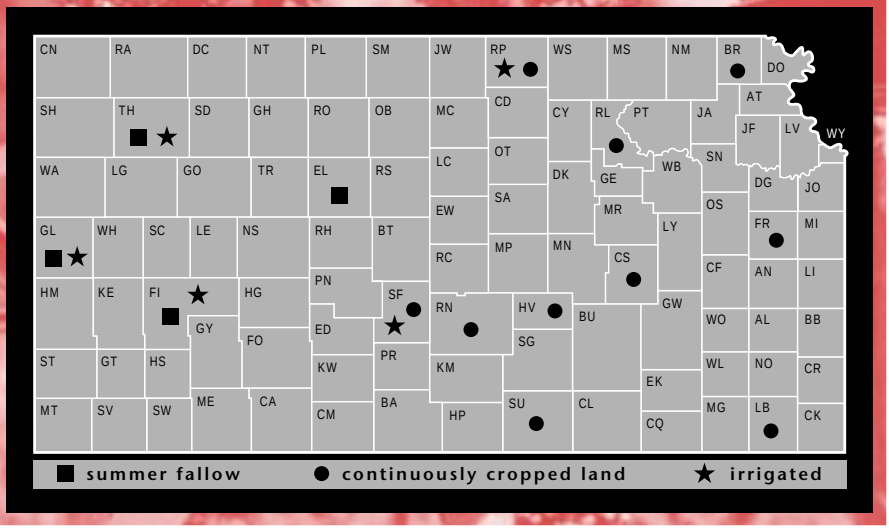
2001

KANSAS PERFORMANCE TESTS WITH GRAIN SORGHUM HYBRIDS

REPORT OF PROGRESS 883

Kansas State University
Agricultural Experiment Station
and Cooperative Extension Service



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Contribution No. 02-193-S from the Kansas Agricultural Experiment Station.

2001 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 2001 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 2001 and normal. All graphs indicate planting, heading, and harvest dates, if available. The graphs reveal general trends in precipitation and temperature 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.

Beginning in 1999, seed-applied insecticide was requested for each entry. Check hybrids were included at each location with and without seed-applied insecticide to estimate the potential advantage of the insecticide. The insecticide tended to confer a slight yield benefit at most locations, especially in the presence of early-season insect pests. Check the "INSECTICIDE EFFECT" summary in the descriptive information for each test.

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, 16, 21) present current-year yield as a percent of the average for each location.

Figures 6-10 graphically summarize yield and maturity information over the past 3 years for each region. Hybrid performance is standardized using the average of three check hybrids present in every test (C305, RS610, and TX2752xTX430). The number beside each bar shows the number of tests where a given hybrid was compared with the check hybrids. In general, the greater the number of comparisons, the greater confidence one can place in the stated performance of that hybrid. Symbols beside the bar indicate if a hybrid was significantly greater (+) or lower (-) than the average of the check hybrids. No symbol means no difference. As with individual test results, small differences should not be overemphasized. Relative ranking and large differences are better indicators of hybrid performance.

Grain from tan-plant hybrids is desirable for human food consumption and poultry feed. This year, five locations of a regional study to evaluate available tan-plant hybrids were planted in Kansas. Results are presented in Tables 22 - 27.

The appendices present additional information for each hybrid. Appendix 1 includes contact information for companies that entered hybrids in the tests. Appendix 2 lists descriptive information provided by the entrants for each hybrid. Appendix 3 presents the results of iron chlorosis

and sooty stripe screening conducted for all hybrids in 2001.

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. Therefore, they are included in performance comparisons.

Tractor-powered, modified, 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 specialized plot 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* also are converted 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 '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 characteristic. 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.

2001 STATEWIDE GROWING CONDITIONS

Weather Summary

The two most important weather factors affecting sorghum production, soil moisture and temperature, are graphed for the season in Figures 1 and 2. Figures 3 and 4 illustrate the

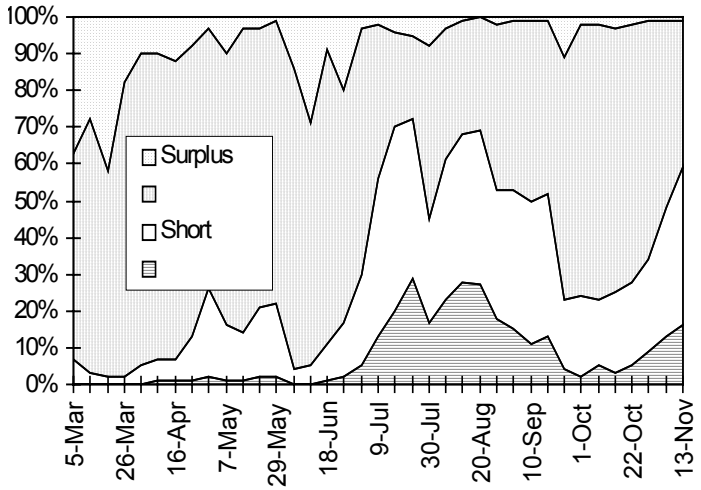


Figure 1. Statewide status of topsoil moisture.

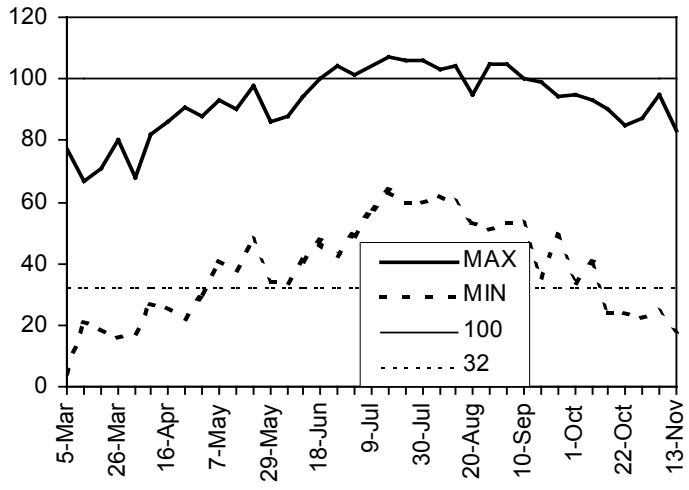


Figure 2. 2001 Kansas weekly maximum and minimum temperatures.

sorghum crop's condition and progress during the season and reflect the impacts of temperature and soil-moisture extremes.

Planting began well ahead of the 5-year average but at a pace similar to last year's (Figure 4). Heavy rains and relatively cool temperatures in late May and early June slowed planting so that it finished at about the normal time (Figures 1 and 2). The early planting of much of the crop accompanied by warm temperatures in late June and July allowed the crop to head and color at close to last year's early pace. Except for one week in the middle of August, at least one reporting station in Kansas recorded weekly high temperatures at or above 100° F for a period of 13 weeks from mid-June until mid-September (Figure 2). Significant rains over much of the state in late July and early August dropped the percentage of crop acreage characterized as short or very short

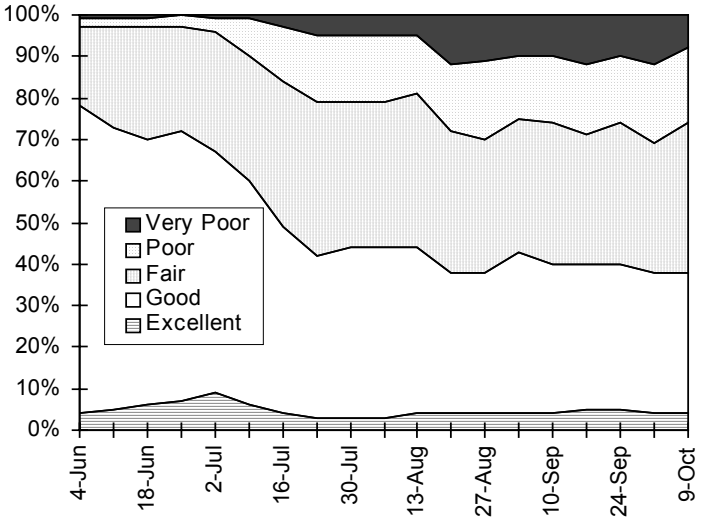


Figure 3. Condition of 2001 sorghum crop.

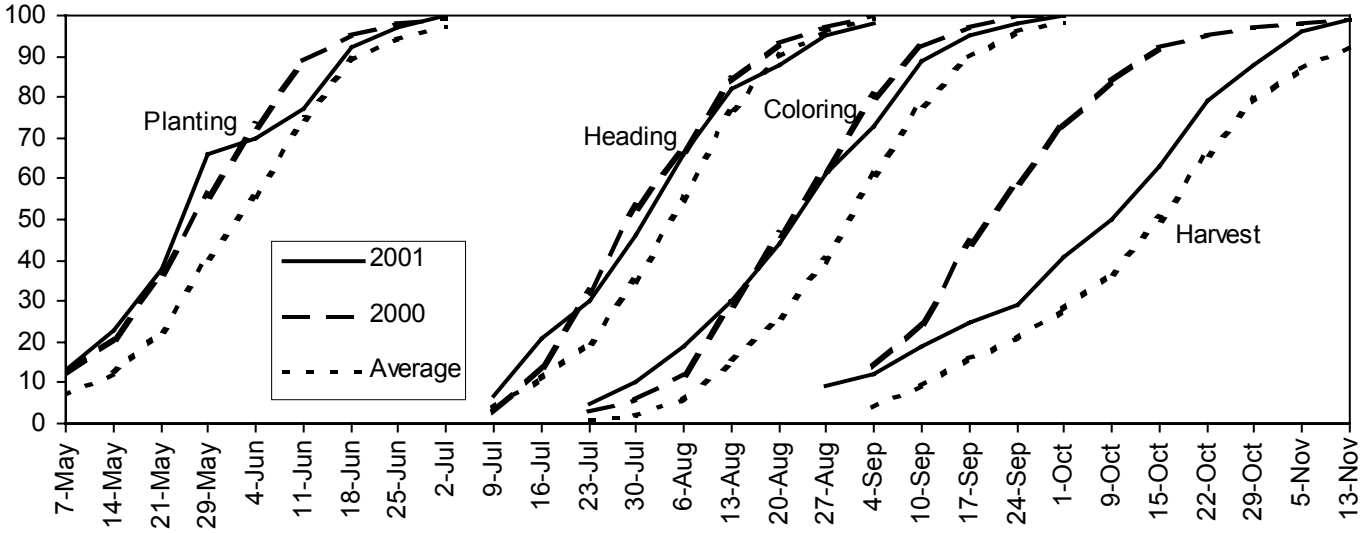


Figure 4. Progress of 2001 Kansas grain sorghum crop.

of topsoil moisture from roughly 70% to 45%. This appeared to be enough to carry much of the crop to harvest that otherwise might have experienced severe drought stress. Harvest started very early in southeast Kansas, but did not progress as rapidly as last year statewide.

The condition of the crop declined sharply during June and early July but held steady thereafter (Figure 3). Nearly 80% of the crop was in good to excellent condition in early June, but roughly 45% was in those categories by mid-July. The percentage of the crop in the good or excellent categories varied between 40% and 45% for the rest of the season.

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

Insect Summary

A range of insects attacked the sorghum crop in 2001. In May, the southern corn billbug damaged a field in Reno County. The field was infested with yellow nutsedge, the natural host for this insect. Greenbugs began to appear in early June. Populations continued to increase through July, especially in irrigated fields or in northeast Kansas where rainfall was more abundant. In some instances severe damage was sustained. Greenbugs struggled to survive in moisture stressed fields. By early August this pest was no longer much of a concern, particularly in areas receiving little rain. False chinch bugs appeared in May in southeast Kansas. In some places nymph infestations of this pest overwhelmed young sorghum plants on a field scale. Later in the season, adult infestations swarmed over sorghum heads in localized areas within fields. Typically these infestations did not require control measures. True chinch bugs were present as well, but did not appear to cause above-average concern this year. Corn leaf aphids caused some concern in far south central Kansas but only in a localized area. Some irrigated fields had severe infestations of Banks grass mite or two-spotted spider mite. An emergency crisis exemption for Capture insecticide was granted for control of these pests in seed production fields.

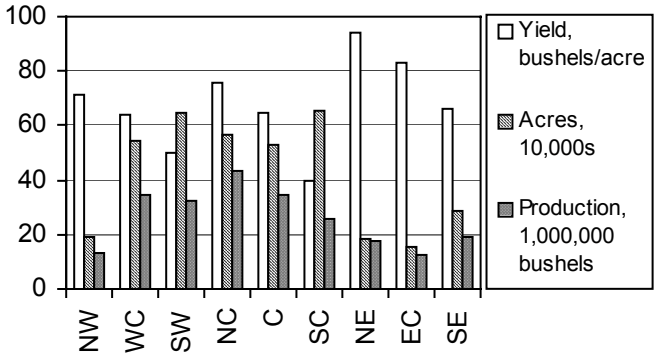


Figure 5. 2001 Kansas grain sorghum crop production by crop reporting district.

(From *Kansas Insect Newsletter*, Extension Entomology, Kansas State University and *Kansas Cooperative Economic Insect Survey* reports, Kansas Department of Agriculture.)

Disease Summary

Early in the year a number of fields exhibited symptoms of 'rootless sorghum syndrome'. These fields had retarded brace root development and were particularly susceptible to lodging later in the season. In late June the diagnostic lab received samples from southeast Kansas with high levels of sooty stripe, unusual for so early in the season. Dry weather during most of the remaining season appeared to minimize the impact from this disease. Numerous instances of crazy top downy mildew infections were reported this year. These infections were likely related to the wet conditions experienced in many areas in late May and early June. Late in the season many sorghum fields suffered significant lodging related to stalk rot infections. Fusarium stalk rot and charcoal rot appeared to cause most of the problems. Drought stress or excessive rain in some cases caused the stress that made the sorghum susceptible to these stalk rots. In addition the diagnostic lab received several sorghum samples with bacterial leaf stripe.

(From Doug Jardine in *Disease Alerts*, Kansas State University Department of Plant Pathology.)

The November 9 Crops Report predicted a crop of 232.5 million bushels, up 23% from 2000. This production is from 3.75 million acres, up by 550,000 acres from last year. Sorghum acres and production were concentrated in central, southwest, and west central Kansas (Figure 5). Yield levels in southern, central, and western districts tended to be lower than those in the eastern and northern districts. The highest yields were recorded in the northeast district at 94 bushels per acre. The predicted statewide average yield of 62 bushels per acre is 3 bushels higher than the 2000 yield average.

NORTHEASTERN KANSAS GRAIN SORGHUM TEST ON SILTY CLAY LOAM SOIL

COUNTY: BROWN

LOCATION: Cornbelt Experiment Field, Powhattan

TEST SITE: Grundy silty clay loam

2000 CROP: Soybean

1999 CROP: Sorghum

FERTILIZER (lbs/acre): 110 N 0 P_2O_5 0 K_2O

PLANTING DATE: 5/9/01

HARVEST DATE: 9/27/01

COOPERATORS: Larry Maddux, agronomist; Charles Clark and William Riley, technicians

TARGET POPULATION: 55,000 plants/acre, 3.8 in. spacing

FINAL STAND (% of target): 84

BLOOM DATES: 7/23/01 - 7/30/01

YIELD: **Avg. (bu/a)** 130 **Range (bu/a)** 94 - 159
LSD (bu/a) 11 **CV (%)** 6

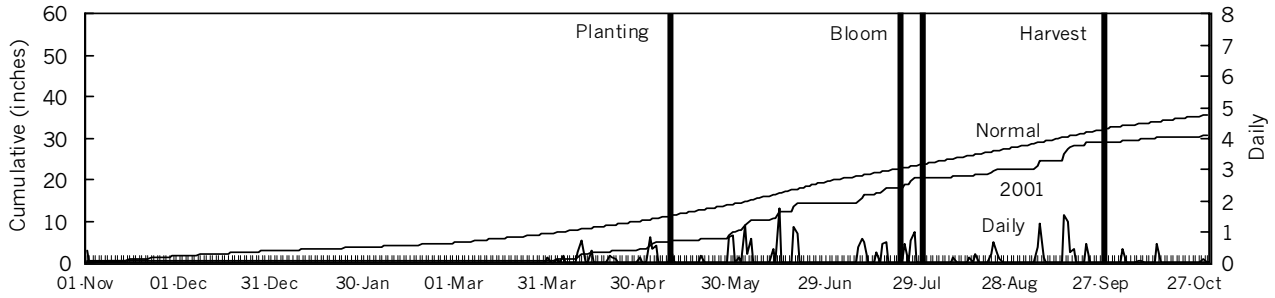
INSECTICIDE EFFECT (bu/a):	Check 1	Check 2	Avg.
Yield with insecticide	127	147	137
Yield without insecticide	110 *	132 *	121 *
Insecticide advantage	16 *	15 *	16 *

* = significant with 95% confidence
ns = not significant at 95% level

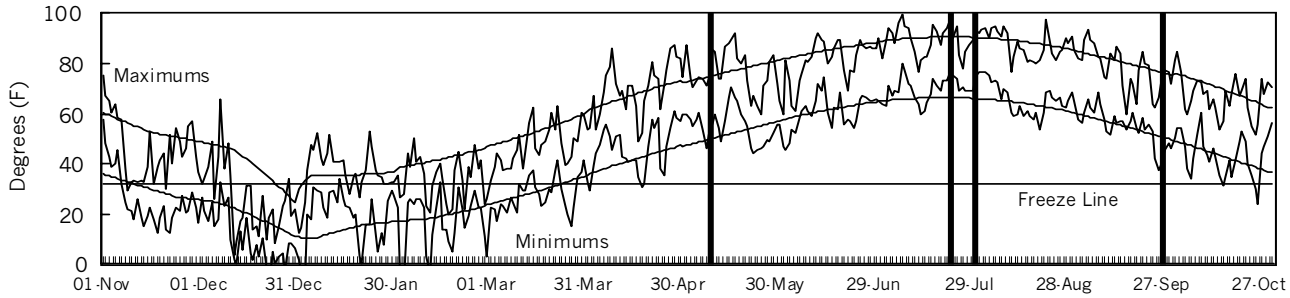
2001 GROWING CONDITIONS

The test was no-till planted into a slightly wet seedbed. Poorly closed seed furrows and crusting caused poor stands in several plots. Yields were thrown out or adjusted for the few plots with very poor stands. Excellent growing conditions during the rest of the season enabled the test to perform very well.

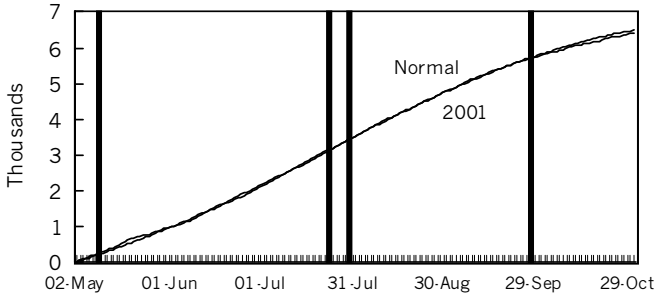
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

	Precipitation		Average Temp.		GDD	
Month	2001	Normal	2001	Normal	2001	Normal
April	2.7	3.1	58	55	0	0
May	4.3	4.2	66	65	952	925
June	6.9	5.4	71	73	1103	1184
July	6.2	4.1	79	78	1409	1370
August	2.1	4.2	77	76	1327	1305
Sep.	6.3	4.7	66	68	967	1011
Oct.	1.5	3.0	55	56	662	692
Season Totals	30.0	28.6	67	67	6421	6487

TABLE 1. Brown Co. Grain Sorghum Performance Test, 1999-2001.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2000-2001		2001						
		2001	2000	1999	2-Yr. AVG.	3-Yr. AVG.	2001	2000	1999	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
NK	KS 585	129	--	121	--	--	99	--	99	--	--	74	12	59	48	--	89	1.5
GARST/AGRIPRO	5515	119	115	125	117	120	92	98	102	72	11	75	12	58	50	--	104	1.0
MATURITY CHECK	TX3042xTX2737	127	113	118	120	119	97	96	96	72	11	75	12	57	55	--	84	1.3
NO GAUCHO*	TX3042xTX2737	110	115	--	112	--	84	97	--	72	12	75	12	58	54	--	84	1.2
MATURITY CHECK	SR305 II	136	114	97	125	116	105	97	80	72	12	75	13	57	52	--	98	1.2
PIONEER	8500	144	117	108	131	123	111	100	88	72	12	75	13	60	51	--	93	1.2
MATURITY CHECK	OK11xTX2741	101	100	85	101	96	78	85	70	74	11	76	11	58	47	--	69	1.3
MATURITY CHECK	RS 610	117	98	122	107	112	90	83	100	73	11	76	11	54	53	--	75	1.2
HOEGEMEYER	6055	139	123	118	131	127	107	104	96	74	12	76	12	57	48	--	101	1.1
DEKALB	DK-44	122	114	122	118	119	93	97	99	75	12	77	13	58	50	--	83	1.1
ASGROW	ECLIPSE	105	--	--	--	--	80	--	--	--	--	78	11	57	46	--	89	1.0
MIDLAND	MX 4614	119	--	--	--	--	91	--	--	--	--	78	11	58	50	--	93	1.3
ASGROW	A459	138	129	112	134	127	106	109	92	74	11	78	12	58	52	--	68	1.2
CROPLAN GEN.	454	95	--	--	--	--	73	--	--	--	--	78	12	57	50	--	97	1.0
FRONTIER	F457E	136	--	--	--	--	105	--	--	--	--	78	12	59	51	--	78	1.3
HOEGEMEYER	671	126	--	--	--	--	97	--	--	--	--	78	12	58	53	--	96	1.1
HOEGEMEYER	6870	135	--	--	--	--	104	--	--	--	--	78	12	57	49	--	88	1.2
MYCOGEN	3694	125	140	129	133	131	96	119	105	75	11	78	12	58	50	--	77	1.5
NC+	7B47	137	121	132	129	130	105	103	108	76	12	78	12	57	49	--	91	1.2
WARNER	W-625-Y	134	--	--	--	--	103	--	--	--	--	78	12	58	54	--	92	1.2
DEKALB	DKS54-00	156	126	--	141	--	120	107	--	77	12	78	13	58	57	--	81	1.3
FRONTIER	F700E	142	--	--	--	--	109	--	--	--	--	78	13	59	53	--	87	1.2
GARST	5440	125	128	119	127	124	96	109	97	75	12	78	13	60	51	--	96	1.1
PIONEER	84G62	159	134	137	146	143	122	114	112	77	12	78	14	60	52	--	104	1.1
DEKALB	DK-47	148	125	142	137	138	114	106	116	75	13	78	15	60	51	--	85	1.3
MYCOGEN	737	132	133	141	133	135	101	113	115	75	11	79	12	57	46	--	78	1.1
DYNA-GRO	DG-760C	94	--	121	--	--	72	--	99	--	--	79	13	57	49	--	80	1.1
NK	K73-J6	137	--	125	--	--	105	--	102	--	--	79	13	59	54	--	89	1.2
PIONEER	84Y00	152	--	--	--	--	117	--	--	--	--	79	13	59	51	--	88	1.3
ASGROW	A571	150	129	133	139	137	115	109	109	77	11	80	12	56	52	--	94	1.0
KAYSTAR	X-080	133	114	--	124	--	102	97	--	76	11	80	12	57	50	--	85	1.2
KAYSTAR	X-095	125	--	--	--	--	96	--	--	--	--	80	12	58	51	--	71	1.2
NC+	7W51	155	--	--	--	--	119	--	--	--	--	80	12	57	51	--	92	1.2
MATURITY CHECK	TX2752xTX430	147	122	132	134	134	113	103	108	76	12	80	13	58	52	--	76	1.3
WARNER	W-965-E	120	--	--	--	--	92	--	--	--	--	80	13	59	50	--	59	1.7
DYNA-GRO	DG-751B	123	--	115	--	--	95	--	94	--	--	80	14	60	50	--	77	1.1
DEKALB	DK-53	121	122	145	121	129	93	103	118	78	13	80	15	59	51	--	81	1.1
MATURITY CHECK	TX2752xTX2783	141	130	97	136	123	109	110	79	77	13	80	15	60	54	--	97	1.1
NO GAUCHO*	TX2752xTX430	132	122	--	127	--	102	103	--	77	12	81	13	58	51	--	78	1.2
CROPLAN GEN.	506	130	--	--	--	--	100	--	--	--	--	82	14	58	48	--	28	2.3
MIDLAND	M-4759Y	118	--	--	--	--	91	--	--	--	--	82	14	58	48	--	80	1.2
ASGROW	MISSILE	144	129	134	137	136	111	109	110	79	13	82	15	58	50	--	69	1.2
DYNA-GRO	DG-780B	124	--	--	--	--	95	--	--	--	--	82	16	61	52	--	68	1.2
	AVERAGES	130	118	123	124	124	130	118	123	75	12	78	13	58	51	--	84	1.2
	CV(%)	6	9	8	--	--	6	9	8	--	--	1	8	1	3	--	12	11.2
	LSD(0.05)**	11	12	12	--	--	8	10	10	--	--	1	1	1	2	--	14	0.2

* Not treated with Gaucho to estimate effect of seed-applied insecticide.

** 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, Manhattan

TEST SITE: Reading silt loam

2000 CROP: Soybean

1999 CROP: Sorghum

FERTILIZER (lbs/acre): 130 N 30 P_2O_5 0 K_2O

PLANTING DATE: 5/14/01

HARVEST DATE: 9/28/01

COOPERATORS: Kraig Roozeboom, agronomist; Karl Mannschreck, superintendent

TARGET POPULATION: 55,000 plants/acre, 3.8 in. spacing

FINAL STAND (% of target): 119

BLOOM DATES: 7/21/01 - 8/1/01

YIELD: **Avg. (bu/a)** 112 **Range (bu/a)** 77 - 135
LSD (bu/a) 10 **CV (%)** 7

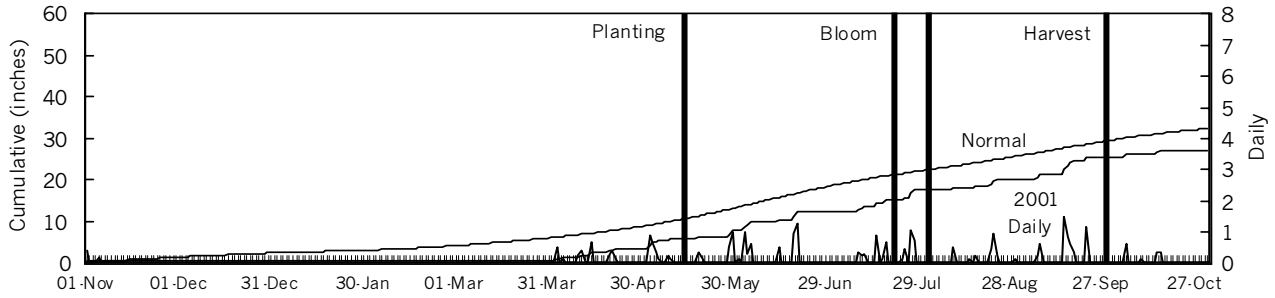
INSECTICIDE EFFECT (bu/a):	Check 1	Check 2	Avg.
Yield with insecticide	126	131	129
Yield without insecticide	122	119	121
Insecticide advantage	4 ns	12 *	8 ns

* = significant with 95% confidence
ns = not significant at 95% level

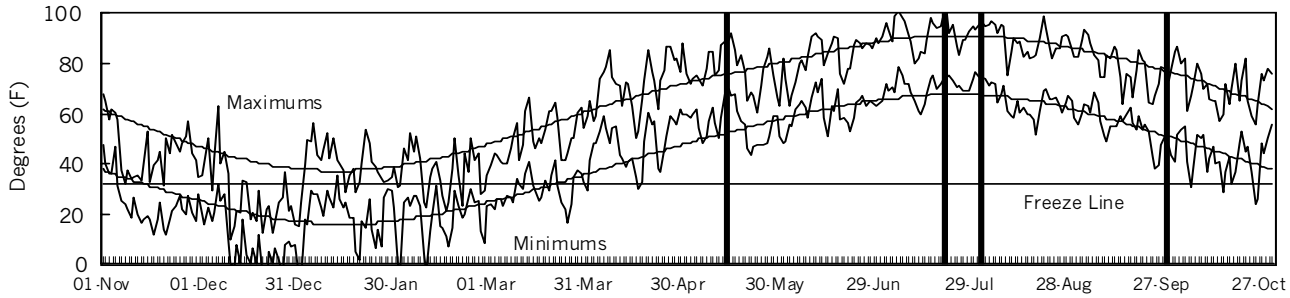
2001 GROWING CONDITIONS

The test was planted into a good seedbed and got off to a good start. A hail storm on June 16 caused minor damage when the sorghum was in the 6-7 leaf stage. Good rains enabled the crop to develop well and fill grain, but extended dry periods between the rains stressed the crop. Stalk rots moved in as a result and caused some lodging.

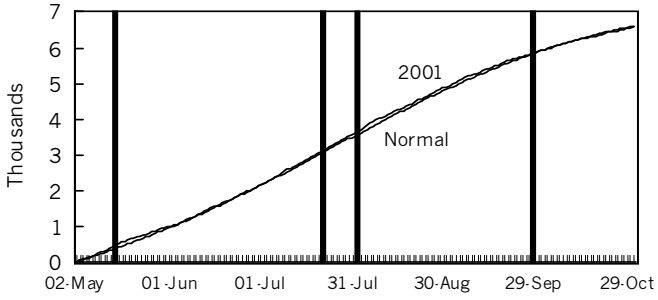
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

	Precipitation		Average Temp.		GDD	
Month	2001	Normal	2001	Normal	2001	Normal
April	2.8	2.7	60	54	0	0
May	4.5	4.6	67	65	973	924
June	4.8	5.1	72	73	1144	1185
July	5.0	3.9	81	79	1464	1392
August	2.7	3.5	77	77	1338	1340
Sep.	5.4	3.8	67	69	976	1047
Oct.	1.5	2.8	57	57	709	710
Season Totals	26.6	26.3	69	68	6604	6596

TABLE 2. Riley Co. Grain Sorghum Performance Test, 1999-2001.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2000-2001		2001						
		2001	2000	1999	2-Yr. AVG.	3-Yr. AVG.	2001	2000	1999	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
NK	KS 585	119	--	105	--	--	106	--	89	--	--	68	12	58	40	0	118	1.1
NO GAUCHO*	TX3042xTX2737	122	133	--	128	--	109	96	--	65	12	68	13	53	45	20	113	1.1
MATURITY CHECK	TX3042xTX2737	126	133	120	130	127	113	96	102	66	14	68	17	52	47	35	114	1.1
GARST/AGRIPRO	5515	109	134	118	121	120	97	97	101	68	12	70	13	56	41	5	122	1.0
MATURITY CHECK	OK11xTX2741	88	120	108	104	105	78	87	92	67	12	70	13	54	40	3	112	0.9
MATURITY CHECK	RS 610	87	121	118	104	109	78	88	100	67	12	70	13	51	40	24	113	0.8
MATURITY CHECK	SR305 II	117	128	117	123	121	104	93	100	66	12	70	13	55	44	14	124	0.9
CROPLAN GEN.	454	110	--	--	--	--	98	--	--	--	--	71	12	55	42	0	138	0.9
DYNA-GRO	DG-760C	110	133	122	121	122	98	96	104	69	12	71	12	55	42	6	127	1.0
MIDLAND	MX 4614	108	--	--	--	--	96	--	--	--	--	71	12	55	39	4	132	0.9
GARST	5522Y	104	143	--	123	--	92	103	--	70	11	72	11	55	41	9	96	1.2
MIDLAND	M-4725	104	--	--	--	--	93	--	--	--	--	72	12	55	41	4	114	1.1
MIDWEST SEED	G 567	114	--	--	--	--	102	--	--	--	--	72	12	54	40	3	125	1.0
MYCOGEN	737	114	145	135	130	132	102	105	115	69	11	72	12	54	38	0	120	0.9
NK	K73-J6	131	--	114	--	--	117	--	97	--	--	72	12	57	45	0	127	1.0
DEKALB	DK-44	108	134	107	121	116	96	97	91	70	12	72	13	57	41	4	125	0.9
PIONEER	85G85	103	--	--	--	--	92	--	--	--	--	72	13	56	40	3	121	1.0
DEKALB	DK-47	134	144	127	139	135	120	104	108	70	13	72	14	55	45	6	122	1.0
FRONTIER	F700E	124	--	--	--	--	110	--	--	--	--	72	14	55	42	0	125	0.9
MYCOGEN	1506	132	144	115	138	130	117	104	98	69	13	72	14	55	49	0	126	1.0
AGRIPRO	AP 2660	105	--	--	--	--	93	--	--	--	--	73	12	53	38	0	108	1.0
NC+	7B47	104	139	123	121	122	92	100	104	70	11	73	12	52	40	0	128	0.9
NK	K59-Y2	111	--	117	--	--	99	--	100	--	--	73	12	54	44	3	128	1.0
ASGROW	A459	99	150	133	124	127	88	108	114	70	12	73	13	53	43	1	111	0.9
FRONTIER	F457E	107	--	--	--	--	96	--	--	--	--	73	13	55	41	0	123	0.8
GARST	5440	123	145	122	134	130	109	105	104	70	12	73	13	56	41	0	114	1.2
PIONEER	84Y00	129	--	--	--	--	115	--	--	--	--	73	13	54	44	0	124	0.9
DYNA-GRO	DG-751B	104	143	108	123	118	93	103	92	70	13	73	14	56	42	6	120	1.0
MIDLAND	M-4774	104	--	--	--	--	93	--	--	--	--	73	15	56	45	0	120	0.9
ASGROW	A571	121	148	124	135	131	108	107	106	72	11	74	12	54	43	0	124	0.9
ASGROW	ECLIPSE	77	--	--	--	--	68	--	--	--	--	74	12	54	36	8	125	1.0
CROPLAN GEN.	506	93	--	--	--	--	83	--	--	--	--	74	12	53	40	16	97	0.9
GARST/AGRIPRO	5382	103	--	--	--	--	92	--	--	--	--	74	13	56	41	0	127	0.8
PIONEER	84G62	135	154	130	145	140	120	112	111	72	12	74	14	57	43	6	124	0.9
MATURITY CHECK	TX2752xTX430	131	153	112	142	132	117	110	95	71	12	75	12	56	44	0	116	1.0
NC+	7W51	112	--	--	--	--	100	--	--	--	--	75	12	54	40	0	116	1.0
KAYSTAR	X-080	111	135	--	123	--	98	97	--	72	12	75	13	55	45	3	107	1.0
NO GAUCHO*	TX2752xTX430	119	147	--	133	--	106	106	--	72	12	75	13	55	42	13	117	1.0
MIDLAND	M-4836	105	--	--	--	--	94	--	--	--	--	75	14	55	39	14	116	0.9
MIDLAND	M-4818	108	--	--	--	--	96	--	--	--	--	75	15	56	46	0	126	0.9
KAYSTAR	X-095	118	--	--	--	--	105	--	--	--	--	76	13	55	44	5	124	0.8
DEKALB	DKS54-00	124	150	--	137	--	111	109	--	73	13	76	15	56	46	0	117	0.9
MATURITY CHECK	TX2752xTX2783	126	143	122	135	131	113	104	104	72	13	76	15	57	45	6	128	0.9
DEKALB	DK-53	121	146	135	134	134	108	106	115	74	13	77	14	56	45	6	121	0.9
DYNA-GRO	DG-780B	119	142	--	130	--	106	103	--	73	13	77	14	57	44	4	113	1.0
MIDLAND	M-4759Y	94	--	--	--	--	83	--	--	--	--	77	14	55	42	0	112	1.0
ASGROW	MISSILE	109	147	121	128	126	97	106	103	74	13	79	15	56	43	0	109	0.8
	AVERAGES	112	138	117	125	123	112	138	117	70	12	73	13	55	42	5	119	0.9
	CV(%)	7	5	10	--	--	7	5	10	--	--	2	8	2	4	185	13	17.3
	LSD(0.05)**	10	8	13	--	--	9	6	11	--	--	2	1	2	3	13	NS	NS

* Not treated with Gaucho to estimate effect of seed-applied insecticide.

