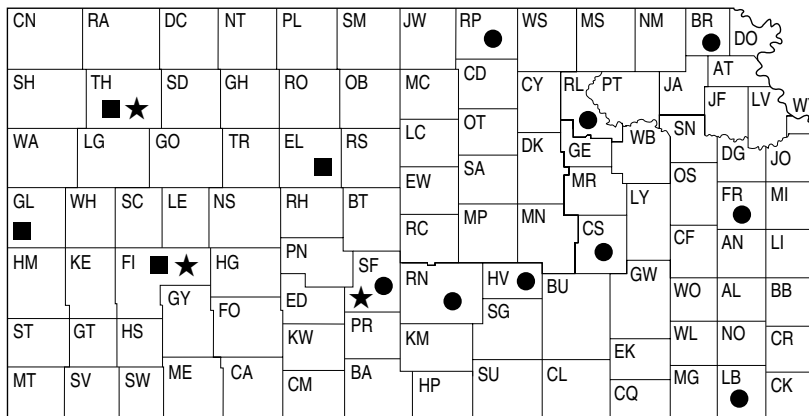


1997

KANSAS PERFORMANCE TESTS WITH GRAIN SORGHUM HYBRIDS



● continuously cropped land ★ irrigated ■ summer fallow

Report of Progress 799

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

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1997 KANSAS GRAIN SORGHUM PERFORMANCE TESTS

INTRODUCTION

TEST OBJECTIVES AND PROCEDURES

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

Individual test discussions include summaries of growing-season weather data for each location. These data are from the nearest weather-reporting station and often are supplemented with information from the test site. Precipitation graphs include cumulative lines for 1997 and the 30-year normal in addition to the daily rainfall amounts since last fall. Temperature graphs include daily maximum and minimum temperatures compared with normal. Growing degree graphs include cumulative lines for 1997 and normal. All graphs include vertical lines indicating planting, heading, and harvest dates, if available. The graphs reveal general trends in precipitation and rainfall compared to normal. For more detailed information, a table is included with monthly totals and averages for the growing season. Comparisons of the current year's weather with long-time averages often help explain unusual plant development patterns and inconsistent performance of individual hybrids over years.

Explanatory information is given preceding data summaries for each test. Tables 1-21 contain

results from the grain sorghum performance test locations. Hybrids are listed in order of increasing days to half bloom and increasing grain moisture for the current year so hybrids of similar maturity appear together. Yield summaries following each group of tests (Tables 4, 8, 12, 17, 21) present current-year yield as a percent of the average for each location and summarize hybrid performance over the past few years in that region as the difference in bushels per acre from the average of three check hybrids. The 1997 entrants, entries, and some additional descriptive information provided by the entrants are listed in the Appendices.

No new forage sorghum tests were conducted in 1997. A summary of silage yields from 1994-1996 tests is included in Table 22 for the reader's convenience. Refer to Reports of Progress 629, Forage Sorghums; 678, 1993 Cattlemen's Day; and 727, 1995 Cattlemen's Day for quality information on some of these and other forage sorghum hybrids.

Most tests are planted at a rate 30% to 40% above the desired population and only minimally thinned. Planting to stand includes hybrid differences in stand establishment and early-season vigor in the overall performance evaluation. These differences may or may not be genetically controlled but contribute to marketed product performance in either case. As such, they are included in performance comparisons.

Tractor-powered, modified, White air-planters were used for nearly all tests. Three or four plots (replications) of each hybrid were grown at each location in a randomized complete block design. Each harvested plot consisted of two rows trimmed to a specific length ranging from 20 to 30 feet at the different locations. Agronomists used Gleaner-E combines equipped with automatic weighing and sampling devices to harvest most tests.

Results for each grain sorghum test include

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

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

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

The *GROWTH UNIT* or *GROWING DEGREE DAY* concept was developed to measure the amount of heat available for growth and maturation. The formula used to generate the monthly totals in individual test discussions follows: Take the maximum temperature plus the minimum temperature for each day, divide by 2, and then subtract a base temperature of about 34 (actually 1° C was used in the calculations). The purpose is to describe temperatures for the season for comparison with previous years and other locations in explaining relative rates of plant development. Research by Dr. Richard Vanderlip

and his students at Kansas State University has indicated an excellent relationship between the growth units generated by these calculations and the actual rate of plant development from blooming to physiological maturity. Growth unit accumulations for the current year are compared with the long-term average or 'normal' for each test.

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

1997 STATEWIDE GROWING CONDITIONS

Topsoil moisture was not severely limiting for the most part in 1997 (Figure 1). Two or three periods occurred when soil moisture was short for a large portion of the state; the most critical was in late July and August. Longer periods of moisture stress occurred in parts of western, north central, and northeast Kansas, highlighting grain sorghum's ability to produce a crop under such conditions.

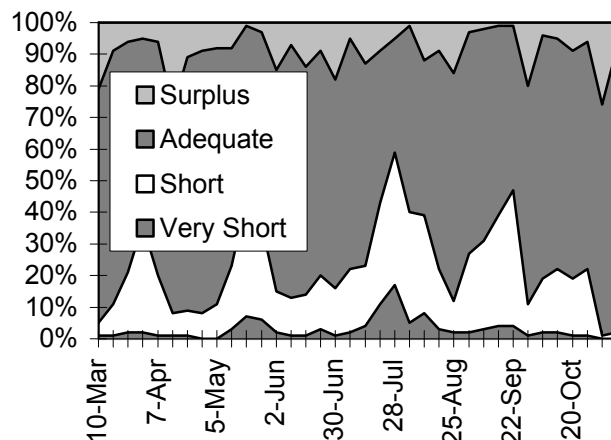


Figure 1. Statewide topsoil moisture status.

At least 68% of the sorghum crop was classified as good or excellent during the entire growing season (Figure 2). Over 80% of the acreage was in these two classes in June and early July, but dry weather in July and August caused some of the acreage to drop into the fair category. Crop condition did not deteriorate significantly during the rest of the season. High winds and early snowfall in September and October may have damaged some of the western Kansas acreage just before harvest.

Crop development and progress were ahead of the 5-year average and were similar to those last year for most of the season (Figure 3). The 1997 crop actually matured slightly ahead of last year's crop. Likewise, harvest began earlier than in past years and maintained that lead until late October when about 70% was harvested. An early snow storm drastically slowed harvest of the remaining acres until it fell behind last year's. Harvest progress rebounded in late November and finished at about the same time as in 1996. (From Crop-Weather reports, Kansas Agricultural Statistics, Topeka)

In general, insect problems in sorghum were below average this year. Sorghum midge caused the greatest concern for potential damage. It was found close to Kansas City in Miami County by August 1 and caused considerable damage in

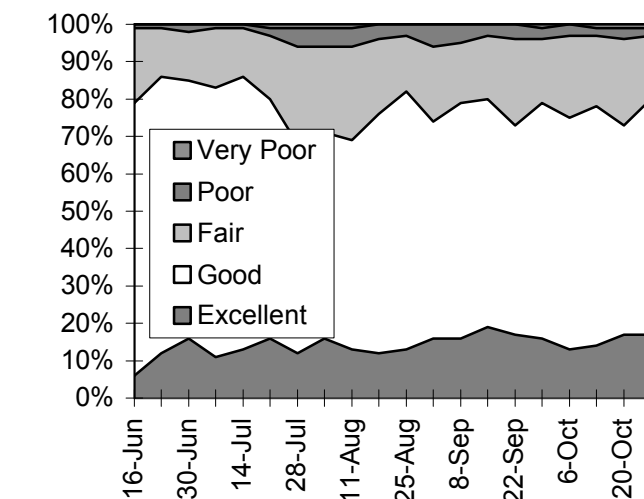


Figure 2. 1997 Grain sorghum crop condition.

fields maturing after mid-August in parts of northeast Kansas as far west as Manhattan and on into southeast and south central Kansas. Damage was quite severe in Butler, Cowley, and Sumner counties.

Entomologists noted a number of other potential insect problems. Corn earworms were present but were below 1996 levels. They were quite active in the same areas as the sorghum midge. The sorghum webworm also caused some damage in the same area. Farmers as far west as Stanton County experienced damage to some

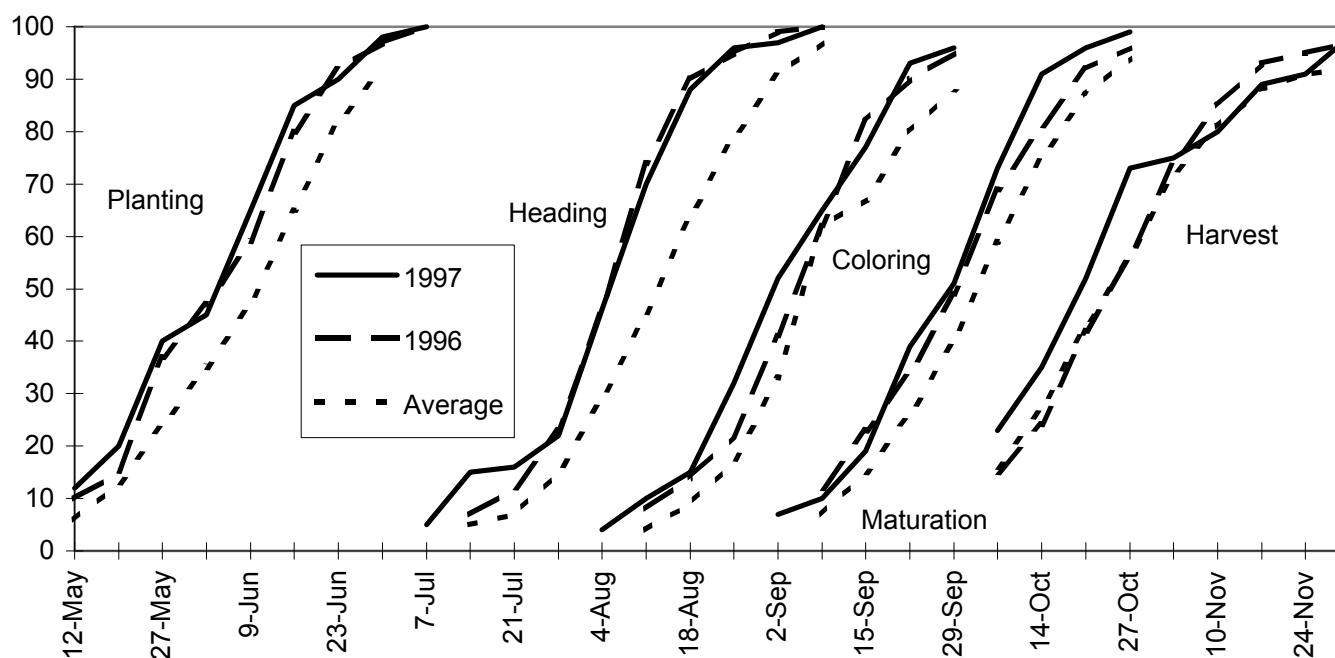


Figure 3. 1997 Kansas grain sorghum crop progress.

fields during August. Chinch bug problems were relatively low but were increasing toward the end of the season in the Manhattan area. Billbugs caused problems in fields infested with nutsedge in Dickinson, Osborne, Rooks, and Ford counties. The billbug problem could expand in 1998. Grasshoppers were more numerous in 1997 than in 1996 and remained active until late in the fall. The warm, dry fall and delayed frost may have contributed to plentiful egg laying, possibly setting the stage for further increases in grasshopper numbers in 1998. Greenbugs were light and not very active outside of portions of southwest Kansas, where some spraying of seed production fields occurred. (From Gerald Wilde, Department of Entomology, Kansas State University.)

Disease problems were average for the 1997 Kansas grain sorghum crop. A cool, wet May resulted in outbreaks of pythium seedling blight. Where appropriate seed treatment was not used, replanting was often necessary. Frequent dews and occasional showers caused sooty stripe to develop to moderately high levels on susceptible hybrids in north central and northeast Kansas. The incidence of leaf rust reached high levels late in the season. However, most fields were mature enough so that significant yield losses did not occur. Stalk rot was at normal to above normal levels. For the second consecutive year, head molds were at high levels in many fields. Frequent rains during pollination and the grain filling period were responsible. Grain molds in

sorghum normally do not produce toxins that will affect livestock; however, they do reduce grain quality and can result in significant dockage at the elevator.

The biggest news in Kansas sorghum production was the arrival of sorghum ergot on August 29 near Colwich in Sedgwick County. Since then, it has spread to over 12 counties. Most outbreaks occurred in forage production fields, but at least one seed production field in Meade County and one grain production field in Dickinson County had ergot infestations. (From Douglas Jardine, Extension Plant Pathologist, Department of Plant Pathology, Kansas State University.)

The November 10 Crops Report predicted a 273.4 million bushel crop, down 23% from 1996. This production is from 3.6 million harvested acres, also down 23% from last year. Sorghum acres and production were concentrated in central and southwest Kansas, but yield per acre was highest in the eastern districts (Figure 4). The predicted average yield of 77 bushels per acre is unchanged from 1996.

ACKNOWLEDGMENTS

Cooperation of Research Center and Experiment Field personnel who furnished land and performed many or all of the field operations is appreciated. Technicians Edward O. Quigley and James R. Cochrane and student worker Ty Barton packaged seed and performed field operations for some of the tests. Mary Knapp of the Weather Data Library provided much of the climatological information.

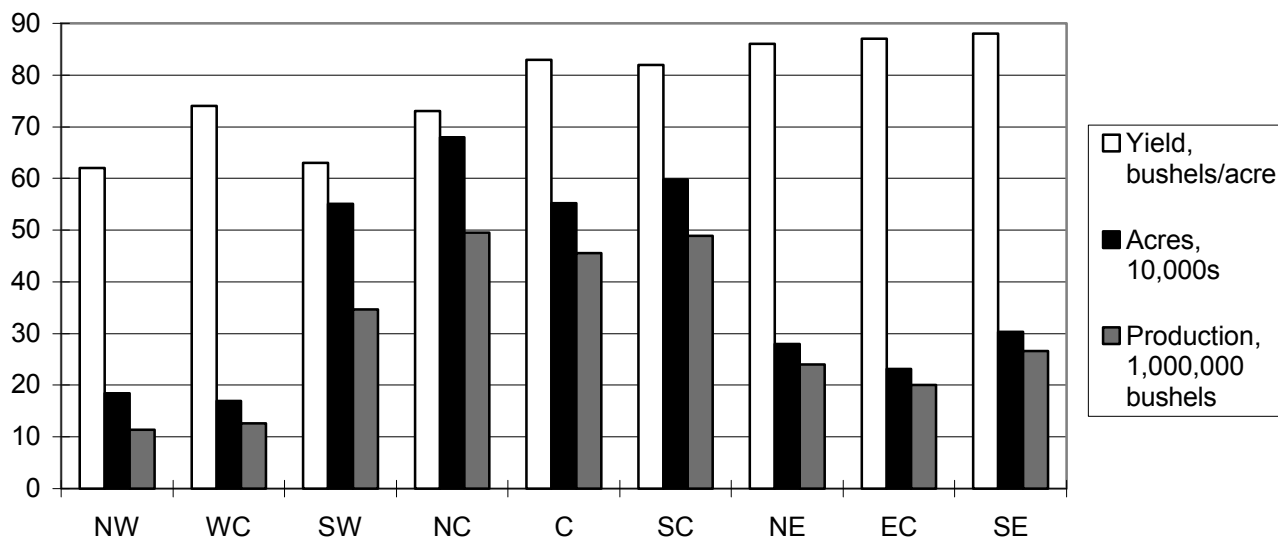


Figure 4. 1997 Kansas grain sorghum crop production by crop reporting district.

NORTHEASTERN KANSAS GRAIN SORGHUM TEST ON SILTY CLAY LOAM SOIL

COUNTY: BROWN

LOCATION: Cornbelt Experiment Field, Powhattan

TEST SITE: Grundy silty clay loam

1996 CROP: Soybeans

1995 CROP: Sorghum

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

PLANTING DATE: 5/20/97

HARVEST DATE: 10/2/97

COOPERATORS:

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

TARGET POPULATION: 45,000 plants/acre,

4.6 in. spacing

STAND (% of target): 66

YIELD: Average (bu/a): 97

Range (bu/a): 79 - 125

LSD (bu/a): 10

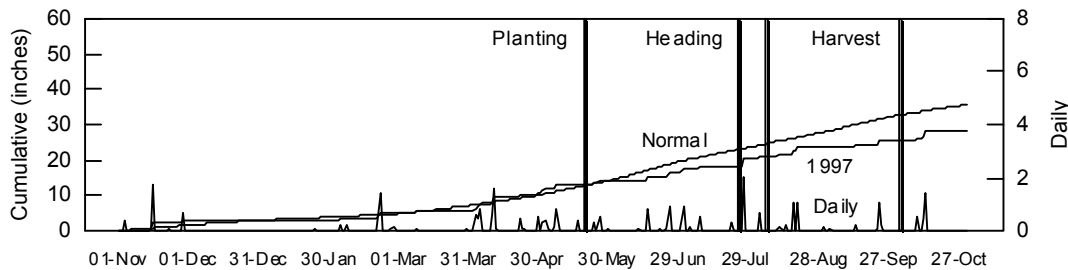
CV (%): 8

BLOOM DATES: 7/25/97 - 8/5/97

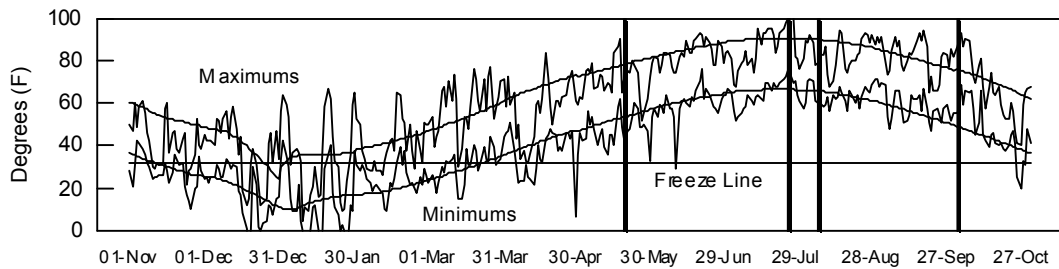
1997 GROWING CONDITIONS:

Soil moisture was good at planting but cool temperatures slowed emergence. Secondary heads helped to make up for low final stands. Summer precipitation was below normal, causing drought stress during much of the growing season. Weed control was excellent.

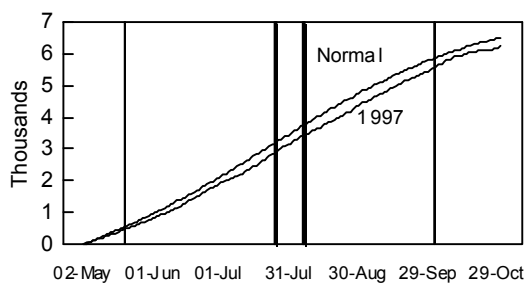
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1997	Normal	1997	Normal	1997	Normal
April	5.4	3.1	47	55	0	0
May	3.3	4.2	59	65	769	925
June	2.1	5.4	72	73	1130	1184
July	4.0	4.1	75	78	1276	1370
August	3.4	4.2	74	76	1241	1305
Sep.	1.8	4.7	69	68	1064	1011
Oct.	2.5	3.0	57	56	728	692
Season Totals	22.6	28.6	65	67	6208	6487

TABLE 1. BROWN CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1995-1997.

BRAND	NAME	ACRE YIELD, BUSHELS			YIELD AS % OF TEST AVERAGE			96-97		1997								
		1997	1996	1995	2-Yr. AVG.	3-Yr. AVG.	1997	1996	1995	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plant Ht. in.	Ldg %	Final Stand %	Hds per Plnt
		MATURITY CHECK	TX3042xTX2737	98	83	68	90	83	101	77	98	66	18	66	14	56	50	--
MATURITY CHECK	C 305	87	100	69	93	85	90	93	99	66	18	66	14	54	47	--	72	1.7
DEKALB	DK-35	93	95	--	94	--	96	89	--	68	18	66	15	58	45	--	67	1.6
GARST	N5624 EXP	89	--	--	--	--	92	--	--	--	--	67	14	56	44	--	65	1.6
AGRIPRO	AP 9210	79	84	74	81	79	81	78	106	67	16	67	15	57	41	--	71	1.6
MATURITY CHECK	OK11xTX2741	95	100	71	98	89	98	93	102	68	18	68	14	56	42	--	67	1.7
ASGROW	A328	79	98	--	89	--	82	92	--	67	15	68	15	59	41	--	66	1.8
DEKALB	DK-40y	82	--	--	--	--	85	--	--	--	--	69	13	55	44	--	60	1.5
AGRIPRO	AP 2468	88	--	--	--	--	90	--	--	--	--	69	14	55	42	--	63	1.8
MATURITY CHECK	RS 610	82	98	54	90	78	85	91	77	70	17	69	14	54	50	--	62	1.7
NC+	371	100	--	--	--	--	103	--	--	--	--	69	14	55	44	--	71	1.5
PIONEER	8505	89	103	81	96	91	92	96	117	70	17	69	15	58	43	--	63	1.7
HOEGEMEYER	671	99	99	65	99	88	102	92	93	70	17	70	14	57	46	--	61	1.3
ASGROW	A425	91	100	--	96	--	94	93	--	72	17	70	15	58	42	--	71	1.7
DEKALB	DK-44	88	112	--	100	--	91	104	--	72	17	70	15	56	45	--	61	1.7
DEKALB	DK-47	96	115	--	106	--	100	108	--	71	18	70	15	58	48	--	71	1.8
PIONEER	8310	113	96	71	105	94	117	90	102	72	19	70	15	58	53	--	62	1.8
CARGILL	737	100	96	83	98	93	103	89	119	72	18	71	14	55	44	--	60	2.1
CARGILL	775Y	94	121	70	107	95	97	112	101	71	18	71	14	57	43	--	73	1.6
MYCOGEN	444E	95	114	82	104	97	98	106	118	72	15	71	14	56	46	--	73	1.9
AGRIPRO	AP 2440	87	110	71	99	90	90	103	103	71	16	71	15	55	43	--	64	1.7
MYCOGEN	1506	100	126	74	113	100	103	117	107	73	15	71	15	57	54	--	61	1.9
CARGILL	X12027 EXP	89	107	--	98	--	92	99	--	73	17	72	15	57	43	--	71	1.6
MSG (OHLDE)	O 256	105	114	--	110	--	109	106	--	72	18	73	15	54	55	--	65	1.8
HOEGEMEYER	6766	93	--	--	--	--	96	--	--	--	--	73	16	55	52	--	64	2.1
MSG (OHLDE)	G 571	90	--	--	--	--	93	--	--	--	--	73	16	55	52	--	66	1.7
NK	X618	80	--	--	--	--	82	--	--	--	--	73	16	55	42	--	69	1.8
CARGILL	770Y	99	101	--	100	--	102	94	--	73	17	74	13	57	46	--	64	1.9
DEKALB	DK-54	125	152	78	139	118	129	141	112	75	16	74	15	56	56	--	72	1.4
DEKALB	DK-45	104	138	69	121	103	107	128	99	73	15	74	15	57	52	--	62	1.5
NK	K73-J6	100	124	--	112	--	103	116	--	73	17	74	15	56	50	--	69	1.8
AGRIPRO	HY 2660	97	113	81	105	97	101	105	117	73	17	74	16	57	45	--	71	1.7
GARST	5429	92	--	--	--	--	95	--	--	--	--	74	16	57	53	--	66	1.7
CARGILL	837	110	113	76	112	100	114	106	109	72	18	75	14	56	52	--	71	1.9
CARGILL	730	111	124	75	117	103	115	115	107	74	14	75	14	57	46	--	70	1.8
DEKALB	DK-58	113	--	--	--	--	117	--	--	--	--	75	15	56	54	--	69	1.8
NC+	7R83	105	--	--	--	--	109	--	--	--	--	75	15	56	51	--	74	1.6
PIONEER	8212Y	105	118	66	111	96	108	110	95	74	15	75	15	57	48	--	69	1.7
FONTANELLE	5576C	108	118	79	113	101	112	109	113	76	18	75	16	57	47	--	68	1.8
DEKALB	DK-55	122	137	61	130	107	126	128	88	76	17	76	14	56	57	--	65	1.7
MATURITY CHECK	TX2752xTX430	95	114	73	105	94	98	107	104	76	15	76	14	56	48	--	71	1.9
NC+	7B29	97	--	--	--	--	100	--	--	--	--	76	15	57	44	--	62	1.8
DEKALB	DK-56	98	119	63	108	93	101	111	90	75	17	76	16	58	55	--	55	1.5
HOEGEMEYER	6878	94	143	80	118	105	97	133	114	76	18	76	16	58	49	--	59	1.8
MATURITY CHECK	TX2752xTX2783	98	124	77	111	99	101	116	110	77	17	77	16	57	52	--	49	1.4
AVERAGES		97	107	70	102	91	97	107	70	72	17	72	15	56	48	--	66	1.7
CV(%)		8	9	9	--	--	8	9	9	--	--	2	3	3	3	--	11	14.0
LSD(0.05)**		10	13	10	--	--	10	12	15	--	--	2	1	2	2	--	NS	NS

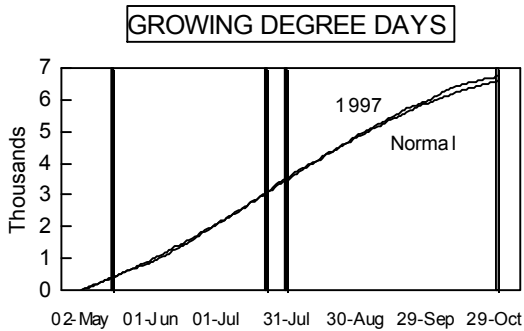
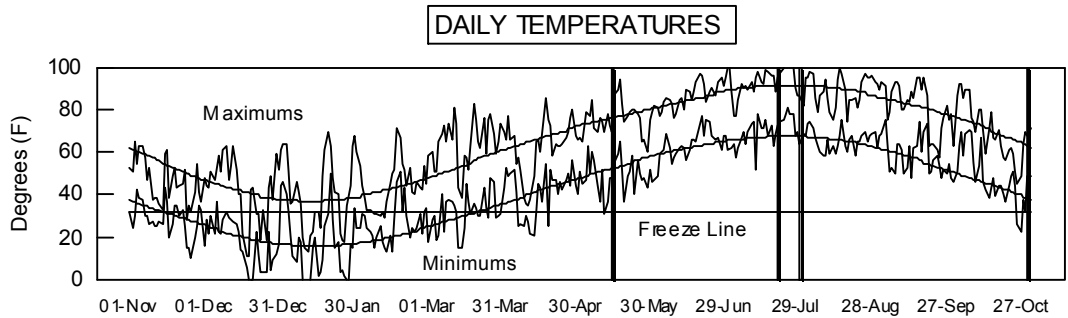
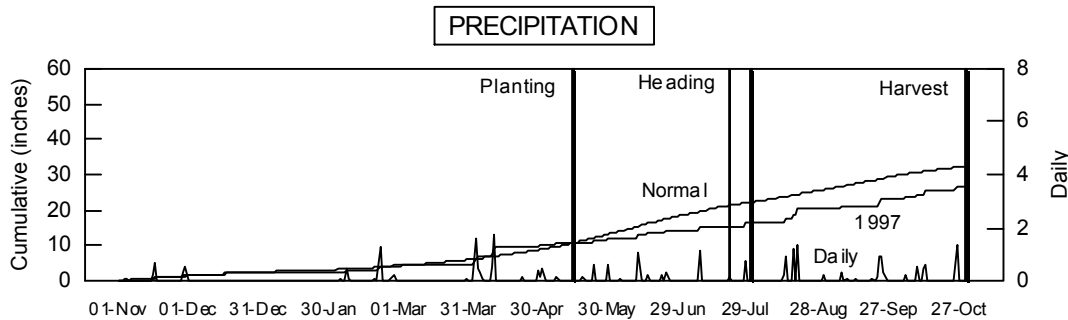
** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

NORTHEASTERN KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL

COUNTY: RILEY
LOCATION: Agronomy North Farm near Manhattan
TEST SITE: Reading silt loam
1996 CROP: Soybeans
1995 CROP: Sorghum
FERTILIZER (lbs/acre): 120 N 0 P₂O₅ 0 K₂O
PLANTING DATE: 5/15/97
HARVEST DATE: 11/2/97
COOPERATORS:
 Kraig Roozeboom, agronomist; Karl Mannschreck, superintendent

TARGET POPULATION: 50,000 plants/acre,
 4.2 in. spacing
STAND (% of target): 109
YIELD: Average (bu/a): 127
Range (bu/a): 93 - 148
LSD (bu/a): 10
CV (%): 7
BLOOM DATES: 7/21/97 - 7/30/97
1997 GROWING CONDITIONS:

Favorable soil moisture and seedbed conditions led to good stands for most entries. Hot, dry conditions during pollination and grain fill may have reduced yields slightly. Weed control was excellent. Harvest was made more difficult by high plant moisture, even though grain moisture was acceptable.



GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1997	Normal	1997	Normal	1997	Normal
April	5.2	2.7	52	54	0	0
May	2.2	4.6	62	65	856	924
June	2.1	5.1	75	73	1236	1185
July	2.2	3.9	81	79	1461	1392
August	4.2	3.5	77	77	1344	1340
Sep.	2.8	3.8	69	69	1058	1047
Oct.	3.3	2.8	59	57	783	710
Season Totals	22.0	26.3	68	68	6737	6596

TABLE 2. RILEY CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1995-1997.

BRAND	NAME	ACRE YIELD, BUSHEL					YIELD AS % OF TEST			96-97		1997						
		1997	1996	1995	2-Yr.	3-Yr.	AVERAGE			Days to Blm	Grain % Moist.	Days to Blm	Grain % Moist.	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
					AVG.	AVG.	1997	1996	1995									
MATURITY CHECK	C 305	110	129	137	120	125	87	91	96	65	15	66	15	54	47	5	122	1.1
MATURITY CHECK	TX3042xTX2737	103	137	142	120	128	82	96	100	67	15	68	15	55	51	11	126	1.1
DEKALB	DK-35	118	145	--	132	--	94	102	--	69	14	69	13	59	46	1	111	1.2
ASGROW	A328	93	139	128	116	120	73	98	90	69	14	71	13	59	44	0	97	1.2
GOLDEN HARVEST	H-430Y	116	--	--	--	--	92	--	--	--	--	71	13	59	50	1	97	1.3
MATURITY CHECK	RS 610	118	136	121	127	125	93	95	85	69	14	71	13	56	50	2	112	1.1
MATURITY CHECK	OK11xTX2741	110	131	130	120	124	87	92	91	70	14	71	13	58	48	0	110	1.1
PIONEER	8505	127	144	152	135	141	101	101	107	70	14	71	13	59	48	1	116	1.1
PIONEER	8500	128	146	141	137	138	101	102	99	69	15	71	14	59	49	1	114	1.3
ASGROW	A425	111	142	--	127	--	88	100	--	72	14	72	13	59	47	1	111	1.0
CARGILL	737	131	141	151	136	141	104	99	106	71	14	72	13	58	47	0	111	1.1
DEKALB	DK-45	131	161	156	146	149	103	113	110	71	14	72	13	59	52	3	111	1.1
DEKALB	DK-44	113	145	--	129	--	89	102	--	71	14	72	13	58	47	1	92	1.1
DEKALB	DK-40y	103	146	137	124	129	82	102	96	71	14	72	13	58	46	1	81	1.3
GARST	5429	135	--	--	--	--	106	--	--	--	--	72	13	58	52	0	118	1.1
MYCOGEN	444E	146	157	139	152	148	116	110	98	71	14	72	13	58	48	1	107	1.2
NC+	7R37E	130	--	150	--	--	103	--	105	--	--	72	13	59	50	1	121	1.1
PIONEER	8414	129	136	--	132	--	102	96	--	71	14	72	13	58	49	2	121	1.1
TRIUMPH	TR65-G	128	--	--	--	--	101	--	--	--	--	72	13	59	49	2	110	1.1
DEKALB	DK-47	147	130	--	139	--	116	91	--	71	15	72	14	59	51	0	130	1.1
CARGILL	X12027 EXP	122	156	--	139	--	97	109	--	73	14	73	13	56	47	1	109	1.1
CARGILL	837	135	139	150	137	142	107	98	105	71	14	73	13	58	52	1	116	1.1
CARGILL	775Y	121	143	133	132	132	96	100	94	71	14	73	13	58	46	1	121	1.1
CARGILL	730	128	140	158	134	142	101	98	111	72	14	73	13	58	49	1	113	1.1
GOLDEN HARVEST	H-495W	124	--	--	--	--	98	--	--	--	--	73	13	58	47	0	100	1.1
MYCOGEN	1506	130	144	161	137	145	103	101	113	72	14	73	13	58	57	2	109	1.1
NK	X618	134	--	--	--	--	106	--	--	--	--	73	13	60	46	0	106	1.3
NK	K73-J6	138	158	--	148	--	109	111	--	71	14	73	13	58	52	4	125	1.1
CARGILL	770Y	130	143	--	136	--	103	100	--	72	13	74	12	56	48	2	124	1.1
DEKALB	DK-58	147	--	--	--	--	117	--	--	--	--	74	13	59	51	0	123	1.1
DEKALB	DK-55	133	169	137	151	146	105	119	96	74	14	74	13	57	54	1	109	1.0
DEKALB	DK-54	135	--	--	--	--	107	--	--	--	--	74	13	59	54	0	106	1.1
MATURITY CHECK	TX2752xTX430	144	137	160	140	147	114	96	112	72	14	74	13	58	50	1	111	1.1
NC+	7R83	142	--	--	--	--	112	--	--	--	--	74	13	58	51	3	108	1.1
NC+	7B29	116	--	--	--	--	92	--	--	--	--	74	13	58	45	1	104	1.1
DEKALB	DK-56	143	--	--	--	--	113	--	--	--	--	74	14	60	53	1	94	1.2
MATURITY CHECK	TX2752xTX2783	115	146	153	131	138	91	103	107	73	15	74	14	60	51	1	69	1.4
CHECK	ATX631xTX2894	133	--	--	--	--	105	--	--	--	--	75	13	60	52	1	98	1.1
CHECK	ATX631xTX436	135	--	--	--	--	107	--	--	--	--	75	13	59	53	1	105	1.1
TRIUMPH	TR481	125	--	--	--	--	98	--	--	--	--	75	13	59	56	0	106	1.1
CHECK	ATX635xTX436	129	--	--	--	--	102	--	--	--	--	76	14	58	65	14	96	1.2
AVERAGES		127	142	143	134	137	127	142	143	71	14	73	13	58	50	2	109	1.1
CV(%)		7	6	6	--	--	7	6	6	--	--	1	2	2	4	111	7	7.3
LSD(0.05)**		10	10	11	--	--	8	7	8	--	--	1	0	2	2	2	9	0.1

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

NORTH CENTRAL KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL

COUNTY: REPUBLIC

LOCATION: North Central Kansas Experiment Field, Belleville

TEST SITE: Crete silt loam

1996 CROP: Soybeans

1995 CROP: Sorghum

FERTILIZER (lbs/acre): 140 N 30 P₂O₅ 0 K₂O

PLANTING DATE: 5/21/97

HARVEST DATE: 10/8/97

COOPERATORS:

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

TARGET POPULATION: 35,000 plants/acre,

6.0 in. spacing

STAND (% of target): 136

YIELD: Average (bu/a): 120

Range (bu/a): 99 - 136

LSD (bu/a): 5

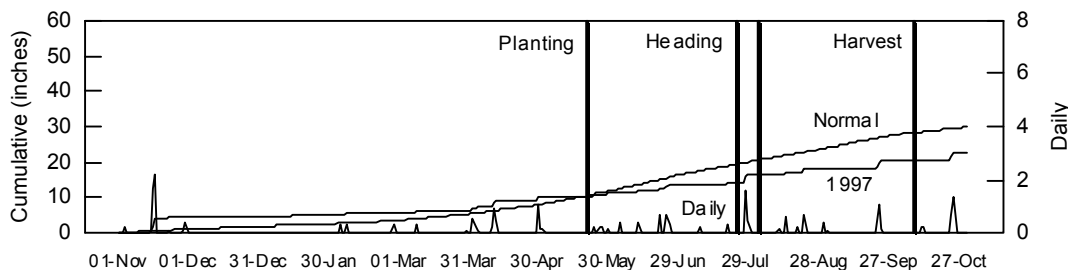
CV (%): 3

BLOOM DATES: 7/24/97 - 8/2/97

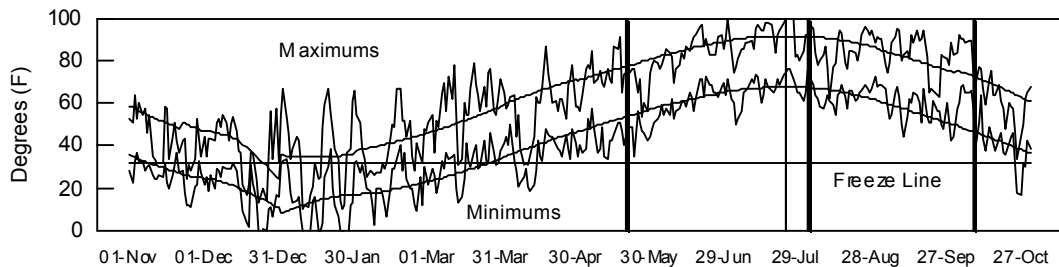
1997 GROWING CONDITIONS:

All plots had excellent stands, but May was drier and cooler than normal, slowing early growth. The summer was warm after early June and much drier than normal. Timely rains in late July helped produce a fair sorghum crop. Weed, disease, and insect problems were minimal.

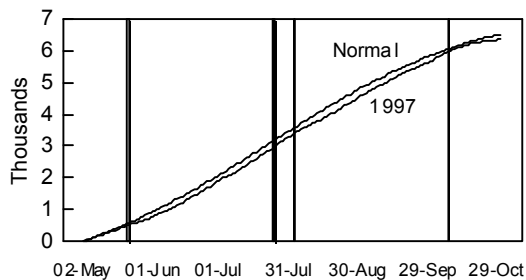
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1997	Normal	1997	Normal	1997	Normal
April	3.7	2.5	47	53	0	0
May	1.2	4.0	58	64	739	902
June	2.4	4.6	73	74	1174	1188
July	2.6	3.8	79	79	1385	1398
August	2.1	3.7	75	77	1282	1335
Sep.	1.9	3.9	70	67	1065	1004
Oct.	2.5	2.0	57	56	716	678
Season Totals	16.4	24.5	65	67	6359	6505

TABLE 3. REPUBLIC CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1995-1997.

BRAND	NAME	YIELD AS %									96-97		1997				Final Hds Stand per Plnt	
		ACRE YIELD, BUSHEL					OF TEST				Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.		Ldg %
		1997	1996	1995	2-Yr. AVG.	3-Yr. AVG.	1997	1996	1995	AVERAGE								
GARST	N5624 EXP	122	--	--	--	--	102	--	--	--	--	64	13	59	40	--	135	1.3
MATURITY CHECK	C 305	109	124	124	117	119	92	90	112	61	15	64	13	60	44	--	141	1.3
PIONEER	8500	128	153	--	141	--	107	111	--	62	15	64	13	60	43	--	140	1.2
ASGROW	A328	99	--	--	--	--	83	--	--	--	--	65	13	60	39	--	134	1.2
MATURITY CHECK	TX3042xTX2737	112	134	117	123	121	93	97	105	62	15	65	13	60	41	--	141	1.3
DEKALB	DK-35	124	144	--	134	--	104	104	--	63	16	65	14	60	40	--	137	1.2
MATURITY CHECK	RS 610	107	108	108	108	108	90	79	97	62	16	65	14	60	41	--	136	1.3
NK	KS 585	113	139	125	126	125	94	101	112	62	15	65	14	60	40	--	134	1.3
PIONEER	8505	131	157	127	144	138	109	114	114	63	16	65	14	60	43	--	137	1.2
DEKALB	DK-40y	119	144	113	131	125	99	104	102	63	15	66	13	60	42	--	136	1.2
CARGILL	627	122	134	--	128	--	102	97	--	63	16	66	14	60	42	--	138	1.2
MATURITY CHECK	OK11xTX2741	109	112	113	111	112	91	82	101	63	15	66	14	60	41	--	134	1.2
PIONEER	8414	112	154	--	133	--	94	112	--	63	16	66	14	60	40	--	133	1.3
TRIUMPH	TR445	121	135	--	128	--	101	98	--	63	16	66	14	60	42	--	140	1.2
DEKALB	DK-45	132	159	108	146	133	111	115	97	64	16	67	14	60	45	--	137	1.3
DEKALB	DK-44	119	140	--	129	--	99	101	--	65	16	67	14	60	41	--	135	1.2
GOLDEN HARVEST	H-430Y	117	--	--	--	--	98	--	--	--	--	67	14	60	41	--	135	1.2
MSG (OHLDE)	O 256	122	139	--	131	--	102	101	--	66	16	67	14	60	49	--	138	1.3
MYCOGEN	444E	117	--	108	--	--	98	--	97	--	--	67	14	59	41	--	137	1.3
NC+	6Y83-I	127	--	--	--	--	106	--	--	--	--	67	14	59	44	--	136	1.2
ASGROW	A425	119	--	--	--	--	99	--	--	--	--	68	14	60	41	--	137	1.3
CARGILL	647	121	135	125	128	127	101	98	112	64	16	68	14	60	41	--	138	1.3
DEKALB	DK-47	134	158	--	146	--	112	114	--	65	17	68	14	60	42	--	135	1.3
GARST	5429	128	--	--	--	--	107	--	--	--	--	68	14	60	43	--	137	1.2
MYCOGEN	1506	111	141	127	126	126	93	102	114	65	16	68	14	60	45	--	133	1.2
TRIUMPH	TR462	116	138	--	127	--	97	100	--	65	16	68	14	60	42	--	140	1.3
GOLDEN HARVEST	H-512	122	--	--	--	--	102	--	--	--	--	69	14	60	42	--	135	1.2
HOEGEMEYER	6766	116	--	--	--	--	97	--	--	--	--	69	14	60	43	--	138	1.2
HOEGEMEYER	671	122	137	96	129	118	102	99	87	65	16	69	14	60	44	--	132	1.1
KAYSTAR	KS-525	115	139	--	127	--	96	101	--	65	15	69	14	59	43	--	133	1.2
MSG (OHLDE)	G 571	106	--	--	--	--	88	--	--	--	--	69	14	60	45	--	134	1.3
NC+	7R37E	127	--	--	--	--	106	--	--	--	--	69	14	60	41	--	138	1.3
NK	K73-J6	121	--	--	--	--	101	--	--	--	--	69	14	57	44	--	132	1.3

(continued)

TABLE 3. REPUBLIC CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1995-1997.

BRAND	NAME	YIELD AS %									96-97		1997				Final Hds per Plnt	
		ACRE YIELD, BUSHEL					OF TEST				Days to Blm	Grain to Moist. %	Days to Blm	Grain to Moist. %	Test Wt. lb/bu	Plnt Ht. in.		Ldg %
		1997	1996	1995	2-Yr. AVG.	3-Yr. AVG.	1997	1996	1995	AVERAGE								
CARGILL	737	128	137	124	132	130	107	99	111	65	15	70	14	59	38	--	137	1.3
CARGILL	770Y	129	143	--	136	--	108	104	--	66	16	70	14	60	43	--	136	1.3
CARGILL	730	124	160	126	142	137	104	116	113	66	16	70	14	60	45	--	136	1.2
CARGILL	X12027 EXP	118	144	--	131	--	99	104	--	66	16	70	14	59	42	--	136	1.2
DEKALB	DK-58	136	150	102	143	129	113	109	92	67	16	70	14	59	49	--	132	1.3
DEKALB	DK-56	134	--	90	--	--	112	--	81	--	--	70	14	60	48	--	135	1.2
GOLDEN HARVEST	H-495W	117	--	--	--	--	98	--	--	--	--	70	14	60	42	--	132	1.2
HOEGEMEYER	6874	116	138	--	127	--	97	100	--	66	16	70	14	60	42	--	131	1.2
KAYSTAR	KS-540Y	117	136	--	127	--	98	99	--	66	16	70	14	60	43	--	139	1.3
NC+	6B70	122	--	--	--	--	102	--	--	--	--	70	14	59	39	--	138	1.3
NK	KS 711Y	106	140	104	123	117	89	102	94	66	17	70	14	60	41	--	137	1.3
TRIUMPH	TR65-G	114	138	113	126	122	96	100	101	66	16	70	14	60	43	--	135	1.3
CARGILL	775Y	123	149	103	136	125	103	108	93	66	16	71	14	60	42	--	136	1.3
DEKALB	DK-54	134	--	--	--	--	112	--	--	--	--	71	14	60	44	--	141	1.3
FONTANELLE	5576C	108	144	107	126	120	91	104	96	67	16	71	14	60	41	--	135	1.2
MATURITY CHECK	TX2752xTX430	126	154	124	140	134	105	112	111	67	17	71	14	60	44	--	139	1.3
NK	X618	106	--	--	--	--	89	--	--	--	--	71	14	60	42	--	138	1.3
DEKALB	DK-55	126	--	94	--	--	106	--	84	--	--	73	14	59	47	--	137	1.2
MATURITY CHECK	TX2752xTX2783	115	132	108	124	118	96	96	97	70	17	73	14	60	46	--	135	1.1
AVERAGES		120	138	111	129	123	120	138	111	65	16	68	14	60	43	--	136	1.3
CV(%)		3	7	8	--	--	3	7	8	--	--	2	1	1	5	--	4	5.6
LSD(0.05)**		5	13	15	--	--	4	9	13	--	--	2	0	NS	3	--	NS	0.1

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

TABLE 4. NORTHEASTERN KANSAS GRAIN SORGHUM TEST YIELD SUMMARY, 1994-1997.

BRAND	NAME	1997 YIELD AS % OF TEST AVERAGE ¹				1994-1997		
		BRO	RIL	REP	AVG.	DYA (bu/a) ²	S.E. ³	N ⁴
DEKALB	DK-54	129	107	112	116	25.9 *	5.3	6
DEKALB	DK-55	126	105	106	112	16.1 *	5.8	11
DEKALB	DK-45	107	103	111	107	15.8 *	4.4	9
NK	K73-J6	103	109	101	105	15.5 *	2.7	5
DEKALB	DK-47	100	116	112	109	14.6 *	4.4	6
CARGILL	730	115	101	104	106	14.4 *	2.9	9
MYCOGEN	1506	103	103	93	99	14.1 *	2.9	12
PIONEER	8500	--	101	107	--	12.5 *	3.2	6
c MATURITY CHECK	TX2752xTX430	98	114	105	106	11.9 *	1.8	12
DEKALB	DK-58	117	117	113	116	11.9	6.2	7
CARGILL	837	114	107	--	--	11.8 *	2.5	9
PIONEER	8505	92	101	109	101	11.7 *	2.7	11
CARGILL	737	103	104	107	105	10.7 *	2.6	12
MYCOGEN	444E	98	116	98	104	10.3 *	2.9	11
NC+	7R37E	--	103	106	--	9.1 *	2.4	5
MATURITY CHECK	TX2752xTX2783	101	91	96	96	9.1 *	3.4	12
CARGILL	770Y	102	103	108	104	8.6 *	2.5	6
DEKALB	DK-56	101	113	112	109	8.3	5.0	9
FONTANELLE	5576C	112	--	91	--	7.3	4.7	6
CARGILL	X12027 EXP	92	97	99	96	7.0	3.4	6
CARGILL	775Y	97	96	103	99	5.5	2.9	11
PIONEER	8310	117	--	--	--	5.2	5.3	6
DEKALB	DK-35	96	94	104	98	4.3	3.6	6
DEKALB	DK-44	91	89	99	93	4.0	3.2	6
TRIUMPH	TR65-G	--	101	96	--	0.9	2.4	7
DEKALB	DK-40y	85	82	99	89	0.1	3.3	9
ASGROW	A425	94	88	99	94	-0.2	3.3	5
HOEGEMEYER	671	102	--	102	--	-0.4	4.1	8
NK	KS 711Y	--	--	89	--	-3.1	4.5	5
c MATURITY CHECK	C 305	90	87	92	89	-3.5 *	1.4	12
MATURITY CHECK	OK11xTX2741	98	87	91	92	-4.4	2.3	12
MATURITY CHECK	TX3042xTX2737	101	82	93	92	-5.0	3.1	12
c MATURITY CHECK	RS 610	85	93	90	89	-8.4 *	1.7	12
ASGROW	A328	82	73	83	79	-11.1	4.5	6
AGRIPRO	AP 2440	90	--	--	--	--	--	--
AGRIPRO	AP 2468	90	--	--	--	--	--	--
AGRIPRO	AP 9210	81	--	--	--	--	--	--
AGRIPRO	HY 2660	101	--	--	--	--	--	--
CARGILL	627	--	--	102	--	--	--	--

(continued)

TABLE 4. NORTHEASTERN KANSAS GRAIN SORGHUM TEST YIELD SUMMARY, 1994-1997.

BRAND	NAME	1997 YIELD AS % OF TEST AVERAGE ¹				1994-1997		
		BRO	RIL	REP	AVG.	DYA (bu/a) ²	S.E. ³	N ⁴
CARGILL	647	--	--	101	--	--	--	--
GARST	5429	95	106	107	103	--	--	--
GARST	N5624 EXP	92	--	102	--	--	--	--
GOLDEN HARVEST	H-430Y	--	92	98	--	--	--	--
GOLDEN HARVEST	H-495W	--	98	98	--	--	--	--
GOLDEN HARVEST	H-512	--	--	102	--	--	--	--
HOEGEMEYER	6766	96	--	97	--	--	--	--
HOEGEMEYER	6874	--	--	97	--	--	--	--
HOEGEMEYER	6878	97	--	--	--	--	--	--
KAYSTAR	KS-525	--	--	96	--	--	--	--
KAYSTAR	KS-540Y	--	--	98	--	--	--	--
MSG (OHLDE)	G 571	93	--	88	--	--	--	--
MSG (OHLDE)	O 256	109	--	102	--	--	--	--
NC+	371	103	--	--	--	--	--	--
NC+	6B70	--	--	102	--	--	--	--
NC+	6Y83-I	--	--	106	--	--	--	--
NC+	7B29	100	92	--	--	--	--	--
NC+	7R83	109	112	--	--	--	--	--
NK	KS 585	--	--	94	--	--	--	--
NK	X618	82	106	89	92	--	--	--
PIONEER	8212Y	108	--	--	--	--	--	--
PIONEER	8414	--	102	94	--	--	--	--
TRIUMPH	TR445	--	--	101	--	--	--	--
TRIUMPH	TR462	--	--	97	--	--	--	--
TRIUMPH	TR481	--	98	--	--	--	--	--
CHECK	ATX631xTX436	--	107	--	--	--	--	--
CHECK	ATX631xTX2894	--	105	--	--	--	--	--
CHECK	ATX635xTX436	--	102	--	--	--	--	--
AVERAGES	(bushels/acre)	97	127	120	114	--	--	--
LSD(0.05)**		10	8	4	--	--	--	--

¹ BRO = Brown Co. Test, Cornbelt Exp. Field, Powhattan RIL = Riley Co. Test, Agronomy North Farm, Manhattan

REP = Republic Co. Test, North Central Experiment Field, Belleville

² DYA = Differential Yielding Ability; average difference of hybrid yield compared to average of check hybrids in bushels per acre.

