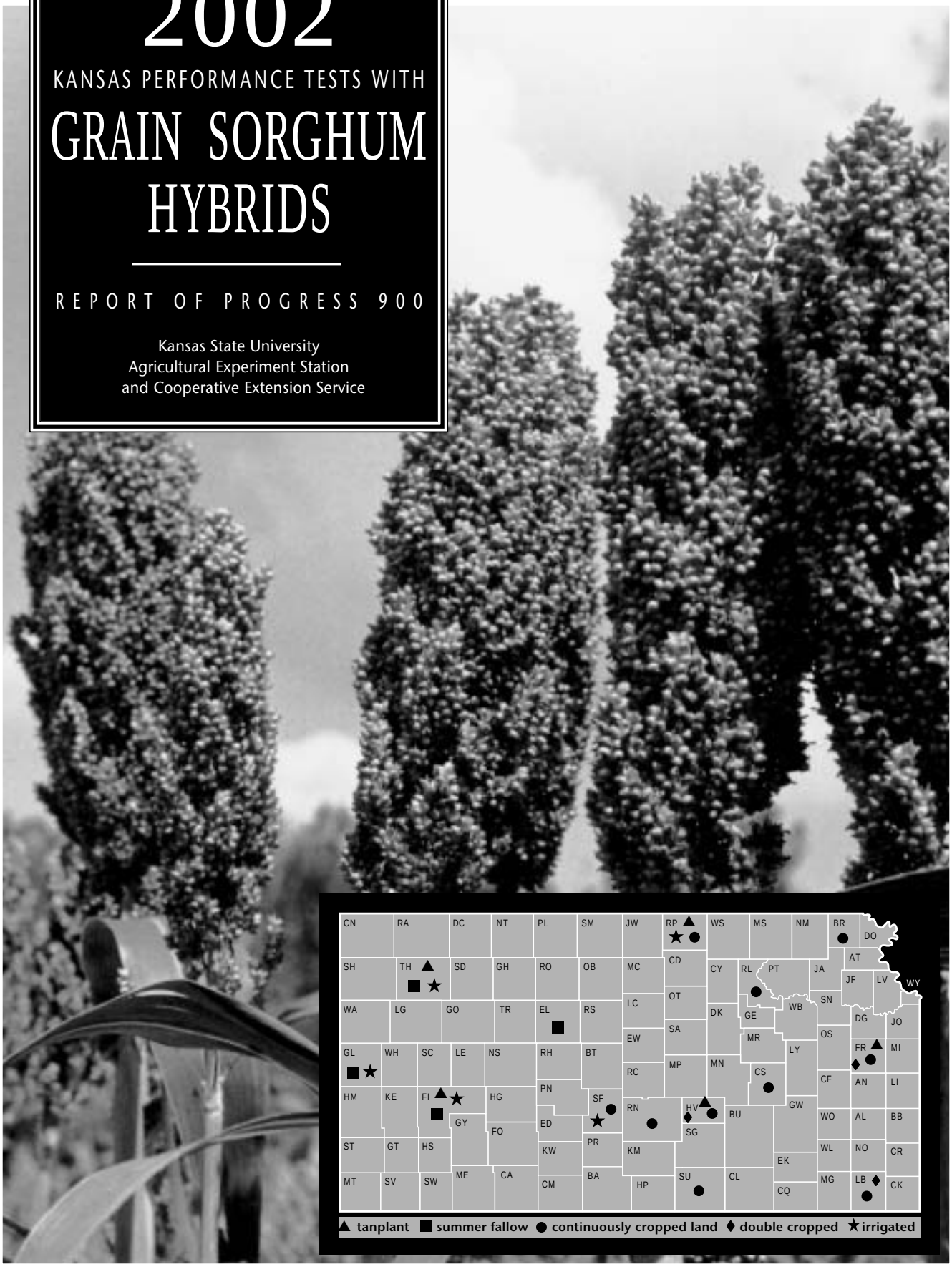
2002

KANSAS PERFORMANCE TESTS WITH

GRAIN SORGHUM HYBRIDS

REPORT OF PROGRESS 900

Kansas State University
Agricultural Experiment Station
and Cooperative Extension Service



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2002 GRAIN SORGHUM CROP REVIEW

Statewide Growing Conditions

Weather during the growing season was characterized by extremes. The season started out with cool, wet weather in the eastern part of the state, followed by a prolonged drought over nearly the entire state, and ended with rain in many areas as harvest approached.

Drought conditions prevailed during much of the season, especially in central and western Kansas (Figure 1). The moisture situation had improved temporarily in May and early June during sorghum planting, but western Kansas received little of that precipitation. Planting lagged behind last year, but was close to the 5-year average. From mid-June until the end of September, topsoil moisture was short or very short on over 60% of the crop acreage. During much of that time, maximum temperatures were at or above 100º F. These drought and temperature stresses coincided with the critical heading, pollination, and grain fill stages of crop development. Drought-stressed fields often delayed heading. Statewide heading and maturation were several days later than in recent years. Harvest started slowly and fell farther behind as rains kept combines out of the fields.

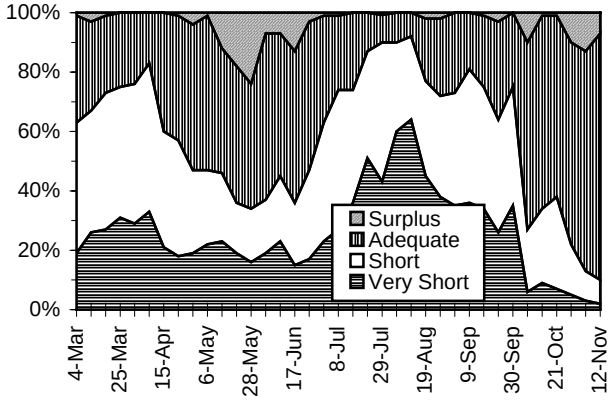


Figure 1. Statewide status of topsoil moisture.

Moisture and temperature extremes significantly influenced the sorghum crop. Close to 90% of the crop started out in good or fair condition (Figure 2). The crop began to deteriorate in early July. From late July until harvest, more than half the crop was classified as poor or very poor. (Crop-Weather reports, Kansas Ag. Statistics, Topeka)

Diseases

Frequent rains during the planting season resulted in an increased incidence of seedling blight problems in 2002. Many samples of both Pythium and Fusarium seedling blight were received in the Plant Disease Diagnostic Laboratory. The hot, dry weather throughout the rest of the growing season limited the incidence and severity of many of the common sorghum diseases such as sooty stripe, northern corn leaf blight and rust. The most common problems in sorghum were weather related. The hot, dry

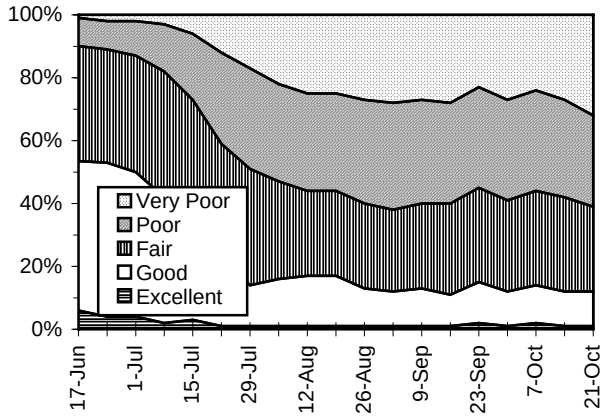


Figure 2. Condition of 2002 Kansas sorghum crop.

soils that were present throughout the summer interfered with normal brace root development on many hybrids resulting in severe lodging in some fields. The dry weather also delayed crop development causing many fields, particularly in western Kansas, to be flowering in late August and into September. As a result of the delayed flowering and the cooler nighttime temperatures, a higher than normal incidence of ergot was present in the state. Reports of ergot were received from Riley County all the way out to Morton County in far southwestern Kansas. This is the most widespread outbreak of ergot since the disease was introduced into the state in 1997. As would be expected in a high stress summer like 2002, incidence and severity of stalk rot was also above normal. (Doug Jardine, Kansas State University Department of Plant Pathology)

Insects

Dry weather appeared to limit insect populations and resulting damage to the sorghum crop. Few reports of insects causing seedling damage (cutworm, wire worm) were received. Billbugs damaged a few fields soon after emergence. Chinch bugs appeared poised to cause serious damage in early spring. However, May rainfall and cooler temperatures in the areas most susceptible to this pest lessened its impact. Grasshoppers seriously damaged some fields in central and western Kansas. Some fields in south-central Kansas appeared to sustain increased incidence of stalk rot diseases that entered via wounds caused by the sugarcane rootstalk weevil. This insect has been present at low levels for many years, but seldom causes enough damage to be important. Greenbug populations did not appear to explode and cause significant trouble in most areas. Corn earworm, fall army worm, and sorghum webworm were all found attacking sorghum heads in late July and August. (Kansas Insect Newsletter, Extension Entomology, Kansas State University; Kansas Cooperative Economic Insect Survey Reports, Kansas Department of Agriculture; and Southwest Kansas Entomology Update, Southwest Research-Extension Center)

Harvest Statistics

The November 12 Crops Report predicted a 143 million bushel crop, down 39% from last year (Figure 3). In 2002, 3.1 million acres were harvested, down 17% from last year. The predicted average yield of 46 bushels per acre is 16 bushels below the final estimate for 2001. These are the lowest production and yield estimates in the past 13 years. (Kansas Agricultural Statistics)

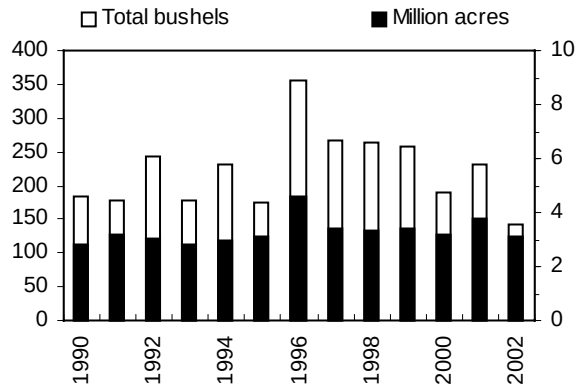


Figure 3. Historical Kansas grain sorghum production.

2002 PERFORMANCE TESTS

Objectives and Procedures

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

Double-crop performance tests target hybrids for cropping systems that involve planting sorghum after harvest of the current-year wheat crop. These systems provide opportunities for additional production from fields that might otherwise lie unused until the fall or following spring.

A summary of growing-season weather data is given in individual test discussions. These data are from the nearest weather-reporting station and often are supplemented with information from the test site. Precipitation graphs include cumulative lines for 2002 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. General trends in precipitation and temperature relative to normal are readily observed in the graphs. A table with monthly totals and averages for the growing season also is included.

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

Explanatory information is given preceding data summaries for each test. Tables 2-28 contain results from the individual performance tests. Hybrids are listed in order of increasing days to half bloom and increasing grain moisture for the current year, so hybrids of similar maturity appear together.

Figures 4-8 graphically summarize yield and maturity information over the past 3 years for each region. In these figures, hybrid performance is standardized using the average of two check hybrids present in every test. 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 each bar indicate if a hybrid was significantly greater (+) or lower (-) than the average of the check hybrids. As with individual test results, small differences should not be overemphasized. Relative ranking and large differences are better indicators of performance.

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

Three or four plots (replications) of each hybrid were grown 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. Tests were harvested with specialized plot combines equipped with automatic weighing and sampling devices.

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

The percentage of lodged stalks is reported when appropriate. Both broken stalks and stalks leaning more than 45 degrees from vertical were considered lodged, although most were harvestable with modern machinery. Severely lodged stalks or dropped heads that could not be picked up by normal harvest procedures were not included in yield. Because harvest often is delayed until latest maturing entries are ripe, early and mid-season hybrids

could lodge simply because they must wait well past their optimum harvest date.

Relative maturity is measured in terms of both number of days from planting to half bloom and grain moisture at harvest. 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.

Small differences in yield or other characteristics should not be overemphasized. Least significant differences (LSDs) are shown at the bottom of each table. Unless two entries differ by at least the LSD shown, little confidence can be placed in one being superior to the other. The coefficient of variability (CV) can be used to estimate the degree of confidence one can have in published data from replicated tests. In this testing program, CVs below 10% generally indicate reliable, uniform data, whereas CVs 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 CVs over 15% still may be useful, especially for tests with low yields.

Iron Chlorosis and Sooty Stripe Screening

All entries were screened for susceptibility to iron chlorosis at Colby and Tribune. Each hybrid was visually rated at the seedling stage for plant color and vigor.

All entries were planted with the intent of screening for sooty strip at a location with a history of sooty stripe infections. The hot, dry conditions prevented development of the disease so no ratings are available for this year.

Table 1. Companies entering hybrids in the 2002 Kansas Grain Sorghum Performance Tests.

Monsanto Seed (Asgrow/DeKalb)
St. Louis, MO
800-833-5252
farmsource.com

CroPlan Genetics
Arden Hills, MN
800-851-8110
croplangenetics.com

DeLange Seed
Girard, KS
620-724-6223

UAP-Pueblo (Dyna-Gro)
Garden City, KS
316-275-6127
uap.com

Frontier Hybrids
Abernathy, TX
806-298-2595
frontierhybrid.com

Garst/AgriPro Seed Co
Slater, IA
800-831-6630
garstseed.com

Crosbyton Seed (Golden World)
Crosbyton, TX
806-675-2308
crosbytonseed.com

Hoegemeyer Hybrids
Hooper, NE
402-654-3399
hoegemeyer.com

Kaystar Seed
Huron, SD
605-352-5750
kaystarseed.com

Midland Genetics Group
Ottawa, KS
800-819-SEED
midland@kanza.net

Midwest Seed Genetics
Carroll, IA
800-369-8218
midwestseed.com

Mycogen Seeds
Indianapolis, IN
317-337-7557
mycogen.com

NC+ Hybrids
Lincoln, NE
402-467-2517
nc-plus.com

Sorghum Partners, Inc.
New Deal, TX
806-746-5566
sorghum-partners.com

Pioneer, A DuPont Company
Lakewood, CO
303-716-3960
pioneer.com

Seed Resource
Tulia, TX
806-995-3882
seedresource.com

Triumph Seed Co Inc
Ralls, TX
800-530-4789
triumphseed.com

Valley Premium
Wichita, KS
316-942-2278

Willcross Seed
St. Paul, KS
620-449-8500
willcross.com

NORTHEAST KANSAS GRAIN SORGHUM TEST ON SILTY CLAY LOAM SOIL

Cornbelt Experiment Field, Powhattan; Larry Maddux, agronomist; Charles Clark and William Riley, technicians

Grundy silty clay loam; Soybean in 2001

110 - 0 - 0 lb/a N, P, K

Planted on 5/22/02; Harvested on 9/17/02

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

The sorghum fared much better than corn at this location. No significant diseases affected the test. Blooming was late enough to take advantage of late July and early August rains.

