</b>	96	96	96	96
<b>TEST YIELDS:</b>				
Avg. (bu/a):	105	97	93	96
Range (bu/a):	95-119	60-121	73-117	60-121
L.S.D. (bu/a):	10.0	13.0	14.7	15.3
C.V. (%):	6.8	7.9	11.5	9.8

**BLOOM DATES:** 8/2-8/10 8/6-8/13 8/8-8/14 8/2-8/14

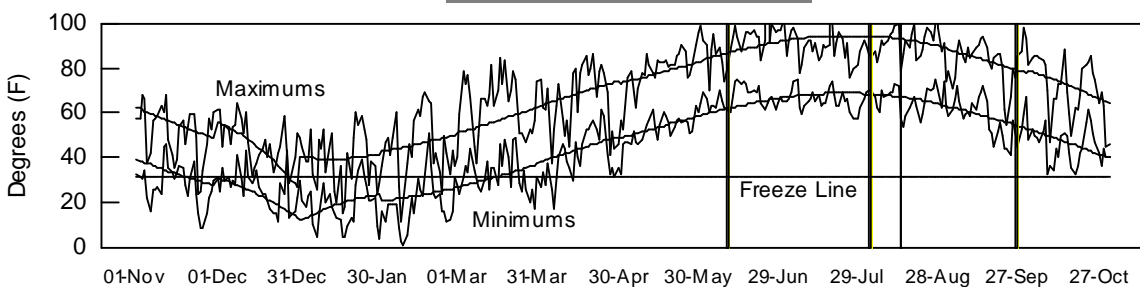
## 1994 GROWING CONDITIONS:

Abundant rainfall during the first 2 months after planting favored ample top growth with limited root system development. Drought became pronounced in late August and extended to the end of the growing season. Lodging began in mid-September and progressed until harvest. Much of the lodging appeared to be associated with charcoal rot. Lodging increased yield variability somewhat, but it tended to be consistent. Yields reflect what could be picked up with Hesston Headhunters without special assistance.

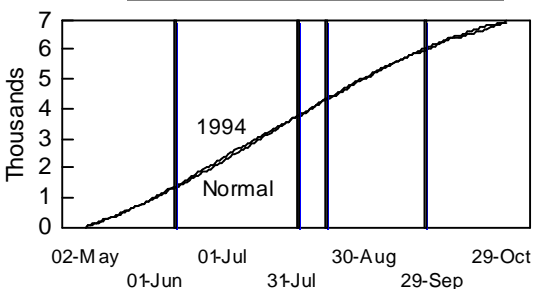
### PRECIPITATION



### DAILY TEMPERATURES



### GROWING DEGREE DAYS



### GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1994	Normal	1994	Normal	1994	Normal
April	4.2	2.7	53	57	0	0
May	0.2	4.5	67	66	1028	1000
June	6.4	4.6	79	76	1353	1259
July	6.1	3.6	77	81	1336	1462
August	1.0	3.1	78	79	1414	1448
Sep.	1.0	3.6	70	70	1084	1088
Oct.	3.8	2.5	58	59	719	749
Season Totals	22.7	24.5	69	70	6934	7006

**TABLE 8. HARVEY CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHELS					YIELD AS %			93-94		1994						
		1994	1993	1992	2-Yr. AVG.	3-Yr. AVG.	OF TEST AVERAGE			Mois- Days ture to	% Blm	Mois-Days ture to	% Blm	Hds per Plnt	Lod- ging %	Plnt Ht. in.	Test Wt. lb/bu	
<b>EARLY HYBRIDS</b>																		
---	EARLY CHECK	C 305	95	--	--	--	--	91	--	--	--	--	16	53	1.9	48.6	47	55
---	EARLY CHECK	TX3042 x TX2737	99	94	124	96	106	94	85	101	14	55	16	57	1.9	96.2	50	57
	DELANGE	DSA 117	97	113	--	105	--	93	102	--	15	55	16	57	1.5	16.1	43	57
	DELTAPINE	1482	113	--	--	--	--	108	--	--	--	--	16	57	1.7	9.9	46	58
	PIONEER	8606	117	--	--	--	--	112	--	--	--	--	17	57	2.1	31.3	48	57
	AGRIPRO	AP 9210	109	--	--	--	--	104	--	--	--	--	17	58	2	35.4	47	58
	OHLDE	214	119	--	--	--	--	114	--	--	--	--	17	58	2.1	16.5	47	59
	CARGILL	607E	95	104	107	100	102	91	94	87	15	57	17	59	1.7	52.6	44	57
	DEKALB	DK-39	97	--	--	--	--	93	--	--	--	--	17	59	1.9	95.5	45	57
	ICI	5616	111	108	128	109	116	106	97	104	15	58	17	60	1.5	2.7	47	58
	OHLDE	222C	96	--	--	--	--	92	--	--	--	--	18	61	1.7	3.4	44	58
	DEKALB	DK-40y	109	110	124	109	114	104	99	101	16	59	19	59	2.2	15.5	48	57
	Early Average		105	111	123	108	113	100	100	100	15	58	17	58	1.8	35.3	46	57
	Early C.V.(%)		7	--	--	--	--	7	--	--	--	--	5	2	5.7	22.9	2	1
	Early LSD(.05)*		10	14	17	--	--	10	12	14	--	--	1	1	0.1	11.3	1	1
<b>MEDIUM HYBRIDS</b>																		
	HOEGEMEYER	6650	68	--	--	--	--	71	--	--	--	--	11	57	2	67.3	48	59
	PIONEER	8505	105	140	128	123	124	109	126	104	12	57	11	57	2	18.9	48	60
---	MED CHECK	RS 610	77	101	108	89	95	79	91	88	12	56	11	58	1.6	51.8	47	57
	PIONEER	8500	105	127	130	116	121	109	114	106	12	57	11	58	2	39	49	60
	CASTERLINE	SR 319E	87	--	--	--	--	90	--	--	--	--	11	60	1.6	85	49	59
	VALLEY PREMIUM	V.P. 53	99	114	--	106	--	102	103	--	12	57	11	60	1.7	69.2	47	59
	NORTHRUP-KING	KS-524	95	107	123	101	108	98	97	100	12	59	11	61	1.7	44.9	47	54
	CARGILL	727	85	102	119	93	102	88	92	96	12	61	11	62	1.9	86.6	47	57
	OHLDE	136	115	--	--	--	--	119	--	--	--	--	11	62	1.6	31.4	47	58
	CARGILL	797	60	96	107	78	87	62	86	87	12	62	11	63	1.4	81.9	46	57
---	MED CHECK	OK11 x TX2741	70	--	--	--	--	72	--	--	--	--	12	58	1.5	53.7	46	59
	NORTHRUP-KING	KS-560Y	113	115	121	114	116	117	104	98	12	57	12	59	2.2	15.9	42	59
---	MED CHECK	WHTLND x TX2737	106	--	--	--	--	110	--	--	--	--	12	61	1.8	50.3	47	59
	CARGILL	737	112	--	--	--	--	116	--	--	--	--	12	61	1.5	5.4	48	58
	CASTERLINE	SR 315E	121	--	--	--	--	126	--	--	--	--	12	61	1.7	28.5	48	58
	GRI	23943	83	--	--	--	--	86	--	--	--	--	12	61	1.4	69.1	55	57
	NC+	7R37E	119	--	--	--	--	123	--	--	--	--	12	62	1.7	37.6	50	60
	DELANGE	DSA 125C	93	--	--	--	--	97	--	--	--	--	12	63	1.6	5.3	48	59
	GRI	06943	99	--	--	--	--	103	--	--	--	--	12	63	1.5	41.6	47	58
	VALLEY PREMIUM	V.P. 70	95	110	--	103	--	99	99	--	13	60	12	63	2	20.8	47	57
	DELTAPINE	1505Y	121	120	118	120	120	125	108	96	13	60	13	63	1.7	5.7	48	59
	CARGILL	575	98	104	117	101	106	101	94	95	13	61	13	64	1.7	38.7	47	59
	Med. Average		97	111	123	104	110	100	100	100	12	59	12	61	1.7	43.1	48	58
	Med. C.V.(%)		8	--	--	--	--	8	--	--	--	--	3	2	5.7	27	2	3
	Med. LSD(.05)*		13	14	17	--	--	13	12	14	--	--	1	1	0.1	16	1	2

(continued)

**TABLE 8. HARVEY CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHELS					YIELD AS %			93-94		1994					
		1994	1993	1992	2-Yr. AVG.	3-Yr. AVG.	OF TEST AVERAGE			Mois- Days ture to % Blm	Mois- Days ture to % Blm	Hds per Plnt	Lod- ging %	Plnt Ht. in.	Test Wt. lb/bu		
							1994	1993	1992								
<b>LATE HYBRIDS</b>																	
VALLEY PREMIUM	V.P. 90	92	107	--	99	--	99	96	--	12	58	11	60	1.8	50.4	45	58
ICI	5536	106	--	--	--	--	115	--	--	--	--	11	61	1.6	21.2	47	59
NORTHRUP-KING	KS-735	93	--	--	--	--	100	--	--	--	--	11	61	1.5	77	49	57
VALLEY PREMIUM	V.P. 85	83	--	--	--	--	89	--	--	--	--	11	62	1.5	69.1	49	59
CARGILL	837	80	110	128	95	106	86	99	104	12	60	12	61	1.8	79.1	50	60
HOEGEMEYER	6622	85	99	109	92	97	91	89	89	12	59	12	61	2	58.9	46	59
MYCOGEN	444E	93	123	127	108	115	100	111	103	13	60	12	61	1.7	77.7	49	59
--- LATE CHECK	TX2752 x TX430	93	113	129	103	112	101	101	105	12	61	12	63	1.7	86.9	50	57
GRI	19943	73	--	--	--	--	78	--	--	--	--	12	63	1.5	80.2	53	59
HOEGEMEYER	671	83	101	--	92	--	90	90	--	13	60	12	63	1.4	31.2	49	58
NORTHRUP-KING	KS-710	92	121	121	107	112	99	109	99	12	58	12	63	2.6	49	46	57
OHLDE	240W	97	110	--	104	--	105	99	--	13	61	12	63	1.6	11.9	49	59
--- LATE CHECK	TX2752 x TX2783	97	--	--	--	--	104	--	--	--	--	12	64	1.5	65.2	51	59
GOLDEN HARVEST	H-505BW	80	--	--	--	--	86	--	--	--	--	12	64	1.7	51.7	49	58
AGRIPRO	AP 9850	87	107	143	97	112	94	96	116	13	63	12	65	1.5	67.3	50	58
DEKALB	DK-55	87	--	--	--	--	94	--	--	--	--	12	65	1.7	96.2	53	57
DELTAPINE	1506	115	139	136	127	130	124	125	111	13	60	13	59	1.9	19.2	57	58
MYCOGEN	466W	100	--	110	--	--	108	--	90	--	--	13	63	1.7	10.4	50	59
DEKALB	DK-56	92	112	128	102	111	99	100	104	13	63	13	65	1.5	75.1	53	59
GOLDEN HARVEST	H-444W	104	--	124	--	--	112	--	101	--	--	13	65	1.4	41.2	51	57
OHLDE	246Y	117	122	138	120	126	127	110	112	14	64	14	64	2.1	0.7	49	59
Late Average		93	111	123	102	109	100	100	100	13	61	12	63	1.7	53.3	50	58
Late C.V.(%)		12	--	--	--	--	12	--	--	--	--	4	1	7.6	18.7	2	2
Late LSD(.05)*		15	12	17	--	--	16	11	14	--	--	1	1	0.2	13.7	1	NS
Test Averages		96	--	123	--	--	100	--	100	--	--	13	61	1.7	45.3	48	58
C.V.(%)		10	--	--	--	--	10	--	--	--	--	4	2	6.5	22.8	2	2
L.S.D.(.05)**		15	--	17	--	--	--	--	14	--	--	1	2	0.2	16.8	2	2

\* L.S.D. for comparing hybrids within a maturity grouping.

\*\* L.S.D. for comparing hybrids in different maturity groups.

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

# SOUTH CENTRAL KANSAS ON SILT LOAM SOIL

**LOCATION:** South Central Experiment Field  
Southwest of Hutchinson in **Reno County**  
**COOPERATORS:** William Heer, agronomist  
Brian Wade, technician  
**TEST SITE:** Ost silt loam  
Wheat in 1993 and oats in 1992  
**FERTILIZATION:** 100 lbs N/acre preplant  
40 lbs P<sub>2</sub>O<sub>5</sub>/acre preplant  
**PLANTING DATE:** May 23  
**HARVEST DATE:** September 13  
**PEST CONTROL:** Good  
Ramrod and Bladex at planting  
**POPULATION:** 30,000 plants/acre, 7 in. spacing

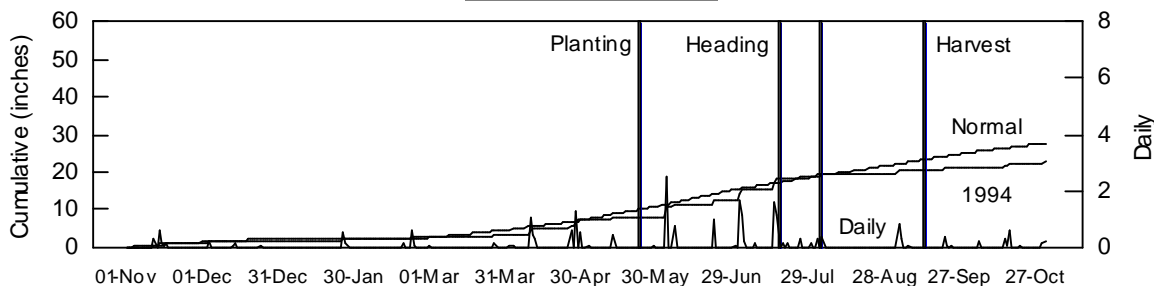
	EARLY	MEDIUM	LATE	ALL
<b>STAND (%):</b>	94	95	94	94
<b>TEST YIELDS:</b>				
Avg. (bu/a):	82	86	80	84
Range (bu/a):	74-92	65-100	66-97	65-100
L.S.D. (bu/a):	10.0	9.8	10.6	11.5
C.V. (%):	7.1	6.7	7.8	8.4

**BLOOM DATES:** 7/18-7/22 7/19-8/3 7/19-7/30 7/18-8/3

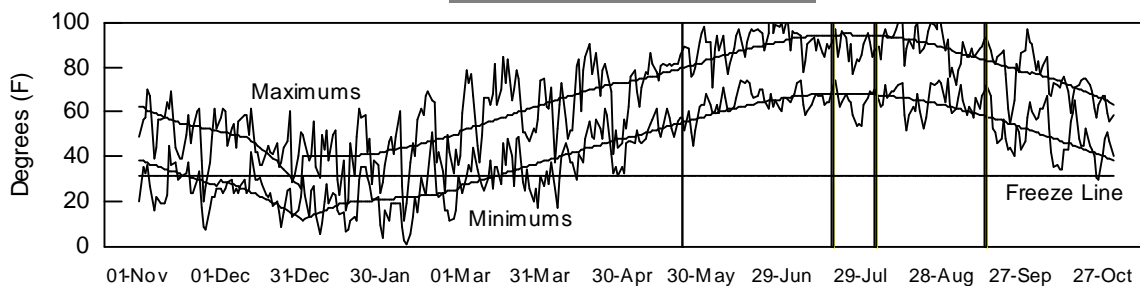
## 1994 GROWING CONDITIONS:

Weather conditions were dry from planting through the end of June. July was wetter and cooler than normal. August and September were warmer and drier than normal. Stalk rot contributed to substantial lodging. Yields represent what could be picked up with a John Deere row-crop head without special assistance.

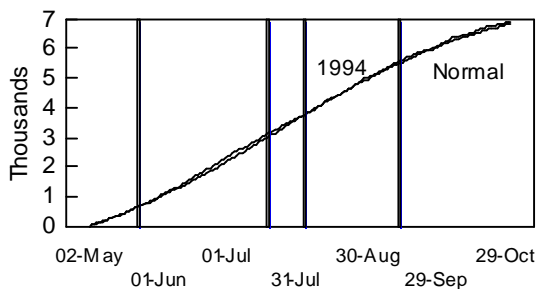
### PRECIPITATION



### DAILY TEMPERATURES



### GROWING DEGREE DAYS



### GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1994	Normal	1994	Normal	1994	Normal
April	4.3	2.6	53	56	0	0
May	0.6	3.9	67	66	1015	977
June	4.3	4.3	79	75	1353	1243
July	6.5	3.4	77	81	1331	1456
August	0.7	3.1	79	78	1446	1426
Sep.	1.7	3.3	70	70	1084	1062
Oct.	1.5	2.4	59	58	736	718
Season Totals	19.5	23.0	69	69	6964	6880