** 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 Exp. Field, Belleville

TEST SITE: Crete silt loam

2000 CROP: Soybean

1999 CROP: Sorghum

FERTILIZER (lbs/acre): 150 N 30 P_2O_5 0 K_2O

PLANTING DATE: 5/25/01

HARVEST DATE: 10/10/01

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

TARGET POPULATION: 50,000 plants/acre, 4.2 in. spacing

FINAL STAND (% of target): 101

BLOOM DATES: 7/22/01 - 8/5/01

YIELD: **Avg. (bu/a)** 116 **Range (bu/a)** 63 - 162
LSD (bu/a) 12 **CV (%)** 7

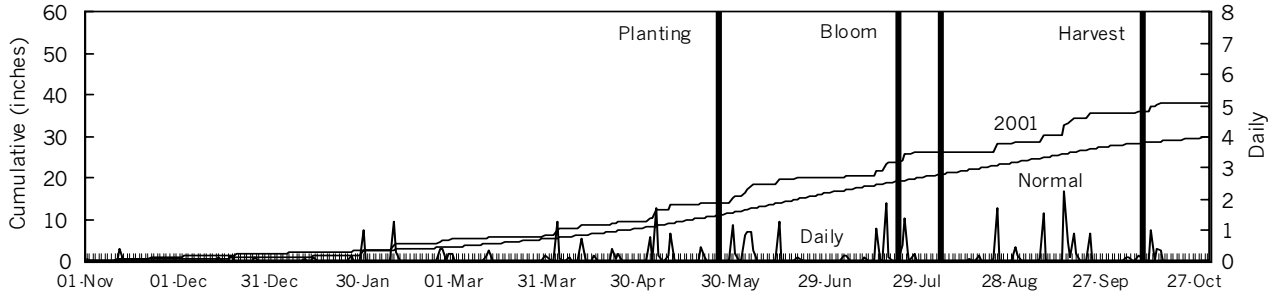
INSECTICIDE EFFECT (bu/a):	Check 1	Check 2	Avg.
Yield with insecticide	96	125	111
Yield without insecticide	91	148	120
Insecticide advantage	4 ns	-23 *	-9 ns

* = significant with 95% confidence
ns = not significant at 95% level

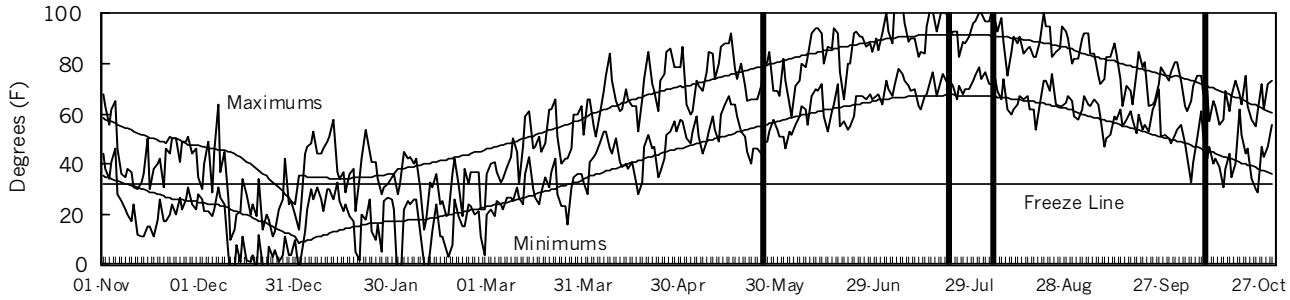
2001 GROWING CONDITIONS

Excellent stands were achieved in all plots. Spring weather was cooler and wetter than normal with 7 inches of rain in May. Hot, dry conditions dominated from the first week of June until the middle of July. Good rains at heading and early grain fill allowed the test to produce outstanding yields. Dry conditions in August may have led to the lodging seen in early maturing hybrids. A significant greenbug infestation caused some damage before a July 1 insecticide application.

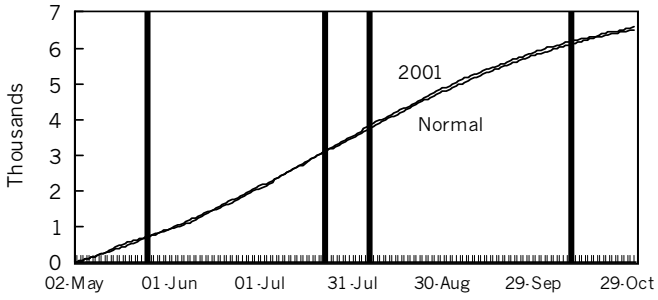
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

	Precipitation		Average Temp.		GDD	
Month	2001	Normal	2001	Normal	2001	Normal
April	3.3	2.5	57	53	0	0
May	5.9	4.0	64	64	892	902
June	4.6	4.6	72	74	1144	1188
July	6.0	3.8	82	79	1490	1398
August	2.7	3.7	79	77	1386	1335
Sep.	6.7	3.9	68	67	1005	1004
Oct.	2.4	2.0	56	56	672	678
Season Totals	31.6	24.5	68	67	6589	6505

TABLE 3. Republic Co. Dry. Grain Sorghum Performance Test, 1998-2001.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			1999-2001		2001						
BRAND	NAME	2001	1999	1998	2-Yr. AVG.	3-Yr. AVG.	2001	1999	1998	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
PIONEER	87G57	119	120	--	120	--	103	89	--	60	13	58	13	60	37	1	105	1.0
GARST/AGRIPRO	5750	135	--	--	--	--	116	--	--	--	--	59	13	60	41	0	103	1.1
PIONEER	86G71	109	--	--	--	--	94	--	--	--	--	59	13	59	41	15	103	1.1
HOEGEMEYER	6055	103	126	113	114	114	89	94	89	63	13	60	13	60	43	10	100	1.1
MATURITY CHECK	OK11xTX2741	67	116	105	91	96	58	86	82	61	13	60	13	60	42	5	96	1.1
MATURITY CHECK	RS 610	63	119	85	91	89	54	89	67	64	13	60	13	60	38	24	102	1.1
MATURITY CHECK	SR305 II	91	117	102	104	103	79	87	80	60	13	60	13	60	42	21	103	1.0
NO GAUCHO*	TX3042xTX2737	91	--	--	--	--	79	--	--	--	--	60	13	60	43	20	97	1.1
NK	KS 585	160	122	138	141	140	138	91	108	61	13	62	13	60	42	0	102	1.0
DEKALB	DK-44	94	126	118	110	113	81	94	92	65	13	63	13	60	42	11	105	1.0
GARST	5624	109	--	--	--	--	94	--	--	--	--	63	13	59	40	11	102	1.0
GARST/AGRIPRO	5515	118	136	--	127	--	102	102	--	62	13	63	13	60	44	6	101	1.1
HOEGEMEYER	6870	139	--	--	--	--	120	--	--	--	--	63	13	60	44	0	100	1.1
HOEGEMEYER	6884	81	128	131	104	113	69	96	102	66	13	63	13	59	43	5	100	1.1
MATURITY CHECK	TX3042xTX2737	96	141	106	118	114	83	105	83	63	13	64	13	60	44	5	107	1.0
ASGROW	A459	136	134	126	135	132	117	100	99	67	13	67	13	60	47	1	103	1.1
ASGROW	ECLIPSE	114	--	--	--	--	98	--	--	--	--	67	13	60	42	0	105	1.1
DYNA-GRO	DG-751B	100	123	--	111	--	86	92	--	66	13	67	13	60	45	9	101	1.1
KAYSTAR	X-060	82	--	--	--	--	71	--	--	--	--	67	13	60	43	9	94	1.1
DEKALB	DK-47	130	139	153	135	141	112	104	120	65	14	67	14	60	45	3	103	1.1
CROPLAN GEN.	454	110	--	--	--	--	95	--	--	--	--	68	13	60	43	0	105	1.1
DYNA-GRO	DG-760C	118	128	--	123	--	102	95	--	68	13	68	13	60	43	0	98	1.0
FRONTIER	F457E	102	--	--	--	--	88	--	--	--	--	68	13	60	43	5	97	1.1
FRONTIER	F700E	102	--	--	--	--	88	--	--	--	--	68	13	60	45	7	102	1.1
MIDLAND	MX 4614	133	--	--	--	--	115	--	--	--	--	68	13	60	42	0	102	1.1
NK	K73-J6	142	143	136	143	140	123	107	106	68	13	68	13	60	44	8	108	1.0
CROPLAN GEN.	506	117	--	--	--	--	101	--	--	--	--	69	13	60	41	0	92	1.1
HOEGEMEYER	671	121	--	97	--	--	104	--	76	--	--	69	13	60	44	0	98	1.1
ASGROW	MISSILE	116	148	--	132	--	100	110	--	69	13	70	13	60	45	0	100	1.1
DEKALB	DK-53	123	154	127	138	135	106	115	99	70	13	70	13	60	47	0	102	1.1
DYNA-GRO	DG-780B	100	--	--	--	--	86	--	--	--	--	70	13	60	44	2	99	1.1
MATURITY CHECK	TX2752xTX2783	70	138	120	104	110	61	103	94	69	13	70	13	60	42	12	99	1.1
MATURITY CHECK	TX2752xTX430	125	132	126	129	128	108	99	98	69	13	70	13	60	44	1	96	1.1
NC+	7W51	162	--	--	--	--	139	--	--	--	--	70	13	60	43	3	103	1.1
NC+	7Y57K	137	--	--	--	--	118	--	--	--	--	70	13	60	41	2	99	1.1
NK	K59-Y2	89	128	124	109	114	77	96	97	69	13	70	13	60	44	3	100	1.1
NO GAUCHO*	TX2752xTX430	148	--	--	--	--	128	--	--	--	--	70	13	60	44	0	101	1.1
PIONEER	84G62	150	160	148	155	153	129	119	116	69	13	70	13	60	42	0	99	1.1
TRIUMPH	TR 481	135	140	142	137	139	116	105	111	69	13	70	13	60	48	0	98	1.1
MIDLAND	M-4759Y	137	--	--	--	--	118	--	--	--	--	71	13	60	42	0	100	1.0
ASGROW	A571	152	146	139	149	145	131	109	108	70	13	72	13	60	43	0	101	1.1
DEKALB	DKS54-00	141	--	--	--	--	122	--	--	--	--	72	13	60	45	0	99	1.1
	AVERAGES	116	134	128	125	126	116	134	128	66	13	66	13	60	43	5	101	1.1
	CV(%)	7	4	4	--	--	7	4	4	--	--	2	2	1	6	180	6	5.7
	LSD(0.05)**	12	7	8	--	--	11	5	6	--	--	2	NS	NS	4	14	NS	NS

* Not treated with Gaucho to estimate effect of seed-applied insecticide.

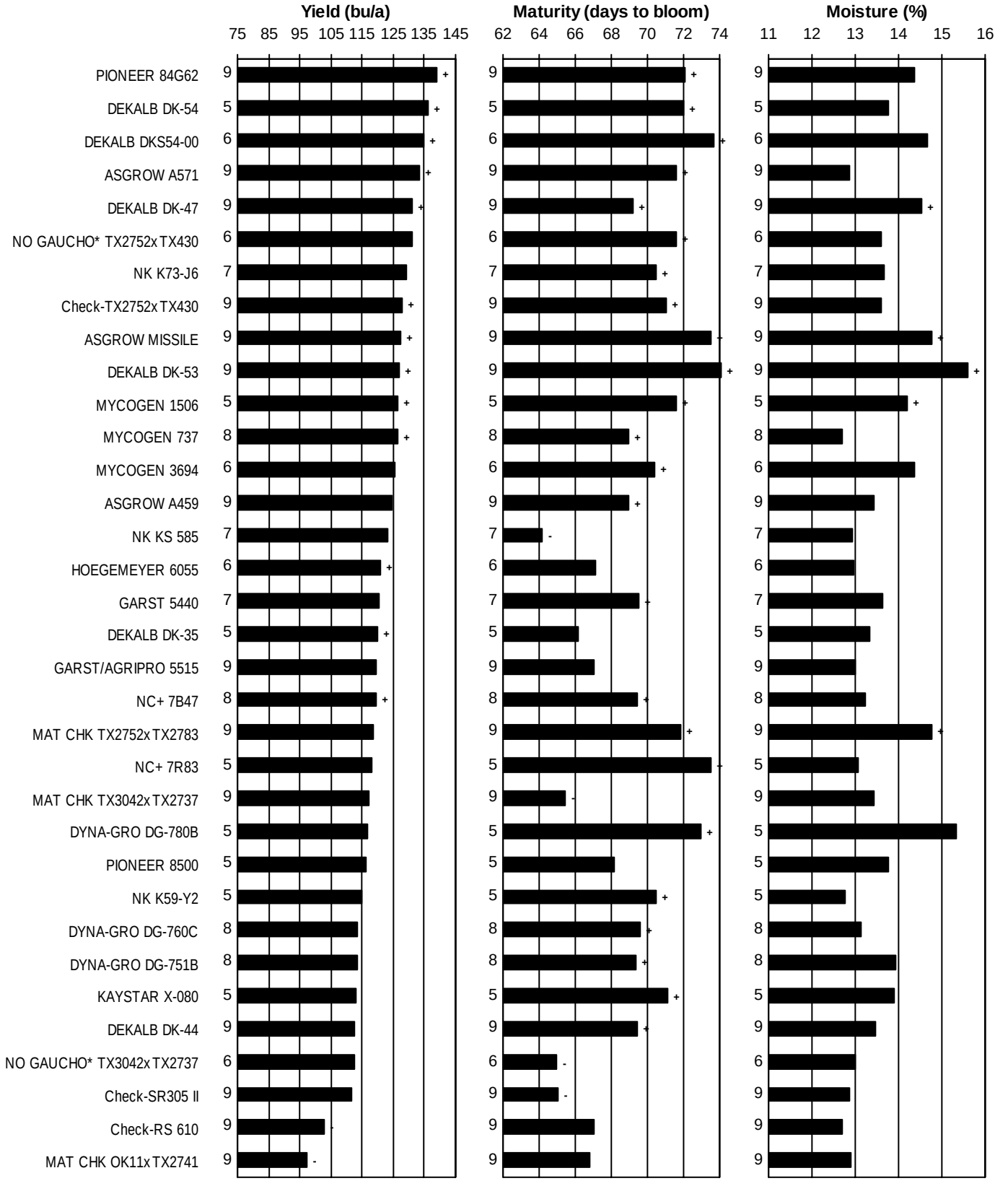
** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

TABLE 4. NORTHEAST Kansas grain sorghum hybrid yield summary (% of test average), 2001.

BRAND/NAME	BRD[1]	RLD	RPD	AVG.
AGRIPRO				
AP 2660	--	93	--	--
ASGROW				
A459	106	88	117	104
A571	115	108	131	118
ECLIPSE	80	68	98	82
MISSILE	111	97	100	103
CROPLAN GEN.				
454	73	98	95	88
506	100	83	101	95
DEKALB				
DK-44	93	96	81	90
DK-47	114	120	112	115
DK-53	93	108	106	102
DKS54-00	120	111	122	118
DYNA-GRO				
DG-751B	95	93	86	91
DG-760C	72	98	102	91
DG-780B	95	106	86	96
FRONTIER				
F457E	105	96	88	96
F700E	109	110	88	102
GARST				
5440	96	109	--	--
5522Y	--	92	--	--
5624	--	--	94	--
GARST/AGRIPRO				
5382	--	92	--	--
5515	92	97	102	97
5750	--	--	116	--
HOEGEMEYER				
6055	107	--	89	--
671	97	--	104	--
6870	104	--	120	--
6884	--	--	69	--
KAYSTAR				
X-060	--	--	71	--
X-080	102	98	--	--
X-095	96	105	--	--
MIDLAND				
M-4725	--	93	--	--
M-4759Y	91	83	118	97
M-4774	--	93	--	--
M-4818	--	96	--	--
M-4836	--	94	--	--
MX 4614	91	96	115	101
MIDWEST SEED				
G 567	--	102	--	--
MYCOGEN				
1506	--	117	--	--
3694	96	--	--	--
737	101	102	--	--
NC+				
7B47	105	92	--	--
7W51	119	100	139	119
7Y57K	--	--	118	--
NK				
K59-Y2	--	99	77	--
K73-J6	105	117	123	115
KS 585	99	106	138	114
PIONEER				
84G62	122	120	129	124
84Y00	117	115	--	--
8500	111	--	--	--
85G85	--	92	--	--
86G71	--	--	94	--
87G57	--	--	103	--
TRIUMPH				
TR 481	--	--	116	--
WARNER				
W-625-Y	103	--	--	--
W-965-E	92	--	--	--
MATURITY CHECK				
OK11xTX2741	78	78	58	71
RS 610	90	78	54	74
SR305 II	105	104	79	96
TX2752xTX2783	109	113	61	94
TX2752xTX430	113	117	108	113
TX3042xTX2737	97	113	83	97
NO GAUCHO*				
TX2752xTX430	102	106	128	112
TX3042xTX2737	84	109	79	91
AVERAGES	130	112	116	119
CV(%)	6	7	7	--
LSD(0.05)**	8	9	11	--

[1] BRD = Brown Co., Powhattan RLD = Riley Co., Manhattan RPD = Republic Co., Belleville

FIGURE 6. NORTHEAST Kansas sorghum hybrid standardized performance summary, 1999-2001.



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

EAST CENTRAL KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL

COUNTY: FRANKLIN

LOCATION: East Central Kansas Experiment Field, Ottawa

TEST SITE: Woodson silt loam

2000 CROP: Soybean

1999 CROP: Sorghum

FERTILIZER (lbs/acre): 80 N 0 P_2O_5 0 K_2O

PLANTING DATE: 5/8/01

HARVEST DATE: 10/1/01

COOPERATORS: Keith Janssen, agronomist; Jim Kimball, technician

TARGET POPULATION: 55,000 plants/acre, 3.8 in. spacing

FINAL STAND (% of target): 125

BLOOM DATES: 7/9/01 - 7/19/01

YIELD: **Avg. (bu/a)** 95 **Range (bu/a)** 65 - 138
LSD (bu/a) 16 **CV (%)** 12

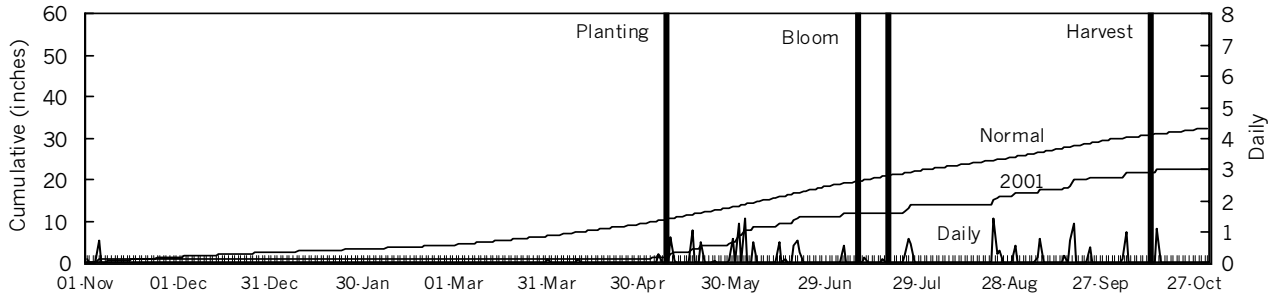
INSECTICIDE EFFECT (bu/a):	Check 1	Check 2	Avg.
Yield with insecticide	68	68	68
Yield without insecticide	71	67	69
Insecticide advantage	-3 ns	1 ns	-1 ns

* = significant with 95% confidence
ns = not significant at 95% level

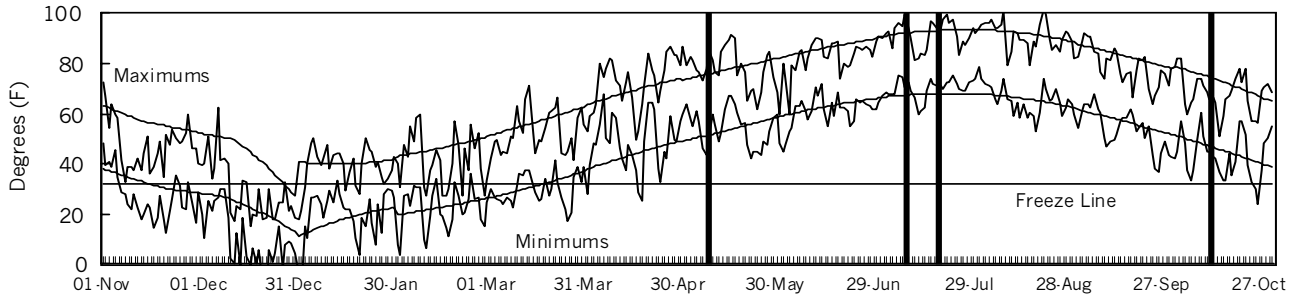
2001 GROWING CONDITIONS

Favorable planting conditions resulted in excellent stands for most entries. Drought stress reduced yields and allowed stalk rots to develop, resulting in significant lodging. Much of the lodging occurred well before maturity causing a significant reduction in yield.

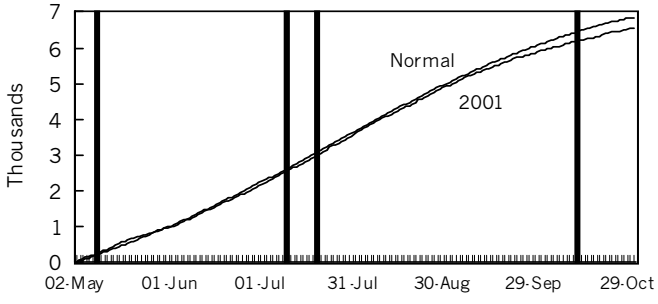
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

	Precipitation		Average Temp.		GDD	
Month	2001	Normal	2001	Normal	2001	Normal
April	0.2	2.9	60	57	0	0
May	4.1	4.2	66	66	958	965
June	6.0	4.9	72	75	1140	1222
July	2.7	4.0	81	80	1449	1431
August	2.8	3.2	78	79	1374	1386
Sep.	3.8	4.1	66	70	967	1080
Oct.	2.3	2.7	56	59	675	773
Season Totals	21.8	26.0	68	69	6562	6856

TABLE 5. Franklin Co. Grain Sorghum Performance Test, 1999-2001.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2000-2001		2001						
BRAND	NAME	2001	2000	1999	2-Yr. AVG.	3-Yr. AVG.	2001	2000	1999	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	TX3042xTX2737	68	123	97	96	96	72	103	90	62	14	62	15	55	51	98	127	--
NO GAUCHO*	TX3042xTX2737	71	109	--	90	--	75	91	--	63	12	63	12	54	50	93	121	--
MATURITY CHECK	SR305 II	87	104	96	95	96	91	87	89	61	13	63	13	55	48	74	134	--
NK	KS 585	102	131	111	116	115	108	109	102	63	13	63	13	57	45	70	139	--
GARST	5624	92	--	--	--	--	97	--	--	--	--	64	13	55	45	35	132	--
GARST/AGRIPRO	5515	91	123	--	107	--	96	103	--	64	12	64	13	56	49	70	136	--
MATURITY CHECK	RS 610	70	106	91	88	89	73	89	84	64	11	65	11	51	49	98	109	--
MATURITY CHECK	OK11xTX2741	77	107	95	92	93	81	90	88	64	13	65	14	55	47	90	96	--
HOEGEMEYER	6055	112	124	121	118	119	118	104	112	65	12	66	12	56	48	78	142	--
DEKALB	DK-47	96	130	116	113	114	101	109	107	66	13	66	13	58	50	89	127	--
PIONEER	8500	104	124	102	114	110	109	104	94	65	13	66	13	59	48	49	141	--
MIDLAND	MX 4614	113	--	--	--	--	119	--	--	--	--	67	13	58	48	24	134	--
DEKALB	DK-44	99	125	101	112	108	104	105	93	66	12	68	12	56	46	70	129	--
GARST	5440	81	126	114	104	107	86	106	105	67	12	68	12	57	51	96	140	--
NC+	7B47	107	123	126	115	119	113	103	117	67	12	68	12	57	47	60	134	--
CROPLAN GEN.	454	89	--	--	--	--	93	--	--	--	--	68	13	56	52	88	136	--
HOEGEMEYER	6874	94	--	--	--	--	99	--	--	--	--	68	13	57	51	95	144	--
MYCOGEN	697	111	126	--	118	--	117	105	--	67	13	68	14	57	48	71	127	--
HOEGEMEYER	6870	110	--	--	--	--	116	--	--	--	--	69	11	58	46	80	134	--
ASGROW	A459	117	126	112	121	118	123	105	103	67	12	69	13	59	53	86	124	--
DEKALB	DKS54-00	89	124	--	107	--	94	104	--	68	13	69	13	57	53	93	123	--
DELANGE	DSA 133	102	115	121	109	113	108	97	112	67	13	69	13	57	48	94	125	--
FRONTIER	F457E	79	--	--	--	--	83	--	--	--	--	69	13	57	52	99	112	--
FRONTIER	F700E	84	--	--	--	--	88	--	--	--	--	69	13	56	51	98	125	--
MYCOGEN	3694	101	134	--	118	--	106	113	--	67	12	69	13	59	51	68	136	--
HOEGEMEYER	671	87	--	--	--	--	92	--	--	--	--	69	14	56	53	80	138	--
MIDLAND	M-4818	126	--	--	--	--	132	--	--	--	--	69	14	59	58	9	127	--
WILLCROSS	GB8060TR	67	--	--	--	--	71	--	--	--	--	69	15	59	52	100	119	--
ASGROW	ECLIPSE	103	--	--	--	--	108	--	--	--	--	70	11	58	47	30	130	--
MYCOGEN	737	111	125	116	118	118	117	105	107	68	12	70	11	56	46	44	125	--
CROPLAN GEN.	434	92	--	--	--	--	97	--	--	--	--	70	12	56	49	89	101	--
PIONEER	84G62	109	140	113	124	121	114	117	104	68	12	70	12	57	50	98	139	--
WILLCROSS	GB8545C	80	--	--	--	--	84	--	--	--	--	70	12	56	49	86	128	--
WILLCROSS	GB7545TR	65	--	--	--	--	68	--	--	--	--	70	13	56	51	95	91	--
DELANGE	DSA 147	88	120	--	104	--	92	101	--	68	14	70	14	57	52	95	119	--
MATURITY CHECK	TX2752xTX430	68	129	121	99	106	71	108	112	68	13	70	14	56	51	100	119	--
NO GAUCHO*	TX2752xTX430	67	124	--	95	--	70	104	--	68	13	70	14	55	51	99	118	--
TRIUMPH	TR 465	99	--	--	--	--	104	--	--	--	--	70	14	58	50	83	120	--
TRIUMPH	TR 481	138	118	98	128	118	145	99	90	68	13	70	14	59	57	23	112	--
MATURITY CHECK	TX2752xTX2783	87	104	123	96	105	92	87	114	69	13	71	12	58	53	100	133	--
PIONEER	84Y00	97	--	--	--	--	102	--	--	--	--	71	12	58	52	91	128	--
CROPLAN GEN.	506	76	--	--	--	--	80	--	--	--	--	71	13	55	47	96	77	--
ASGROW	A571	127	124	108	125	119	133	104	99	69	13	71	14	57	52	68	136	--
MIDLAND	M-4759Y	135	--	--	--	--	142	--	--	--	--	72	14	58	49	1	112	--
ASGROW	MISSILE	95	123	124	109	114	100	103	114	70	14	72	15	58	49	76	108	--
DEKALB	DK-53	110	136	113	123	120	116	114	105	70	14	72	15	59	54	76	130	--
	AVERAGES	95	119	108	107	108	95	119	108	67	13	68	13	57	50	76	125	--
	CV(%)	12	7	9	--	--	12	7	9	--	--	1	10	2	4	22	4	--
	LSD(0.05)**	16	9	11	--	--	17	8	10	--	--	1	2	1	3	23	8	--

* Not treated with Gaucho to estimate effect of seed-applied insecticide.

** 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

2000 CROP: Soybean

1999 CROP: Soybean

FERTILIZER (lbs/acre): 110 N 30 P_2O_5 0 K_2O

PLANTING DATE: 5/11/01

HARVEST DATE: 9/26/01

COOPERATORS: Kraig Roozeboom, agronomist; Gene Eidman, cooperator

TARGET POPULATION: 55,000 plants/acre, 3.8 in. spacing

FINAL STAND (% of target): 122

BLOOM DATES: 7/16/01 - 7/22/01

YIELD: **Avg. (bu/a)** 130 **Range (bu/a)** 103 - 152
LSD (bu/a) 12 **CV (%)** 7

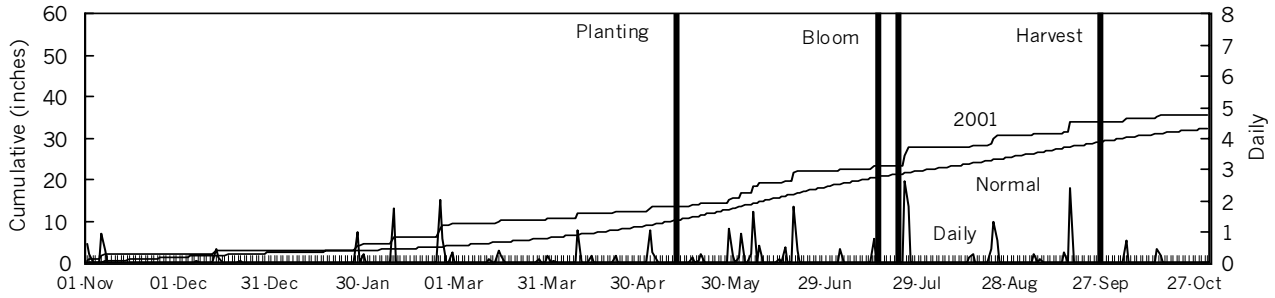
INSECTICIDE EFFECT (bu/a):	Check 1	Check 2	Avg.
Yield with insecticide	126	142	134
Yield without insecticide	123	135	129
Insecticide advantage	3 ns	7 ns	5 ns

* = significant with 95% confidence
ns = not significant at 95% level

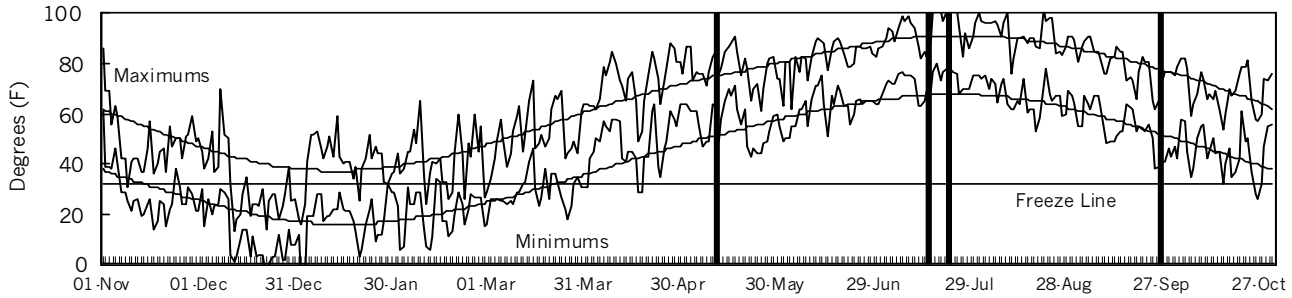
2001 GROWING CONDITIONS

The test was planted in a good seedbed, but moisture was uneven resulting in delayed emergence for some plants. However, final stands were excellent and were able to take advantage of timely rains throughout the season. Hot, dry weather stressed the test late in grain fill, but lodging was minimal.