	Precipitation		Average Temp.		GDU	
Month	2002	Norm.	2002	Norm.	2002	Norm.
Nov.-Mar	4.3	7.0	38	34	22	13
April	2.5	3.1	56	55	637	618
May	5.8	4.2	62	65	846	951
June	3.7	5.4	76	73	1235	1184
July	1.2	4.1	79	78	1358	1370
August	1.5	4.2	76	76	1278	1305
Sept.	1.0	4.7	70	68	1053	1011
Oct.	4.4	3.0	49	56	434	692
Totals:	24.4	35.6	55	53	6,862	7,144

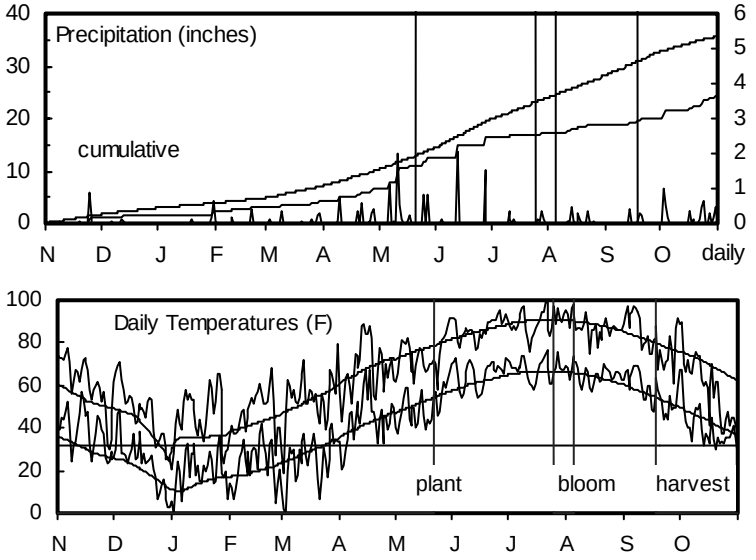


Table 2. Powhattan Grain Sorghum Performance Test, 2000-2002.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
BRAND	NAME	2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
MATURITY CHECK	TX3042xTX2737	80	127	113	103	107	88	97	96	69	13	64	14	59	46	1	95	1.0
NO GAUCHO*	TX3042xTX2737	83	110	115	96	102	91	84	97	69	13	64	14	58	48	0	99	1.0
PIONEER	8500	95	144	117	119	119	104	111	100	70	14	64	14	60	42	1	121	1.0
CROPLAN GEN.	414	87	--	--	--	--	96	--	--	--	--	66	15	61	36	0	112	0.9
DEKALB	DKS42-20	99	--	--	--	--	109	--	--	--	--	66	15	59	41	0	115	0.9
SORG. PARTNERS	KS 585	90	129	--	109	--	98	99	--	70	14	66	15	61	37	0	116	1.0
MATURITY CHECK	OK11xTX2741	84	101	100	93	95	92	78	85	72	13	67	15	59	38	0	82	1.1
ASGROW	A459	69	138	129	104	112	76	106	109	73	14	68	16	59	45	1	100	0.9
NC+	7B47	91	137	121	114	116	100	105	103	73	14	68	16	60	36	1	117	0.9
MYCOGEN	775Y	87	--	--	--	--	96	--	--	--	--	69	16	60	38	0	104	0.9
PIONEER	84Y00	109	152	--	131	--	120	117	--	74	14	69	16	60	47	1	108	1.0
SORG. PARTNERS	K73-J6	94	137	--	116	--	104	105	--	74	15	69	18	57	42	0	110	1.0
MYCOGEN	737	100	132	133	116	122	110	101	113	74	13	70	15	58	37	0	104	1.1
DEKALB	DKS44-41	76	--	--	--	--	84	--	--	--	--	70	16	59	44	0	81	1.0
GARST	5382	93	--	--	--	--	102	--	--	--	--	70	17	59	40	0	96	1.1
PIONEER	84G62	112	159	134	135	135	123	122	114	74	16	70	18	59	46	1	117	0.9
MATURITY CHECK	TX2752xTX430	99	147	122	123	123	108	113	103	75	16	70	19	57	43	0	90	1.0
MONSANTO	X128	103	--	--	--	--	113	--	--	--	--	70	20	58	45	1	117	0.9
NC+	7W51	95	155	--	125	--	104	119	--	76	15	71	18	58	39	0	101	1.0
ASGROW	A571	95	150	129	122	125	104	115	109	76	16	71	19	58	41	0	105	0.9
DEKALB	DKS54-00	101	156	126	129	128	111	120	107	75	17	71	20	55	51	1	98	0.9
MONSANTO	X129	96	--	--	--	--	106	--	--	--	--	71	20	58	50	0	115	0.9
DEKALB	DK-53	98	121	122	109	113	107	93	103	76	18	71	22	58	45	0	105	0.9
NO GAUCHO*	TX2752xTX430	86	132	122	109	113	95	102	103	77	18	73	22	57	44	0	79	1.2
SORG. PARTNERS	EXP 828	70	--	--	--	--	77	--	--	--	--	74	20	58	42	1	99	0.8
GARST	N0479	76	--	--	--	--	84	--	--	--	--	74	21	58	42	0	114	0.9
	AVERAGES	91	130	118	111	113	91	130	118	74	15	69	17	59	42	0	104	1.0
	CV(%)	6	6	9	--	--	6	6	9	--	--	2	9	2	9	342	13	15.2
	LSD(0.05)**	8	11	12	--	--	9	8	10	--	--	2	2	1	5	NS	19	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.

NORTHEAST KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL

Agronomy North Farm, Manhattan; Kraig Roozeboom, agronomist; Karl Mannschreck, superintendent

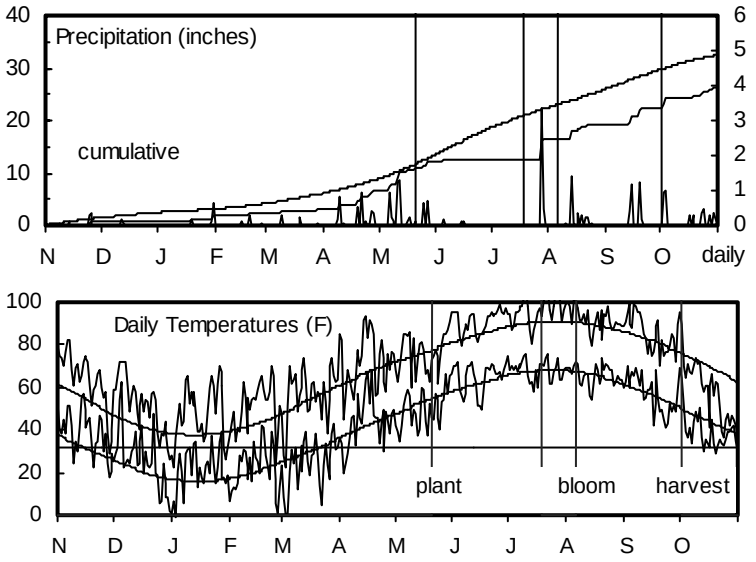
Reading silt loam; Soybean in 2001

135 - 50 - 0 lb/a N, P, K

Planted on 5/21/02; Harvested on 9/30/02

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

Dry weather in June limited early growth. Chinch bugs were controlled with insecticide 3 times in June. Continued dry weather in July and August delayed heading in some plots. A light level of sorghum ergot was noted in September. Yields were quite good considering the rainfall distribution.



Month	Precipitation 2002	Precipitation Norm.	Average Temp. 2002	Average Temp. Norm.	GDU 2002	GDU Norm.
Nov.-Mar	3.0	6.0	40	35	13	14
April	3.5	2.7	58	54	705	574
May	5.7	4.6	63	65	866	919
June	0.4	5.1	78	73	1288	1155
July	3.8	3.9	82	79	1469	1361
August	2.7	3.5	79	77	1363	1309
Sept.	3.0	3.8	71	69	1093	1017
Oct.	4.1	2.8	49	57	426	679
Totals:	26.4	32.4	57	54	7,223	7,025

Table 3. Manhattan Grain Sorghum Performance Test, 2000-2002.

BRAND	NAME	ACRE YIELD, BUSHELS 2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	YIELD AS % OF TEST AVERAGE 2002	2001	2000	2001-2002 Days to Blm	2001-2002 Grain Moist. %	2002 Days to Blm	2002 Grain Moist. %	2002 Test Wt. lb/bu	2002 Plnt Ht. in.	2002 Ldg %	2002 Final Stand %	2002 Hds per Plnt
CROPLAN GEN.	414	82	--	--	--	--	96	--	--	--	--	58	13	57	39	8	121	0.9
MATURITY CHECK	TX3042xTX2737	73	126	133	100	111	85	113	96	63	16	58	14	56	43	36	115	0.9
NO GAUCHO*	TX3042xTX2737	74	122	133	98	110	86	109	96	63	14	58	14	57	44	29	112	1.0
SORG. PARTNERS	KS 585	72	119	--	96	--	84	106	--	63	13	58	14	58	38	1	127	1.0
MATURITY CHECK	OK11xTX2741	75	88	120	81	94	88	78	87	65	12	60	12	57	38	1	79	1.0
DEKALB	DKS42-20	92	--	--	--	--	107	--	--	--	--	61	13	58	42	3	124	1.0
MIDLAND	M-4664	73	--	--	--	--	85	--	--	--	--	61	13	57	37	1	85	0.9
MYCOGEN	737	90	114	145	102	116	105	102	105	66	12	61	13	57	37	0	120	0.9
PIONEER	8505	85	--	132	--	--	98	--	95	--	--	61	15	59	38	3	118	1.0
NC+	7Y57K	88	--	--	--	--	102	--	--	--	--	62	12	57	38	1	110	0.9
GARST	5440	85	123	145	104	118	99	109	105	68	13	62	13	58	40	2	123	0.9
GARST	5515	91	109	134	100	111	106	97	97	66	13	62	13	58	38	1	119	0.9
NC+	7W51	78	112	--	95	--	91	100	--	69	12	62	13	57	40	0	114	0.9
MIDLAND	M-4665	82	--	--	--	--	95	--	--	--	--	62	14	58	42	1	121	0.9
TRIUMPH	TR460	81	--	--	--	--	94	--	--	--	--	63	13	59	40	1	115	1.0
MYCOGEN	1506	86	132	144	109	121	100	117	104	68	15	63	15	56	45	10	118	0.9
GARST	5750	82	--	--	--	--	95	--	--	--	--	64	12	57	39	0	126	0.9
MATURITY CHECK	TX2752xTX430	85	131	153	108	123	99	117	110	70	13	64	13	57	42	8	106	0.9
PIONEER	84Y00	97	129	--	113	--	113	115	--	69	13	64	13	58	43	14	116	0.9
FRONTIER	F-700E	86	124	--	105	--	100	110	--	69	14	65	13	57	42	6	113	0.9

(continued)

Table 3. Manhattan Grain Sorghum Performance Test, 2000-2002.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
		2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
SORG. PARTNERS	K73-J6	80	131	--	105	--	92	117	--	69	12	65	13	56	42	2	116	1.0
NO GAUCHO*	TX2752xTX430	87	119	147	103	118	101	106	106	71	13	66	14	57	42	1	102	0.9
PIONEER	84G62	108	135	154	121	132	125	120	112	70	14	66	14	60	38	1	115	0.9
ASGROW	A459	80	99	150	90	110	94	88	108	70	14	66	15	57	41	2	104	0.9
DEKALB	DKS44-41	83	--	--	--	--	97	--	--	--	--	67	13	58	39	0	101	0.9
ASGROW	A571	85	121	148	103	118	99	108	107	71	13	67	14	57	40	1	102	1.0
MONSANTO	X128	92	--	--	--	--	107	--	--	--	--	67	14	60	40	1	120	0.9
DEKALB	DK-53	96	121	146	109	121	112	108	106	73	15	68	16	60	43	5	103	0.9
MONSANTO	X129	102	--	--	--	--	119	--	--	--	--	70	15	59	44	3	120	0.9
DEKALB	DKS54-00	106	124	150	115	127	124	111	109	74	15	71	16	59	45	0	117	0.8
MIDLAND	M-4818	89	108	--	98	--	103	96	--	73	16	71	16	59	50	0	129	0.8
TRIUMPH	TR 481	89	--	--	--	--	104	--	--	--	--	72	16	59	50	4	117	0.9
SORG. PARTNERS	EXP 828	82	--	--	--	--	96	--	--	--	--	77	16	58	41	1	111	0.8
	AVERAGES	86	112	138	99	112	86	112	138	69	14	64	14	58	41	4	113	0.9
	CV(%)	9	7	5	--	--	9	7	5	--	--	3	11	2	5	178	8	8.9
	LSD(0.05)**	11	10	8	--	--	13	9	6	--	--	3	2	2	3	11	12	0.1

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

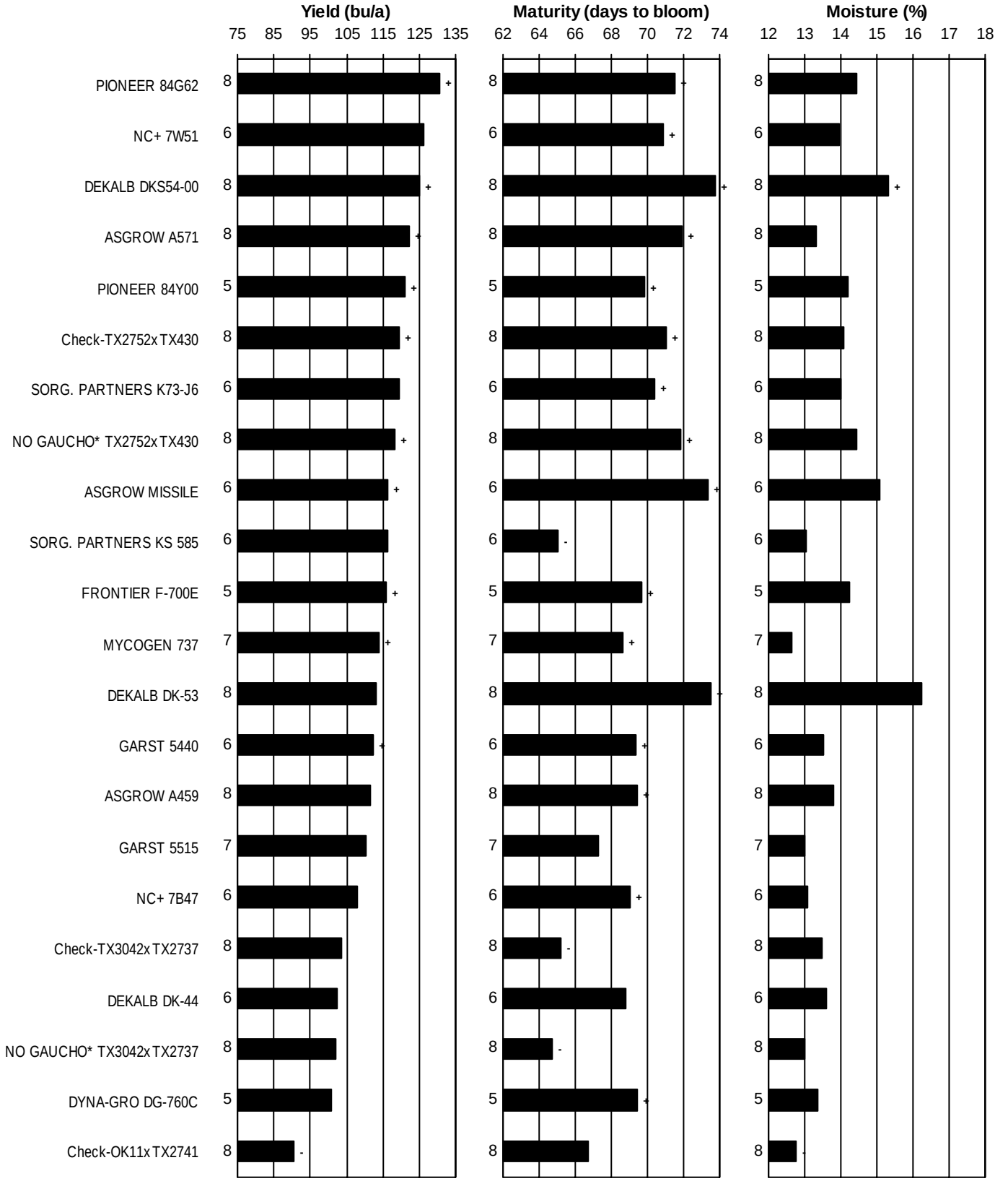
** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

Table 4. NORTHEAST Kansas grain sorghum hybrid yield summary (% of test average), 2002.