**TABLE 9. RENO CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHEL					YIELD AS %			93-94		1994					
		1994	1993	2-Yr. 3-Yr.		AVG	OF TEST			Mois- Days ture to	% Blm	Mois-Days ture to	% Blm	Hds per Plnt	Lod- ging %	Plnt Test Ht. in. lb/bu	
				1992	AVG		1994	1993	1992								
<b>EARLY HYBRIDS</b>																	
AGRIPRO	AP 9210	80	--	--	--	--	97	--	--	--	--	13	57	1.2	16.7	42	60
DELTAPINE	1482	84	--	--	--	--	103	--	--	--	--	13	57	1.1	7.6	42	59
DEKALB	DK-40y	80	84	115	82	93	97	90	101	14	60	13	60	1.3	42.1	44	60
--- EARLY CHECK	TX3042 x TX2737	79	82	118	81	93	97	88	103	14	59	14	56	1.1	34.9	45	59
--- EARLY CHECK	C 305	88	--	--	--	--	107	--	--	--	--	14	56	1.3	17.8	46	56
GARRISON	SG-622	74	--	--	--	--	90	--	--	--	--	14	56	1.3	39.8	43	58
MYCOGEN	T-E ELITE	76	85	--	81	--	93	91	--	14	59	14	57	1.2	25.8	41	59
NC+	6B50	85	--	--	--	--	103	--	--	--	--	14	57	1.2	17	45	58
OHLDE	214	82	--	--	--	--	100	--	--	--	--	14	57	1.5	18.1	42	60
OHLDE	222C	82	--	--	--	--	100	--	--	--	--	14	57	1.1	2.7	41	59
DEKALB	DK-39	74	--	--	--	--	90	--	--	--	--	14	58	1.2	69.7	41	58
ICI	5616	88	102	--	95	--	108	109	--	14	60	14	58	1.2	9	43	59
ASGROW	SENECA	87	--	--	--	--	107	--	--	--	--	15	57	1.3	8.7	41	60
PIONEER	8606	85	--	--	--	--	104	--	--	--	--	15	57	1.5	11.1	44	58
CARGILL	607E	76	86	107	81	90	93	92	94	14	60	15	58	1.1	21.6	39	56
TRIUMPH	TR 459	92	--	--	--	--	112	--	--	--	--	15	60	1.2	0.3	42	59
Early Average		82	93	114	88	97	100	100	100	14	59	14	57	1.2	21.4	43	59
Early C.V.(%)		7	--	--	--	--	7	--	--	--	--	3	1	12	36.5	3	1
Early LSD(.05)*		10	13	15	--	--	12	14	13	--	--	1	1	0.2	10.8	2	1
<b>MEDIUM HYBRIDS</b>																	
CROSBYTON	GW5970	86	--	--	--	--	99	--	--	--	--	14	57	1.1	2.3	50	60
NORTHRUP-KING	KS-560Y	81	98	105	89	94	94	105	92	14	59	14	57	1.3	7	39	60
--- MED CHECK	WHTLND x TX2737	87	--	--	--	--	101	--	--	--	--	14	58	1.2	11.7	42	58
CENTURY II	GB7042-E	91	--	--	--	--	105	--	--	--	--	14	58	1.2	32.1	46	58
CROSBYTON	GW5770	88	--	--	--	--	102	--	--	--	--	14	58	1.1	9.7	42	60
DELANGE	DSA 131	80	91	118	85	96	93	97	103	14	60	14	58	1.3	22.8	39	59
CARGILL	737	92	--	--	--	--	107	--	--	--	--	14	59	1.3	10.4	45	58
NORTHRUP-KING	2656	84	104	116	94	101	98	112	101	14	60	14	59	1.2	39.8	42	60
PIONEER	8500	100	113	139	107	118	116	122	122	14	60	14	59	1.3	10.2	47	59
NC+	7R37E	98	--	--	--	--	113	--	--	--	--	14	60	1.5	22.9	46	60
CARGILL	797	75	88	109	82	91	87	95	95	14	61	14	61	1.2	43.1	42	58
CASTERLINE	SR 315E	92	--	107	--	--	106	--	94	--	--	14	62	1.1	12.2	45	58
GARRISON	SG-833	92	--	--	--	--	107	--	--	--	--	14	62	1.1	12.6	43	59
ASGROW	A570	96	113	--	104	--	111	121	--	14	63	14	65	1.1	20.6	47	58
--- MED CHECK	OK11 x TX2741	82	--	--	--	--	95	--	--	--	--	15	57	1.1	10.3	42	58
--- MED CHECK	RS 610	76	88	111	82	92	88	95	97	14	59	15	57	1.4	29.2	45	56
CASTERLINE	SR 319E	93	92	126	93	104	108	99	110	15	60	15	58	1.3	57	44	58
MYCOGEN	T-E HARDY	82	86	--	84	--	95	93	--	15	60	15	58	1	1	39	58
PIONEER	8505	96	112	130	104	112	111	120	114	14	59	15	58	1.2	3.2	47	59
CARGILL	727	80	89	107	85	92	93	96	93	15	60	15	59	1.2	41.9	42	57
CENTURY II	GB8041-W	78	--	--	--	--	91	--	--	--	--	15	60	1.2	12.1	45	58
DELANGE	DSA 125C	91	--	--	--	--	106	--	--	--	--	15	60	1.1	2.9	45	59
CARGILL	575	90	93	105	92	96	104	100	92	15	60	16	60	1.2	16.2	45	57
DELTAPINE	1505Y	92	99	119	95	103	106	106	104	15	61	16	61	1.3	9	43	57
ICI	5514Y	75	85	--	80	--	87	91	--	16	63	18	65	1.2	15.3	43	54
GARRISON	SG-94041 EXP	65	--	--	--	--	75	--	--	--	--	19	71	1.1	13.7	42	48
GARRISON	SG-94120 EXP	90	--	--	--	--	104	--	--	--	--	20	72	1.2	0	46	50
Med. Average		86	93	114	90	98	100	100	100	15	61	15	60	1.2	17.4	44	58
Med. C.V.(%)		7	--	--	--	--	7	--	--	--	--	6	2	9.4	71	4	2
Med. LSD(.05)*		10	13	15	--	--	11	14	13	--	--	2	2	0.2	16.9	2	2

(continued)

**TABLE 9. RENO CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHELS					YIELD AS %			93-94		1994					
		1994	1993	1992	2-Yr. AVG.	3-Yr. AVG.	OF TEST AVERAGE			Mois- Days ture to % Blm	Mois- Days ture to % Blm	Hds per Plnt	Lod- ging %	Plnt Ht. in.	Test Wt. lb/bu		
							1994	1993	1992								
<b>LATE HYBRIDS</b>																	
DEKALB	DK-51	82	--	--	--	--	103	--	--	--	--	13	61	1.2	53.5	44	58
TRIUMPH	TR 65G	84	100	120	92	101	105	108	105	13	61	13	62	1.1	50.8	43	60
AGRIPRO	AP 9850	72	82	129	77	94	91	91	113	14	64	13	67	1.1	60.2	45	59
NORTHRUP-KING	KS-710	81	87	117	84	95	101	96	102	14	59	14	57	1.3	37.6	43	59
ICI	5536	82	--	--	--	--	103	--	--	--	--	14	61	1.2	24.5	43	59
MYCOGEN	444E	80	--	--	--	--	101	--	--	--	--	14	61	1.3	73.5	44	58
NORTHRUP-KING	KS-735	77	--	--	--	--	97	--	--	--	--	14	61	1.2	59.4	44	58
OHLDE	240W	81	--	--	--	--	102	--	--	--	--	14	61	1.1	6.8	44	59
--- LATE CHECK	TX2752 x TX430	73	93	117	83	94	92	102	102	14	61	14	62	1.1	81.9	43	57
CARGILL	837	83	99	117	91	99	104	109	102	15	62	14	62	1.2	73.4	44	59
CENTURY II	GB9140-E	79	--	--	--	--	99	--	--	--	--	14	62	1.1	43.6	46	60
PIONEER	8212Y	85	--	--	--	--	107	--	--	--	--	14	64	1.2	38.6	43	58
DEKALB	DK-56	80	94	--	87	--	101	104	--	15	64	14	66	1.1	57.7	49	57
--- LATE CHECK	TX2752 x TX2783	66	--	--	--	--	83	--	--	--	--	14	67	1.1	60.1	46	59
TRIUMPH	TRX25222 EXP	67	--	--	--	--	85	--	--	--	--	14	67	1.1	54.4	47	56
MYCOGEN	466W	75	--	--	--	--	95	--	--	--	--	15	61	1.1	4.8	46	59
NORTHRUP-KING	KS-714Y	77	93	100	85	90	97	103	88	15	61	15	61	1.2	28.2	45	59
DELTAPINE	1506	97	106	130	101	111	121	114	114	16	61	15	62	1.1	17	54	58
TRIUMPH	TR 481	90	--	--	--	--	113	--	--	--	--	19	68	1.2	1.5	52	57
Late Average		80	90	114	85	95	100	100	100	14	62	14	63	1.2	43.5	46	58
Late C.V.(%)		8	--	--	--	--	8	--	--	--	--	6	2	6.9	28.3	4	1
Late LSD(.05)*		11	15	15	--	--	13	16	13	--	--	1	2	0.1	17	2	1
Test Averages		84	--	114	--	--	100	--	100	--	--	15	60	1.2	26.4	44	58
C.V.(%)		8	--	--	--	--	8	--	--	--	--	6	2	9.6	43	4	2
L.S.D.(.05)**		12	--	15	--	--	--	--	13	--	--	2	2	0.2	18.5	3	2

\* L.S.D. for comparing hybrids within a maturity grouping.

\*\* L.S.D. for comparing hybrids in different maturity groups.

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

# SOUTH CENTRAL KANSAS ON SANDY SOIL

**LOCATION:** Sandyland Experiment Field  
3 miles south of St. John in **Stafford County**

**COOPERATORS:** Victor Martin, agronomist  
Jerry Dove and Yogi Behr, technicians

**TEST SITE:** Loamy sandy  
Wheat in 1993 and 1992

**FERTILIZATION:** 77 lbs N/acre preplant  
69 lbs P<sub>2</sub>O<sub>5</sub>/acre preplant  
75 lbs N/acre after planting

**PLANTING DATE:** May 31

**HARVEST DATE:** November 2

**PEST CONTROL:** Good

Buctril and Dual applied on July 2

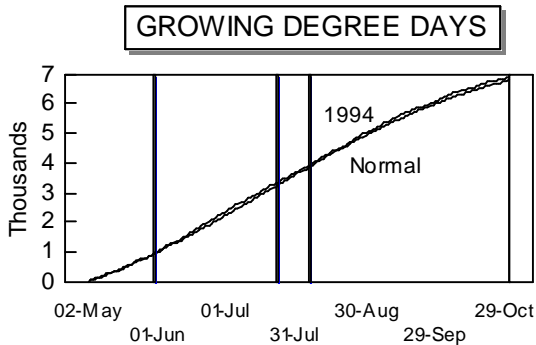
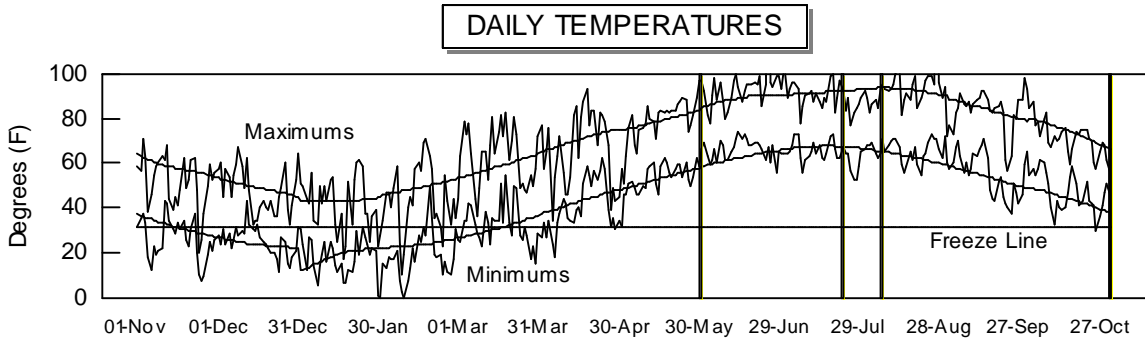
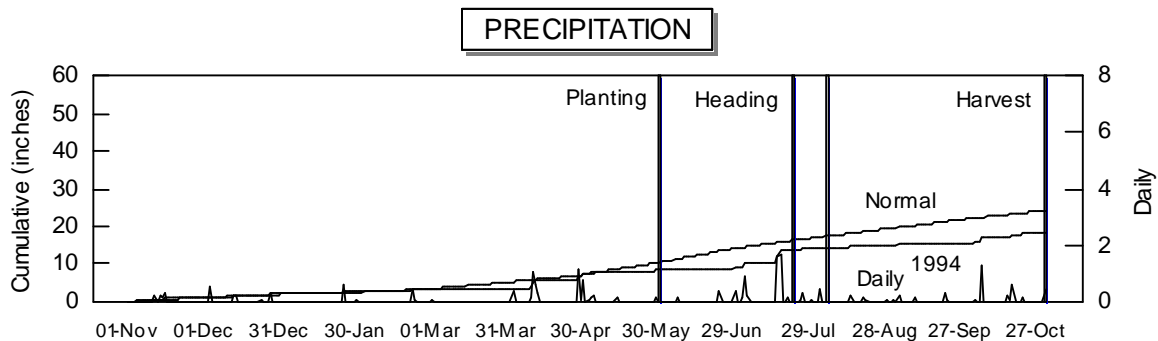
**POPULATION:** 30,000 plants/acre, 7 in. spacing

	EARLY	MEDIUM	LATE	ALL
<b>STAND (%):</b>	90	92	90	91
<b>TEST YIELDS:</b>				
Avg. (bu/a):	84	85	88	85
Range (bu/a):	73-97	64-101	69-105	64-105
L.S.D. (bu/a):	25.1	21.8	12.6	NS
C.V. (%):	17.4	15.0	8.3	17.3

**BLOOM DATES:** 7/23-7/31 7/25-8/4 7/25-8/6 7/23-8/6

## 1994 GROWING CONDITIONS:

Very hot, dry, and windy weather conditions made for a difficult year for sorghum production. Stored soil moisture and rains that came during a 24-hour period in early July carried the crop. Yields were higher than expected but were variable. Please keep this variability in mind when interpreting results from this test.



## GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1994	Normal	1994	Normal	1994	Normal
April	4.3	2.0	53	57	0	0
May	0.7	3.4	68	67	1041	1009
June	0.9	3.6	79	76	1364	1258
July	4.9	2.9	77	79	1325	1409
August	0.9	2.5	78	78	1422	1396
Sep.	0.7	2.5	69	69	1063	1034
Oct.	2.9	2.1	59	59	737	739
Season Totals	15.3	19.0	69	69	6952	6846

**TABLE 10. STAFFORD CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHELS					YIELD AS %			93-94		1994					
		1994	1993	2-Yr. 3-Yr.		AVG.	OF TEST			Mois- Days ture to % Blm	Mois-Days ture to % Blm	Hds per Plnt	Lod- ging %	Plnt Ht. in. lb/bu	Test Wt.		
				AVG.	AVG.		1994	1993	1992								
<b>EARLY HYBRIDS</b>																	
ICI	5643	85	--	--	--	--	101	--	--	--	--	15	56	1	61.5	43	55
NORTHROP-KING	KS-383Y	61	45	--	53	--	72	103	--	15	59	15	57	1	32.9	33	56
DEKALB	DK-40y	89	39	102	64	77	106	90	103	17	63	15	60	1	17.2	37	55
--- EARLY CHECK	C 305	73	--	--	--	--	87	--	--	--	--	16	53	1	45.8	39	55
OHLDE	700	74	--	--	--	--	88	--	--	--	--	16	54	1	29.3	40	55
DELTAPINE	1482	89	--	--	--	--	106	--	--	--	--	16	56	1	34.4	39	56
OHLDE	214	95	--	--	--	--	112	--	--	--	--	16	56	1	37.8	39	54
AGRIPRO	AP 9210	74	--	--	--	--	88	--	--	--	--	16	57	1	35.8	38	58
ASGROW	SENECA	83	50	92	66	75	99	113	93	17	59	16	58	1	41.9	37	56
OHLDE	222C	97	--	--	--	--	115	--	--	--	--	16	59	1	4.9	36	55
TRIUMPH	TRX22412 EXP	90	--	--	--	--	107	--	--	--	--	17	53	1	70.3	39	52
CENTURY II	GB5543-E	93	--	--	--	--	111	--	--	--	--	17	54	1	74.3	39	53
PIONEER	8606	94	--	--	--	--	111	--	--	--	--	17	55	1	21	36	53
CARGILL	607E	78	49	98	64	75	92	112	100	15	60	17	56	1	17.9	38	53
NC+	6B50	94	--	--	--	--	112	--	--	--	--	17	58	1	18	40	52
DEKALB	DK-39	91	--	--	--	--	108	--	--	--	--	17	60	1	56.5	37	53
TRIUMPH	TR 459	82	--	--	--	--	97	--	--	--	--	17	61	1	15.3	38	56
MYCOGEN	T-E ELITE	80	33	--	56	--	95	75	--	20	58	18	54	1	26.4	35	53
--- EARLY CHECK	TX3042 x TX2737	78	45	96	61	73	93	101	97	19	58	18	55	1	27.7	41	52
Early Average		84	44	99	64	76	100	100	100	17	59	16	56	1	35.2	38	54
Early C.V.(%)		17	--	--	--	--	17	--	--	--	--	10	4	--	48.5	9	5
Early LSD(.05)*		25	15	21	--	--	30	34	22	--	--	NS	3	--	23.6	NS	NS
<b>MEDIUM HYBRIDS</b>																	
CASTERLINE	SR 319E	74	45	100	59	73	87	106	101	16	61	16	58	1	57.5	34	56
MYCOGEN	T-E HARDY	72	26	--	49	--	84	60	--	16	63	16	60	1	1.5	36	57
CARGILL	575	98	48	99	73	82	115	112	101	15	62	16	62	1	9.4	39	57
DELANGE	DSA 125C	90	--	--	--	--	106	--	--	--	--	16	63	1	4.3	42	57
ICI	5514Y	101	--	--	--	--	119	--	--	--	--	16	63	1	22.1	40	57
CASTERLINE	SR 315E	64	35	98	49	65	75	81	99	18	66	16	64	1	27.5	37	56
PIONEER	8505	80	39	109	60	76	95	91	111	16	60	17	55	1	37.2	42	54
NORTHROP-KING	KS-560Y	81	52	112	66	82	95	122	114	16	58	17	56	1	16.8	35	53
--- MED CHECK	OK11 x TX2741	78	--	--	--	--	92	--	--	--	--	17	57	1	21.8	39	55
--- MED CHECK	WHTLND x TX2737	89	--	--	--	--	105	--	--	--	--	17	59	1	37.3	37	55
OHLDE	136	80	--	--	--	--	94	--	--	--	--	17	62	1	32.6	39	54
CENTURY II	GB8041-W	91	--	--	--	--	108	--	--	--	--	17	65	1	16	38	60
CARGILL	737	76	--	--	--	--	89	--	--	--	--	18	63	1	25.5	36	52
CARGILL	727	99	51	109	75	86	116	119	111	16	63	18	64	1	25.8	37	52
ASGROW	A570	96	--	--	--	--	113	--	--	--	--	18	65	1	43.9	41	53
CARGILL	797	91	48	106	69	81	107	112	107	16	64	18	65	1	34.1	38	52
CENTURY II	GB7042-E	98	--	--	--	--	115	--	--	--	--	18	65	1	25.1	38	52
PIONEER	8500	87	56	--	72	--	103	133	--	17	59	19	56	1	33.4	40	52
--- MED CHECK	RS 610	71	41	91	56	68	84	97	92	18	58	20	56	1	28.3	41	49
Med. Average		85	42	99	64	75	100	100	100	17	62	17	61	1	26.3	38	54
Med. C.V.(%)		15	--	--	--	--	15	--	--	--	--	11	4	--	47.5	8	8
Med. LSD(.05)*		22	10	21	--	--	26	23	22	--	--	NS	3	--	17.2	NS	NS

(continued)



**TABLE 10. STAFFORD CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHEL					YIELD AS %			93-94		1994					
		1994	1993	2-Yr. 3-Yr.		1994	1993	1992	Mois- Days ture to % Blm	Mois- Days ture to % Blm	Hds per Plnt	Lod- ging %	Plnt Ht. in.	Test Wt. lb/bu			
				AVG.	AVG.										OF TEST AVERAGE		
<b>LATE HYBRIDS</b>																	
DELTAPINE	1506	97	31	113	64	80	110	74	114	18	64	15	61	1	3.8	44	57
MYCOGEN	444E	86	33	--	60	--	98	78	--	16	64	15	62	1	45.4	36	58
NORTHROP-KING	KS-714Y	92	88	97	90	92	105	112	98	15	61	16	60	1	29.2	41	56
NORTHROP-KING	KS-710	86	90	115	88	97	98	114	116	16	64	16	63	1	30.5	41	56
NORTHROP-KING	KS-735	90	81	--	86	--	103	103	--	15	64	16	63	1	49.1	36	56
HYPERFORMER	HSC CHEROKEE	76	38	--	57	--	87	90	--	17	66	16	66	1	39.9	37	56
CARGILL	837	105	79	113	92	99	119	100	115	17	61	17	55	1	55.6	40	54
HYPERFORMER	HSC 1289C	74	41	--	57	--	84	96	--	17	64	17	61	1	29.7	41	54
MYCOGEN	466W	85	--	70	--	--	97	--	71	--	--	17	62	1	5	42	57
CENTURY II	GB9140-E	79	--	--	--	--	90	--	--	--	--	17	63	1	56	39	54
TRIUMPH	TR 481	97	--	--	--	--	110	--	--	--	--	17	64	1	6.2	44	57
--- LATE CHECK	TX2752 x TX430	102	77	101	90	93	116	98	102	16	65	18	62	1	44.8	42	54
OHLDE	240W	98	75	--	86	--	111	95	--	17	63	18	63	1	15.1	42	53
AGRIPRO	AP 9850	69	72	108	70	83	78	92	109	17	67	18	65	1	47.6	38	55
DEKALB	DK-56	95	82	--	88	--	108	105	--	17	66	18	65	1	19.1	44	55
--- LATE CHECK	TX2752 x TX2783	78	--	--	--	--	89	--	--	--	--	18	67	1	28.4	43	55
Late Average		88	79	99	83	88	100	100	100	16	64	17	63	1	31.6	41	56
Late C.V.(%)		8	--	--	--	--	8	--	--	--	--	10	5	--	59.6	9	5
Late LSD(.05)*		13	12	21	--	--	14	15	22	--	--	NS	5	--	26.1	NS	NS
Test Averages		85	--	99	--	--	100	--	100	--	--	17	60	1	31	39	55
C.V.(%)		17	--	--	--	--	17	--	--	--	--	10	6	--	60.8	9	6
L.S.D.(.05)**		NS	--	21	--	--	--	--	22	--	--	NS	NS	--	30.7	NS	NS

\* L.S.D. for comparing hybrids within a maturity grouping.