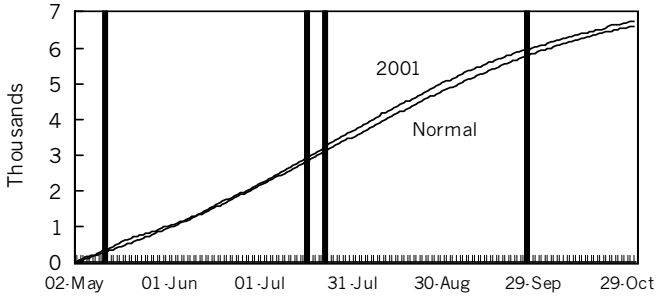
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

	Precipitation		Average Temp.		GDD	
Month	2001	Normal	2001	Normal	2001	Normal
April	1.6	2.7	60	54	0	0
May	3.4	4.6	67	65	995	924
June	6.5	5.1	72	73	1153	1185
July	5.7	3.9	83	79	1516	1392
August	3.1	3.5	79	77	1403	1340
Sep.	3.2	3.8	66	69	971	1047
Oct.	1.5	2.8	57	57	721	710
Season Totals	24.9	26.3	69	68	6757	6596

TABLE 6. Chase Co. Grain Sorghum Performance Test, 1999-2001.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2000-2001		2001						
BRAND	NAME	2001	2000	1999	2-Yr. AVG.	3-Yr. AVG.	2001	2000	1999	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
FRONTIER	F501E	117	--	--	--	--	90	--	--	--	--	66	11	54	45	--	103	1.1
MATURITY CHECK	RS 610	124	103	119	113	115	95	96	94	67	11	66	11	53	49	--	109	1.2
MATURITY CHECK	TX3042xTX2737	126	103	115	115	115	97	97	91	67	11	66	11	54	51	--	123	1.1
MATURITY CHECK	SR305 II	129	105	113	117	116	99	98	90	66	12	66	12	53	47	--	135	0.9
NC+	6B50	127	109	--	118	--	98	102	--	68	11	67	11	56	44	--	122	1.1
NK	KS 585	133	--	--	--	--	102	--	--	--	--	67	11	58	42	--	136	1.2
NO GAUCHO*	TX3042xTX2737	123	102	--	113	--	95	96	--	67	11	67	11	54	49	--	122	1.0
PIONEER	8500	129	95	116	112	113	99	89	92	68	12	67	13	58	48	--	137	1.1
MATURITY CHECK	OK11xTX2741	103	98	108	100	103	79	91	86	69	10	68	10	53	44	--	102	1.3
DEKALB	DK-44	115	113	130	114	119	89	106	103	69	11	68	11	53	45	--	130	1.0
GARST/AGRIPRO	5515	117	94	--	105	--	90	88	--	69	11	68	11	53	44	--	137	0.9
HOEGEMEYER	6055	121	110	123	115	118	93	103	97	69	11	68	11	56	47	--	127	1.0
ASGROW	A459	131	105	122	118	120	101	99	97	69	12	68	12	56	49	--	119	1.0
DEKALB	DK-47	136	110	138	123	128	104	103	110	69	12	68	12	56	47	--	130	1.0
FRONTIER	F700E	145	--	--	--	--	111	--	--	--	--	68	12	56	50	--	128	0.9
DELANGE	DSA 133	140	113	132	126	128	107	106	104	70	10	69	10	55	47	--	121	1.1
HOEGEMEYER	6870	127	--	--	--	--	97	--	--	--	--	69	10	53	43	--	122	1.0
NC+	7B47	129	110	--	120	--	99	103	--	70	10	69	10	54	44	--	127	1.0
GARST	5440	130	117	131	124	126	100	110	104	70	11	69	11	56	47	--	130	1.0
DEKALB	DKS54-00	152	124	--	138	--	116	116	--	71	12	69	12	58	52	--	130	0.9
MYCOGEN	1506	127	107	132	117	122	98	100	105	69	12	69	12	55	52	--	124	1.0
WILLCROSS	GB8060TR	131	--	--	--	--	100	--	--	--	--	69	12	56	49	--	116	0.9
DELANGE	DSA 147	146	110	--	128	--	112	103	--	69	12	69	13	56	51	--	122	1.0
ASGROW	ECLIPSE	107	--	--	--	--	82	--	--	--	--	70	10	55	43	--	132	1.0
HOEGEMEYER	671	122	--	--	--	--	94	--	--	--	--	70	10	55	47	--	123	1.1
MYCOGEN	3696	124	109	--	116	--	95	102	--	71	11	70	10	53	44	--	116	1.1
ASGROW	A571	140	110	134	125	128	108	103	107	72	11	70	11	54	48	--	132	1.0
HOEGEMEYER	6874	125	111	136	118	124	96	104	108	70	11	70	11	56	47	--	133	0.9
MATURITY CHECK	TX2752xTX430	142	111	138	126	130	109	104	109	71	11	70	11	56	49	--	128	1.0
NC+	7W51	137	--	--	--	--	106	--	--	--	--	70	11	56	45	--	115	1.1
NO GAUCHO*	TX2752xTX430	135	104	--	119	--	104	98	--	71	11	70	11	56	47	--	120	1.0
GARST/AGRIPRO	5382	141	--	--	--	--	108	--	--	--	--	70	12	58	44	--	113	1.0
PIONEER	84G62	151	125	132	138	136	116	117	105	71	11	70	12	57	49	--	135	1.0
WILLCROSS	GB7545TR	118	--	--	--	--	91	--	--	--	--	70	12	57	45	--	78	1.1
MATURITY CHECK	TX2752xTX2783	137	118	133	127	129	105	111	106	71	12	70	13	56	49	--	127	1.0
PIONEER	84Y00	148	--	--	--	--	114	--	--	--	--	71	11	57	49	--	125	1.0
TRIUMPH	TR 481	132	101	127	117	120	102	95	101	72	12	71	12	57	50	--	113	1.0
ASGROW	MISSILE	129	110	133	120	124	99	103	105	72	11	72	11	56	43	--	97	1.1
WILLCROSS	GB8545C	115	--	--	--	--	88	--	--	--	--	72	11	54	45	--	123	1.0
DEKALB	DK-53	147	125	138	136	137	113	117	109	72	12	72	13	58	47	--	110	1.0
	AVERAGES	130	107	126	118	121	130	107	126	70	11	69	11	55	47	--	122	1.0
	CV(%)	7	8	6	--	--	7	8	6	--	--	1	6	3	5	--	7	9.4
	LSD(0.05)**	12	10	8	--	--	9	9	7	--	--	1	1	2	3	--	12	0.1

* Not treated with Gaucho to estimate effect of seed-applied insecticide.

** 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 Res. Center, Parsons

TEST SITE: Parsons silt loam

2000 CROP: Soybean

1999 CROP: Sorghum

FERTILIZER (lbs/acre): 120 N 70 P_2O_5 90 K_2O

PLANTING DATE: 5/14/01

HARVEST DATE: 9/13/01

COOPERATORS: James Long, agronomist; Kelly Kusel, technician

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

FINAL STAND (% of target): 70

BLOOM DATES: 7/20/01 - 7/29/01

YIELD: **Avg. (bu/a)** 88 **Range (bu/a)** 59 - 114
LSD (bu/a) 11 **CV (%)** 9

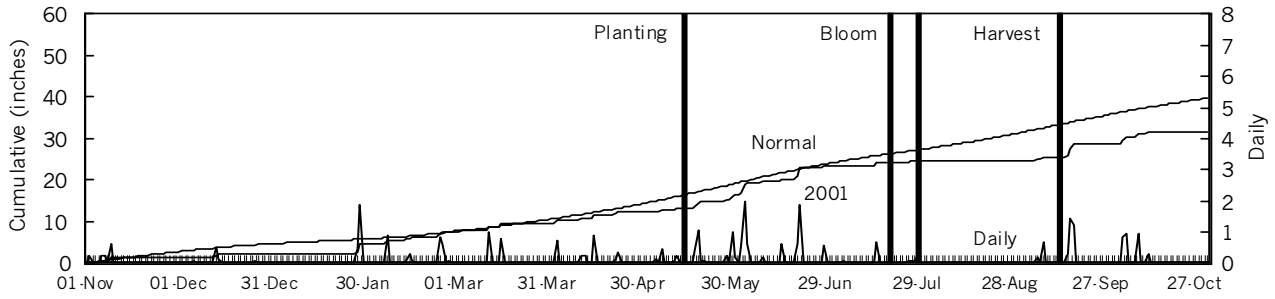
INSECTICIDE EFFECT (bu/a):	Check 1	Check 2	Avg.
Yield with insecticide	65	90	77
Yield without insecticide	61	93	77
Insecticide advantage	4 ns	-3 ns	1 ns

* = significant with 95% confidence
ns = not significant at 95% level

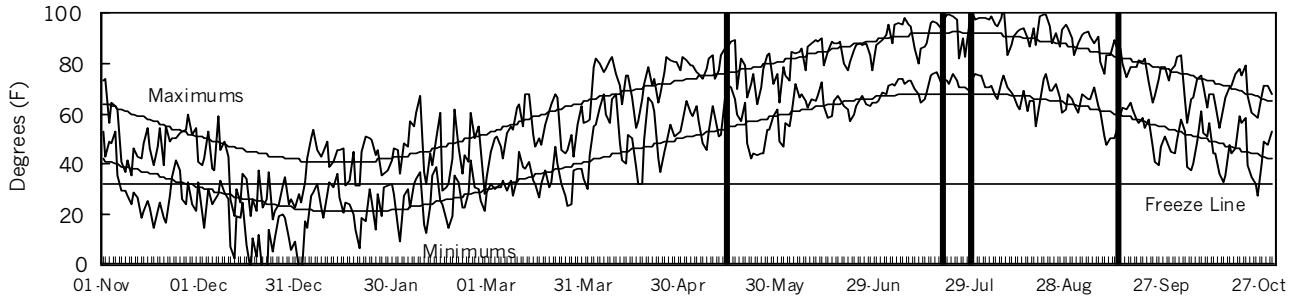
2001 GROWING CONDITIONS

Planting conditions were average at best. Final stands were much less than expected. Early rainfall gave way to summer drought conditions. Stalk rots, primarily Fusarium, moved in and caused lodging in many plots. Differences between hybrids in lodging were evident but appeared to be related to maturity. The early hybrids experienced the most lodging and tended to have the lowest yields.

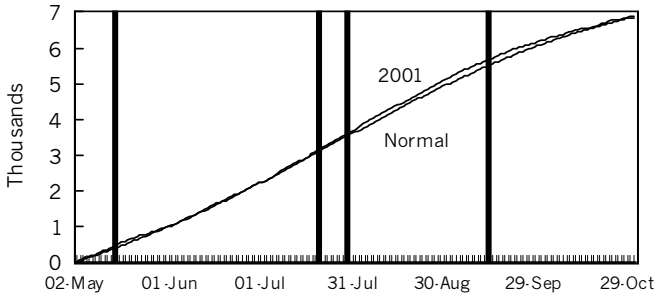
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

	Precipitation		Average Temp.		GDD	
Month	2001	Normal	2001	Normal	2001	Normal
April	2.7	3.7	62	58	0	0
May	4.1	5.0	67	66	986	965
June	7.1	4.7	74	75	1195	1215
July	1.3	3.5	82	80	1496	1418
August	0.0	3.9	81	78	1450	1371
Sep.	3.8	4.5	69	70	1046	1095
Oct.	3.1	3.8	57	60	726	791
Season Totals	22.1	29.2	70	69	6900	6853

TABLE 7. Labette Co. Grain Sorghum Performance Test, 1999-2001.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2000-2001		2001						
		2001	2000	1999	2-Yr. AVG.	3-Yr. AVG.	2001	2000	1999	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	TX3042xTX2737	65	108	65	87	80	74	102	121	63	13	67	13	57	52	69	67	1.7
NO GAUCHO*	TX3042xTX2737	61	104	--	82	--	69	98	--	63	14	67	14	55	50	71	66	1.6
FRONTIER	F501E	59	--	--	--	--	67	--	--	--	--	68	13	57	47	44	76	1.4
HOEGEMEYER	6055	92	114	61	103	89	104	108	113	63	13	68	13	57	48	12	78	1.5
MATURITY CHECK	OK11xTX2741	65	89	62	77	72	74	84	115	63	13	68	13	58	44	45	64	1.5
NC+	6C21	77	106	--	92	--	87	101	--	63	13	68	13	55	48	2	69	1.9
NK	KS 585	97	110	73	103	93	110	104	135	63	13	68	13	59	46	6	74	1.8
DEKALB	DK-47	87	114	45	100	82	98	107	83	65	13	69	13	58	49	11	67	1.5
GARST/AGRIPRO	5515	88	104	59	96	84	100	98	110	65	13	69	13	57	48	13	70	1.4
MATURITY CHECK	RS 610	68	100	62	84	76	77	94	115	64	13	69	13	55	45	66	65	1.7
MATURITY CHECK	SR305 II	79	112	51	96	81	90	106	95	62	13	69	13	57	48	31	65	1.6
NC+	7B47	99	120	56	109	91	112	113	104	65	13	69	13	58	46	5	70	1.5
PIONEER	8500	92	111	62	102	88	105	105	115	65	13	69	13	58	49	10	74	1.8
ASGROW	A459	99	115	54	107	89	112	109	100	65	13	70	13	58	54	4	64	1.5
ASGROW	A571	92	103	62	98	86	105	97	115	67	13	70	13	57	50	8	67	1.5
DEKALB	DK-44	89	104	44	97	79	101	98	83	65	13	70	13	59	48	4	70	1.5
GARST	5522Y	85	--	--	--	--	97	--	--	--	--	70	13	58	49	12	65	1.6
HOEGEMEYER	671	94	--	--	--	--	107	--	--	--	--	70	13	58	49	8	76	1.4
HOEGEMEYER	6870	104	--	--	--	--	118	--	--	--	--	70	13	58	46	6	73	1.6
HOEGEMEYER	6874	89	--	--	--	--	101	--	--	--	--	70	13	58	49	23	70	1.7
MYCOGEN	1506	105	132	46	119	95	119	125	86	66	13	70	13	59	55	3	71	1.5
NK	K59-Y2	79	--	36	--	--	89	--	68	--	--	70	13	57	50	33	73	1.5
PIONEER	84G62	110	130	55	120	99	125	123	102	66	13	70	13	58	50	19	80	1.5
DELANGE	DSA 133	96	107	68	102	90	109	101	127	66	14	70	14	58	47	13	78	1.5
GARST	5440	92	108	64	100	88	104	102	120	66	14	70	14	57	48	8	73	1.6
MYCOGEN	737	92	116	55	104	88	104	110	103	66	13	71	13	57	44	9	73	1.5
PIONEER	84Y00	96	--	--	--	--	108	--	--	--	--	71	13	57	51	18	65	1.9
WILLCROSS	GB7545TR	74	--	--	--	--	84	--	--	--	--	71	13	58	48	33	56	1.5
WILLCROSS	GB8060TR	88	--	--	--	--	99	--	--	--	--	71	13	58	51	19	69	1.6
FRONTIER	F700E	92	--	--	--	--	104	--	--	--	--	71	14	58	49	30	73	1.4
ASGROW	ECLIPSE	75	--	--	--	--	85	--	--	--	--	72	13	58	42	1	63	1.4
DEKALB	DKS54-00	105	106	--	106	--	119	101	--	69	13	72	13	59	53	5	64	1.6
DELANGE	DSA 147	83	119	--	101	--	94	113	--	67	13	72	13	58	48	40	79	1.3
MYCOGEN	697	84	116	--	100	--	95	109	--	67	13	72	13	57	46	3	73	1.4
NC+	7W51	114	--	--	--	--	130	--	--	--	--	72	13	58	46	2	78	1.4
WILLCROSS	GB8545C	71	--	--	--	--	80	--	--	--	--	72	13	57	46	4	79	1.2
MATURITY CHECK	TX2752xTX430	90	106	63	98	86	101	100	118	67	14	72	14	58	51	25	73	1.5
NK	K73-J6	97	108	48	102	84	109	102	90	68	14	72	14	58	50	0	73	1.6
MATURITY CHECK	TX2752xTX2783	91	107	44	99	81	103	101	81	68	13	73	13	58	50	36	82	1.4
TRIUMPH	TR 465	78	--	--	--	--	89	--	--	--	--	73	13	58	46	11	66	1.5
ASGROW	MISSILE	99	108	51	103	86	112	102	94	69	14	74	14	58	48	1	62	1.5
DEKALB	DK-53	108	111	59	109	93	122	105	110	70	14	74	14	59	51	1	69	1.2
TRIUMPH	TR 481	100	104	41	102	82	114	99	76	70	14	74	14	59	52	1	65	1.4
NO GAUCHO*	TX2752xTX430	93	99	--	96	--	105	93	--	69	13	75	13	58	48	18	58	1.8
NK	X828 EXP	79	--	--	--	--	90	--	--	--	--	76	13	58	48	8	70	1.2
	AVERAGES	88	106	54	97	83	88	106	54	66	13	71	13	58	48	18	70	1.5
	CV(%)	9	8	11	--	--	9	8	11	--	--	1	3	1	4	61	10	11.3
	LSD(0.05)**	11	10	7	--	--	12	10	13	--	--	1	0	1	2	15	10	0.2

* Not treated with Gaucho to estimate effect of seed-applied insecticide.

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

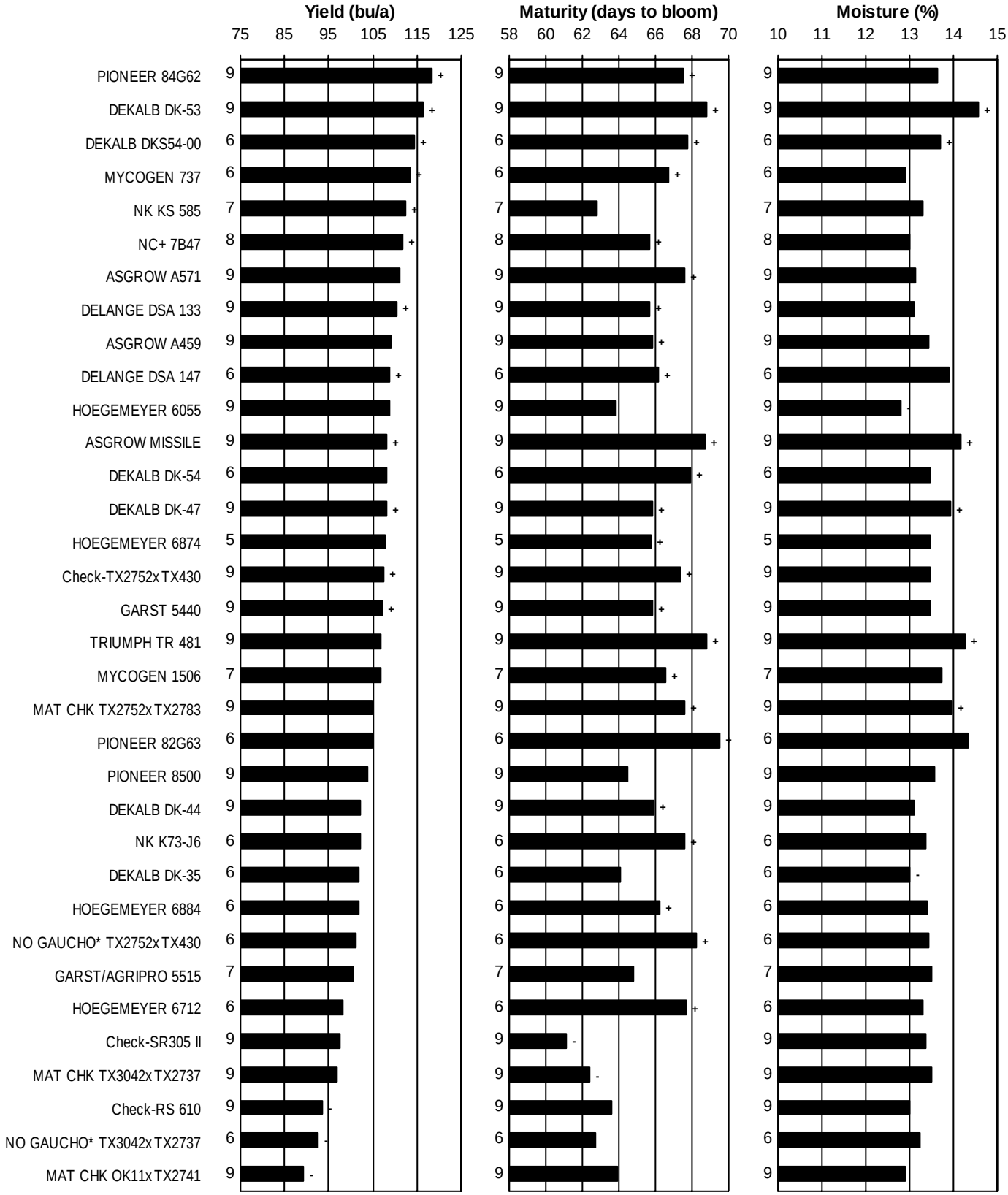
TABLE 8. SOUTHEAST Kansas grain sorghum hybrid yield summary (% of test average), 2001.

BRAND/NAME	FRD[1]	CHD	LBD	AVG.
ASGROW				
A459	123	101	112	112
A571	133	108	105	115
ECLIPSE	108	82	85	92
MISSILE	100	99	112	104
CROPLAN GEN.				
434	97	--	--	--
454	93	--	--	--
506	80	--	--	--
DEKALB				
DK-44	104	89	101	98
DK-47	101	104	98	101
DK-53	116	113	122	117
DKS54-00	94	116	119	110
DELANGE				
DSA 133	108	107	109	108
DSA 147	92	112	94	100
FRONTIER				
F457E	83	--	--	--
F501E	--	90	67	--
F700E	88	111	104	101
GARST				
5440	86	100	104	97
5522Y	--	--	97	--
5624	97	--	--	--
GARST/AGRIPRO				
5382	--	108	--	--
5515	96	90	100	95
HOEGEMEYER				
6055	118	93	104	105
671	92	94	107	97
6870	116	97	118	110
6874	99	96	101	99
MIDLAND				
M-4759Y	142	--	--	--
M-4818	132	--	--	--
MX 4614	119	--	--	--

BRAND/NAME	FRD	CHD	LBD	AVG.
MYCOGEN				
1506	--	98	119	--
3694	106	--	--	--
3696	--	95	--	--
697	117	--	95	--
737	117	--	104	--
NC+				
6B50	--	98	--	--
6C21	--	--	87	--
7B47	113	99	112	108
7W51	--	106	130	--
NK				
K59-Y2	--	--	89	--
K73-J6	--	--	109	--
KS 585	108	102	110	107
X828 EXP	--	--	90	--
PIONEER				
84G62	114	116	125	118
84Y00	102	114	108	108
8500	109	99	105	104
TRIUMPH				
TR 465	104	--	89	--
TR 481	145	102	114	120
WILLCROSS				
GB7545TR	68	91	84	81
GB8060TR	71	100	99	90
GB8545C	84	88	80	84
MATURITY CHECK				
OK11xTX2741	81	79	74	78
RS 610	73	95	77	82
SR305 II	91	99	90	94
TX2752xTX2783	92	105	103	100
TX2752xTX430	71	109	101	94
TX3042xTX2737	72	97	74	81
NO GAUCHO*				
TX2752xTX430	70	104	105	93
TX3042xTX2737	75	95	69	79
AVERAGES	95	130	88	105
CV(%)	12	7	9	--
LSD(0.05)**	17	9	12	--

[1] FRD = Franklin Co., Ottawa CHD = Chase Co., Strong City LBD = Labette Co., Parsons

FIGURE 7. SOUTHEAST Kansas sorghum hybrid standardized performance summary, 1999-2001.



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

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

2000 CROP: Soybean

1999 CROP: Sorghum

FERTILIZER (lbs/acre): 117 N 37 P_2O_5 0 K_2O

PLANTING DATE: 5/16/01

HARVEST DATE: 9/13/01

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

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

FINAL STAND (% of target): 99

BLOOM DATES: 7/14/01 - 7/28/01

YIELD: **Avg. (bu/a)** 54 **Range (bu/a)** 24 - 67
LSD (bu/a) 7 **CV (%)** 8

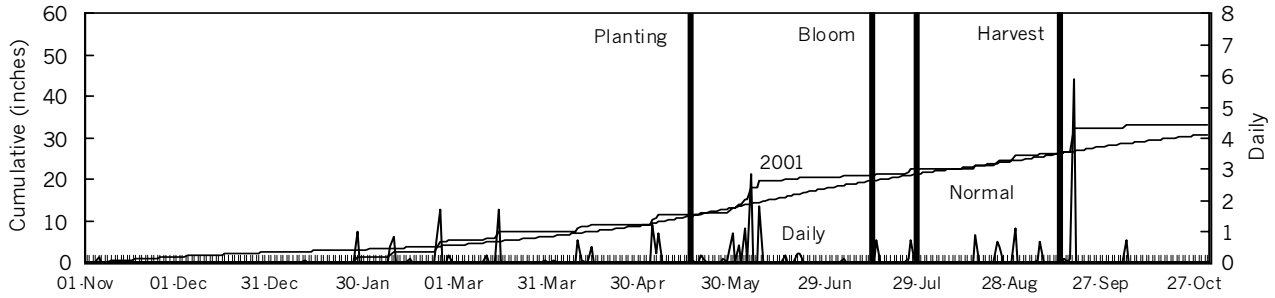
INSECTICIDE EFFECT (bu/a):	Check 1	Check 2	Avg.
Yield with insecticide	58	49	53
Yield without insecticide	57	54	55
Insecticide advantage	1 ns	-5 ns	-2 ns

* = significant with 95% confidence
ns = not significant at 95% level

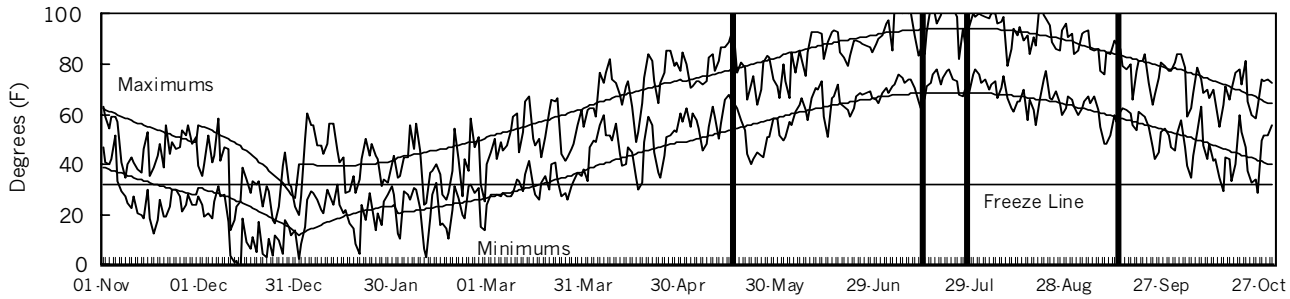
2001 GROWING CONDITIONS

Sorghum was planted into an excellent seedbed and emerged less than one week after planting. Temperatures were normal in May and below average in June. Precipitation was below normal during May, but well above average in June. Temperatures were above normal in July and August. Rainfall was below normal, and sorghum suffered significant drought stress. Some of the highest temperatures coincided with half-bloom stage. Several entries had severe late-season lodging caused by drought-induced stalk rot.

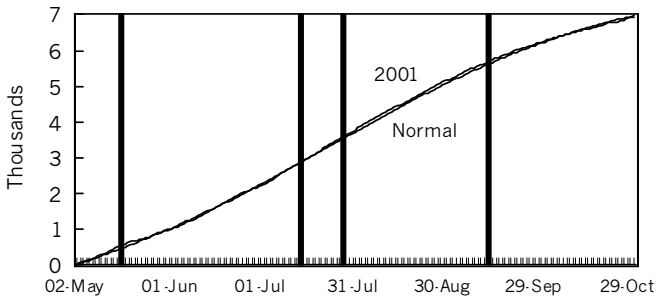
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

	Precipitation		Average Temp.		GDD	
Month	2001	Normal	2001	Normal	2001	Normal
April	1.5	2.6	59	56	0	0
May	4.4	4.5	66	66	958	963
June	7.2	4.7	75	76	1215	1251
July	1.8	3.6	84	81	1552	1460
August	3.2	3.0	80	79	1436	1407
Sep.	6.9	3.7	69	71	1044	1098
Oct.	0.8	2.6	58	59	730	780
Season Totals	25.7	24.6	70	70	6936	6959

TABLE 9. Harvey Co. Grain Sorghum Performance Test, 1999-2001.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2000-2001		2001						
BRAND	NAME	2001	2000	1999	2-Yr. AVG.	3-Yr. AVG.	2001	2000	1999	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
GARST/AGRIPRO	5750	66	--	--	--	--	122	--	--	--	--	59	12	58	40	0	97	1.4
NO GAUCHO*	TX3042xTX2737	57	118	--	88	--	105	103	--	60	11	62	12	56	43	8	97	1.2
MATURITY CHECK	TX3042xTX2737	58	129	81	93	89	107	112	91	60	12	62	13	57	44	10	103	1.2
MATURITY CHECK	RS 610	53	118	70	85	80	98	103	79	61	11	63	12	55	40	32	91	1.3
MATURITY CHECK	SR305 II	61	120	76	90	86	113	105	86	59	11	63	12	56	41	5	96	1.4
NK	KS 585	62	117	103	90	94	116	102	117	61	11	63	12	60	38	0	109	1.3
PIONEER	8500	66	121	93	93	93	122	105	105	62	11	63	12	58	43	7	109	1.5
HOEGEMEYER	6055	62	131	91	96	95	115	114	103	62	11	64	12	57	41	13	111	1.0
MIDLAND	M-4664	54	125	94	89	91	100	109	106	62	11	64	12	56	39	13	89	1.4
NC+	6B50	61	122	94	92	92	114	107	106	62	11	64	12	57	41	7	106	1.1
VALLEY PREMIUM	VP 53+	63	--	--	--	--	118	--	--	--	--	64	12	57	43	15	98	1.4
WILLCROSS	GB5045TR	52	--	--	--	--	98	--	--	--	--	64	12	57	43	5	104	1.2
GARST	5624	53	--	--	--	--	98	--	--	--	--	66	12	57	38	0	103	1.1
GARST/AGRIPRO	5515	62	111	96	86	90	115	97	109	63	11	66	12	58	41	4	109	1.0
MATURITY CHECK	OK11xTX2741	43	101	73	72	72	80	88	83	63	11	66	12	58	40	9	79	1.5
HOEGEMEYER	6874	57	120	82	89	87	107	105	93	65	11	67	12	59	40	16	115	1.0
NC+	6B70	55	117	96	86	89	102	102	109	64	11	67	12	57	38	0	106	1.2
TRIUMPH	TR 459	50	115	89	82	85	93	100	101	65	12	67	12	59	38	1	109	1.1
WILLCROSS	GB7545TR	37	--	--	--	--	69	--	--	--	--	67	12	58	41	30	76	1.1
MIDLAND	M-4757Y	58	110	102	84	90	109	96	115	65	12	67	13	59	44	0	97	1.1
MIDLAND	M-4774	59	114	90	86	88	110	99	102	64	12	67	13	58	41	0	105	1.0
MIDWEST SEED	O 256	65	123	112	94	100	120	107	126	64	12	67	13	58	44	3	110	1.1
MYCOGEN	1506	67	130	107	98	101	124	113	121	64	12	67	13	59	44	1	107	1.1
AGRIPRO	AP 2660	50	--	76	--	--	93	--	85	--	--	68	12	57	39	5	101	1.1
ASGROW	A459	57	109	98	83	88	106	95	111	65	11	68	12	59	42	1	99	1.1
ASGROW	ECLIPSE	47	--	--	--	--	87	--	--	--	--	68	12	58	36	0	104	1.1
DEKALB	DK-44	52	119	83	85	84	96	103	94	64	11	68	12	59	39	4	99	1.1
DELANGE	DSA 133	60	122	99	91	94	112	106	112	65	11	68	12	57	42	11	94	1.2
FRONTIER	F457E	53	--	--	--	--	100	--	--	--	--	68	12	58	40	27	79	1.3
FRONTIER	F700E	51	--	--	--	--	96	--	--	--	--	68	12	58	42	43	96	1.1
GARST	5440	61	129	91	95	94	113	112	103	65	11	68	12	58	39	14	106	1.0
GOLDEN HARVEST	H-483	57	--	--	--	--	107	--	--	--	--	68	12	57	39	1	97	1.1
GOLDEN HARVEST	H-512	55	--	--	--	--	103	--	--	--	--	68	12	59	41	11	102	1.1
HOEGEMEYER	6870	58	--	--	--	--	108	--	--	--	--	68	12	57	38	1	97	1.1
MIDWEST SEED	G 567	58	--	--	--	--	107	--	--	--	--	68	12	57	40	2	111	1.0
MYCOGEN	697	55	124	90	89	90	102	108	102	65	11	68	12	58	39	3	104	1.1
TRIUMPH	TR 462	60	117	71	88	83	111	102	80	66	11	68	12	58	41	28	99	1.2
VALLEY PREMIUM	VP 53	51	124	--	88	--	95	108	--	65	11	68	12	58	40	9	80	1.5
WILLCROSS	GB8060TR	48	--	--	--	--	90	--	--	--	--	68	12	58	41	29	98	1.2
DEKALB	DK-47	58	123	96	91	92	108	108	108	65	12	68	13	58	42	2	108	1.1
PIONEER	85G85	52	--	--	--	--	97	--	--	--	--	68	13	57	41	2	102	1.3

(continued)

TABLE 9. Harvey Co. Grain Sorghum Performance Test, 1999-2001.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2000-2001		2001						
BRAND	NAME	2001	2000	1999	2-Yr. AVG.	3-Yr. AVG.	2001	2000	1999	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
CROPLAN GEN.	434	54	--	--	--	--	100	--	--	--	--	69	12	57	39	6	88	1.2
CROPLAN GEN.	454	51	--	--	--	--	96	--	--	--	--	69	12	57	40	1	103	1.1
CROPLAN GEN.	506	43	--	--	--	--	80	--	--	--	--	69	12	57	38	6	59	1.8
DELANGE	DSA 147	49	122	--	85	--	92	106	--	66	11	69	12	58	41	61	102	1.0
HOEGEMEYER	671	49	--	--	--	--	92	--	--	--	--	69	12	57	39	0	108	1.0
MATURITY CHECK	TX2752xTX430	49	122	92	85	88	91	106	104	67	11	69	12	58	40	8	95	1.1
NO GAUCHO*	TX2752xTX430	54	111	--	82	--	101	97	--	67	11	69	12	58	39	7	99	1.1
PIONEER	84G62	66	133	104	99	101	123	116	117	67	11	69	12	58	42	5	103	1.1
DYNA-GRO	DG-751B	49	112	91	80	84	91	97	103	67	12	69	13	57	41	39	92	1.0
ASGROW	A571	55	121	--	88	--	102	105	--	68	11	70	12	57	40	0	96	1.0
KAYSTAR	X-080	54	--	--	--	--	101	--	--	--	--	70	12	58	41	13	98	1.1
VALLEY PREMIUM	VP 70	49	106	--	78	--	91	92	--	67	11	70	12	58	39	0	84	1.1
KAYSTAR	X-095	51	--	--	--	--	94	--	--	--	--	70	13	58	41	8	91	1.0
MATURITY CHECK	TX2752xTX2783	58	121	76	90	85	109	105	86	69	12	70	13	59	41	11	105	1.0
GOLDEN HARVEST	H-499Y	45	--	--	--	--	83	--	--	--	--	71	12	58	37	1	109	1.0
ASGROW	MISSILE	54	115	101	85	90	100	101	114	70	12	71	13	58	41	1	87	1.0
DYNA-GRO	DG-780B	50	102	--	76	--	92	89	--	71	12	71	13	58	40	9	102	1.0
MIDLAND	MX 4679W	42	--	--	--	--	77	--	--	--	--	71	13	57	42	3	95	0.9
TRIUMPH	TR 481	52	117	106	85	92	98	102	120	70	12	71	13	58	41	1	94	1.1
DEKALB	DK-53	47	117	104	82	89	87	102	117	70	12	72	13	58	41	0	102	1.0
DEKALB	DKS54-00	56	--	--	--	--	105	--	--	--	--	72	13	58	42	0	103	1.0
VALLEY PREMIUM	VP 90	36	112	--	74	--	67	98	--	70	12	73	13	57	38	0	95	0.9
WILLCROSS	GB8545C	24	--	--	--	--	45	--	--	--	--	73	13	55	36	1	102	0.9
	AVERAGES	54	115	88	84	86	54	115	88	65	11	68	12	58	40	9	99	1.1
	CV(%)	8	5	7	--	--	8	5	7	--	--	1	3	1	4	80	5	8.4
	LSD(0.05)**	7	8	8	--	--	13	7	9	--	--	1	1	1	3	11	9	0.2

* Not treated with Gaucho to estimate effect of seed-applied insecticide.