BRAND/NAME	BRD[1]	RLD	RPD	AVG.
ASGROW				
A459	76	94	--	85
A571	104	99	--	102
CROPLAN GEN.				
414	96	96	--	96
DEKALB				
DK-53	107	112	--	110
DKS42-20	109	107	--	108
DKS44-41	84	97	--	90
DKS54-00	111	124	--	117
FRONTIER				
F-700E	--	100	--	--
GARST				
5382	102	--	--	--
5440	--	99	--	--
5515	--	106	--	--
5750	--	95	--	--
N0479	84	--	--	--
MIDLAND				
M-4664	--	85	--	--
M-4665	--	95	--	--
M-4818	--	103	--	--
MONSANTO				
X128	113	107	--	110
X129	106	119	--	112
MYCOGEN				
1506	--	100	--	--
737	110	105	--	107
775Y	96	--	--	--
NC+				
7B47	100	--	--	--
7W51	104	91	--	98
7Y57K	--	102	--	--
PIONEER				
84G62	123	125	--	124
84Y00	120	113	--	116
8500	104	--	--	--
8505	--	98	--	--
SORG. PARTNERS				
EXP 828	77	96	--	86
K73-J6	104	92	--	98
KS 585	98	84	--	91
TRIUMPH				
TR 481	--	104	--	--
TR460	--	94	--	--
MATURITY CHECK				
OK11xTX2741	92	88	--	90
TX2752xTX430	108	99	--	104
TX3042xTX2737	88	85	--	86
NO GAUCHO*				
TX2752xTX430	95	101	--	98
TX3042xTX2737	91	86	--	88
AVERAGES	91	86	--	89
CV(%)	6	9	--	--
LSD(0.05)**	9	13	--	--

[1] BRD = Brown Co., Powhattan RLD = Riley Co., Manhattan RPD = Republic Co., Belleville (lost to drought)

Figure 4. NORTHEAST Kansas sorghum hybrid standardized performance summary, 2000-2002.



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

East Central Kansas Experiment Field, Ottawa; Keith Janssen, agronomist; Jim Kimball, technician

Woodson silt loam; Soybean in 2001

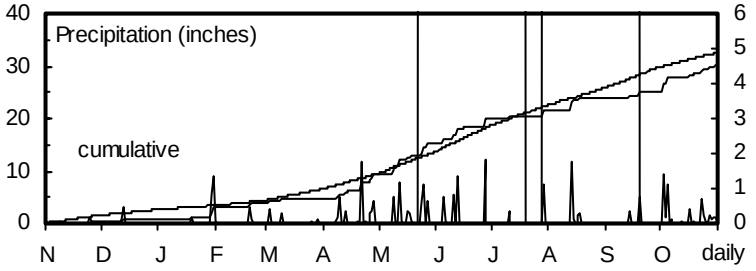
80 - 0 - 0 lb/a N, P, K

Planted on 5/23/02; Harvested on 9/18/02

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

Good planting conditions resulted in excellent stands for all hybrids. Dry weather during the rest of the season likely reduced yields. Stress-induced lodging was significant for several hybrids.

	Precipitation		Average Temp.		GDU	
Month	2002	Norm.	2002	Norm.	2002	Norm.
Nov.-Mar	4.7	6.5	42	37	14	16
April	4.6	2.9	59	57	722	675
May	6.0	4.2	64	66	895	992
June	4.9	4.9	77	75	1248	1222
July	1.5	4.0	81	80	1426	1431
August	2.5	3.2	79	79	1362	1386
Sept.	1.1	4.1	73	70	1139	1080
Oct.	5.0	2.7	50	59	480	773
Totals:	30.2	32.5	58	56	7,286	7,574



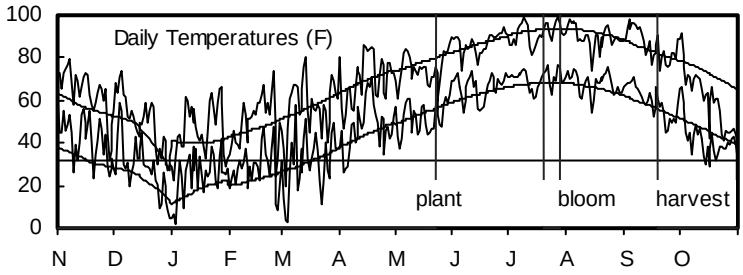


Table 5. Ottawa Grain Sorghum Performance Test, 2000-2002.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
BRAND	NAME	2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
MATURITY CHECK	TX3042xTX2737	43	68	123	56	78	71	72	103	60	14	57	13	55	44	90	107	0.9
NO GAUCHO*	TX3042xTX2737	44	71	109	57	74	72	75	91	60	12	57	13	55	43	90	108	0.9
HOEGEMEYER	6055	58	112	124	85	98	95	118	104	62	11	58	10	52	40	40	105	1.0
CROPLAN GEN.	414	56	--	--	--	--	92	--	--	--	--	58	13	57	37	9	116	0.9
SORG. PARTNERS	KS 585	56	102	131	79	96	91	108	109	61	13	58	13	58	39	9	120	1.0
PIONEER	8500	62	104	124	83	97	102	109	104	62	14	58	14	57	41	49	125	0.9
DEKALB	DKS42-20	51	--	--	--	--	84	--	--	--	--	59	11	53	43	29	113	1.0
NC+	6B50	58	--	118	--	--	96	--	99	--	--	59	12	51	41	36	124	0.9
MIDLAND	M-4665	56	--	--	--	--	92	--	--	--	--	59	13	56	42	80	114	0.9
MATURITY CHECK	OK11xTX2741	56	77	107	67	80	92	81	90	63	13	61	12	56	39	9	86	1.0
MIDLAND	M-4614	61	113	--	87	--	100	119	--	64	13	61	12	56	38	1	118	1.0
MIDLAND	M-4758Y	63	135	--	99	--	104	142	--	66	13	61	12	57	45	3	107	1.0
TRIUMPH	TR460	53	--	--	--	--	86	--	--	--	--	62	12	53	42	34	91	1.0
HOEGEMEYER	6870	75	110	--	93	--	123	116	--	65	12	62	13	57	41	4	111	0.9
NC+	7B47	71	107	123	89	101	117	113	103	65	12	62	13	58	38	1	123	0.9
DEKALB	DKS44-41	60	--	--	--	--	98	--	--	--	--	62	14	60	43	4	84	1.0
PIONEER	84G62	63	109	140	86	104	103	114	117	66	14	62	16	58	43	38	115	0.9
DEKALB	DKS54-00	68	89	124	79	94	112	94	104	66	13	63	12	56	45	20	105	0.9
SORG. PARTNERS	K73-J6	64	--	113	--	--	106	--	95	--	--	63	12	55	44	2	104	0.9
DELANGE	DSA 133	63	102	115	83	94	104	108	97	66	13	63	13	57	41	9	81	1.0
MYCOGEN	697	52	111	126	82	96	86	117	105	65	14	63	13	56	40	4	96	0.9
MYCOGEN	737	65	111	125	88	100	106	117	105	66	12	63	13	56	39	0	117	0.9

(continued)

Table 5. Ottawa Grain Sorghum Performance Test, 2000-2002.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
		2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
CROPLAN GEN.	514	66	--	--	--	--	108	--	--	--	--	63	14	58	45	54	114	0.9
DELANGE	DSA 147	61	88	120	74	90	100	92	101	66	14	63	14	58	45	48	110	0.9
GARST	5750	69	--	--	--	--	113	--	--	--	--	63	14	57	42	12	113	0.9
MIDLAND	M-4818	68	126	--	97	--	111	132	--	66	14	63	14	60	46	7	116	0.9
MONSANTO	X128	75	--	--	--	--	123	--	--	--	--	63	14	60	45	4	114	0.9
PIONEER	84Y00	63	97	--	80	--	104	102	--	67	13	63	14	58	44	58	96	1.0
NC+	7W51	70	--	--	--	--	114	--	--	--	--	64	12	58	41	10	106	0.9
ASGROW	A571	65	127	124	96	105	106	133	104	67	14	64	13	57	42	6	97	0.9
K-STATE	TX399x00-7645	67	--	--	--	--	110	--	--	--	--	64	13	57	39	1	104	1.0
MATURITY CHECK	TX2752xTX430	61	68	129	65	86	101	71	108	67	13	64	13	58	41	21	69	1.1
NO GAUCHO*	TX2752xTX430	54	67	124	60	82	88	70	104	67	13	64	13	58	41	13	72	1.1
DEKALB	DK-53	61	110	136	86	103	101	116	114	68	14	64	14	60	42	6	94	0.9
MONSANTO	X129	59	--	--	--	--	96	--	--	--	--	64	14	60	44	1	117	0.9
TRIUMPH	TR 481	66	138	118	102	108	109	145	99	67	14	64	14	59	42	6	114	0.9
GARST	5382	62	--	--	--	--	102	--	--	--	--	65	14	58	41	2	116	0.9
GARST	N0479	60	--	--	--	--	98	--	--	--	--	66	13	58	41	15	120	0.9
MIDLAND	MX 994	64	--	--	--	--	105	--	--	--	--	66	13	60	39	0	116	0.9
SORG. PARTNERS	EXP 828	51	--	--	--	--	83	--	--	--	--	66	14	58	43	35	91	1.0
	AVERAGES	61	95	119	78	92	61	95	119	65	13	62	13	57	42	21	106	0.9
	CV(%)	11	12	7	--	--	11	12	7	--	--	1	8	2	4	70	6	7.2
	LSD(0.05)**	9	16	9	--	--	15	17	8	--	--	1	1	1	2	21	9	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 SILTY CLAY SOIL

ImMasche Research Center, Strong City; Kraig Roozeboom, agronomist; Gene Eidman, cooperator

Osage silty clay; Corn in 2001

110 - 30 - 0 lb/a N, P, K

Planted on 6/3/02; Harvested on 10/1/02

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

Spring rains delayed planting. Rainfall was below normal for the rest of the summer. Heading was delayed and uneven due to moisture stress.

	Precipitation		Average Temp.		GDU	
Month	2002	Norm.	2002	Norm.	2002	Norm.
Nov.-Mar	2.4	6.0	40	35	16	14
April	3.8	2.7	58	54	677	574
May	6.7	4.6	62	65	845	919
June	3.5	5.1	75	73	1203	1155
July	0.7	3.9	81	79	1411	1361
August	3.0	3.5	79	77	1369	1309
Sept.	2.0	3.8	72	69	1116	1017
Oct.	7.7	2.8	51	57	511	679
Totals:	29.8	32.4	57	54	7,147	7,025

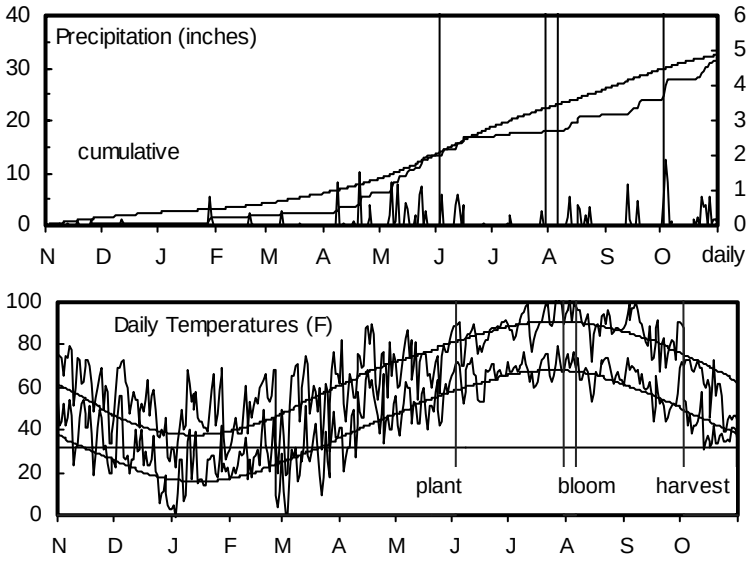


Table 6. Strong City Grain Sorghum Performance Test, 2000-2002.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
BRAND	NAME	2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
NO GAUCHO*	TX3042xTX2737	48	123	102	86	91	111	95	96	62	12	57	14	57	36	1	91	1.0
MATURITY CHECK	TX3042xTX2737	43	126	103	85	91	100	97	97	62	13	57	15	59	36	2	84	1.0
MATURITY CHECK	OK11xTX2741	34	103	98	69	78	79	79	91	63	12	58	13	59	36	1	67	1.0
CROPLAN GEN.	414	56	--	--	--	--	128	--	--	--	--	58	14	60	33	1	99	1.0
DEKALB	DKS42-20	55	--	--	--	--	126	--	--	--	--	59	13	60	35	1	98	1.0
NC+	6B50	52	127	109	90	96	121	98	102	63	12	59	13	58	36	2	106	0.9
PIONEER	8500	54	129	95	91	92	124	99	89	63	13	59	13	60	36	1	102	1.0
MYCOGEN	1506	45	127	107	86	93	103	98	100	65	12	60	12	58	38	8	96	1.0
CROPLAN GEN.	514	45	--	--	--	--	103	--	--	--	--	60	13	59	38	4	97	0.9
NC+	7B47	40	129	110	85	93	91	99	103	64	11	60	13	58	33	0	102	0.9
SORG. PARTNERS	K73-J6	33	--	--	--	--	75	--	--	--	--	60	13	58	38	7	100	1.0
PIONEER	84G62	49	151	125	100	108	113	116	117	65	13	60	14	60	40	13	105	0.8
DEKALB	DKS44-41	39	--	--	--	--	89	--	--	--	--	60	15	58	34	7	66	1.0
DELANGE	DSA 133	42	140	113	91	98	97	107	106	65	13	60	15	58	35	9	78	1.1
PIONEER	84Y00	45	148	--	96	--	103	114	--	65	13	60	15	59	37	7	92	0.9
SORG. PARTNERS	KS 585	50	133	--	92	--	116	102	--	64	13	60	15	61	32	4	98	1.0
DELANGE	DSA 147	42	146	110	94	99	96	112	103	64	14	60	16	59	35	4	103	1.0
DEKALB	DK-53	43	147	125	95	105	99	113	117	66	13	61	13	60	37	15	79	1.0
MONSANTO	X129	48	--	--	--	--	111	--	--	--	--	61	13	61	35	13	103	0.9
NO GAUCHO*	TX2752xTX430	43	135	104	89	94	99	104	98	66	12	61	13	57	36	2	82	0.9
ASGROW	A571	35	140	110	88	95	82	108	103	66	12	61	14	58	35	3	88	1.0
MATURITY CHECK	TX2752xTX430	43	142	111	92	99	99	109	104	65	13	61	14	58	35	1	76	1.0
MYCOGEN	3696	42	124	109	83	91	96	95	102	66	12	61	14	58	33	14	87	0.9
MONSANTO	X128	53	--	--	--	--	123	--	--	--	--	61	15	59	35	20	98	0.9
DEKALB	DKS54-00	38	152	124	95	105	88	116	116	66	13	62	15	57	41	4	94	0.9
GARST	5382	39	141	--	90	--	90	108	--	66	14	62	16	58	34	16	104	0.9
NC+	7W51	37	137	--	87	--	85	106	--	67	12	64	13	58	33	18	91	0.9
SORG. PARTNERS	EXP 828	22	--	--	--	--	51	--	--	--	--	64	16	53	39	11	83	1.0
	AVERAGES	43	130	107	87	93	43	130	107	64	13	60	14	59	36	7	92	1.0
	CV(%)	16	7	8	--	--	16	7	8	--	--	1	12	2	6	151	5	10.2
	LSD(0.05)**	10	12	10	--	--	23	9	9	--	--	1	2	1	3	14	7	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.