\*\* L.S.D. for comparing hybrids in different maturity groups.

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

**NORTHWESTERN KANSAS  
ON SILT LOAM SOIL  
FALLOW**

**LOCATION:** Northwest Research-Extension Center  
Near Colby in **Thomas County**

**COOPERATORS:** Pat Evans, agronomist  
Patrick Coyne, head

**TEST SITE:** Keith silt loam  
Fallow in 1993 and grain sorghum in 1992

**FERTILIZATION:** 90 lbs N/acre preplant  
15 lbs P<sub>2</sub>O<sub>5</sub>/acre preplant

**PLANTING DATE:** May 27

**HARVEST DATE:** October 25

**PEST CONTROL:** Good  
Lasso and Atrazine after planting

**POPULATION:** 23,000 plants/acre, 9 in. spacing

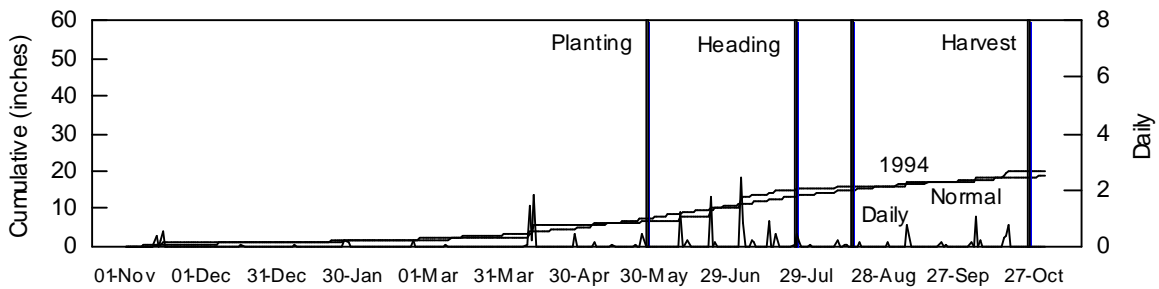
	EARLY	MEDIUM	LATE	ALL
<b>STAND (%):</b>	106	106	103	106
<b>TEST YIELDS:</b>				
Avg. (bu/a):	132	126	121	127
Range (bu/a):	117-148	112-140	112-130	112-148
L.S.D. (bu/a):	11.6	7.2	13.7	12.4
C.V. (%):	6.4	3.2	4.8	6.0

**BLOOM DATES:** 7/25-8/8 7/29-8/13 8/14-8/16 7/25-8/16

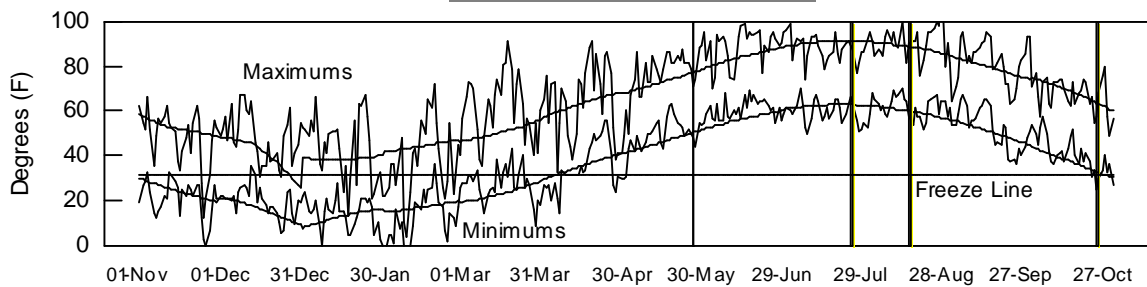
**1994 GROWING CONDITIONS:**

Favorable growing conditions prevailed through July. The test was subjected to hot, dry conditions in August and September. Greenbugs were present but required no control measures. Most hybrids responded very well to the favorable conditions by adding fertile tillers. Yields were very good for dryland production at this location.

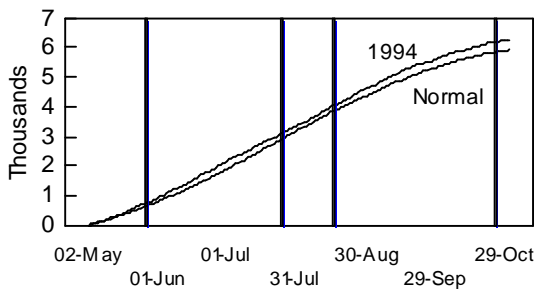
**PRECIPITATION**



**DAILY TEMPERATURES**



**GROWING DEGREE DAYS**



**GROWING-SEASON WEATHER SUMMARY**

Month	Precipitation		Average Temp.		GDD	
	1994	Normal	1994	Normal	1994	Normal
April	3.9	1.8	49	50	0	0
May	0.7	3.0	64	60	940	813
June	3.5	3.1	75	71	1234	1102
July	5.6	2.9	73	77	1224	1319
August	0.5	2.2	76	74	1337	1277
Sep.	0.9	1.4	67	65	996	917
Oct.	2.9	1.0	54	52	586	549
Season Totals	18.0	15.5	65	64	6315	5976

**TABLE 11. THOMAS CO. FALLOW GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1991-94.**

BRAND	HYBRID	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			92-94		1994					
		1,99	1,99	1,99	2-Yr.	3-Yr.	1,99	1,99	1,99	Mois- Days	Mois-Days	Hds	Lod-	Plnt	Test		
		4	2	1	AVG.	AVG	4	2	1	ture to %	ture to %	per Blm	ging Plnt	%	Ht. in. lb/bu		
<b>EARLY HYBRIDS</b>																	
---	EARLY CHECK C 305	122	--	--	--	--	92	--	--	--	--	15	59	2.2	7.2	44	58
	PIONEER 8,771	137	102	95	120	111	104	146	103	18	64	15	60	3.3	1.5	44	60
	PIONEER 8,699	137	98	89	118	108	104	140	97	18	65	15	61	2.8	0.2	43	60
	TRIUMPH TRX22412 EXP	121	--	--	--	--	91	--	--	--	--	15	62	2.5	6.7	42	60
---	EARLY CHECK TX3042 x TX2737	133	96	93	114	107	100	137	101	18	67	15	63	2.4	17.3	45	59
	DEKALB DK-38y	122	72	--	97	--	92	104	--	18	68	15	63	3	0.5	39	59
	MYCOGEN T-E ELITE	122	--	--	--	--	92	--	--	--	--	15	63	2.4	3.9	42	60
	ICI 5,643	136	--	--	--	--	103	--	--	--	--	15	65	2.5	31.2	43	60
	NORTHRUP-KING KS-383Y	117	73	99	95	97	88	105	108	18	69	15	65	2.5	1.6	37	61
	CARGILL 607E	134	86	87	110	102	101	122	95	18	69	15	66	2.5	4.3	41	59
	DEKALB DK-40y	137	69	97	103	101	104	98	105	19	71	15	66	2.5	0.4	43	61
	OHLDE 222C	127	--	--	--	--	96	--	--	--	--	15	66	2.3	0.2	40	61
	DELTAPINE 1,482	125	74	--	99	--	95	105	--	17	71	15	67	2	1.5	40	60
	ICI 5,616	134	92	--	113	--	101	132	--	18	69	15	67	2.2	0.4	42	60
	TRIUMPH TR 46	117	--	--	--	--	88	--	--	--	--	16	62	2.2	16.1	42	57
	TRIUMPH TR 459	134	79	--	107	--	101	114	--	19	70	16	66	2.2	0	43	61
	ASGROW SENECA	141	59	94	100	98	107	84	102	19	73	16	67	2.1	0	41	61
	DEKALB DK-39	143	--	--	--	--	108	--	--	--	--	16	67	2.7	14.2	40	60
	NC+ Y363	146	84	101	115	110	110	120	110	18	70	16	67	2.8	0.2	44	61
	OHLDE 214	146	--	--	--	--	110	--	--	--	--	16	69	2.2	1.5	40	61
	GOLDEN HARVEST H-403	134	--	--	--	--	101	--	--	--	--	16	70	2.3	3.2	41	60
	NC+ 6B50	148	--	--	--	--	112	--	--	--	--	16	70	2	0	42	60
	GOLDEN HARVEST H-388W	134	57	97	96	96	101	82	106	20	76	16	73	1.9	0.8	43	60
	Early Average	132	70	92	101	98	100	100	100	19	70	15	65	2.4	4.9	42	60
	Early C.V.(%)	6	--	--	--	--	6	--	--	--	--	3	2	7.8	82.3	2	1
	Early LSD(.05)*	12	10	17	--	--	9	15	19	--	--	1	2	0.3	5.5	1	1
<b>MEDIUM HYBRIDS</b>																	
---	MED CHECK RS 610	112	94	82	103	96	89	134	90	19	67	15	63	2.3	3.2	45	59
	MYCOGEN T-E HARDY	118	--	--	--	--	94	--	--	--	--	15	66	2	0.2	43	61
	NORTHRUP-KING KS-560Y	131	83	--	107	--	104	119	--	18	70	15	66	2.6	0.2	39	60
	CASTERLINE SR 315E	121	76	--	98	--	96	108	--	18	73	15	69	2.1	4.9	43	60
---	MED CHECK OK11 x TX2741	125	--	--	--	--	99	--	--	--	--	16	70	1.8	4.1	43	60
	CARGILL 737	140	--	--	--	--	111	--	--	--	--	16	72	2.1	0	43	59
	CARGILL 727	130	39	--	84	--	103	55	--	19	79	16	76	2.1	0.9	45	58
---	MED CHECK WHTLND x TX2737	129	--	--	--	--	103	--	--	--	--	17	77	2.1	0	42	59
	CARGILL 797	128	--	--	--	--	101	--	--	--	--	17	78	1.8	3.3	43	58
	Med. Average	126	70	92	98	96	100	100	100	19	73	16	71	2.1	1.9	43	59
	Med. C.V.(%)	3	--	--	--	--	3	--	--	--	--	5	2	5.4	147	1	1
	Med. LSD(.05)*	7	10	17	--	--	6	15	19	--	--	1	2	0.2	NS	1	1
<b>LATE HYBRIDS</b>																	
---	LATE CHECK TX2752 x TX430	130	27	99	78	85	107	38	108	20	83	17	79	2.1	2.2	46	59
---	LATE CHECK TX2752 x TX2783	112	--	--	--	--	93	--	--	--	--	18	81	1.8	3.8	48	59
	Late Average	121	70	92	95	94	100	100	100	20	78	18	80	1.9	3	47	59
	Late C.V.(%)	5	--	--	--	--	5	--	--	--	--	10	1	2.1	96.2	0	2
	Late LSD(.05)*	14	10	17	--	--	11	15	19	--	--	NS	1	0.1	NS	0	2
	Test Averages	127	70	92	98	96	100	100	100	19	72	16	68	2.3	4	42	60
	C.V.(%)	6	--	--	--	--	6	--	--	--	--	4	2	7.3	93	2	1
	L.S.D.(.05)**	12	10	17	11	13	--	15	19	2	2	1	2	0.3	6	1	1

\* L.S.D. for comparing hybrids within a maturity grouping.

\*\* L.S.D. for comparing hybrids in different maturity groups.

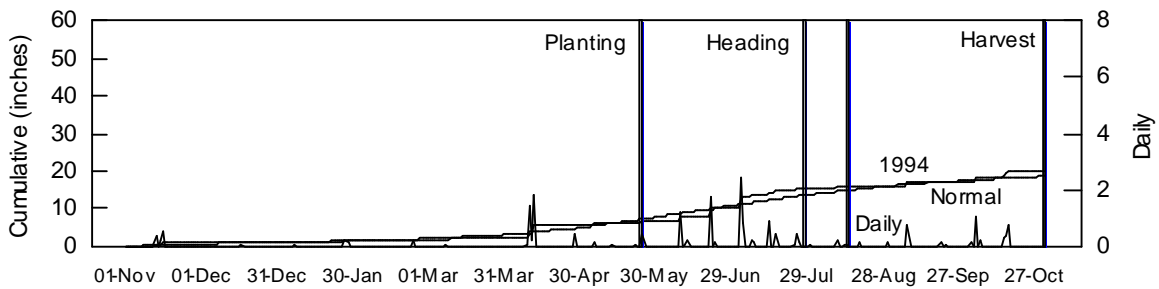
Unless two varieties differ by more than the L.S.D., little confidence can be placed in one being superior to the other.

**NORTHWESTERN KANSAS  
ON SILT LOAM SOIL  
IRRIGATED**

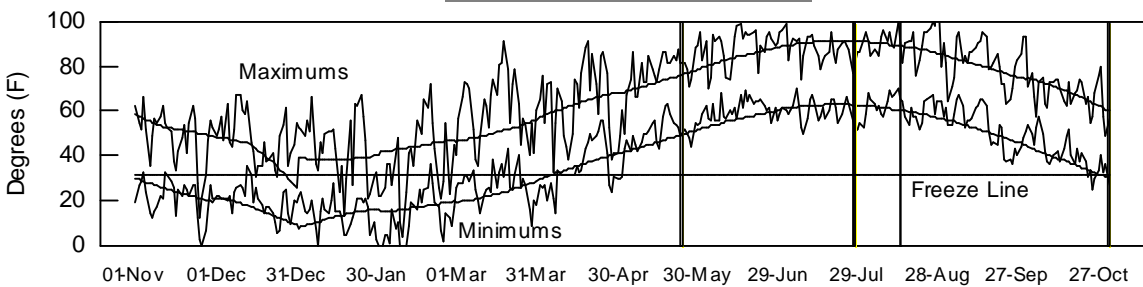
**LOCATION:** Northwest Research-Extension Center  
Near Colby in **Thomas County**  
**COOPERATORS:** Pat Evans, agronomist  
Patrick Coyne, head  
**TEST SITE:** Keith silt loam  
Sunflowers in 1993 and corn in 1992  
**FERTILIZATION:** 120 lbs N/acre preplant  
20 lbs P<sub>2</sub>O<sub>5</sub>/acre preplant  
**PLANTING DATE:** May 24  
**HARVEST DATE:** November 1  
**PEST CONTROL:** Good  
Lasso and Atrazine after planting  
**POPULATION:** 70,000 plants/acre, 3 in. spacing

	<b>EARLY</b>	<b>MEDIUM</b>	<b>LATE</b>	<b>ALL</b>
<b>TEST YIELDS:</b>				
Avg. (bu/a):	152	164	170	165
Range (bu/a):	140-163	130-206	133-216	130-216
L.S.D. (bu/a):	13.0	14.0	14.4	12.2
C.V. (%):	4.0	4.6	4.7	4.5
<b>BLOOM DATES:</b>	7/28-8/3	7/21-8/11	8/1-8/14	7/21-8/14
<b>IRRIGATION:</b>	3.0 in. applied on each date: 7/13, 7/29, 8/9, 8/19 and 9/1			
<b>1994 GROWING CONDITIONS:</b>	Very favorable growing conditions facilitated excellent yields. A minor greenbug infestation was noted but required no control measures.			