³ SE = Standard Error of DYA; measure of consistency of yield differences.

⁴ N = Number of tests where hybrid was compared with checks; DYA was calculated only for those with at least 5 comparisons.

^c Check hybrid; each hybrid compared to average yield of these check hybrids.

* Statistically significantly different from the average of the check hybrids, which = 0 (P < 0.5).

EAST CENTRAL KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL

COUNTY: FRANKLIN

LOCATION: East Central Kansas Experiment Field, Ottawa

TEST SITE: Woodson silt loam

1996 CROP: Soybeans

1995 CROP: Sorghum

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

PLANTING DATE: 6/9/97

HARVEST DATE: 10/7/97

COOPERATORS:

Keith Janssen, agronomist

TARGET POPULATION: 40,000 plants/acre,

5.2 in. spacing

STAND (% of target): 121

YIELD: Average (bu/a): 143

Range (bu/a): 122 - 166

LSD (bu/a): 9

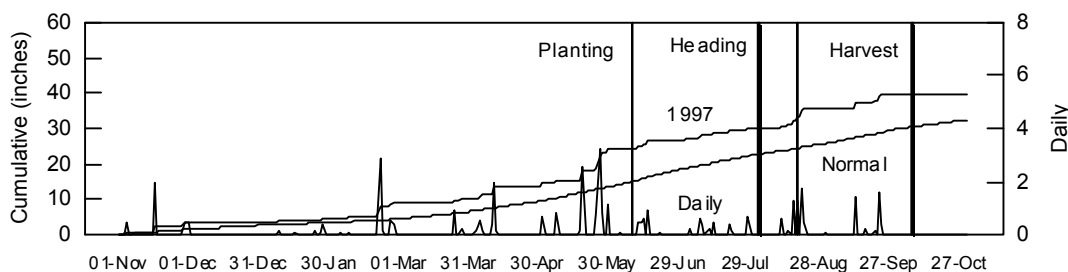
CV (%): 5

BLOOM DATES: 8/2/97 - 8/19/97

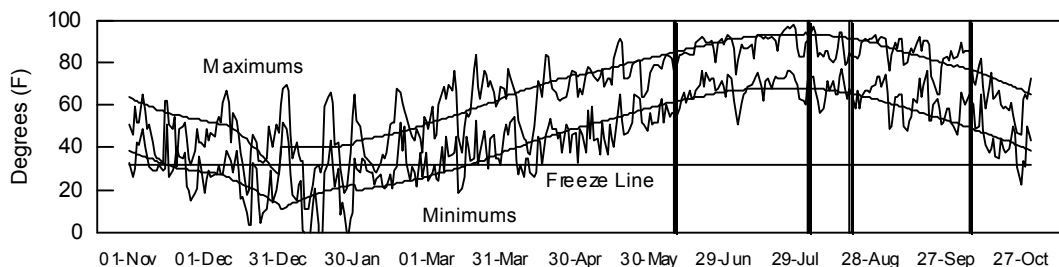
1997 GROWING CONDITIONS:

May rainfall delayed planting by a week or two. A good seedbed and warm temperatures contributed to rapid emergence and excellent stands for all entries. Rainfall was generally favorable for the rest of the growing season. Disease, insect, and week stresses were minimal.

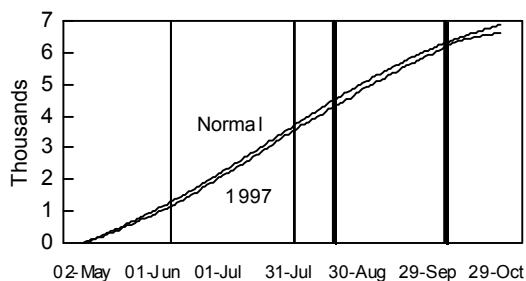
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1997	Normal	1997	Normal	1997	Normal
April	3.8	2.9	53	57	0	0
May	10.3	4.2	62	66	858	965
June	2.7	4.9	74	75	1207	1222
July	3.4	4.0	79	80	1401	1431
August	5.6	3.2	77	79	1332	1386
Sep.	3.9	4.1	71	70	1124	1080
Oct.	0.0	2.7	57	59	723	773
Season Totals	29.6	26.0	68	69	6643	6856

TABLE 5. FRANKLIN CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1997-1997.

BRAND	NAME	ACRE YIELD, BUSHELS			YIELD AS % OF TEST AVERAGE			96-97		1997								
		1997	1996	1995	2-Yr. AVG.	3-Yr. AVG.	1997	1996	1995	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
CENTURY II	GB5543-E	142	99	78	120	106	100	75	77	55	17	54	14	60	59	0	135	1.1
MATURITY CHECK	TX3042xTX2737	137	109	104	123	117	96	84	103	56	16	54	14	60	56	0	125	1.2
MATURITY CHECK	C 305	122	96	73	109	97	85	73	72	55	17	54	15	59	52	0	124	1.1
NK	KS 585	139	123	116	131	126	97	94	115	55	17	54	16	60	48	0	128	1.2
DEKALB	DK-35	130	142	--	136	--	91	108	--	56	16	55	15	59	48	0	120	1.1
MATURITY CHECK	RS 610	129	99	58	114	95	90	76	57	56	17	55	15	57	53	0	126	1.1
MATURITY CHECK	OK11xTX2741	128	123	94	125	115	89	94	93	57	17	56	15	59	48	0	122	1.0
PIONEER	8500	138	135	119	137	131	97	103	117	58	16	56	15	60	53	0	126	1.1
PIONEER	8505	136	--	--	--	--	95	--	--	--	--	56	16	60	51	0	122	1.2
DELANGE	DSA 115C	126	127	--	126	--	88	97	--	58	17	57	15	59	48	0	124	1.1
ASGROW	A425	137	--	--	--	--	96	--	--	--	--	57	16	60	52	0	129	1.1
DEKALB	DK-47	146	155	--	150	--	102	118	--	59	18	57	17	60	53	0	132	1.1
NC+	6C63	137	--	--	--	--	96	--	--	--	--	58	14	59	57	0	118	1.1
CENTURY II	GB7042-E	139	117	96	128	117	97	89	95	58	16	58	15	57	53	0	117	1.2
CARGILL	837	148	139	103	143	130	103	106	101	60	17	58	16	59	54	0	130	1.1
CARGILL	737	140	128	109	134	126	98	98	107	59	17	58	16	56	48	0	128	1.1
CENTURY II	GB9140-E	152	116	82	134	117	106	89	81	59	17	58	16	60	55	0	126	1.1
DEKALB	DK-45	163	114	123	138	133	114	87	121	59	18	58	16	59	58	0	128	1.1
DEKALB	DK-40y	145	--	--	--	--	101	--	--	--	--	58	16	57	52	0	107	1.1
GOLDEN HARVEST	H-512	163	--	--	--	--	114	--	--	--	--	58	16	60	56	0	117	1.1
MYCOGEN	444E	160	129	106	144	131	112	98	105	59	18	58	16	59	53	0	127	1.1
NC+	7R37E	151	--	101	--	--	105	--	99	--	--	58	16	61	55	0	135	1.1
DELANGE	DSA 125C	131	121	96	126	116	92	92	95	59	18	58	17	58	54	0	126	1.1
DELANGE	DSA 131	138	127	105	133	123	97	97	104	58	18	58	17	58	50	0	128	1.1
MSG (OHLDE)	O 256	153	148	--	151	--	107	113	--	60	18	58	17	59	65	0	129	1.1
GARST	5429	144	--	--	--	--	101	--	--	--	--	58	18	58	57	0	124	1.1
MYCOGEN	1506	147	139	118	143	135	103	106	117	60	18	58	18	58	65	0	116	1.1
TRIUMPH	TR459	141	135	106	138	127	99	103	104	59	18	58	18	59	47	0	120	1.1
HOEGEMEYER	6766	143	--	--	--	--	100	--	--	--	--	58	19	57	56	0	115	1.1
CARGILL	770Y	152	139	--	145	--	106	107	--	60	17	59	16	57	56	0	130	1.1
CENTURY II	GB8041-W	135	130	111	133	126	95	100	110	60	18	59	16	59	50	0	127	1.0
GOLDEN HARVEST	H-495W	128	--	--	--	--	90	--	--	--	--	59	16	59	50	0	116	1.1
HOEGEMEYER	671	138	134	102	136	125	97	103	100	59	18	59	17	57	53	0	108	1.1

(continued)

TABLE 5. FRANKLIN CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1997-1997.

BRAND	NAME	ACRE YIELD, BUSHEL						YIELD AS % OF TEST AVERAGE			96-97		1997					
		1997	1996	1995	2-Yr. AVG.	3-Yr. AVG.	1997	1996	1995	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
MATURITY CHECK	TX2752xTX430	140	142	118	141	134	98	109	117	60	18	59	18	56	54	0	125	1.1
NK	K73-J6	152	141	--	147	--	106	108	--	60	18	59	18	58	57	0	135	1.1
MSG (OHLDE)	G 571	144	--	--	--	--	101	--	--	--	--	59	19	58	57	1	114	1.1
NK	X618	148	--	--	--	--	104	--	--	--	--	59	20	57	51	0	124	1.3
DEKALB	DK-44	141	--	--	--	--	99	--	--	--	--	60	16	59	50	0	110	1.1
NC+	371	136	--	--	--	--	95	--	--	--	--	60	16	59	50	0	128	1.1
CARGILL	775Y	132	129	107	130	122	92	98	106	60	18	60	17	58	50	0	121	1.1
DEKALB	DK-58	166	138	107	152	137	116	106	105	61	18	60	17	58	59	0	123	1.1
NK	KS 711Y	136	119	104	128	120	95	91	102	60	18	60	17	59	45	0	100	1.3
CARGILL	X12027 EXP	138	132	--	135	--	97	101	--	61	18	60	18	55	49	0	125	1.1
DEKALB	DK-54	165	149	102	157	139	115	114	101	61	19	60	19	57	61	0	114	1.1
MYCOGEN	3747	139	--	--	--	--	97	--	--	--	--	61	16	57	52	0	122	1.1
CARGILL	730	142	144	124	143	137	100	110	123	61	17	62	16	59	52	0	129	1.0
TRIUMPH	TR481	148	143	--	145	--	104	109	--	62	18	62	18	58	58	0	118	1.1
HOEGEMEYER	6878	147	144	110	146	134	103	110	108	63	17	63	16	59	53	0	112	1.1
DEKALB	DK-56	147	151	100	149	133	103	116	99	63	18	63	17	58	59	0	108	1.1
PIONEER	8212Y	142	147	--	145	--	100	113	--	62	18	63	19	57	51	0	121	1.1
CHECK	ATX631xTX436	158	--	--	--	--	111	--	--	--	--	64	18	57	61	0	114	1.1
MATURITY CHECK	TX2752xTX2783	139	142	70	141	117	97	109	69	63	19	64	20	57	55	0	87	1.2
CHECK	ATX631xTX2894	159	--	--	--	--	111	--	--	--	--	65	19	57	61	0	113	1.1
CHECK	ATX635xTX436	140	--	--	--	--	98	--	--	--	--	70	21	56	71	1	107	1.1
AVERAGES		143	131	101	137	125	143	131	101	60	18	59	17	58	54	0	121	1.1
CV(%)		5	7	8	--	--	5	7	8	--	--	3	4	2	3	673	5	5.8
LSD(0.05)**		8	11	13	--	--	6	8	13	--	--	2	1	2	2	NS	7	0.1

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

SOUTHEAST KANSAS GRAIN SORGHUM TEST ON SILTY CLAY SOIL

COUNTY: CHASE

LOCATION: ImMasche Research Center, Strong City

TEST SITE: Osage silty clay

1996 CROP: Corn

1995 CROP: Soybeans

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

PLANTING DATE: 5/21/97

HARVEST DATE: 10/17/97

COOPERATORS:

Kraig Roozeboom

TARGET POPULATION: 40,000 plants/acre,

5.2 in. spacing

STAND (% of target): 109

YIELD: Average (bu/a): 141

Range (bu/a): 113 - 161

LSD (bu/a): 11

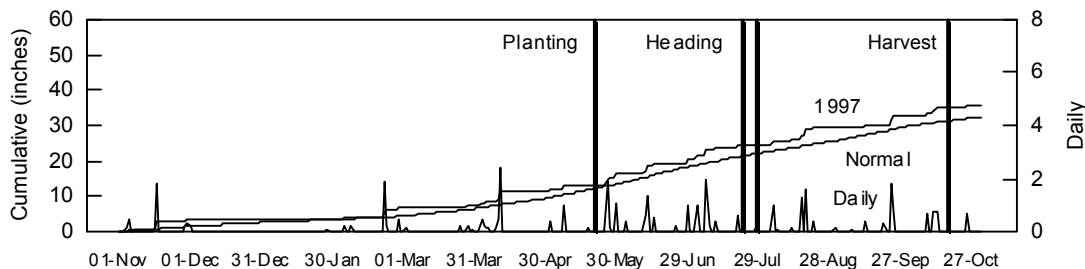
CV (%): 7

BLOOM DATES: 7/22/97 - 7/28/97

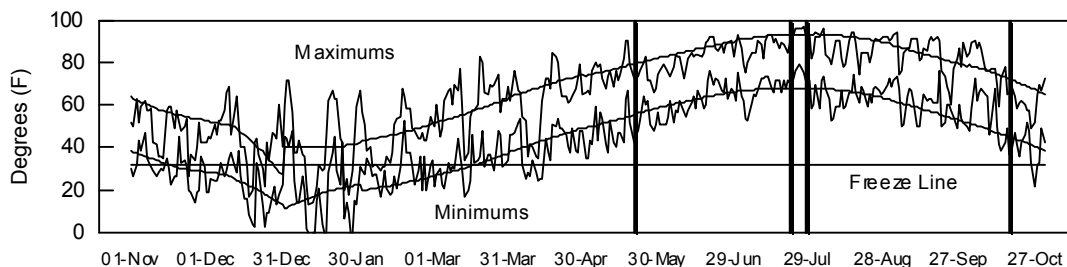
1997 GROWING CONDITONS:

Most entries were able to establish good stands. Favorable conditions for most of the growing season resulted in some of the highest yields recorded at this location.

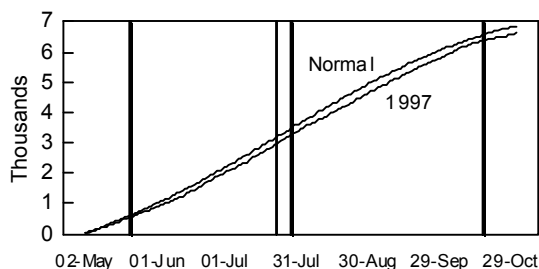
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1997	Normal	1997	Normal	1997	Normal
April	4.2	2.9	51	57	0	0
May	4.6	4.2	62	66	852	965
June	4.1	4.9	73	75	1171	1222
July	4.3	4.0	78	80	1377	1431
August	4.7	3.2	76	79	1306	1386
Sep.	3.4	4.1	71	70	1121	1080
Oct.	2.9	2.7	59	59	782	773
Season Totals	28.2	26.0	67	69	6608	6856

TABLE 6. CHASE CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1994-1997.

BRAND	NAME	ACRE YIELD, BUSHELS						YIELD AS % OF TEST AVERAGE			95-97		1997						
		1997			1995			1994			Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
		1997	1995	1994	2-Yr. AVG.	3-Yr. AVG.	1997	1995	1994										
MATURITY CHECK	C 305	135	91	--	113	--	95	108	--	61	15	62	18	53	53	1	117	1.5	
MATURITY CHECK	RS 610	129	84	66	107	93	92	100	70	62	15	64	16	51	56	2	115	1.3	
MATURITY CHECK	TX3042xTX2737	145	79	--	112	--	102	94	--	62	15	64	16	56	59	2	129	1.3	
NK	KS 585	147	--	--	--	--	104	--	--	--	--	64	16	58	49	3	109	1.5	
DEKALB	DK-35	130	--	--	--	--	92	--	--	--	--	65	15	58	44	1	106	1.5	
MATURITY CHECK	OK11xTX2741	126	81	72	104	93	89	97	76	62	14	65	16	54	49	1	112	1.2	
DEKALB	DK-44	113	--	--	--	--	80	--	--	--	--	66	15	57	49	1	90	1.2	
DEKALB	DK-45	136	102	--	119	--	96	121	--	64	14	66	15	58	56	1	114	1.1	
MYCOGEN	444E	161	--	87	--	--	114	--	92	--	--	66	15	56	53	1	115	1.4	
NC+	371	149	--	--	--	--	105	--	--	--	--	66	15	58	50	0	124	1.3	
DEKALB	DK-40y	118	80	--	99	--	83	96	--	64	15	66	16	56	50	1	89	1.5	
DEKALB	DK-47	157	--	--	--	--	111	--	--	--	--	66	16	59	52	1	119	1.4	
DELANGE	DSA 131	146	73	--	109	--	103	88	--	64	15	66	16	58	49	0	105	1.4	
GARST	5429	137	--	--	--	--	97	--	--	--	--	66	16	58	55	2	115	1.1	
MYCOGEN	1506	153	90	107	122	117	108	107	113	64	15	66	16	57	64	2	107	1.3	
NC+	6B67	128	--	--	--	--	90	--	--	--	--	66	16	55	49	0	118	1.2	
NK	K73-J6	155	--	--	--	--	110	--	--	--	--	66	16	57	56	1	115	1.3	
ASGROW	A425	141	--	--	--	--	100	--	--	--	--	66	17	54	49	1	124	1.2	
DEKALB	DK-58	147	--	--	--	--	104	--	--	--	--	67	15	57	58	1	117	1.4	
DEKALB	DK-54	153	--	--	--	--	108	--	--	--	--	67	16	57	60	0	104	1.5	
DEKALB	DK-56	144	85	104	114	111	102	101	110	66	15	67	16	59	55	1	93	1.4	
DELANGE	DSA 151	156	96	103	126	118	110	115	109	65	14	67	16	57	54	0	115	1.4	
HOEGEMEYER	6874	150	--	--	--	--	106	--	--	--	--	67	16	58	55	1	115	1.3	
HOEGEMEYER	671	139	81	98	110	106	98	97	104	65	15	67	16	56	53	2	96	1.3	
NC+	6C63	123	--	--	--	--	87	--	--	--	--	67	16	54	55	1	110	1.3	
MATURITY CHECK	TX2752xTX430	151	103	95	127	116	107	123	101	65	14	68	15	57	51	0	112	1.3	
HOEGEMEYER	6878	151	79	--	115	--	107	95	--	66	15	68	16	59	53	0	105	1.5	
MYCOGEN	3747	130	--	--	--	--	92	--	--	--	--	68	16	54	50	1	103	1.4	
NK	X618	145	--	--	--	--	102	--	--	--	--	68	16	59	49	0	110	1.7	
MATURITY CHECK	TX2752xTX2783	148	85	103	117	112	105	102	109	65	15	68	17	58	54	1	74	1.7	
AVERAGES		141	84	95	113	107	141	84	95	64	15	66	16	57	53	1	109	1.4	
CV(%)		7	10	17	--	--	7	10	17	--	--	1	3	4	3	151	7	8.5	
LSD(0.05)**		11	12	22	--	--	8	15	23	--	--	1	1	NS	2	NS	9	0.1	

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

SOUTHEAST KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL

COUNTY: LABETTE

LOCATION: Southeast Agricultural Research Center, Parsons

TEST SITE: Parsons silt loam

1996 CROP: Soybeans

1995 CROP: Sorghum

FERTILIZER (lbs/acre): 125 N 60 P₂O₅ 60 K₂O

PLANTING DATE: 5/13/97

HARVEST DATE: 9/22/97

COOPERATORS:

Kenneth Kelley

TARGET POPULATION: 35,000 plants/acre,

6.0 in. spacing

STAND (% of target): 90

YIELD: Average (bu/a): 138

Range (bu/a): 110 - 165

LSD (bu/a): 6

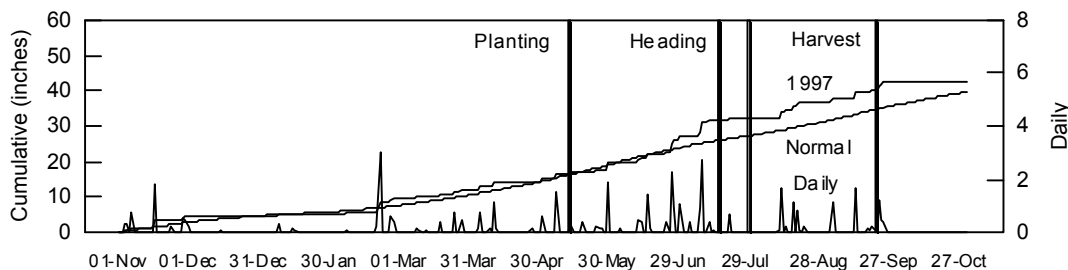
CV (%): 3

BLOOM DATES: 7/16/97 - 7/29/97

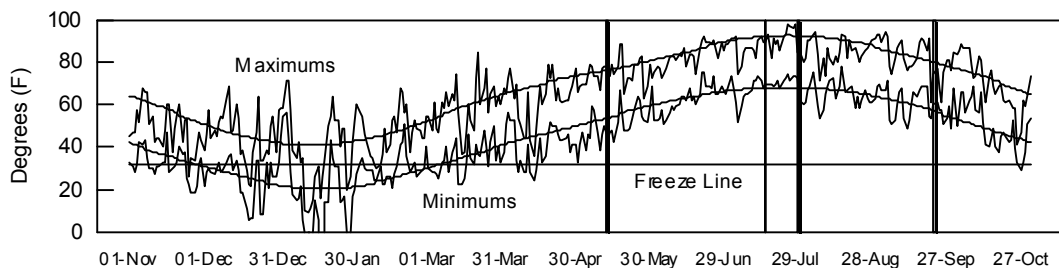
1997 GROWING CONDITIONS:

Soil temperature and moisture conditions were good for seed emergence. Below-normal temperatures in May and early June slowed early growth. Near ideal growing conditions characterized the rest of the season. Adequate rainfall before and after heading resulted in good grain development. Insects and diseases caused no real problems.

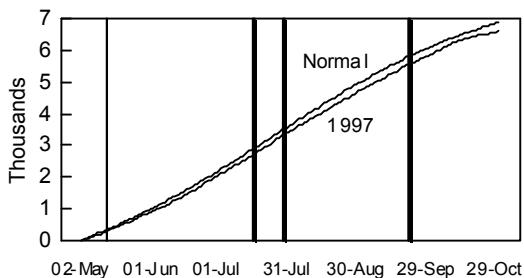
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1997	Normal	1997	Normal	1997	Normal
April	2.6	3.7	52	58	0	0
May	5.3	5.0	63	66	877	965
June	7.3	4.7	73	75	1169	1215
July	5.3	3.5	78	80	1373	1418
August	4.4	3.9	76	78	1291	1371
Sep.	5.5	4.5	71	70	1098	1095
Oct.	0.0	3.8	60	60	793	791
Season Totals	30.4	29.2	67	69	6600	6853

TABLE 7. LABETTE CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1994-1997.