SOUTHEAST KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL

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

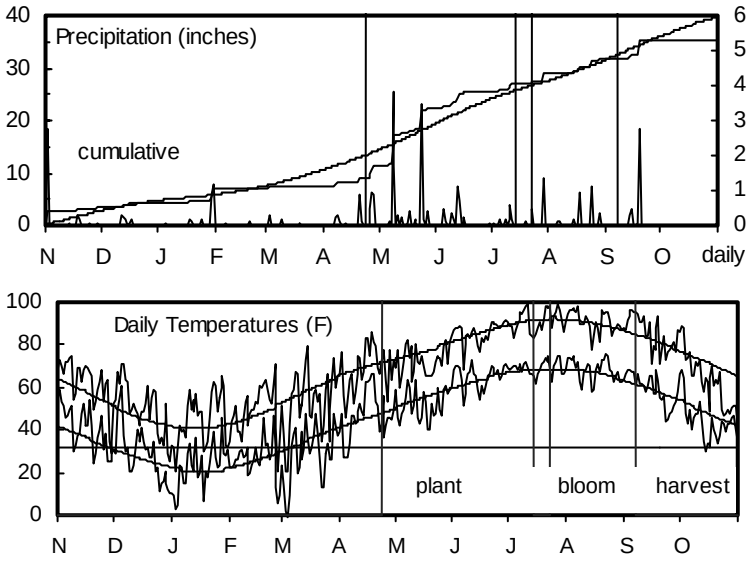
Parsons silt loam; Soybean in 2001

120 - 70 - 90 lb/a N, P, K

Planted on 4/24/02; Harvested on 9/6/02

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

Cold, wet conditions after planting likely inhibited germination and emergence. May and June had good moisture conditions resulting in good early growth. Hot, dry conditions persisted from July through harvest. Insecticide applied in early August to control head worm.



	Precipitation		Average Temp.		GDU	
Month	2002	Norm.	2002	Norm.	2002	Norm.
Nov.-Mar	7.5	10.5	41	40	16	18
April	3.9	3.7	58	58	687	677
May	10.9	5.0	62	66	847	961
June	3.2	4.7	75	75	1212	1185
July	3.3	3.5	80	80	1407	1387
August	2.8	3.9	80	78	1383	1340
Sept.	3.6	4.5	73	70	1126	1065
Oct.	0.0	3.8	53	60	44	760
Totals:	35.3	39.6	57	57	6,721	7,391

Table 7. Parsons Grain Sorghum Performance Test, 2000-2002.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
BRAND	NAME	2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
MATURITY CHECK	TX3042xTX2737	65	65	108	65	79	108	74	102	74	14	81	14	57	40	6	95	1.0
SORG. PARTNERS	KS 585	68	97	110	83	92	115	110	104	75	14	81	14	60	37	0	97	1.2
NC+	6B50	70	--	--	--	--	117	--	--	--	--	81	15	59	39	1	100	1.2
HOEGEMEYER	6055	67	92	114	79	91	112	104	108	75	14	82	14	59	40	2	96	1.1
MYCOGEN	737	62	92	116	77	90	103	104	110	77	14	82	14	59	36	2	97	1.1
CROPLAN GEN.	414	62	--	--	--	--	104	--	--	--	--	82	15	59	37	3	103	1.1
MATURITY CHECK	OK11xTX2741	54	65	89	60	69	91	74	84	75	14	82	15	59	37	4	73	1.2
NO GAUCHO*	TX3042xTX2737	63	61	104	62	76	107	69	98	74	14	82	15	57	39	5	93	1.1
HOEGEMEYER	6870	59	104	--	82	--	98	118	--	76	14	83	14	59	37	1	95	1.0
NC+	7B47	68	99	120	84	96	115	112	113	76	14	83	14	59	35	1	99	1.0
PIONEER	8500	62	92	111	77	88	104	105	105	76	14	83	14	58	36	1	107	1.1
WILLCROSS	WX 420	60	--	--	--	--	100	--	--	--	--	83	14	60	38	4	87	1.3
DEKALB	DKS42-20	68	--	--	--	--	114	--	--	--	--	83	15	59	38	3	97	1.1
MYCOGEN	697	61	84	116	73	87	103	95	109	77	14	83	15	58	37	2	93	1.0
GARST	5515	64	88	104	76	85	108	100	98	76	15	83	16	57	39	3	85	1.0
GARST	5750	75	--	--	--	--	126	--	--	--	--	84	14	59	37	1	94	1.0
PIONEER	84Y00	71	96	--	83	--	119	108	--	77	14	84	14	59	42	6	97	1.2
DEKALB	DKS44-41	55	--	--	--	--	92	--	--	--	--	84	15	59	41	1	73	1.1
DELANGE	DSA 133	56	96	107	76	86	95	109	101	77	14	85	14	58	34	0	83	1.0
NC+	7W51	75	114	--	95	--	125	130	--	78	14	85	14	59	38	0	100	1.1
CROPLAN GEN.	514	67	--	--	--	--	113	--	--	--	--	85	15	59	39	5	95	1.0

(continued)

Table 7. Parsons Grain Sorghum Performance Test, 2000-2002.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
		2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
DELANGE	DSA 147	59	83	119	71	87	99	94	113	78	14	85	15	58	39	10	97	0.9
MONSANTO	X128	64	--	--	--	--	108	--	--	--	--	85	15	59	41	4	95	1.1
MYCOGEN	1506	63	105	132	84	100	106	119	125	77	14	85	15	60	40	0	94	1.0
SORG. PARTNERS	K73-J6	61	97	108	79	89	103	109	102	79	14	86	15	59	38	1	96	1.1
TRIUMPH	TR 461	54	--	--	--	--	90	--	--	--	--	86	16	56	40	4	101	1.0
MATURITY CHECK	TX2752xTX430	63	90	106	76	86	105	101	100	80	14	87	14	59	38	1	77	1.1
DEKALB	DK-53	70	108	111	89	96	117	122	105	80	14	87	15	60	43	0	86	1.1
MIDLAND	M-4758Y	55	--	--	--	--	92	--	--	--	--	87	15	60	38	0	93	0.9
MIDLAND	M-4818	52	--	--	--	--	87	--	--	--	--	87	15	59	38	0	103	1.0
MONSANTO	X129	69	--	--	--	--	116	--	--	--	--	87	15	60	40	0	97	0.9
PIONEER	84G62	66	110	130	88	102	111	125	123	79	14	87	15	60	37	3	98	0.9
TRIUMPH	TR 481	48	100	104	74	84	81	114	99	80	14	87	15	59	41	0	93	1.0
ASGROW	A571	50	92	103	71	82	84	105	97	79	14	88	15	59	37	0	87	0.9
NO GAUCHO*	TX2752xTX430	51	93	99	72	81	86	105	93	82	15	88	16	58	38	2	69	1.2
DEKALB	DKS54-00	41	105	106	73	84	69	119	101	80	15	88	17	57	39	5	88	0.9
GARST	5382	45	--	--	--	--	75	--	--	--	--	89	15	59	35	0	93	0.8
WILLCROSS	WX 522	50	--	--	--	--	83	--	--	--	--	90	15	57	35	0	83	0.8
WILLCROSS	WX 544	40	--	--	--	--	68	--	--	--	--	90	15	59	37	0	95	0.8
SORG. PARTNERS	EXP 828	31	79	--	55	--	52	90	--	83	15	90	16	58	38	0	66	0.8
	AVERAGES	60	88	106	74	85	60	88	106	78	14	85	15	59	38	2	92	1.0
	CV(%)	13	9	8	--	--	13	9	8	--	--	2	5	3	8	172	7	15.3
	LSD(0.05)**	11	11	10	--	--	18	12	10	--	--	3	1	2	4	5	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.

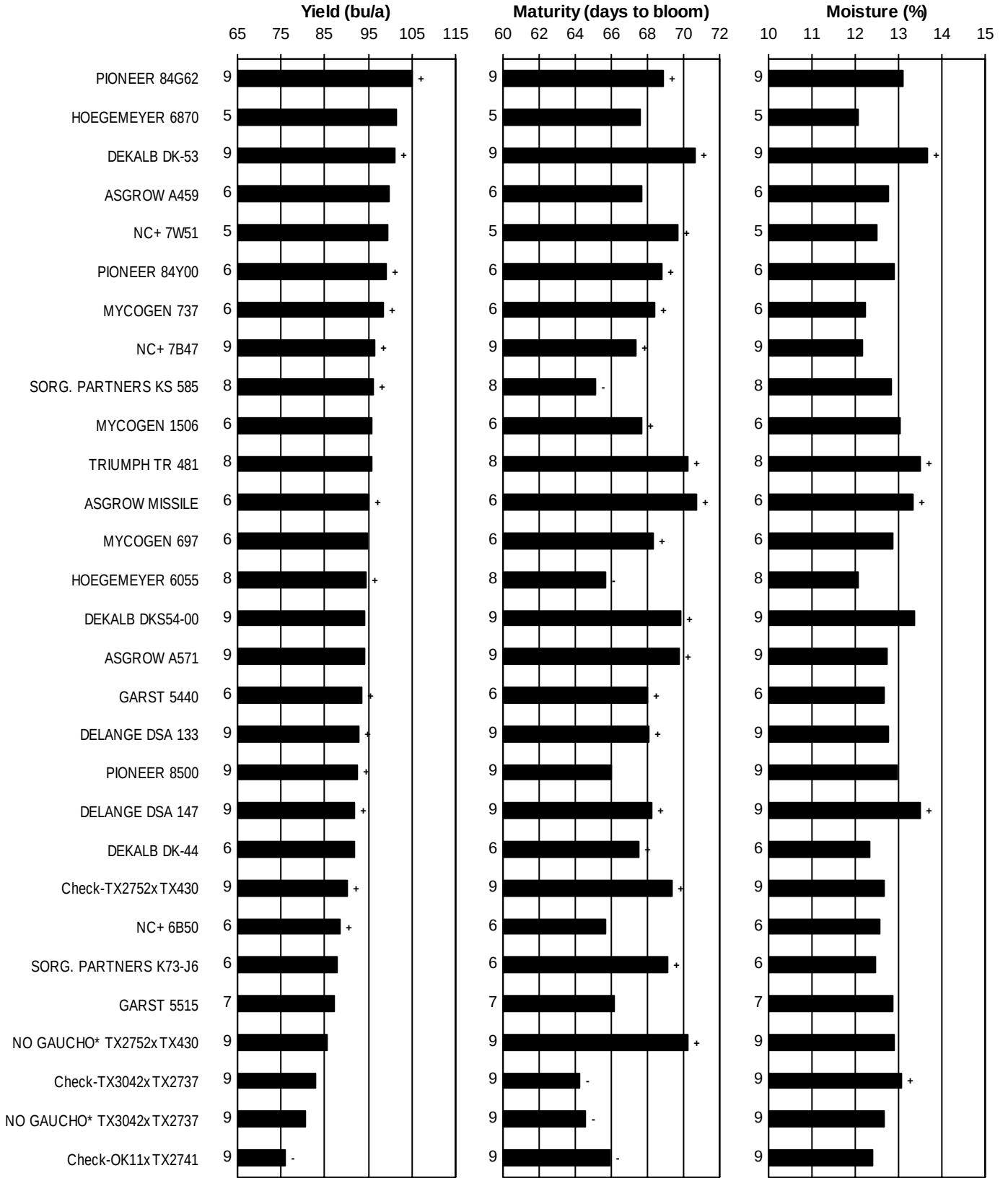
Table 8. SOUTHEAST Kansas grain sorghum hybrid yield summary (% of test average), 2002.

BRAND/NAME	FRD[1]	CHD	LBD	AVG.
ASGROW				
A571	106	82	84	90
CROPLAN GEN.				
414	92	128	104	108
514	108	103	113	108
DEKALB				
DK-53	101	99	117	105
DKS42-20	84	126	114	108
DKS44-41	98	89	92	93
DKS54-00	112	88	69	90
DELANGE				
DSA 133	104	97	95	98
DSA 147	100	96	99	98
GARST				
5382	102	90	75	89
5515	--	--	108	--
5750	113	--	126	--
N0479	98	--	--	--
HOEGEMEYER				
6055	95	--	112	--
6870	123	--	98	--
K-STATE				
TX399x00-7645	110	--	--	--
MIDLAND				
M-4614	100	--	--	--
M-4665	92	--	--	--
M-4758Y	104	--	92	--
M-4818	111	--	87	--
MX 994	105	--	--	--
MONSANTO				
X128	123	123	108	118
X129	96	111	116	108
MYCOGEN				
1506	--	103	106	--
3696	--	96	--	--
697	86	--	103	--
737	106	--	103	--

BRAND/NAME	FRD	CHD	LBD	AVG.
NC+				
6B50	96	121	117	111
7B47	117	91	115	108
7W51	114	85	125	108
PIONEER				
84G62	103	113	111	109
84Y00	104	103	119	109
8500	102	124	104	110
SORG. PARTNERS				
EXP 828	83	51	52	62
K73-J6	106	75	103	95
KS 585	91	116	115	107
TRIUMPH				
TR 461	--	--	90	--
TR 481	109	--	81	--
TR460	86	--	--	--
WILLCROSS				
WX 420	--	--	100	--
WX 522	--	--	83	--
WX 544	--	--	68	--
MATURITY CHECK				
OK11xTX2741	92	79	91	87
TX2752xTX430	101	99	105	102
TX3042xTX2737	71	100	108	93
NO GAUCHO*				
TX2752xTX430	88	99	86	91
TX3042xTX2737	72	111	107	96
AVERAGES	61	43	60	55
CV(%)	11	16	13	--
LSD(0.05)**	15	23	18	--

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

Figure 5. SOUTHEAST Kansas sorghum hybrid standardized performance summary, 2000-2002.



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

Harvey County Experiment Field, Hesston; Mark Claassen, agronomist; Lowell Stucky and Kevin Duerksen, technicians

Ladysmith silty clay loam; Soybean in 2001

90 - 37 - 0 lb/a N, P, K

Planted on 6/10/02; Harvested on 10/17/02

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

Crazy top downy mildew was evident after the above-normal June rains. July and August precipation was below normal. Insecticide controlled chinch bugs but they still caused some stand loss and yield reduction. Some hybrids had significant drought-induced stalk rots and resulting lodging.

	Precipitation		Average Temp.		GDU	
Month	2002	Norm.	2002	Norm.	2002	Norm.
Nov.-Mar	2.3	6.3	39	37	13	16
April	4.2	2.6	56	56	632	671
May	2.9	4.5	62	66	842	990
June	7.4	4.7	76	76	1241	1251
July	2.1	3.6	81	81	1421	1460
August	2.5	3.0	79	79	1372	1407
Sept.	1.8	3.7	72	71	1118	1098
Oct.	6.6	2.6	50	59	475	780
Totals:	29.8	30.9	56	56	7,112	7,673

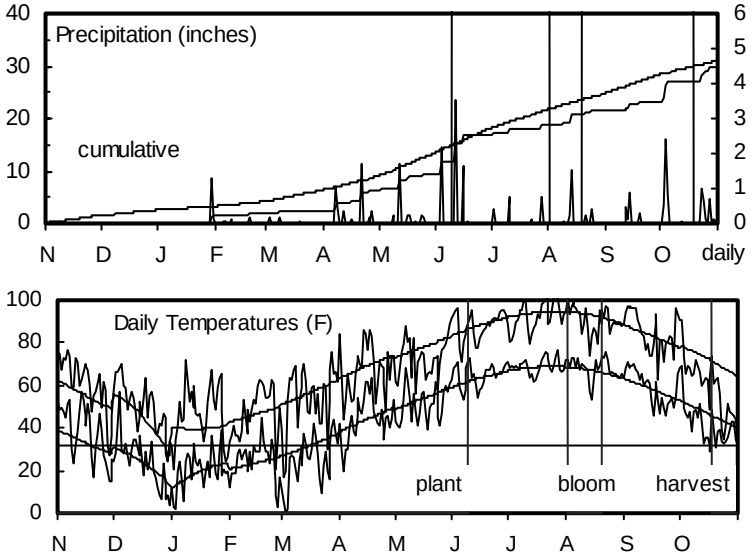


Table 9. Hesston Grain Sorghum Performance Test, 2000-2002.