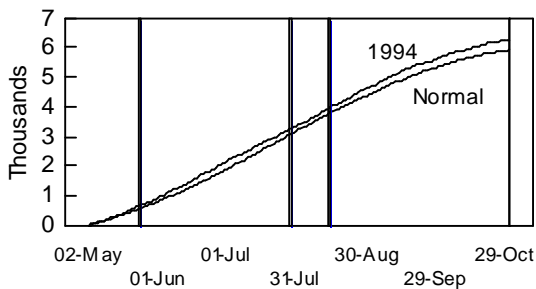
**PRECIPITATION**



**DAILY TEMPERATURES**



**GROWING DEGREE DAYS**



**GROWING-SEASON WEATHER SUMMARY**

Month	Precipitation		Average Temp.		GDD	
	1994	Normal	1994	Normal	1994	Normal
April	3.9	1.8	49	50	0	0
May	0.7	3.0	64	60	940	813
June	3.5	3.1	75	71	1234	1102
July	5.6	2.9	73	77	1224	1319
August	0.5	2.2	76	74	1337	1277
Sep.	0.9	1.4	67	65	996	917
Oct.	2.9	1.0	54	52	586	549
Season Totals	18.0	15.5	65	64	6315	5976

**TABLE 12. THOMAS CO. IRR. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1991-94.**

BRAND	HYBRID	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			92-94		1994						
		1,994	1,992	1,991	2-Yr. AVG.	3-Yr. AVG.	1,994	1,992	1,991	Mois- ture %	Days to Blm	Mois- ture %	Days to Blm	Hds per Plnt	Lod- ging %	Plnt Ht. in.	Test Wt. lb/bu	
<b>EARLY HYBRIDS</b>																		
---	EARLY CHECK	C 305	140	--	--	--	--	92	--	--	--	--	13	62	1.1	0	48	58
---	EARLY CHECK	TX3042 x TX2737	155	129	154	142	146	102	152	88	15	68	14	65	1	0	49	60
	DELTAPINE	1490Y	147	--	--	--	--	97	--	--	--	--	14	66	1	0	44	60
	GOLDEN HARVEST	H-388W	163	--	--	--	--	108	--	--	--	--	14	70	0.9	0	46	60
	NC+	6B50	155	--	--	--	--	102	--	--	--	--	14	71	0.9	0	44	60
	Early Average		152	85	176	118	137	100	100	100	15	73	14	67	1	0	46	60
	Early C.V.(%)		4	--	--	--	--	4	--	--	--	--	1	1	6.2	--	3	0
	Early LSD(.05)*		13	23	15	--	--	9	27	9	--	--	0	2	NS	--	3	1
<b>MEDIUM HYBRIDS</b>																		
---	MED CHECK	RS 610	130	131	152	130	138	79	154	87	16	64	13	58	0.9	0.3	49	59
	NORTHRUP-KING	KS-555Y	140	--	--	--	--	86	--	--	--	--	14	65	0.9	0.6	47	61
	PIONEER	8,505	147	115	--	131	--	90	136	--	15	69	14	65	1	0	47	61
	DEKALB	DK-48	174	108	177	141	153	106	127	101	15	73	14	69	1	0	47	61
---	MED CHECK	OK11 x TX2741	154	--	--	--	--	94	--	--	--	--	14	70	1	0.9	46	60
	DELTAPINE	1505Y	169	--	--	--	--	103	--	--	--	--	14	73	1	0	48	60
---	MED CHECK	WHTLND x TX2737	162	--	--	--	--	99	--	--	--	--	14	74	0.9	0	44	59
	CASTERLINE	SR 319E	187	105	198	146	163	114	124	113	15	76	14	74	0.9	0	46	60
	CARGILL	797	174	58	--	116	--	106	69	--	15	80	14	76	0.9	0	46	58
	ASGROW	A570	206	--	--	--	--	125	--	--	--	--	15	79	1	0	55	60
	Med. Average		164	85	176	124	141	100	100	100	15	75	14	70	0.9	0.2	48	60
	Med. C.V.(%)		5	--	--	--	--	5	--	--	--	--	1	4	6.2	227	2	1
	Med. LSD(.05)*		14	23	15	--	--	9	27	9	--	--	0	5	NS	NS	2	1
<b>LATE HYBRIDS</b>																		
	PIONEER	8,446	133	--	--	--	--	78	--	--	--	--	14	69	1	0	44	60
	DELTAPINE	1,506	152	113	--	132	--	90	133	--	15	74	14	71	0.9	0.3	56	60
	DEKALB	DK-56	176	98	179	137	151	104	116	102	16	77	14	74	1	0.3	54	61
	DEKALB	DK-55	179	--	--	--	--	105	--	--	--	--	14	75	0.9	0	52	59
	MYCOGEN	466W	147	--	--	--	--	86	--	--	--	--	14	75	0.8	0.3	51	60
	PIONEER	8,310	161	--	--	--	--	95	--	--	--	--	14	75	0.9	0	53	60
	HYPERFORMER	HSC CHEROKEE	147	87	178	117	137	87	102	101	15	78	14	76	0.9	0.3	47	59
	DEKALB	DK-51	168	--	--	--	--	99	--	--	--	--	14	77	0.8	0.4	46	59
---	LATE CHECK	TX2752 x TX430	184	83	181	134	150	109	98	103	15	80	14	79	0.9	0	48	59
	DEKALB	DK-54	173	--	--	--	--	102	--	--	--	--	15	73	1	0.6	53	60
	DEKALB	DK-58	175	39	--	107	--	103	46	--	16	81	15	77	0.9	0.3	55	59
---	LATE CHECK	TX2752 x TX2783	189	--	--	--	--	111	--	--	--	--	15	78	0.8	0	55	60
	HYPERFORMER	HY 1320	181	--	--	--	--	106	--	--	--	--	15	79	0.9	0.6	52	61
	DEKALB	DK-66	216	--	205	--	--	127	--	117	--	--	15	82	0.9	1.3	58	59
	Late Average		170	85	176	127	143	100	100	100	16	78	14	75	0.9	0.3	52	60
	Late C.V.(%)		5	--	--	--	--	5	--	--	--	--	2	1	8.8	149	3	1
	Late LSD(.05)*		14	23	15	--	--	9	27	9	--	--	1	2	NS	NS	3	1
	Test Averages		165	85	176	125	142	100	100	100	15	76	14	72	0.9	0.2	49	60
	C.V.(%)		5	--	--	--	--	5	--	--	--	--	2	3	7.5	192	3	1
	L.S.D.(.05)**		12	23	15	--	--	--	27	9	--	--	0	3	NS	NS	2	1

\* L.S.D. for comparing hybrids within a maturity grouping.

\*\* L.S.D. for comparing hybrids in different maturity groups.

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

**WEST CENTRAL KANSAS  
FALLOW**

**LOCATION:** Southwest Research-Extension Center  
Near Tribune in **Greeley County**

**COOPERATORS:** Alan Schlegel, agronomist  
Dave Frickel and Scott Selee, technicians  
Patrick Coyne, head

**TEST SITE:** Richfield silt loam  
Wheat in 1993 and fallow in 1992

**FERTILIZATION:** 60 lbs N/acre after planting

**PLANTING DATE:** May 23

**HARVEST DATE:** October 27

**PEST CONTROL:** Good

Atrazine in September 1993

**POPULATION:** 23,000 plants/acre, 9 in. spacing

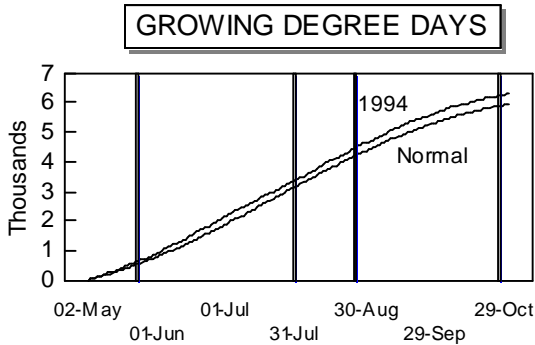
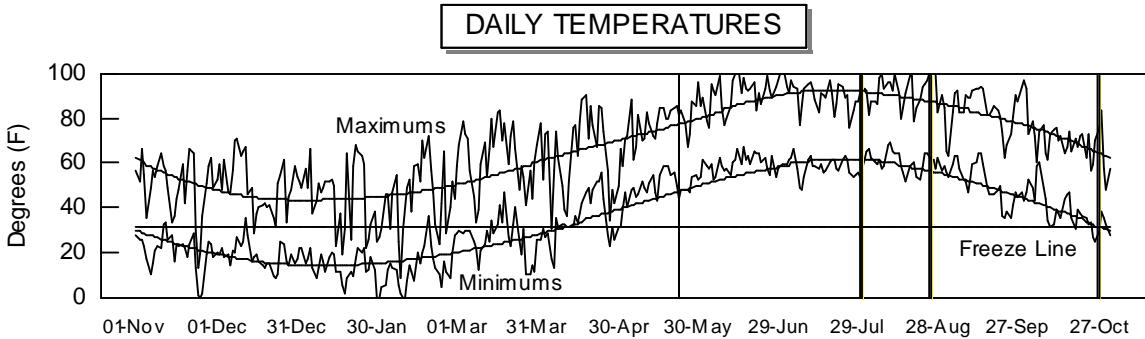
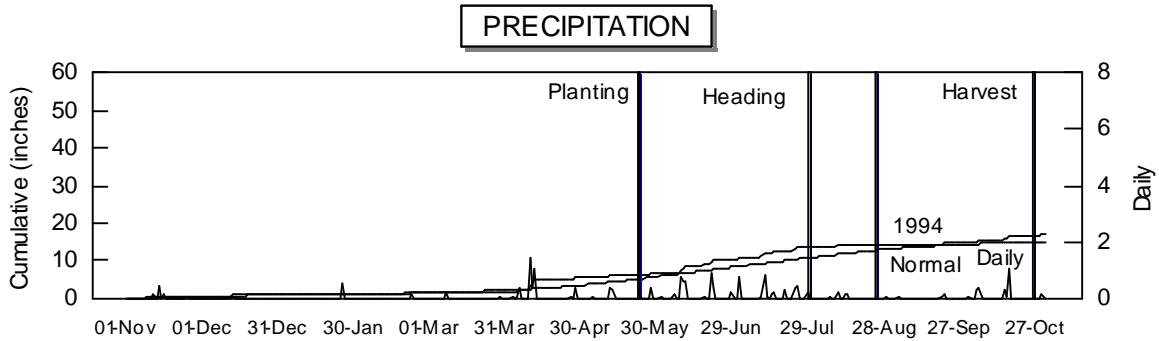
	EARLY	MEDIUM	LATE	ALL
<b>STAND (%):</b>	83	84	90	84

	EARLY	MEDIUM	LATE	ALL
<b>TEST YIELDS:</b>				
Avg. (bu/a):	74	72	74	72
Range (bu/a):	56-85	50-87	64-84	50-87
L.S.D. (bu/a):	11.8	14.5	7.3	14.7
C.V. (%):	11.5	11.7	6.2	12.5

**BLOOM DATES:** 7/30-8/16 8/3-8/24 8/9-8/25 7/30-8/25

**1994 GROWING CONDITIONS:**

June was warmer than normal, July wetter than normal, and August and September drier than normal. Stored soil moisture and the wet July enabled the production of good dryland yields.



**GROWING-SEASON WEATHER SUMMARY**

Month	Precipitation		Average Temp.		GDD	
	1994	Normal	1994	Normal	1994	Normal
April	3.7	1.4	49	50	0	0
May	1.3	2.4	64	60	941	818
June	3.6	2.5	76	71	1251	1102
July	3.4	2.5	74	76	1246	1309
August	0.7	2.2	75	74	1317	1267
Sep.	0.3	1.2	68	65	1012	934
Oct.	2.3	0.7	53	53	579	571
Season Totals	15.2	12.9	66	64	6346	6000

**TABLE 13. GREELEY CO. FALLOW GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHELS					YIELD AS %			93-94		1994						
		1994	1993	2-Yr. 3-Yr.		1994	OF TEST		Mois- Days ture to % Blm	Mois- Days ture to % Blm	Hds to per Blm Plnt	Lod- ging %	Plnt Ht. in.	Test Wt. lb/bu				
				1992	AVG.		AVG.	AVERAGE							1992			
<b>EARLY HYBRIDS</b>																		
MYCOGEN	ORO ALPHA	56	73	66	64	65	76	73	116	14	66	13	68	1.8	8.3	42	58	
AGRIPRO	AP 9135	66--	--	--	--	--	89--	--	--	--	--	13	69	1.6	5	42	58	
---	EARLY CHECK	C 305	67--	--	--	--	91--	--	--	--	--	13	70	2	8.3	49	57	
PIONEER	8771	77	109--	--	93--	--	105	109--	--	13	67	13	70	2.9	6.7	44	59	
PIONEER	8699	82	111	78	96	90	111	111	137	13	68	13	71	2.4	3.3	44	59	
TRIUMPH	TRX22412 EXP	60--	--	--	--	--	82--	--	--	--	--	13	73	2.4	11.7	43	59	
CARGILL	607E	70	108	80	89	86	95	108	141	14	73	13	75	2	3.3	41	58	
ICI	5643	79--	--	--	--	--	107--	--	--	--	--	13	77	2.5	23.3	45	59	
DELTAPINE	1482	76	107	70	92	85	103	108	123	14	74	13	78	1.7	0	41	58	
DEKALB	DK-38y	85	94	64	90	81	116	94	112	14	71	14	73	2.5	0	39	59	
---	EARLY CHECK	TX3042 x TX2737	69	116	78	93	88	94	117	137	15	72	14	75	2.2	3.3	46	58
DEKALB	DK-39	74--	--	--	--	--	100--	--	--	--	--	14	76	2	8.3	44	59	
DEKALB	DK-40y	78	114	61	96	84	106	114	107	15	74	14	76	2	0	45	60	
OHLDE	222C	78--	--	--	--	--	106--	--	--	--	--	14	76	1.8	0	43	60	
OHLDE	700	78--	--	--	--	--	105--	--	--	--	--	14	82	1.9	0	45	59	
AGRIPRO	AP 9210	84--	--	--	--	--	114--	--	--	--	--	16	85	2	0	43	59	
Early Average		74	100	57	87	77	100	100	100	14	73	14	75	2.1	5.1	44	59	
Early C.V.(%)		12--	--	--	--	--	12--	--	--	--	--	2	1	11.3	107	5	1	
Early LSD(.05)*		12	13	10--	--	--	16	13	18--	--	--	0	1	0.3	7.5	3	0	
<b>MEDIUM HYBRIDS</b>																		
---	MED CHECK	RS 610	50	86	57	68	64	70	96	100	14	71	13	72	1.8	8.3	47	57
CROSBYTON	GW5770	53--	--	--	--	--	74--	--	--	--	--	13	75	1.6	3.3	44	60	
MYCOGEN	T-E GAGE	80	97	72	89	83	111	108	126	15	73	13	75	2.2	1.7	47	60	
MYCOGEN	T-E HARDY	79	93--	--	86--	--	109	104--	--	14	75	14	75	1.8	0	43	60	
CASTERLINE	SR317EW	73--	--	--	--	--	101--	--	--	--	--	14	77	1.9	0	41	59	
CASTERLINE	SR 315E	84	107	67	95	86	117	118	117	14	78	14	79	2.1	1.7	39	58	
DEKALB	DK-41y	55	90	55	72	66	76	99	96	15	76	14	79	2.4	0	41	60	
PIONEER	8522Y	73--	--	--	--	--	101--	--	--	--	--	14	81	1.9	0	45	60	
---	MED CHECK	OK11 x TX2741	73--	--	--	--	102--	--	--	--	--	14	82	1.6	0	44	58	
CROSBYTON	GW5970	69--	--	--	--	--	96--	--	--	--	--	14	85	1.5	0	46	60	
PIONEER	8500	87--	--	--	--	--	122--	--	--	--	--	15	75	2.2	1.7	45	59	
CARGILL	737	79--	--	--	--	--	110--	--	--	--	--	15	85	1.6	0	42	57	
CARGILL	575	76	77	33	76	62	105	85	58	16	85	15	89	1.8	0	44	58	
---	MED CHECK	WHTLND x TX2737	72--	--	--	--	100--	--	--	--	--	17	91	1.9	0	42	57	
CARGILL	727	69	68	41	69	59	96	76	72	16	88	17	93	1.7	0	45	55	
CARGILL	797	78	74	35	76	62	109	82	61	17	88	17	93	1.8	0	43	57	
Med. Average		72	90	57	81	73	100	100	100	15	79	15	82	1.9	1	44	58	
Med. C.V.(%)		12--	--	--	--	--	12--	--	--	--	--	6	2	12.4	197	5	1	
Med. LSD(.05)*		15	18	10--	--	--	20	20	18--	--	--	1	2	0.3	2.8	3	1	
<b>LATE HYBRIDS</b>																		
DELTAPINE	1506	84	109	69	96	87	114	121	120	15	76	14	78	1.6	0	53	60	
TRIUMPH	TR 65G	67--	--	45--	--	--	91--	--	79--	--	--	15	88	1.6	0	44	58	
---	LATE CHECK	TX2752 x TX430	80	77	21	79	60	109	86	37	18	88	18	94	1.5	0	47	56
---	LATE CHECK	TX2752 x TX2783	64--	--	--	--	87--	--	--	--	--	19	93	1.4	0	48	57	
Late Average		74	90	57	82	74	100	100	100	16	83	17	88	1.5	0	48	58	
Late C.V.(%)		6--	--	--	--	--	6--	--	--	--	--	3	1	9.6	--	3	1	
Late LSD(.05)*		7	18	10--	--	--	10	20	18--	--	--	1	2	NS	--	2	1	
Test Averages		72--	--	57--	--	--	100--	--	100--	--	--	14	79	1.9	2.7	44	58	
C.V.(%)		13--	--	--	--	--	13--	--	--	--	--	4	2	11.8	143	5	1	
L.S.D.(.05)**		15--	--	10--	--	--	----	--	18--	--	--	1	2	0.4	6.4	3	1	

\* L.S.D. for comparing hybrids within a maturity grouping.

\*\* L.S.D. for comparing hybrids in different maturity groups.

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

**WEST CENTRAL KANSAS  
IRRIGATED**

**LOCATION:** Southwest Research-Extension Center  
Near Tribune in **Greeley County**

**COOPERATORS:** Alan Schlegel, agronomist  
Dave Frickel and Scott Selee, technicians  
Patrick Coyne, head

**TEST SITE:** Ulysses silt loam  
Fallow in 1993 and sorghum in 1992

**FERTILIZATION:** 135 lbs N/acre preplant  
75 lbs P<sub>2</sub>O<sub>5</sub>

**PLANTING DATE:** May 24

**HARVEST DATE:** October 26

**PEST CONTROL:** Good  
Ramrod and Atrazine after planting

**POPULATION:** 70,000 plants/acre, 3 in. spacing

**EARLY MEDIUM LATE ALL**

**TEST YIELDS:**

Avg. (bu/a):	137	135	154	146
Range (bu/a):	126-147	106-158	138-176	106-176
L.S.D. (bu/a):	11.9	9.3	11.8	12.6
C.V. (%):	4.4	4.8	5.5	5.3

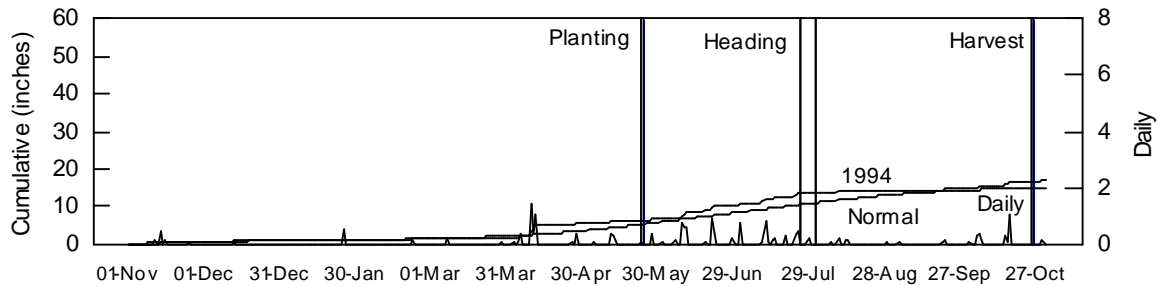
**BLOOM DATES:** 7/26-8/4 7/28-8/14 7/31-8/16 7/26-8/16

**IRRIGATION:** 2.5-3.0 in. per irrigation, applied  
7/14, 8/10, 8/23 and 9/12

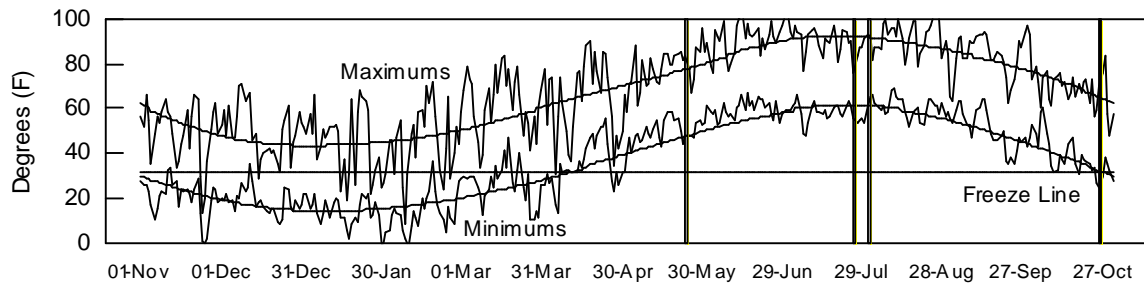
**1994 GROWING CONDITIONS:**

Generally favorable growing conditions. Disease and insect damage was minimal.