BRAND	NAME	YIELD AS %									95-97		1997						
		ACRE YIELD, BUSHELS					OF TEST				Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Hts. in.	Ldg %	Final Stand %	Hds per Plnt
		1997	1995	1994	2-Yr. AVG.	3-Yr. AVG.	1997	1995	1994	AVERAGE									
MATURITY CHECK	C 305	127	69	123	98	106	92	81	94	57	15	64	16	55	53	1	92	2.3	
DEKALB	DK-35	133	--	--	--	--	96	--	--	--	--	66	15	57	49	1	88	2.3	
MATURITY CHECK	TX3042xTX2737	143	77	127	110	116	104	90	97	59	14	66	15	57	60	1	98	2.0	
NK	KS 585	132	83	--	107	--	96	96	--	59	15	66	15	59	55	1	88	2.7	
CENTURY II	GB5543-E	138	74	134	106	116	101	86	103	59	15	66	16	56	57	6	96	2.1	
MATURITY CHECK	RS 610	130	43	114	87	96	95	50	87	60	14	67	15	54	57	1	99	1.9	
DELANGE	DSA 115C	117	--	--	--	--	85	--	--	--	--	68	15	57	48	0	91	1.9	
DEKALB	DK-47	153	--	--	--	--	111	--	--	--	--	68	16	59	54	0	97	2.2	
MATURITY CHECK	OK11xTX2741	126	73	130	99	110	92	85	100	60	14	69	15	56	52	0	93	2.0	
PIONEER	8505	152	--	--	--	--	110	--	--	--	--	69	16	58	54	1	88	2.4	
DELANGE	DSA 131	136	81	--	109	--	99	95	--	62	15	70	15	57	52	0	92	2.2	
NK	KS 711Y	110	84	--	97	--	80	98	--	64	15	70	15	59	46	0	66	2.8	
PIONEER	8414	155	--	--	--	--	113	--	--	--	--	70	15	58	54	0	102	2.0	
PIONEER	8500	148	83	133	115	121	107	97	102	62	15	70	16	59	54	1	103	2.1	
CARGILL	775Y	127	89	133	108	116	92	104	102	63	15	71	15	57	53	0	98	2.0	
CENTURY II	GB8041-W	137	81	128	109	115	99	95	98	63	15	71	15	57	55	0	92	2.2	
ASGROW	A425	129	--	--	--	--	94	--	--	--	--	71	16	58	54	2	78	2.2	
MYCOGEN	444E	148	88	138	118	125	107	103	105	63	15	71	16	57	54	0	93	2.1	
HOEGEMEYER	6766	137	--	--	--	--	100	--	--	--	--	71	17	58	56	0	84	1.9	
CARGILL	770Y	145	--	--	--	--	105	--	--	--	--	72	15	55	56	0	99	2.0	
CENTURY II	GB7042-E	128	75	121	102	108	93	88	93	64	14	72	15	56	50	1	84	2.3	
DEKALB	DK-40y	122	96	131	109	116	89	112	100	64	15	72	15	56	53	0	86	2.0	
GOLDEN HARVEST	H-495W	127	--	--	--	--	93	--	--	--	--	72	15	58	53	1	88	2.1	
HOEGEMEYER	671	146	94	132	120	124	106	110	101	64	15	72	15	58	55	0	76	2.6	
NC+	6C63	129	--	--	--	--	94	--	--	--	--	72	15	56	59	0	94	1.8	
CARGILL	X12027 EXP	119	--	--	--	--	87	--	--	--	--	72	16	55	49	0	93	1.7	
DEKALB	DK-45	140	92	--	116	--	102	108	--	64	15	72	16	56	58	3	90	1.9	
DEKALB	DK-44	122	--	--	--	--	88	--	--	--	--	72	16	56	50	0	96	1.6	
NK	K73-J6	146	--	--	--	--	106	--	--	--	--	72	16	57	57	0	105	1.8	
TRIUMPH	TR462	138	--	--	--	--	100	--	--	--	--	72	16	58	54	0	92	2.2	
MYCOGEN	1506	165	91	150	128	135	120	106	115	64	16	72	17	57	64	0	80	2.3	
CARGILL	730	143	89	--	116	--	104	104	--	65	15	73	15	56	54	0	98	1.9	
CARGILL	737	141	77	132	109	117	102	90	101	64	14	73	15	57	52	1	95	1.8	
DEKALB	DK-56	141	--	133	--	--	103	--	102	--	--	73	16	58	58	0	80	2.1	
DEKALB	DK-54	164	96	151	130	137	119	112	115	67	16	73	16	57	64	0	81	2.3	
GOLDEN HARVEST	H-512	139	--	--	--	--	101	--	--	--	--	73	16	58	55	0	87	2.2	
NC+	7R37E	141	86	139	114	122	103	100	107	65	15	73	16	58	55	0	102	1.9	
NK	X618	122	--	--	--	--	89	--	--	--	--	73	17	58	52	0	84	2.5	
CENTURY II	GB9140-E	147	83	--	115	--	107	97	--	65	15	74	16	59	57	0	103	1.6	
HOEGEMEYER	6878	134	101	133	118	123	98	118	102	66	16	74	16	58	52	1	89	2.0	
MATURITY CHECK	TX2752xTX430	150	91	129	121	123	109	106	99	66	16	74	16	57	56	0	102	1.9	
DEKALB	DK-58	149	95	145	122	130	109	111	111	66	16	75	16	56	58	0	91	2.1	
MYCOGEN	3747	122	--	--	--	--	89	--	--	--	--	75	16	56	55	0	91	1.8	
NC+	7R83	147	92	--	120	--	107	107	--	66	16	75	16	57	56	0	83	1.9	
TRIUMPH	TR474	144	91	143	118	126	105	106	110	69	17	75	16	57	59	0	85	2.2	
MATURITY CHECK	TX2752xTX2783	138	79	131	109	116	101	92	100	68	15	77	16	58	58	0	66	2.3	
AVERAGES		138	86	131	112	118	138	86	131	63	15	71	16	57	55	1	90	2.1	
CV(%)		3	8	5	--	--	3	8	5	--	--	1	1	1	3	188	9	9.9	
LSD(0.05)**		6	11	10	--	--	4	13	8	--	--	1	0	1	2	1	11	0.3	

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

TABLE 8. SOUTHEASTERN KANSAS GRAIN SORGHUM TEST YIELD SUMMARY, 1994-1997.

BRAND	NAME	1997 YIELD AS % OF TEST AVERAGE ¹				1994-1997		
		FRA	CHA	LAB	AVG.	DYA (bu/a) ²	S.E. ³	N ⁴
DEKALB	DK-54	115	108	119	114	26.7 *	2.4	8
DEKALB	DK-58	116	104	109	110	25.3 *	3.8	8
CARGILL	730	100	--	104	--	22.6 *	5.5	5
MYCOGEN	1506	103	108	120	110	20.2 *	3.6	9
TRIUMPH	TR474	--	--	105	--	20.0 *	4.6	6
MYCOGEN	444E	112	114	107	111	18.9 *	1.9	8
CARGILL	837	103	--	--	--	18.6 *	2.8	6
PIONEER	8500	97	--	107	--	17.4 *	3.8	6
TRIUMPH	TR481	104	--	--	--	16.8 *	3.2	5
c MATURITY CHECK	TX2752xTX430	98	107	109	105	16.6 *	2.9	10
NC+	7R37E	105	--	103	--	15.9 *	2.3	5
DEKALB	DK-45	114	96	102	104	15.7 *	5.1	8
CARGILL	737	98	--	102	--	14.3 *	2.7	7
NK	K73-J6	106	110	106	107	13.7	5.6	5
CENTURY II	GB9140-E	106	--	107	--	13.6 *	4.4	6
DELANGE	DSA 151	--	110	--	--	12.2 *	4.5	8
NK	KS 585	97	104	96	99	12.0 *	4.6	6
HOEGEMEYER	6878	103	107	98	103	11.9 *	5.1	10
CARGILL	775Y	92	--	92	--	11.9 *	4.1	7
DEKALB	DK-56	103	102	103	103	11.8 *	4.1	9
CENTURY II	GB8041-W	95	--	99	--	11.1 *	3.3	7
HOEGEMEYER	671	97	98	106	100	10.3 *	3.3	10
DELANGE	DSA 131	97	103	99	99	7.5	3.6	9
MATURITY CHECK	TX2752xTX2783	97	105	101	101	7.0	4.3	10
NK	KS 711Y	95	--	80	--	5.6	6.0	7
CENTURY II	GB7042-E	97	--	93	--	4.9	2.4	7
MATURITY CHECK	TX3042xTX2737	96	102	104	101	4.9	2.6	10
CENTURY II	GB5543-E	100	--	101	--	2.4	3.8	6
DEKALB	DK-40y	101	83	89	91	0.6	6.1	7
DELANGE	DSA 125C	92	--	--	--	-0.1	3.9	8
MATURITY CHECK	OK11xTX2741	89	89	92	90	-1.9	2.8	10
c MATURITY CHECK	C 305	85	95	92	91	-4.5	2.3	10
c MATURITY CHECK	RS 610	90	92	95	92	-12.1 *	2.5	10
ASGROW	A425	96	100	94	96	--	--	--
CARGILL	770Y	106	--	105	--	--	--	--
CARGILL	X12027 EXP	97	--	87	--	--	--	--
DEKALB	DK-35	91	92	96	93	--	--	--
DEKALB	DK-44	99	80	88	89	--	--	--
DEKALB	DK-47	102	111	111	108	--	--	--

(continued)

TABLE 8. SOUTHEASTERN KANSAS GRAIN SORGHUM TEST YIELD SUMMARY, 1994-1997.

BRAND	NAME	1997 YIELD AS % OF TEST AVERAGE ¹				1994-1997		
		FRA	CHA	LAB	AVG.	DYA (bu/a) ²	S.E. ³	N ⁴
DELANGE	DSA 115C	88	--	85	--	--	--	--
GARST	5429	101	97	--	--	--	--	--
GOLDEN HARVEST	H-495W	90	--	93	--	--	--	--
GOLDEN HARVEST	H-512	114	--	101	--	--	--	--
HOEGEMEYER	6766	100	--	100	--	--	--	--
HOEGEMEYER	6874	--	106	--	--	--	--	--
MSG (OHLDE)	G 571	101	--	--	--	--	--	--
MSG (OHLDE)	O 256	107	--	--	--	--	--	--
MYCOGEN	3747	97	92	89	93	--	--	--
NC+	371	95	105	--	--	--	--	--
NC+	6B67	--	90	--	--	--	--	--
NC+	6C63	96	87	94	92	--	--	--
NC+	7R83	--	--	107	--	--	--	--
NK	X618	104	102	89	98	--	--	--
PIONEER	8212Y	100	--	--	--	--	--	--
PIONEER	8414	--	--	113	--	--	--	--
PIONEER	8505	95	--	110	--	--	--	--
TRIUMPH	TR459	99	--	--	--	--	--	--
TRIUMPH	TR462	--	--	100	--	--	--	--
CHECK	ATX631xTX436	111	--	--	--	--	--	--
CHECK	ATX631xTX2894	111	--	--	--	--	--	--
CHECK	ATX635xTX436	98	--	--	--	--	--	--
AVERAGES	(bushels/acre)	143	141	138	141	--	--	--
LSD(0.05)**		6	8	4	--	--	--	--

¹ FRA = Franklin Co. Test, East Central Exp. Field, Ottawa CHA = Chase Co. Test, ImMasche Res. Center, Strong City
LAB = Labette Co. Test, Southeast Research Extension Center, Parsons
² DYA = Differential Yielding Ability; average difference of hybrid yield compared to average of check hybrids in bushels per acre.
³ SE = Standard Error of DYA; measure of consistency of yield differences.
⁴ N = Number of tests where hybrid was compared with checks; DYA was calculated only for those with at least 5 comparisons.
^c Check hybrid; each hybrid compared to average yield of these check hybrids.
* Statistically significantly different from the average of the check hybrids, which = 0 (P < 0.5).

SOUTH CENTRAL KANSAS GRAIN SORGHUM TEST ON SILTY CLAY LOAM SOIL

COUNTY: HARVEY

LOCATION: Harvey County Experiment Field, Hesston

TEST SITE: Smolan silty clay loam

1996 CROP: Oats

1995 CROP: Sorghum

FERTILIZER (lbs/acre): 118 N 32 P₂O₅ 0 K₂O

PLANTING DATE: 6/10/97

HARVEST DATE: 11/3/97

COOPERATORS:

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

TARGET POPULATION: 35,000 plants/acre,

6.0 in. spacing

STAND (% of target): 118

YIELD: Average (bu/a): 137

Range (bu/a): 98 - 172

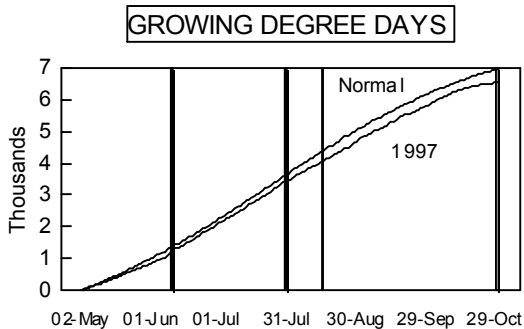
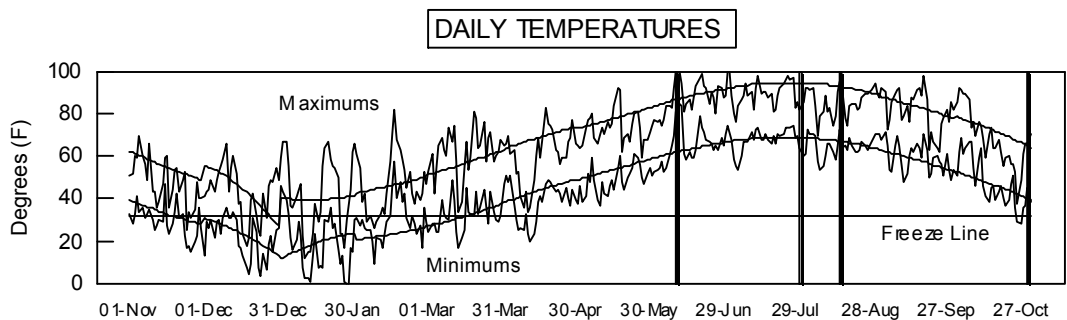
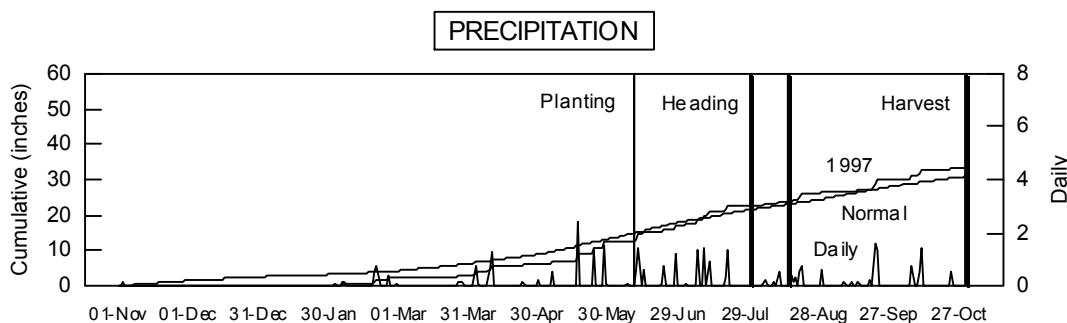
LSD (bu/a): 12

CV (%): 6

BLOOM DATES: 7/30/97 - 8/15/97

1997 GROWING CONDITIONS:

Above-normal precipitation prevailed throughout the growing season. Daily maximum temperatures averaged more than 3 degrees below normal. The first killing frost occurred later than normal. Overall weather conditions favored high yields. Insect and disease damage was of no importance.



GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1997	Normal	1997	Normal	1997	Normal
April	3.5	2.6	49	56	0	0
May	6.0	4.5	61	66	814	963
June	4.9	4.7	76	76	1266	1251
July	5.5	3.6	78	81	1374	1460
August	3.7	3.0	75	79	1280	1407
Sep.	3.8	3.7	70	71	1091	1098
Oct.	3.4	2.6	58	59	744	780
Season Totals	30.7	24.6	67	70	6568	6959

TABLE 9. HARVEY CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1995-1997.

BRAND	NAME	ACRE YIELD, BUSHELS			YIELD AS % OF TEST AVERAGE			96-97		1997								
		1997	1996	1995	2-Yr. AVG.	3-Yr. AVG.	1997	1996	1995	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plant Ht. in.	Ldg %	Final Stand %	Hds per Plnt
MATURITY CHECK	C 305	114	111	96	112	107	84	89	104	51	14	50	14	56	47	4	125	1.5
NC+	5B74E	125	--	--	--	--	92	--	--	--	--	51	14	57	40	5	130	1.3
MATURITY CHECK	TX3042xTX2737	124	126	62	125	104	91	101	68	53	14	52	15	57	51	19	133	1.3
NK	KS 585	149	140	99	145	129	109	112	107	54	14	53	14	60	45	3	128	1.7
GARST	N5624 EXP	107	--	--	--	--	78	--	--	--	--	53	15	56	45	59	122	1.5
AGRIPRO	AP 9210	130	126	--	128	--	95	101	--	54	14	54	15	60	43	3	109	1.6
ASGROW	A328	127	108	--	117	--	93	86	--	53	14	54	15	59	44	3	109	1.7
DEKALB	DK-35	140	131	--	136	--	102	105	--	55	15	54	15	59	44	6	117	1.5
MATURITY CHECK	RS 610	112	112	67	112	97	82	90	72	54	14	54	15	56	48	54	122	1.4
DELANGE	DSA 131	142	--	--	--	--	104	--	--	--	--	55	15	58	45	15	121	1.4
DELANGE	DSA 115C	132	130	--	131	--	97	104	--	56	14	55	15	59	42	4	121	1.3
PIONEER	8500	132	135	90	133	119	96	108	98	55	15	55	16	59	47	4	124	1.6
AGRIPRO	AP 2468	123	--	--	--	--	90	--	--	--	--	56	15	58	44	0	126	1.2
PIONEER	8505	137	131	92	134	120	100	105	100	55	15	56	15	59	47	0	120	1.5
TRIUMPH	TR445	119	--	--	--	--	87	--	--	--	--	56	15	58	47	26	122	1.2
DEKALB	DK-44	144	116	--	130	--	105	93	--	58	15	57	15	58	47	6	112	1.3
NK	K73-J6	172	--	--	--	--	126	--	--	--	--	57	15	59	54	3	133	1.3
CARGILL	770Y	131	128	--	129	--	96	102	--	58	14	58	14	55	48	7	124	1.2
NK	KS 711Y	139	127	136	133	134	102	101	147	59	14	58	14	59	44	2	97	1.9
PIONEER	8414	139	128	--	133	--	101	102	--	57	14	58	14	59	49	0	130	1.4
CARGILL	X12027 EXP	126	131	--	128	--	92	105	--	61	15	58	15	59	44	7	123	1.2
CARGILL	647	125	130	109	127	121	92	104	118	57	15	58	15	59	49	3	136	1.1
CARGILL	627	151	114	115	132	127	110	91	125	58	15	58	15	57	47	1	129	1.2
DEKALB	DK-43A	138	--	--	--	--	101	--	--	--	--	58	15	58	44	11	108	1.6
DELANGE	DSA 125C	129	111	88	120	109	94	88	95	58	15	58	15	58	46	1	127	1.2
DELANGE	DSA 151	142	129	--	136	--	104	103	--	59	15	58	15	57	52	48	115	1.4
GARST	5429	167	--	--	--	--	122	--	--	--	--	58	15	59	50	0	126	1.2
HOEGEMEYER	671	128	124	94	126	115	94	99	102	57	15	58	15	58	48	6	106	1.5
HOEGEMEYER	6874	138	120	--	129	--	101	96	--	57	15	58	15	58	50	11	110	1.3
MATURITY CHECK	OK11xTX2741	98	118	29	108	82	72	95	31	56	15	58	15	59	44	17	117	1.2
MSG (OHLDE)	G 571	156	--	--	--	--	114	--	--	--	--	58	15	59	50	1	114	1.3
MSG (OHLDE)	O 256	168	135	--	152	--	123	108	--	58	15	58	15	59	59	7	125	1.3
NC+	6C63	123	--	--	--	--	90	--	--	--	--	58	15	57	49	2	120	1.3
TRIUMPH	TR462	139	--	--	--	--	101	--	--	--	--	58	15	59	50	20	124	1.3

(continued)

TABLE 9. HARVEY CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1995-1997.

BRAND	NAME	ACRE YIELD, BUSHEL			YIELD AS % OF TEST AVERAGE			96-97		1997								
		1997	1996	1995	2-Yr. AVG.	3-Yr. AVG.	1997	1996	1995	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plant Ht. in.	Ldg %	Final Stand %	Hds per Plnt
AGRIPRO	HY 2660	141	129	--	135	--	103	103	--	57	15	58	16	59	45	4	128	1.1
ASGROW	A425	150	132	--	141	--	110	106	--	59	15	58	16	58	47	4	129	1.2
DEKALB	DK-45	146	141	80	144	122	107	113	87	58	15	58	16	57	53	39	123	1.2
CARGILL	737	153	125	117	139	132	112	100	128	58	14	59	14	58	47	1	125	1.3
DEKALB	DK-40y	120	118	57	119	98	88	94	62	58	14	59	14	58	48	14	97	1.6
AGRIPRO	AP 2440	125	113	--	119	--	92	90	--	58	14	59	15	58	43	5	119	1.2
CARGILL	775Y	125	126	93	125	114	91	101	101	58	15	59	15	57	45	12	124	1.3
MATURITY CHECK	TX2752xTX430	142	129	68	135	113	104	103	74	59	15	59	15	56	50	42	133	1.2
MYCOGEN	1506	163	141	121	152	142	119	113	131	59	15	59	15	59	56	2	112	1.5
MYCOGEN	444E	136	--	--	--	--	100	--	--	--	--	59	15	58	50	32	108	1.6
NK	X618	167	--	--	--	--	122	--	--	--	--	59	15	59	46	0	116	2.0
AGRIPRO	AP 2838	126	--	--	--	--	92	--	--	--	--	59	16	57	47	32	127	1.0
HOEGEMEYER	6878	124	145	99	135	123	91	116	107	61	15	59	16	59	48	27	112	1.4
CARGILL	730	148	124	--	136	--	109	99	--	59	14	60	15	57	50	6	124	1.2
DEKALB	DK-58	151	--	--	--	--	110	--	--	--	--	60	15	57	52	13	122	1.3
GARST	5514Y	146	137	--	142	--	107	110	--	62	15	60	15	58	49	10	115	1.5
NC+	7B29	131	--	--	--	--	96	--	--	--	--	60	15	59	45	1	117	1.2
GOLDEN HARVEST	H-512	146	--	--	--	--	107	--	--	--	--	61	15	60	51	18	108	1.5
MATURITY CHECK	TX2752xTX2783	118	131	88	124	112	86	105	96	60	15	61	16	58	51	34	77	1.6
CHECK	ATX631xTX436	133	--	--	--	--	97	--	--	--	--	63	16	58	56	17	112	1.2
DEKALB	DK-56	131	141	100	136	124	96	113	108	64	15	63	16	59	53	23	96	1.5
CHECK	ATX631xTX2894	132	--	--	--	--	97	--	--	--	--	64	15	58	56	35	105	1.3
TRIUMPH	TR481	171	--	--	--	--	125	--	--	--	--	64	15	60	54	0	116	1.2
CHECK	ATX635xTX436	133	--	--	--	--	97	--	--	--	--	66	15	59	63	39	109	1.3
AVERAGES		137	125	92	131	118	137	125	92	58	15	58	15	58	48	13	118	1.4
CV(%)		6	6	12	--	--	6	6	12	--	--	2	3	2	3	54	6	6.9
LSD(0.05)**		12	11	17	--	--	9	9	19	--	--	2	1	2	2	10	9	0.1

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

SOUTH CENTRAL KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL

COUNTY: RENO

LOCATION: South Central Kansas Experiment Field, Hutchinson

TEST SITE: Ost silt loam

1996 CROP: Wheat

1995 CROP: Oats

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

PLANTING DATE: 5/28/97

HARVEST DATE: 10/16/97

COOPERATORS:

William Heer, agronomist

TARGET POPULATION: 35,000 plants/acre,

6.0 in. spacing

STAND (% of target): 103

YIELD: Average (bu/a): 129

Range (bu/a): 100 - 153

LSD (bu/a): 9

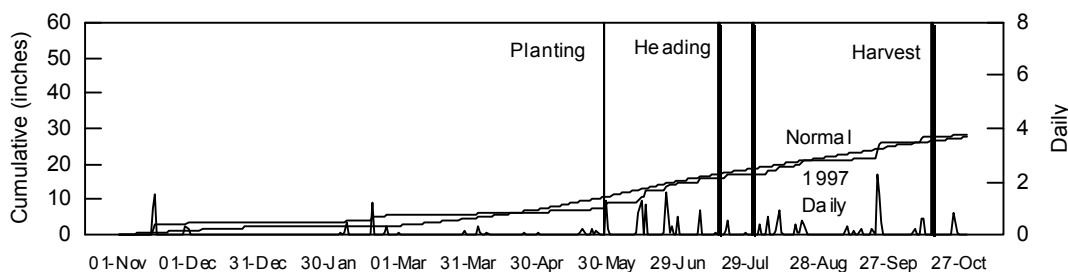
CV (%): 6

BLOOM DATES: 7/16/97 - 7/31/97

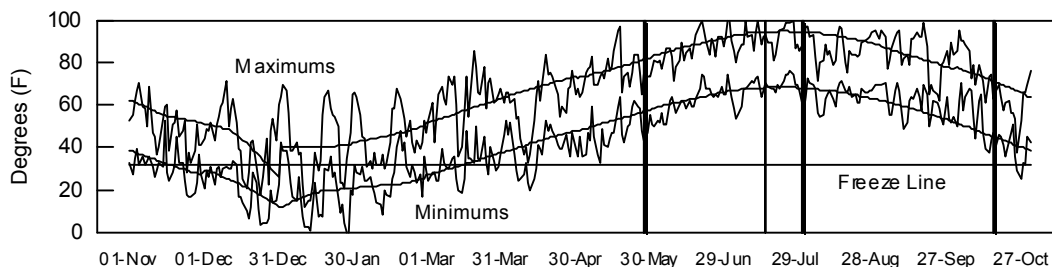
1997 GROWING CONDITONS:

Most entries established adequate stands, but some were below 70% of the target stand. Growing conditions were generally favorable for most of the season, resulting in fairly good yields.

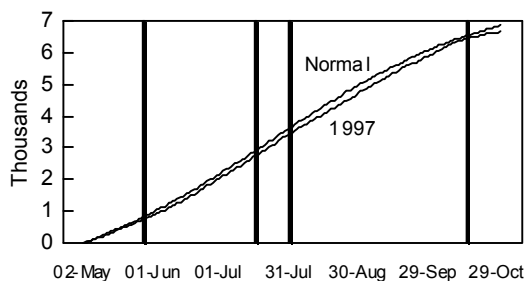
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1997	Normal	1997	Normal	1997	Normal
April	0.7	2.6	50	56	0	0
May	2.3	3.9	62	65	844	940
June	6.1	4.3	74	75	1195	1234
July	1.9	3.4	80	81	1413	1454
August	3.9	3.1	76	79	1314	1385
Sep.	5.3	3.3	72	70	1135	1072
Oct.	2.5	2.5	59	58	766	748
Season Totals	22.7	23.1	67	69	6667	6833

TABLE 10. RENO CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1995-1997.