BRAND	NAME	ACRE YIELD, BUSHELS 2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	YIELD AS % OF TEST AVERAGE 2002	2001	2000	2001-2002 Days to Blm	Grain Moist. %	2002 Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
DEKALB	DKS36-00	90	--	--	--	--	102	--	--	--	--	52	15	59	35	37	104	1.4
ASGROW	PULSAR	77	--	--	--	--	87	--	--	--	--	54	15	58	35	17	81	1.5
DYNA-GRO	DG-740C	77	--	--	--	--	87	--	--	--	--	54	15	59	38	21	97	1.1
HOEGEMEYER	6055	84	62	131	73	92	95	115	114	59	13	54	15	58	37	30	90	1.3
MATURITY CHECK	TX3042xTX2737	89	58	129	73	92	100	107	112	58	14	54	15	58	40	58	92	1.3
NC+	5B89	95	--	--	--	--	107	--	--	--	--	54	15	59	38	41	96	1.5
DEKALB	DKS42-20	102	--	--	--	--	115	--	--	--	--	55	15	59	40	20	107	1.3
NC+	6B50	102	61	122	82	95	116	114	107	60	13	55	15	59	39	13	103	1.1
NO GAUCHO*	TX3042xTX2737	71	57	118	64	82	80	105	103	59	14	55	15	58	40	63	88	1.2
PIONEER	8500	107	66	121	86	98	121	122	105	59	13	55	15	60	39	0	102	1.6
SORG. PARTNERS	KS 585	109	62	117	86	96	123	116	102	59	13	55	15	61	37	0	102	1.3
MATURITY CHECK	OK11xTX2741	55	43	101	49	66	63	80	88	60	14	55	16	58	36	51	70	1.3
NC+	6B70	96	55	117	75	89	108	102	102	62	14	56	15	60	36	0	89	1.6
MIDWEST SEED	O 256	117	65	123	91	101	132	120	107	62	13	57	14	60	45	0	103	1.3
DEKALB	DK-44	88	52	119	70	86	100	96	103	62	14	57	15	60	39	17	85	1.2
DEKALB	DKS44-41	77	--	--	--	--	87	--	--	--	--	57	15	59	41	13	91	1.1
DELANGE	DSA 115C	89	--	121	--	--	101	--	106	--	--	57	15	60	36	0	91	1.2
GARST	5440	96	61	129	78	95	108	113	112	63	14	57	15	60	38	27	101	1.2
GARST	5515	94	62	111	78	89	106	115	97	62	13	57	15	59	39	0	92	1.1
GARST	5750	100	66	--	83	--	113	122	--	58	13	57	15	59	40	0	100	1.2
SORG. PARTNERS	K73-J6	103	--	--	--	--	117	--	--	--	--	57	15	60	41	0	107	1.2

(continued)

Table 9. Hesston Grain Sorghum Performance Test, 2000-2002.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
		2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
TRIUMPH	TR 438	92	--	--	--	--	105	--	--	--	--	57	15	60	39	0	100	1.2
VALLEY PREMIUM	VP 53+	90	63	--	77	--	101	118	--	61	14	57	15	58	41	0	91	1.3
DELANGE	DSA 133	79	60	122	70	87	89	112	106	63	13	58	15	58	36	24	72	1.5
HOEGEMEYER	6870	95	58	--	76	--	107	108	--	63	14	58	15	59	36	0	89	1.2
PIONEER	84Y00	94	--	--	--	--	107	--	--	--	--	58	15	59	40	34	101	1.3
VALLEY PREMIUM	VP 70	80	49	106	65	78	91	91	92	64	14	58	15	59	39	0	91	1.2
MIDLAND	M-4665	95	--	--	--	--	107	--	--	--	--	58	16	59	38	6	91	1.4
CROPLAN GEN.	514	89	--	--	--	--	101	--	--	--	--	59	15	60	40	0	94	1.1
DYNA-GRO	DG-760C	80	--	100	--	--	91	--	87	--	--	59	15	58	39	0	81	1.3
GARST	N1354	98	--	--	--	--	111	--	--	--	--	59	15	59	36	0	85	1.8
K-STATE	TX399x00-7645	88	--	--	--	--	99	--	--	--	--	59	15	59	36	0	89	1.5
MATURITY CHECK	TX2752xTX430	79	49	122	64	83	89	91	106	64	14	59	15	58	37	8	86	1.2
MIDLAND	MX 212	99	--	--	--	--	112	--	--	--	--	59	15	59	42	14	93	1.2
MYCOGEN	1506	104	67	130	85	100	118	124	113	63	14	59	15	60	44	0	95	1.3
MYCOGEN	697	84	55	124	70	88	95	102	108	64	14	59	15	59	37	9	67	1.3
MONSANTO	X128	98	--	--	--	--	111	--	--	--	--	59	16	59	42	0	94	1.1
ASGROW	A459	70	57	109	64	79	79	106	95	64	14	60	15	58	43	12	92	1.1
ASGROW	A571	88	55	121	71	88	99	102	105	65	14	60	15	58	37	0	81	1.2
MONSANTO	X129	97	--	--	--	--	109	--	--	--	--	60	15	59	40	0	104	1.0
PIONEER	84G62	112	66	133	89	103	126	123	116	64	14	60	15	59	41	0	98	1.3
DELANGE	DSA 147	91	49	122	70	87	103	92	106	64	14	60	16	59	41	11	103	1.1
FRONTIER	F-700E	90	51	--	70	--	101	96	--	65	14	61	15	59	40	0	78	1.3
NO GAUCHO*	TX2752xTX430	72	54	111	63	79	82	101	97	65	13	61	15	58	36	0	80	1.3
VALLEY PREMIUM	VP 53	50	51	124	50	75	56	95	108	64	14	61	15	58	37	0	45	1.7
DEKALB	DK-53	81	47	117	64	81	92	87	102	66	15	61	16	59	42	0	79	1.1
VALLEY PREMIUM	VP 90	60	36	112	48	69	68	67	98	68	15	62	16	58	38	12	74	1.2
TRIUMPH	TR 481	96	52	117	74	89	109	98	102	67	14	64	15	60	43	0	104	1.2
DEKALB	DKS54-00	100	56	--	78	--	113	105	--	69	15	65	16	59	46	0	102	1.1
GARST	N0479	71	--	--	--	--	80	--	--	--	--	70	15	57	35	16	103	1.1
SORG. PARTNERS	EXP 828	73	--	--	--	--	82	--	--	--	--	70	15	57	41	0	92	1.0
	AVERAGES	88	54	115	71	86	88	54	115	63	14	58	15	59	39	11	91	1.3
	CV(%)	10	8	5	--	--	10	8	5	--	--	2	3	1	4	145	9	8.4
	LSD(0.05)**	14	7	8	--	--	16	13	7	--	--	1	1	1	2	26	13	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

South Central Kansas Exper. Field, Hutchinson; William Heer, agronomist

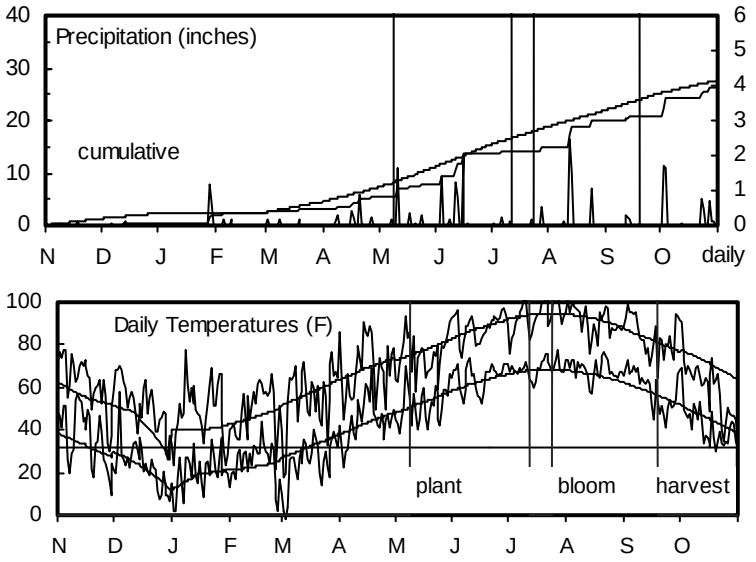
Ost silt loam; Wheat in 2001

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

Planted on 5/9/02; Harvested on 9/18/02

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

Stand variability appeared to be related largely to how well the hybrids handled the relatively cool conditions after planting. Hail and wind on June 15 shredded the leaves. Hot, dry weather in July and August severely limited yields. Strong winds on August 13 caused most of the lodging.



Month	Precipitation 2002	Precipitation Norm.	Average Temp. 2002	Average Temp. Norm.	GDU 2002	GDU Norm.
Nov.-Mar	3.0	4.5	40	37	13	16
April	2.3	2.6	57	56	663	657
May	2.6	3.9	64	65	884	967
June	5.7	4.3	77	75	1254	1234
July	1.1	3.4	81	81	1439	1454
August	5.2	3.1	80	79	1391	1385
Sept.	0.8	3.3	72	70	1107	1072
Oct.	5.5	2.5	51	58	487	748
Totals:	26.4	27.6	57	56	7,239	7,533

Table 10. Hutchinson Grain Sorghum Performance Test, 2000-2002.

BRAND	NAME	ACRE YIELD, BUSHELS 2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	YIELD AS % OF TEST AVERAGE 2002	2001	2000	2001-2002 Days to Blm	Grain Moist. %	2002 Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
MATURITY CHECK	OK11xTX2741	23	40	117	31	60	73	84	92	66	13	64	13	52	40	31	49	1.4
MATURITY CHECK	TX3042xTX2737	19	48	123	33	63	61	101	96	65	14	64	14	52	41	43	67	1.4
NC+	5B89	20	41	--	31	--	64	87	--	65	14	64	14	53	40	50	91	1.4
NO GAUCHO*	TX3042xTX2737	21	50	108	35	60	69	104	84	65	13	64	14	51	41	51	63	1.6
SORG. PARTNERS	KS 585	33	63	133	48	76	106	132	104	65	13	64	14	55	37	33	82	1.5
NC+	6B50	31	58	137	44	75	100	122	107	66	14	65	14	49	39	48	82	1.5
DEKALB	DKS36-00	28	--	--	--	--	90	--	--	--	--	66	13	53	38	14	74	1.4
WILLCROSS	WX 255	30	--	--	--	--	95	--	--	--	--	66	13	52	38	23	87	1.2
WILLCROSS	WX 251	25	--	--	--	--	82	--	--	--	--	66	14	54	35	40	80	1.4
ASGROW	PULSAR	27	--	--	--	--	88	--	--	--	--	67	13	53	38	14	80	1.1
MIDLAND	M-4665	32	--	--	--	--	102	--	--	--	--	67	13	53	40	20	78	1.4
DYNA-GRO	DG-740C	23	--	110	--	--	75	--	86	--	--	67	14	52	40	35	79	1.3
CROPLAN GEN.	514	33	--	--	--	--	106	--	--	--	--	68	12	53	44	47	83	1.4
DELANGE	DSA 115C	30	57	129	44	72	96	121	101	68	13	68	13	55	39	19	64	1.3
NC+	6B70	33	46	136	39	72	105	97	106	68	13	68	13	53	38	24	75	1.5
DEKALB	DKS42-20	27	--	--	--	--	86	--	--	--	--	68	14	53	39	33	75	1.4
PIONEER	8500	30	58	138	44	75	98	122	108	67	14	68	14	55	39	38	83	1.6
VALLEY PREMIUM	VP 53+	26	50	--	38	--	83	105	--	67	14	68	14	53	41	39	51	1.8
MYCOGEN	1506	36	46	133	41	72	116	97	104	70	15	69	15	55	44	20	67	1.3
VALLEY PREMIUM	VP 53	24	49	131	36	68	77	103	103	69	14	69	15	53	39	25	34	1.8

(continued)

Table 10. Hutchinson Grain Sorghum Performance Test, 2000-2002.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
		2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
GARST	5750	37	59	--	48	--	118	125	--	67	13	70	12	55	40	27	73	1.2
K-STATE	TX399x00-7645	38	--	--	--	--	123	--	--	--	--	70	12	53	37	13	87	1.2
SORG. PARTNERS	K73-J6	43	46	117	44	69	139	96	91	71	14	70	13	55	41	3	79	1.3
DYNA-GRO	DG-760C	29	--	--	--	--	93	--	--	--	--	70	14	55	39	25	60	1.3
WILLCROSS	WX 420	30	--	--	--	--	95	--	--	--	--	70	14	54	36	22	81	1.4
DELANGE	DSA 133	30	54	140	42	75	97	114	109	70	14	70	15	54	39	25	57	1.6
VALLEY PREMIUM	VP 70	22	44	125	33	63	72	92	97	70	15	70	16	53	40	22	59	1.4
ASGROW	A459	35	60	132	47	75	112	126	103	70	13	71	13	56	41	20	58	1.6
ASGROW	A571	37	34	142	35	71	120	71	111	73	14	71	13	54	41	19	69	1.3
TRIUMPH	TR460	19	--	--	--	--	60	--	--	--	--	71	14	54	38	19	60	1.4
FRONTIER	F-700E	25	54	--	40	--	82	114	--	70	15	71	15	54	42	26	61	1.3
MIDWEST SEED	O 256	35	61	135	48	77	114	130	106	70	15	71	15	56	42	6	83	1.2
MIDLAND	MX 212	35	--	--	--	--	112	--	--	--	--	71	16	55	40	20	68	1.2
DEKALB	DK-44	30	47	134	38	70	97	98	104	71	13	72	13	56	38	4	65	1.0
DEKALB	DKS44-41	22	--	--	--	--	69	--	--	--	--	72	14	56	41	7	34	1.4
MATURITY CHECK	TX2752xTX430	38	52	130	45	73	121	111	101	72	14	72	14	54	38	20	62	1.4
PIONEER	84G62	43	64	157	53	88	138	134	122	71	14	72	14	55	42	36	83	1.3
MYCOGEN	697	36	39	131	37	69	115	82	103	71	14	72	15	55	39	27	67	0.9
MONSANTO	X128	41	--	--	--	--	131	--	--	--	--	72	16	56	41	10	80	1.0
PIONEER	84Y00	36	--	--	--	--	117	--	--	--	--	72	16	54	41	21	57	1.5
VALLEY PREMIUM	VP 90	37	38	128	38	68	121	79	100	74	14	74	13	55	38	4	58	1.2
DEKALB	DKS54-00	50	58	--	54	--	163	122	--	72	14	74	15	57	41	6	80	1.1
MONSANTO	X129	41	--	--	--	--	131	--	--	--	--	74	15	56	43	4	75	0.9
TRIUMPH	TR 481	41	43	130	42	71	131	91	102	74	14	74	15	57	41	7	68	1.3
NO GAUCHO*	TX2752xTX430	31	37	131	34	66	99	79	103	75	16	75	16	55	37	11	34	1.8
SORG. PARTNERS	EXP 828	18	28	--	23	--	58	59	--	71	17	75	19	50	40	4	46	0.7
DEKALB	DK-53	32	49	134	41	72	102	104	105	76	16	76	17	55	40	5	41	1.3
	AVERAGES	31	47	128	39	69	31	47	128	70	14	70	14	54	40	22	68	1.3
	CV(%)	17	17	7	--	--	17	17	7	--	--	2	11	3	6	47	10	14.9
	LSD(0.05)**	7	11	10	--	--	24	24	8	--	--	2	2	2	3	15	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.