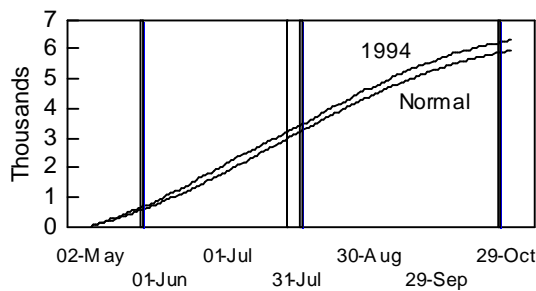
**PRECIPITATION**



**DAILY TEMPERATURES**



**GROWING DEGREE DAYS**



**GROWING-SEASON WEATHER SUMMARY**

Month	Precipitation		Average Temp.		GDD	
	1994	Normal	1994	Normal	1994	Normal
April	3.7	1.4	49	50	0	0
May	1.3	2.4	64	60	941	818
June	3.6	2.5	76	71	1251	1102
July	3.4	2.5	74	76	1246	1309
August	0.7	2.2	75	74	1317	1267
Sep.	0.3	1.2	68	65	1012	934
Oct.	2.3	0.7	53	53	579	571
Season Totals	15.2	12.9	66	64	6346	6000



**TABLE 14. GREELEY CO. IRR. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHELS					YIELD AS %			93-94		1994			
		1994	1993	2-Yr. 3-Yr.		1994	OF TEST		Mois- Days ture to	% Blm	Mois-DaysHds ture to per	Lod- ging	Plnt Ht.	Test Wt.	
				1992	AVG.		AVG.	AVERAGE							1992
<b>EARLY HYBRIDS</b>															
---	EARLY CHECK	C 305	129--	--	--	--	94--	--	--	--	14	63--	--	48	57
---	EARLY CHECK	TX3042 x TX2737	144	129	124	136	132	106	101	147	14	66	--	50	60
	DELTAPINE	1490Y	126--	--	--	--	93--	--	--	--	15	68--	--	43	60
	WILSON	513E	147	145--		146--	108	114--		14	71	--	45	60	
	Early Average		137	128	84	132	116	100	100	100	14	70	--	47	59
	Early C.V.(%)		4--	--	--	--	4--	--	--	--	1	2--	--	3	1
	Early LSD(.05)*		12	18	15--	--	9	14	18--	--	0	2--	--	3	1
<b>MEDIUM HYBRIDS</b>															
---	MED CHECK	RS 610	106	114	85	110	102	78	90	101	14	64	--	47	58
	PIONEER	8505	130	134	116	132	127	96	105	137	14	67	--	43	61
	MYCOGEN	T-E HARDY	128--	--	--	--	95--	--	--	--	14	69--	--	42	61
	DEKALB	DK-48	128	123	114	126	122	95	97	136	14	70	--	44	60
---	MED CHECK	OK11 x TX2741	141--	--	--	--	105--	--	--	--	15	73--	--	42	61
	WILSON	515W	130	121--		125--	96	95--		14	72	--	46	60	
	DELTAPINE	1505Y	148--	--	--	--	109--	--	--	--	16	77--	--	45	61
---	MED CHECK	WHTLND x TX2737	148--	--	--	--	109--	--	--	--	16	80--	--	43	59
	CARGILL	797	158	125	81	142	121	117	98	97	15	80	--	43	58
	Med. Average		135	128	84	131	116	100	100	100	14	72	--	44	60
	Med. C.V.(%)		5--	--	--	--	5--	--	--	--	2	2--	--	5	1
	Med. LSD(.05)*		9	18	15--	--	7	14	18--	--	0	2--	--	NS	0
<b>LATE HYBRIDS</b>															
	DELTAPINE	1506	149	132	106	140	129	97	103	126	14	68	--	57	60
	CARGILL	837	153	112	131	132	132	99	102	155	15	72	--	51	60
	DEKALB	DK-54	146--	--	--	--	95--	--	--	--	15	73--	--	52	60
	DEKALB	DK-55	143--	--	--	--	93--	--	--	--	15	75--	--	49	59
	HYPERFORMER	HSC CHEROKEE	147	132--		140--	96	103--		15	77	--	48	60	
	MYCOGEN	444E	153	135	75	144	121	99	106	89	15	76	--	46	58
	PIONEER	8310	156	123--		140--	101	112--		15	76	--	48	60	
---	LATE CHECK	TX2752 x TX430	162	124	87	143	124	105	112	103	15	77	--	47	59
	DEKALB	DK-51	138	134--		136--	89	105--		15	78	--	46	59	
	PIONEER	8212Y	147--	--	--	--	96--	--	--	--	16	80--	--	46	60
	HYPERFORMER	HY 1320	175--	--	--	--	114--	--	--	--	17	83--	--	49	60
	DEKALB	DK-58	158	116	76	137	117	103	106	91	16	80	--	49	57
---	LATE CHECK	TX2752 x TX2783	176--	--	--	--	114--	--	--	--	18	84--	--	51	59
	Late Average		154	110	84	132	116	100	100	100	15	76	--	49	60
	Late C.V.(%)		6--	--	--	--	6--	--	--	--	3	2--	--	5	1
	Late LSD(.05)*		12	17	15--	--	8	16	18--	--	1	2--	--	4	1
	Test Averages		146--		84--	--	100--		100--	--	15	75--	--	47	60
	C.V.(%)		5--	--	--	--	5--	--	--	--	2	2--	--	5	1
	L.S.D.(.05)**		13--		15--	--	----		18--	--	1	2--	--	4	1

\* L.S.D. for comparing hybrids within a maturity grouping.

\*\* L.S.D. for comparing hybrids in different maturity groups.

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

**SOUTHWESTERN KANSAS  
FALLOW**

**LOCATION:** Southwest Research-Extension Center  
Near Garden City in **Finney County**

**COOPERATORS:** Merle Witt, agronomist  
Patrick Coyne, head

**TEST SITE:** Keith silt loam  
Fallow in 1993 and wheat in 1992

**FERTILIZATION:** 70 lbs N/acre preplant

**PLANTING DATE:** May 24

**HARVEST DATE:** November 2

**PEST CONTROL:** Good  
Ramrod/Atrazine at planting

**POPULATION:** 17,000 plants/acre, 12 in. spacing

**EARLY MEDIUM LATE ALL**

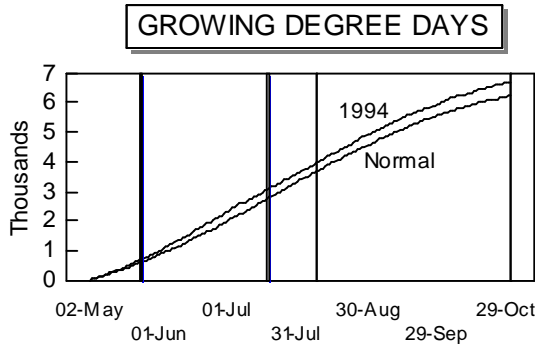
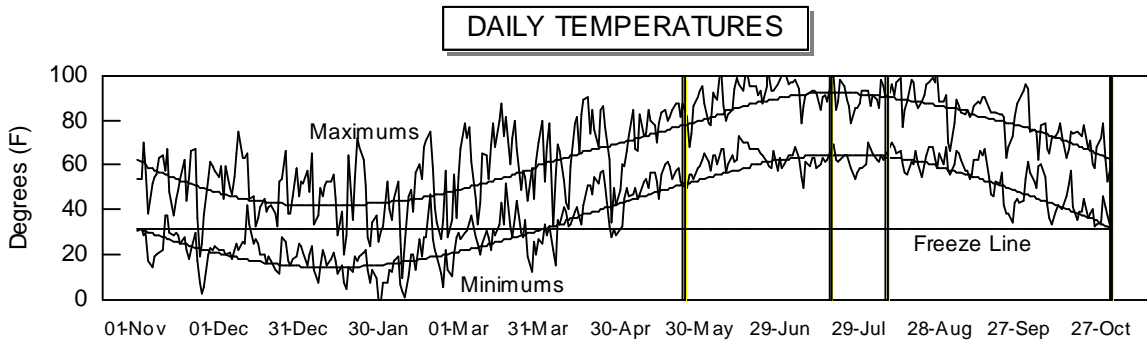
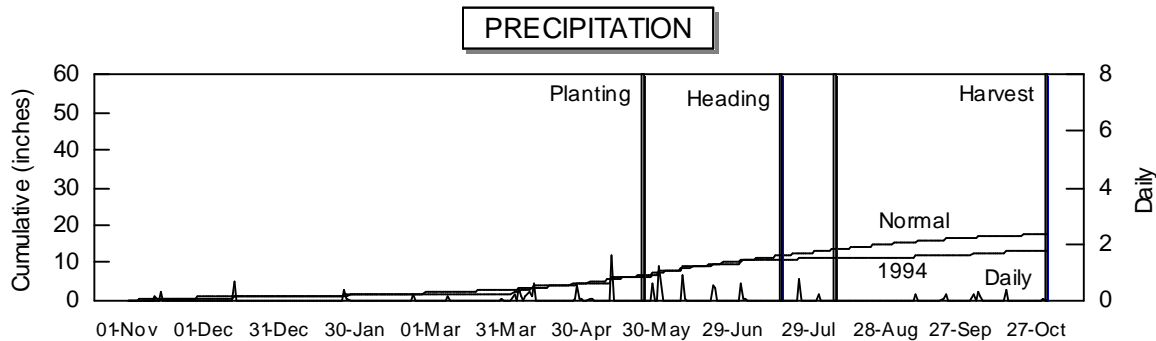
**YIELDS:**

Avg. (bu/a):	72	84	91	81
Range (bu/a):	56-100	64-102	77-104	56-104
L.S.D. (bu/a):	9.3	11.6	16.6	13.4
C.V. (%):	7.6	8.0	10.3	10.2

**BLOOM DATES:** 7/18-7/28 7/21-8/6 7/28-8/8 7/18-8/8

**1994 GROWING CONDITIONS:**

Timely and abundant rains helped most hybrids to produce outstanding dryland yields. Yields were likely limited for some hybrids because of heavy greenbug infestations.



**GROWING-SEASON WEATHER SUMMARY**

Month	Precipitation		Average Temp.		GDD	
	1994	Normal	1994	Normal	1994	Normal
April	2.5	1.7	52	51	0	0
May	3.6	2.9	67	62	1015	876
June	2.0	2.9	78	72	1332	1153
July	1.5	2.5	76	78	1311	1354
August	0.2	2.2	77	75	1373	1312
Sep.	0.5	1.6	69	67	1044	976
Oct.	1.1	1.0	56	54	672	605
Season Totals	11.4	14.8	68	66	6747	6275

**TABLE 15. FINNEY CO. FALLOW GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHELS					YIELD AS %			93-94		1994						
		1994	1993	1992	2-Yr. 3-Yr.		OF TEST			Mois- Days ture to % Blm	Mois- Days ture to % Blm	Hds Lod- per ging Plnt %	Plnt Ht.	Test Wt. in. lb/bu				
					AVG.	AVG	1994	1993	1992									
<b>EARLY HYBRIDS</b>																		
---	EARLY CHECK	C 305	61	--	--	--	--	85	--	--	--	--	12	55	--	81.7	41	55
	PIONEER	8699	74	50	32	62	52	103	94	118	14	59	13	56	--	41.7	37	54
	AGRIPRO	AP 9135	56	--	--	--	--	78	--	--	--	--	13	57	--	93.3	38	53
	MYCOGEN	T-E ELITE	71	57	--	64	--	98	107	--	13	61	13	57	--	78.3	37	55
	ICI	5643	75	--	--	--	--	103	--	--	--	--	13	58	--	73.3	41	57
	TRIUMPH	TRX22412 EXP	65	--	--	--	--	90	--	--	--	--	13	58	--	38.3	38	57
---	EARLY CHECK	TX3042 x TX2737	59	57	33	58	49	82	106	119	14	62	13	59	--	86.7	41	54
	NORTHROP-KING	KS-383Y	71	59	31	65	53	98	110	112	13	62	13	59	--	36.7	35	56
	ASGROW	SENECA	60	62	29	61	51	84	116	107	14	64	13	60	--	70	36	55
	GOLDEN HARVEST	H-403	82	--	--	--	--	113	--	--	--	--	13	60	--	63.3	36	57
	NC+	6B50	70	--	--	--	--	97	--	--	--	--	13	60	--	63.3	40	55
	OHLDE	222C	69	--	--	--	--	95	--	--	--	--	13	60	--	58.7	36	57
	DEKALB	DK-38y	71	60	24	65	52	99	111	88	13	64	13	61	--	41.7	36	54
	CARGILL	607E	71	59	33	65	54	99	110	119	14	64	13	62	--	35	37	56
	OHLDE	214	85	--	--	--	--	117	--	--	--	--	13	62	--	45	38	58
	TRIUMPH	TR 459	70	56	31	63	52	97	105	112	14	66	13	63	--	66	39	58
	PIONEER	8771	88	63	30	75	60	121	117	111	14	60	14	56	--	25	43	57
	OHLDE	159	77	--	--	--	--	107	--	--	--	--	14	59	--	29	36	58
	DELTAPINE	1490Y	70	--	--	--	--	97	--	--	--	--	14	60	--	30.7	40	59
	AGRIPRO	AP 9210	81	--	--	--	--	112	--	--	--	--	14	62	--	38.3	36	59
	DEKALB	DK-39	81	--	--	--	--	113	--	--	--	--	14	62	--	41.7	38	58
	GOLDEN HARVEST	H-388W	60	54	31	57	48	83	87	114	14	66	14	64	--	41	40	57
	OHLDE	700	65	--	--	--	--	90	--	--	--	--	14	64	--	71.7	39	58
	ICI	5616	100	50	29	75	60	138	93	106	14	67	14	65	--	11.7	39	59
	Early Average		72	53	27	63	51	100	100	100	14	63	13	60	--	52.6	38	57
	Early C.V.(%)		8	--	--	--	--	8	--	--	--	--	4	2	--	50.8	7	3
	Early LSD(.05)*		9	9	5	--	--	13	17	18	--	--	NS	1	--	36.6	4	2
<b>MEDIUM HYBRIDS</b>																		
---	MED CHECK	RS 610	68	42	34	55	48	81	68	125	14	61	13	58	--	41.7	42	56
	CROSBYTON	GW5770	64	--	--	--	--	77	--	--	--	--	13	61	--	57.7	41	58
	MYCOGEN	T-E HARDY	73	60	--	67	--	88	97	--	14	63	14	60	--	28.3	36	58
	CARGILL	737	91	--	--	--	--	109	--	--	--	--	14	62	--	31.7	41	58
	CROSBYTON	GW5970	80	--	--	--	--	95	--	--	--	--	14	63	--	30	41	59
	PIONEER	8500	89	--	--	--	--	107	--	--	--	--	14	63	--	42	39	59
	NORTHROP-KING	KS-560Y	78	64	37	71	60	93	104	135	14	65	14	64	--	36.7	35	58
	CASTERLINE	SR 319E	102	68	24	85	64	122	109	87	15	69	14	65	--	48.3	40	58
---	MED CHECK	OK11 x TX2741	73	--	--	--	--	88	--	--	--	--	14	67	--	41	38	58
---	MED CHECK	WHTLND x TX2737	83	--	--	--	--	99	--	--	--	--	14	70	--	33.3	37	57
	DEKALB	DK-41y	98	59	25	78	61	117	94	92	15	69	15	68	--	17.3	39	59
	CARGILL	575	86	58	24	72	56	103	93	89	15	72	15	73	--	9	41	59
	CARGILL	727	98	64	23	81	61	117	103	84	15	75	15	74	--	3.3	42	58
	CARGILL	797	87	61	28	74	59	104	98	104	15	74	15	74	--	28.3	37	57
	Med. Average		84	62	27	73	58	100	100	100	15	68	14	66	--	32	39	58
	Med. C.V.(%)		8	--	--	--	--	8	--	--	--	--	4	2	--	58.2	4	2
	Med. LSD(.05)*		12	8	5	--	--	14	13	18	--	--	1	2	--	NS	2	NS

(continued)

**TABLE 15. FINNEY CO. FALLOW GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHELS					YIELD AS %			93-94		1994					
		1994	1993	1992	2-Yr. AVG.	3-Yr. AVG.	OF TEST			Mois- ture %	Days to Blm	Mois- Days to Blm	Hds per Plnt	Lod- ging %	Plnt Ht. in.	Test Wt. lb/bu	
							1994	1993	1992								AVERAGE
<b>LATE HYBRIDS</b>																	
DELTAPINE	1506	86	61	28	73	58	95	98	103	15	67	14	65	--	43.7	44	58
PIONEER	8446	88	--	--	--	--	96	--	--	--	--	14	65	--	2.7	38	59
TRIUMPH	TR 55Y	77	70	--	73	--	84	112	--	15	68	14	66	--	71	41	57
MYCOGEN	444E	95	--	--	--	--	104	--	--	--	--	15	68	--	8.3	38	58
HYPERFORMER	HSC CHEROKEE	104	67	20	86	64	114	109	73	15	73	15	71	--	12	40	59
OHLDE	240W	86	--	--	--	--	95	--	--	--	--	15	71	--	1.7	41	59
---	LATE CHECK TX2752 x TX430	89	68	19	79	59	98	110	69	15	72	15	72	--	28.3	40	58
NORTHRUP-KING	KS-714Y	93	72	23	83	63	102	117	85	16	72	16	73	--	16.7	39	59
---	LATE CHECK TX2752 x TX2783	101	--	--	--	--	111	--	--	--	--	16	75	--	8.3	43	59
HYPERFORMER	HY 1320	93	68	--	80	--	102	109	--	16	76	16	76	--	8.3	43	59
Late Average		91	62	27	77	60	100	100	100	15	70	15	70	--	20.1	41	59
Late C.V.(%)		10	--	--	--	--	10	--	--	--	--	5	3	--	88.4	3	2
Late LSD(.05)*		17	8	5	--	--	18	13	18	--	--	1	2	--	25.2	2	NS
Test Averages		81	--	27	--	--	100	--	100	--	--	14	64	--	39.8	39	57
C.V.(%)		10	--	--	--	--	10	--	--	--	--	4	2	--	57.7	6	3
L.S.D.(.05)**		13	--	5	--	--	--	--	18	--	--	1	2	--	37.4	4	2

\* L.S.D. for comparing hybrids within a maturity grouping.