BRAND	NAME	ACRE YIELD, BUSHEL						YIELD AS % OF TEST			96-97		1997						
		1997	1996	1995	2-Yr. 3-Yr.		AVERAGE	1997	1996	1995	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
					AVG.	AVG.													
MATURITY CHECK	TX2752xTX2783	120	144	90	132	118	93	112	93	58	16	49	15	59	41	3	64	1.3	
TRIUMPH	TR462	143	140	--	141	--	111	109	--	59	16	54	15	59	43	1	119	1.2	
MATURITY CHECK	TX2752xTX430	132	140	96	136	123	103	109	99	61	16	55	16	55	42	1	116	1.1	
MATURITY CHECK	C 305	100	100	97	100	99	78	78	100	57	16	57	15	55	45	2	108	1.5	
AGRIPRO	AP 9210	119	--	--	--	--	93	--	--	--	--	58	15	58	42	1	97	1.2	
CENTURY II	GB5543-E	110	108	107	109	108	85	84	109	58	16	58	15	56	49	1	109	1.4	
MATURITY CHECK	TX3042xTX2737	123	113	101	118	112	96	88	104	59	16	58	16	57	47	0	122	1.1	
NC+	5B74E	127	--	--	--	--	99	--	--	--	--	58	16	56	39	0	113	1.2	
NK	KS 585	135	119	97	127	117	105	92	100	59	16	58	15	60	42	1	115	1.3	
DEKALB	DK-35	126	117	--	121	--	98	91	--	60	15	59	14	59	41	0	105	1.3	
PIONEER	8500	134	129	102	132	122	104	101	105	60	16	59	15	59	43	1	111	1.3	
TRIUMPH	TR445	124	139	--	131	--	96	108	--	62	15	59	15	59	44	4	102	1.2	
ASGROW	A328	110	113	99	112	107	86	88	102	60	16	60	15	59	39	1	100	1.4	
CENTURY II	GB7042-E	120	134	84	127	113	93	104	86	61	15	60	15	57	42	2	91	1.4	
CENTURY II	GB9140-E	137	143	93	140	125	107	111	96	61	16	60	16	57	45	1	112	1.2	
DELANGE	DSA 115C	117	131	--	124	--	91	102	--	63	15	60	15	58	41	3	100	1.1	
DELANGE	DSA 131	129	--	--	--	--	101	--	--	--	--	60	15	58	41	1	105	1.3	
GARST	5631Y	120	136	--	128	--	93	106	--	63	15	60	15	58	41	1	97	1.1	
GARST	N5624 EXP	129	--	--	--	--	100	--	--	--	--	60	15	58	43	1	109	1.4	
MATURITY CHECK	OK11xTX2741	120	110	88	115	106	94	85	90	60	16	60	15	58	41	2	108	1.1	
MATURITY CHECK	RS 610	110	113	78	112	100	86	88	80	62	15	60	15	56	44	6	97	1.1	
NC+	6C63	133	--	--	--	--	103	--	--	--	--	60	15	58	45	1	107	1.1	
CARGILL	X12027 EXP	120	131	--	125	--	93	102	--	64	16	61	15	58	39	3	96	1.1	
CARGILL	737	133	137	104	135	125	104	107	106	61	15	61	14	58	42	0	103	1.2	
DEKALB	DK-43A	128	--	--	--	--	99	--	--	--	--	61	16	56	38	1	97	1.2	
HOEGEMEYER	671	125	130	93	127	116	97	101	95	63	15	61	15	58	43	2	88	1.2	
MSG (OHLDE)	G 571	136	--	--	--	--	106	--	--	--	--	61	16	56	45	1	101	1.1	
MSG (OHLDE)	G 530	118	--	--	--	--	92	--	--	--	--	61	15	59	42	4	109	1.1	
NK	K73-J6	145	--	--	--	--	113	--	--	--	--	61	15	59	45	0	119	1.1	
AGRIPRO	HY 2660	142	--	97	--	--	110	--	100	--	--	62	15	60	43	1	119	1.1	
ASGROW	A425	132	135	--	133	--	102	105	--	64	16	62	16	58	42	1	112	1.1	
CARGILL	647	137	132	119	134	129	106	103	122	63	16	62	15	60	44	0	111	1.1	
CARGILL	627	129	140	118	135	129	101	109	121	65	16	62	15	58	44	1	111	1.1	

(continued)

TABLE 10. RENO CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1995-1997.

BRAND	NAME	ACRE YIELD, BUSHEL			YIELD AS % OF TEST			96-97		1997				Final Hds Stand per Plnt				
		1997	1996	1995	2-Yr. 3-Yr.		AVERAGE	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.					
					AVG.	AVG.									1997	1996	1995	
CARGILL	775Y	130	122	100	126	117	101	95	103	64	16	62	15	59	42	0	110	1.2
CENTURY II	GB8041-W	128	127	103	128	119	100	99	105	63	16	62	15	58	42	0	115	1.1
DEKALB	DK-44	109	140	--	125	--	85	109	--	64	16	62	15	58	43	1	76	1.1
DEKALB	DK-40y	118	126	94	122	113	92	98	97	65	15	62	15	58	42	3	91	1.1
HOEGEMEYER	6874	144	137	--	141	--	112	107	--	63	16	62	15	60	43	0	97	1.3
MSG (OHLDE)	O 256	141	--	--	--	--	110	--	--	--	--	62	15	58	50	0	105	1.1
MYCOGEN	1506	143	150	109	147	134	112	117	112	65	16	62	15	58	50	0	98	1.1
MYCOGEN	444E	135	--	--	--	--	105	--	--	--	--	62	15	59	44	1	109	1.3
NK	X618	139	--	--	--	--	108	--	--	--	--	62	15	59	42	0	103	1.3
PIONEER	8414	140	125	--	132	--	109	97	--	62	16	62	16	56	44	0	113	1.3
CARGILL	770Y	124	127	--	126	--	97	99	--	65	15	63	15	53	43	0	108	1.2
CARGILL	730	138	137	111	138	129	107	107	114	65	16	63	15	57	42	2	107	1.2
DEKALB	DK-45	142	143	104	142	129	110	111	107	64	17	63	17	54	47	2	106	1.0
HOEGEMEYER	6878	146	135	88	140	123	114	105	90	67	17	63	16	58	43	4	103	1.4
NC+	7B29	120	--	--	--	--	93	--	--	--	--	63	15	59	40	0	92	1.1
NK	KS 711Y	100	128	100	114	110	78	100	103	65	15	63	15	59	38	0	62	1.2
DEKALB	DK-58	143	--	--	--	--	112	--	--	--	--	64	15	58	47	1	103	1.3
DEKALB	DK-56	128	142	102	135	124	99	110	105	67	17	64	16	58	47	6	88	1.2
TRIUMPH	TR481	153	143	108	148	135	119	111	111	69	17	64	16	59	50	0	100	1.1
AVERAGES		129	129	97	129	118	129	129	97	63	16	61	15	58	43	1	103	1.2
CV(%)		6	6	8	--	--	6	6	8	--	--	6	3	2	4	145	7	9.7
LSD(0.05)**		9	9	12	--	--	7	7	12	--	--	4	1	2	2	2	9	0.1

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

SOUTH CENTRAL KANSAS GRAIN SORGHUM TEST ON SANDY LOAM SOIL, FALLOW

COUNTY: STAFFORD

LOCATION: Sandyland Experiment Field, St. John

TEST SITE: Naron loamy fine sand

1996 CROP: Wheat

1995 CROP: Fallow

FERTILIZER (lbs/acre): 145 N 150 P₂O₅ 0 K₂O

PLANTING DATE: 6/4/97

HARVEST DATE: 11/19/97

COOPERATORS:

Victor Martin, agronomist

TARGET POPULATION: 35,000 plants/acre,

6.0 in. spacing

STAND (% of target): 119

YIELD: Average (bu/a): 119

Range (bu/a): 92 - 134

LSD (bu/a): 14

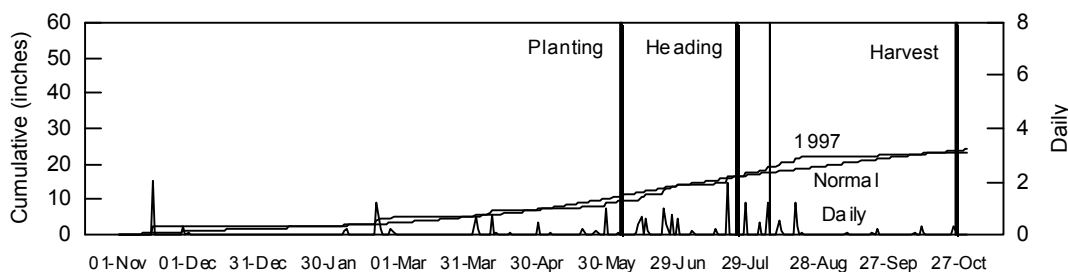
CV (%): 10

BLOOM DATES: 7/24/97 - 8/7/97

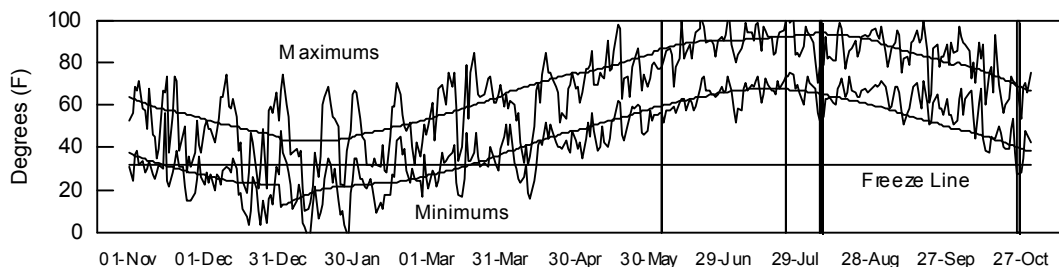
1997 GROWING CONDITONS:

Cool conditions at planting appeared not to inhibit emergence and stand establishment. The test was subjected to relatively little sustained moisture stress during most of the season. Heat stress also was less severe than in most years. Fusarium stalk rot was present at low levels.

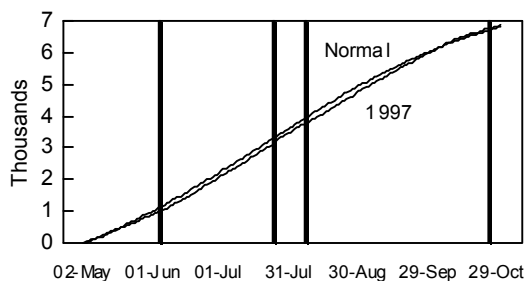
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1997	Normal	1997	Normal	1997	Normal
April	2.5	2.0	49	57	0	0
May	1.9	3.4	63	66	869	971
June	4.8	3.7	74	76	1211	1252
July	3.6	2.9	79	79	1409	1407
August	4.1	2.5	77	78	1327	1356
Sep.	0.6	2.5	73	69	1170	1044
Oct.	0.8	2.2	62	59	860	769
Season Totals	18.3	19.1	68	69	6846	6800

TABLE 11. STAFFORD CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1995-1997.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST			96-97		1997					Final Hds Stand per Plnt	
		1997	1996	1995	2-Yr. 3-Yr.		AVERAGE			Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.			
					AVG.	AVG.	1997	1996	1995									
MATURITY CHECK	C 305	102	102	54	102	86	85	80	84	50	17	50	20	46	49	1	140	1.0
MATURITY CHECK	RS 610	104	117	69	111	97	87	92	108	54	16	52	17	52	46	2	112	1.0
PIONEER	87G57	111	--	--	--	--	94	--	--	--	--	52	17	53	46	0	143	1.0
DEKALB	DK-35	117	132	--	124	--	98	104	--	54	15	53	15	56	46	2	128	1.0
PIONEER	8699	114	113	92	113	106	96	89	142	51	15	53	16	51	47	2	143	1.0
CENTURY II	GB5543-E	121	108	66	115	98	102	85	102	52	16	53	19	47	51	3	115	1.0
ASGROW	A328	92	110	40	101	81	78	86	62	52	16	54	17	53	42	0	117	1.0
AGRIPRO	AP 9210	116	--	--	--	--	97	--	--	--	--	55	17	53	45	1	121	1.0
GARST	N5624 EXP	113	--	--	--	--	95	--	--	--	--	55	17	52	45	1	129	1.0
NK	KS 585	118	139	76	128	111	99	109	118	54	15	56	15	55	51	1	130	1.0
GARST	5631Y	120	133	--	126	--	101	105	--	57	15	56	17	53	46	0	110	1.0
MATURITY CHECK	TX3042xTX2737	115	126	74	121	105	97	99	115	56	17	56	20	43	53	3	119	1.0
CARGILL	647	123	129	70	126	107	103	102	108	57	16	57	17	52	52	1	127	1.0
MSG (OHLDE)	G 530	123	128	--	125	--	103	100	--	58	16	57	17	51	47	0	116	1.0
DELANGE	DSA 115C	115	130	--	123	--	97	103	--	57	16	58	17	51	47	1	118	1.0
MATURITY CHECK	OK11xTX2741	104	117	49	111	90	88	92	76	54	16	58	18	50	50	2	110	1.0
ASGROW	A425	119	130	--	125	--	100	102	--	59	18	58	20	48	51	1	130	1.0
HOEGEMEYER	6874	128	130	--	129	--	108	102	--	57	17	58	20	50	53	2	110	1.0
DEKALB	DK-43A	124	--	--	--	--	104	--	--	--	--	58	21	47	44	1	115	1.0
MYCOGEN	1506	126	--	56	--	--	106	--	87	--	--	58	21	46	55	2	110	1.0
PIONEER	8414	119	129	--	124	--	100	102	--	59	18	58	21	46	50	0	122	1.0
CARGILL	737	125	117	--	121	--	105	92	--	58	16	59	17	52	50	0	118	1.0
CENTURY II	GB7042-E	111	132	54	121	99	93	104	84	57	16	59	18	50	48	2	133	1.0
NC+	7R37E	129	--	--	--	--	108	--	--	--	--	59	18	52	49	2	138	1.0
NC+	6C63	115	--	--	--	--	97	--	--	--	--	59	18	50	52	1	102	1.0
DEKALB	DK-40y	116	117	52	116	95	97	92	81	60	17	59	19	49	47	2	121	1.0
DEKALB	DK-45	118	119	56	119	98	99	94	87	59	17	59	20	45	56	6	106	1.0
CARGILL	X12027 EXP	121	--	--	--	--	102	--	--	--	--	60	17	53	49	0	111	1.0
CARGILL	775Y	109	129	70	119	103	92	101	109	59	16	60	17	50	51	2	120	1.0
AGRIPRO	HY 2660	130	--	--	--	--	109	--	--	--	--	60	18	53	49	1	112	1.0
CARGILL	627	129	125	90	127	115	109	99	140	60	17	60	18	50	51	1	121	1.0
CENTURY II	GB8041-W	128	122	53	125	101	108	96	82	59	17	60	18	52	50	1	121	1.0
MSG (OHLDE)	G 571	120	--	--	--	--	101	--	--	--	--	60	18	53	51	2	106	1.0
DELANGE	DSA 125C	124	--	68	--	--	104	--	105	--	--	60	19	49	53	1	115	1.0
HOEGEMEYER	671	108	142	71	125	107	91	112	109	60	17	60	19	50	54	4	101	1.0
HOEGEMEYER	6878	124	157	51	141	111	105	124	79	61	17	60	19	51	50	1	133	1.0
MSG (OHLDE)	O 256	126	134	--	130	--	106	106	--	61	18	60	19	48	56	2	114	1.0
MYCOGEN	444E	124	--	--	--	--	104	--	--	--	--	60	20	50	49	3	123	1.0
NK	KS 711Y	116	144	56	130	105	97	113	87	60	15	61	16	54	46	1	127	1.0
CARGILL	730	129	129	--	129	--	109	102	--	61	16	61	17	52	52	1	123	1.0
DEKALB	DK-44	123	119	--	121	--	104	94	--	61	16	61	17	51	52	1	113	1.0
MATURITY CHECK	TX2752xTX430	131	141	59	136	110	110	111	91	62	17	61	18	49	52	3	110	1.0
CENTURY II	GB9140-E	107	131	60	119	99	90	103	93	60	17	61	19	51	50	2	119	1.0
DEKALB	DK-56	134	144	67	139	115	113	114	105	62	18	61	19	48	57	3	100	1.0
CARGILL	770Y	124	--	--	--	--	104	--	--	--	--	62	17	49	52	0	127	1.0
DEKALB	DK-58	133	--	--	--	--	112	--	--	--	--	62	18	48	56	2	115	1.0
MATURITY CHECK	TX2752xTX2783	114	136	56	125	102	96	107	87	63	17	64	18	53	53	3	101	1.0
AVERAGES		119	127	65	123	103	119	127	65	58	16	58	18	50	50	2	119	1.0
CV(%)		10	7	19	--	--	10	7	19	--	--	3	12	7	7	120	10	1.0
LSD(0.05)**		14	10	19	--	--	12	8	30	--	--	2	3	4	4	2	14	NS

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

TABLE 12. SOUTH CENTRAL KANSAS GRAIN SORGHUM TEST YIELD SUMMARY, 1994-1997.

BRAND	NAME	1997 YIELD AS % OF TEST AVERAGE ¹				1994-1997		
		HAR	REN	STA	AVG.	DYA (bu/a) ²	S.E. ³	N ⁴
TRIUMPH	TR481	125	119	--	--	25.9*	5.5	6
MSG (OHLDE)	O 256	123	110	106	113	23.6*	5.4	5
MYCOGEN	1506	119	112	106	112	23.3*	3.9	11
CARGILL	627	110	101	109	107	20.1*	4.1	9
NC+	7R37E	--	--	108	--	19.4*	2.8	5
CARGILL	730	109	107	109	108	17.7*	2.5	7
AGRIPRO	HY 2660	103	110	109	107	16.4*	3.2	5
ASGROW	A425	110	102	100	104	15.7*	2.6	6
HOEGEMEYER	6874	101	112	108	107	15.7*	3.5	6
CARGILL	647	92	106	103	100	15.7*	3.1	9
NK	KS 585	109	105	99	104	15.6*	2.9	9
CARGILL	737	112	104	105	107	15.5*	3.9	11
HOEGEMEYER	6878	91	114	105	103	15.2*	5.1	9
DEKALB	DK-56	96	99	113	103	14.5*	2.4	12
PIONEER	8500	96	104	--	--	13.7*	1.4	11
DEKALB	DK-45	107	110	99	106	13.0*	3.9	9
NK	KS 711Y	102	78	97	92	12.7	6.4	9
GARST	5514Y	107	--	--	--	12.6	4.6	5
PIONEER	8414	101	109	100	103	12.5*	2.8	6
c MATURITY CHECK	TX2752xTX430	104	103	110	106	10.4*	3.1	12
CARGILL	770Y	96	97	104	99	10.1*	0.5	5
DEKALB	DK-35	102	98	98	99	9.8*	2.5	6
PIONEER	8505	100	--	--	--	9.4*	3.5	7
MYCOGEN	444E	100	105	104	103	9.3*	2.7	6
CARGILL	X12027 EXP	92	93	102	96	9.0*	1.9	5
DELANGE	DSA 115C	97	91	97	95	8.6*	1.6	6
CARGILL	775Y	91	101	92	95	8.0*	1.9	9
DEKALB	DK-44	105	85	104	98	8.0	4.5	6
HOEGEMEYER	671	94	97	91	94	7.7*	2.6	10
DELANGE	DSA 125C	94	--	104	--	6.9*	1.7	10
CENTURY II	GB8041-W	--	100	108	--	6.7*	2.7	8
CENTURY II	GB9140-E	--	107	90	--	6.5	4.0	8
CENTURY II	GB7042-E	--	93	93	--	5.9	3.1	8
AGRIPRO	AP 9210	95	93	97	95	5.5	3.0	7
MATURITY CHECK	TX2752xTX2783	86	93	96	92	4.7	3.0	12
MATURITY CHECK	TX3042xTX2737	91	96	97	94	3.3	2.2	12
CENTURY II	GB5543-E	--	85	102	--	2.1	3.8	7
DEKALB	DK-40y	88	92	97	92	1.1	2.7	12
c MATURITY CHECK	C 305	84	78	85	82	-4.1	3.3	12

(continued)

TABLE 12. SOUTH CENTRAL KANSAS GRAIN SORGHUM TEST YIELD SUMMARY, 1994-1997.

BRAND	NAME	1997 YIELD AS % OF TEST AVERAGE ¹				1994-1997			
		HAR	REN	STA	AVG.	DYA (bu/a) ²	S.E. ³	N ⁴	
c	MATURITY CHECK	RS 610	82	86	87	85	-6.3 *	1.6	12
	ASGROW	A328	93	86	78	85	-7.0	3.5	8
	MATURITY CHECK	OK11xTX2741	72	94	88	84	-9.8 *	4.1	12
	AGRIPRO	AP 2440	92	--	--	--	--	--	--
	AGRIPRO	AP 2468	90	--	--	--	--	--	--
	AGRIPRO	AP 2838	92	--	--	--	--	--	--
	DEKALB	DK-43A	101	99	104	102	--	--	--
	DEKALB	DK-58	110	112	112	111	--	--	--
	DELANGE	DSA 131	104	101	--	--	--	--	--
	DELANGE	DSA 151	104	--	--	--	--	--	--
	GARST	5429	122	--	--	--	--	--	--
	GARST	5631Y	--	93	101	--	--	--	--
	GARST	N5624 EXP	78	100	95	91	--	--	--
	GOLDEN HARVEST	H-512	107	--	--	--	--	--	--
	MSG (OHLDE)	G 530	--	92	103	--	--	--	--
	MSG (OHLDE)	G 571	114	106	101	107	--	--	--
	NC+	5B74E	92	99	--	--	--	--	--
	NC+	6C63	90	103	97	97	--	--	--
	NC+	7B29	96	93	--	--	--	--	--
	NK	K73-J6	126	113	--	--	--	--	--
	NK	X618	122	108	--	--	--	--	--
	PIONEER	8699	--	--	96	--	--	--	--
	PIONEER	87G57	--	--	94	--	--	--	--
	TRIUMPH	TR445	87	96	--	--	--	--	--
	TRIUMPH	TR462	101	111	--	--	--	--	--
	CHECK	ATX631xTX436	97	--	--	--	--	--	--
	CHECK	ATX631xTX2894	97	--	--	--	--	--	--
	CHECK	ATX635xTX436	97	--	--	--	--	--	--
	AVERAGES	(bushels/acre)	137	129	119	128	--	--	--
	LSD(0.05)**		9	7	12	--	--	--	--

¹ HAR = Harvey Co. Test, Harvey Co. Exp. Field, Hesston

REN = Reno Co. Test, South Central Exp. Field, Hutchinson

STA = Stafford Co. Test, Sandyland Exp. Field, St. John

² DY A = Differential Yielding Ability; average difference of hybrid yield compared to average of check hybrids in bushels per acre.

³ SE = Standard Error of DY A; measure of consistency of yield differences.

⁴ N = Number of tests where hybrid was compared with checks; DY A was calculated only for those with at least 5 comparisons.

^c Check hybrid; each hybrid compared to average yield of these check hybrids.

* Statistically significantly different from the average of the check hybrids, which = 0 (P < 0.5).

NORTH CENTRAL KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL

COUNTY: ELLIS

LOCATION: Agricultural Research Center, Hays

TEST SITE: Harney silt loam

1996 CROP: Fallow

1995 CROP: Sorghum

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

PLANTING DATE: 5/23/97

HARVEST DATE: 11/15/97

COOPERATORS:

Kenneth Kofoid, agronomist

TARGET POPULATION: 35,000 plants/acre,

6.0 in. spacing

STAND (% of target): 122

YIELD: Average (bu/a): 142

Range (bu/a): 122 - 160

LSD (bu/a): 10

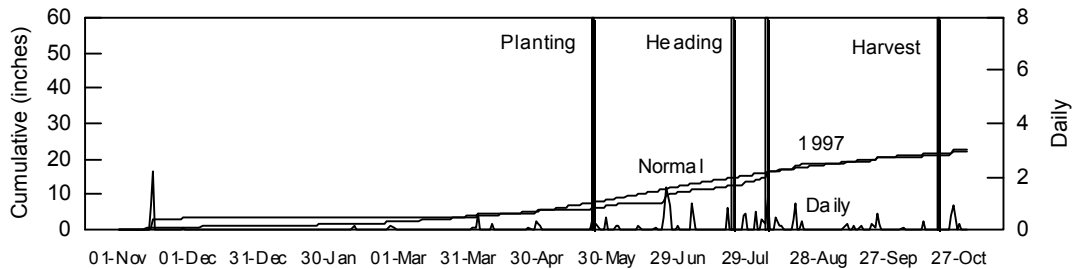
CV (%): 5

BLOOM DATES: 7/22/97 - 8/6/97

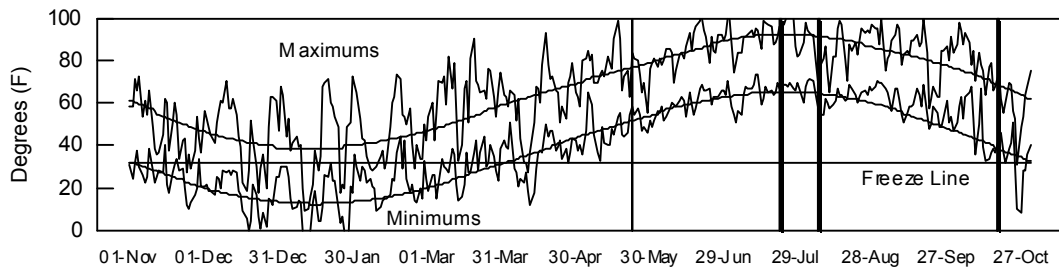
1997 GROWING CONDITIONS:

Conditions were favorable for stand establishment and during the rest of the growing season. Yields were very high for dryland production in this part of the state.

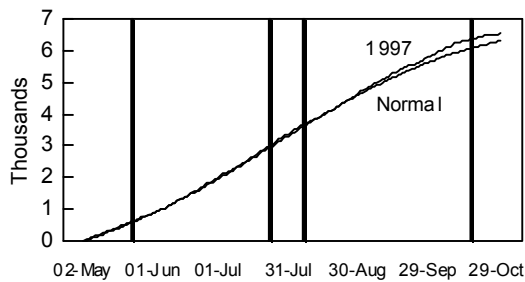
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1997	Normal	1997	Normal	1997	Normal
April	1.7	1.9	48	51	0	0
May	1.4	3.2	62	62	850	842
June	3.8	3.8	73	72	1183	1141
July	3.1	3.3	78	78	1377	1366
August	5.0	2.8	76	76	1293	1301
Sep.	1.8	2.2	71	67	1096	995
Oct.	2.2	1.4	57	55	727	638
Season Totals	18.9	18.5	66	66	6525	6281

TABLE 13. ELLIS CO. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1995-1997.