SOUTH CENTRAL KANSAS DRYLAND GRAIN SORGHUM TEST ON SANDY LOAM SOIL

Sandyland Experiment Field, St. John; Victor Martin, agronomist; Ron Cunningham and Jeff Scott, technicians

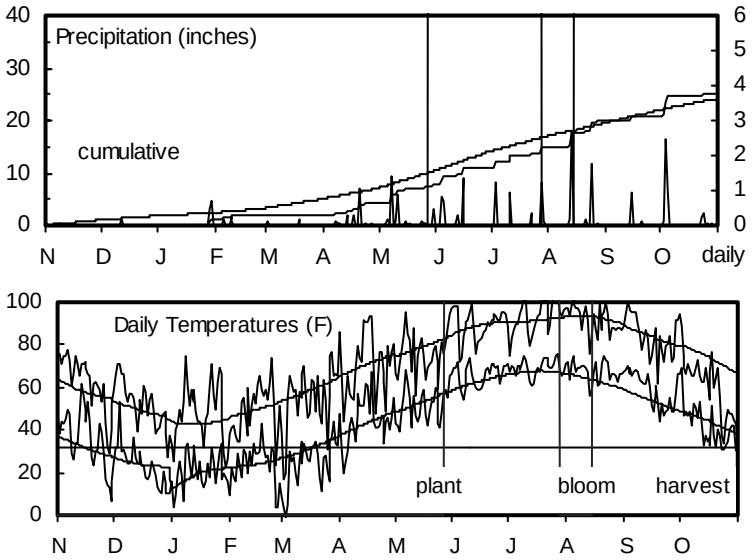
Naron loamy fine sand; Wheat in 2001

125 - 0 - 0 lb/a N, P, K

Planted on 5/28/02; Harvested on 11/17/02

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

Although initial stands were good, two hail storms in June along with wind/sand damage reduced stands. Insects, diseases, and weeds had little impact on yields. Rains in July stimulated late tiller production which contributed significantly to final yields.



Month	Precipitation 2002	Precipitation Norm.	Average Temp. 2002	Average Temp. Norm.	GDU 2002	GDU Norm.
Nov.-Mar	2.2	5.0	40	39	14	16
April	2.1	2.0	58	57	689	683
May	3.5	3.4	64	66	905	999
June	3.3	3.7	78	76	1279	1252
July	3.9	2.9	81	79	1439	1407
August	4.9	2.5	80	78	1384	1356
Sept.	1.2	2.5	72	69	1108	1044
Oct.	4.3	2.2	51	59	494	769
Totals:	25.2	24.1	57	57	7,310	7,527

Table 11. St. John Dryland Grain Sorghum Performance Test, 2000-2002.

BRAND	NAME	ACRE YIELD, BUSHELS 2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	YIELD AS % OF TEST AVERAGE 2002	2001	2000	2001-2002 Days to Blm	2001-2002 Grain Moist. %	2002 Days to Blm	2002 Grain Moist. %	2002 Test Wt. lb/bu	2002 Plnt Ht. in.	2002 Ldg %	2002 Final Stand %	2002 Hds per Plnt
NC+	5B89	53	66	--	60	--	84	81	--	65	13	61	12	61	31	--	82	1.6
WILLCROSS	WX 251	70	--	--	--	--	110	--	--	--	--	61	12	61	33	--	81	1.6
SORG. PARTNERS	KS 585	70	98	--	84	--	110	121	--	66	13	63	12	61	31	--	79	3.5
MATURITY CHECK	OK11xTX2741	43	86	--	64	--	67	106	--	67	13	64	12	60	32	--	73	1.5
NC+	6B50	55	81	--	68	--	87	100	--	67	13	64	12	60	34	--	78	1.7
NO GAUCHO*	TX3042xTX2737	40	75	--	57	--	63	93	--	67	13	64	12	60	33	--	80	1.6
PIONEER	8500	60	--	--	--	--	94	--	--	--	--	64	12	60	34	--	84	1.7
DEKALB	DKS42-20	62	--	--	--	--	98	--	--	--	--	64	13	61	32	--	79	1.5
DYNA-GRO	DG-740C	74	--	--	--	--	116	--	--	--	--	64	13	60	34	--	85	1.6
HOEGEMEYER	6055	57	--	--	--	--	89	--	--	--	--	64	13	59	34	--	74	1.6
PIONEER	87G57	63	76	--	70	--	100	94	--	65	13	64	13	60	32	--	68	2.2
WILLCROSS	WX 255	52	--	--	--	--	82	--	--	--	--	64	13	60	30	--	83	1.5
DYNA-GRO	DG-760C	60	--	--	--	--	94	--	--	--	--	65	13	60	35	--	68	1.6
MATURITY CHECK	TX3042xTX2737	50	86	--	68	--	79	106	--	67	14	65	13	60	32	--	73	1.5
NC+	6B70	70	94	--	82	--	111	116	--	70	14	65	13	61	32	--	79	1.4
TRIUMPH	TR 438	66	--	--	--	--	104	--	--	--	--	66	12	59	40	--	74	1.5
ASGROW	A459	43	78	--	60	--	67	97	--	71	13	66	13	60	35	--	75	1.4
CROPLAN GEN.	514	74	--	--	--	--	116	--	--	--	--	66	13	61	35	--	78	1.4
DEKALB	DKS36-00	50	--	--	--	--	79	--	--	--	--	66	13	60	30	--	85	1.3
GARST	5750	71	77	--	74	--	111	95	--	66	13	66	13	60	36	--	91	1.5
ASGROW	A571	76	94	--	85	--	119	117	--	73	13	67	12	59	35	--	77	1.4

(continued)

Table 11. St. John Dryland Grain Sorghum Performance Test, 2000-2002.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
		2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
MYCOGEN	3696	61	--	--	--	--	96	--	--	--	--	67	13	60	32	--	84	1.4
ASGROW	PULSAR	55	--	--	--	--	86	--	--	--	--	68	13	60	30	--	77	1.4
DELANGE	DSA 147	68	84	--	76	--	106	104	--	73	14	68	13	60	35	--	78	1.8
FRONTIER	F-700E	78	83	--	80	--	122	102	--	72	14	68	13	61	34	--	75	1.5
HOEGEMEYER	6870	55	94	--	75	--	86	117	--	73	14	68	13	59	35	--	75	1.8
SORG. PARTNERS	K73-J6	81	--	--	--	--	127	--	--	--	--	68	13	61	33	--	93	1.4
DELANGE	DSA 133	83	95	--	89	--	131	118	--	73	14	69	13	57	33	--	68	2.0
DEKALB	DK-53	83	74	--	79	--	131	92	--	73	15	69	14	59	38	--	79	1.2
DEKALB	DKS44-41	61	--	--	--	--	95	--	--	--	--	70	13	59	36	--	67	1.3
MATURITY CHECK	TX2752xTX430	66	92	--	79	--	104	113	--	75	14	70	14	58	34	--	70	1.7
NO GAUCHO*	TX2752xTX430	70	86	--	78	--	110	106	--	76	14	71	13	59	33	--	66	1.8
PIONEER	84G62	92	75	--	84	--	145	92	--	77	14	71	13	60	36	--	74	1.6
DEKALB	DK-44	51	82	--	66	--	80	101	--	75	14	72	13	60	31	--	79	1.4
MONSANTO	X128	64	--	--	--	--	100	--	--	--	--	72	13	60	35	--	78	1.2
SORG. PARTNERS	EXP 828	62	--	--	--	--	97	--	--	--	--	75	13	58	41	--	82	1.1
MONSANTO	X129	64	--	--	--	--	100	--	--	--	--	77	14	60	36	--	81	1.2
DEKALB	DKS54-00	67	79	--	73	--	105	98	--	82	15	78	14	59	38	--	75	1.3
	AVERAGES	64	81	--	72	--	64	81	--	71	14	67	13	60	34	--	78	1.6
	CV(%)	21	13	--	--	--	21	13	--	--	--	3	6	2	10	--	12	38.4
	LSD(0.05)**	18	15	--	--	--	29	19	--	--	--	3	1	1	5	--	13	0.8

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

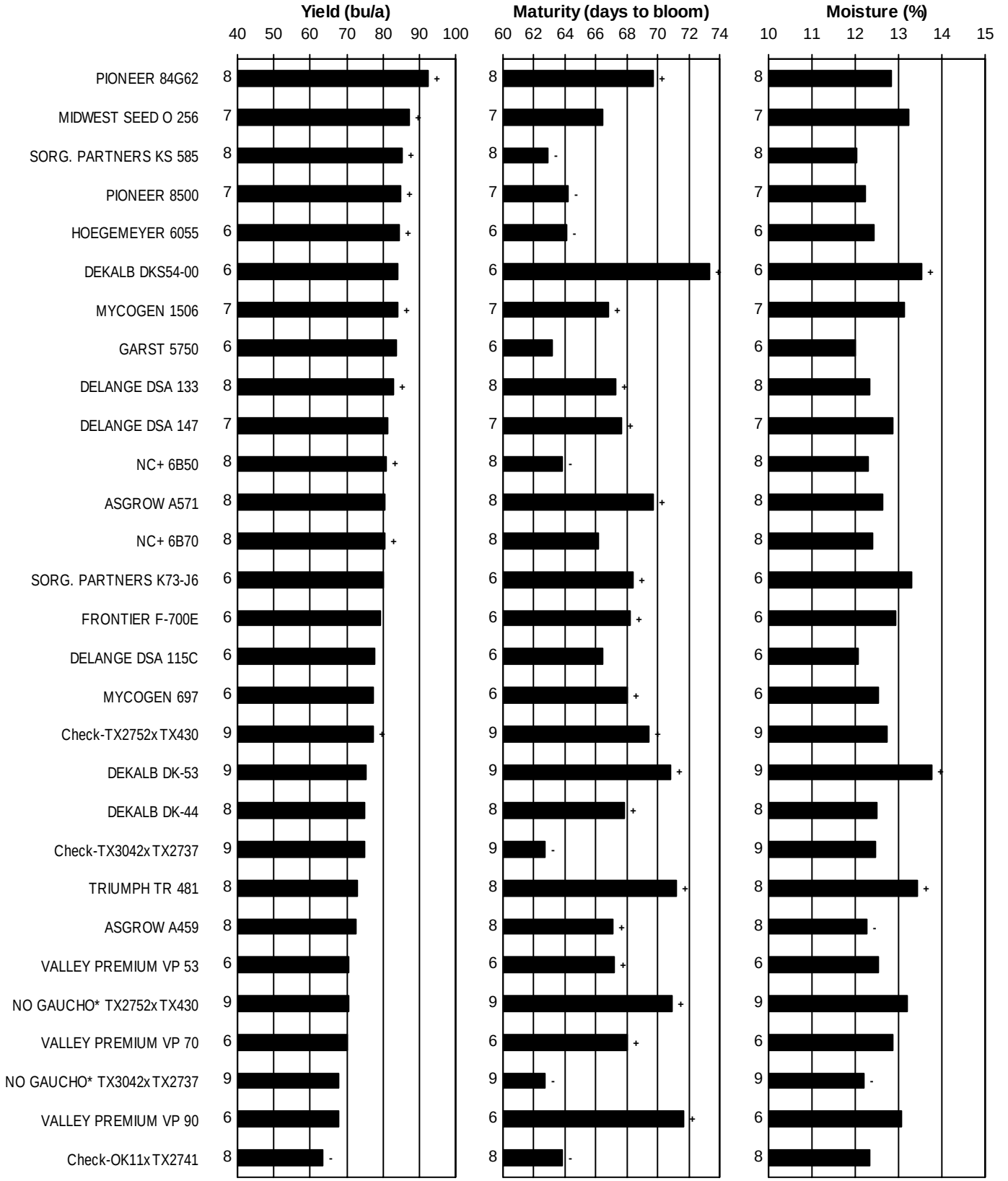
** Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

Table 12. SOUTH CENTRAL Kansas sorghum hybrid yield summary (% of test average), 2002.

BRAND/NAME	HVD[1]	RND	STD	SUD	AVG.
ASGROW					
A459	79	112	67	--	86
A571	99	120	119	--	113
PULSAR	87	88	86	--	87
CROPLAN GEN.					
514	101	106	116	--	107
DEKALB					
DK-44	100	97	80	--	92
DK-53	92	102	131	--	108
DKS36-00	102	90	79	--	91
DKS42-20	115	86	98	--	100
DKS44-41	87	69	95	--	84
DKS54-00	113	163	105	--	127
DELANGE					
DSA 115C	101	96	--	--	--
DSA 133	89	97	131	--	106
DSA 147	103	--	106	--	--
DYNA-GRO					
DG-740C	87	75	116	--	93
DG-760C	91	93	94	--	92
FRONTIER					
F-700E	101	82	122	--	102
GARST					
5440	108	--	--	--	--
5515	106	--	--	--	--
5750	113	118	111	--	114
N0479	80	--	--	--	--
N1354	111	--	--	--	--
HOEGEMEYER					
6055	95	--	89	--	--
6870	107	--	86	--	--
K-STATE					
TX399x00-7645	99	123	--	--	--
MIDLAND					
M-4665	107	102	--	--	--
MX 212	112	112	--	--	--
MIDWEST SEED					
O 256	132	114	--	--	--
MONSANTO					
X128	111	131	100	--	114
X129	109	131	100	--	114
MYCOGEN					
1506	118	116	--	--	--
3696	--	--	96	--	--
697	95	115	--	--	--
NC+					
5B89	107	64	84	--	85
6B50	116	100	87	--	101
6B70	108	105	111	--	108
PIONEER					
84G62	126	138	145	--	136
84Y00	107	117	--	--	--
8500	121	98	94	--	104
87G57	--	--	100	--	--
SORG. PARTNERS					
EXP 828	82	58	97	--	79
K73-J6	117	139	127	--	128
KS 585	123	106	110	--	113
TRIUMPH					
TR 438	105	--	104	--	--
TR 481	109	131	--	--	--
TR460	--	60	--	--	--
VALLEY PREMIUM					
VP 53	56	77	--	--	--
VP 53+	101	83	--	--	--
VP 70	91	72	--	--	--
VP 90	68	121	--	--	--
WILLCROSS					
WX 251	--	82	110	--	--
WX 255	--	95	82	--	--
WX 420	--	95	--	--	--
MATURITY CHECK					
OK11xTX2741	63	73	67	--	67
TX2752xTX430	89	121	104	--	105
TX3042xTX2737	100	61	79	--	80
NO GAUCHO*					
TX2752xTX430	82	99	110	--	97
TX3042xTX2737	80	69	63	--	70
AVERAGES	88	31	64	--	61
CV(%)	10	17	21	--	--
LSD(0.05)**	16	24	29	--	--

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

Figure 6. SOUTH CENTRAL Kansas sorghum hybrid standardized performance summary, 2000-2002.



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

Agricultural Research Center, Hays; Kenneth Kofoid, agronomist

Harney silt loam; Soybean in 2001

60 - 0 - 0 lb/a N, P, K

Planted on 6/1/02; Harvested on 11/15/02

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

Drought conditions had a major impact on hybrid performance.