** 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 Exper. Field, Hutchinson

TEST SITE: Ost silt loam

2000 CROP: Wheat

1999 CROP: Soybean green manure

FERTILIZER (lbs/acre): 120 N 40 P_2O_5 0 K_2O

PLANTING DATE: 5/3/01

HARVEST DATE: 9/21/01

COOPERATORS: William Heer, agronomist

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

FINAL STAND (% of target): 96

BLOOM DATES: 7/6/01 - 7/19/01

YIELD: **Avg. (bu/a)** 47 **Range (bu/a)** 19 - 64
LSD (bu/a) 11 **CV (%)** 17

INSECTICIDE EFFECT (bu/a):

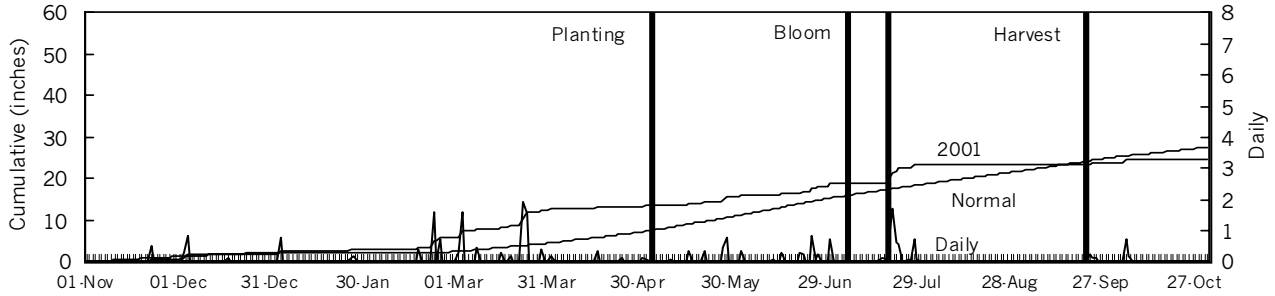
	Check 1	Check 2	Avg.
Yield with insecticide	48	52	50
Yield without insecticide	50	37	43
Insecticide advantage	-2 ns	15 *	7 ns

* = significant with 95% confidence
ns = not significant at 95% level

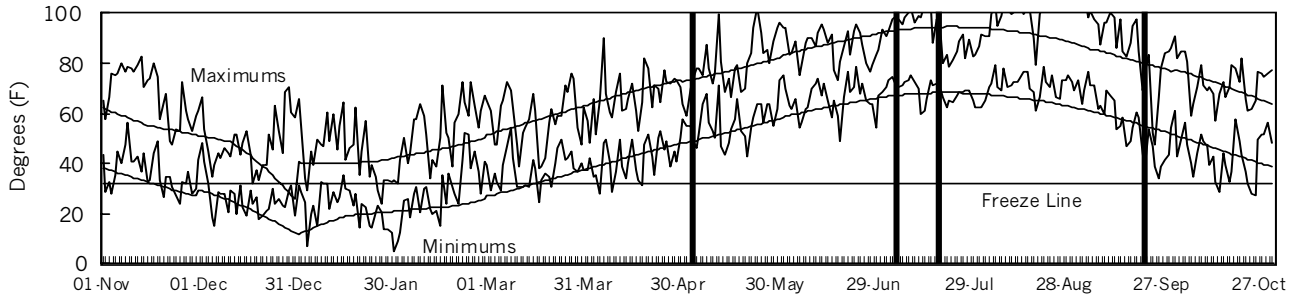
2001 GROWING CONDITIONS

Emergence was good, but a cool, wet May inhibited stand establishment. Early season growing conditions were good, but very high temperatures during heading caused poor head extension in many hybrids. The early planting date did not match the growing season very well.

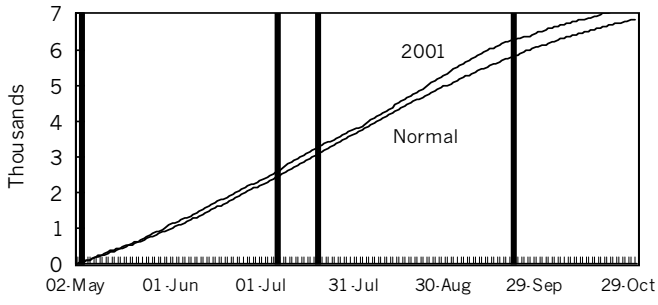
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

	Precipitation		Average Temp.		GDD	
Month	2001	Normal	2001	Normal	2001	Normal
April	0.8	2.6	54	56	0	0
May	2.3	3.9	68	65	1038	940
June	2.5	4.3	76	75	1266	1234
July	5.3	3.4	81	81	1444	1454
August	0.0	3.1	85	79	1594	1385
Sep.	0.5	3.3	72	70	1139	1072
Oct.	1.0	2.5	58	58	750	748
Season Totals	12.3	23.1	71	69	7231	6833

TABLE 10. Reno Co. Grain Sorghum Performance Test, 1999-2001.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2000-2001		2001						
BRAND	NAME	2001	2000	1999	2-Yr. AVG.	3-Yr. AVG.	2001	2000	1999	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
GARST/AGRIPRO	5750	59	--	--	--	--	125	--	--	--	--	64	13	53	45	1	112	1.7
MATURITY CHECK	SR305 II	51	115	115	83	94	107	90	94	64	11	64	13	50	42	5	98	1.7
WILLCROSS	GB5045TR	40	--	--	--	--	85	--	--	--	--	64	15	49	44	14	96	1.9
MATURITY CHECK	RS 610	41	118	109	79	89	85	92	89	65	12	65	14	44	41	11	88	1.7
NK	KS 585	63	133	123	98	106	132	104	100	66	11	66	12	54	38	0	116	1.6
NO GAUCHO*	TX3042xTX2737	50	108	--	79	--	104	84	--	66	11	66	13	48	42	0	100	1.4
MATURITY CHECK	TX3042xTX2737	48	123	120	86	97	101	96	97	66	12	66	14	48	42	1	103	1.5
NC+	5B89	41	--	--	--	--	87	--	--	--	--	66	14	42	40	0	105	1.5
PIONEER	8500	58	138	128	98	108	122	108	104	67	12	66	14	52	41	1	106	1.9
MIDLAND	M-4664	42	135	125	89	101	89	106	101	66	11	67	13	47	35	1	88	1.5
VALLEY PREMIUM	VP 53+	50	--	--	--	--	105	--	--	--	--	67	13	52	39	3	99	1.5
HOEGEMEYER	6055	60	144	129	102	111	127	113	105	67	12	67	14	48	39	0	117	1.3
MATURITY CHECK	OK11xTX2741	40	117	109	79	89	84	92	89	67	12	67	14	49	38	1	83	1.5
NK	X828 EXP	28	--	--	--	--	59	--	--	--	--	67	14	48	39	2	100	1.1
DELANGE	DSA 115C	57	129	108	93	98	121	101	88	68	11	68	12	49	38	0	108	1.3
NC+	6B50	58	137	130	98	108	122	107	106	68	11	68	13	48	39	3	120	1.3
NC+	6B70	46	136	120	91	101	97	106	97	68	12	68	14	50	38	0	100	1.2
DEKALB	DK-47	64	142	137	103	115	136	111	111	68	13	68	15	51	41	0	104	1.4
MIDWEST SEED	O 256	61	135	129	98	109	130	106	105	68	14	68	15	53	47	0	110	1.4
DELANGE	DSA 133	54	140	136	97	110	114	109	111	69	11	69	12	48	39	0	95	1.4
GARST	5440	55	136	129	95	106	115	106	105	69	11	69	13	52	39	2	113	1.3
MIDWEST SEED	G 567	51	--	--	--	--	108	--	--	--	--	69	13	50	38	1	102	1.2
ASGROW	A459	60	132	124	96	105	126	103	101	68	12	69	14	52	43	0	96	1.3
CROPLAN GEN.	454	56	--	--	--	--	119	--	--	--	--	69	14	48	40	0	114	1.2
DELANGE	DSA 147	54	150	--	102	--	114	117	--	69	12	69	14	52	42	6	99	1.3
PIONEER	85G85	49	--	--	--	--	103	--	--	--	--	69	14	48	42	0	98	1.6
VALLEY PREMIUM	VP 53	49	131	--	90	--	103	103	--	68	12	69	14	52	36	2	69	1.5
VALLEY PREMIUM	VP 70	44	125	--	84	--	92	97	--	70	12	69	14	47	40	0	73	1.7
MIDLAND	M-4774	62	127	118	95	103	131	99	96	69	14	69	15	51	42	0	107	1.3
MIDLAND	M-4757Y	53	117	119	85	96	111	92	97	69	15	69	16	51	41	0	98	1.4
MIDLAND	M-4818	54	--	--	--	--	114	--	--	--	--	69	16	53	42	0	100	1.2
GOLDEN HARVEST	H-483	56	--	--	--	--	118	--	--	--	--	70	13	49	39	0	110	1.3
DEKALB	DK-44	47	134	117	90	99	98	104	96	70	12	70	14	47	39	0	99	1.3
DEKALB	DKS54-00	58	--	--	--	--	122	--	--	--	--	70	14	50	41	0	88	1.5
GARST	5522Y	49	--	--	--	--	104	--	--	--	--	70	14	50	41	0	82	2.2
HOEGEMEYER	6884	54	134	120	94	103	114	105	97	69	12	70	14	52	39	1	105	1.3
PIONEER	84G62	64	157	135	110	118	134	122	110	71	12	70	14	52	41	0	111	1.3
WILLCROSS	GB8060TR	47	--	--	--	--	100	--	--	--	--	70	14	52	39	3	90	1.3
FRONTIER	F700E	54	--	--	--	--	114	--	--	--	--	70	15	53	41	0	105	1.2
HOEGEMEYER	671	53	--	--	--	--	112	--	--	--	--	70	15	50	42	0	113	1.3
NK	K59-Y2	42	--	112	--	--	89	--	91	--	--	70	16	45	42	0	108	1.3

(continued)

TABLE 10. Reno Co. Grain Sorghum Performance Test, 1999-2001.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2000-2001		2001						
		2001	2000	1999	2-Yr. AVG.	3-Yr. AVG.	2001	2000	1999	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
MYCOGEN	697	39	131	121	85	97	82	103	99	70	12	71	13	50	37	1	89	1.2
TRIUMPH	TR 462	40	138	131	89	103	85	108	107	70	11	71	13	47	37	0	82	1.4
ASGROW	ECLIPSE	39	--	--	--	--	83	--	--	--	--	71	14	50	38	1	92	1.3
MYCOGEN	1506	46	133	126	89	102	97	104	103	70	13	71	14	53	42	0	95	1.3
DYNA-GRO	DG-751B	42	--	116	--	--	88	--	95	--	--	71	15	52	39	3	93	1.0
GOLDEN HARVEST	H-512	46	--	--	--	--	96	--	--	--	--	71	15	49	41	0	110	1.3
NK	K73-J6	46	117	118	81	94	96	91	96	72	15	71	16	52	42	0	103	1.5
MATURITY CHECK	TX2752xTX2783	47	143	138	95	109	99	112	112	72	12	72	14	54	44	2	100	1.3
MATURITY CHECK	TX2752xTX430	52	130	134	91	105	111	101	109	72	13	72	14	50	39	2	97	1.5
MIDLAND	MX 4679W	39	--	--	--	--	83	--	--	--	--	72	14	53	44	0	84	1.2
WILLCROSS	GB8545C	27	--	--	--	--	58	--	--	--	--	72	15	50	40	0	99	1.0
TRIUMPH	TR 481	43	130	134	87	102	91	102	109	72	13	73	14	52	42	0	72	1.7
WILLCROSS	GB7545TR	34	--	--	--	--	71	--	--	--	--	73	14	51	39	1	54	1.6
ASGROW	A571	34	142	--	88	--	71	111	--	73	13	74	15	47	40	0	102	1.0
DYNA-GRO	DG-780B	43	--	--	--	--	91	--	--	--	--	74	15	53	42	0	84	1.0
VALLEY PREMIUM	VP 90	38	128	--	83	--	79	100	--	73	13	74	15	47	39	0	89	1.3
CROPLAN GEN.	434	33	--	--	--	--	69	--	--	--	--	74	16	46	39	0	76	1.2
GOLDEN HARVEST	H-499Y	45	--	--	--	--	96	--	--	--	--	75	14	51	38	1	104	1.1
NO GAUCHO*	TX2752xTX430	37	131	--	84	--	79	103	--	74	14	75	17	47	41	0	85	1.2
WARNER	EXP99031	35	--	--	--	--	73	--	--	--	--	76	13	50	36	0	74	1.2
CROPLAN GEN.	506	19	--	--	--	--	39	--	--	--	--	76	15	49	34	0	49	2.2
DEKALB	DK-53	49	134	131	92	105	104	105	107	74	14	76	15	53	41	0	77	1.1
ASGROW	MISSILE	41	124	129	83	98	87	97	105	73	14	76	16	51	43	0	78	1.4
	AVERAGES	47	128	123	88	99	47	128	123	69	12	70	14	50	40	1	96	1.4
	CV(%)	17	7	7	--	--	17	7	7	--	--	3	10	5	5	288	11	22.3
	LSD(0.05)**	11	10	9	--	--	24	8	8	--	--	3	2	3	3	4	14	0.4

* Not treated with Gaucho to estimate effect of seed-applied insecticide.

** 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, DRYLAND

COUNTY: STAFFORD

LOCATION: Sandyland Experiment Field, St. John

TEST SITE: Naron loamy fine sand

2000 CROP: Wheat

1999 CROP: Fallow

FERTILIZER (lbs/acre): 143 N 46 P_2O_5 0 K_2O

PLANTING DATE: 5/21/01

HARVEST DATE: 10/23/01

COOPERATORS: Victor Martin, agronomist; Ron Cunningham and Jeff Scott, technicians

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

FINAL STAND (% of target): 93

BLOOM DATES: 7/27/01 - 8/14/01

YIELD: **Avg. (bu/a)** 81 **Range (bu/a)** 56 - 100
LSD (bu/a) 15 **CV (%)** 13

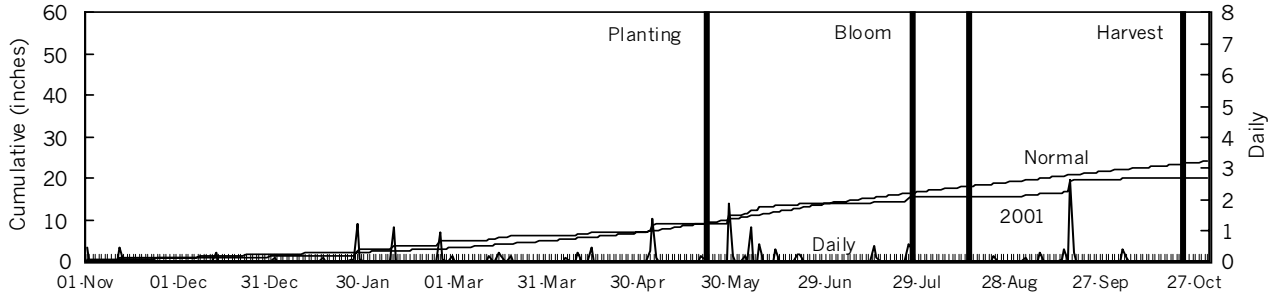
INSECTICIDE EFFECT (bu/a):	Check 1	Check 2	Avg.
Yield with insecticide	86	92	89
Yield without insecticide	75	86	80
Insecticide advantage	11 ns	6 ns	9 ns

* = significant with 95% confidence
ns = not significant at 95% level

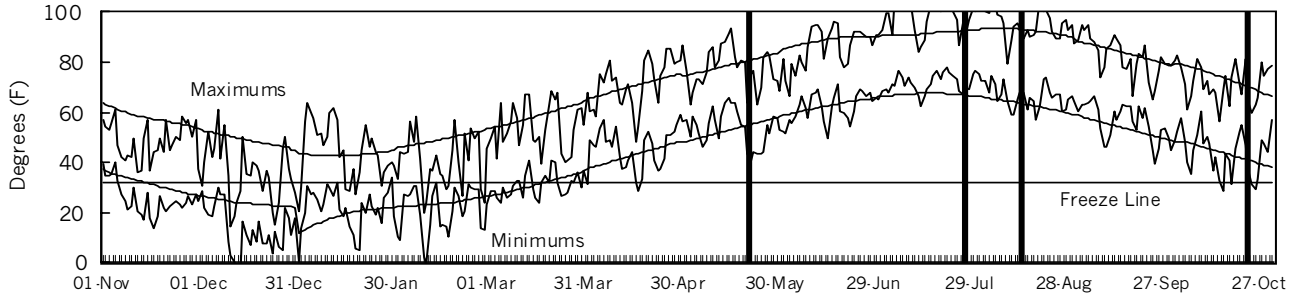
2001 GROWING CONDITIONS

Wet, cool conditions at planting caused variable stands, however yields were better than expected. Early, vegetative growth was inhibited by adverse weather. Late July rains helped pollination and grain fill. As a result, large heads developed on relatively small plants. Insects and diseases caused little or no damage.

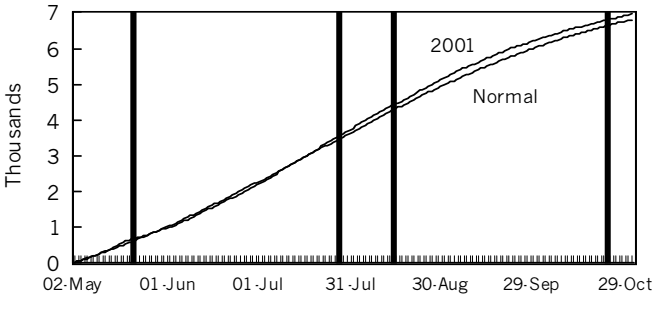
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

	Precipitation		Average Temp.		GDD	
Month	2001	Normal	2001	Normal	2001	Normal
April	0.9	2.0	58	57	0	0
May	4.3	3.4	66	66	951	971
June	2.7	3.7	74	76	1203	1252
July	1.7	2.9	85	79	1571	1407
August	0.2	2.5	81	78	1457	1356
Sep.	3.9	2.5	69	69	1054	1044
Oct.	0.6	2.2	58	59	743	769
Season Totals	14.2	19.1	70	69	6980	6800

TABLE 11. Stafford Co. Dryland Grain Sorghum Performance Test, 1998-2001.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			1999-2001		2001						
		2001	1999	1998	2-Yr. AVG.	3-Yr. AVG.	2001	1999	1998	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
GARST/AGRIPRO	5750	77	--	--	--	--	95	--	--	--	--	67	14	59	42	--	102	1.0
PIONEER	87G57	76	72	--	74	--	94	99	--	59	13	67	14	59	40	--	99	1.1
MATURITY CHECK	RS 610	57	62	20	59	46	70	86	64	59	13	68	14	58	39	--	83	1.0
NC+	5B89	66	--	--	--	--	81	--	--	--	--	68	14	60	40	--	108	1.0
MATURITY CHECK	SR305 II	70	44	13	57	42	87	60	40	59	13	69	14	58	44	--	94	1.1
NK	KS 585	98	82	36	90	72	121	113	112	58	13	69	14	61	43	--	113	1.0
NO GAUCHO*	TX3042xTX2737	75	--	--	--	--	93	--	--	--	--	69	14	59	44	--	107	1.0
WILLCROSS	GB5045TR	73	--	--	--	--	90	--	--	--	--	69	14	59	41	--	110	1.0
MATURITY CHECK	OK11xTX2741	86	66	28	76	60	106	91	89	61	13	70	14	59	40	--	78	1.0
MATURITY CHECK	TX3042xTX2737	86	75	43	80	68	106	103	135	59	13	70	14	59	43	--	107	1.0
NC+	6B50	81	54	49	68	61	100	75	154	63	13	70	14	59	43	--	96	1.0
ASGROW	A459	78	72	38	75	63	97	100	120	66	13	75	14	60	47	--	89	1.0
ASGROW	ECLIPSE	78	--	--	--	--	96	--	--	--	--	75	14	60	40	--	96	1.0
FRONTIER	F700E	83	--	--	--	--	102	--	--	--	--	76	14	60	41	--	76	1.0
DEKALB	DK-47	100	95	35	98	77	124	131	112	64	13	76	15	60	41	--	106	1.0
NC+	6B70	94	60	34	77	62	116	83	106	65	13	76	15	59	38	--	106	1.0
DELANGE	DSA 133	95	80	36	88	71	118	110	115	66	13	77	14	59	41	--	90	1.0
FRONTIER	F457E	81	--	--	--	--	100	--	--	--	--	77	14	60	41	--	74	1.0
HOEGEMEYER	6874	86	60	33	73	60	107	83	103	65	13	77	14	60	41	--	101	1.0
DEKALB	DK-53	74	78	36	76	63	92	108	114	68	13	77	15	58	44	--	80	1.0
HOEGEMEYER	6870	94	--	--	--	--	117	--	--	--	--	77	15	59	40	--	94	1.0
DELANGE	DSA 147	84	--	--	--	--	104	--	--	--	--	77	16	59	43	--	86	1.0
CROPLAN GEN.	506	91	--	--	--	--	112	--	--	--	--	78	14	59	38	--	72	1.0
GOLDEN HARVEST	H-499Y	85	--	--	--	--	105	--	--	--	--	78	14	60	41	--	101	1.0
WILLCROSS	GB7545TR	64	--	--	--	--	79	--	--	--	--	78	14	60	42	--	70	1.0
CROPLAN GEN.	454	69	--	--	--	--	85	--	--	--	--	78	15	58	41	--	106	1.0
DEKALB	DK-44	82	75	43	78	66	101	103	135	68	13	78	15	60	41	--	90	1.0
DYNA-GRO	DG-751B	89	69	--	79	--	110	95	--	65	13	78	15	60	41	--	80	1.0
GOLDEN HARVEST	H-512	79	--	--	--	--	98	--	--	--	--	78	15	60	41	--	93	1.0
PIONEER	85G85	78	--	--	--	--	97	--	--	--	--	78	15	59	42	--	97	1.0
WILLCROSS	GB8060TR	68	--	--	--	--	84	--	--	--	--	78	15	60	41	--	81	1.0
ASGROW	A571	94	--	31	--	--	117	--	97	--	--	79	14	59	43	--	86	1.0
DELANGE	DSA 115C	83	76	25	80	62	103	105	79	65	13	79	15	60	43	--	93	1.0
DYNA-GRO	DG-780B	92	--	--	--	--	113	--	--	--	--	79	15	60	44	--	95	1.0
WILLCROSS	GB8545C	79	--	--	--	--	97	--	--	--	--	79	15	58	40	--	98	1.0
CROPLAN GEN.	434	87	--	--	--	--	107	--	--	--	--	80	14	59	40	--	86	1.0
GOLDEN HARVEST	H-483	88	--	--	--	--	109	--	--	--	--	80	14	59	40	--	90	1.0
MATURITY CHECK	TX2752xTX430	92	94	28	93	71	113	130	89	69	13	80	14	60	43	--	100	1.0
MATURITY CHECK	TX2752xTX2783	76	60	32	68	56	94	83	101	70	13	80	15	60	41	--	106	1.0
ASGROW	MISSILE	77	76	--	76	--	95	105	--	70	14	80	16	58	42	--	83	1.0
NO GAUCHO*	TX2752xTX430	86	--	--	--	--	106	--	--	--	--	81	15	59	41	--	97	1.0
TRIUMPH	TR 481	56	73	24	64	51	69	100	77	70	14	81	16	58	42	--	83	1.0
PIONEER	84G62	75	74	51	74	66	92	101	161	70	13	82	15	59	42	--	92	1.0
DEKALB	DKS54-00	79	--	--	--	--	98	--	--	--	--	85	17	58	44	--	80	1.0
	AVERAGES	81	72	32	77	62	81	72	32	65	13	76	15	59	41	--	93	1.0
	CV(%)	13	16	31	--	--	13	16	31	--	--	3	6	2	8	--	10	2.9
	LSD(0.05)**	15	14	11	--	--	19	19	36	--	--	3	1	1	4	--	12	NS

* Not treated with Gaucho to estimate effect of seed-applied insecticide.

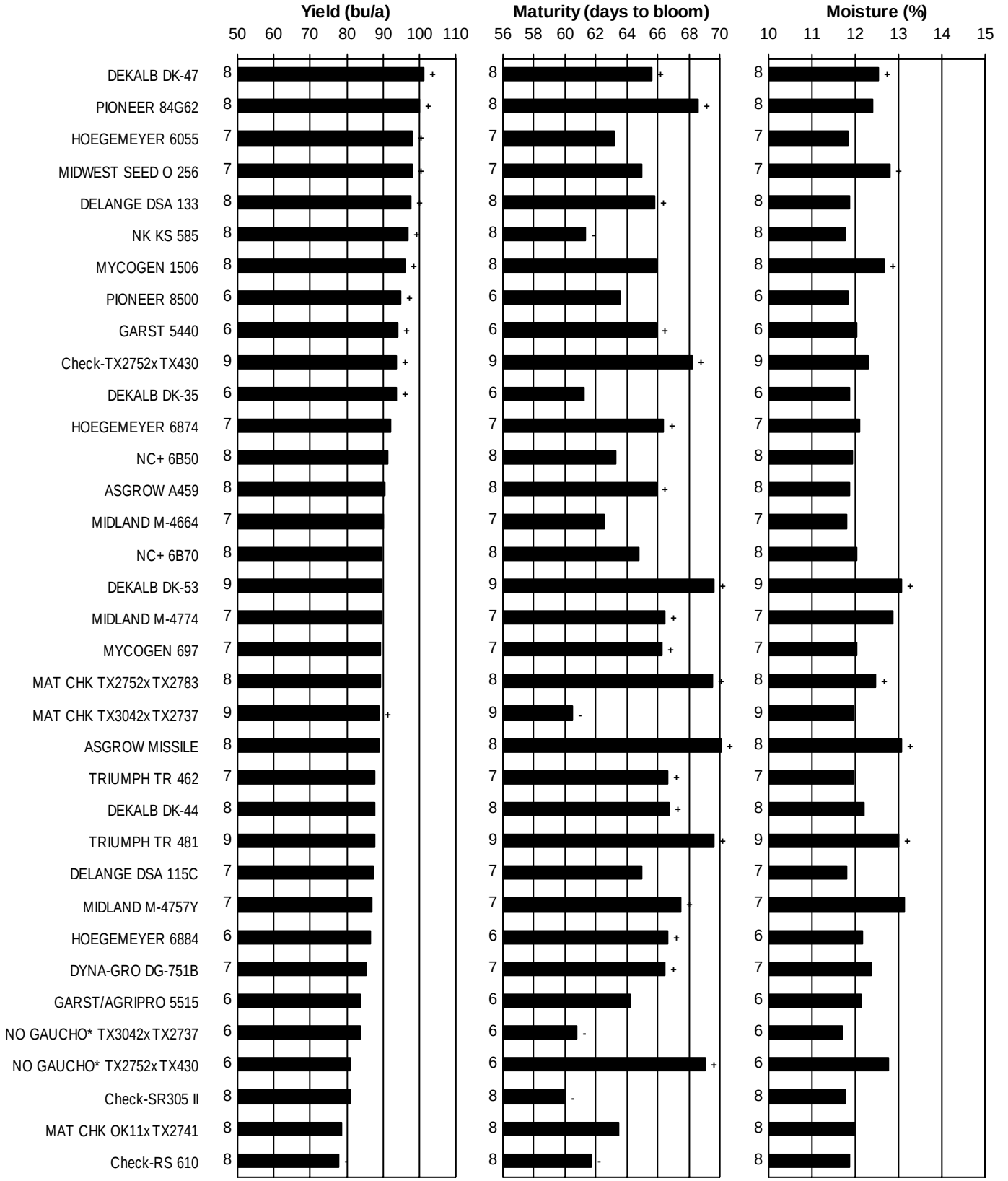
** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

TABLE 12. SOUTH CENTRAL Kansas sorghum hybrid yield summary (% of test average), 2001.