\*\* L.S.D. for comparing hybrids in different maturity groups.

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

**SOUTHWESTERN KANSAS  
IRRIGATED**

**LOCATION:** Southwest Research-Extension Center  
Near Garden City in **Finney County**

**COOPERATORS:** Merle Witt, agronomist  
Patrick Coyne, head

**TEST SITE:** Keith silt loam  
Fallow in 1993 and grain sorghum in 1992

**FERTILIZATION:** 150 lbs N/acre preplant

**PLANTING DATE:** May 24

**HARVEST DATE:** October 25

**PEST CONTROL:** Good  
Ramrod/Atrazine at planting

**POPULATION:** 70,000 plants/acre, 3 in. spacing

**EARLY MEDIUM LATE ALL**

**TEST YIELDS:**

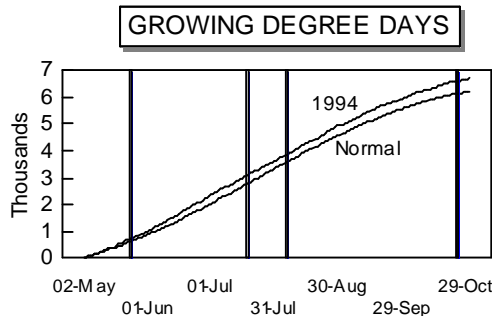
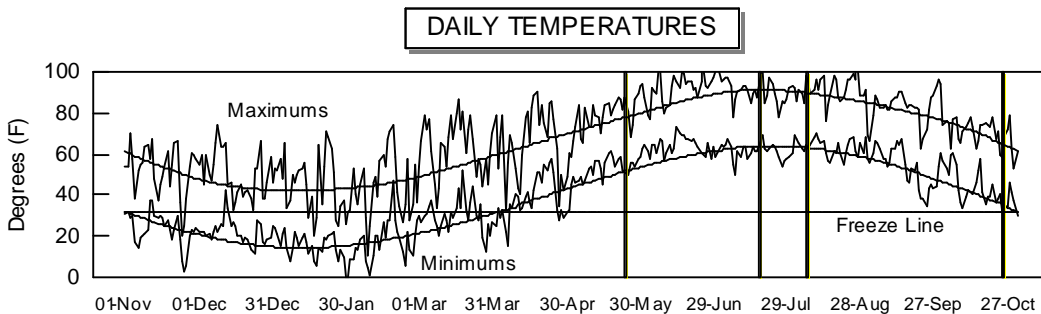
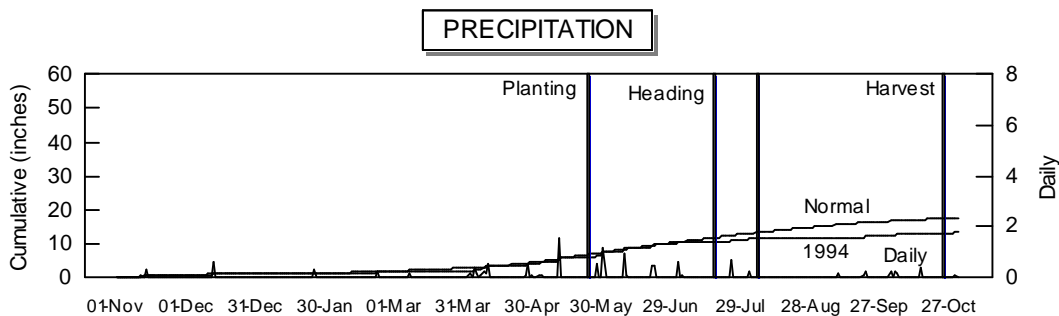
Avg. (bu/a):	125	136	146	141
Range (bu/a):	109-142	113-161	140-187	109-140
L.S.D. (bu/a):	11.1	14.4	12.9	15.0
C.V. (%):	5.6	6.1	5.2	6.6

**BLOOM DATES:** 7/18-7/26 7/22-8/2 7/22-7/30 7/27-8/6

**IRRIGATION:** Irrigated preplanting and 12 in. total, applied 7/12 and 8/10

**1994 GROWING CONDITIONS:**

Growing conditions favored sorghum production. A heavy infestation of greenbugs developed in one replication in August.



**GROWING-SEASON WEATHER SUMMARY**

Month	Precipitation		Average Temp.		GDD	
	1994	Normal	1994	Normal	1994	Normal
April	2.5	1.7	52	51	0	0
May	3.6	2.9	67	62	1015	876
June	2.0	2.9	78	72	1332	1153
July	1.5	2.5	76	78	1311	1354
August	0.2	2.2	77	75	1373	1312
Sep.	0.5	1.6	69	67	1044	976
Oct.	1.1	1.0	56	54	672	605
Season Totals	11.4	14.8	68	66	6747	6275

**TABLE 16. FINNEY CO. IRR. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHEL					YIELD AS %			93-94		1994						
		1994	1993	2-Yr. 3-Yr.		AVG	OF TEST			Mois- Days ture to % Blm	Mois-Days ture to % Blm	Hds Lod- per ging Plnt %	Plnt Ht. in. lb/bu	Test Wt.				
				AVG	AVG		1994	1993	1992									
<b>EARLY HYBRIDS</b>																		
---	EARLY CHECK	C 305	119	--	--	--	--	95	--	--	--	--	13	55	--	0	49	56
---	EARLY CHECK	TX3042 x TX2737	109	141	107	125	119	87	90	82	13	63	13	61	--	8.7	53	58
NC+		Y363	131	--	--	--	--	105	--	--	--	--	13	63	--	0	54	60
	TRIUMPH	TR 459	142	164	--	153	--	114	105	--	14	66	13	63	--	0	49	60
	Early Average		125	156	131	141	137	100	100	100	13	65	13	60	--	2.2	51	59
	Early C.V.(%)		6	--	--	--	--	6	--	--	--	--	2	1	--	327	2	1
	Early LSD(.05)*		11	18	19	--	--	9	12	15	--	--	0	1	--	NS	2	1
<b>MEDIUM HYBRIDS</b>																		
---	MED CHECK	RS 610	113	131	117	122	120	83	84	89	12	61	13	59	--	0	51	58
	NORTHRUP-KING	KS-555Y	132	--	--	--	--	97	--	--	--	--	13	60	--	1.7	51	60
---	MED CHECK	OK11 x TX2741	116	--	--	--	--	86	--	--	--	--	13	63	--	3.3	50	59
	WILSON	535Y	152	156	127	154	145	112	100	97	13	66	13	64	--	0	57	60
	DEKALB	DK-48	138	159	131	149	143	102	102	100	13	69	13	66	--	0	52	60
---	MED CHECK	WHTLND x TX2737	126	--	--	--	--	92	--	--	--	--	13	67	--	0.7	49	58
	ASGROW	A570	161	--	--	--	--	118	--	--	--	--	13	68	--	0	59	60
	WILSON	522W	113	141	123	127	126	83	91	94	13	70	13	69	--	0	54	59
	CARGILL	797	135	152	--	144	--	100	97	--	13	72	13	70	--	0	51	58
	AGRIPRO	AP 686	148	152	148	150	149	109	97	113	14	69	14	66	--	0	55	61
NC+		7R37E	147	--	--	--	--	108	--	--	--	--	14	66	--	0	54	60
	ICI	5503	150	157	142	153	150	110	100	108	14	70	14	67	--	0	55	60
	GRI	06943	136	--	--	--	--	100	--	--	--	--	14	68	--	0	55	60
	Med. Average		136	156	131	146	141	100	100	100	13	68	13	66	--	0.4	53	59
	Med. C.V.(%)		6	--	--	--	--	6	--	--	--	--	1	2	--	395	2	1
	Med. LSD(.05)*		14	18	19	--	--	11	12	15	--	--	0	2	--	NS	2	1

(continued)

**TABLE 16. FINNEY CO. IRR. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1992-94.**

BRAND	HYBRID	ACRE YIELD, BUSHELS					YIELD AS %			93-94		1994					
		1994	1993	1992	2-Yr. AVG.	3-Yr. AVG.	OF TEST AVERAGE			Mois- ture %	Days to Blm	Mois-Days to Blm %	Hds per Plnt	Lod- ging %	Plnt Ht. in.	Test Wt. lb/bu	
							1994	1993	1992								
<b>LATE HYBRIDS</b>																	
DELTAPINE	1506	147	158	--	153	--	101	101	--	13	67	13	64	--	0	58	60
CARGILL	837	128	135	140	131	134	87	96	107	14	68	13	65	--	0	54	60
MYCOGEN	444E	135	160	--	147	--	92	103	--	13	68	13	66	--	13.3	51	59
NORTHRUP-KING	KS-735	142	--	--	--	--	97	--	--	--	--	13	66	--	20	51	59
TRIUMPH	TR 65G	143	169	--	156	--	98	109	--	14	68	13	67	--	0	50	60
WILSON	568E	141	129	--	135	--	97	93	--	14	69	13	67	--	0	58	60
NC+	7B90	136	--	--	--	--	94	--	--	--	--	13	68	--	0	50	59
PIONEER	8310	162	135	--	149	--	111	96	--	14	70	13	68	--	0	53	60
DEKALB	DK-55	174	--	--	--	--	119	--	--	--	--	13	69	--	0	55	59
DEKALB	DK-51	136	--	--	--	--	93	--	--	--	--	13	70	--	3.3	50	59
ICI	5536	142	156	--	149	--	97	100	--	13	70	13	70	--	0	46	61
PIONEER	8212Y	138	--	--	--	--	95	--	--	--	--	13	70	--	0	51	60
--- LATE CHECK	TX2752 x TX430	143	148	142	145	144	98	106	108	14	71	13	71	--	0	51	60
TRIUMPH	TRX25222 EXP	146	--	--	--	--	100	--	--	--	--	13	71	--	0.7	53	60
MYCOGEN	X9407 EXP	143	--	--	--	--	98	--	--	--	--	13	72	--	0	53	59
HYPERFORMER	HSC CHEROKEE	145	156	137	150	146	99	100	105	14	70	14	68	--	0	55	60
TRIUMPH	TR 481	145	--	--	--	--	99	--	--	--	--	14	68	--	0	58	60
CASTERLINE	SR 324E	169	150	156	160	158	116	107	119	14	70	14	69	--	0	55	61
DEKALB	DK-56	157	131	163	144	150	107	93	124	14	71	14	69	--	0	56	61
GOLDEN HARVEST	H-515E	149	148	126	148	141	102	106	96	14	70	14	69	--	0	53	60
DEKALB	DK-54	151	154	142	152	149	103	110	108	14	71	14	70	--	0	56	60
HYPERFORMER	HY 1320	163	164	--	164	--	112	105	--	15	72	14	70	--	0	56	62
GRI	16943	138	--	--	--	--	94	--	--	--	--	14	71	--	0	55	60
--- LATE CHECK	TX2752 x TX2783	150	--	--	--	--	103	--	--	--	--	14	72	--	0	54	61
DEKALB	DK-58	145	143	--	144	--	100	102	--	14	72	14	72	--	0	55	59
TRIUMPH	TR 82G	140	161	--	151	--	96	115	--	14	73	14	72	--	0	55	61
AGRIPRO	AP 9850	135	148	137	142	140	93	106	105	14	72	14	73	--	0	54	61
DEKALB	DK-66	161	149	148	155	153	110	107	113	14	74	14	73	--	0	60	60
GRI	21943	127	--	--	--	--	87	--	--	--	--	14	74	--	0	55	60
PIONEER	8118	149	151	--	150	--	102	108	--	14	73	14	74	--	0	57	60
Late Average		146	140	131	143	139	100	100	100	14	71	13	70	--	1.2	54	60
Late C.V.(%)		5	--	--	--	--	5	--	--	--	--	2	2	--	602	4	1
Late LSD(.05)*		13	18	19	--	--	9	13	15	--	--	0	2	--	NS	3	1
Test Averages		141	--	131	--	--	100	--	100	--	--	13	68	--	1.1	54	60
C.V.(%)		7	--	--	--	--	7	--	--	--	--	2	2	--	584	3	1
L.S.D.(.05)**		15	--	19	--	--	--	--	15	--	--	0	2	--	NS	3	1

\* L.S.D. for comparing hybrids within a maturity grouping.

\*\* L.S.D. for comparing hybrids in different maturity groups.

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

**TABLE 17. YIELD AS PERCENT OF GROUP AVERAGE FROM 1994 KANSAS DRYLAND GRAIN SORGHUM PERFORMANCE TESTS.**

BRAND	HYBRID	BRO	RIL	FRA	CHA	LAB	REP	ELL	HAR	REN	STA	THO	GRE	FIN	AVG. NO.	
<b>EARLY HYBRIDS</b>																
AGRIPRO	AP 9135	--	--	--	--	--	--	--	--	--	--	--	89	78	84	2
AGRIPRO	AP 9210	--	--	--	--	--	--	--	104	97	88	--	114	112	103	5
ASGROW	SENECA	--	124	--	--	--	--	104	--	107	99	107	--	84	104	6
CARGILL	607E	--	--	--	--	--	107	91	91	93	92	101	95	99	96	8
CENTURY II	GB5543-E	--	--	--	--	107	--	--	--	--	111	--	--	--	109	2
DEKALB	DK-38y	--	--	--	--	--	--	102	--	--	--	92	116	99	102	4
DEKALB	DK-39	--	105	--	--	--	96	105	93	90	108	108	100	113	102	9
DEKALB	DK-40y	--	97	--	--	105	108	107	104	97	106	104	106	--	104	9
DELANGE	DSA 117	--	--	--	--	--	--	--	93	--	--	--	--	--	93	1
DELTAPINE	1460A	--	--	--	--	--	--	89	--	--	--	--	--	--	89	1
DELTAPINE	1490Y	98	113	--	--	--	109	105	--	--	--	--	--	97	104	5
DELTAPINE	1482	--	--	--	--	--	--	91	108	103	106	95	103	--	101	6
GARRISON	SG-622	--	--	100	--	--	--	93	--	90	--	--	--	--	94	3
GOLDEN HARVEST	H-388W	--	--	--	--	--	86	99	--	--	--	101	--	83	92	4
GOLDEN HARVEST	H-403	--	89	--	--	--	112	--	--	--	--	101	--	113	104	4
ICI	5616	--	--	--	--	--	107	116	106	108	--	101	--	138	113	6
ICI	5643	--	--	--	--	--	--	79	--	--	101	103	107	103	99	5
MYCOGEN	ORO ALPHA	--	--	--	--	--	--	--	--	--	--	--	76	--	76	1
MYCOGEN	T-E ELITE	--	--	--	--	--	90	93	--	93	95	92	--	98	94	6
NC+	6B50	--	--	--	--	99	113	112	--	103	112	112	--	97	107	7
NC+	6B67	--	--	97	--	--	--	--	--	--	--	--	--	--	97	1
NC+	Y363	--	--	--	--	--	102	105	--	--	--	110	--	--	106	3
NORTHRUP-KING	KS-383Y	--	--	--	--	--	86	104	--	--	72	88	--	98	90	5
OHLDE	222C	--	--	--	--	96	93	103	92	100	115	96	106	95	100	9
OHLDE	159	--	--	--	--	82	86	90	--	--	--	--	--	107	91	4
OHLDE	214	93	90	105	--	112	108	115	114	100	112	110	--	117	107	11
OHLDE	700	--	--	--	--	--	--	--	--	--	88	--	105	90	94	3
PATRIOT	8608C	110	--	106	--	--	--	--	--	--	--	--	--	--	108	2
PIONEER	8606	--	--	--	--	--	--	--	112	104	111	--	--	--	109	3
PIONEER	8699	--	--	--	--	--	108	--	--	--	--	104	111	103	107	4
PIONEER	8771	--	--	--	--	--	--	--	--	--	--	104	105	121	110	3
TRIUMPH	TR 459	112	--	--	--	--	--	--	--	112	97	101	--	97	104	5
TRIUMPH	TR 46	--	--	--	--	--	--	--	--	--	--	88	--	--	88	1
TRIUMPH	TRX22412 EXP	--	--	--	--	--	101	91	--	--	107	91	82	90	94	6
---EARLY CHECK	C 305	92	96	91	--	98	100	99	91	107	87	92	91	85	94	12
---EARLY CHECK	TX3042 x TX2737	96	86	101	--	101	89	107	94	97	93	100	94	82	95	12
Early Average		100	100	100	--	100	100	100	100	100	100	100	100	100	--	--
Early C.V.(%)		6	6	5	--	4	6	9	7	7	17	6	12	8	--	--
Early LSD(.05)*		10	7	10	--	7	10	16	10	12	30	9	16	13	--	--
<b>MEDIUM HYBRIDS</b>																
AGRIPRO	AP 9690	105	--	--	--	--	--	--	--	--	--	--	--	--	105	1
ASGROW	A504	--	99	106	--	--	104	112	--	--	--	--	--	--	105	4
ASGROW	A570	117	--	114	--	109	117	--	--	111	113	--	--	--	114	6
CARGILL	X24002 EXP	103	97	103	--	103	--	--	--	--	--	--	--	--	102	4
CARGILL	575	101	98	103	--	108	95	113	101	104	115	--	105	103	104	11
CARGILL	727	--	--	--	--	--	100	112	88	93	116	103	96	117	103	8
CARGILL	737	105	112	107	--	102	109	91	116	107	89	111	110	109	106	12
CARGILL	797	--	--	--	--	--	91	110	62	87	107	101	109	104	96	8
CASTERLINE	SR 315E	--	--	--	--	--	--	--	126	106	75	96	117	--	104	5
CASTERLINE	SR 319E	--	--	--	--	--	--	--	90	108	87	--	--	122	102	4
CASTERLINE	SR317EW	--	--	--	--	--	--	97	--	--	--	--	101	--	99	2
CENTURY II	GB7042-E	--	--	98	--	93	--	--	--	105	115	--	--	--	103	4

(continued)