BRAND	NAME	ACRE YIELD, BUSHEL					YIELD AS % OF TEST			96-97		1997				
		1997	1996	1995	2-Yr.	3-Yr.	AVERAGE			Days to Blm	Grain to Moist. %	Days to Blm	Grain to Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Hds per Plnt
					AVG.	AVG.	1997	1996	1995							
MATURITY CHECK	C 305	131	81	73	106	95	92	72	105	62	17	60	16	51	45	1.3
PIONEER	8699	130	81	69	105	93	92	72	100	63	15	62	15	57	43	1.6
PIONEER	85Y34	128	--	--	--	--	91	--	--	--	--	63	13	55	46	1.9
ASGROW	XP2017	131	--	--	--	--	93	--	--	--	--	63	14	56	37	1.5
DEKALB	DK-35	141	114	--	127	--	100	101	--	65	14	63	14	58	41	1.3
MATURITY CHECK	RS 610	122	81	68	102	91	86	72	98	64	15	63	14	56	43	1.3
MATURITY CHECK	TX3042xTX2737	138	123	65	130	109	97	110	93	64	14	63	14	58	48	1.2
DEKALB	DK-36	135	--	--	--	--	95	--	--	--	--	63	15	58	41	1.9
TRIUMPH	TR445	128	--	--	--	--	91	--	--	--	--	64	14	58	45	1.2
GARST	5631Y	142	--	--	--	--	100	--	--	--	--	65	14	59	41	1.2
GOLDEN WORLD	GW 5972	135	111	--	123	--	95	99	--	65	14	65	14	59	45	1.0
NC+	5B74E	140	--	--	--	--	99	--	--	--	--	65	14	57	39	1.2
NC+	Y363	144	--	66	--	--	102	--	95	--	--	65	14	58	47	1.6
GOLDEN WORLD	GW 6035	124	--	--	--	--	88	--	--	--	--	65	15	55	39	1.0
PIONEER	8505	127	108	75	117	103	90	96	107	65	14	65	15	59	45	1.4
SRI	PAY DAY II	143	--	--	--	--	101	--	--	--	--	65	15	56	40	1.3
DEKALB	DK-38y	124	118	65	121	103	88	105	94	66	13	66	13	55	39	1.7
GARST	N5624 EXP	149	--	--	--	--	106	--	--	--	--	66	14	57	42	1.7
GOLDEN HARVEST	H-430Y	138	--	--	--	--	98	--	--	--	--	66	14	57	47	1.7
GOLDEN WORLD	GW 5960	153	108	--	130	--	108	96	--	66	14	66	14	56	45	1.1
MATURITY CHECK	OK11xTX2741	144	97	65	120	102	102	86	94	67	14	66	14	58	41	1.2
MSG (OHLDE)	G 530	147	103	--	125	--	104	92	--	67	14	66	14	59	41	1.2
MYCOGEN	M 3838	141	100	66	120	102	100	89	95	66	14	66	14	59	43	1.3
SRI	EXP SR9731	127	--	--	--	--	90	--	--	--	--	66	14	58	42	1.3
ASGROW	A328	134	53	69	93	85	94	47	99	65	19	66	15	60	37	1.4
ASGROW	A425	142	101	--	122	--	100	90	--	67	15	66	15	57	43	1.3
HOEGEMEYER	6766	151	--	--	--	--	106	--	--	--	--	66	15	59	47	1.2
MYCOGEN	1482	133	--	--	--	--	94	--	--	--	--	66	15	57	43	1.2
DEKALB	DK-44	150	119	--	134	--	106	106	--	68	14	67	14	58	45	1.2
DEKALB	DK-43A	160	--	--	--	--	113	--	--	--	--	67	14	57	43	1.4
DEKALB	DK-40y	145	108	70	126	107	102	96	100	68	14	67	14	58	43	1.7
NK	KS 585	132	121	--	126	--	93	108	--	67	14	67	14	59	43	1.2
DEKALB	DK-45	151	109	71	130	110	107	97	102	68	14	67	15	58	46	1.1
MSG (OHLDE)	O 256	157	137	--	147	--	111	122	--	67	15	67	15	58	50	1.2
MSG (OHLDE)	G 571	152	--	--	--	--	107	--	--	--	--	67	15	59	47	1.2
CARGILL	737	148	126	--	137	--	104	112	--	68	14	68	15	56	43	1.2
NC+	6B50	149	--	75	--	--	106	--	109	--	--	68	15	54	44	1.1
NC+	6Y83-I	147	--	--	--	--	104	--	--	--	--	69	14	57	48	1.2
CARGILL	X12027 EXP	146	149	--	147	--	103	132	--	69	14	69	15	56	44	1.3
NK	K73-J6	156	--	--	--	--	110	--	--	--	--	69	15	59	48	1.3
CARGILL	770Y	146	112	--	129	--	104	100	--	69	15	70	15	52	44	1.2
TRIUMPH	TR65-G	153	--	--	--	--	108	--	--	--	--	70	15	59	47	1.1
CARGILL	730	127	120	74	124	107	90	107	107	70	14	71	14	56	46	1.2
CARGILL	775Y	149	125	68	137	114	105	111	98	71	14	71	14	58	43	1.1
HOEGEMEYER	6874	148	143	--	145	--	104	127	--	70	14	71	15	60	45	1.5
HOEGEMEYER	671	148	140	51	144	113	105	124	74	70	14	71	15	57	46	1.4
MATURITY CHECK	TX2752xTX430	148	142	70	145	120	105	126	101	71	14	72	15	56	44	1.2
MATURITY CHECK	TX2752xTX2783	158	140	63	149	120	112	125	91	74	15	75	16	57	47	1.7
AVERAGES		142	112	70	127	108	142	112	70	67	14	67	14	57	44	1.3
CV(%)		5	8	8	--	--	5	8	8	--	--	1	3	3	4	12.7
LSD(0.05)**		10	13	9	--	--	7	11	13	--	--	1	1	2	2	0.2

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

NORTHWESTERN KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL, FALLOW

COUNTY: THOMAS

LOCATION: Northwest Research-Extension Center, Colby

TEST SITE: Keith silt loam

1996 CROP: Fallow

1995 CROP: Sunflowers

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

PLANTING DATE: 6/5/97

HARVEST DATE: 10/22/97

COOPERATORS:

Patrick Evans, agronomist

TARGET POPULATION: 24,000 plants/acre,
8.7 in. spacing

STAND (% of target): 103

YIELD: Average (bu/a): 70

Range (bu/a): 51 - 91

LSD (bu/a): 9

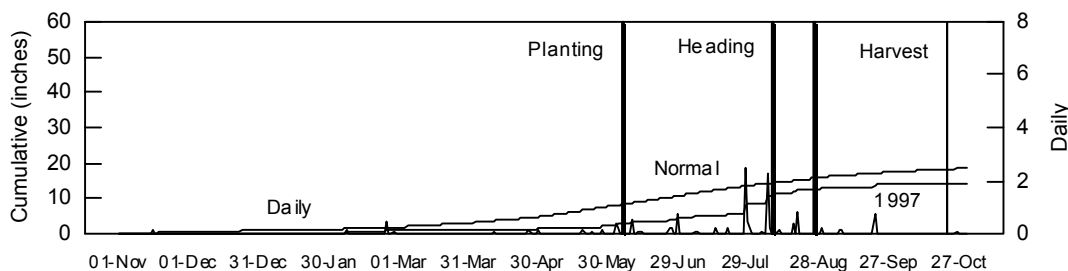
CV (%): 11

BLOOM DATES: 8/8/97 - 8/26/97

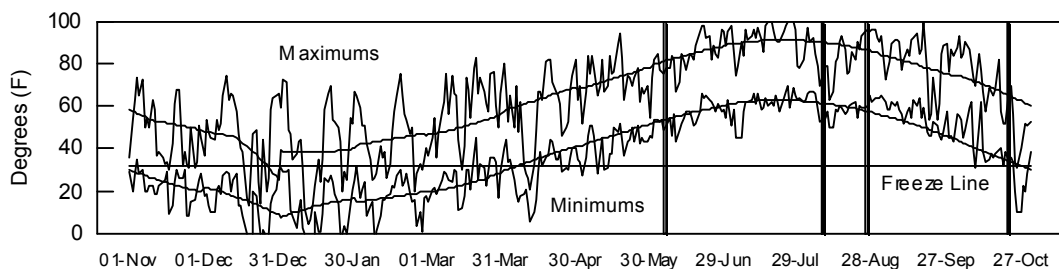
1997 GROWING CONDITIONS:

Very dry conditions at planting delayed emergence of some plots. Cool temperatures in August delayed plant development but warm temperatures in September and October with no killing freeze allowed full maturation. Greenbugs caused minor damage on lower leaves at heading. Corn earworms and corn borers were present but caused little damage to heads. Charcoal rot and fusarium stalk rot likely predisposed many hybrids to lodging when subjected to 60-70 mph winds in early October.

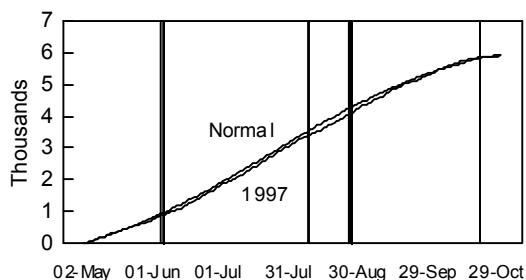
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1997	Normal	1997	Normal	1997	Normal
April	0.6	1.8	44	49	0	0
May	0.6	2.9	57	60	708	781
June	2.7	3.1	70	70	1079	1093
July	3.7	3.0	76	76	1304	1317
August	4.3	2.2	73	74	1195	1241
Sep.	1.2	1.5	68	65	1022	928
Oct.	0.1	1.1	52	53	591	574
Season Totals	13.0	15.6	63	64	5897	5934

TABLE 14. THOMAS CO. FAL. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1995-97.

BRAND	NAME	ACRE YIELD, BUSHEL					YIELD AS % OF TEST AVERAGE			96-97		1997						
		1997	1996	1995	2-Yr. AVG.	3-Yr. AVG.	1997	1996	1995	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Pint
MATURITY CHECK	C 305	63	102	92	83	86	90	88	126	67	16	64	15	57	45	71	108	2.0
PIONEER	87G57	71	--	--	--	--	102	--	--	--	--	64	16	58	42	60	110	2.3
NK	K35-Y5	70	106	--	88	--	100	91	--	64	16	67	16	59	42	64	93	2.7
CARGILL	576	51	88	--	69	--	73	75	--	65	16	68	16	59	42	49	106	1.8
PIONEER	8699	68	112	105	90	95	98	96	144	65	16	68	16	59	45	24	101	2.2
MATURITY CHECK	RS 610	52	98	85	75	78	75	84	117	66	17	68	17	57	44	82	109	1.9
NK	KS 310	69	93	88	81	83	99	80	121	63	15	69	16	59	43	42	104	1.6
DEKALB	DK-36	59	--	--	--	--	85	--	--	--	--	70	17	58	43	78	95	2.0
PIONEER	85Y34	83	--	--	--	--	119	--	--	--	--	70	17	58	45	18	93	2.5
DEKALB	DK-35	64	121	--	92	--	92	103	--	67	17	71	16	59	43	73	102	2.0
CARGILL	627	80	116	93	98	96	115	99	128	68	18	71	18	57	43	45	110	1.7
MATURITY CHECK	TX3042xTX2737	76	106	82	91	88	110	91	112	68	17	72	16	58	48	91	108	2.1
TRIUMPH	TR432	56	--	--	--	--	80	--	--	--	--	72	16	58	40	51	107	1.7
GARST	N5624 EXP	64	--	--	--	--	92	--	--	--	--	72	17	57	43	87	97	2.4
MYCOGEN	1482	70	107	88	89	89	101	91	121	69	16	73	16	58	46	60	107	1.7
NC+	Y363	91	--	72	--	--	131	--	99	--	--	73	18	58	47	59	109	2.2
GOLDEN WORLD	GW 5972	62	--	--	--	--	88	--	--	--	--	74	16	59	44	42	104	1.4
SRI	EXP SR9731	68	--	--	--	--	98	--	--	--	--	74	16	58	45	61	99	1.6
CARGILL	647	80	124	--	102	--	114	106	--	70	18	74	17	58	48	74	108	1.9
GOLDEN WORLD	GW 6035	56	--	--	--	--	81	--	--	--	--	74	17	57	42	84	109	1.6
ASGROW	A425	66	--	--	--	--	95	--	--	--	--	74	18	58	45	60	101	1.9
DEKALB	DK-40y	64	119	74	91	85	91	102	102	72	19	74	18	59	48	44	87	1.9
MATURITY CHECK	OK11xTX2741	70	110	76	90	86	101	94	105	70	17	74	18	58	43	39	104	1.6
MYCOGEN	M 3838	62	112	83	87	85	88	96	114	70	17	74	18	59	44	71	109	1.7
DEKALB	DK-38y	51	109	78	80	79	73	93	107	70	19	74	19	57	43	46	100	2.0
NC+	5B74E	78	--	--	--	--	113	--	--	--	--	74	19	57	43	32	106	2.0
SRI	PAY DAY II	76	--	--	--	--	108	--	--	--	--	74	19	58	43	54	107	1.8
AGRIPRO	AP 9210	67	115	--	91	--	95	98	--	69	19	74	20	57	44	61	97	1.8
DEKALB	DK-43A	70	--	--	--	--	100	--	--	--	--	75	17	58	43	71	106	1.7
DEKALB	DK-45	64	119	68	91	84	92	102	93	73	19	75	18	58	50	75	103	1.7
DEKALB	DK-44	69	115	--	92	--	98	98	--	71	18	75	18	58	45	60	104	1.7
GARST	5631Y	66	--	--	--	--	95	--	--	--	--	75	18	59	44	63	108	1.6
CARGILL	X12027 EXP	69	128	--	99	--	100	110	--	72	20	75	21	55	45	57	95	1.9
CARGILL	737	70	113	65	92	83	101	97	89	72	20	76	19	56	45	64	110	1.8
GOLDEN WORLD	GW 5960	73	--	--	--	--	104	--	--	--	--	76	19	57	46	58	108	1.7
NK	KS 585	74	--	--	--	--	106	--	--	--	--	76	19	58	45	68	106	2.0
CARGILL	770Y	81	131	--	106	--	116	112	--	75	19	78	19	56	46	50	96	2.0
NC+	6Y83-I	73	--	--	--	--	105	--	--	--	--	78	20	57	47	73	106	1.8
NC+	6B50	76	--	68	--	--	109	--	94	--	--	78	20	56	46	57	107	1.7
CARGILL	730	82	137	--	110	--	118	117	--	77	20	80	20	56	45	68	100	1.9
AGRIPRO	AP 2468	91	--	--	--	--	130	--	--	--	--	81	21	56	43	4	100	1.7
MATURITY CHECK	TX2752xTX430	87	142	55	115	95	125	122	75	78	21	82	20	55	44	94	100	1.8
MATURITY CHECK	TX2752xTX2783	74	137	42	105	84	106	117	58	78	21	82	20	56	46	60	63	2.1
CARGILL	775Y	62	137	37	99	78	88	117	50	77	22	82	23	55	45	54	108	1.6
LSD(0.05)**		9	12	15	--	--	13	10	20	--	--	1	1	1	2	21	7	0.1
CV(%)		11	7	12	--	--	11	7	12	--	--	2	5	1	4	30	6	7.0
AVERAGES		70	117	73	93	86	70	117	73	70	18	74	18	57	44	59	103	1.9

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

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

COUNTY: GREELEY

LOCATION: Southwest Research-Extension Center, Tribune

TEST SITE: Ulysses silt loam

1996 CROP: Wheat

1995 CROP: Fallow

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

PLANTING DATE: 6/2/97

HARVEST DATE: 11/25/97

COOPERATORS:

Alan Schlegel, agronomist; David Frickel, research associate

TARGET POPULATION: 24,000 plants/acre,

8.7 in. spacing

STAND (% of target): NA

YIELD: Average (bu/a): 107

Range (bu/a): 62 - 140

LSD (bu/a): 14

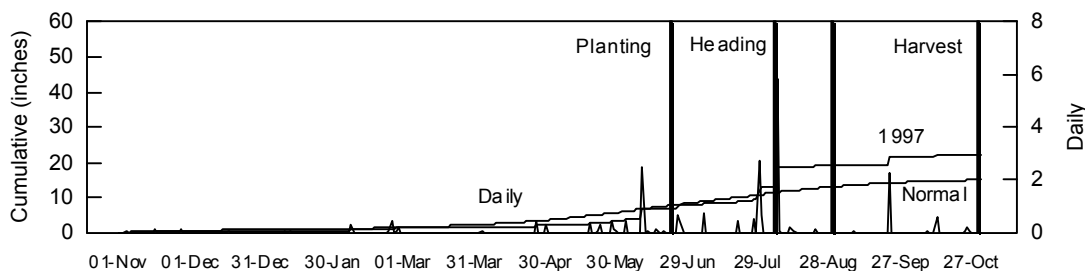
CV (%): 11

BLOOM DATES: 8/5/97 - 8/29/97

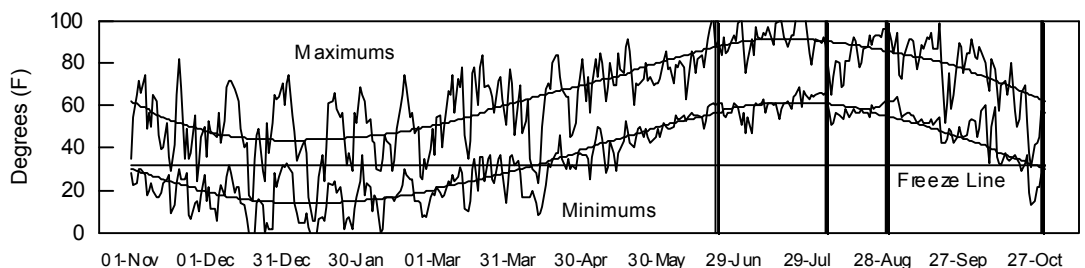
1997 GROWING CONDITONS:

The test was no-till planted into wheat stubble and received significant rainfall soon after, resulting in excellent emergence and stands. The test was in excellent condition during most of the growing season, largely because of above-normal precipitation. A blizzard on October 25 caused most of the plants to lodge. The heavy snow delayed harvest for several weeks. The lodging increased yield variability and possibly decreased yields slightly, but the yield rankings generally appear to reflect season-long performance. Differences in lodging were probably due as much to the variations in depth of snow as to hybrid differences.

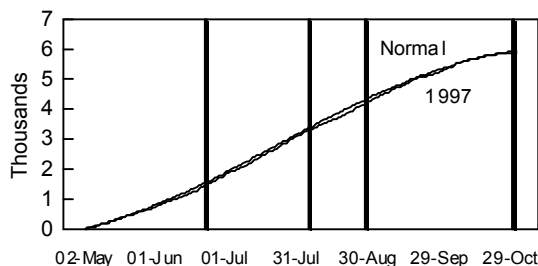
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1997	Normal	1997	Normal	1997	Normal
April	0.7	1.3	44	50	0	0
May	1.3	2.4	58	60	728	786
June	4.2	2.5	70	70	1069	1093
July	5.1	2.5	76	76	1315	1307
August	6.3	2.2	72	74	1193	1231
Sep.	2.3	1.3	67	65	994	944
Oct.	1.0	0.7	51	53	568	597
Season Totals	20.8	12.9	63	64	5867	5958

TABLE 15. GREELEY CO. FAL. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1995-97.

BRAND	NAME	ACRE YIELD, BUSHELS			YIELD AS % OF TEST			96-97		1997						
		1997	1996	1995	AVERAGE			Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %		
					2-Yr. AVG.	3-Yr. AVG.	1997								1996	1995
MATURITY CHECK	C 305	108	93	38	100	79	100	85	85	62	14	64	14	58	45	94
PIONEER	87G57	91	--	--	--	--	85	--	--	--	--	66	15	60	43	89
CARGILL	576	78	99	--	89	--	73	90	--	68	15	67	15	60	42	75
NK	K35-Y5	83	100	--	92	--	78	91	--	65	14	68	14	60	41	94
PIONEER	8699	119	99	48	109	88	111	90	107	65	14	69	14	59	45	81
NK	KS 310	109	95	53	102	86	102	87	119	66	14	70	14	61	43	75
ASGROW	XP2017	62	--	--	--	--	58	--	--	--	--	70	15	58	40	95
MATURITY CHECK	RS 610	98	87	27	93	71	92	79	62	67	14	70	15	59	51	100
PIONEER	85Y34	109	--	--	--	--	102	--	--	--	--	70	15	59	45	88
TRIUMPH	TR432	83	--	--	--	--	78	--	--	--	--	71	15	59	41	81
DEKALB	DK-36	86	--	--	--	--	80	--	--	--	--	71	16	60	46	88
CARGILL	627	111	110	47	110	89	103	100	107	71	15	72	15	58	47	75
DEKALB	DK-35	87	108	--	98	--	81	99	--	69	14	72	15	59	44	100
MATURITY CHECK	TX3042xTX2737	111	107	39	109	86	104	98	87	68	14	72	15	59	51	100
PIONEER	8505	109	110	54	109	91	102	100	123	69	14	72	15	60	47	88
DEKALB	DK-38y	78	86	45	82	70	73	78	101	70	15	73	15	59	44	98
ASGROW	A425	110	--	--	--	--	103	--	--	--	--	74	15	60	46	81
CARGILL	647	117	121	--	119	--	109	110	--	72	14	75	14	61	51	79
NC+	Y363	113	--	--	--	--	105	--	--	--	--	75	15	60	48	98
GARST	N5624 EXP	78	--	--	--	--	73	--	--	--	--	76	15	58	45	100
GARST	5631Y	109	120	--	115	--	102	109	--	70	14	76	15	61	46	88
GOLDEN WORLD	GW 5972	116	108	--	112	--	108	98	--	73	14	76	15	61	46	80
GOLDEN WORLD	GW 6035	110	--	--	--	--	103	--	--	--	--	76	16	59	44	75
NC+	5B74E	122	--	--	--	--	114	--	--	--	--	77	15	59	44	83
CARGILL	X12027 EXP	103	121	--	112	--	96	110	--	74	15	78	15	59	47	98
MYCOGEN	1482	107	115	45	111	89	99	105	101	72	14	78	15	59	44	94
ASGROW	A328	119	--	--	--	--	111	--	--	--	--	78	16	61	43	63
MATURITY CHECK	OK11xTX2741	102	124	54	113	93	95	113	123	74	14	79	15	60	45	85
MYCOGEN	M 3838	102	120	49	111	90	95	110	111	72	14	79	15	61	45	95
DEKALB	DK-43A	122	--	--	--	--	114	--	--	--	--	79	16	59	44	98
DEKALB	DK-40y	94	104	35	99	78	88	95	79	75	15	80	15	60	46	98
DEKALB	DK-44	97	116	--	107	--	91	106	--	75	15	80	15	60	47	88
NK	KS 585	106	--	--	--	--	99	--	--	--	--	80	15	60	46	88
CARGILL	737	124	117	50	120	97	116	107	113	76	15	81	15	58	46	75
DEKALB	DK-45	106	107	47	107	87	99	98	106	76	15	81	16	59	52	100
GOLDEN WORLD	GW 5960	125	110	--	117	--	116	100	--	77	15	82	15	60	48	95
CARGILL	770Y	131	115	--	123	--	122	105	--	77	15	83	15	59	46	81
KAYSTAR	KS-525	114	--	--	--	--	106	--	--	--	--	83	15	58	46	94
TRIUMPH	TR462	140	--	--	--	--	130	--	--	--	--	84	15	60	50	100
CARGILL	730	126	130	--	128	--	118	119	--	80	15	86	15	59	46	98
KAYSTAR	KS-540Y	129	--	--	--	--	120	--	--	--	--	86	15	59	48	95
CARGILL	775Y	119	122	45	121	96	111	112	103	80	15	86	16	58	46	95
MATURITY CHECK	TX2752xTX430	130	122	49	126	101	122	112	111	81	15	86	16	58	50	88
MATURITY CHECK	TX2752xTX2783	123	110	25	116	86	115	100	57	82	15	88	16	58	51	81
AVERAGES		107	110	44	108	87	107	110	44	72	14	76	15	59	46	89
CV(%)		11	7	14	--	--	11	7	14	--	--	2	4	1	5	14
LSD(0.05)**		14	10	13	--	--	13	9	29	--	--	2	1	1	2	15

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

SOUTHWESTERN KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL, FALLOW

COUNTY: FINNEY

LOCATION: Southwest Research-Extension Center, Garden City

TEST SITE: Keith silt loam

1996 CROP: Fallow

1995 CROP: Sorghum

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

PLANTING DATE: 6/6/97

HARVEST DATE: 10/23/97

COOPERATORS:

Merle Witt, agronomist

TARGET POPULATION: 24,000 plants/acre,
8.7 in. spacing

STAND (% of target): 101

YIELD: Average (bu/a): 85

Range (bu/a): 70 - 105

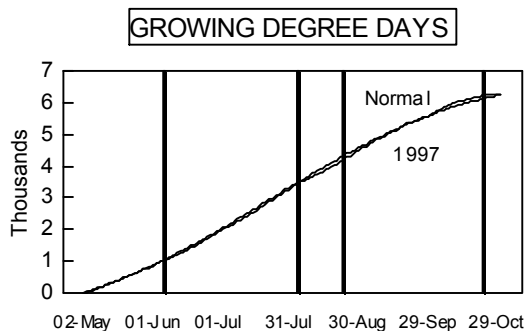
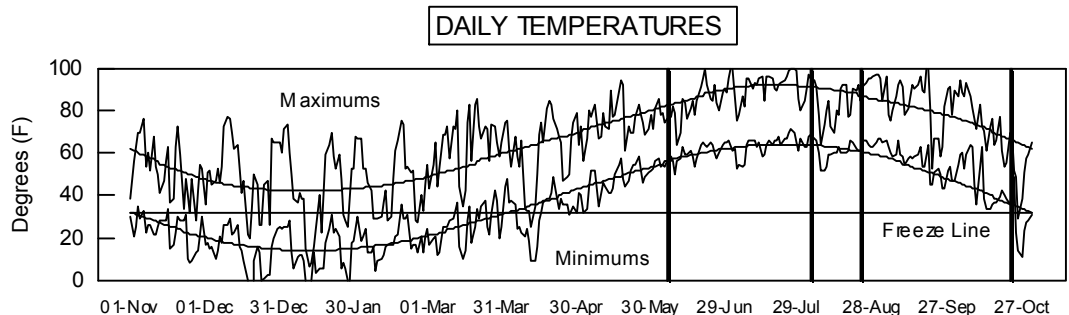
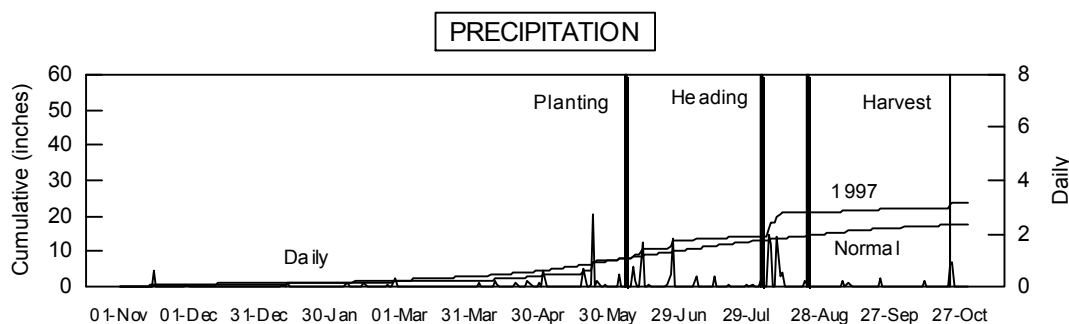
LSD (bu/a): 11

CV (%): 9

BLOOM DATES: 8/3/97 - 8/23/97

1997 GROWING CONDITONS:

Stands were excellent for most entries. Wet, cool spring conditions delayed early growth. Summer conditions were favorable, with mild temperatures and timely rains. August 1997 was the wettest on record.



GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1997	Normal	1997	Normal	1997	Normal
April	1.3	1.7	46	51	0	0
May	4.5	2.9	61	62	823	842
June	5.6	2.9	71	72	1115	1145
July	1.1	2.5	78	78	1351	1352
August	6.9	2.2	75	75	1256	1275
Sep.	0.8	1.6	69	67	1058	986
Oct.	2.0	1.0	55	54	661	632
Season Totals	22.2	14.8	65	66	6264	6231

TABLE 16. FINNEY CO. FALLOW GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1995-97.

BRAND	NAME	ACRE YIELD, BUSHEL					YIELD AS % OF TEST			96-97		1997					
		1997	1996	1995	2-Yr. 3-Yr.		AVERAGE			Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %
					AVG.	AVG.	1997	1996	1995								
MATURITY CHECK	C 305	79	89	45	84	71	93	86	78	57	14	58	16	57	47	--	109
PIONEER	87G57	73	--	--	--	--	85	--	--	--	--	62	17	58	44	--	107
DEKALB	DK-35	99	--	--	--	--	116	--	--	--	--	64	16	59	43	--	113
MATURITY CHECK	TX3042xTX2737	92	92	54	92	79	108	89	95	63	14	64	16	59	49	--	101
ASGROW	XP2017	70	--	--	--	--	82	--	--	--	--	65	16	58	39	--	112
CARGILL	627	91	90	63	91	81	107	88	110	63	14	66	16	59	47	--	99
CARGILL	647	82	113	--	97	--	97	109	--	63	14	66	16	59	47	--	113
PIONEER	8699	83	94	61	89	79	98	92	106	61	14	66	16	58	44	--	74
MATURITY CHECK	RS 610	81	102	55	92	79	96	99	96	63	13	67	15	58	45	--	89
ASGROW	A328	77	--	--	--	--	91	--	--	--	--	67	16	59	42	--	90
DEKALB	DK-36	72	--	--	--	--	85	--	--	--	--	67	16	59	43	--	93
GARST	5631Y	77	93	--	85	--	90	90	--	64	14	67	16	59	43	--	94
GOLDEN WORLD	GW 6035	73	--	--	--	--	86	--	--	--	--	67	16	58	41	--	122
NC+	5B74E	83	--	--	--	--	97	--	--	--	--	67	16	58	39	--	105
TRIUMPH	TR445	86	97	--	92	--	101	95	--	64	14	67	16	59	46	--	113
DELANGE	DSA 115C	76	--	--	--	--	90	--	--	--	--	68	16	57	43	--	100
PIONEER	8414	86	110	--	98	--	101	107	--	65	14	68	16	59	46	--	104
DEKALB	DK-38y	75	96	50	85	74	88	94	87	64	15	68	18	57	41	--	89
GOLDEN WORLD	GW 5972	76	100	--	88	--	89	97	--	65	14	69	15	59	45	--	147
PIONEER	8500	87	100	62	94	83	103	97	108	65	13	69	15	59	48	--	99
ASGROW	A425	96	--	--	--	--	113	--	--	--	--	69	16	58	45	--	113
GARST	N5624 EXP	82	--	--	--	--	96	--	--	--	--	69	16	58	45	--	98
MATURITY CHECK	OK11xTX2741	80	108	54	94	81	94	105	94	65	14	69	16	58	44	--	112
MYCOGEN	M 3838	88	110	74	99	91	104	107	129	65	14	69	16	59	44	--	82
MSG (OHLDE)	G 530	81	--	--	--	--	95	--	--	--	--	69	17	59	43	--	111
NC+	6B50	89	--	--	--	--	105	--	--	--	--	69	17	57	45	--	115
AGRIPRO	AP 2468	80	--	--	--	--	94	--	--	--	--	71	16	57	43	--	110
CARGILL	737	90	107	73	99	90	106	104	128	67	14	71	16	58	47	--	103
MYCOGEN	1482	82	--	--	--	--	96	--	--	--	--	71	16	58	44	--	91
GOLDEN WORLD	GW 5960	90	119	--	105	--	106	116	--	66	14	71	17	58	46	--	106
NK	KS 585	88	115	--	102	--	104	112	--	66	15	71	18	58	45	--	105
MSG (OHLDE)	G 571	87	--	--	--	--	103	--	--	--	--	71	19	57	49	--	89
DEKALB	DK-44	84	104	--	94	--	98	101	--	67	14	72	16	59	46	--	96
DEKALB	DK-40y	78	100	63	89	80	92	97	109	67	15	72	17	59	46	--	77
NC+	6C63	91	--	--	--	--	107	--	--	--	--	73	16	58	48	--	119
CARGILL	X12027 EXP	86	107	--	96	--	101	104	--	68	15	73	19	56	44	--	98
CARGILL	770Y	88	107	--	98	--	104	104	--	68	14	74	17	57	46	--	115
TRIUMPH	TR462	85	109	--	97	--	99	106	--	69	15	74	17	59	49	--	115
DEKALB	DK-43A	96	--	--	--	--	113	--	--	--	--	74	19	58	44	--	67
MSG (OHLDE)	O 256	89	--	--	--	--	104	--	--	--	--	74	19	56	52	--	95
DEKALB	DK-45	93	101	60	97	84	109	98	104	68	14	75	17	57	52	--	110
CARGILL	775Y	94	106	59	100	86	110	103	103	72	16	77	19	56	45	--	95
CARGILL	730	81	112	--	97	--	96	109	--	71	16	77	19	56	47	--	89
MATURITY CHECK	TX2752xTX430	105	115	53	110	91	124	111	93	71	16	77	19	56	47	--	113
MATURITY CHECK	TX2752xTX2783	104	109	44	106	86	122	106	78	72	16	78	19	57	50	--	67
AVERAGES		85	103	57	94	82	85	103	57	66	15	70	17	58	45	--	101
CV(%)		9	11	12	--	--	9	11	12	--	--	3	5	2	3	--	11
LSD(0.05)**		11	15	11	--	--	13	15	20	--	--	3	1	2	2	--	15

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

TABLE 17. WEST KANSAS FALLOW GRAIN SORGHUM TEST YIELD SUMMARY, 1994-1997.

BRAND	NAME	1997 YIELD AS % OF TEST AVERAGE ¹					1994-1997		
		ELL	THF	GRF	FIF	AVG.	DYA (bu/a) ²	S.E. ³	N ⁴
MATURITY CHECK	TX2752xTX430	105	125	122	124	119	13.1*	3.3	16
CARGILL	770Y	104	116	122	104	111	11.4*	2.0	8
CARGILL	X12027 EXP	103	100	96	101	100	11.2	5.7	8
CARGILL	730	90	118	118	96	105	11.2*	3.9	9
GOLDEN WORLD	GW 5960	108	104	116	106	109	10.2*	2.2	7
CARGILL	737	104	101	116	106	107	9.2*	2.8	15
PIONEER	8500	--	--	--	103	--	8.6	3.6	6
NC+	Y363	102	131	105	--	--	7.9	4.3	7
NC+	6B50	106	109	--	105	--	7.7	3.4	9
CARGILL	647	--	114	109	97	--	7.2	3.1	7
AGRIPRO	AP 9210	--	95	--	--	--	6.8	3.1	5
CARGILL	627	--	115	103	107	--	6.1*	2.5	10
CARGILL	775Y	105	88	111	110	104	5.6	4.8	12
MATURITY CHECK	TX2752xTX2783	112	106	115	122	114	5.3	4.5	16
NK	KS 585	93	106	99	104	100	5.2	3.7	6
PIONEER	8505	90	--	102	--	--	4.3	3.1	6
MYCOGEN	M 3838	100	88	95	104	97	4.2	2.8	12
DEKALB	DK-44	106	98	91	98	98	4.2	3.8	8
DEKALB	DK-45	107	92	99	109	102	3.3	2.0	12
PIONEER	8699	92	98	111	98	100	3.1	2.9	15
ASGROW	A425	100	95	103	113	103	2.5	2.0	5
MATURITY CHECK	TX3042xTX2737	97	110	104	108	105	2.5	2.1	16
DEKALB	DK-35	100	92	81	116	97	2.2	4.5	7
DEKALB	DK-40y	102	91	88	92	93	2.1	2.3	15
MYCOGEN	1482	94	101	99	96	98	1.7	2.5	11
MATURITY CHECK	OK11xTX2741	102	101	95	94	98	1.0	2.7	16
GARST	5631Y	100	95	102	90	97	0.4	4.3	6
GOLDEN WORLD	GW 5972	95	88	108	89	95	0.1	2.7	7
NK	KS 310	--	99	102	--	--	-2.0	4.0	8
DEKALB	DK-38y	88	73	73	88	80	-3.7	3.1	16
MATURITY CHECK	C 305	92	90	100	93	94	-4.6*	1.9	16
ASGROW	A328	94	--	111	91	--	-7.1	8.1	6
MATURITY CHECK	RS 610	86	75	92	96	87	-8.5*	1.9	16
NK	K35-Y5	--	100	78	--	--	-10.3	5.0	5
AGRIPRO	AP 2468	--	130	--	94	--	--	--	--
ASGROW	XP2017	93	--	58	82	--	--	--	--
CARGILL	576	--	73	73	--	--	--	--	--
DEKALB	DK-36	95	85	80	85	86	--	--	--
DEKALB	DK-43A	113	100	114	113	110	--	--	--

(continued)

TABLE 17. WEST KANSAS FALLOW GRAIN SORGHUM TEST YIELD SUMMARY, 1994-1997.

BRAND	NAME	1997 YIELD AS % OF TEST AVERAGE ¹					1994-1997		
		ELL	THF	GRF	FIF	AVG.	DYA (bu/a) ²	S.E. ³	N ⁴
DELANGE	DSA 115C	--	--	--	90	--	--	--	
GARST	N5624 EXP	106	92	73	96	92	--	--	
GOLDEN HARVEST	H-430Y	98	--	--	--	--	--	--	
GOLDEN WORLD	GW 6035	88	81	103	86	89	--	--	
HOEGEMEYER	671	105	--	--	--	--	--	--	
HOEGEMEYER	6766	106	--	--	--	--	--	--	
HOEGEMEYER	6874	104	--	--	--	--	--	--	
KAYSTAR	KS-525	--	--	106	--	--	--	--	
KAYSTAR	KS-540Y	--	--	120	--	--	--	--	
MSG (OHLDE)	G 530	104	--	--	95	--	--	--	
MSG (OHLDE)	G 571	107	--	--	103	--	--	--	
MSG (OHLDE)	O 256	111	--	--	104	--	--	--	
NC+	5B74E	99	113	114	97	106	--	--	
NC+	6C63	--	--	--	107	--	--	--	
NC+	6Y83-I	104	105	--	--	--	--	--	
NK	K73-J6	110	--	--	--	--	--	--	
PIONEER	8414	--	--	--	101	--	--	--	
PIONEER	85Y34	91	119	102	--	--	--	--	
PIONEER	87G57	--	102	85	85	--	--	--	
SRI	PAY DAY II	101	108	--	--	--	--	--	
SRI	EXP SR9731	90	98	--	--	--	--	--	
TRIUMPH	TR432	--	80	78	--	--	--	--	
TRIUMPH	TR445	91	--	--	101	--	--	--	
TRIUMPH	TR462	--	--	130	99	--	--	--	
TRIUMPH	TR65-G	108	--	--	--	--	--	--	
AVERAGES	(bushels/acre)	142	70	107	85	101	--	--	
LSD(0.05)**		7	13	13	13	--	--	--	

¹ ELL = Ellis Co. Test, KSU Ag. Research Center, Hays

THF = Thomas Co. Test, Northwest Res. Ext. Center, Colby

GRF = Greeley Co. Test, Southwest Rex. Ext. Center, Tribune

FIF = Finney Co. Test, Southwest Rex. Ext. Center, Garden City

² DYA = Differential Yielding Ability; average difference of hybrid yield compared to average of check hybrids in bushels per acre.

³ SE = Standard Error of DYA; measure of consistency of yield differences.

⁴ N = Number of tests where hybrid was compared with checks; DYA was calculated only for those with at least 5 comparisons.

^c Check hybrid; each hybrid compared to average yield of these check hybrids.

* Statistically significantly different from the average of the check hybrids, which = 0 (P < 0.5).

SOUTH CENTRAL KANSAS GRAIN SORGHUM TEST ON SANDY LOAM, IRRIGATED

COUNTY: STAFFORD

LOCATION: Sandyland Experiment Field, St. John

TEST SITE: Naron loamy fine sand

1996 CROP: Wheat

1995 CROP: Soybeans

FERTILIZER (lbs/acre): 200 N 70 P₂O₅ K₂O

PLANTING DATE: 6/4/97

HARVEST DATE: 11/20/97

COOPERATORS:

Victor Martin, agronomist

TARGET POPULATION: 71,000 plants/acre,

2.9 in. spacing

STAND (% of target): NA

YIELD: Average (bu/a): 139

Range (bu/a): 117 - 154

LSD (bu/a): 12

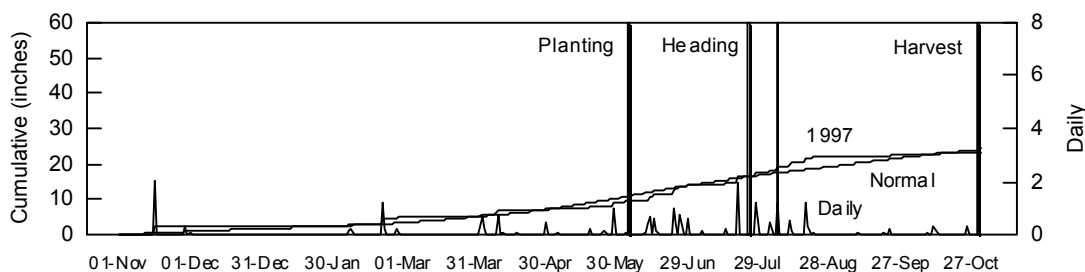
CV (%): 7

BLOOM DATES: 7/25/97 - 8/6/97

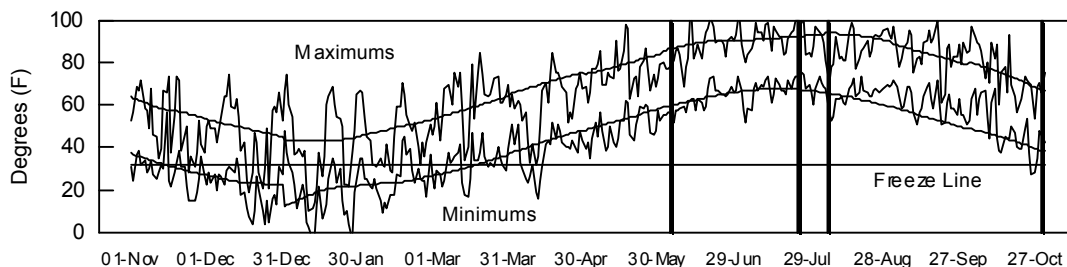
1997 GROWING CONDITONS:

Favorable seeding conditions resulted in adequate stands for most entries. Cool, damp, cloudy conditions in June may have slowed initial growth and development. Summer precipitation was well above normal, and temperatures were slightly below normal.

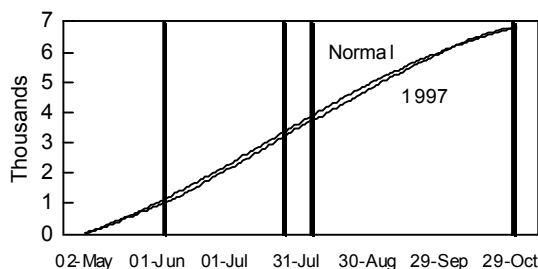
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1997	Normal	1997	Normal	1997	Normal
April	2.5	2.0	49	57	0	0
May	1.9	3.4	63	66	869	971
June	4.8	3.7	74	76	1211	1252
July	3.6	2.9	79	79	1409	1407
August	4.1	2.5	77	78	1327	1356
Sep.	0.6	2.5	73	69	1170	1044
Oct.	0.8	2.2	62	59	860	769
Season Totals	18.3	19.1	68	69	6846	6800

TABLE 18. STAFFORD CO. IRR. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1997.

BRAND	NAME	ACRE YIELD, BUSHEL					YIELD AS % OF TEST			96-97		1997					Final Hds Stand per Plnt	
		1997	1996	1995	2-Yr.	3-Yr.	AVERAGE			Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %		
					AVG.	AVG.	1997	1996	1995									
MATURITY CHECK	C 305	129	--	--	--	--	93	--	--	--	--	48	14	55	52	24	94	1.0
MATURITY CHECK	TX3042xTX2737	128	--	--	--	--	92	--	--	--	--	50	15	57	58	5	98	1.0
MATURITY CHECK	RS 610	117	--	--	--	--	84	--	--	--	--	52	14	56	56	9	72	1.0
MATURITY CHECK	OK11xTX2741	137	--	--	--	--	99	--	--	--	--	54	14	58	53	2	102	1.0
DEKALB	DK-47	150	--	--	--	--	108	--	--	--	--	54	15	58	57	2	108	1.0
ASGROW	A425	143	--	--	--	--	103	--	--	--	--	56	14	57	55	2	101	1.0
MYCOGEN	1506	138	--	--	--	--	100	--	--	--	--	56	14	58	64	9	82	1.0
NC+	7R37E	138	--	--	--	--	100	--	--	--	--	56	15	58	54	62	101	1.0
MYCOGEN	444E	127	--	--	--	--	92	--	--	--	--	57	14	57	55	21	84	1.0
NC+	7R83	141	--	--	--	--	102	--	--	--	--	57	14	57	58	6	88	1.0
DEKALB	DK-58	145	--	--	--	--	105	--	--	--	--	58	13	58	59	16	84	1.0
DEKALB	DK-55	151	--	--	--	--	109	--	--	--	--	58	14	59	58	61	95	1.0
DEKALB	DK-54	154	--	--	--	--	111	--	--	--	--	58	14	59	61	3	94	1.0
MATURITY CHECK	TX2752xTX430	143	--	--	--	--	103	--	--	--	--	58	14	57	56	4	97	1.0
NC+	7B29	133	--	--	--	--	96	--	--	--	--	58	14	58	54	2	94	1.0
DEKALB	DK-56	138	--	--	--	--	99	--	--	--	--	58	16	57	59	23	86	1.0
MYCOGEN	3800	145	--	--	--	--	105	--	--	--	--	60	15	58	58	18	79	1.0
MATURITY CHECK	TX2752xTX2783	141	--	--	--	--	102	--	--	--	--	61	15	59	60	9	68	1.0
AVERAGES		139	--	--	--	--	139	--	--	--	--	56	14	58	57	15	90	1.0
CV(%)		7	--	--	--	--	7	--	--	--	--	2	7	2	6	131	12	1.6
LSD(0.05)**		12	--	--	--	--	9	--	--	--	--	1	1	2	4	24	13	NS

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

NORTHWESTERN KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL, IRRIGATED

COUNTY: THOMAS

LOCATION: Northwest Research-Extension Center, Colby

TEST SITE: Keith silt loam

1996 CROP: Soybeans

1995 CROP: Sorghum

FERTILIZER (lbs/acre): 60 N 40 P₂O₅ 0 K₂O

PLANTING DATE: 5/29/97

HARVEST DATE: 11/17/97

COOPERATORS:

Patrick Evans, agronomist

TARGET POPULATION: 80,000 plants/acre,

2.6 in. spacing

STAND (% of target): 89

YIELD: Average (bu/a): 120

Range (bu/a): 73 - 152

LSD (bu/a): 13

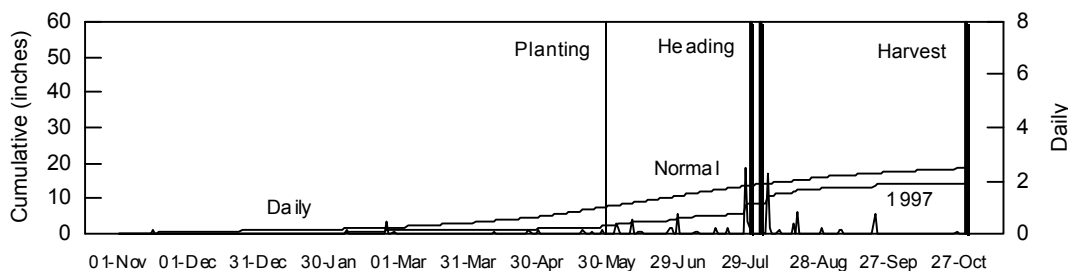
CV (%): 9

BLOOM DATES: 7/31/97 - 8/21/97

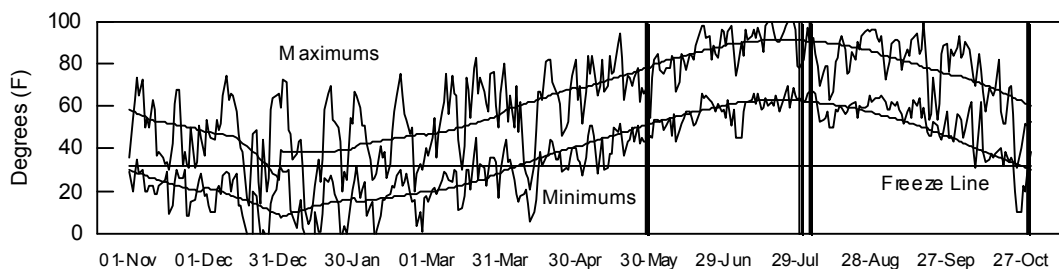
1997 GROWING CONDITIONS:

Preirrigation enabled the establishment of excellent stands even though the spring was very dry. Cool temperatures in August delayed plant development, but warm temperatures in September and early October allowed full crop development. Very high winds in early October caused minor lodging, but the winds and snow associated with the October 25 blizzard caused considerably more lodging. Most heads were able to be harvested, minimizing the negative impact of the lodging on hybrid yields.

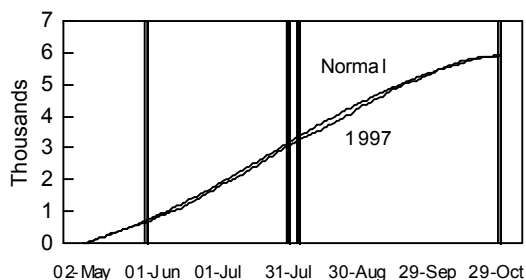
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1997	Normal	1997	Normal	1997	Normal
April	0.6	1.8	44	49	0	0
May	0.6	2.9	57	60	708	781
June	2.7	3.1	70	70	1079	1093
July	3.7	3.0	76	76	1304	1317
August	4.3	2.2	73	74	1195	1241
Sep.	1.2	1.5	68	65	1022	928
Oct.	0.1	1.1	52	53	591	574
Season Totals	13.0	15.6	63	64	5897	5934

TABLE 19. THOMAS CO. IRRIGATED GRAIN SORGHUM PERFORMANCE TEST RESULTS, 95-97.