BRAND/NAME	HVD[1]	RND	STD	SUD	AVG.
AGRIPRO					
AP 2660	93	--	--	--	--
ASGROW					
A459	106	126	97	--	109
A571	102	71	117	--	96
ECLIPSE	87	83	96	--	89
MISSILE	100	87	95	--	94
CROPLAN GEN.					
434	100	69	107	--	92
454	96	119	85	--	100
506	80	39	112	--	77
DEKALB					
DK-44	96	98	101	--	98
DK-47	108	136	124	--	123
DK-53	87	104	92	--	94
DKS54-00	105	122	98	--	108
DELANGE					
DSA 115C	--	121	103	--	--
DSA 133	112	114	118	--	115
DSA 147	92	114	104	--	103
DYNA-GRO					
DG-751B	91	88	110	--	96
DG-780B	92	91	113	--	99
FRONTIER					
F457E	100	--	100	--	--
F700E	96	114	102	--	104
GARST					
5440	113	115	--	--	--
5522Y	--	104	--	--	--
5624	98	--	--	--	--
GARST/AGRIPRO					
5515	115	--	--	--	--
5750	122	125	95	--	114
GOLDEN HARVEST					
H-483	107	118	109	--	111
H-499Y	83	96	105	--	94
H-512	103	96	98	--	99
HOEGEMEYER					
6055	115	127	--	--	--
671	92	112	--	--	--
6870	108	--	117	--	--
6874	107	--	107	--	--
6884	--	114	--	--	--
KAYSTAR					
X-080	101	--	--	--	--
X-095	94	--	--	--	--
MIDLAND					
M-4664	100	89	--	--	--
M-4757Y	109	111	--	--	--
M-4774	110	131	--	--	--
M-4818	--	114	--	--	--
MX 4679W	77	83	--	--	--
MIDWEST SEED					
G 567	107	108	--	--	--
O 256	120	130	--	--	--
MYCOGEN					
1506	124	97	--	--	--
697	102	82	--	--	--
NC+					
5B89	--	87	81	--	--
6B50	114	122	100	--	112
6B70	102	97	116	--	105
NK					
K59-Y2	--	89	--	--	--
K73-J6	--	96	--	--	--
KS 585	116	132	121	--	123
X828 EXP	--	59	--	--	--
PIONEER					
84G62	123	134	92	--	116
8500	122	122	--	--	--
85G85	97	103	97	--	99
87G57	--	--	94	--	--
TRIUMPH					
TR 459	93	--	--	--	--
TR 462	111	85	--	--	--
TR 481	98	91	69	--	86
VALLEY PREMIUM					
VP 53	95	103	--	--	--
VP 53+	118	105	--	--	--
VP 70	91	92	--	--	--
VP 90	67	79	--	--	--
WARNER					
EXP99031	--	73	--	--	--
WILLCROSS					
GB5045TR	98	85	90	--	91
GB7545TR	69	71	79	--	73
GB8060TR	90	100	84	--	91
GB8545C	45	58	97	--	67
MATURITY CHECK					
OK11xTX2741	80	84	106	--	90
RS 610	98	85	70	--	85
SR305 II	113	107	87	--	102
TX2752xTX2783	109	99	94	--	100
TX2752xTX430	91	111	113	--	105
TX3042xTX2737	107	101	106	--	105
NO GAUCHO*					
TX2752xTX430	101	79	106	--	95
TX3042xTX2737	105	104	93	--	101
AVERAGES	54	47	81	--	61
CV(%)	8	17	13	--	--
LSD(0.05)**	13	24	19	--	--

[1] HVD = Harvey Co., Hesston RND = Reno Co., Hutchinson STD = Stafford Co., St. John SUD = Sumner Co., Wellington

FIGURE 8. SOUTH CENTRAL Kansas sorghum hybrid standardized performance summary, 1999-2001.



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

NORTH CENTRAL KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL

COUNTY: ELLIS

LOCATION: Agricultural Research Center, Hays

TEST SITE: Harney silt loam

2000 CROP: Soybean

1999 CROP: Sorghum

FERTILIZER (lbs/acre): 60 N 0 P_2O_5 0 K_2O

PLANTING DATE: 5/24/01

HARVEST DATE: 10/23/01

COOPERATORS: Kenneth Kofoid, agronomist

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

FINAL STAND (% of target): 63

BLOOM DATES: 7/22/01 - 8/8/01

YIELD: **Avg. (bu/a)** 102 **Range (bu/a)** 70 - 145
LSD (bu/a) 21 **CV (%)** 13

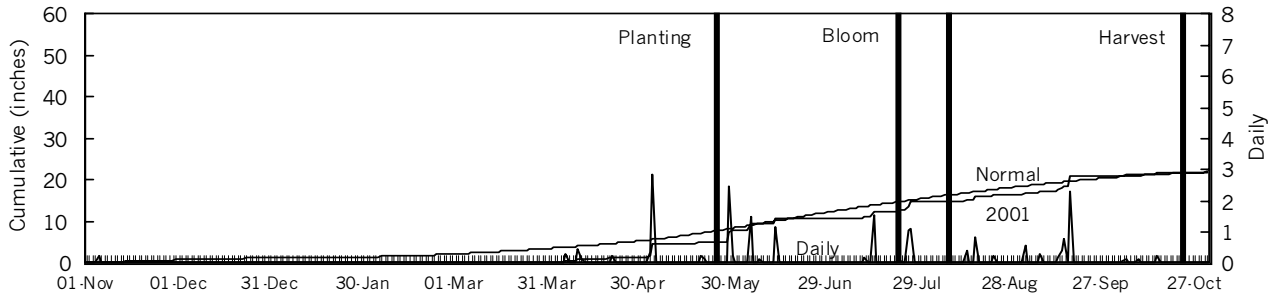
INSECTICIDE EFFECT (bu/a):	Check 1	Check 2	Avg.
Yield with insecticide	97	128	112
Yield without insecticide	101	115	108
Insecticide advantage	-5 ns	13 ns	4 ns

* = significant with 95% confidence
ns = not significant at 95% level

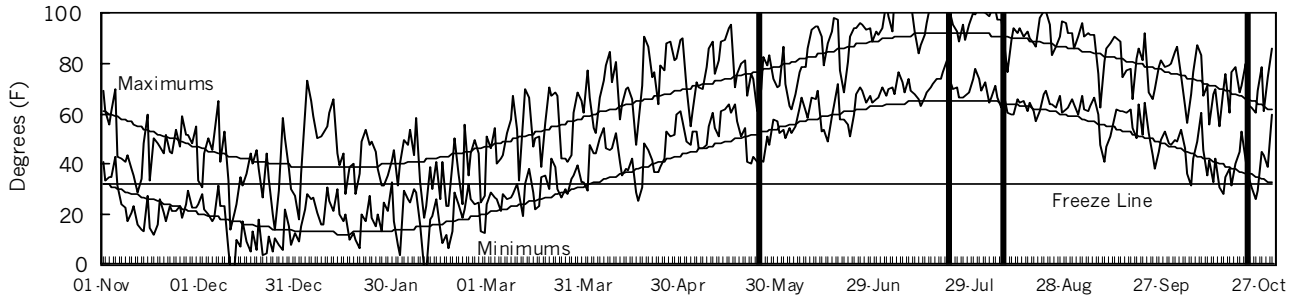
2001 GROWING CONDITIONS

Waterlogged soil during the 3 weeks after planting caused extremely poor stand establishment. The plants tillered extensively and developed large heads to make up for the reduced stands. Hot July weather was not detrimental to growth due in part to excellent subsoil moisture. Greenbugs were evident on small seedlings but did not build to damaging levels.

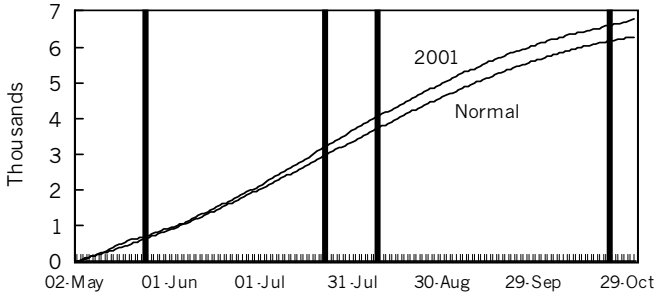
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

	Precipitation		Average Temp.		GDD	
Month	2001	Normal	2001	Normal	2001	Normal
April	1.3	1.9	58	51	0	0
May	6.5	3.2	64	62	904	842
June	2.9	3.8	73	72	1174	1141
July	4.1	3.3	84	78	1564	1366
August	1.6	2.8	79	76	1404	1301
Sep.	4.6	2.2	68	67	1035	995
Oct.	0.7	1.4	56	55	683	638
Season Totals	21.5	18.5	69	66	6764	6281

TABLE 13. Ellis Co. Grain Sorghum Performance Test, 1999-2001.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2000-2001		2001						
		2001	2000	1999	2-Yr. AVG.	3-Yr. AVG.	2001	2000	1999	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
PIONEER	87G57	103	--	127	--	--	100	--	93	--	--	59	13	54	32	--	89	1.6
CROPLAN GEN.	340	82	--	--	--	--	80	--	--	--	--	59	16	50	33	--	73	2.0
PIONEER	86G71	88	102	--	95	--	86	111	--	62	13	61	14	56	33	--	65	1.9
MATURITY CHECK	RS 610	72	73	110	73	85	71	80	80	63	14	62	14	54	33	--	60	1.8
NC+	5B89	82	--	--	--	--	80	--	--	--	--	62	14	57	35	--	57	2.0
MATURITY CHECK	SR305 II	90	89	133	89	104	88	96	97	63	12	64	13	56	40	--	75	1.8
MONSANTO	X015	84	--	--	--	--	83	--	--	--	--	64	14	57	34	--	55	2.6
MATURITY CHECK	TX3042xTX2737	97	86	132	91	105	95	93	96	65	13	65	13	56	38	--	57	2.1
NO GAUCHO*	TX3042xTX2737	101	80	--	91	--	99	87	--	64	13	65	13	58	41	--	57	2.4
DYNA-GRO	DG-732B	83	95	119	89	99	81	104	87	66	14	65	14	58	39	--	57	2.0
FRONTIER	F501E	84	81	--	83	--	83	88	--	66	13	65	14	54	37	--	69	1.8
FRONTIER	F303C	92	81	--	87	--	91	88	--	66	13	66	13	54	35	--	71	1.9
FRONTIER	F305C	86	--	--	--	--	85	--	--	--	--	66	13	58	35	--	73	1.9
DEKALB	DK-44	95	96	136	95	109	93	104	99	67	14	66	14	58	41	--	60	1.6
MATURITY CHECK	OK11xTX2741	95	82	127	89	101	94	89	92	67	13	66	14	57	37	--	67	1.9
MIDLAND	M-4774	94	94	141	94	110	93	102	103	68	16	66	15	57	43	--	61	1.8
MYCOGEN	627	103	97	142	100	114	101	105	104	68	15	66	15	57	39	--	45	2.5
NC+	6B50	119	--	137	--	--	117	--	100	--	--	67	13	57	41	--	66	1.8
GOLDEN HARVEST	H-430Y	122	--	--	--	--	119	--	--	--	--	67	14	60	42	--	68	2.3
GOLDEN HARVEST	H-483	93	--	--	--	--	91	--	--	--	--	67	14	58	40	--	68	2.0
NK	KS 585	111	100	140	106	117	109	109	102	67	14	67	14	60	38	--	88	2.0
GARST	5624	114	--	--	--	--	112	--	--	--	--	67	15	57	39	--	57	2.3
ASGROW	A459	92	106	150	99	116	90	116	110	69	13	68	13	59	44	--	52	2.3
CROPLAN GEN.	414	104	--	--	--	--	102	--	--	--	--	68	14	59	37	--	57	2.2
DYNA-GRO	DG-751B	124	93	133	108	116	121	101	97	70	14	68	14	59	45	--	75	1.9
GARST/AGRIPRO	5515	111	93	137	102	113	109	101	100	69	14	68	14	57	40	--	72	1.6
MYCOGEN	737	96	106	152	101	118	94	116	111	69	15	68	14	57	37	--	57	2.2
MYCOGEN	M3838	117	88	139	103	115	115	96	102	67	14	68	14	59	37	--	67	1.9
AGRIPRO	AP 2731	82	101	150	92	111	80	110	109	68	16	68	15	59	45	--	47	2.1
ASGROW	ECLIPSE	72	--	--	--	--	70	--	--	--	--	69	13	58	39	--	58	1.7
GOLDEN WORLD	GW 1481	109	--	--	--	--	107	--	--	--	--	69	14	57	39	--	44	2.5
GOLDEN WORLD	GW 1489	108	88	153	98	116	106	96	112	70	13	69	14	59	44	--	76	1.7
MATURITY CHECK	TX2752xTX430	128	92	155	110	125	125	100	113	71	14	69	14	58	43	--	56	2.3
NO GAUCHO*	TX2752xTX430	115	82	--	99	--	112	90	--	72	15	69	14	59	43	--	51	2.5
NK	K73-J6	123	--	--	--	--	121	--	--	--	--	69	15	57	47	--	89	1.9
TRIUMPH	TR 465	97	--	--	--	--	95	--	--	--	--	69	15	59	41	--	62	2.0
FONTANELLE	G 4445	104	--	--	--	--	102	--	--	--	--	69	16	57	39	--	66	2.1
DEKALB	DK-47	123	106	--	114	--	121	115	--	70	15	70	15	59	43	--	71	2.4
DEKALB	DK-53	93	106	148	100	116	92	116	108	73	16	70	15	58	43	--	55	1.9
GARST	5664	105	97	116	101	106	103	106	85	71	13	71	13	57	38	--	70	1.9
MIDLAND	MX 4614	106	--	--	--	--	104	--	--	--	--	71	14	59	40	--	74	1.9
DYNA-GRO	DG-760C	117	82	132	100	110	114	90	96	72	15	72	14	58	42	--	64	2.1
MIDLAND	M-4818	104	--	--	--	--	102	--	--	--	--	72	15	59	49	--	60	1.9
MIDLAND	M-4836	84	101	141	92	109	82	110	103	73	18	72	15	59	41	--	40	2.4
MATURITY CHECK	TX2752xTX2783	117	88	147	103	118	115	96	107	74	15	73	15	60	47	--	62	2.0
PIONEER	84G62	145	105	157	125	135	142	114	115	73	15	73	15	60	41	--	64	2.3
TRIUMPH	TR 481	103	104	139	103	115	101	113	102	74	16	74	16	60	46	--	48	2.0
FONTANELLE	GE 5645	122	--	--	--	--	120	--	--	--	--	75	15	60	39	--	54	2.6
MIDLAND	M-4759Y	70	--	--	--	--	68	--	--	--	--	75	24	53	39	--	59	2.0
MIDLAND	M-4725	124	--	139	--	--	121	--	102	--	--	76	14	59	41	--	70	2.2
MYCOGEN	775Y	120	--	--	--	--	117	--	--	--	--	76	14	59	39	--	59	2.3
	AVERAGES	102	92	137	97	110	102	92	137	69	14	68	14	58	40	--	63	2.1
	CV(%)	13	8	6	--	--	13	8	6	--	--	2	5	3	5	--	19	15.9
	LSD(0.05)**	21	10	11	--	--	20	11	8	--	--	2	1	3	3	--	20	0.5

* Not treated with Gaucho to estimate effect of seed-applied insecticide.

** 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

2000 CROP: Fallow

1999 CROP: Sunflower

FERTILIZER (lbs/acre): 80 N 0 P_2O_5 0 K_2O

PLANTING DATE: 5/25/01

HARVEST DATE: 10/11/01

COOPERATORS: Patrick Evans, agronomist

TARGET POPULATION: 25,000 plants/acre, 8.4 in. spacing

FINAL STAND (% of target): 106

BLOOM DATES: 7/29/01 - 8/16/01

YIELD: **Avg. (bu/a)** 52 **Range (bu/a)** 29 - 70
LSD (bu/a) 11 **CV (%)** 15

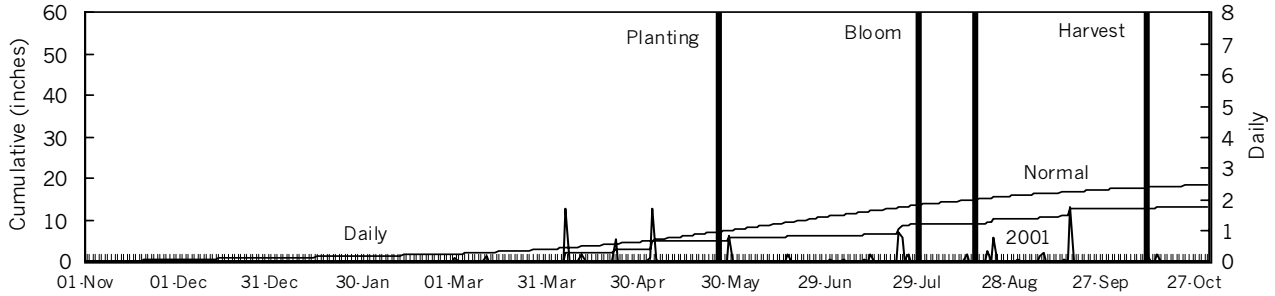
INSECTICIDE EFFECT (bu/a):	Check 1	Check 2	Avg.
Yield with insecticide	68	51	59
Yield without insecticide	58	50	54
Insecticide advantage	10 ns	0 ns	5 ns

* = significant with 95% confidence
ns = not significant at 95% level

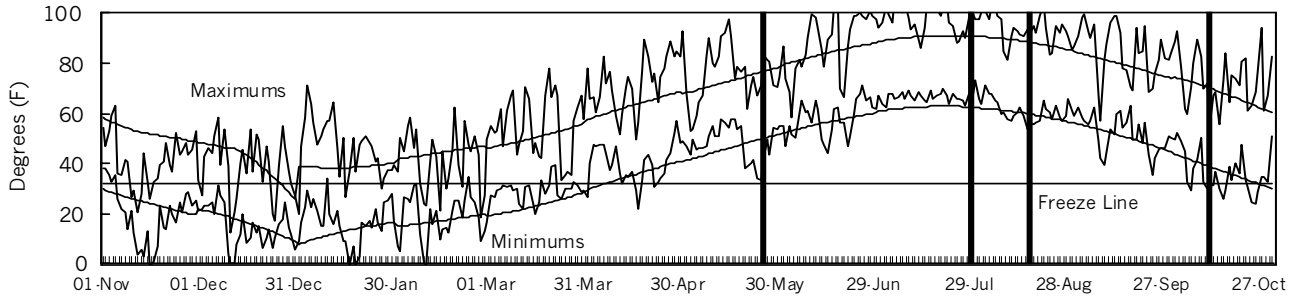
2001 GROWING CONDITIONS

Fairly good planting conditions resulted in good stands in most plots. June, July, and August were hot and dry, delaying head exertion and flowering. Some hybrids were delayed until mid-August.

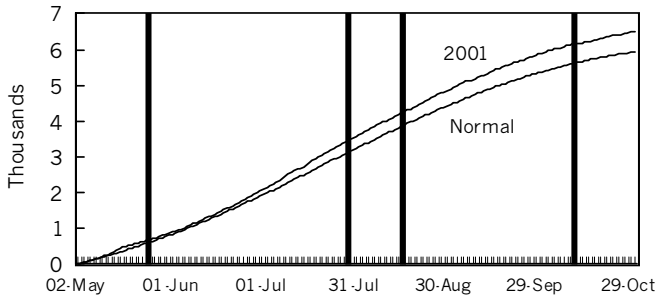
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

	Precipitation		Average Temp.		GDD	
Month	2001	Normal	2001	Normal	2001	Normal
April	2.8	1.8	56	49	0	0
May	2.9	2.9	62	60	840	781
June	0.3	3.1	73	70	1177	1093
July	2.7	3.0	82	76	1496	1317
August	1.5	2.2	77	74	1342	1241
Sep.	2.4	1.5	68	65	1021	928
Oct.	0.4	1.1	55	53	647	574
Season Totals	12.9	15.6	68	64	6523	5934

TABLE 14. Thomas Co. Fallow Grain Sorghum Performance Test, 1999-2001.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2000-2001		2001						
BRAND	NAME	2001	2000	1999	2-Yr. AVG.	3-Yr. AVG.	2001	2000	1999	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
PIONEER	87G57	63	91	125	77	93	120	109	86	64	11	65	11	57	38	--	106	1.1
GARST/AGRIPRO	9135	61	94	--	77	--	116	112	--	64	10	66	10	54	37	--	105	1.1
CROPLAN GEN.	340	65	--	--	--	--	125	--	--	--	--	68	10	55	36	--	111	1.2
PIONEER	85Y34	70	--	--	--	--	134	--	--	--	--	68	11	56	38	--	111	1.2
MATURITY CHECK	SR305 II	65	81	127	73	91	125	96	87	66	11	68	12	57	39	--	109	1.1
MONSANTO	X015	59	--	--	--	--	112	--	--	--	--	68	12	57	36	--	105	1.3
PIONEER	86G71	63	80	--	71	--	120	96	--	71	12	69	13	59	38	--	107	1.1
NC+	5B89	64	--	--	--	--	123	--	--	--	--	70	11	57	36	--	107	1.3
GARST/AGRIPRO	5750	62	--	--	--	--	118	--	--	--	--	70	12	60	38	--	110	1.2
MATURITY CHECK	RS 610	60	87	119	74	89	115	104	82	68	11	70	12	56	39	--	99	1.0
FRONTIER	F303C	57	87	--	72	--	110	104	--	70	11	72	12	57	37	--	95	1.1
MATURITY CHECK	OK11xTX2741	50	88	125	69	88	95	106	86	70	12	72	12	58	36	--	90	1.2
MATURITY CHECK	TX3042xTX2737	68	96	145	82	103	130	114	100	70	11	72	12	59	38	--	112	1.1
NO GAUCHO*	TX3042xTX2737	58	94	--	76	--	111	112	--	70	11	73	12	56	37	--	109	1.0
FRONTIER	F501E	60	75	--	68	--	115	89	--	71	12	73	13	58	34	--	111	1.1
DYNA-GRO	DG-732B	62	97	122	79	94	118	116	84	72	11	74	11	57	34	--	111	1.0
DEKALB	DK-44	55	91	150	73	99	105	109	103	72	10	74	12	58	38	--	102	1.0
FRONTIER	F305C	66	--	--	--	--	127	--	--	--	--	74	12	57	36	--	111	1.0
WARNER	W-625-Y	49	--	--	--	--	93	--	--	--	--	74	15	59	39	--	91	1.1
GOLDEN HARVEST	H-430Y	61	--	--	--	--	117	--	--	--	--	75	15	59	39	--	105	1.1
NC+	Y363	61	113	157	87	110	118	135	108	72	13	75	16	60	39	--	109	1.1
ASGROW	ECLIPSE	53	--	--	--	--	101	--	--	--	--	76	13	57	35	--	109	1.1
GOLDEN HARVEST	H-483	46	--	--	--	--	88	--	--	--	--	76	13	58	35	--	112	0.8
TRIUMPH	TR 461	63	82	158	73	101	121	99	109	74	12	76	14	59	38	--	105	0.9
CROPLAN GEN.	414	39	--	--	--	--	74	--	--	--	--	76	15	58	35	--	111	0.8
ASGROW	A459	38	90	146	64	91	74	107	100	75	12	77	14	55	38	--	104	0.8
KAYSTAR	X-060	59	--	--	--	--	113	--	--	--	--	77	14	59	39	--	102	1.1
NK	KS 585	45	112	166	78	107	87	134	114	73	13	77	15	60	37	--	109	1.1
DYNA-GRO	DG-751B	45	79	157	62	94	86	94	108	75	13	77	16	58	38	--	112	0.8
GARST	5624	45	--	--	--	--	86	--	--	--	--	78	14	54	37	--	110	1.0
GOLDEN WORLD	GW 1481	32	--	--	--	--	61	--	--	--	--	78	14	54	37	--	83	1.0
GOLDEN WORLD	GW 1489	42	86	151	64	93	80	102	104	76	12	78	14	58	39	--	104	0.9
MYCOGEN	M3838	54	88	132	71	91	104	105	91	74	12	78	14	57	37	--	111	1.1
DEKALB	DK-47	48	90	--	69	--	92	108	--	75	13	78	17	57	40	--	108	1.0
TRIUMPH	TR 465	35	--	--	--	--	67	--	--	--	--	81	16	58	37	--	98	0.8
MYCOGEN	775Y	31	--	--	--	--	59	--	--	--	--	81	24	50	37	--	104	0.8
MATURITY CHECK	TX2752xTX430	51	107	178	79	112	97	128	123	78	14	82	18	54	39	--	109	1.1
NO GAUCHO*	TX2752xTX430	50	88	--	69	--	96	105	--	79	14	82	18	54	37	--	111	0.9
NK	K59-Y2	33	--	--	--	--	64	--	--	--	--	83	17	44	39	--	112	0.6
MATURITY CHECK	TX2752xTX2783	38	74	164	56	92	72	89	113	80	15	83	20	54	39	--	112	0.8
WARNER	W-632-W	29	--	--	--	--	55	--	--	--	--	83	23	52	39	--	110	0.9
DYNA-GRO	DG-760C	41	86	157	63	94	78	102	108	79	17	83	24	53	40	--	112	0.7
	AVERAGES	52	84	145	68	94	52	84	145	73	12	75	14	56	37	--	106	1.0
	CV(%)	15	11	6	--	--	15	11	6	--	--	1	10	4	4	--	7	21.9
	LSD(0.05)**	11	11	10	--	--	21	13	7	--	--	2	2	3	2	--	10	0.3

* Not treated with Gaucho to estimate effect of seed-applied insecticide.

** 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 Res.-Ext. Center, Garden City

TEST SITE: Keith silt loam

2000 CROP: Fallow

1999 CROP: Sorghum

FERTILIZER (lbs/acre): 60 N 0 P_2O_5 0 K_2O

PLANTING DATE: 5/15/01

HARVEST DATE: 10/25/01

COOPERATORS: Merle Witt, agronomist

TARGET POPULATION: 30,000 plants/acre, 7.0 in. spacing

FINAL STAND (% of target): 85

BLOOM DATES: 7/26/01 - 8/9/01

YIELD: **Avg. (bu/a)** 102 **Range (bu/a)** 73 - 130
LSD (bu/a) 19 **CV (%)** 9

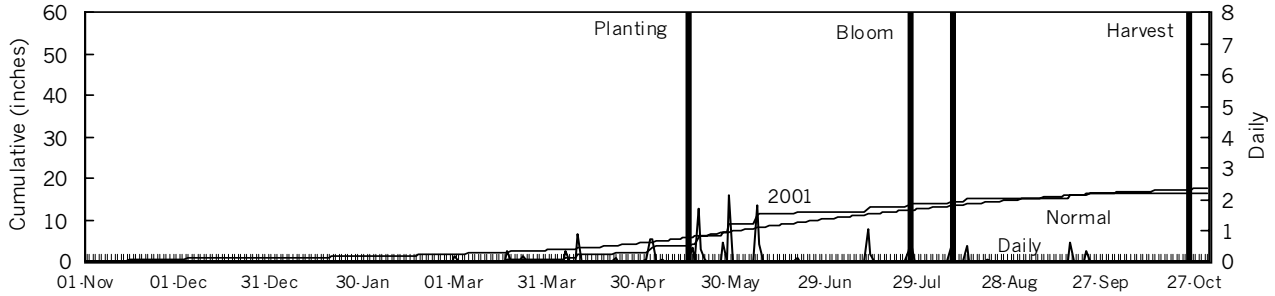
INSECTICIDE EFFECT (bu/a):	**Check 1**	**Check 2**	**Avg.**
Yield with insecticide	129	96	113
Yield without insecticide	113	90	102
Insecticide advantage	17 ns	6 ns	11 ns

* = significant with 95% confidence
ns = not significant at 95% level

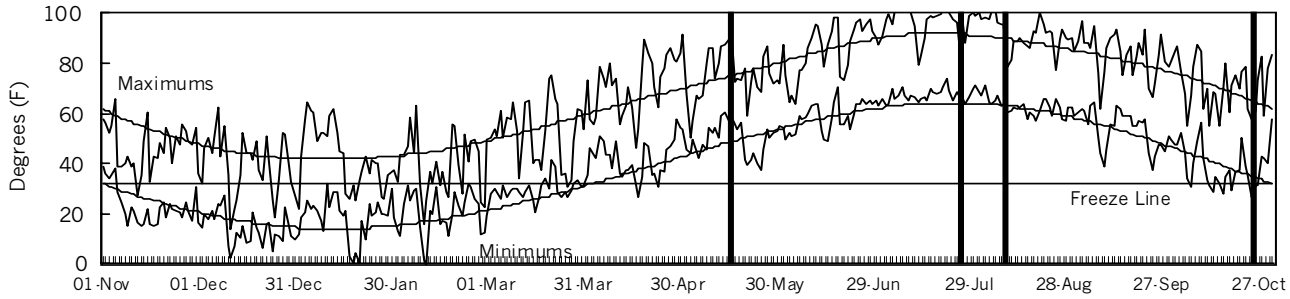
2001 GROWING CONDITIONS

Cool, wet conditions in May and early June reduced stands to some extent. Conditions were favorable for vegetative growth, but August and September were very dry. Insects caused little or no damage.

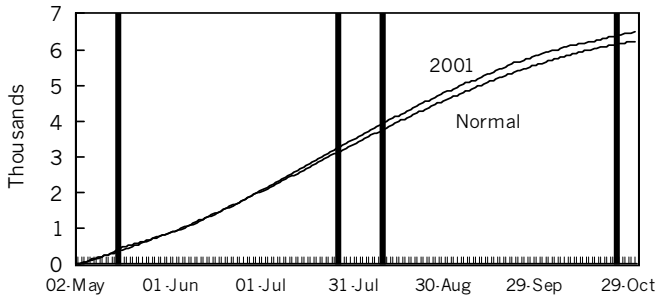
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

	Precipitation		Average Temp.		GDD	
Month	2001	Normal	2001	Normal	2001	Normal
April	1.4	1.7	56	51	0	0
May	7.2	2.9	63	62	849	842
June	2.6	2.9	72	72	1152	1145
July	2.4	2.5	82	78	1483	1352
August	1.1	2.2	77	75	1341	1275
Sep.	1.0	1.6	68	67	1032	986
Oct.	0.0	1.0	55	54	654	632
Season Totals	15.6	14.8	68	66	6511	6231

TABLE 15. Finney Co. Fallow Grain Sorghum Performance Test, 1999-2001.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2000-2001		2001						
		2001	2000	1999	2-Yr. AVG.	3-Yr. AVG.	2001	2000	1999	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
CROPLAN GEN.	340	96	--	--	--	--	94	--	--	--	--	72	11	61	39	0	101	1.7
MATURITY CHECK	RS 610	101	50	75	75	75	99	76	85	66	12	72	11	60	40	2	60	2.2
MATURITY CHECK	SR305 II	90	55	65	72	70	88	83	73	63	12	72	11	59	41	0	82	2.1
FRONTIER	F501E	101	55	--	78	--	98	83	--	69	12	73	11	60	40	1	101	1.5
MONSANTO	X015	73	--	--	--	--	71	--	--	--	--	74	11	61	39	0	98	2.3
TRIUMPH	TR 438	92	73	--	83	--	90	110	--	68	11	74	11	60	41	0	72	2.2
DEKALB	DK-44	73	69	76	71	73	72	104	85	70	12	75	11	61	43	0	76	1.8
GOLDEN HARVEST	H-483	120	--	--	--	--	118	--	--	--	--	75	11	60	42	1	108	1.8
WARNER	W-625-Y	102	--	104	--	--	100	--	118	--	--	75	11	61	45	0	85	1.9
DEKALB	DK-47	115	72	--	93	--	112	108	--	71	12	76	11	61	44	0	113	1.7
FRONTIER	F305C	116	--	--	--	--	113	--	--	--	--	76	11	60	42	0	103	1.6
MATURITY CHECK	OK11xTX2741	95	63	73	79	77	93	95	82	71	12	76	11	60	42	0	77	1.9
MATURITY CHECK	TX3042xTX2737	129	57	78	93	88	127	87	88	70	12	76	11	60	45	1	92	1.8
PIONEER	86G71	127	60	--	94	--	125	90	--	68	11	76	11	61	40	0	98	1.9
MIDLAND	M-4757Y	85	72	95	78	84	83	110	107	70	12	76	12	61	46	0	64	2.3
MIDWEST SEED	G 567	100	--	--	--	--	98	--	--	--	--	77	11	60	43	0	99	1.7
ASGROW	A459	85	62	83	73	77	83	94	94	74	12	78	11	60	45	0	90	1.4
ASGROW	ECLIPSE	77	--	--	--	--	75	--	--	--	--	78	11	61	40	0	71	2.0
CROPLAN GEN.	414	116	--	--	--	--	114	--	--	--	--	78	11	61	40	0	71	2.1
DYNA-GRO	DG-732B	98	71	74	85	81	96	108	83	73	11	78	11	61	40	0	63	1.8
MYCOGEN	1482	89	70	--	79	--	87	106	--	71	12	78	11	60	40	0	55	2.1
MYCOGEN	697	102	67	104	85	91	100	102	117	72	12	78	11	60	43	0	100	1.8
NO GAUCHO*	TX3042xTX2737	113	74	--	93	--	111	112	--	70	12	78	11	60	44	0	60	2.7
DEKALB	DK-53	102	75	98	89	92	100	114	111	74	12	79	11	61	44	1	88	1.6
GARST/AGRIPRO	5515	109	72	85	91	89	107	109	96	73	12	79	11	61	46	0	103	1.4
PIONEER	85G85	105	69	--	87	--	103	105	--	71	12	79	11	61	44	0	88	2.1
AGRIPRO	AP 2660	85	74	99	80	86	83	112	112	76	12	80	11	60	41	0	90	1.5
DYNA-GRO	DG-751B	98	70	85	84	84	96	106	96	76	12	80	11	60	45	1	104	1.5
FONTANELLE	G 4445	104	--	--	--	--	101	--	--	--	--	80	11	60	43	0	74	2.2
GOLDEN HARVEST	H-430Y	87	--	--	--	--	86	--	--	--	--	80	11	61	44	0	61	2.6
GOLDEN WORLD	GW 1481	97	--	--	--	--	95	--	--	--	--	80	11	60	43	0	66	2.1
GOLDEN WORLD	GW 1489	115	64	92	90	90	113	98	104	76	12	80	11	60	44	0	81	1.7
MATURITY CHECK	TX2752xTX2783	126	61	88	94	92	123	92	99	77	12	80	11	61	47	0	115	1.4
NK	K59-Y2	98	--	95	--	--	96	--	107	--	--	80	11	60	46	0	101	1.6
NK	K73-J6	103	--	--	--	--	100	--	--	--	--	80	11	61	46	0	88	2.1
NK	KS 585	109	--	88	--	--	106	--	99	--	--	80	11	61	42	0	104	2.1
TRIUMPH	TR 465	116	--	--	--	--	113	--	--	--	--	80	11	61	43	0	71	2.3
GARST	5624	111	--	--	--	--	109	--	--	--	--	81	11	60	45	0	90	1.7
TRIUMPH	TR 481	89	67	90	78	82	88	102	102	75	12	81	11	61	45	0	56	2.3
MATURITY CHECK	TX2752xTX430	96	81	109	89	96	94	123	123	78	12	82	11	60	43	0	69	2.1
NO GAUCHO*	TX2752xTX430	90	75	--	83	--	89	113	--	78	12	82	11	60	43	0	82	2.0
PIONEER	84G62	130	87	103	108	107	127	132	116	75	12	82	11	60	42	0	94	1.8
MYCOGEN	775Y	95	--	--	--	--	93	--	--	--	--	84	11	60	42	0	96	1.6
WARNER	EXP99031	128	--	--	--	--	125	--	--	--	--	84	11	60	42	0	94	1.7
DYNA-GRO	DG-760C	117	88	98	103	101	114	134	110	78	11	85	11	60	45	0	98	1.6
FONTANELLE	GE 5645	93	--	--	--	--	91	--	--	--	--	86	11	60	42	0	65	2.2
	AVERAGES	102	66	89	84	86	102	66	89	72	12	78	11	60	43	0	85	1.9
	CV(%)	9	16	10	--	--	9	16	10	--	--	2	1	0	3	366	15	14.4
	LSD(0.05)**	19	15	12	--	--	18	22	14	--	--	3	0	0	3	NS	27	0.5

* Not treated with Gaucho to estimate effect of seed-applied insecticide.