**TABLE 17. YIELD AS PERCENT OF GROUP AVERAGE FROM 1994 KANSAS  
DRYLAND GRAIN SORGHUM PERFORMANCE TESTS.**

BRAND	HYBRID	BRO	RIL	FRA	CHA	LAB	REP	ELL	HAR	REN	STA	THO	GRE	FIN	AVG. NO.
CENTURY II	GB8041-W	--	--	96	--	98	--	--	--	91	108	--	--	--	98 4
CROSBYTON	GW5770	--	--	--	--	--	--	83	--	102	--	--	74	77	84 4
CROSBYTON	GW5970	--	--	--	--	--	--	89	--	99	--	--	96	95	95 4
DEKALB	DK-41y	98	--	--	--	--	--	106	--	--	--	--	76	117	99 4
DEKALB	DK-48	99	102	--	--	--	--	--	--	--	--	--	--	--	101 2
DELANGE	DSA 125C	--	--	95	107	88	--	--	97	106	106	--	--	--	100 6
DELANGE	DSA 131	--	--	98	--	--	--	--	--	93	--	--	--	--	96 2
DELTAPINE	1505Y	99	91	101	--	98	105	114	125	106	--	--	--	--	105 8
FONTANELLE	EX-6920 EXP	104	--	98	--	--	--	--	--	--	--	--	--	--	101 2
FONTANELLE	5040	87	--	87	--	--	--	--	--	--	--	--	--	--	87 2
GARRISON	SG-833	--	--	96	--	--	--	105	--	107	--	--	--	--	103 3
GARRISON	SG-94041 EXP	--	--	101	--	--	--	119	--	75	--	--	--	--	98 3
GARRISON	SG-94120 EXP	--	--	111	--	--	--	113	--	104	--	--	--	--	109 3
GRI	06943	109	--	--	--	--	--	102	103	--	--	--	--	--	105 3
GRI	23943	--	--	--	--	--	--	--	86	--	--	--	--	--	86 1
HOEGEMEYER	6650	--	--	--	76	--	83	74	71	--	--	--	--	--	76 4
HOEGEMEYER	6710	--	--	--	102	--	97	--	--	--	--	--	--	--	100 2
ICI	5514Y	96	114	112	--	--	108	--	--	87	119	--	--	--	106 6
MYCOGEN	T-E EDEN	80	--	--	--	--	--	--	--	--	--	--	--	--	80 1
MYCOGEN	T-E GAGE	--	--	--	--	--	--	--	--	--	--	111	--	--	111 1
MYCOGEN	T-E HARDY	--	--	--	--	--	109	89	--	95	84	94	109	88	95 7
NC+	7R37E	109	--	--	--	108	--	--	123	113	--	--	--	--	113 4
NORTHRUP-KING	KS-524	--	--	--	--	--	87	--	98	--	--	--	--	--	93 2
NORTHRUP-KING	KS-555Y	--	--	99	--	103	98	91	--	--	--	--	--	--	98 4
NORTHRUP-KING	KS-560Y	--	--	--	--	99	91	95	117	94	95	104	--	93	99 8
NORTHRUP-KING	2656	--	--	--	--	--	--	--	--	98	--	--	--	--	98 1
OHLDE	136	93	100	92	115	--	104	100	119	--	94	--	--	--	102 8
PATRIOT	8657	89	--	89	--	--	--	--	--	--	--	--	--	--	89 2
PATRIOT	8703	110	--	117	--	--	--	--	--	--	--	--	--	--	114 2
PIONEER	8522Y	--	--	--	99	--	--	--	--	--	--	--	101	--	100 2
PIONEER	8500	--	102	--	--	103	--	104	109	116	103	--	122	107	108 8
PIONEER	8505	--	107	--	120	--	109	--	109	111	95	--	--	--	109 6
VALLEY PREMIUM	V.P. 53	--	--	--	--	--	--	--	102	--	--	--	--	--	102 1
VALLEY PREMIUM	V.P. 70	--	--	--	--	--	--	--	99	--	--	--	--	--	99 1
WILSON	522W	110	--	--	--	--	--	--	--	--	--	--	--	--	110 1
WILSON	535Y	114	--	--	--	--	--	--	--	--	--	--	--	--	114 1
---MED CHECK	OK11 x TX2741	84	96	86	82	101	97	80	72	95	92	99	102	88	90 13
---MED CHECK	RS 610	89	83	87	75	88	99	95	79	88	84	89	70	81	85 13
---MED CHECK	WHTLND x TX2737	101	101	106	124	101	98	106	110	101	105	103	100	99	104 13
Med. Average		100	100	100	100	100	100	100	100	100	100	100	100	100	-- --
Med. C.V.(%)		7	9	6	15	5	12	11	8	7	15	3	12	8	-- --
Med. LSD(.05)*		12	11	10	22	8	16	15	13	11	26	6	20	14	-- --
<b>LATE HYBRIDS</b>															
AGRIPRO	AP 9850	109	--	--	--	--	--	--	94	91	78	--	--	--	93 4
ASGROW	A603	93	--	--	--	104	--	--	--	--	--	--	--	--	99 2
CARGILL	837	95	110	96	--	99	97	107	86	104	119	--	--	--	101 9
CARGILL	857	97	97	102	--	97	--	--	--	--	--	--	--	--	98 4
CENTURY II	GB9140-E	--	--	109	--	--	--	--	--	99	90	--	--	--	99 3
DEKALB	DK-51	85	103	98	--	96	93	--	--	103	--	--	--	--	96 6
DEKALB	DK-54	113	--	104	--	113	--	--	--	--	--	--	--	--	110 3
DEKALB	DK-55	122	111	111	112	--	108	--	94	--	--	--	--	--	110 6
DEKALB	DK-56	107	93	101	107	100	108	--	99	101	108	--	--	--	103 9

(continued)

**TABLE 17. YIELD AS PERCENT OF GROUP AVERAGE FROM 1994 KANSAS DRYLAND GRAIN SORGHUM PERFORMANCE TESTS.**

BRAND	HYBRID	BRO	RIL	FRA	CHA	LAB	REP	ELL	HAR	REN	STA	THO	GRE	FIN	AVG. NO.
DEKALB	DK-58	--	82	118	--	109	108	--	--	--	--	--	--	--	104 4
DELANGE	DSA 151	--	--	99	106	95	--	--	--	--	--	--	--	--	100 3
DELTAPINE	1506	100	106	97	109	112	121	108	124	121	110	--	114	95	110 12
FONTANELLE	5588	110	--	98	--	--	--	--	--	--	--	--	--	--	104 2
GOLDEN HARVEST	H-444W	86	107	--	--	101	106	--	112	--	--	--	--	--	102 5
GOLDEN HARVEST	H-505BW	--	--	--	--	95	--	--	86	--	--	--	--	--	91 2
GRI	11943	100	--	--	--	--	--	--	--	--	--	--	--	--	100 1
GRI	16943	--	--	--	--	--	--	87	--	--	--	--	--	--	87 1
GRI	19943	108	--	--	--	--	--	108	78	--	--	--	--	--	98 3
HOEGEMEYER	671	100	--	92	101	99	87	115	90	--	--	--	--	--	98 7
HOEGEMEYER	688	113	--	91	--	97	--	--	--	--	--	--	--	--	100 3
HOEGEMEYER	6622	--	--	--	76	--	80	98	91	--	--	--	--	--	86 4
HOEGEMEYER	6878	107	--	100	--	100	--	91	--	--	--	--	--	--	100 4
HYPERFORMER	HSC 1289C	86	--	88	--	96	--	--	--	--	84	--	--	--	89 4
HYPERFORMER	HSC CHEROKEE	88	--	108	--	102	101	--	--	--	87	--	--	114	100 6
HYPERFORMER	HY 1320	107	--	95	--	101	106	--	--	--	--	--	--	102	102 5
ICI	5536	106	99	96	--	102	--	--	115	103	--	--	--	--	104 6
MYCOGEN	444E	100	102	98	89	103	105	105	100	101	98	--	--	104	100 11
MYCOGEN	466W	--	95	--	102	89	97	--	108	95	97	--	--	--	98 7
NC+	272	--	--	--	--	90	--	--	--	--	--	--	--	--	90 1
NC+	371	93	--	95	--	--	--	--	--	--	--	--	--	--	94 2
NC+	472	98	--	--	--	--	--	--	--	--	--	--	--	--	98 1
NORTHRUP-KING	KS-710	95	--	101	114	95	--	--	99	101	98	--	--	--	100 7
NORTHRUP-KING	KS-714Y	88	--	98	100	--	--	--	--	97	105	--	--	102	98 6
NORTHRUP-KING	KS-735	100	114	94	105	94	98	--	100	97	103	--	--	--	101 9
OHLDE	240W	100	92	89	72	--	86	--	105	102	111	--	--	95	95 9
OHLDE	246Y	100	91	100	96	--	--	--	127	--	--	--	--	--	103 5
OHLDE	134	--	92	104	--	105	101	--	--	--	--	--	--	--	101 4
OHLDE	350	100	93	108	--	--	110	--	--	--	--	--	--	--	103 4
PATRIOT	8766	107	--	108	--	--	--	--	--	--	--	--	--	--	108 2
PIONEER	8212Y	100	--	--	--	99	--	--	--	107	--	--	--	--	102 3
PIONEER	8305	98	--	92	--	102	--	--	--	--	--	--	--	--	97 3
PIONEER	8310	--	103	95	97	--	--	--	--	--	--	--	--	--	98 3
PIONEER	8446	--	--	--	--	--	86	--	--	--	--	--	--	96	91 2
TRIUMPH	TR 481	--	--	97	102	100	--	--	--	113	110	--	--	--	104 5
TRIUMPH	TR 55Y	--	--	--	--	--	--	71	--	--	--	--	--	84	78 2
TRIUMPH	TR 65G	87	--	103	103	102	--	--	--	105	--	--	91	--	99 6
TRIUMPH	TR 82G	--	--	102	107	100	--	--	--	--	--	--	--	--	103 3
TRIUMPH	TRX25222 EXP	--	--	108	--	107	--	--	--	85	--	--	--	--	100 3
VALLEY PREMIUM	V.P. 85	--	--	--	--	--	--	--	89	--	--	--	--	--	89 1
VALLEY PREMIUM	V.P. 90	--	--	--	--	--	--	--	99	--	--	--	--	--	99 1
WILSON	568E	95	--	--	--	--	--	--	--	--	--	--	--	--	95 1
---LATE CHECK	TX2752 x TX2783	110	112	107	106	98	98	100	104	83	89	93	87	111	100 13
---LATE CHECK	TX2752 x TX430	99	98	100	98	97	104	111	101	92	116	107	109	98	102 13
Late Average		100	100	100	100	100	100	100	100	100	100	100	100	100	-- --
Late C.V.(%)		7	10	6	16	4	5	8	12	8	8	5	6	10	-- --
Late LSD(.05)*		12	14	10	23	7	8	13	16	13	14	11	10	18	-- --

\* L.S.D. for comparing hybrids within a maturity grouping.

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

NO. = Number of tests included in calculated average. Greater confidence can be placed in an average based on a greater number of tests.

**TABLE 18. YIELD AS PERCENT OF GROUP AVERAGE FROM 1994 KANSAS IRRIGATED GRAIN SORGHUM PERFORMANCE TESTS.**

BRAND	HYBRID	THO	GRE	FIN	AVG.	NO.
<b>EARLY HYBRIDS</b>						
DELTAPINE	1490Y	97	93	--	95	2
GOLDEN HARVEST	H-388W	108	--	--	108	1
NC+	6B50	102	--	--	102	1
NC+	Y363	--	--	105	105	1
TRIUMPH	TR 459	--	--	114	114	1
WILSON	513E	--	108	--	108	1
---EARLY CHECK	C 305	92	94	95	94	3
---EARLY CHECK	TX3042 x TX2737	102	106	87	98	3
Early Average		100	100	100	--	--
Early C.V.(%)		4	4	6	--	--
Early LSD(.05)*		9	9	9	--	--
<b>MEDIUM HYBRIDS</b>						
AGRIPRO	AP 686	--	--	109	109	1
ASGROW	A570	125	--	118	122	2
CARGILL	797	106	117	100	108	3
CASTERLINE	SR 319E	114	--	--	114	1
DEKALB	DK-48	106	95	102	101	3
DELTAPINE	1505Y	103	109	--	106	2
GRI	06943	--	--	100	100	1
ICI	5503	--	--	110	110	1
MYCOGEN	T-E HARDY	--	95	--	95	1
NC+	7R37E	--	--	108	108	1
NORTHRUP-KING	KS-555Y	86	--	97	92	2
PIONEER	8505	90	96	--	93	2
WILSON	515W	--	96	--	96	1
WILSON	522W	--	--	83	83	1
WILSON	535Y	--	--	112	112	1
---MED CHECK	OK11 x TX2741	94	105	86	95	3
---MED CHECK	RS 610	79	78	83	80	3
---MED CHECK	WHTLND x TX2737	99	109	92	100	3
Med. Average		100	100	100	--	--
Med. C.V.(%)		5	5	6	--	--
Med. LSD(.05)*		9	7	11	--	--

(continued)

**TABLE 18. YIELD AS PERCENT OF GROUP AVERAGE FROM 1994 KANSAS IRRIGATED GRAIN SORGHUM PERFORMANCE TESTS.**

BRAND	HYBRID	THO	GRE	FIN	AVG.	NO.
<b>LATE HYBRIDS</b>						
AGRIPRO	AP 9850	--	--	93	93	1
CARGILL	837	--	99	87	93	2
CASTERLINE	SR 324E	--	--	116	116	1
DEKALB	DK-51	99	89	93	94	3
DEKALB	DK-54	102	95	103	100	3
DEKALB	DK-55	105	93	119	106	3
DEKALB	DK-56	104	--	107	106	2
DEKALB	DK-58	103	103	100	102	3
DEKALB	DK-66	127	--	110	119	2
DELTAPINE	1506	90	97	101	96	3
GOLDEN HARVEST	H-515E	--	--	102	102	1
GRI	16943	--	--	94	94	1
GRI	21943	--	--	87	87	1
HYPERFORMER	HSC CHEROKEE	87	96	99	94	3
HYPERFORMER	HY 1320	106	114	112	111	3
ICI	5536	--	--	97	97	1
MYCOGEN	444E	--	99	92	96	2
MYCOGEN	466W	86	--	--	86	1
MYCOGEN	X9407 EXP	--	--	98	98	1
NC+	7B90	--	--	94	94	1
NORTHRUP-KING	KS-735	--	--	97	97	1
PIONEER	8212Y	--	96	95	96	2
PIONEER	8118	--	--	102	102	1
PIONEER	8310	95	101	111	102	3
PIONEER	8446	78	--	--	78	1
TRIUMPH	TR 481	--	--	99	99	1
TRIUMPH	TR 65G	--	--	98	98	1
TRIUMPH	TR 82G	--	--	96	96	1
TRIUMPH	TRX25222 EXP	--	--	100	100	1
WILSON	568E	--	--	97	97	1
---LATE CHECK	TX2752 x TX2783	111	114	103	109	3
---LATE CHECK	TX2752 x TX430	109	105	98	104	3
Late Average		100	100	100	--	--
Late C.V.(%)		5	6	5	--	--
Late LSD(.05)*		9	8	9	--	--

\* L.S.D. for comparing hybrids within a maturity grouping. Unless two varieties differ by more than the L.S.D., little confidence can be placed in one being superior to the other.

NO. = Number of tests included in calculated average. Greater confidence can be placed in an average based on a greater number of tests.

**FORAGE SORGHUM**  
**SOUTH CENTRAL KANSAS, DRYLAND**

**LOCATION:** South Central Experiment Field  
 Southwest of Hutchinson in **Reno County**

**COOPERATORS:** William Heer, agronomist  
 Brian Wade, technician

**TEST SITE:** Ost silt loam  
 Wheat in 1993 and oats in 1992

**FERTILIZATION:** 100 lbs N/acre preplant  
 40 lbs P<sub>2</sub>O<sub>5</sub>/acre preplant

**PLANTING DATE:** May 23

**HARVEST DATE:** September 1, 15

**PEST CONTROL:** Good  
 Ramrod and Bladex at planting

**POPULATION:** 35,000 plants/acre, 6 in. spacing

	EARLY	MEDIUM	LATE	ALL
<b>STAND (%):</b>	99	102	95	99
<b>SILAGE YIELDS:</b>				
Avg. (tons/a):	21	18	19	19
Range (tons/a):	18-24	14-20	17-21	14-24
L.S.D. (tons/a):	2.3	2.0	1.2	2.2
C.V. (%):	7.4	9.9	5.9	8.5

**BLOOM DATES:** 7/25-8/16 7/26-8/24 8/9-8/28 7/25-8/28

**1994 GROWING CONDITIONS:**

The test was planted into a dry seedbed, but stands were eventually adequate. Most of the lodging had occurred by September 1, when the early hybrids were harvested. Timely rainfall enabled the production of outstanding silage and grain yields. (Weather data and graphs presented on page 26.)

**TABLE 19. RENO CO. FORAGE SORGHUM PERFORMANCE TEST RESULTS, 1994.**

BRAND	HYBRID	Silage Yield tons/acre <sup>1</sup>	Grain Yield bu/acre <sup>2</sup>	Days to Half Bloom	Silage Dry Matter %	Plant Height in.	Lodging %
<b>EARLY HYBRIDS</b>							
---	EARLY CHECK	19	51	65	38	82	62
---	EARLY CHECK	18	57	67	38	80	87
	BUFFALO	21	64	63	39	83	8
---	LATE CHECK	21	65	75	33	95	80
	STAR	20	84	67	43	83	80
	DEKALB	22	89	67	48	69	92
	DEKALB	24	93	66	41	93	21
	Early Average	21	72	67	40	84	61
	Early C.V.(%)	7	9	3	3	4	28
	Early LSD(.10)*	2	9	2	1	3	19
<b>MEDIUM HYBRIDS</b>							
	MYCOGEN	17	69	83	55	66	27
	CENTURY II	20	69	91	31	116	25
	BUFFALO	14	75	64	44	92	60
	CASTERLINE	18	75	81	52	64	7
	NC+	19	80	88	41	107	48
	NC+	19	86	87	50	78	90
	NORTHRUP KING	19	101	93	38	105	47
	Med. Average	18	79	84	44	90	43
	Med. C.V.(%)	10	14	3	6	4	35
	Med. LSD(.10)*	2	12	3	3	4	17
<b>LATE HYBRIDS</b>							
---	LATE CHECK	17	58	78	34	96	53
	CASTERLINE	21	76	91	30	116	49
	MYCOGEN	20	81	91	41	87	92
	CENTURY II	17	84	90	35	102	75
	DEKALB	20	85	97	33	91	42
	GARRISON	19	95	88	33	118	47
	CASTERLINE	18	104	88	37	100	58
	Late Average	19	83	89	35	102	59
	Late C.V.(%)	6	19	3	6	5	45
	Late LSD(.10)*	1	23	3	3	6	30
	Test Averages	19	78	80	40	92	55
	C.V.(%)	9	17	3	5	5	37
	L.S.D.(.10)**	2	NS	3	3	6	28

\* L.S.D. for comparing hybrids within a maturity grouping. \*\* L.S.D. for comparing hybrids in different maturity groups.