	Precipitation		Average Temp.		GDU	
Month	2002	Norm.	2002	Norm.	2002	Norm.
Nov.-Mar	1.8	3.5	37	33	15	11
April	2.2	1.9	55	51	622	509
May	2.1	3.2	62	62	827	865
June	0.9	3.8	79	72	1315	1141
July	2.5	3.3	81	78	1438	1366
August	3.9	2.8	77	76	1312	1301
Sept.	1.2	2.2	69	67	1023	995
Oct.	1.4	1.4	47	55	408	638
Totals:	16.0	22.0	55	52	6,958	6,824

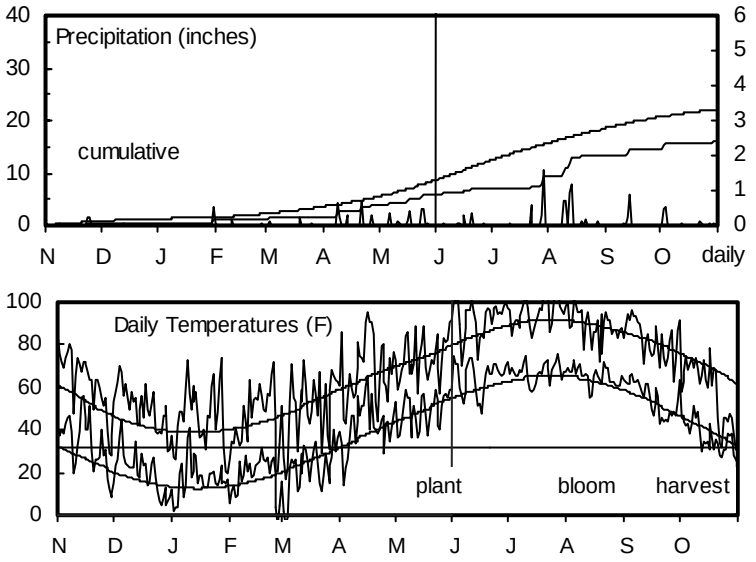


Table 13. Hays Grain Sorghum Performance Test, 2000-2002.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002					
BRAND	NAME	2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
PIONEER	87G57	37	103	--	70	--	73	100	--	60	13	61	13	52	--	--	95	2.2
DEKALB	DK-39Y	32	--	--	--	--	63	--	--	--	--	63	10	50	--	--	74	2.6
NC+	5B89	47	82	--	65	--	94	80	--	63	13	63	12	53	--	--	86	1.4
DEKALB	DKS36-00	31	84	--	58	--	62	83	--	64	13	64	12	51	--	--	79	2.5
ASGROW	PULSAR	22	--	--	--	--	43	--	--	--	--	67	11	51	--	--	77	1.5
CROPLAN GEN.	414	43	104	--	73	--	84	102	--	68	13	67	12	54	--	--	80	1.7
MATURITY CHECK	OK11xTX2741	35	95	82	65	71	70	94	89	67	13	67	13	52	--	--	72	2.4
NO GAUCHO*	TX3042xTX2737	47	101	80	74	76	92	99	87	66	13	67	13	54	--	--	88	1.9
MONSANTO	X135	42	--	--	--	--	84	--	--	--	--	68	12	52	--	--	61	2.1
DYNA-GRO	DG-740C	37	--	71	--	--	74	--	77	--	--	68	13	51	--	--	98	2.0
DYNA-GRO	DG-730B	43	--	93	--	--	85	--	101	--	--	69	12	54	--	--	78	2.0
MYCOGEN	737	54	96	106	75	86	107	94	116	69	13	69	12	55	--	--	93	1.4
MATURITY CHECK	TX3042xTX2737	55	97	86	76	79	109	95	93	67	13	69	13	55	--	--	85	2.1
NC+	6B50	50	119	--	85	--	98	117	--	68	13	70	12	51	--	--	109	1.5
SORG. PARTNERS	KS 585	53	111	100	82	88	104	109	109	68	13	70	12	54	--	--	97	1.2
ASGROW	ORBIT	20	--	--	--	--	40	--	--	--	--	71	11	53	--	--	52	1.7
FRONTIER	F-303C	37	92	81	65	70	74	91	88	69	14	71	14	53	--	--	101	1.7
DEKALB	DK-44	40	95	96	67	77	79	93	104	69	13	72	12	51	--	--	85	1.3
ASGROW	ECLIPSE	41	72	--	57	--	81	70	--	71	13	73	12	53	--	--	46	2.6
GOLDEN WORLD	GW X3064	37	--	--	--	--	74	--	--	--	--	73	12	52	--	--	41	2.0
FRONTIER	F-700E	53	--	101	--	--	104	--	110	--	--	74	13	53	--	--	85	1.7
PIONEER	85G85	39	--	90	--	--	77	--	98	--	--	75	12	53	--	--	90	1.7
GARST	5750	53	--	--	--	--	105	--	--	--	--	75	13	53	--	--	84	1.6

(continued)

Table 13. Hays Grain Sorghum Performance Test, 2000-2002.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
		2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
GOLDEN WORLD	GW X1464	79	--	--	--	--	156	--	--	--	--	75	13	54	--	--	53	2.1
MYCOGEN	627	69	103	97	86	89	136	101	105	71	14	75	13	55	--	--	65	1.4
MYCOGEN	M3838	59	117	88	88	88	117	115	96	72	13	76	12	54	--	--	72	2.4
KAYSTAR	KS-505	45	--	--	--	--	89	--	--	--	--	76	14	53	--	--	64	2.1
MIDLAND	M-4725	68	124	--	96	--	135	121	--	76	14	76	14	55	--	--	92	1.2
K-STATE	TX399x00-7645	62	--	--	--	--	122	--	--	--	--	77	12	53	--	--	73	1.9
MATURITY CHECK	TX2752xTX430	64	128	92	96	94	126	125	100	74	13	78	12	54	--	--	79	1.9
NO GAUCHO*	TX2752xTX430	75	115	82	95	91	149	112	90	74	13	78	12	55	--	--	72	1.9
TRIUMPH	TR 459	30	--	--	--	--	60	--	--	--	--	78	13	54	--	--	114	1.1
GOLDEN WORLD	GW 1489	59	108	88	83	85	117	106	96	74	14	79	13	55	--	--	81	1.6
DYNA-GRO	DG-760C	65	117	82	91	88	129	114	90	76	13	81	13	55	--	--	75	1.6
GARST	5515	83	111	93	97	95	163	109	101	75	14	81	13	55	--	--	88	1.3
SORG. PARTNERS	K73-J6	74	123	--	99	--	147	121	--	75	14	81	13	54	--	--	93	1.3
FRONTIER	F-457E	55	--	--	--	--	108	--	--	--	--	82	14	56	--	--	62	1.3
PIONEER	84G62	88	145	105	116	112	174	142	114	78	15	82	14	58	--	--	100	1.6
TRIUMPH	TR 481	49	103	104	76	85	96	101	113	78	15	82	14	54	--	--	97	1.2
SORG. PARTNERS	EXP 828	51	--	--	--	--	100	--	--	--	--	83	13	54	--	--	47	2.7
GARST	5624	52	114	--	83	--	102	112	--	76	14	84	13	55	--	--	95	1.5
	AVERAGES	51	102	92	76	82	51	102	92	71	14	73	13	54	--	--	80	1.8
	CV(%)	16	13	8	--	--	16	13	8	--	--	6	7	3	--	--	9	37.5
	LSD(0.05)**	13	21	10	--	--	27	20	11	--	--	7	1	2	--	--	11	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.

NORTHWEST KANSAS FALLOW GRAIN SORGHUM TEST ON SILT LOAM SOIL

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

Keith silt loam; Fallow in 2001

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

Planted on 5/30/02; Harvested on 11/5/02

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

May showers allowed good stand establishment. Spring and early summer were very dry. August rains allowed some of the later hybrids to head and produce grain. No disease or insect problems.

	Precipitation		Average Temp.		GDU	
Month	2002	Norm.	2002	Norm.	2002	Norm.
Nov.-Mar	2.1	3.0	35	32	12	7
April	0.4	1.8	52	49	527	433
May	1.4	2.9	59	60	742	770
June	1.4	3.1	77	70	1261	1063
July	1.5	2.9	79	76	1359	1286
August	4.4	2.2	75	74	1228	1210
Sept.	1.2	1.5	66	65	924	898
Oct.	2.0	1.1	48	53	452	543
Totals:	14.4	18.6	53	51	6,502	6,210

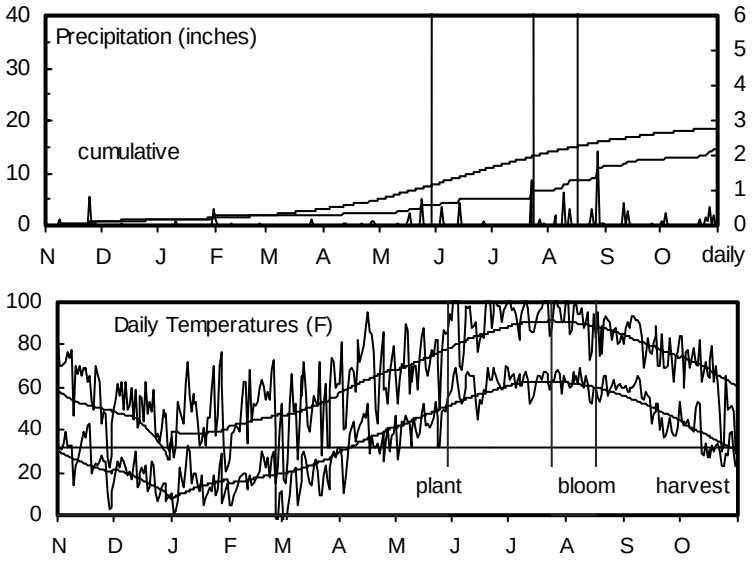


Table 14. Colby Fallow Grain Sorghum Performance Test, 2000-2002.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
BRAND	NAME	2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
MYCOGEN	1G125	67	--	--	--	--	99	--	--	--	--	55	13	56	35	0	126	1.2
PIONEER	87G57	68	63	91	65	74	100	120	109	60	13	56	15	58	34	0	131	1.1
DEKALB	DK-39Y	69	--	--	--	--	102	--	--	--	--	58	12	55	33	1	123	1.2
PIONEER	85Y34	72	70	--	71	--	106	134	--	63	13	58	14	56	34	0	92	1.7
DEKALB	DKS36-00	73	59	--	66	--	107	112	--	63	13	59	14	57	32	0	119	1.3
GARST	9135	61	61	94	61	72	90	116	112	63	12	59	14	57	33	0	106	1.2
ASGROW	PULSAR	62	--	--	--	--	91	--	--	--	--	60	14	56	31	1	114	1.3
MONSANTO	X135	67	--	--	--	--	99	--	--	--	--	60	14	56	30	0	109	1.5
NC+	5B89	67	64	--	66	--	99	123	--	65	14	60	16	58	31	1	131	1.1
PIONEER	86G71	69	63	80	66	71	102	120	96	65	14	60	16	59	34	1	120	1.1
NO GAUCHO*	TX3042xTX2737	85	58	94	71	79	125	111	112	68	14	62	15	58	35	0	132	1.2
MATURITY CHECK	TX3042xTX2737	82	68	96	75	82	120	130	114	67	14	62	16	57	34	1	119	1.2
ASGROW	ORBIT	72	--	--	--	--	106	--	--	--	--	64	14	55	33	0	112	1.3
KAYSTAR	KS-505	78	--	--	--	--	115	--	--	--	--	64	14	56	36	0	120	1.2
MATURITY CHECK	OK11xTX2741	67	50	88	58	68	99	95	106	68	14	64	15	57	33	0	90	1.4
DYNA-GRO	DG-740C	74	--	99	--	--	109	--	118	--	--	65	15	57	32	0	119	1.1
GARST	5750	68	62	--	65	--	101	118	--	67	14	65	15	57	34	0	126	1.1
MYCOGEN	627	68	--	78	--	--	100	--	94	--	--	65	15	56	34	0	101	1.2
DYNA-GRO	DG-730B	56	--	80	--	--	83	--	96	--	--	65	16	54	30	0	122	1.1
TRIUMPH	TR 459	70	--	--	--	--	104	--	--	--	--	65	17	58	32	0	134	1.0
NC+	6B50	71	--	--	--	--	105	--	--	--	--	66	14	54	32	0	132	1.1
DEKALB	DK-44	73	55	91	64	73	107	105	109	70	14	66	15	57	34	0	122	1.0

(continued)

Table 14. Colby Fallow Grain Sorghum Performance Test, 2000-2002.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
		2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
FRONTIER	F-303C	75	57	87	66	73	110	110	104	69	14	66	15	56	33	0	128	1.2
SEED RESOURCE	SR 255c	74	--	--	--	--	109	--	--	--	--	66	15	56	33	0	130	1.1
CROPLAN GEN.	414	71	39	--	55	--	104	74	--	71	16	66	16	56	32	0	126	1.2
NC+	Y363	75	61	113	68	83	111	118	135	70	16	66	16	58	35	0	112	1.3
ASGROW	ECLIPSE	70	53	--	61	--	103	101	--	72	14	67	15	54	32	0	93	1.3
SORG. PARTNERS	KS 585	65	45	112	55	74	96	87	134	72	16	67	16	53	32	0	137	1.0
MYCOGEN	M3838	71	54	88	63	71	104	104	105	73	15	68	15	57	34	0	123	1.1
TRIUMPH	TR 461	60	63	82	61	68	88	121	99	72	14	68	15	53	35	1	134	0.9
GARST	5624	62	45	--	54	--	92	86	--	73	16	68	17	53	34	0	119	1.1
NO GAUCHO*	TX2752xTX430	62	50	88	56	67	91	96	105	77	17	72	16	49	33	0	106	1.1
MATURITY CHECK	TX2752xTX430	68	51	107	59	75	100	97	128	77	16	73	15	51	34	0	113	1.0
FRONTIER	F-457E	66	--	--	--	--	97	--	--	--	--	76	15	52	33	0	106	1.0
DYNA-GRO	DG-760C	50	41	86	45	59	73	78	102	81	18	78	11	36	35	0	110	0.8
SORG. PARTNERS	EXP 828	37	--	--	--	--	55	--	--	--	--	78	14	47	35	0	106	0.8
	AVERAGES	68	52	84	60	68	68	52	84	70	15	65	15	55	33	0	118	1.1
	CV(%)	14	15	11	--	--	14	15	11	--	--	2	8	7	4	367	6	12.7
	LSD(0.05)**	13	11	11	--	--	20	21	13	--	--	2	2	5	2	NS	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.

SOUTHWEST KANSAS FALLOW GRAIN SORGHUM TEST ON SILT LOAM SOIL

Southwest Res.-Ext. Center, Garden City; Merle Witt, agronomist

Keith silt loam; Fallow in 2001

60 - 0 - 0 lb/a N, P, K

Planted on 6/1/02; Harvested on 11/13/02

Target stand of 30,000 plants/acre; 7.0 in. spacing

Good soil moisture at planting allowed for generally good stands. Precipitation was below normal for the rest of the growing season.