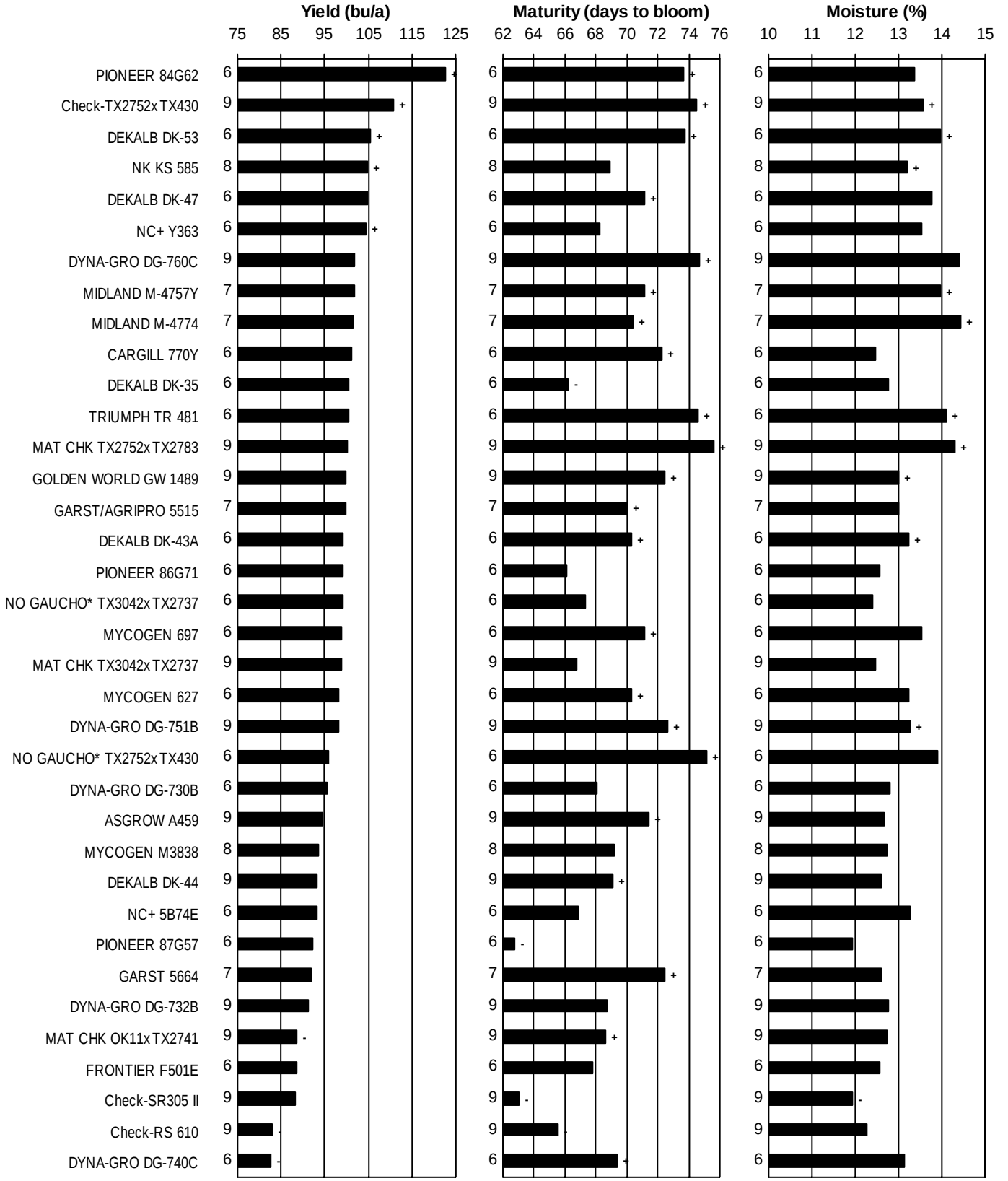
** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

TABLE 16. WEST Kansas grain sorghum hybrid yield summary (% of test average), 2001.

BRAND/NAME	ELD[1]	THD	GRD	FND	AVG.
AGRIPRO					
AP 2660	--	--	--	83	--
AP 2731	80	--	--	--	--
ASGROW					
A459	90	74	--	83	82
ECLIPSE	70	101	--	75	82
CROPLAN GEN.					
340	80	125	--	94	100
414	102	74	--	114	97
DEKALB					
DK-44	93	105	--	72	90
DK-47	121	92	--	112	108
DK-53	92	--	--	100	--
DYNA-GRO					
DG-732B	81	118	--	96	99
DG-751B	121	86	--	96	101
DG-760C	114	78	--	114	102
FONTANELLE					
G 4445	102	--	--	101	--
GE 5645	120	--	--	91	--
FRONTIER					
F303C	91	110	--	--	--
F305C	85	127	--	113	108
F501E	83	115	--	98	99
GARST					
5624	112	86	--	109	102
5664	103	--	--	--	--
GARST/AGRIPRO					
5515	109	--	--	107	--
5750	--	118	--	--	--
9135	--	116	--	--	--
GOLDEN HARVEST					
H-430Y	119	117	--	86	107
H-483	91	88	--	118	99
GOLDEN WORLD					
GW 1481	107	61	--	95	87
GW 1489	106	80	--	113	99
KAYSTAR					
X-060	--	113	--	--	--
MIDLAND					
M-4725	121	--	--	--	--
M-4757Y	--	--	--	83	--
M-4759Y	68	--	--	--	--
M-4774	93	--	--	--	--
M-4818	102	--	--	--	--
M-4836	82	--	--	--	--
MX 4614	104	--	--	--	--
MIDWEST SEED					
G 567	--	--	--	98	--
MONSANTO					
X015	83	112	--	71	89
MYCOGEN					
1482	--	--	--	87	--
627	101	--	--	--	--
697	--	--	--	100	--
737	94	--	--	--	--
775Y	117	59	--	93	90
M3838	115	104	--	--	--
NC+					
5B89	80	123	--	--	--
6B50	117	--	--	--	--
Y363	--	118	--	--	--
NK					
K59-Y2	--	64	--	96	--
K73-J6	121	--	--	100	--
KS 585	109	87	--	106	101
PIONEER					
84G62	142	--	--	127	--
85G85	--	--	--	103	--
85Y34	--	134	--	--	--
86G71	86	120	--	125	110
87G57	100	120	--	--	--
TRIUMPH					
TR 438	--	--	--	90	--
TR 461	--	121	--	--	--
TR 465	95	67	--	113	92
TR 481	101	--	--	88	--
WARNER					
EXP99031	--	--	--	125	--
W-625-Y	--	93	--	100	--
W-632-W	--	55	--	--	--
MATURITY CHECK					
OK11xTX2741	94	95	--	93	94
RS 610	71	115	--	99	95
SR305 II	88	125	--	88	100
TX2752xTX2783	115	72	--	123	104
TX2752xTX430	125	97	--	94	105
TX3042xTX2737	95	130	--	127	117
NO GAUCHO*					
TX2752xTX430	112	96	--	89	99
TX3042xTX2737	99	111	--	111	107
AVERAGES	102	52	--	102	85
CV(%)	13	15	--	9	--
LSD(0.05)**	20	21	--	18	--

[1] ELD = Ellis Co., Hays THD = Thomas Co., Colby GRD = Greeley Co., Tribune FND = Finney Co., Garden City

FIGURE 9. WEST Kansas sorghum hybrid standardized performance summary, 1999-2001.



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

NORTH CENTRAL KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL, IRRIGATED

COUNTY: REPUBLIC

LOCATION: Irrigation Experiment Field, Scandia

TEST SITE: Crete silt loam

2000 CROP: Soybean

1999 CROP: Corn

FERTILIZER (lbs/acre): 180 N 30 P_2O_5 0 K_2O

PLANTING DATE: 5/22/01

HARVEST DATE: 10/5/01

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

TARGET POPULATION: 84,000 plants/acre, 2.5 in. spacing

FINAL STAND (% of target): 100

BLOOM DATES: 7/22/01 - 8/4/01

YIELD: **Avg. (bu/a)** 187 **Range (bu/a)** 151 - 206
LSD (bu/a) 11 **CV (%)** 4

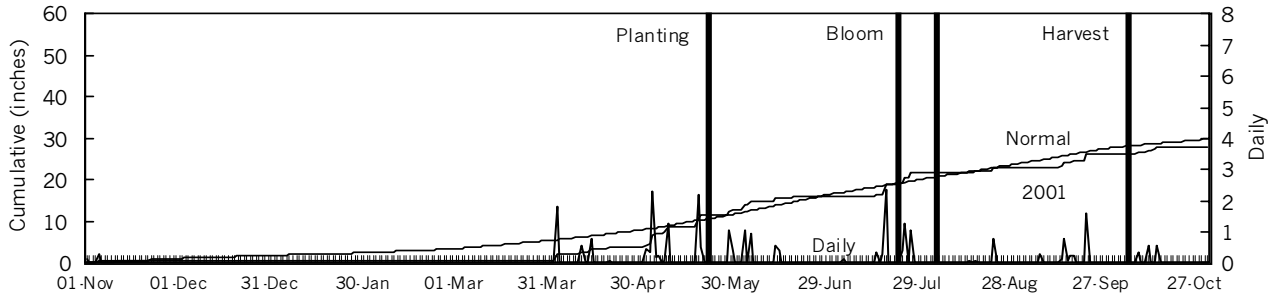
INSECTICIDE EFFECT (bu/a):	Check 1	Check 2	Avg.
Yield with insecticide	172	205	188
Yield without insecticide	151 *	187 *	169 *
Insecticide advantage	20	18	19

* = significant with 95% confidence
ns = not significant at 95% level

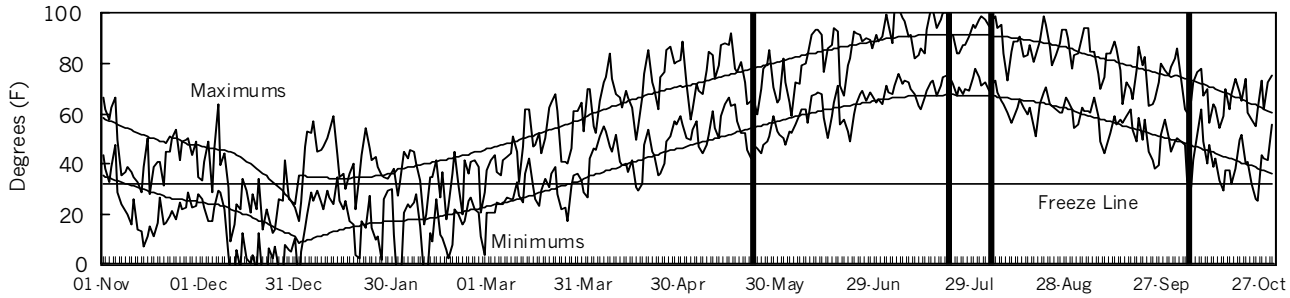
2001 GROWING CONDITIONS

Excellent stands were achieved in all plots. Spring weather was cooler and wetter than normal with 7 inches of rain in May. A significant greenbug infestation caused some damage before a July 1 insecticide application. Favorable growing conditions combined with timely irrigation resulted in outstanding yields.

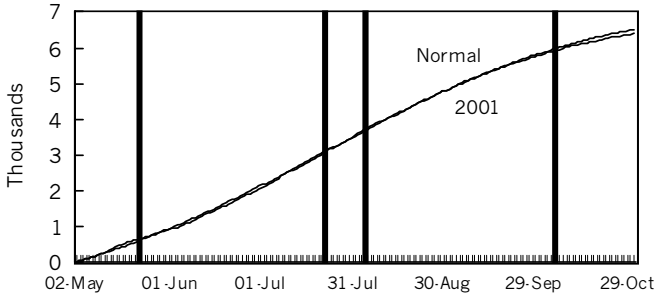
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

	Precipitation		Average Temp.		GDD	
Month	2001	Normal	2001	Normal	2001	Normal
April	3.3	2.5	57	53	0	0
May	9.2	4.0	64	64	888	902
June	3.0	4.6	72	74	1137	1188
July	5.9	3.8	82	79	1475	1398
August	1.0	3.7	77	77	1321	1335
Sep.	3.4	3.9	66	67	959	1004
Oct.	1.6	2.0	55	56	636	678
Season Totals	27.5	24.5	67	67	6416	6505

TABLE 17. Republic Co. Irr. Grain Sorghum Performance Test, 1999-2001.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2000-2001		2001						
		2001	2000	1999	2-Yr. AVG.	3-Yr. AVG.	2001	2000	1999	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	TX3042xTX2737	172	127	159	149	152	92	80	99	64	13	61	12	61	--	--	101	1.0
MATURITY CHECK	RS 610	161	124	135	142	140	86	79	84	63	14	61	13	61	--	--	101	1.0
MATURITY CHECK	SR305 II	179	126	130	153	145	96	80	81	62	13	61	13	61	--	--	101	1.0
NO GAUCHO*	TX3042xTX2737	151	131	--	141	--	81	83	--	64	13	61	13	61	--	--	101	1.0
MATURITY CHECK	OK11xTX2741	180	144	132	162	152	96	91	82	63	13	62	12	61	--	--	102	1.0
MIDLAND	M-4774	197	158	--	177	--	106	100	--	67	14	62	12	61	--	--	98	1.0
NK	KS 585	187	--	--	--	--	100	--	--	--	--	62	13	61	--	--	99	1.0
FRONTIER	F700E	197	--	--	--	--	106	--	--	--	--	63	12	61	--	--	101	1.0
ASGROW	A459	192	165	155	179	171	103	105	96	67	13	63	13	61	--	--	102	1.0
MIDLAND	M-4818	196	--	--	--	--	105	--	--	--	--	63	13	61	--	--	99	1.0
NK	K73-J6	206	--	--	--	--	111	--	--	--	--	63	13	61	--	--	100	1.0
PIONEER	84Y00	196	--	--	--	--	105	--	--	--	--	63	13	61	--	--	101	1.0
MIDLAND	MX 4614	191	--	--	--	--	102	--	--	--	--	64	13	61	--	--	101	1.0
PIONEER	84G62	206	206	182	206	198	110	131	113	68	15	64	13	61	--	--	99	1.0
TRIUMPH	TR 465	182	--	--	--	--	97	--	--	--	--	64	13	61	--	--	100	1.0
CROPLAN GEN.	454	157	--	--	--	--	84	--	--	--	--	65	13	61	--	--	99	1.0
DEKALB	DK-47	195	--	171	--	--	104	--	106	--	--	65	13	61	--	--	101	1.0
GARST/AGRIPRO	5382	180	--	--	--	--	97	--	--	--	--	65	13	61	--	--	101	1.0
GOLDEN WORLD	GW 1489	192	--	--	--	--	103	--	--	--	--	65	13	61	--	--	100	1.0
NK	K59-Y2	185	--	--	--	--	99	--	--	--	--	65	13	61	--	--	102	1.0
NO GAUCHO*	TX2752xTX430	187	161	--	174	--	100	102	--	69	15	65	13	61	--	--	100	1.0
TRIUMPH	TR 481	204	--	--	--	--	109	--	--	--	--	66	12	61	--	--	98	1.0
ASGROW	MISSILE	194	190	180	192	188	104	121	112	69	15	66	13	61	--	--	101	1.0
CROPLAN GEN.	506	174	--	--	--	--	93	--	--	--	--	66	13	61	--	--	102	1.0
GOLDEN WORLD	GW 1481	160	--	--	--	--	86	--	--	--	--	66	13	61	--	--	99	1.0
KAYSTAR	X-080	177	139	--	158	--	95	88	--	70	14	66	13	61	--	--	101	1.0
MATURITY CHECK	TX2752xTX2783	177	169	164	173	170	95	107	102	70	14	66	13	61	--	--	100	1.0
MATURITY CHECK	TX2752xTX430	205	169	171	187	182	110	107	106	69	15	66	13	61	--	--	100	1.0
ASGROW	A571	197	162	185	180	181	106	103	115	70	15	67	12	61	--	--	100	1.0
DEKALB	DK-53	194	179	174	187	182	104	113	108	70	15	67	13	61	--	--	99	1.0
DEKALB	DKS54-00	204	177	--	190	--	109	112	--	70	14	67	13	61	--	--	100	1.0
MIDLAND	M-4836	201	140	171	170	171	107	89	106	70	16	67	13	61	--	--	100	1.0
MIDLAND	M-4759Y	176	--	--	--	--	94	--	--	--	--	73	13	61	--	--	99	1.0
NK	X828 EXP	194	--	--	--	--	104	--	--	--	--	73	13	61	--	--	100	1.0
KAYSTAR	X-095	188	--	--	--	--	101	--	--	--	--	74	13	61	--	--	100	1.0
	AVERAGES	187	158	161	172	168	187	158	161	68	15	65	13	61	--	--	100	1.0
	CV(%)	4	4	3	--	--	4	4	3	--	--	1	1	0	--	--	2	1.5
	LSD(0.05)**	11	8	6	--	--	6	5	4	--	--	1	NS	NS	--	--	NS	NS

* Not treated with Gaucho to estimate effect of seed-applied insecticide.

** 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

2000 CROP: Soybean

1999 CROP: Sorghum

FERTILIZER (lbs/acre): 260 N 45 P_2O_5 0 K_2O

PLANTING DATE: 5/24/01

HARVEST DATE: 10/9/01

COOPERATORS: Patrick Evans, agronomist

TARGET POPULATION: 72,000 plants/acre, 2.9 in. spacing

FINAL STAND (% of target): 101

BLOOM DATES: 7/27/01 - 8/14/01

YIELD: **Avg. (bu/a)** 142 **Range (bu/a)** 116 - 168
LSD (bu/a) 10 **CV (%)** 5

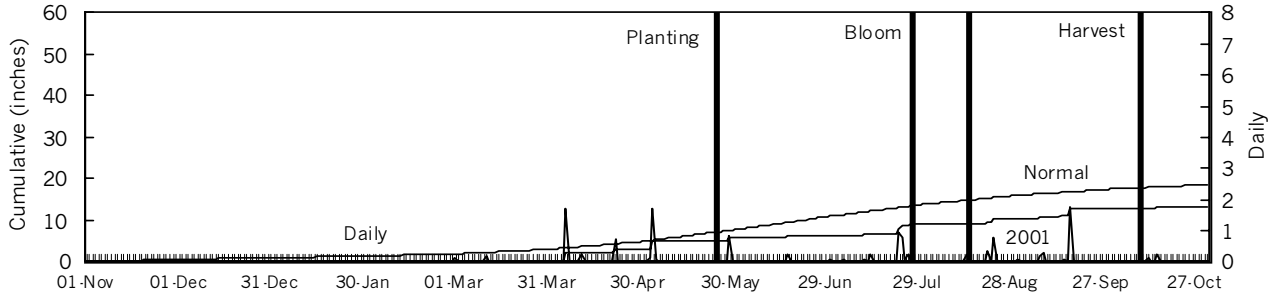
INSECTICIDE EFFECT (bu/a):	Check 1	Check 2	Avg.
Yield with insecticide	142	168	155
Yield without insecticide	132 *	144 *	138 *
Insecticide advantage	11	24	17

* = significant with 95% confidence
ns = not significant at 95% level

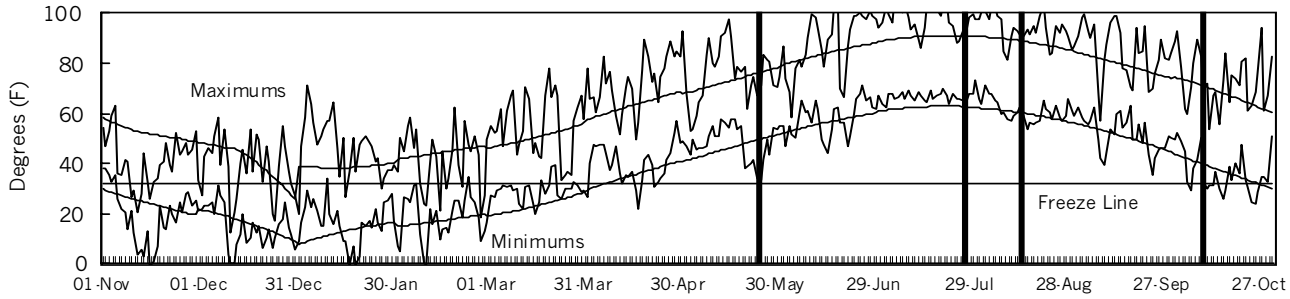
2001 GROWING CONDITIONS

Generally good stands were obtained for most entries. Some did not establish as well as expected. The growing season was hot and dry. Greenbugs were present prior to heading, but predators controlled their population. The lower leaves of some hybrids were damaged.

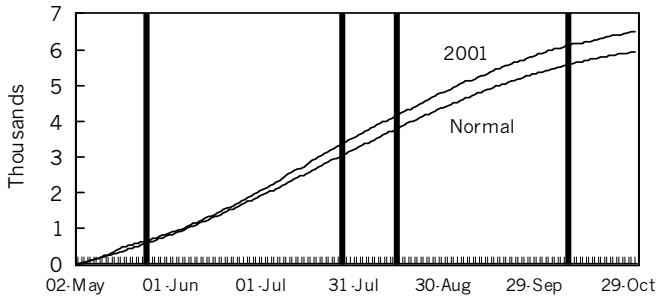
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

	Precipitation		Average Temp.		GDD	
Month	2001	Normal	2001	Normal	2001	Normal
April	2.8	1.8	56	49	0	0
May	2.9	2.9	62	60	840	781
June	0.3	3.1	73	70	1177	1093
July	2.7	3.0	82	76	1496	1317
August	1.5	2.2	77	74	1342	1241
Sep.	2.4	1.5	68	65	1021	928
Oct.	0.4	1.1	55	53	647	574
Season Totals	12.9	15.6	68	64	6523	5934

TABLE 18. Thomas Co. Irr. Grain Sorghum Performance Test, 1999-2001.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2000-2001		2001						
BRAND	NAME	2001	2000	1999	2-Yr. AVG.	3-Yr. AVG.	2001	2000	1999	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	SR305 II	118	91	135	105	115	83	92	82	65	11	64	10	54	49	--	114	0.9
MATURITY CHECK	RS 610	116	99	137	108	117	82	100	83	68	11	64	11	55	49	--	91	1.1
MATURITY CHECK	OK11xTX2741	122	111	145	117	126	86	112	88	72	12	69	12	58	47	--	91	1.0
MATURITY CHECK	TX3042xTX2737	142	107	150	124	133	101	108	91	72	12	70	12	57	53	--	112	0.9
NO GAUCHO*	TX3042xTX2737	132	102	--	117	--	93	103	--	71	12	70	12	58	52	--	114	1.0
AGRIPRO	AP 2731	141	107	171	124	140	100	108	104	73	13	71	14	58	51	--	111	1.0
FRONTIER	F457E	142	--	--	--	--	100	--	--	--	--	72	12	58	49	--	83	1.1
ASGROW	A459	152	83	169	117	135	107	84	103	75	12	72	13	60	55	--	109	1.0
FRONTIER	F700E	152	102	--	127	--	107	103	--	75	13	72	14	59	53	--	109	0.9
MATURITY CHECK	TX2752xTX430	168	113	178	141	153	119	114	108	77	13	74	12	56	53	--	103	1.0
CROPLAN GEN.	506	124	--	--	--	--	88	--	--	--	--	74	13	56	45	--	46	1.5
NK	KS 585	137	--	--	--	--	97	--	--	--	--	74	13	58	45	--	123	1.0
DEKALB	DK-47	151	--	175	--	--	107	--	106	--	--	74	14	59	51	--	115	1.0
NK	K73-J6	144	--	--	--	--	101	--	--	--	--	74	14	57	50	--	118	0.9
DEKALB	DK-53	139	110	174	124	141	98	110	106	76	14	74	15	59	51	--	99	1.0
TRIUMPH	TR 465	139	--	--	--	--	98	--	--	--	--	74	15	58	48	--	91	1.0
KAYSTAR	X-095	144	--	--	--	--	101	--	--	--	--	75	12	56	49	--	76	1.0
MATURITY CHECK	TX2752xTX2783	152	81	183	116	139	107	82	111	79	14	75	15	60	55	--	118	0.9
KAYSTAR	X-080	150	105	--	128	--	106	106	--	78	12	76	12	56	49	--	97	1.0
NO GAUCHO*	TX2752xTX430	144	89	--	117	--	102	90	--	78	14	76	15	57	51	--	90	1.2
PIONEER	84G62	153	91	179	122	141	108	92	109	80	14	76	15	59	47	--	117	0.9
PIONEER	85G85	143	--	--	--	--	101	--	--	--	--	76	15	59	49	--	109	1.0
ASGROW	MISSILE	163	93	166	128	140	115	94	101	79	15	76	16	57	52	--	91	1.1
MYCOGEN	3696	124	107	--	115	--	87	108	--	79	15	76	17	56	45	--	81	1.0
DEKALB	DKS54-00	159	121	--	140	--	112	122	--	80	13	78	13	53	54	--	94	1.0
NC+	7R83	133	--	182	--	--	94	--	110	--	--	81	18	57	50	--	112	0.9
ASGROW	A571	140	94	175	117	136	99	95	106	83	15	82	17	57	49	--	120	0.9
	AVERAGES	142	99	165	120	135	142	99	165	76	13	74	14	57	50	--	101	1.0
	CV(%)	5	14	6	--	--	5	14	6	--	--	2	8	2	3	--	8	11.5
	LSD(0.05)**	10	16	11	--	--	7	17	7	--	--	2	1	2	2	--	11	0.2

* Not treated with Gaucho to estimate effect of seed-applied insecticide.

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

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

COUNTY: GREELEY

LOCATION: Southwest Res.-Ext. Center, Tribune

TEST SITE: Ulysses silt loam

2000 CROP: Sorghum

1999 CROP: Fallow

FERTILIZER (lbs/acre): 122 N 7 P_2O_5 0 K_2O

PLANTING DATE: 5/25/01

HARVEST DATE: 10/18/01

COOPERATORS: Alan Schlegel, agronomist; Michele Sells, agricultural technician

TARGET POPULATION: 90,000 plants/acre, 2.3 in. spacing

FINAL STAND (% of target): 49

BLOOM DATES: 7/27/01 - 8/12/01

YIELD: **Avg. (bu/a)** 141 **Range (bu/a)** 112 - 173
LSD (bu/a) 17 **CV (%)** 8

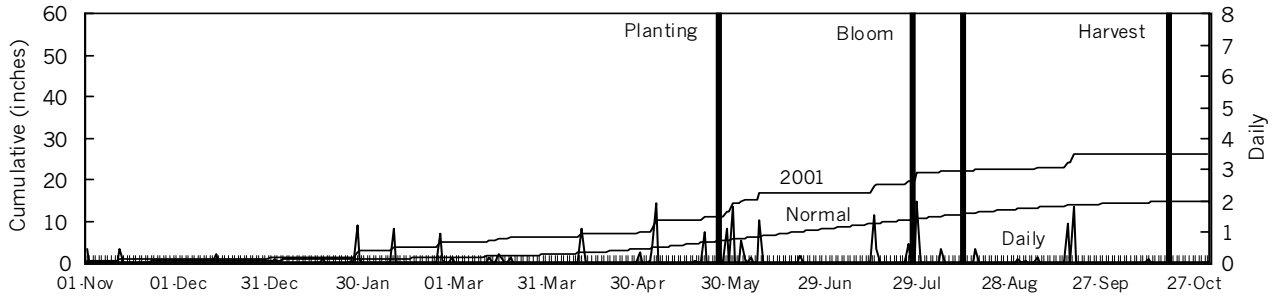
INSECTICIDE EFFECT (bu/a):	Check 1	Check 2	Avg.
Yield with insecticide	135	155	145
Yield without insecticide	112	147	130
Insecticide advantage	22 *	8 ns	15 ns

* = significant with 95% confidence
ns = not significant at 95% level

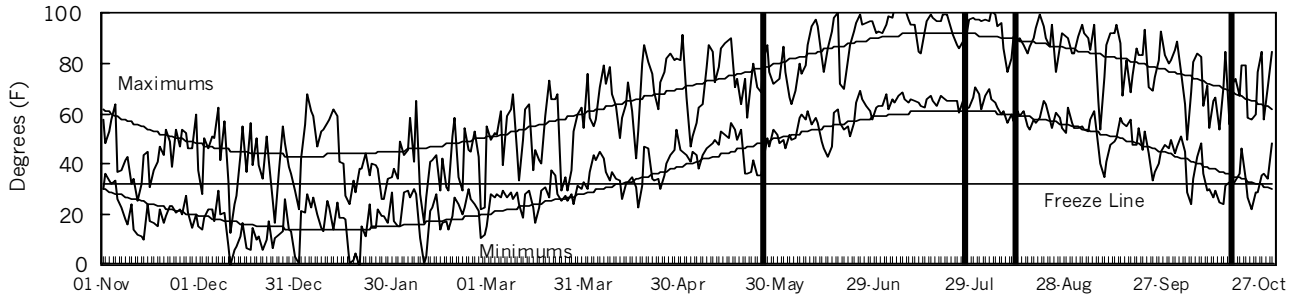
2001 GROWING CONDITIONS

Cool, wet conditions after planting severely reduced stands. However, tillering and enlarged heads made up for much of the stand reduction. Diseases and insects caused minimal damage.