BRAND	NAME	YIELD AS %									96-97		1997						
		ACRE YIELD, BUSHEL						OF TEST			Days to Blm	Grain to Moist. %	Days to Blm	Grain to Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Pint
		1997	1996	1995	2-Yr. AVG.	3-Yr. AVG.	1997	1996	1995	AVERAGE									
MATURITY CHECK	C 305	73	106	98	90	92	61	78	110	62	16	63	16	54	48	16	93	1.1	
MATURITY CHECK	RS 610	97	106	85	101	96	81	78	96	65	16	66	16	57	53	49	95	1.0	
MATURITY CHECK	TX3042xTX2737	95	107	89	101	97	79	79	101	65	16	66	17	58	54	61	94	1.1	
MYCOGEN	1506	137	131	110	134	126	115	97	124	70	17	71	16	59	59	28	74	1.2	
DEKALB	DK-47	127	132	--	130	--	106	98	--	69	18	71	18	59	53	48	95	1.0	
ASGROW	A425	126	--	--	--	--	105	--	--	--	--	72	17	59	47	8	96	1.0	
CARGILL	X12027 EXP	108	123	--	116	--	91	91	--	71	17	73	17	57	46	11	85	1.1	
AGRIPRO	AP 9210	84	--	105	--	--	71	--	118	--	--	74	17	59	47	15	82	0.9	
MATURITY CHECK	OK11xTX2741	87	117	91	102	98	72	86	103	71	17	74	17	59	48	17	94	1.0	
CARGILL	737	113	133	105	123	117	95	98	118	73	18	76	17	58	50	21	97	0.9	
NC+	6B50	98	--	--	--	--	82	--	--	--	--	76	18	57	47	21	100	0.9	
CARGILL	770Y	125	126	--	125	--	105	93	--	74	17	78	16	58	49	9	94	1.0	
DEKALB	DK-54	139	148	85	144	124	116	109	96	75	19	78	18	59	56	77	79	1.1	
DEKALB	DK-56	123	143	80	133	115	102	105	91	75	19	78	18	59	56	88	79	1.0	
AGRIPRO	AP 2838	123	--	--	--	--	103	--	--	--	--	79	17	58	53	82	98	1.0	
PIONEER	8282	124	153	72	138	116	103	112	81	76	19	79	18	57	55	41	97	0.9	
PIONEER	XS366	135	--	--	--	--	113	--	--	--	--	79	18	57	56	63	82	1.0	
CARGILL	775Y	100	138	65	119	101	84	101	73	76	18	80	17	58	50	19	97	0.9	
CARGILL	730	132	145	--	138	--	110	107	--	76	18	80	17	58	50	18	92	1.0	
AGRIPRO	HY 2660	126	--	--	--	--	106	--	--	--	--	80	18	59	51	19	99	0.9	
MYCOGEN	444E	111	--	--	--	--	93	--	--	--	--	80	18	57	51	33	77	1.1	
MATURITY CHECK	TX2752xTX430	126	155	67	141	116	105	115	76	77	19	81	18	56	51	47	96	1.0	
DEKALB	DK-55	133	149	85	141	123	112	110	96	78	19	82	18	57	55	98	89	0.9	
DEKALB	DK-58	151	150	--	151	--	126	111	--	79	20	83	18	58	59	63	89	1.0	
MYCOGEN	3800	139	--	--	--	--	116	--	--	--	--	83	18	59	55	49	84	0.9	
NC+	7R83	146	--	--	--	--	122	--	--	--	--	83	18	57	56	22	92	0.9	
MATURITY CHECK	TX2752xTX2783	152	163	94	157	136	127	120	106	79	19	84	18	59	53	41	55	1.1	
AVERAGES		120	136	89	128	115	120	136	89	74	18	77	17	58	52	39	89	1.0	
CV(%)		9	5	10	--	--	9	5	10	--	--	2	3	1	3	37	8	9.8	
LSD(0.05)**		13	9	15	--	--	11	6	17	--	--	1	1	1	2	17	8	0.1	

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

SOUTHWESTERN KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL, IRRIGATED

TARGET POPULATION: 80,000 plants/acre,
2.6 in. spacing
STAND (% of target): 107
YIELD: Average (bu/a): 108
Range (bu/a): 86 - 132
LSD (bu/a): 13
CV (%): 9
BLOOM DATES: 7/27/97 - 8/14/97
1997 GROWING CONDITONS:

COUNTY: FINNEY

LOCATION: Southwest Research-Extension Center, Garden City

TEST SITE: Keith silt loam

1996 CROP: Fallow

1995 CROP: Sorghum

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

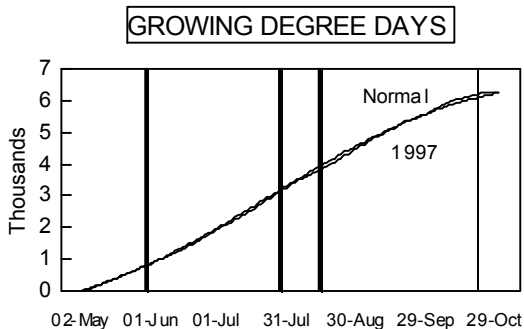
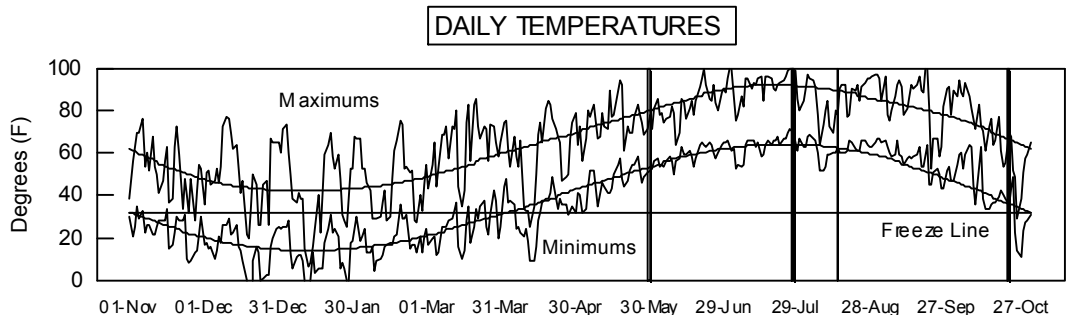
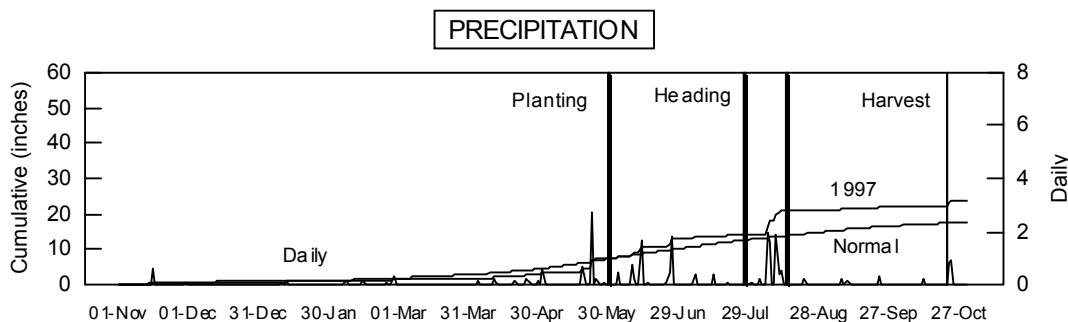
PLANTING DATE: 5/30/97

HARVEST DATE: 10/22/97

COOPERATORS:

Merle Witt, agronomist

Stands were excellent for most entries. Wet, cool spring conditions delayed early growth. Summer conditions were favorable, with mild temperatures and timely rains. August 1997 was the wettest on record.



GROWING-SEASON WEATHER SUMMARY

Month	Precipitation		Average Temp.		GDD	
	1997	Normal	1997	Normal	1997	Normal
April	1.3	1.7	46	51	0	0
May	4.5	2.9	61	62	823	842
June	5.6	2.9	71	72	1115	1145
July	1.1	2.5	78	78	1351	1352
August	6.9	2.2	75	75	1256	1275
Sep.	0.8	1.6	69	67	1058	986
Oct.	2.0	1.0	55	54	661	632
Season Totals	22.2	14.8	65	66	6264	6231

TABLE 20. FINNEY CO. IRR. GRAIN SORGHUM PERFORMANCE TEST RESULTS, 1995-1997.

BRAND	NAME	ACRE YIELD, BUSHEL						YIELD AS % OF TEST AVERAGE			96-97		1997				
		1997	1996	1995	2-Yr. AVG.	3-Yr. AVG.	1997	1996	1995	Days Blm	Grain to Moist. %	Days Blm	Grain to Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %
MATURITY CHECK	C 305	97	92	78	94	89	90	78	98	57	14	58	15	58	50	--	113
MATURITY CHECK	RS 610	86	87	69	86	81	79	74	88	59	13	61	14	59	54	--	109
MATURITY CHECK	TX3042xTX2737	88	97	78	92	88	81	83	99	61	14	62	15	61	55	--	121
AGRIPRO	AP 9210	91	--	--	--	--	84	--	--	--	--	64	15	60	48	--	96
ASGROW	A425	121	--	--	--	--	112	--	--	--	--	64	15	60	52	--	117
DEKALB	DK-47	116	106	--	111	--	107	90	--	63	14	64	15	60	52	--	114
MATURITY CHECK	OK11xTX2741	87	87	77	87	84	81	74	97	63	14	64	15	58	50	--	115
MYCOGEN	1506	127	117	99	122	114	117	99	126	64	14	64	15	61	60	--	96
CARGILL	837	116	112	--	114	--	107	95	--	65	14	66	15	59	56	--	116
MYCOGEN	444E	98	120	74	109	97	91	102	94	65	14	66	15	59	52	--	117
CARGILL	730	132	111	92	121	111	122	94	117	66	13	67	14	60	54	--	112
DEKALB	DK-55	113	140	84	126	112	105	119	106	67	14	67	15	59	58	--	105
NC+	7R83	116	--	--	--	--	107	--	--	--	--	67	15	59	56	--	104
AGRIPRO	AP 2838	113	--	--	--	--	104	--	--	--	--	67	16	57	54	--	115
DEKALB	DK-54	115	136	66	125	106	106	115	84	67	14	67	16	59	60	--	100
NK	K73-J6	121	131	--	126	--	112	112	--	65	14	67	16	59	54	--	118
DEKALB	DK-58	120	118	82	119	106	111	100	103	66	14	68	15	59	59	--	105
NC+	7R37E	90	--	87	--	--	83	--	110	--	--	68	15	60	55	--	121
CARGILL	X12027 EXP	93	130	--	111	--	86	111	--	66	15	68	16	58	49	--	100
DEKALB	DK-56	124	125	84	125	111	115	106	107	68	15	68	16	58	56	--	104
PIONEER	8282	103	134	101	119	113	95	114	128	66	14	68	16	58	57	--	120
PIONEER	XS366	111	--	--	--	--	103	--	--	--	--	68	16	59	58	--	97
AGRIPRO	HY 2660	102	--	80	--	--	95	--	101	--	--	69	15	60	52	--	117
MATURITY CHECK	TX2752xTX430	114	111	59	113	95	105	95	75	68	14	69	15	59	54	--	111
DELANGE	DSA 151	106	--	--	--	--	98	--	--	--	--	69	16	58	57	--	113
DELANGE	DSA 131	88	--	--	--	--	81	--	--	--	--	69	16	59	50	--	114
TRIUMPH	TR481	113	124	92	119	110	104	106	117	66	14	69	16	60	57	--	105
CHECK	ATX631xTX436	116	--	--	--	--	107	--	--	--	--	70	15	60	60	--	97
MYCOGEN	3800	100	132	--	116	--	93	112	--	67	14	70	15	60	58	--	112
CHECK	ATX631xTX2894	123	--	--	--	--	114	--	--	--	--	71	16	60	59	--	99
PIONEER	8118	121	131	79	126	110	112	111	100	70	14	72	15	60	62	--	114
CHECK	ATX635xTX436	130	--	--	--	--	120	--	--	--	--	72	16	59	68	--	96
TRIUMPH	TR82-G	117	128	61	123	102	108	109	78	70	15	73	16	59	59	--	105
MATURITY CHECK	TX2752xTX2783	89	121	73	105	94	82	103	92	70	14	75	16	59	56	--	75
NK	X618	92	--	--	--	--	85	--	--	--	--	76	18	58	50	--	91
AVERAGES		108	118	79	113	102	108	118	79	66	14	68	15	59	56	--	107
CV(%)		9	8	14	--	--	9	8	14	--	--	3	5	2	3	--	8
LSD(0.05)**		13	12	18	--	--	12	10	22	--	--	3	1	NS	2	--	11

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

TABLE 21. WEST KANSAS IRRIGATED GRAIN SORGHUM TEST YIELD SUMMARY, 1994-1997.

BRAND	NAME	1997 YIELD AS % OF TEST AVERAGE ¹					1994-1997		
		STI	THI	GRI	FII	AVG.	DYA (bu/a) ²	S.E. ³	N ⁴
CARGILL	730	--	110	--	122	--	23.9*	2.9	6
MATURITY CHECK	TX2752xTX2783	102	127	--	82	103	23.1*	5.5	11
DEKALB	DK-58	105	126	--	111	114	22.1*	4.1	10
DEKALB	DK-55	109	112	--	105	108	21.0*	5.3	11
DEKALB	DK-56	99	102	--	115	106	19.5*	3.5	9
DEKALB	DK-54	111	116	--	106	111	19.4*	4.0	11
PIONEER	8310	--	--	--	--	--	19.1*	3.5	8
MYCOGEN	1506	100	115	--	117	110	18.0*	3.8	11
PIONEER	8282	--	103	--	95	--	17.8*	6.3	7
c MATURITY CHECK	TX2752xTX430	103	105	--	105	105	16.4*	4.7	11
DEKALB	DK-47	108	106	--	107	107	14.6*	3.4	6
CARGILL	X12027 EXP	--	91	--	86	--	12.3	6.5	5
MYCOGEN	444E	92	93	--	91	92	9.9*	3.5	7
PIONEER	8505	--	--	--	--	--	4.4	5.6	5
MATURITY CHECK	OK11xTX2741	99	72	--	81	84	-0.6	2.5	11
MATURITY CHECK	TX3042xTX2737	92	79	--	81	84	-2.6	2.9	11
c MATURITY CHECK	C 305	93	61	--	90	81	-4.7	3.1	11
c MATURITY CHECK	RS 610	84	81	--	79	82	-11.6*	2.6	11
AGRIPRO	AP 2838	--	103	--	104	--	--	--	--
AGRIPRO	AP 9210	--	71	--	84	--	--	--	--
AGRIPRO	HY 2660	--	106	--	95	--	--	--	--
ASGROW	A425	103	105	--	112	107	--	--	--
CARGILL	737	--	95	--	--	--	--	--	--
CARGILL	770Y	--	105	--	--	--	--	--	--
CARGILL	775Y	--	84	--	--	--	--	--	--
CARGILL	837	--	--	--	107	--	--	--	--
DELANGE	DSA 131	--	--	--	81	--	--	--	--
DELANGE	DSA 151	--	--	--	98	--	--	--	--
MYCOGEN	3800	105	116	--	93	105	--	--	--
NC+	5B74E	--	--	--	--	--	--	--	--
NC+	6B50	--	82	--	--	--	--	--	--
NC+	7B29	96	--	--	--	--	--	--	--
NC+	7R37E	100	--	--	83	--	--	--	--
NC+	7R83	102	122	--	107	110	--	--	--

(continued)

TABLE 21. WEST KANSAS IRRIGATED GRAIN SORGHUM TEST YIELD SUMMARY, 1994-1997.

BRAND	NAME	1997 YIELD AS % OF TEST AVERAGE ¹					1994-1997		
		STI	THI	GRI	FII	AVG.	DYA (bu/a) ²	S.E. ³	N ⁴
NK	K73-J6	--	--	--	112	--	--	--	--
NK	X618	--	--	--	85	--	--	--	--
PIONEER	8118	--	--	--	112	--	--	--	--
PIONEER	8414	--	--	--	--	--	--	--	--
PIONEER	XS366	--	113	--	103	--	--	--	--
TRIUMPH	TR481	--	--	--	104	--	--	--	--
TRIUMPH	TR82-G	--	--	--	108	--	--	--	--
CHECK	ATX631xTX436	--	--	--	107	--	--	--	--
CHECK	ATX631xTX2894	--	--	--	114	--	--	--	--
CHECK	ATX635xTX436	--	--	--	120	--	--	--	--
AVERAGES	(bushels/acre)	139	120	--	108	122	--	--	--
LSD(0.05)**		9	11	--	12	--	--	--	--

- ¹ STI = Stafford Co. Test, Sandyland Experiment Field, St. John THI = Thomas Co. Test, Northwest Res. Ext. Center, Colby
GRI = Greeley Co. Test, Southwest Rex. Ext. Center, Tribune FII = Finney Co. Test, Southwest Rex. Ext. Center, Garden City
- ² DYA = Differential Yielding Ability; average difference of hybrid yield compared to average of check hybrids in bushels per acre.
- ³ SE = Standard Error of DYA; measure of consistency of yield differences.
- ⁴ N = Number of tests where hybrid was compared with checks; DYA was calculated only for those with at least 5 comparisons.
- ^c Check hybrid; each hybrid compared to average yield of these check hybrids.
- * Statistically significantly different from the average of the check hybrids, which = 0 (P < 0.5).

TABLE 22. SILAGE YIELD AS % OF TEST AVERAGE, 1994-1996 FORAGE SORGHUM TESTS.

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

* LSD for comparing hybrids within a maturity group.

** LSD for comparing hybrids in different maturity groups.

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

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

APPENDIX 1: Entrants in the 1997 Kansas Sorghum Performance Tests

AgriPro

Temple Abney
AgriPro Seeds, Inc.
Front St., P.O. Box 2212
Hereford, TX 79045
800-858-4603

DeLange

Steve Ahring
Delange Seed (AGSECO)
P.O. Box 7
Girard, KS 66743
316-724-6223

Hoegemeyer

Don Moeller
Hoegemeyer Hybrids
1755 Hoegemeyer Rd.
Hooper, NE 68031-2125
402-654-3399

NK

Marcus Schwartz
Novartis Seeds, Inc.
1060 Wheatland
Buhler, KS 67522
316-543-2707

Asgrow

Geoff Thomas
Asgrow Seed Co.
I-27 North West Service Rd.
P.O. Box 1945
Plainview, TX 79072
806-293-2647

Fontanelle

Steven P. Pike
Fontanelle Hybrids
10981 8th St.
Nickerson, NE 68044-9706
402-721-1410

Kaystar

Ken King
Kaystar Seed
702 3rd St. SW
P.O. Box 947
Huron, SD 57350
605-352-8791

Pioneer

Brad Lance
Pioneer Hi-Bred Intl., Inc.
1616 S. Kentucky St.
Suite C-150
Amarillo, TX 79102
806-356-0160

Cargill

Kevin Hannigan
Cargill Hybrid Seeds
P.O. Box 5645
Minneapolis, MN 55440-5645
612-742-6727

Garst

Garst Seed Co.
2369 330th St.
Slater, IA 50244
800-831-6630

MSG (Ohlde)

Leonard Luebker
Midwest Seed Genetics, Inc.
P.O. Box 518
Carroll, IA 51401
800-369-8218

SRI

CLINT JOHNSON
SEED RESOURCE, INC.
P.O. BOX 326
TULIA, TX 79088
806-995-3882

Century II

Robert Jacquinet
Greenbush Seed&Supply, Inc.
315 S. Adams
P.O. Box 661
Hutchinson, KS 67504-0661
316-662-6659

Golden Harvest

Bill Green
J.C. Robinson Seed Co.
100 J.C. Robinson Blvd.
P.O. Box A
Waterloo, NE 68069
800-228-9906

MYCOGEN

JIMMY I. BARBER
MYCOGEN SEEDS
3600 N. COLUMBIA
PLAINVIEW, TX 79072
806-293-1322

Triumph

Ben Benton
Triumph Seed Co. Inc.
P.O. Box 1050
Ralls, TX 79357
806-253-2584

DeKalb

Charles Courtney
DeKalb Plant Genetics Corp.
R.R. 2, Box 56
Lubbock, TX 79415
806-763-3336

Golden World

George Pechacek
Crosbyton Seed
P.O. Box 429
Crosbyton, TX 79322
806-675-2308

NC+

Wes Zart
NC+ Hybrids
P.O. Box 4408
1300 N. 79th
Lincoln, NE 68504
402-467-2517

APPENDIX 2: Entries in the 1997 Kansas Grain Sorghum Performance Tests

AGRIPRO						FONTANELLE					
	Grain	End.	Mat.	Days	G-bug*		Grain	End.	Mat.	Days	G-bug
AP 2440	B	HY	E	62	E	5576C	R	HY	M	68	CE
AP 9210	B	HY	E	62	E	GARST	Grain	End.	Mat.	Days	G-bug
AP 2468	B	HY	E	64	C	5631Y	C	HY	E	62	E
HY 2660	R	HY	M	68	E	N5624 EXP	B	HY	E	62	C
AP 2838	R	W	L	71	E	5514Y	Y	Y	M	67	C
ASGROW	Grain	End.	Mat.	Days	G-bug*	5429	B	HY	M	68	C
XP2017	R	W	E	50		GOLDEN HARVEST	Grain	End.	Mat.	Days	G-bug
A328	R	W	E	55	E	H-430Y	Y	HY	E	64	
A425	R	W	M	60	E	H-495W	W	HY	M	69	
CARGILL	Grain	End.	Mat.	Days	G-bug*	H-512	R	HY	L	71	E
576	B	HY	E	61	CEIK	GOLDEN WORLD	Grain	End.	Mat.	Days	G-bug
647	B	HY	M	68	C	GW 6035	R	W	ME	62	E
X12027 EXP	B	HY	M	68	CEIK	GW 5960	B	HY	ME	63	E
737	B	HY	M	69	C	GW 5972	R	W	ME	63	E
627	B	HY	M	70	CEIK	HOEGEMEYER	Grain	End.	Mat.	Days	G-bug
730	B	HY	M	70	CEIK	671	C	Y	M	66	C
770Y	C	Y	M	70	CEIK	6766	B	Y	M	67	E
775Y	C		M	70	C	6878	B	Y	L	68	E
837	B	HY	L	72		6874	R	Y	L	69	E
CENTURY II	Grain	End.	Mat.	Days	G-bug*	KAYSTAR	Grain	End.	Mat.	Days	G-bug
GB5543-E	R	W	E	55	E	KS-525	R	Y	M	70	E
GB7042-E	R	W	M	70	E	KS-540Y	C	HY	L	80	C
GB8041-W	Y	W	M	80	CD	MSG (OHLDE)	Grain	End.	Mat.	Days	G-bug
GB9140-E	R	W	L	91	E	G 530	C	W	E	63	CE
DEKALB	Grain	End.	Mat.	Days	G-bug*	G 571	B	Y	M	67	CE
DK-36	B	HY	E	66	CE	O 256	B	Y	M	69	CE
DK-35	B	HY	E	67	CE	MYCOGEN	Grain	End.	Mat.	Days	G-bug
DK-38y	Y	Y	E	68	CE	1482	B	W	ME	58	CE
DK-40y	Y	Y	E	70	CE	M 3838	C	HY	M	60	CE
DK-43A	B	HY	E	70	CE	1506	B	HY	M	62	CE
DK-44	B	HY	M	71	CE	3747	B	HY	ML	68	CEI
DK-45	B	HY	M	72	CE	3800	B	HY	ML	68	CE
DK-47	B	HY	M	72	CE	444E	B	HY	ML	68	CE
DK-54	B	HY	L	75	CE						
DK-55	B	HY	L	75	CE						
DK-56	B	HY	L	76	CE						
DK-58	B	HY	L	77	CE						
DELANGE	Grain	End.	Mat.	Days	G-bug*						
DSA 115C	C	HY	E	58	E						
DSA 125C	C	HY	M	65	E						
DSA 131	B	HY	M	65	C						
DSA 151	B	HY	L	70	E						

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

(continued)

APPENDIX 2: Entries in the 1997 Kansas Grain Sorghum Performance Tests

NC+	Grain	End.	Mat.	Days	G-bug*	CHECK	Grain	End.	Mat.	Days	G-bug
5B74E	B	HY	E	60	CE	ATX631xTX2894	W	W	L	76	
6B50	B	HY	ME	62		ATX631xTX436	W	W	L	76	
6B67	B	HY	ME	64	C	ATX635xTX436	W	W	L	78	
Y363	Y	Y	ME	64	C						
6B70	B	HY	M	65	C	MATURITY CHECK C 305	R		E	60	
6C63	C	HY	M	65	C	TX3042xTX2737	B	W	E	65	
6Y83-I	Y	Y	M	67	CEIK	RS 610	R	W	M	68	
7B29	B	HY	M	69		OK11xTX2741	W	W	M	69	
371	C	HY	M	70	C	TX2752xTX430	B	W	L	73	
7R37E	R	W	M	70	CE	TX2752xTX2783	R	W	L	74	E
7R83	R	W	ML	72							
NK	Grain	End.	Mat.	Days	G-bug*						
KS 310	B	HY	E	63	E						
K35-Y5	C	HY	E	65	E						
KS 585	B	HY	M	69	E						
KS 711Y	C	HY	M	72	E						
X618	R	HY	M	72	E						
K73-J6	B	HY	M	73	E						
PIONEER	Grain	End.	Mat.	Days	G-bug*						
87G57	B	Y	E	61	E						
8699	B	Y	E	65	E						
85Y34	Y	Y	E	66	E						
8500	R	W	M	68							
8505	R	W	M	68	E						
8414	R	W	M	69	E						
8212Y	Y	Y	L	71							
8282	R	W	L	72							
8310	R	W	L	72	E						
XS366	R	W	L	72	E						
8118	B	Y	L	75	E						
SRI	Grain	End.	Mat.	Days	G-bug*						
PAY DAY II	R	Y	M	56	CE						
EXP SR9731	C	W	M	57	C						
TRIUMPH	Grain	End.	Mat.	Days	G-bug*						
TR432	B	W	E	62	E						
TR459	B	W	ME	64	E						
TR445	C	W	ME	66	E						
TR462	R	W	M	70	E						
TR65-G	R	W	M	70	E						
TR481	R	W	ML	72	E						
TR474	C	W	ML	73	E						
TR82-G	R	W	ML	73	E						

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

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