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

<sup>1</sup>Silage yields adjusted to 70% moisture. <sup>2</sup>Grain yields estimated from 10 hand-harvested heads and adjusted to 12.5% moisture.

**FORAGE SORGHUM**  
**SOUTHWEST KANSAS, IRRIGATED**  
**LOCATION:** Southwest Research-Extension Center  
Near Garden City in **Finney County**  
**COOPERATORS:** Merle Witt, agronomist  
Patrick Coyne, head  
**TEST SITE:** Keith silt loam  
Oats in 1993 and fallow in 1992  
**FERTILIZATION:** 150 lbs N/acre preplant  
**PLANTING DATE:** May 17  
**HARVEST DATE:** September 10  
**PEST CONTROL:** Good  
Ramrod and Atrazine at planting  
**POPULATION:** 70,000 plants/acre, 3 in. spacing

**EARLY MEDIUM LATE ALL**  
**SILAGE YIELDS:**  
Avg. (tons/a): 30 31 35 32  
Range (tons/a): 26-35 27-37 26-41 26-41  
L.S.D. (tons/a): 4.0 4.1 7.5 NS  
C.V. (%): 12.1 12.0 14.7 17.6  
**BLOOM DATES:** 7/19-8/1 7/22-8/15 7/31-8/15 7/19-8/15  
**IRRIGATION:** 5" preplant plus 3 more 5" irrigations.  
**1994 GROWING CONDITIONS:**  
The season was favorable for outstanding forage production. Greenbug populations reached significant levels in August but did not appear to cause substantial leaf loss.  
(Weather data and graphs presented on page 43.)

**TABLE 20. FINNEY CO. FORAGE SORGHUM PERFORMANCE TEST RESULTS, 1994.**

BRAND	HYBRID	Silage Yield tons/acre <sup>1</sup>	Grain Yield Rating <sup>2</sup>	Days to Half Bloom	Silage Dry Matter %	Plant Height in.	Lodging %
<b>EARLY HYBRIDS</b>							
BUFFALO	CANEX	30	3	63	36	85	0
---EARLY CHECK	ROX ORANGE	28	2	66	34	84	0
---EARLY CHECK	EARLY SUMAC	26	3	66	35	90	0
DEKALB	FS-2	27	2	68	34	76	0
STAR	MAGNUM	29	2	69	34	91	0
DEKALB	FS-5	34	2	72	34	104	0
---LATE CHECK	ATLAS	35	3	76	33	105	0
Early Average		30	3	69	34	91	--
Early C.V.(%)		12	16	2	11	4	--
Early LSD(.10)*		4	1	1	NS	4	--
<b>MEDIUM HYBRIDS</b>							
BUFFALO	EXP W	28	3	66	34	99	0
CASTERLINE	DURO	27	1	78	36	75	0
MYCOGEN	T-E MILK-ALOT	31	1	80	34	79	0
NC+	X950F	28	2	84	32	97	0
NC+	965F	32	2	87	27	122	0
NORTHRUP KING	KF429	37	2	88	30	121	0
CENTURY II	SWEETALL	34	3	90	28	127	17
Med. Average		31	2	82	32	103	2
Med. C.V.(%)		12	0	1	10	3	458
Med. LSD(.10)*		4	0	1	3	4	NS
<b>LATE HYBRIDS</b>							
---LATE CHECK	ATLAS	33	3	75	32	109	0
MYCOGEN	T-E SILOMAKER	34	2	86	30	105	53
CENTURY II	HYGRACHOP	41	2	87	31	123	27
GARRISON	SUGAR T	41	2	87	31	132	27
CASTERLINE	SILO PLUS	26	1	89	31	128	27
DEKALB	FS-25E	35	1	90	26	120	0
CASTERLINE	SUPERSILE	34	2	90	27	130	0
Late Average		35	2	86	30	121	19
Late C.V.(%)		15	16	1	10	3	145
Late LSD(.10)*		8	0	1	NS	5	NS
Test Averages		32	2	79	32	105	--
C.V.(%)		18	14	1	10	4	--
L.S.D.(0.10)**		NS	0	1	5	5	--

\* L.S.D. for comparing hybrids within a maturity grouping. \*\* L.S.D. for comparing hybrids in different maturity groups.

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

<sup>1</sup>Silage yields adjusted to 70% moisture.

<sup>2</sup>Grain yields: 1, 2, 3; 1 = most grain, 3 = least grain.

**APPENDIX: Entrants and Entries in the 1994 Grain and Forage Sorghum Performance Tests.**

ENTRANT/ADDRESS	BRAND AND TELEPHONE	HYBRID	Grain Color <sup>1</sup>	Endo- sperm Color <sup>2</sup>	Maturity <sup>3</sup>	Days to Half Bloom	Green- bug <sup>4</sup>
<b>Grain Sorghums:</b>							
AGRI PRO SEEDS, INC. P.O. Box 2212 Hereford, TX 79045	AGRI PRO  (806)364-1424	AP 9135	B	HY	E	60	
		AP 9210	B	HY	E	65	RE
		AP 686	R	HY	M	68	RE
		AP 9690	C	HY	M	68	RE
		AP 9850	R	HY	L	72	RE
ASGROW SEED CO. P.O. Box 460 Parkersburg, IA 50665	ASGROW  (800)373-4653	A504	W	W	M	64	
		SENECA	B	HY	E	64	
		A570			M	70	
		A603	B	HY	L	72	
CARGILL HYBRID SEEDS P.O. Box 5645 Minneapolis, MN 55440	CARGILL  (800)634-8941	607E	B	HY	E	62	REI
		575	C	HY	M	65	
		727	B	HY	M	65	REI
		737	B	HY	M	65	
		X24002 EXP	C	HY	M	65	
		797	B	HY	M	66	REI
		837	B	HY	L	68	
857	B	HY	L	68			
CASTERLINE SEEDS Box 1377 Dodge City, KS 67801	CASTERLINE  (800)444-4137	SR317EW	W	HY	M	62	RE
		SR 315E	B	HY	M	62	RE
		SR 319E	B	W	M	64	RE
		SR 324E	R	W	L	66	RE
GREENBUSH SEED & SUPPLY 315 S. Adams, P.O. Box 661 Hutchinson, KS67504	CENTURY II  (316)662-6659	GB5543-E	R	W	E	55	RE
		GB7042-E	R	W	M	70	RE
		GB8041-W	C	Y	M	80	CD
		GB9140-E	R	W	L	91	RE
CROSBYTON SEED CO. P.O. Box 429 Crosbyton, TX 79322	CROSBYTON  (806)675-2308	GW5770	W	W	M	58	
		GW5970	R	W	M	58	CE
DEKALB-PLANT GENETICS Rt. 2, Box 56 Lubbock, TX 79415	DEKALB  (806)763-3336	DK-38y	Y	Y	E	68	RE
		DK-39	B	HY	E	68	RE
		DK-40y	Y	Y	ME	70	RE
		DK-41y	Y	Y	M	72	RE
		DK-48	B	HY	M	72	RE
		DK-51	B	HY	ML	73	RE
		DK-54	B	HY	ML	75	RE
		DK-55	B	HY	ML	75	RE
		DK-56	B	HY	ML	76	RE
		DK-58	B	HY	L	77	RE
		DK-66	B	HY	L	79	RE
DELANGE SEED P.O. Box 7 Girard, KS 66743	DELANGE  (800)962-5429	DSA 117	R	HY	E	58	REI
		DSA 125C	C	HY	M	64	RE
		DSA 131	B	HY	M	65	
		DSA 151	B	HY	L	70	REI
DELTA & PINE LAND CO. P.O. Box 157 Scott, MS 38772	DELTAPINE  (800)321-8989	1460A	W	W	E	62	RE
		1490Y	C	HY	E	62	RE
		1482	R	W	ME	65	RE
		1505Y	C	HY	M	66	RE
		1506	B	HY	ML	67	RE

**APPENDIX: Entrants and Entries in the 1994 Grain and Forage Sorghum Performance Tests.**

ENTRANT/ADDRESS	BRAND AND TELEPHONE	HYBRID	Grain Color <sup>1</sup>	Endo- sperm Color <sup>2</sup>	Maturity <sup>3</sup>	Days to Half Bloom	Green- bug <sup>4</sup>
<b>Grain Sorghums:</b>							
FONTANELLE HYBRIDS	FONTANELLE	5040	C	HY	M	62	E
Rt. 1, Box 18		EX-6920 EXP	B	HY	M	65	E
Nickerson, NE 68044	(402)721-1410	5588	B	HY	L	70	E
GARRISON & TOWNSEND, INC.	GARRISON	SG-622	C	W	E		E
P.O. Drawer 2420		SG-833	B	HY	M		E
Hereford, TX 79045	(806)364-0560	SG-94041 EXP	C	W	M		E
		SG-94120 EXP	Y	Y	M		E
J. C. ROBINSON SEED CO.	GOLDEN HARVEST	H-388W	W	HY	ME	64	
100 J. C. Robinson Blvd., Box A		H-403	B	HY	ME	65	RE
Waterloo, NE 68069	(402)779-2531	H-444W	C	HY	ML	67	
		H-505BW	C	HY	L	69	
		H-515E	R	HY	L	70	RE
GENETIC RESOURCES, INC.	GRI	06943	R	W	M	70	RE
P.O. Box 229		23943	R	W	M	70	RE
Philo, IL 61864	(217)684-2783	16943	B	W	ML	73	RE
		11943	R	W	L	74	RE
		19943	B	W	L	74	RE
		21943	B	W	ML	75	RE
HOEGEMEYER HYBRIDS	HOEGEMEYER	6622	C	Y	ML	64	S
R.R. 2, Box 126		6650	B	Y	M	64	S
Hooper, NE 68031	(402)654-3399	6710	R	Y	M	65	S
		671	C	Y	L	66	S
		6878	B	Y	L	68	RE
		688	B	Y	L	69	S
HYPERFORMER SEED CO.	HYPERFORMER	HSC 1289C	C	Y	ML	62	S
One Hy Crop Row		HSC CHEROKEE	R	Y	ML	65	RE
Memphis, TN 38120	(901)756-1771	HY 1320	R	HY	ML	67	RE
ICI SEEDS	ICI	5643	R	W	E	64	RE
6945 Vista Drive		5616	R	W	E	66	
West Des Moines, IA 50266	(800)348-2742	5503	R	W	M	68	RE
		5514Y	Y	Y	M	68	
		5536	B	HY	ML	68	RE
MYCOGEN PLANT SCIENCES	MYCOGEN	ORO ALPHA	R	W	E	55	RE
624 27th Street		T-E ELITE	BR	HY	E	57	RE
Lubbock, TX 79404	(806)744-1408	T-E EDEN	R	W	M	60	RE
		T-E GAGE	C	HY	M	60	RE
		T-E HARDY	C	HY	M	60	RE
		466W	C	HY	ML	67	RE
		X9407 EXP	B	HY	ML	67	REI
		444E	B	HY	ML	68	RE
NC+ HYBRIDS	NC+	6B50	B	HY	E	64	
3820 N. 56th St., Box 4408		Y363	Y	Y	ME	64	
Lincoln, NE 68504	(402)467-2517	6B67	B	HY	ME	66	
		7R37E	R	W	M	68	RE
		371	C	HY	ML	70	
		472	B	HY	ML	70	
		272	B	HY	ML	71	
		7B90	B	HY	L	73	



**APPENDIX: Entrants and Entries in the 1994 Grain and Forage Sorghum Performance Tests.**

ENTRANT/ADDRESS	BRAND AND TELEPHONE	HYBRID	Grain Color <sup>1</sup>	Endo- sperm Color <sup>2</sup>	Maturity <sup>3</sup>	Days to Half Bloom	Green- bug <sup>4</sup>
<b>Grain Sorghums:</b>							
NORTHRUP KING CO. c/o P.O. Box 959 Minneapolis, MN 55440	(316)543-2707	NORTHRUP-KING KS-383Y	C	HY	ME	68	RE
		KS-524	B	HY	M	69	RE
		KS-555Y	C	HY	M	70	RE
		2656	B	HY	M	71	RE
		KS-560Y	C	HY	M	71	RE
		KS-710	B	HY	ML	72	RE
		KS-714Y	C	HY	L	72	RE
KS-735	B	HY	L	72	RE		
OHLDE SEED FARMS RR 1, Box 63 Palmer, KS 66962	(913)692-4555	OHLDE 159	B	HY	E	58	RE
		700	C		E	58	RE
		214	B	HY	E	60	RE
		222C	C	W	E	60	RE
		136	B	HY	M	64	RE
		246Y	B	Y	ML	65	RE
		240W	C	W	ML	68	RE
		350	B	HY	L	68	RE
134	C	W	L	72			
PATRIOT SEED, INC. 1411 N. Kickapoo Lincoln, IL 62656	(217)732-8102	PATRIOT 8608C	C	Y	E	60	
		8657	B	Y	M	65	RE
		8703	R	Y	M	70	RE
		8766	R	Y	L	76	RE
PIONEER HIBRED INT., INC. Suite C-150 1616 S. Kentucky St. Amarillo, TX 79102	(806)356-0160	PIONEER 8771	B	HY	E	62	RE
		8699	B	HY	E	64	RE
		8606	B	HY	E	66	RE
		8500	B	HY	M	68	SE
		8505	B	HY	M	68	RE
		8446	B	HY	ML	69	RE
		8522Y	C	Y	M	69	
		8212Y	C	Y	L	72	
		8310	R	HY	L	72	RE
		8305	R	HY	L	73	RE
8118	B	HY	L	75	RE		
TRIUMPH SEED CO., INC. P.O. Box 1050 Ralls, TX 79357	(806)253-2584	TRIUMPH TR 46	R	W	E	54	SEI
		TRX22412 EXP			E	63	
		TR 459	B	W	ME	64	RE
		TR 55Y	Y	W	ML	66	RE
		TR 65G	R	W	ML	70	RE
		TR 82G	R	W	L	76	RE
		TR 481			ML	77	
TRX25222 EXP			ML	77			
VALLEY FEED & SEED, INC. 1903 S. Meridian Wichita, KS 67213	(316)942-2278	VALLEY PREMIUM V.P. 53	R	HWAX	M		RE
		V.P. 70	C	W	M		RE
		V.P. 85	R	HWAX	ML		RE
		V.P. 90	B	HY	ML		SE
WILSON SEEDS, INC. P.O. Box 391 Harlan, IA 51537	(712)755-3841	WILSON 513E	B	Y	ME	69	RE
		515W	C	Y	M	70	S
		522W	C	Y	M	74	S
		535Y	Y	Y	M	77	S
		568E	B	Y	L	80	RE

**APPENDIX: Entrants and Entries in the 1994 Grain and Forage Sorghum Performance Tests.**

ENTRANT/ADDRESS	BRAND AND TELEPHONE	HYBRID	Grain Color <sup>1</sup>	Endo- sperm Color <sup>2</sup>	Maturity <sup>3</sup>	Days to Half Bloom	Green- bug <sup>4</sup>	Sterility <sup>5</sup>
<b>Grain Sorghums:</b>								
	---	EARLY CHECK						E
	---	EARLY CHECK						E
	---	MED CHECK						M
	---	MED CHECK						M
	---	MED CHECK						M
	---	LATE CHECK						L
	---	LATE CHECK						L
<b>Forage Sorghums:</b>								
SHARP BROS SEED CO. P. O. Box 140 Healy, KS 67850	BUFFALO  (316) 398-2231	CANEX EXP W	R R	W W	E M	65 75		S S
CASTERLINE SEEDS Box 1377 Dodge City, KS 67801	CASTERLINE  (800)444-4137	DURO SILO PLUS SUPERSILE	W R R	HY HY HY	M L L	75 90 95		F F S
GREENBUSH SEED & SUPPLY 315 S. Adams Hutchinson, KS 67501	CENTURY II  (316) 662-6659	SWEETALL HYGRACHOP	R R		M L		80	S F
DEKALB GENETICS CORP. Rt. 2 Box 56 Lubbock, TX 79415	DEKALB  (806) 763-3336	FS-2 FS-5 FS-25E	B T T	HY W W	E E L	70 70 85		F F F
GARRISON & TOWNSEND INC P. O. Drawer 2420 Hereford, TX 79045	GARRISON  (806) 364-0560	SUGAR T	B	W	L			F
MYCOGEN PLANT SCIENCES 624 27th Street Lubbock, TX 79404	MYCOGEN  (806) 744-1408	T-E SILOMAKER T-E MILK-ALOT	R R	W W	L M	70 85		F F
NC+ HYBRIDS Box 4408 Lincoln, NE 68504	NC+  (402) 467-2517	X950F 965F	T T	W W	M M	80 85		F F
NORTHRUP KING CO. 1060 Wheatland Dr. Buhler, KS 67522	NORTHRUP KING  (316) 543-2707	KF429	B	HY	M			F
STAR SEED INC. Box 504 Beloit, KS 67420	STAR  (913) 738-5575	MAGNUM						E S
	---	EARLY CHECK						E
	---	EARLY CHECK						E
	---	LATE CHECK						L

<sup>1</sup>Grain color; B = bronze, C = cream, R = red, Y = yellow, W = white

<sup>2</sup>Endosperm color; W = white, Y = yellow, HY = hetero-yellow, HWAX = hetero-waxy.

<sup>3</sup>Maturity; E = early, M = medium, L = late. These ratings were assigned based on information provided by the entrants and on past test performance when available. These ratings were used for grouping hybrids in tests.

<sup>4</sup>Greenbug biotype resistance; R = resistant, S = susceptible, E = biotype E, I = biotype I.

<sup>5</sup>Sterility; S = sterile, F = fertile.

Blank spaces indicate that the information was not available.

Excerpts from the

UNIVERSITY RESEARCH POLICY AGREEMENT WITH COOPERATING SEED COMPANIES\*

Permission is hereby given to Kansas State University to test our varieties and/or hybrids designated on the attached entry forms in the manner indicated on the test announcement. I understand that all results from Kansas crop performance tests belong to the University and to the public and shall be controlled by the University so as to produce the greatest benefit to the public. It is further agreed that the name of the University shall not be used by the company in any commercial advertising either in regard to this agreement or any other related matter.

\* This agreement must be signed by an authorized individual before results involving the company's entries can be published by the Experiment Station. Except for the limitation that the name "KANSAS STATE UNIVERSITY" cannot be used in advertising (you may use something like "official state tests" or "state yield trials"), this does not preclude the use of data for advertising, if done in a fair manner.

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*NOTE: Trade names are used to identify products. No endorsement is intended, nor is any criticism implied of similar products not named.*

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