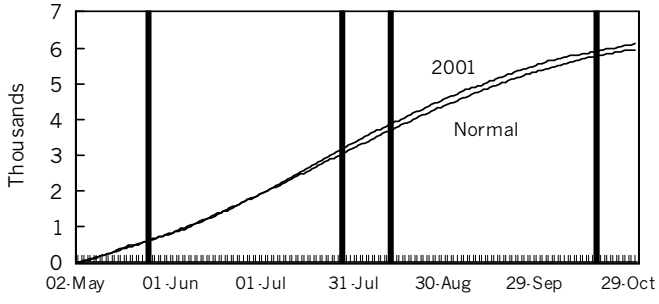
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

	Precipitation		Average Temp.		GDD	
Month	2001	Normal	2001	Normal	2001	Normal
April	1.5	1.3	54	50	0	0
May	6.7	2.4	60	60	769	786
June	2.7	2.5	71	70	1114	1093
July	4.6	2.5	80	76	1435	1307
August	1.1	2.2	75	74	1280	1231
Sep.	3.4	1.3	66	65	948	944
Oct.	0.1	0.7	53	53	575	597
Season Totals	20.1	12.9	65	64	6122	5958

TABLE 19. Greeley Co. Irr. Grain Sorghum Performance Test, 1999-2001.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2000-2001		2001						
BRAND	NAME	2001	2000	1999	2-Yr. AVG.	3-Yr. AVG.	2001	2000	1999	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	SR305 II	120	47	90	83	85	85	76	77	71	13	63	11	60	49	--	48	--
MATURITY CHECK	RS 610	114	75	85	95	91	81	123	73	74	13	64	11	59	50	--	45	--
TRIUMPH	TR 438	130	72	--	101	--	92	117	--	71	13	64	11	60	50	--	51	--
MATURITY CHECK	TX3042xTX2737	135	72	119	103	109	95	118	103	76	14	66	12	61	56	--	51	--
NO GAUCHO*	TX3042xTX2737	112	76	--	94	--	80	124	--	75	14	66	12	61	56	--	53	--
NC+	5B74E	134	74	--	104	--	95	121	--	78	15	68	12	60	45	--	57	--
DEKALB	DK-47	162	--	130	--	--	114	--	112	--	--	70	12	61	52	--	55	--
MATURITY CHECK	OK11xTX2741	129	37	106	83	91	91	60	92	83	16	70	12	60	49	--	47	--
TRIUMPH	TR 461	158	--	--	--	--	112	--	--	--	--	70	12	60	55	--	50	--
AGRIPRO	AP 2731	148	99	114	123	120	105	161	98	81	15	70	13	61	55	--	53	--
KAYSTAR	X-080	127	61	--	94	--	90	99	--	84	16	72	12	60	53	--	47	--
MYCOGEN	M3838	122	75	--	98	--	86	122	--	80	15	72	12	61	48	--	47	--
NC+	6R30	126	--	--	--	--	89	--	--	--	--	72	12	59	47	--	45	--
DEKALB	DK-53	142	51	131	96	108	101	83	114	84	17	72	13	61	56	--	46	--
MIDWEST SEED	G 567	141	--	--	--	--	100	--	--	--	--	72	13	60	49	--	55	--
PIONEER	84G62	173	84	--	128	--	122	136	--	85	16	73	13	60	55	--	50	--
ASGROW	A459	145	94	129	119	123	103	153	112	85	15	74	12	61	57	--	45	--
NK	KS 585	151	--	--	--	--	107	--	--	--	--	74	12	60	50	--	50	--
DEKALB	DKS54-00	155	85	--	120	--	110	138	--	84	16	74	13	60	54	--	48	--
FRONTIER	F700E	155	36	--	96	--	110	59	--	87	17	74	13	61	56	--	50	--
NK	X828 EXP	133	--	--	--	--	94	--	--	--	--	75	12	60	52	--	53	--
NK	K73-J6	163	--	--	--	--	115	--	--	--	--	75	13	61	56	--	52	--
KAYSTAR	X-095	128	--	--	--	--	91	--	--	--	--	76	12	60	54	--	44	--
FRONTIER	F457E	143	--	--	--	--	101	--	--	--	--	76	13	60	53	--	48	--
MATURITY CHECK	TX2752xTX2783	167	60	110	114	113	118	99	95	88	16	76	13	61	61	--	52	--
PIONEER	85G85	130	101	--	116	--	92	165	--	82	14	76	13	60	51	--	49	--
ASGROW	MISSILE	166	41	113	104	107	118	67	98	88	18	76	14	60	55	--	46	--
CROPLAN GEN.	506	118	--	--	--	--	84	--	--	--	--	77	13	59	51	--	28	--
MATURITY CHECK	TX2752xTX430	155	67	131	111	118	110	110	113	88	18	77	13	60	57	--	47	--
ASGROW	A571	148	55	118	102	107	105	90	102	90	16	78	13	59	59	--	57	--
NO GAUCHO*	TX2752xTX430	147	55	--	101	--	104	90	--	89	19	78	13	60	55	--	47	--
	AVERAGES	141	61	116	101	106	141	61	116	83	16	72	12	60	53	--	49	--
	CV(%)	8	21	8	--	--	8	21	8	--	--	3	2	1	5	--	10	--
	LSD(0.05)**	17	15	11	--	--	12	25	9	--	--	3	0	1	3	--	7	--

* Not treated with Gaucho to estimate effect of seed-applied insecticide.

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

SOUTHWESTERN KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL, IRRIGATED

COUNTY: FINNEY

LOCATION: Southwest Res.-Ext. Center, Garden City

TEST SITE: Keith silt loam

2000 CROP: Fallow

1999 CROP: Sorghum

FERTILIZER (lbs/acre): 100 N 0 P_2O_5 0 K_2O

PLANTING DATE: 5/16/01

HARVEST DATE: 10/29/01

COOPERATORS: Merle Witt, agronomist

TARGET POPULATION: 90,000 plants/acre, 2.3 in. spacing

FINAL STAND (% of target): 53

BLOOM DATES: 7/26/01 - 8/9/01

YIELD: **Avg. (bu/a)** 133 **Range (bu/a)** 90 - 178
LSD (bu/a) 25 **CV (%)** 12

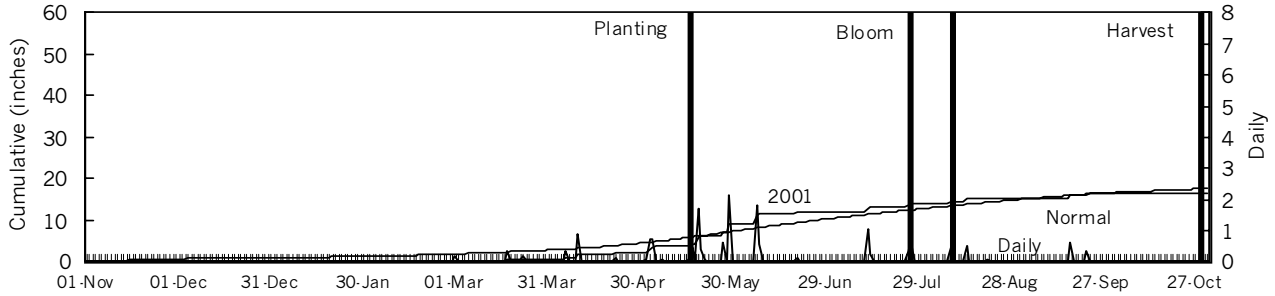
INSECTICIDE EFFECT (bu/a):	**Check 1**	**Check 2**	**Avg.**
Yield with insecticide	111	123	117
Yield without insecticide	131	133	132
Insecticide advantage	-20 ns	-11 ns	-15 ns

* = significant with 95% confidence
ns = not significant at 95% level

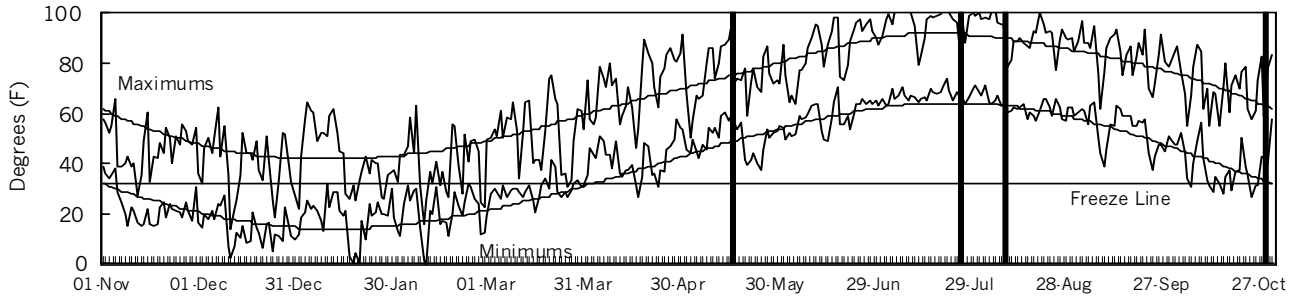
2001 GROWING CONDITIONS

Although planting conditions were favorable, cool, wet weather after planting severely reduced stands. Tillering and large heads compensated for the low stands to a large extent. Insects and diseases caused little or no damage.

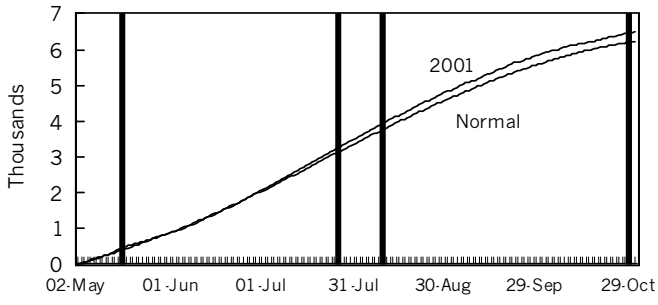
PRECIPITATION



DAILY TEMPERATURES



GROWING DEGREE DAYS



GROWING-SEASON WEATHER SUMMARY

	Precipitation		Average Temp.		GDD	
Month	2001	Normal	2001	Normal	2001	Normal
April	1.4	1.7	56	51	0	0
May	7.2	2.9	63	62	849	842
June	2.6	2.9	72	72	1152	1145
July	2.4	2.5	82	78	1483	1352
August	1.1	2.2	77	75	1341	1275
Sep.	1.0	1.6	68	67	1032	986
Oct.	0.0	1.0	55	54	654	632
Season Totals	15.6	14.8	68	66	6511	6231

TABLE 20. Finney Co. Irr. Grain Sorghum Performance Test, 1999-2001.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2000-2001		2001						
BRAND	NAME	2001	2000	1999	2-Yr. AVG.	3-Yr. AVG.	2001	2000	1999	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	RS 610	90	83	75	87	83	68	81	72	65	12	71	12	59	48	--	45	1.6
NO GAUCHO*	TX3042xTX2737	131	94	--	112	--	98	91	--	67	12	71	12	60	53	--	65	1.3
MATURITY CHECK	OK11xTX2741	107	91	89	99	96	81	88	85	69	12	72	12	60	47	--	54	1.3
MATURITY CHECK	SR305 II	146	82	79	114	102	110	79	75	63	12	72	12	60	49	--	37	1.9
MATURITY CHECK	TX3042xTX2737	111	95	90	103	99	83	92	86	68	12	73	12	61	55	--	58	1.3
ASGROW	A459	117	121	99	119	112	88	118	94	71	12	74	12	61	57	--	70	1.1
NK	KS 585	119	--	--	--	--	90	--	--	--	--	74	12	62	50	--	72	1.3
PIONEER	85G85	138	--	--	--	--	104	--	--	--	--	74	12	61	50	--	61	1.4
DEKALB	DK-53	132	111	119	121	121	99	108	113	71	12	75	12	61	55	--	63	1.2
NK	K73-J6	138	--	118	--	--	104	--	112	--	--	75	12	61	56	--	61	1.4
ASGROW	MISSILE	165	121	115	143	134	124	117	109	74	12	76	12	61	50	--	56	1.3
DEKALB	DK-47	131	--	102	--	--	99	--	97	--	--	76	12	61	50	--	68	1.2
AGRIPRO	AP 2731	111	92	115	101	106	83	89	109	71	13	76	13	61	55	--	66	1.2
MYCOGEN	3694	133	92	116	113	114	100	90	110	71	12	77	12	61	52	--	57	1.5
NC+	7R83	164	126	123	145	137	123	122	116	77	12	77	12	60	53	--	60	1.1
WARNER	W-902-W	121	--	--	--	--	91	--	--	--	--	77	12	61	57	--	38	1.5
FRONTIER	F700E	150	96	--	123	--	113	94	--	74	12	78	12	61	54	--	65	1.0
TRIUMPH	TR 82-G	178	123	107	151	136	134	119	102	76	12	78	12	62	56	--	58	1.3
FRONTIER	F457E	173	--	--	--	--	130	--	--	--	--	80	12	61	52	--	41	1.4
MATURITY CHECK	TX2752xTX430	123	108	123	115	118	92	105	117	76	12	80	12	61	56	--	51	1.5
MYCOGEN	3696	139	104	107	122	117	105	101	101	78	12	80	12	60	50	--	41	1.6
NC+	6B70	145	121	--	133	--	109	118	--	76	12	80	12	61	52	--	55	1.4
NO GAUCHO*	TX2752xTX430	133	94	--	114	--	100	91	--	76	12	80	12	61	55	--	51	1.5
DEKALB	DKS54-00	113	114	--	114	--	85	111	--	74	13	80	13	60	56	--	39	1.6
PIONEER	84G62	146	115	102	130	121	110	111	97	75	12	81	12	61	52	--	59	1.2
ASGROW	A571	136	104	113	120	118	102	101	108	78	12	82	12	60	55	--	56	1.2
CROPLAN GEN.	506	122	--	--	--	--	92	--	--	--	--	82	12	60	49	--	19	2.6
MATURITY CHECK	TX2752xTX2783	134	126	111	130	124	101	122	106	77	12	82	12	61	56	--	59	1.2
TRIUMPH	TR 481	111	109	99	110	106	83	106	94	75	12	82	12	61	57	--	42	1.2
WARNER	EXP99031	130	--	--	--	--	98	--	--	--	--	85	12	60	48	--	32	1.7
	AVERAGES	133	103	105	118	114	133	103	105	73	12	77	12	61	53	--	53	1.4
	CV(%)	12	10	7	--	--	12	10	7	--	--	5	1	1	3	--	13	10.0
	LSD(0.05)**	25	15	11	--	--	19	14	10	--	--	6	0	1	2	--	11	0.2

* Not treated with Gaucho to estimate effect of seed-applied insecticide.

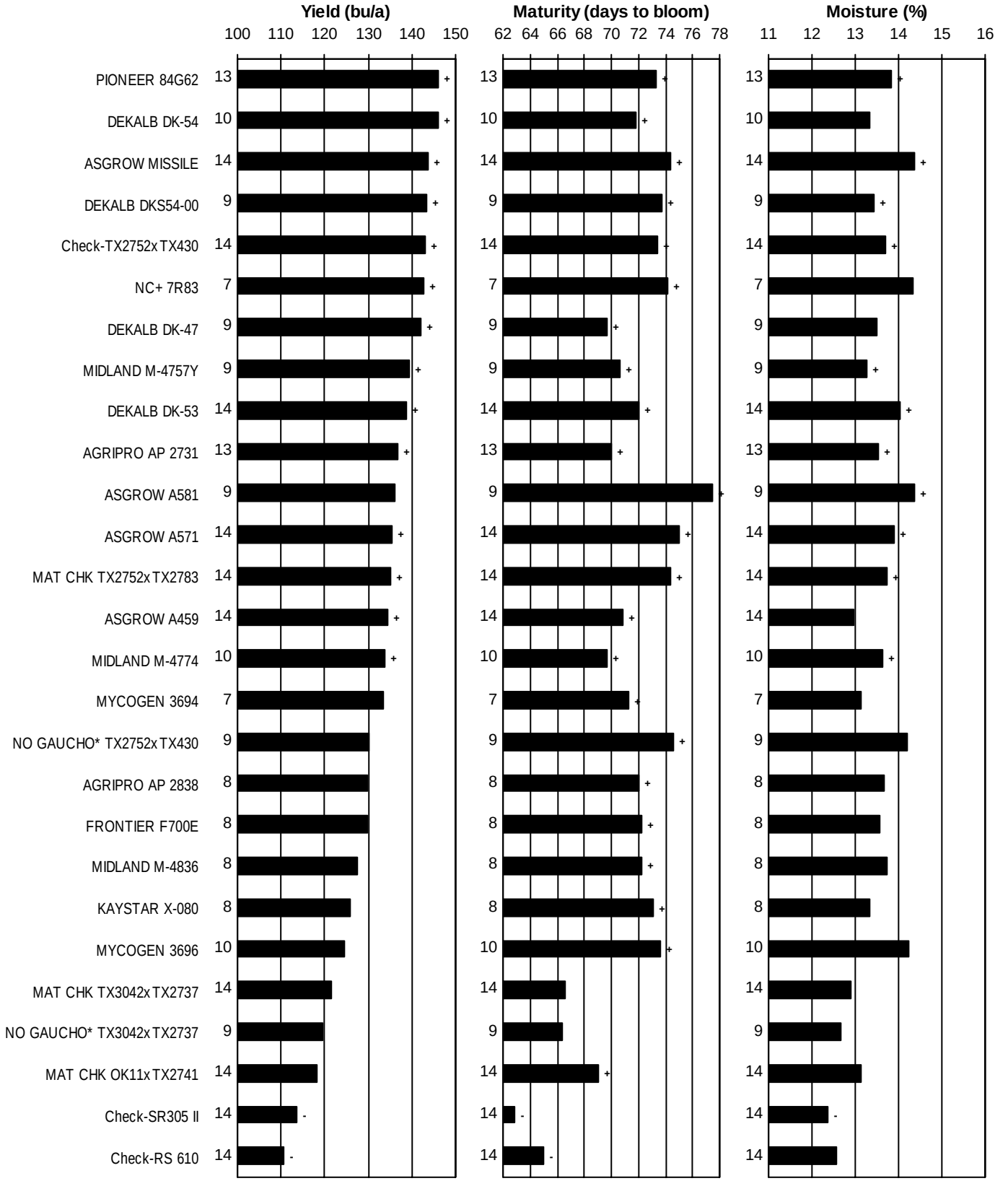
** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

TABLE 21. Kansas IRRIGATED grain sorghum hybrid yield summary (% of test average), 2001.

BRAND/NAME	RPI[1]	STI	THI	GRI	FNI	AVG.
AGRIPRO						
AP 2731	--	--	100	105	83	--
ASGROW						
A459	103	--	107	103	88	100
A571	106	--	99	105	102	103
MISSILE	104	--	115	118	124	115
CROPLAN GEN.						
454	84	--	--	--	--	--
506	93	--	88	84	92	89
DEKALB						
DK-47	104	--	107	114	99	106
DK-53	104	--	98	101	99	101
DKS54-00	109	--	112	110	85	104
FRONTIER						
F457E	--	--	100	101	130	--
F700E	106	--	107	110	113	109
GARST/AGRIPRO						
5382	97	--	--	--	--	--
GOLDEN WORLD						
GW 1481	86	--	--	--	--	--
GW 1489	103	--	--	--	--	--
KAYSTAR						
X-080	95	--	106	90	--	--
X-095	101	--	101	91	--	--
MIDLAND						
M-4759Y	94	--	--	--	--	--
M-4774	106	--	--	--	--	--
M-4818	105	--	--	--	--	--
M-4836	107	--	--	--	--	--
MX 4614	102	--	--	--	--	--
MIDWEST SEED						
G 567	--	--	--	100	--	--
MYCOGEN						
3694	--	--	--	--	100	--
3696	--	--	87	--	105	--
M3838	--	--	--	86	--	--
NC+						
5B74E	--	--	--	95	--	--
6B70	--	--	--	--	109	--
6R30	--	--	--	89	--	--
7R83	--	--	94	--	123	--
NK						
K59-Y2	99	--	--	--	--	--
K73-J6	111	--	101	115	104	108
KS 585	100	--	97	107	90	98
X828 EXP	104	--	--	94	--	--
PIONEER						
84G62	110	--	108	122	110	113
84Y00	105	--	--	--	--	--
85G85	--	--	101	92	104	--
TRIUMPH						
TR 438	--	--	--	92	--	--
TR 461	--	--	--	112	--	--
TR 465	97	--	98	--	--	--
TR 481	109	--	--	--	83	--
TR 82-G	--	--	--	--	134	--
WARNER						
EXP99031	--	--	--	--	98	--
W-902-W	--	--	--	--	91	--
MATURITY CHECK						
OK11xTX2741	96	--	86	91	81	89
RS 610	86	--	82	81	68	79
SR305 II	96	--	83	85	110	93
TX2752xTX2783	95	--	107	118	101	105
TX2752xTX430	110	--	119	110	92	108
TX3042xTX2737	92	--	101	95	83	93
NO GAUCHO*						
TX2752xTX430	100	--	102	104	100	102
TX3042xTX2737	81	--	93	80	98	88
AVERAGES	187	--	142	141	133	151
CV(%)	4	--	5	8	12	--
LSD(0.05)**	6	--	7	12	19	--

[1] RPI=Republic Co. Scandia STI=Stafford Co. St. John THI=Thomas Co. Colby GRI=Greeley Co. Tribune FNI=Finney Co. Garden City

FIGURE 10. Kansas IRRIGATED sorghum hybrid standardized performance summary, 1999-2001.



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

TABLE 22. Franklin Co. Tan-plant Performance Test, 2000-2001.

BRAND	NAME	ACRE YIELD, BUSHELS			YLD AS % OF AVG		2000-2001		2001						
							Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
		2001	2000	2-Yr. AVG.	2001	2000									
CROSBYTON	CSC5010	78	116	97	89	89	62	10	62	9	55	--	7	101	--
MATURITY CHECK	TX3042xTX2737	107	130	118	122	100	64	11	65	11	55	--	95	127	--
RICHARDSON SEED	X2910	88	--	--	100	--	--	--	65	11	56	--	68	82	--
MYCOGEN	X00RM296	79	--	--	90	--	--	--	65	15	54	--	93	125	--
MYCOGEN	X20113	83	--	--	95	--	--	--	65	15	56	--	97	122	--
MYCOGEN	X00ML337	73	--	--	83	--	--	--	66	12	55	--	90	116	--
MATURITY CHECK	OK11xTX2741	59	120	90	68	93	66	12	67	12	56	--	90	94	--
RICHARDSON SEED	X34110	71	--	--	81	--	--	--	67	12	57	--	87	40	--
MONSANTO	X018	81	--	--	92	--	--	--	67	14	54	--	54	128	--
CHECK	ATX623*RTX430	55	108	81	63	83	66	10	68	9	50	--	100	125	--
CROSBYTON	CSC5054	79	144	111	90	111	66	11	68	12	57	--	42	132	--
TAES-WLR	A9202*RTx437	53	--	--	60	--	--	--	69	12	55	--	100	124	--
MATURITY CHECK	TX2752xTX2783	70	--	--	80	--	--	--	69	13	54	--	75	124	--
MYCOGEN	1506	123	--	--	140	--	--	--	69	15	58	--	63	96	--
MONSANTO	X016	102	--	--	117	--	--	--	70	11	58	--	43	107	--
CHECK	ATX378*RTX430	76	111	93	87	85	68	12	70	12	54	--	100	126	--
TAES-DTR	AHF14*86EON361	93	--	--	107	--	--	--	70	12	60	--	43	122	--
ASGROW	ECLIPSE	123	--	--	140	--	--	--	71	12	58	--	7	119	--
TAES-GCP	A8PR1059*6OB172	109	--	--	124	--	--	--	71	13	60	--	35	121	--
CHECK	ATX631*TX2903	47	125	86	54	96	70	11	72	12	55	--	98	103	--
CROSBYTON	CSC9746	88	--	--	100	--	--	--	72	12	57	--	62	113	--
GARRISON & TOWN.	SG 98019	88	124	106	101	96	71	12	72	13	56	--	65	116	--
TAES-DTR	ATx631*86EON361	76	--	--	87	--	--	--	73	10	58	--	98	112	--
CHECK	ATX631xTX436	90	150	120	103	116	71	11	73	11	58	--	92	121	--
CHECK	ATXArg1*RTX436	87	127	107	100	98	71	11	73	12	58	--	77	115	--
TAES-GCP	A8PR1059*LG35	87	--	--	99	--	--	--	73	14	59	--	60	68	--
CROSBYTON	CSC6346	96	133	114	110	103	72	11	74	11	59	--	90	104	--
GARRISON & TOWN.	20121	94	--	--	108	--	--	--	74	11	58	--	50	58	--
GARRISON & TOWN.	20557	104	--	--	119	--	--	--	74	11	58	--	40	62	--
WARNER	902W	86	153	120	99	118	71	11	74	11	59	--	85	114	--
CARGILL	888Y	121	139	130	139	107	72	11	74	12	58	--	83	115	--
CARGILL	X24062	107	146	127	123	112	71	12	74	12	59	--	35	132	--
MMR GENETICS	JOWAR I	91	136	113	104	105	71	12	74	12	58	--	100	100	--
NC+	7W97	103	--	--	118	--	--	--	74	12	58	--	45	84	--
TAES-WLR	ATx631*R8901	83	--	--	95	--	--	--	74	13	58	--	58	104	--
CHECK	ATX635xTX436	87	132	110	100	102	72	13	74	14	57	--	97	109	--
GARRISON & TOWN.	20554	90	--	--	102	--	--	--	75	13	57	--	22	57	--
TAES-GCP	A8PR1059*6OB143	97	--	--	110	--	--	--	75	13	58	--	62	40	--
	AVERAGES	87	130	109	87	130	69	11	71	12	57	--	69	104	--
	CV(%)	11	9	--	11	9	--	--	2	10	2	--	32	7	--
	LSD(0.05)**	16	16	--	18	13	--	--	2	2	2	--	36	12	--

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

TABLE 23. Republic Co. Dry. Tan-plant Performance Test, 2000-2001.

BRAND	NAME	ACRE YIELD, BUSHELS			YLD AS % OF AVG		2000-2001		2001						
							Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
		2001	2000	2-Yr. AVG.	2001	2000									
CROSBYTON	CSC5010	65	--	--	55	--	--	--	60	13	60	34	--	105	1.1
CROSBYTON	CSC5054	104	--	--	88	--	--	--	60	13	60	38	--	102	1.1
MATURITY CHECK	OK11xTX2741	67	--	--	57	--	--	--	62	13	60	38	--	104	1.2
MATURITY CHECK	TX3042xTX2737	132	--	--	112	--	--	--	62	13	60	44	--	103	1.2
MYCOGEN	X20113	128	--	--	109	--	--	--	62	13	60	43	--	98	1.2
RICHARDSON SEED	X2910	112	--	--	95	--	--	--	62	13	60	44	--	104	1.1
MONSANTO	X018	82	--	--	69	--	--	--	63	13	60	42	--	106	1.2
MYCOGEN	X00ML337	131	--	--	111	--	--	--	63	13	60	44	--	107	1.1
MYCOGEN	X00RM296	122	--	--	103	--	--	--	63	13	60	44	--	106	1.1
RICHARDSON SEED	X34110	82	--	--	69	--	--	--	63	13	60	42	--	104	1.1
TAES-WLR	A9202*RTx437	143	--	--	121	--	--	--	63	13	60	45	--	106	1.1
CHECK	ATX623*RTX430	147	--	--	125	--	--	--	66	13	60	49	--	100	1.1
ASGROW	ECLIPSE	122	--	--	104	--	--	--	67	13	60	44	--	103	1.2
MYCOGEN	1506	138	--	--	117	--	--	--	67	13	60	50	--	105	1.1
CHECK	ATX378*RTX430	116	--	--	98	--	--	--	68	13	60	48	--	99	1.2
MONSANTO	X016	120	--	--	102	--	--	--	68	13	60	44	--	104	1.2
TAES-GCP	A8PR1059*6OB172	103	--	--	87	--	--	--	68	13	60	43	--	104	1.2
CHECK	ATX631*TX2903	67	--	--	56	--	--	--	69	13	60	46	--	104	1.2
TAES-DTR	AHF14*86EON361	122	--	--	104	--	--	--	69	13	60	44	--	103	1.1
TAES-DTR	ATx631*86EON361	117	--	--	99	--	--	--	69	13	60	46	--	110	1.1
TAES-WLR	ATx631*R8901	150	--	--	127	--	--	--	70	13	60	48	--	106	1.2
CHECK	ATX631xTX436	122	--	--	104	--	--	--	71	13	60	48	--	106	1.1
MMR GENETICS	JOWAR I	136	--	--	115	--	--	--	71	13	60	49	--	99	1.2
CROSBYTON	CSC6346	121	--	--	103	--	--	--	72	13	60	45	--	104	1.1
MATURITY CHECK	TX2752xTX2783	128	--	--	109	--	--	--	72	13	60	45	--	95	1.2
WARNER	902W	141	--	--	120	--	--	--	72	13	60	49	--	107	1.1
CROSBYTON	CSC9746	148	--	--	125	--	--	--	74	13	60	47	--	102	1.1
GARRISON & TOWN.	20554	77	--	--	65	--	--	--	74	13	60	44	--	108	1.1
TAES-GCP	A8PR1059*LG35	130	--	--	110	--	--	--	74	13	60	46	--	100	1.2
NC+	7W97	129	--	--	109	--	--	--	75	13	60	47	--	105	1.1
CARGILL	888Y	128	--	--	108	--	--	--	76	13	60	45	--	101	1.2
CARGILL	X24062	144	--	--	122	--	--	--	76	13	60	40	--	106	1.1
CHECK	ATX635xTX436	120	--	--	101	--	--	--	76	13	60	49	--	100	1.3
CHECK	ATXArg1*RTX436	124	--	--	105	--	--	--	76	13	60	44	--	101	1.1
GARRISON & TOWN.	20121	117	--	--	99	--	--	--	76	13	60	43	--	102	1.2
GARRISON & TOWN.	20557	135	--	--	115	--	--	--	76	13	60	44	--	102	1.2
GARRISON & TOWN.	SG 98019	117	--	--	99	--	--	--	76	13	60	46	--	103	1.2
TAES-GCP	A8PR1059*6OB143	98	--	--	83	--	--	--	77	13	60	44	--	104	1.1
	AVERAGES	118	--	--	118	--	--	--	69	13	60	45	--	103	1.2
	CV(%)	13	--	--	13	--	--	--	2	2	0	1	--	5	6.7
	LSD(0.05)**	26	--	--	22	--	--	--	2	NS	NS	1	--	NS	NS

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

TABLE 24. Harvey Co. Tan-plant Performance Test, 2000-2001.

BRAND	NAME	ACRE YIELD, BUSHELS			YLD AS % OF AVG		2000-2001		2001						
		2001	2000	2-Yr. AVG.	2001	2000	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
CROSBYTON	CSC5010	48	59	53	90	119	60	13	63	17	52	32	10	80	1.4
MATURITY CHECK	TX3042xTX2737	60	33	46	113	67	63	15	65	20	51	41	43	85	1.3
CROSBYTON	CSC5054	62	53	57	117	107	64	13	67	16	54	36	7	92	1.2
MYCOGEN	X00RM296	43	--	--	82	--	--	--	67	19	51	39	54	79	1.1
MATURITY CHECK	OK11xTX2741	68	47	57	128	95	64	13	68	16	55	38	4	80	1.3
MYCOGEN	X20113	53	--	--	101	--	--	--	68	18	53	38	1	83	1.1
MONSANTO	X018	62	--	--	116	--	--	--	69	18	53	39	11	109	1.1
CHECK	ATX623*RTX430	67	41	54	127	82	67	14	69	19	50	45	28	80	1.3
TAES-WLR	A9202*RTx437	58	--	--	110	--	--	--	69	19	53	44	43	87	1.1
MYCOGEN	1506	88	--	--	167	--	--	--	70	17	55	45	0	76	1.5
RICHARDSON SEED	X2910	50	--	--	94	--	--	--	70	17	53	38	1	54	1.7
RICHARDSON SEED	X34110	38	--	--	73	--	--	--	70	18	52	37	9	28	2.5
CHECK	ATX378*RTX430	72	54	63	137	109	67	15	71	19	51	41	9	95	1.1
MONSANTO	X016	53	--	--	100	--	--	--	72	17	54	39	5	81	1.1
MATURITY CHECK	TX2752xTX2783	66	--	--	125	--	--	--	72	18	52	37	10	87	1.2
MYCOGEN	X00ML337	47	--	--	89	--	--	--	72	19	51	37	17	76	1.1
ASGROW	ECLIPSE	57	--	--	107	--	--	--	73	17	55	33	0	96	1.1
CROSBYTON	CSC6346	66	42	54	125	84	71	14	74	17	55	39	2	79	1.1
TAES-DTR	ATx631*86EON361	61	--	--	115	--	--	--	74	17	53	42	8	75	1.2
MMR GENETICS	JOWAR I	57	49	53	108	98	71	14	74	18	53	39	12	72	1.2
CHECK	ATX631*TX2903	56	51	53	106	102	70	14	74	19	52	41	5	61	1.4
TAES-GCP	A8PR1059*6OB172	36	--	--	68	--	--	--	74	19	51	36	0	87	1.1
TAES-WLR	ATx631*R8901	61	--	--	116	--	--	--	75	17	54	40	1	72	1.2
TAES-DTR	AHF14*86EON361	46	--	--	87	--	--	--	75	18	54	40	1	83	1.0
WARNER	902W	50	49	49	95	98	71	15	75	19	53	40	9	71	1.2
TAES-GCP	A8PR1059*LG35	40	--	--	76	--	--	--	76	17	54	39	0	59	1.5
GARRISON & TOWN.	SG 98019	58	57	58	109	116	72	14	76	18	52	44	1	84	1.1
CARGILL	888Y	46	70	58	88	141	73	14	78	18	53	39	0	87	1.2
CHECK	ATX631xTX436	39	50	44	73	101	74	15	79	20	51	38	2	80	1.1
CARGILL	X24062	55	62	58	105	124	74	14	80	17	55	37	0	103	1.1
GARRISON & TOWN.	20554	58	--	--	109	--	--	--	81	18	52	42	0	56	1.5
GARRISON & TOWN.	20121	37	--	--	70	--	--	--	81	20	50	41	1	64	1.1
CHECK	ATXArg1*RTX436	41	51	46	77	103	76	15	82	20	51	36	0	74	1.0
NC+	7W97	39	--	--	74	--	--	--	83	19	52	38	0	57	1.2
TAES-GCP	A8PR1059*6OB143	38	--	--	72	--	--	--	83	19	54	38	1	45	1.7
CROSBYTON	CSC9746	40	--	--	76	--	--	--	84	20	51	39	0	80	0.9
GARRISON & TOWN.	20557	41	--	--	77	--	--	--	85	20	50	39	0	62	1.2
CHECK	ATX635xTX436	51	38	44	96	76	80	16	88	21	51	42	1	76	1.0
	AVERAGES	53	50	51	53	50	70	14	74	18	52	39	8	76	1.2
	CV(%)	17	10	--	17	10	--	--	3	6	3	5	133	7	10.0
	LSD(0.05)**	15	7	--	28	14	--	--	4	2	3	3	17	9	0.2

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

TABLE 25. Thomas Co. Irr. Tan-plant Performance Test, 2000-2001.

BRAND	NAME	ACRE YIELD, BUSHELS			YLD AS % OF AVG		2000-2001		2001						
		2001	2000	2-Yr. AVG.	2001	2000	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
CROSBYTON	CSC5010	82	--	--	69	--	--	--	61	14	56	40	--	97	1.0
CROSBYTON	CSC5054	102	--	--	86	--	--	--	65	14	56	45	--	102	0.8
RICHARDSON SEED	X2910	99	--	--	84	--	--	--	66	16	57	49	--	63	1.1
MATURITY CHECK	OK11xTX2741	100	--	--	85	--	--	--	68	15	59	45	--	91	1.0
MATURITY CHECK	TX3042xTX2737	145	--	--	122	--	--	--	68	15	59	53	--	104	1.0
CHECK	ATX623*RTX430	137	--	--	116	--	--	--	69	14	55	55	--	89	1.3
MYCOGEN	X20113	129	--	--	109	--	--	--	69	15	59	48	--	96	1.0
RICHARDSON SEED	X34110	77	--	--	65	--	--	--	69	16	58	48	--	34	1.4
MYCOGEN	X00ML337	152	--	--	128	--	--	--	70	15	59	48	--	98	1.0
MYCOGEN	X00RM296	141	--	--	119	--	--	--	70	15	59	51	--	98	1.0
TAES-WLR	A9202*RTx437	136	--	--	115	--	--	--	70	15	56	54	--	93	0.9
MONSANTO	X016	123	--	--	104	--	--	--	70	16	59	47	--	62	1.1
MONSANTO	X018	110	--	--	93	--	--	--	71	15	56	47	--	103	1.0
MYCOGEN	1506	152	--	--	129	--	--	--	71	16	58	56	--	84	1.1
CHECK	ATX378*RTX430	156	--	--	132	--	--	--	73	15	58	56	--	115	0.9
CHECK	ATX631*TX2903	132	--	--	112	--	--	--	73	15	58	51	--	90	0.9
TAES-DTR	AHF14*86EON361	135	--	--	114	--	--	--	73	15	60	47	--	104	0.9
ASGROW	ECLIPSE	105	--	--	88	--	--	--	73	16	59	47	--	74	1.0
MATURITY CHECK	TX2752xTX2783	155	--	--	131	--	--	--	74	16	59	48	--	88	1.2
TAES-DTR	ATx631*86EON361	135	--	--	114	--	--	--	74	16	60	52	--	91	0.9
TAES-GCP	A8PR1059*6OB172	108	--	--	91	--	--	--	74	17	59	47	--	102	0.9
GARRISON & TOWN.	20121	62	--	--	53	--	--	--	74	22	56	51	--	13	2.2
GARRISON & TOWN.	20554	54	--	--	45	--	--	--	75	24	55	49	--	14	1.6
TAES-GCP	A8PR1059*6OB143	98	--	--	83	--	--	--	75	24	57	50	--	37	1.3
MMR GENETICS	JOWAR I	135	--	--	114	--	--	--	76	17	59	53	--	88	1.0
CROSBYTON	CSC6346	137	--	--	116	--	--	--	76	18	58	56	--	87	1.0
TAES-WLR	ATx631*R8901	140	--	--	118	--	--	--	76	18	58	53	--	91	0.9
WARNER	902W	142	--	--	120	--	--	--	76	18	58	53	--	97	0.9
CHECK	ATX631xTX436	124	--	--	105	--	--	--	77	18	58	52	--	102	0.9
NC+	7W97	124	--	--	105	--	--	--	77	18	59	51	--	75	0.9
GARRISON & TOWN.	20557	61	--	--	51	--	--	--	77	25	55	51	--	11	2.2
CHECK	ATXArg1*RTX436	115	--	--	97	--	--	--	78	20	58	51	--	92	1.0
TAES-GCP	A8PR1059*LG35	78	--	--	66	--	--	--	78	20	59	47	--	39	1.2
CROSBYTON	CSC9746	107	--	--	91	--	--	--	79	17	58	49	--	77	0.9
GARRISON & TOWN.	SG 98019	130	--	--	110	--	--	--	79	17	56	53	--	96	0.8
CHECK	ATX635xTX436	128	--	--	108	--	--	--	80	22	56	63	--	73	0.9
CARGILL	X24062	135	--	--	114	--	--	--	81	20	59	50	--	98	1.0
CARGILL	888Y	112	--	--	95	--	--	--	81	21	58	52	--	96	0.9
	AVERAGES	118	--	--	118	--	--	--	73	17	58	51	--	81	1.1
	CV(%)	9	--	--	9	--	--	--	2	10	1	4	--	14	16.4
	LSD(0.05)**	18	--	--	15	--	--	--	2	3	1	4	--	19	0.3

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

TABLE 26. Finney Co. Irr. Tan-plant Performance Test, 2000-2001.

BRAND	NAME	ACRE YIELD, BUSHELS			YLD AS % OF AVG		2000-2001		2001						
							Days to	Grain	Days to	Grain	Test Wt.	Plnt Ht.	Ldg	Final Stand	Hds per
		2001	2000	2-Yr. AVG.	2001	2000	Blm	Moist. %	Blm	Moist. %	lb/bu	in.	%	%	Plnt
CROSBYTON	CSC5010	78	--	--	75	--	--	--	72	11	60	42	--	34	1.6
CROSBYTON	CSC5054	103	--	--	99	--	--	--	72	11	59	45	--	43	1.4
MATURITY CHECK	OK11xTX2741	104	--	--	99	--	--	--	72	11	60	47	--	58	1.2
MATURITY CHECK	TX3042xTX2737	100	--	--	95	--	--	--	72	11	60	52	--	53	1.4
MONSANTO	X018	80	--	--	76	--	--	--	73	11	60	47	--	62	1.1
MYCOGEN	X00ML337	121	--	--	115	--	--	--	74	11	61	49	--	51	1.4
RICHARDSON SEED	X2910	78	--	--	75	--	--	--	74	11	60	49	--	30	1.5
RICHARDSON SEED	X34110	67	--	--	64	--	--	--	74	11	60	49	--	15	2.3
MYCOGEN	1506	128	--	--	123	--	--	--	74	12	61	57	--	46	1.5
MYCOGEN	X20113	115	--	--	110	--	--	--	75	11	61	49	--	40	1.5
ASGROW	ECLIPSE	90	--	--	86	--	--	--	76	11	61	45	--	43	1.2
CHECK	ATX378*RTX430	121	--	--	116	--	--	--	76	11	60	59	--	71	1.2
MONSANTO	X016	139	--	--	133	--	--	--	76	12	61	49	--	45	1.1
MYCOGEN	X00RM296	95	--	--	91	--	--	--	76	12	60	48	--	44	1.2
CHECK	ATX623*RTX430	124	--	--	118	--	--	--	77	11	60	57	--	39	1.6
MATURITY CHECK	TX2752xTX2783	123	--	--	118	--	--	--	77	11	60	52	--	57	1.5
TAES-DTR	AHF14*86EON361	105	--	--	101	--	--	--	77	11	60	52	--	43	1.2
TAES-WLR	A9202*RTx437	131	--	--	125	--	--	--	77	11	60	54	--	35	1.5
CHECK	ATX631*TX2903	91	--	--	87	--	--	--	78	11	60	53	--	51	1.3
TAES-GCP	A8PR1059*6OB172	88	--	--	84	--	--	--	78	11	61	51	--	37	1.5
MMR GENETICS	JOWAR I	125	--	--	119	--	--	--	79	11	61	56	--	44	1.5
TAES-WLR	ATx631*R8901	114	--	--	109	--	--	--	79	11	61	56	--	54	1.3
WARNER	902W	137	--	--	130	--	--	--	80	12	60	55	--	44	1.3
CHECK	ATXArg1*RTX436	121	--	--	115	--	--	--	81	11	61	54	--	31	1.6
CROSBYTON	CSC6346	103	--	--	98	--	--	--	81	12	60	56	--	35	1.6
NC+	7W97	117	--	--	111	--	--	--	82	11	61	53	--	26	1.5
CHECK	ATX635xTX436	109	--	--	104	--	--	--	82	12	61	63	--	58	1.1
TAES-GCP	A8PR1059*LG35	110	--	--	105	--	--	--	83	11	61	51	--	22	1.9
CHECK	ATX631xTX436	120	--	--	114	--	--	--	83	12	61	57	--	43	1.4
GARRISON & TOWN.	20557	78	--	--	74	--	--	--	84	11	61	51	--	5	2.7
TAES-DTR	ATx631*86EON361	93	--	--	89	--	--	--	84	11	60	55	--	25	1.4
CARGILL	X24062	120	--	--	115	--	--	--	85	11	61	54	--	60	1.2
CROSBYTON	CSC9746	111	--	--	106	--	--	--	86	11	60	53	--	31	1.3
CARGILL	888Y	97	--	--	93	--	--	--	87	11	61	55	--	41	1.5
GARRISON & TOWN.	SG 98019	99	--	--	94	--	--	--	87	11	60	55	--	25	1.7
TAES-GCP	A8PR1059*6OB143	106	--	--	101	--	--	--	87	11	60	51	--	14	2.0
GARRISON & TOWN.	20121	80	--	--	77	--	--	--	88	12	60	53	--	6	3.2
GARRISON & TOWN.	20554	59	--	--	56	--	--	--	89	12	60	53	--	5	2.8
	AVERAGES	105	--	--	105	--	--	--	79	11	60	52	--	39	1.6
	CV(%)	22	--	--	22	--	--	--	4	2	1	3	--	19	17.3
	LSD(0.05)**	38	--	--	36	--	--	--	5	0	1	2	--	12	0.4

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

TABLE 27. Combined Tan-plant tests, 2000-2001.

BRAND	NAME	ACRE YIELD, BUSHELS			YLD AS % OF AVG		2000-2001		2001						
		2001	2000	2-Yr. AVG.	2001	2000	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
CROSBYTON	CSC5010	70	88	79	73	98	62	12	64	13	57	37	8	83	1.3
CROSBYTON	CSC5054	93	99	96	97	110	64	11	66	13	57	41	24	94	1.1
MATURITY CHECK	OK11xTX2741	83	84	83	86	93	65	12	67	14	58	42	47	85	1.2
MATURITY CHECK	TX3042xTX2737	108	82	95	112	91	65	12	67	14	57	47	69	94	1.2
MYCOGEN	X20113	103	--	--	107	--	--	--	68	14	58	44	49	88	1.2
RICHARDSON SEED	X2910	84	--	--	87	--	--	--	68	14	57	45	35	66	1.4
MYCOGEN	X00RM296	93	--	--	97	--	--	--	68	15	57	46	74	90	1.1
MONSANTO	X018	86	--	--	89	--	--	--	69	14	57	44	33	101	1.1
MYCOGEN	X00ML337	102	--	--	106	--	--	--	69	14	57	44	54	90	1.1
RICHARDSON SEED	X34110	68	--	--	71	--	--	--	69	14	57	44	48	44	1.8
CHECK	ATX623*RTX430	105	74	90	110	83	67	12	70	14	55	52	64	87	1.3
MYCOGEN	1506	124	--	--	129	--	--	--	70	14	58	52	32	81	1.3
TAES-WLR	A9202*RTx437	105	--	--	109	--	--	--	70	14	57	49	71	89	1.2
MONSANTO	X016	105	--	--	109	--	--	--	71	14	58	45	24	80	1.1
ASGROW	ECLIPSE	101	--	--	106	--	--	--	72	14	58	42	3	87	1.1
CHECK	ATX378*RTX430	104	82	93	108	92	68	13	72	14	57	51	54	101	1.1
CHECK	ATX631*TX2903	81	88	85	85	98	70	12	73	14	57	48	51	82	1.2
MATURITY CHECK	TX2752xTX2783	109	--	--	113	--	--	--	73	14	57	46	42	90	1.3
TAES-DTR	AHF14*86EON361	102	--	--	106	--	--	--	73	14	59	46	22	91	1.0
TAES-GCP	A8PR1059*6OB172	88	--	--	92	--	--	--	73	15	58	45	18	90	1.2
MMR GENETICS	JOWAR I	109	92	100	113	103	71	12	75	14	58	49	56	81	1.2
TAES-DTR	ATx631*86EON361	92	--	--	95	--	--	--	75	14	58	49	53	83	1.2
TAES-WLR	ATx631*R8901	111	--	--	115	--	--	--	75	14	58	49	30	85	1.1
WARNER	902W	110	101	106	115	113	71	12	75	14	58	49	47	86	1.1
CROSBYTON	CSC6346	102	87	95	106	97	73	12	76	14	58	49	46	82	1.2
CHECK	ATX631xTX436	100	100	100	104	111	73	13	77	15	58	49	47	90	1.1
TAES-GCP	A8PR1059*LG35	87	--	--	91	--	--	--	77	15	59	46	30	57	1.5
GARRISON & TOWN.	SG 98019	95	91	93	99	101	73	12	78	14	57	50	33	85	1.2
CHECK	ATXArg1*RTX436	101	89	95	105	100	74	13	78	15	57	46	38	83	1.2
NC+	7W97	103	--	--	107	--	--	--	78	15	58	48	23	69	1.2
CARGILL	888Y	97	105	101	101	117	74	13	79	15	58	48	42	88	1.2
CARGILL	X24062	111	104	107	115	116	74	13	79	15	59	45	18	100	1.1
CROSBYTON	CSC9746	102	--	--	106	--	--	--	79	15	57	47	31	81	1.1
GARRISON & TOWN.	20121	79	--	--	82	--	--	--	79	16	57	47	25	49	1.9
GARRISON & TOWN.	20554	68	--	--	71	--	--	--	79	16	57	47	11	48	1.8
GARRISON & TOWN.	20557	84	--	--	88	--	--	--	79	16	57	46	20	48	1.8
TAES-GCP	A8PR1059*6OB143	86	--	--	90	--	--	--	79	16	58	46	31	48	1.5
CHECK	ATX635xTX436	99	85	92	103	95	75	14	80	16	57	54	49	83	1.1
	AVERAGES	96	90	93	96	90	70	12	73	14	57	47	38	81	1.3
	CV(%)	16	10	--	16	10	--	--	3	7	2	4	45	10	14.1
	LSD(0.05)**	11	9	--	12	10	--	--	1	1	1	1	20	6	0.1

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

APPENDIX 1: Entrants in the 2001 Kansas Grain Sorghum Performance Tests

Asgrow/DeKalb
Monsanto Seed
7159 n 247th West
PO Box 7
Mt. Hope, KS 67108
316-445-2290
farmsource.com

CroPlan Genetics
CroPlan Genetics
1275 Red Fox Rd
St. Paul, MN 55112
800-851-8810
croplangenetics.com

DeLange
DeLange Seed
PO Box 7
Girard, KS 66743-0007
316-724-6223

Dyna-Gro
UAP-Pueblo
PO Box 1279
2502 John St
Garden City, KS 67846
316-275-6127
dianne.paris@uap.com

Fontanelle
Fontanelle Hybrids
10981 8th St
Fontanelle, NE 68044-2505
402-721-1410
fontanelle.com

Frontier
Frontier Hybrids
PO Box 177
1612 Ave H
Abernathy, TX 79311
806-298-2595
frohyb@aol.com

Garst/AgriPro
Garst and AgriPro Seed Co
615 Main St. PO Box 300
Coon Rapids, IA 50058
877-247-4776
www.agripro.com

Golden Harvest
JC Robinson Seed Co
100 JC Robinson Blvd.
Waterloo, NE 68069
402-289-0265
goldenharvestseeds.com

Golden World
Crosbyton Seed
PO Box 429
Crosbyton, TX 79322
806-675-2308
crosbytonseed.com

Hoegemeyer
Hoegemeyer Hybrids
1755 Hoegemeyer Rd
Hooper, NE 68031-2125
402-654-3399
hoegemeyer.com

Kaystar
Kaystar Seed
40329 US Hwy 14E
PO Box 947
Huron, SD 57350
605-352-5750
kaystarseed.com

Midland
Midland Genetics Group
1906 Kingman Rd
Ottawa, KS 66067
800-819-SEED
midland@kanza.net

Midwest Seed
Midwest Seed Genetics
PO Box 518
Carroll, IA 51401
800-369-8218
midwestseed.com

Mycogen
Mycogen Seeds
9330 Zionsville Rd
Indianapolis, IN 46268
317-337-7569
mycogen.com

NC+
NC+ Hybrids
PO Box 4408
1300 N 79th
Lincoln, NE 68504
402-467-2517
nc-plus.com

NK
Sorghum Partners, Inc.
Box189, 403 S Monroe
New Deal, TX 79350
806-746-5566
sorghum-partners.com

Pioneer
Pioneer, A DuPont Company
390 Union Blvd
Suite 500A
Lakewood, CO 80228
303-716-3960
pioneer.com

Triumph
Triumph Seed Co Inc
PO Box 1050
Hwy 62 Bypass
Ralls, TX 79357
800-530-4789
triumphseed.com

Valley Premium
Valley Feed & Seed Inc
1903 S Meridian
Wichita, KS 67213
316-942-2278

Warner
Warner Seeds, Inc.
Box 1877
Hereford, TX 79045
806-364-4470

Willcross
Beachner Grain
Box 128
St. Paul, KS 66771
620-449-8500
willcross.com

APPENDIX 2: Entries in the 2001 Kansas Grain Sorghum Performance Tests

BRAND	GC	EC	PC	Mat.	Days	GB[1]
AGRIPRO						
AP 2731	B	HY	P	M	66	C
AP 2660	R	W	P	M	68	CE
ASGROW						
A459	B	W	P	M	68	CE
ECLIPSE	C	W	T	M	70	CE
A571	R	W	P	L	71	-
MISSILE	B	HY	P	L	74	CE
CROPLAN GEN.						
340	C	-	P	E	58	-
414	B	-	P	EM	62	-
434	C	Y	P	M	64	C
454	C	HY	P	M	66	C
506	B	-	P	ML	70	CE
DEKALB						
DK-44	B	HY	P	M	71	CE
DK-47	B	HY	P	M	72	CE
DK-53	B	HY	P	L	74	CE
DKS54-00	B	HY	P	L	75	CEI
DELANGE						
DSA 115C	C	HY	-	E	60	CE
DSA 133	B	HY	-	M	65	CE
DSA 147	R	W	-	ML	68	CE
DYNA-GRO						
DG-732B	R	W	P	E	67	CE
DG-751B	R	Y	P	M	71	E
DG-760C	C	HY	P	M	72	C
DG-780B	R	HY	P	ML	75	E
FONTANELLE						
G 4445	B	Y	-	M	62	C
GE 5645	R	Y	-	L	72	CE
FRONTIER						
F501E	R	HY	P	M	64	E
F303C	C	W	T	M	65	E
F305C	C	Y	T	M	65	Y?
F457E	R	HY	P	M	68	Y?
F700E	R	HY	P	L	72	E

BRAND	GC	EC	PC	Mat.	Days	GB[1]
GARST						
5624	B	HY	P	ME	63	C
5664	B	Y	P	ME	64	C
5440	R	W	P	M	70	CE
5522Y	C	HY	P	M	70	C
GARST/AGRIPRO						
9135	B	HY	P	E	58	-
5750	B	-	P	E	60	CE
5515	B	HY	P	M	68	-
5382	B	-	P	L	72	-
GOLDEN HARVEST						
H-430Y	Y	Y	P	M	64	C
H-483	B	HY	P	M	68	E
H-499Y	Y	Y	P	ML	70	IK
H-512	R	W	P	ML	71	E
GOLDEN WORLD						
GW 1481	BZ	HY	P	M	65	E
GW 1489	R	W	P	ML	68	E
HOEGEMEYER						
6055	B	Y	-	E	62	-
671	C	Y	-	M	69	C
6870	B	Y	-	M	70	CE
6874	R	Y	-	L	70	E
6884	R	Y	-	L	72	E
KAYSTAR						
X-095	R	Y	-	L	-	-
X-060	R	Y	-	ME	64	E
X-080	R	Y	-	ML	65	E
MIDLAND						
M-4664	B	R	P	ME	60	O
MX 4614	C	W	P	ME	62	E
M-4725	C	R	P	M	64	O
M-4757Y	Y	HY	P	M	64	O
M-4759Y	Y	HY	P	M	65	O
M-4774	B	R	P	M	65	O
M-4836	R	R	P	ML	68	O
M-4818	B	B	P	ML	70	CE
MX 4679W	W	WAX	P	ML	70	O
MIDWEST SEED						
G 567	B	Y	T	M	67	CEIK
O 256	B	Y	P	M	68	CE

(continued)

[1] GC = grain color: bronze, cream, red, yellow, white
EC = endosperm color: white, yellow, hetero-yellow
PC = plant color: purple, tan
Mat. = relative maturity: early, medium, late
Days = days to half bloom
G-bug = resistance to specific greenbug biotypes: C, E, I, K, etc.
Blank spaces indicate that the information was not provided. Information was provided by entrants.

APPENDIX 2: Entries in the 2001 Kansas Grain Sorghum Performance Tests

BRAND	GC	EC	PC	Mat.	Days	GB[1]
MONSANTO						
X015	B	HY	P	E	68	CEI
MYCOGEN						
1482	R	HY	P	M	64	CE
M3838	C	HY	P	M	67	CE
1506	LR	HY	P	M	68	CE
627	B	HY	P	M	68	CEIK
697	B	HY	P	M	68	CEIK
737	B	HY	P	M	70	C
775Y	C	Y	P	M	70	CEIK
3694	B	HY	P	ML	72	CE
3696	Y	Y	T	ML	74	CEI
NC+						
5B74E	B	HY	P	E	60	CE
5B89	B	HY	P	E	61	C
6B50	B	HY	P	ME	62	-
6C21	C	HY	P	ME	62	C
6R30	R	W	P	ME	63	-
Y363	Y	Y	P	ME	64	C
6B70	B	HY	P	M	65	C
7B47	B	HY	P	M	70	-
7R83	R	W	P	ML	70	-
7W51	W	W	P	M	70	CE
7Y57K	Y	Y	P	M	70	CEIK
NK						
KS 585	B	HY	P	ME	65	CEI
K59-Y2	C	HY	P	M	70	CE
K73-J6	R	HY	P	ML	71	CE
X828 EXP	Y	WAX	T	ML	72	C
PIONEER						
87G57	B	Y	P	E	63	CE
86G71	B	Y	P	E	65	CE
85Y34	Y	Y	P	M	66	CE
8500	R	W	P	M	68	-
85G85	B	Y	P	M	69	-
84G62	B	Y	P	ML	72	CE
84Y00	W	Y	P	ML	72	-
TRIUMPH						
TR 438	B	W	P	E	60	CE
TR 461	R	W	P	ME	62	CE
TR 465	B	W	P	ME	62	CEI
TR 459	B	W	P	ME	64	CE
TR 462	R	W	P	M	70	CE
TR 481	R	W	P	ML	72	CE
TR 82-G	R	W	P	ML	73	CE
VALLEY PREMIUM						
VP 90	B	HY	P	ML	75	CDE
VP 53	R	R	P	ME	80	CDE
VP 53+	R	WAX	P	ME	80	CDE
VP 70	C	W	P	M	80	CDE
WARNER						
W-632-W	C	HY	P	M	65	C
W-625-Y	Y	Y	P	M	66	C
W-965-E	R	W	P	M	70	CE
EXP99031	B	HY	P	L	75	C
W-902-W	C	HY	T	L	75	C
WILLCROSS						
GB5045TR	R	W	P	E	53	CE
GB7545TR	R	W	P	M	77	CE
GB8060TR	R	W	P	M	83	CE
GB8545C	C	Y	P	ML	88	CE
GB9060W	W	W	T	L	93	-
MATURITY CHECK						
SR305 II	R	-	-	E	60	-
TX3042xTX2737	B	W	P	E	65	-
RS 610	R	W	-	M	68	-
OK11xTX2741	W	W	P	M	69	-
TX2752xTX430	B	W	-	L	73	-
TX2752xTX2783	R	W	-	L	74	E

[1] GC = grain color: bronze, cream, red, yellow, white
EC = endosperm color: white, yellow, hetero-yellow
PC = plant color: purple, tan
Mat. = relative maturity: early, medium, late
Days = days to half bloom
G-bug = resistance to specific greenbug biotypes: C, E, I, K, etc.
Blank spaces indicate that the information was not provided. Information was provided by entrants.

APPENDIX 3: Iron Chlorosis and Sooty Stripe Screening of Entries in the 2001 Kansas Grain Sorghum Performance Tests

BRAND/ NAME	SPAD[1]			RATING[2]			SS[3]
	Colby	Tribune	Avg	Col.	Trib.	Avg	LPP
AGRIPRO							
AP 2731	25	6	16	3.5	4.5	4.0	1.8
AP 2660	18	9	14	4.2	3.9	4.1	0.2
ASGROW							
A459	19	9	14	3.8	3.8	3.8	2.1
ECLIPSE	23	11	17	3.4	3.6	3.5	1.2
A571	23	11	17	3.3	3.1	3.2	0.9
MISSILE	17	18	18	4.3	3.8	4.0	1.6
CROPLAN GEN.							
340	22	14	18	2.6	4.1	3.3	0.4
414	20	18	19	3.4	3.4	3.4	0.9
434	21	2	12	2.7	3.6	3.2	0.9
454	15	17	16	3.6	3.2	3.4	0.7
506	23	13	18	2.8	4.5	3.7	0.9
DEKALB							
DK-44	23	10	16	3.3	4.0	3.7	1.1
DK-47	21	12	16	4.0	3.6	3.8	0.7
DK-53	21	12	17	3.1	3.2	3.2	0.6
DKS54-00	22	15	19	2.6	3.2	2.9	0.9
DELANGE							
DSA 115C	16	15	16	4.1	4.1	4.1	0.8
DSA 133	27	17	22	2.7	3.4	3.1	1.3
DSA 147	23	11	17	2.7	4.4	3.6	0.9
DYNA-GRO							
DG-732B	15	13	14	4.1	3.7	3.9	0.7
DG-751B	15	7	11	4.1	4.4	4.3	1.1
DG-760C	21	17	19	3.6	2.9	3.3	0.3
DG-780B	17	5	11	3.4	4.7	4.1	0.7
FONTANELLE							
G 4445	22	11	16	3.3	3.7	3.5	0.8
GE 5645	19	10	15	3.7	4.8	4.2	1.2
FRONTIER							
F501E	26	19	23	3.7	3.6	3.7	0.5
F303C	23	10	17	2.9	4.2	3.6	0.2
F305C	25	10	18	2.8	4.8	3.8	0.4
F457E	19	8	14	3.4	4.1	3.8	0.9
F700E	17	5	11	2.8	4.4	3.6	0.5
GARST							
5624	23	10	17	2.7	4.1	3.4	1.5
5664	24	17	20	3.4	4.0	3.7	1.0
5440	20	11	16	2.8	4.7	3.8	1.2
5522Y	19	10	15	4.2	4.2	4.2	0.8
GARST/AGRIPRO							
9135	17	15	16	3.7	4.6	4.2	0.9
5750	28	13	20	3.3	3.4	3.3	1.9
5515	23	12	17	2.9	4.5	3.7	1.3
5382	24	3	13	2.9	5.0	3.9	1.6
GOLDEN HARVEST							
H-430Y	22	20	21	3.7	3.3	3.5	0.7
H-483	28	18	23	1.4	2.8	2.1	0.4
H-499Y	24	13	18	2.8	3.9	3.4	1.0
H-512	22	10	16	3.1	4.5	3.8	1.5
GOLDEN WORLD							
GW 1481	26	10	18	3.1	3.7	3.4	0.8
GW 1489	23	8	16	3.0	4.3	3.6	0.6
HOEGEMEYER							
6055	23	11	17	4.6	3.6	4.1	0.9
671	26	21	24	1.7	3.5	2.6	0.2
6870	23	6	15	2.5	3.5	3.0	0.4
6874	25	10	18	2.7	4.4	3.5	1.3
6884	20	14	17	3.4	3.9	3.6	0.8
KAYSTAR							
X-095	19	10	14	4.5	3.9	4.2	0.7
X-060	27	13	20	2.4	3.6	3.0	0.3
X-080	12	18	15	4.4	3.9	4.2	0.5
MIDLAND							
M-4664	25	19	22	3.1	2.8	2.9	1.1
MX 4614	22	8	15	3.5	3.5	3.5	1.0
M-4725	16	15	16	3.3	3.8	3.5	0.4
M-4757Y	24	12	18	2.7	3.1	2.9	1.5
M-4759Y	12	10	11	4.5	3.9	4.2	2.2
M-4774	14	9	12	4.4	4.0	4.2	1.7
M-4836	18	4	11	3.9	4.9	4.4	1.4
M-4818	22	10	16	4.5	4.3	4.4	0.9
MX 4679W	24	16	20	3.6	3.5	3.6	1.0

(continued)

[1] SPAD = Spad meter reading measuring intensity of green color. A higher number indicates a deeper green and less chlorosis. Readings were taken at the 5-leaf stage. Healthy, well fertilized sorghum at the same growth stage had readings near 40 at Colby.

[2] Rating = visual rating of plant color and vigor. 1 = green, no chlorosis; 5 = all leaves yellow (chlorotic), stunted. The rating at Colby was made at the 5-leaf stage. At Tribune all hybrids were severely chlorotic at the 5-leaf stage so additional ratings were made in early July and early August when differences began to emerge. The ratings listed above for Tribune represent the average of all 3 ratings.

[3] SS, LPP = sooty stripe, lesions per plant; average number of lesions per plant in a no-till, continuous sorghum planting at Belleville, Kansas. Sooty stripe appeared relatively late in the season in this case and likely had little impact on yields.

APPENDIX 3: Iron Chlorosis and Sooty Stripe Screening of Entries in the 2001 Kansas Grain Sorghum Performance Tests

BRAND/ NAME	SPAD[1]			RATING[2]			SS[3]
	Colby	Tribune	Avg	Col.	Trib.	Avg	LPP
MIDWEST SEED							
G 567	28	15	21	2.5	3.8	3.1	1.9
O 256	27	10	19	2.8	3.5	3.1	1.7
MONSANTO							
X015	25	10	18	1.8	3.9	2.8	1.0
MYCOGEN							
1482	20	3	12	3.5	4.4	3.9	0.3
M3838	18	10	14	3.4	4.1	3.8	1.1
1506	22	7	14	3.2	3.7	3.4	1.4
627	25	10	18	2.8	4.0	3.4	0.8
697	21	20	21	2.1	4.0	3.1	1.7
737	15	14	14	3.1	3.6	3.4	2.4
775Y	19	11	15	4.0	4.4	4.2	0.7
3694	24	13	18	2.7	3.5	3.1	1.2
3696	26	12	19	3.0	3.5	3.2	0.8
NC+							
5B74E	28	13	21	2.3	3.9	3.1	1.3
5B89	23	10	17	2.5	4.0	3.2	1.2
6B50	22	14	18	3.1	3.7	3.4	1.0
6C21	12	12	12	3.4	4.0	3.7	2.1
6R30	23	10	17	3.0	3.9	3.4	0.5
Y363	26	15	21	3.6	3.0	3.3	0.6
6B70	18	11	15	3.6	3.6	3.6	1.5
7B47	25	13	19	3.4	3.2	3.3	0.9
7R83	23	16	19	4.0	3.8	3.9	0.9
7W51	24	12	18	2.7	3.5	3.1	0.7
7Y57K	25	19	22	2.7	3.7	3.2	0.8
NK							
KS 585	25	13	19	3.4	4.1	3.7	1.6
K59-Y2	23	18	21	2.4	3.0	2.7	0.6
K73-J6	21	17	19	4.3	3.8	4.0	1.3
X828 EXP	17	8	12	4.2	4.5	4.3	0.7
PIONEER							
87G57	22	20	21	2.7	3.8	3.2	1.4
86G71	23	9	16	3.5	4.6	4.1	0.9
85Y34	17	13	15	2.8	4.2	3.5	2.5
8500	27	1	14	2.4	5.0	3.7	1.4
85G85	24	8	16	3.2	4.4	3.8	1.9
84G62	26	15	21	2.3	3.2	2.8	1.3
84Y00	27	10	18	2.2	3.7	3.0	1.5
TRIUMPH							
TR 438	21	11	16	2.8	4.1	3.4	1.0
TR 461	25	11	18	2.9	4.4	3.7	0.6
TR 465	21	10	15	3.8	3.7	3.7	1.3
TR 459	24	7	15	3.0	4.8	3.9	1.2
TR 462	19	8	14	3.6	4.4	4.0	1.1
TR 481	22	14	18	4.1	4.3	4.2	1.1
TR 82-G	18	7	13	3.6	4.7	4.1	0.7
VALLEY PREMIUM							
VP 90	19	7	13	3.3	4.0	3.7	1.8
VP 53	18	5	12	4.5	4.1	4.3	1.3
VP 53+	20	17	18	3.6	4.3	4.0	2.2
VP 70	21	12	16	4.2	3.5	3.9	0.7
WARNER							
W-632-W	17	24	21	2.8	3.4	3.1	0.5
W-625-Y	15	12	13	4.1	3.9	4.0	1.8
W-965-E	17	12	15	4.1	4.4	4.2	1.7
EXP99031	17	10	14	3.6	4.2	3.9	1.1
W-902-W	23	15	19	3.3	3.6	3.4	1.2
WILLCROSS							
GB5045TR	18	9	14	3.4	3.6	3.5	1.3
GB7545TR	23	4	13	3.2	4.4	3.8	1.0
GB8060TR	18	10	14	3.9	4.8	4.4	2.2
GB8545C	28	19	23	2.3	3.3	2.8	0.4
GB9060W	24	16	20	3.2	3.7	3.4	0.9
MATURITY CHECK							
SR305 II	19	22	21	3.5	3.3	3.4	1.4
TX3042xTX2737	20	9	14	3.3	3.7	3.5	1.3
RS 610	23	8	16	2.6	4.3	3.4	0.7
OK11xTX2741	24	10	17	3.2	3.8	3.5	0.6
TX2752xTX430	28	14	21	2.3	3.6	3.0	0.8
TX2752xTX2783	23	37	30	3.3	4.7	4.0	0.8
AVERAGES	22	12	17	3.3	3.9	3.6	1.1
CV(%)	22	50	34	27.0	9.9	19.3	44.2
LSD(0.05)**	8	10	6	1.4	0.6	0.8	0.8

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