	Precipitation		Average Temp.		GDU	
Month	2002	Norm.	2002	Norm.	2002	Norm.
Nov.-Mar	0.9	2.8	37	34	13	12
April	1.2	1.7	56	51	627	509
May	0.9	2.9	62	62	848	865
June	1.2	2.9	77	72	1258	1145
July	2.5	2.5	79	78	1359	1352
August	2.2	2.2	76	75	1261	1275
Sept.	0.8	1.6	68	67	996	986
Oct.	1.8	1.0	49	54	446	632
Totals:	11.4	17.7	54	53	6,807	6,774

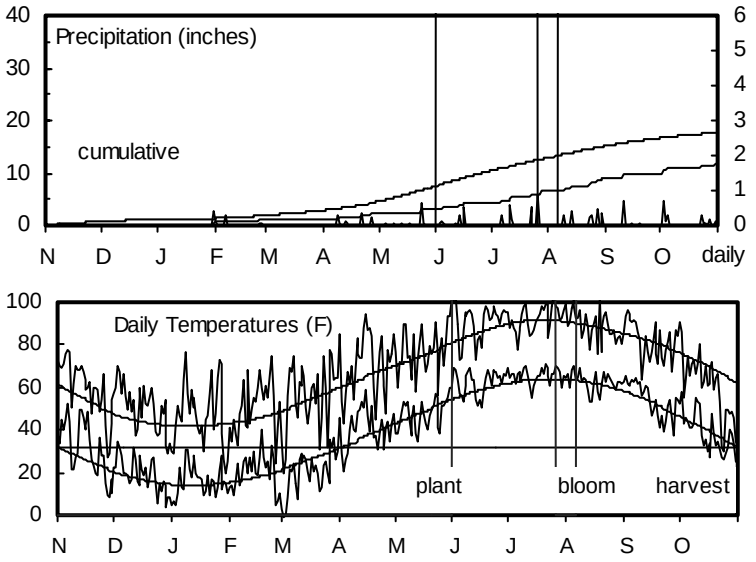


Table 15. Garden City Fallow Grain Sorghum Performance Test, 2000-2002.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
BRAND	NAME	2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
DEKALB	DK-39Y	61	--	--	--	--	89	--	--	--	--	55	14	60	38	0	101	1.6
DEKALB	DKS36-00	57	73	--	65	--	84	71	--	64	13	55	14	60	37	1	82	2.0
MONSANTO	X135	62	--	--	--	--	91	--	--	--	--	55	14	60	37	0	63	2.3
NC+	5B89	58	--	--	--	--	86	--	--	--	--	55	14	60	36	0	85	1.8
TRIUMPH	TR 438	66	92	73	79	77	97	90	110	65	12	55	14	60	43	1	88	1.9
ASGROW	ORBIT	51	--	--	--	--	75	--	--	--	--	56	14	60	41	2	62	2.0
ASGROW	PULSAR	69	--	--	--	--	101	--	--	--	--	56	14	60	38	0	87	2.0
MATURITY CHECK	TX3042xTX2737	65	129	57	97	84	96	127	87	66	13	56	14	60	44	4	100	1.8
NC+	6B50	67	--	74	--	--	99	--	112	--	--	56	14	60	40	0	100	1.7
PIONEER	86G71	60	127	60	94	82	89	125	90	66	13	56	14	60	39	2	87	1.9
GOLDEN WORLD	GW X1464	74	--	--	--	--	109	--	--	--	--	56	15	59	39	0	62	1.7
DEKALB	DK-44	73	73	69	73	72	108	72	104	66	13	57	14	60	40	0	91	1.6
DYNA-GRO	DG-740C	59	--	53	--	--	87	--	81	--	--	57	14	60	40	0	87	1.5
MYCOGEN	1482	60	89	70	74	73	89	87	106	68	13	57	14	60	39	1	94	1.6
MYCOGEN	697	77	102	67	90	82	114	100	102	68	13	57	14	60	42	0	85	1.8
NC+	5B74E	76	--	53	--	--	112	--	81	--	--	57	14	60	37	0	93	1.8
PIONEER	85G85	74	105	69	90	83	110	103	105	68	13	57	14	60	36	0	92	2.0
SEED RESOURCE	SR 255c	65	--	--	--	--	95	--	--	--	--	57	14	60	39	0	95	1.5
ASGROW	ECLIPSE	63	77	--	70	--	93	75	--	68	13	58	14	60	37	0	68	1.7
GARST	5750	58	--	--	--	--	86	--	--	--	--	58	14	60	42	0	87	1.8
NO GAUCHO*	TX3042xTX2737	62	113	74	87	83	91	111	112	68	13	58	14	60	43	0	91	1.7
FRONTIER	F-303C	62	--	60	--	--	92	--	91	--	--	59	14	60	39	5	96	1.5
GARST	5624	65	111	--	88	--	95	109	--	71	13	60	14	59	41	0	73	1.6

(continued)

Table 15. Garden City Fallow Grain Sorghum Performance Test, 2000-2002.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
		2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
MATURITY CHECK	OK11xTX2741	65	95	63	80	74	96	93	95	68	13	60	14	60	39	1	69	1.6
SORG. PARTNERS	K73-J6	60	103	--	81	--	88	100	--	70	13	60	14	60	42	3	86	1.9
SORG. PARTNERS	KS 585	82	109	--	95	--	120	106	--	70	13	60	14	60	39	0	93	1.9
TRIUMPH	TR 465	58	116	--	87	--	86	113	--	70	13	60	14	60	40	2	81	1.8
DYNA-GRO	DG-730B	71	--	55	--	--	104	--	84	--	--	60	15	60	38	0	70	1.7
CROPLAN GEN.	414	65	116	--	91	--	96	114	--	70	13	61	14	60	38	0	73	1.7
GOLDEN WORLD	GW 1489	73	115	64	94	84	108	113	98	71	13	61	14	60	41	0	79	1.7
GOLDEN WORLD	GW X3064	64	--	--	--	--	95	--	--	--	--	62	14	60	40	0	68	1.6
MATURITY CHECK	TX2752xTX430	83	96	81	90	87	123	94	123	72	13	62	14	60	42	0	86	1.9
K-STATE	TX399x00-7645	73	--	--	--	--	108	--	--	--	--	63	14	60	39	2	75	1.9
GARST	5515	78	109	72	94	87	115	107	109	72	13	64	14	60	42	0	98	1.4
NO GAUCHO*	TX2752xTX430	79	90	75	85	81	116	89	113	73	13	65	14	60	41	0	79	1.8
SEED RESOURCE	SR 420	72	--	--	--	--	107	--	--	--	--	65	14	60	40	0	92	1.4
DYNA-GRO	DG-760C	77	117	88	97	94	113	114	134	76	13	66	14	60	41	0	81	1.7
FRONTIER	F-457E	59	--	--	--	--	87	--	--	--	--	66	14	60	38	0	82	1.5
PIONEER	84G62	91	130	87	111	103	134	127	132	74	13	66	14	60	42	0	84	1.7
SORG. PARTNERS	EXP 828	77	--	--	--	--	113	--	--	--	--	66	14	59	42	0	57	1.2
	AVERAGES	68	102	66	85	79	68	102	66	69	13	59	14	60	40	1	83	1.7
	CV(%)	11	9	16	--	--	11	9	16	--	--	5	2	1	4	350	15	10.2
	LSD(0.05)**	12	19	15	--	--	17	18	22	--	--	5	0	1	3	3	20	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.

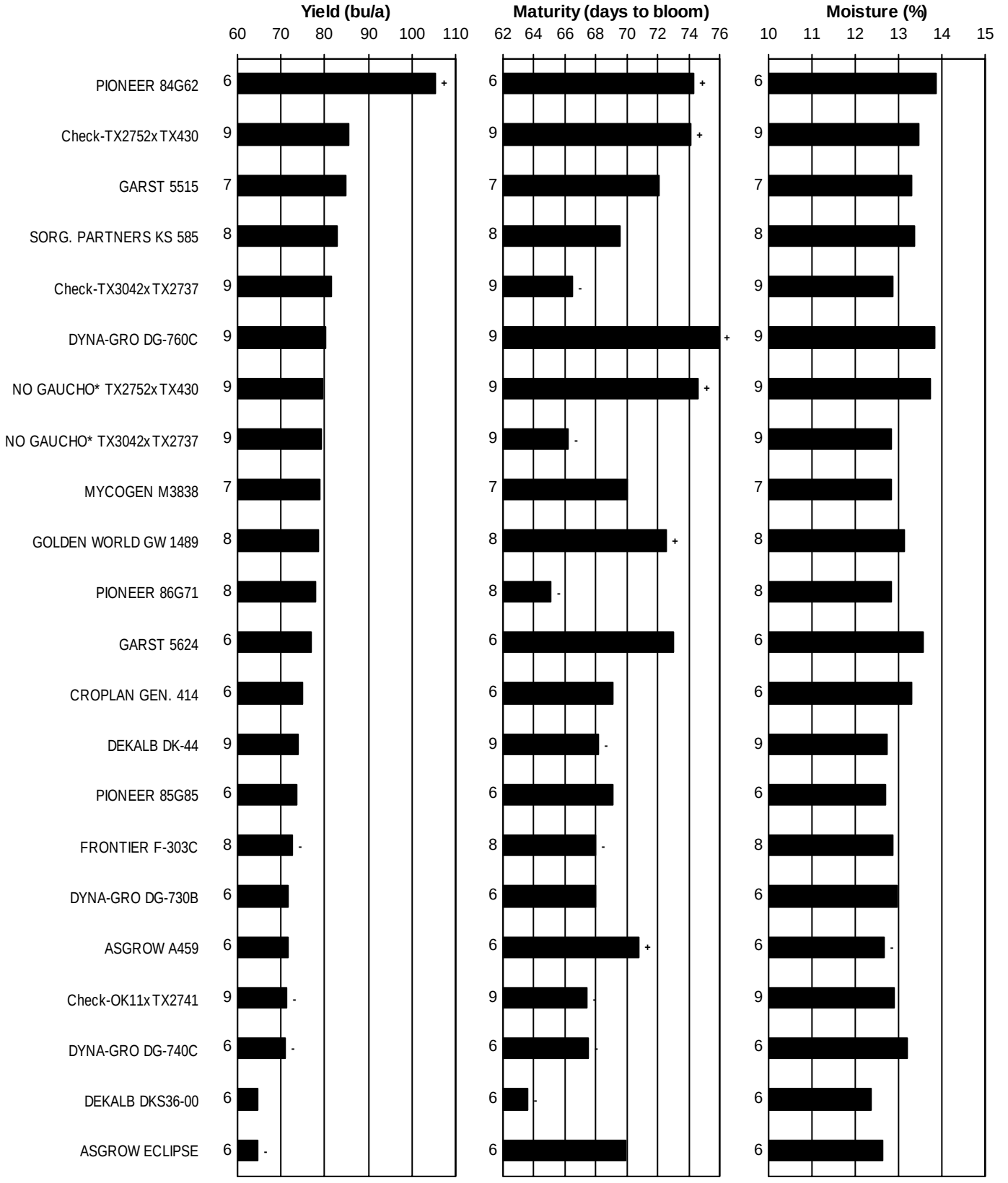
Table 16. WEST Kansas grain sorghum hybrid yield summary (% of test average), 2002.

BRAND/NAME	ELD[1]	THD	GRD	FND	AVG.
ASGROW					
ECLIPSE	81	103	--	93	92
ORBIT	40	106	--	75	73
PULSAR	43	91	--	101	78
CROPLAN GEN.					
414	84	104	--	96	95
DEKALB					
DK-39Y	63	102	--	89	85
DK-44	79	107	--	108	98
DKS36-00	62	107	--	84	84
DYNA-GRO					
DG-730B	85	83	--	104	91
DG-740C	74	109	--	87	90
DG-760C	129	73	--	113	105
FRONTIER					
F-303C	74	110	--	92	92
F-457E	108	97	--	87	97
F-700E	104	--	--	--	--
GARST					
5515	163	--	--	115	--
5624	102	92	--	95	96
5750	105	101	--	86	97
9135	--	90	--	--	--
GOLDEN WORLD					
GW 1489	117	--	--	108	--
GW X1464	156	--	--	109	--
GW X3064	74	--	--	95	--
KAYSTAR					
KS-505	89	115	--	--	--
K-STATE					
TX399x00-7645	122	--	--	108	--
MIDLAND					
M-4725	135	--	--	--	--
MONSANTO					
X135	84	99	--	91	91
MYCOGEN					
1482	--	--	--	89	--
1G125	--	99	--	--	--
627	136	100	--	--	--
697	--	--	--	114	--
737	107	--	--	--	--
M3838	117	104	--	--	--

BRAND/NAME	ELD	THD	GRD	FND	AVG.
NC+					
5B74E	--	--	--	112	--
5B89	94	99	--	86	93
6B50	98	105	--	99	101
Y363	--	111	--	--	--
PIONEER					
84G62	174	--	--	134	--
85G85	77	--	--	110	--
85Y34	--	106	--	--	--
86G71	--	102	--	89	--
87G57	73	100	--	--	--
SEED RESOURCE					
SR 255c	--	109	--	95	--
SR 420	--	--	--	107	--
SORG. PARTNERS					
EXP 828	100	55	--	113	89
K73-J6	147	--	--	88	--
KS 585	104	96	--	120	107
TRIUMPH					
TR 438	--	--	--	97	--
TR 459	60	104	--	--	--
TR 461	--	88	--	--	--
TR 465	--	--	--	86	--
TR 481	96	--	--	--	--
MATURITY CHECK					
OK11xTX2741	70	99	--	96	88
TX2752xTX430	126	100	--	123	116
TX3042xTX2737	109	120	--	96	109
NO GAUCHO*					
TX2752xTX430	149	91	--	116	119
TX3042xTX2737	92	125	--	91	103
AVERAGES	51	68	--	68	62
CV(%)	16	14	--	11	--
LSD(0.05)**	27	20	--	17	--

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

Figure 7. WEST Kansas sorghum hybrid standardized performance summary, 2000-2002.



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

NORTH CENTRAL KANSAS IRRIGATED GRAIN SORGHUM TEST ON SILT LOAM SOIL

Irrigation Experiment Field, Scandia; Barney Gordon, agronomist; Michael Larson and Allan Milner, technicians

Crete silt loam; Soybean in 2001

180 - 30 - 0 lb/a N, P, K

Planted on 5/14/02; Harvested on 10/2/02

Target stand of 82,200 plants/acre; 2.5 in. spacing

Good growing conditions early. Very hot, dry summer; lowest rainfall since 1934. No disease or insect problems of importance.

	Precipitation		Average Temp.		GDU	
Month	2002	Norm.	2002	Norm.	2002	Norm.
Nov.-Mar	1.9	5.4	36	33	12	11
April	2.3	2.5	54	53	578	545
May	5.3	4.0	61	64	808	895
June	1.5	4.6	77	74	1271	1158
July	0.4	3.8	81	79	1415	1367
August	2.5	3.7	78	77	1319	1304
Sept.	1.8	3.9	69	67	1020	974
Oct.	4.6	2.0	48	56	404	647
Totals:	20.2	29.9	54	53	6,825	6,902

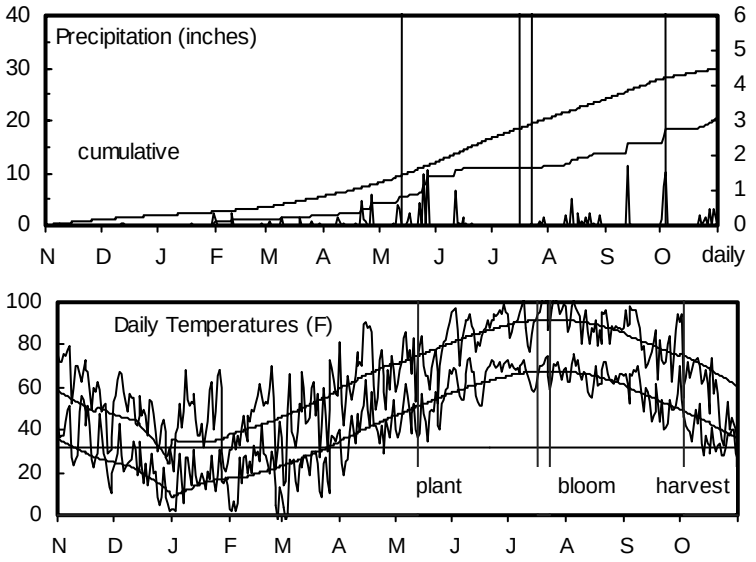


Table 17. Scandia Irr. Grain Sorghum Performance Test, 2000-2002.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
BRAND	NAME	2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
MATURITY CHECK	OK11xTX2741	133	180	144	156	152	78	96	91	63	13	63	14	60	46	--	77	1.0
MATURITY CHECK	TX3042xTX2737	160	172	127	166	153	94	92	80	62	13	63	14	59	49	--	85	1.0
NO GAUCHO*	TX3042xTX2737	128	151	131	139	137	75	81	83	62	13	63	14	59	46	--	86	1.0
SORG. PARTNERS	KS 585	139	187	--	163	--	82	100	--	62	14	63	15	60	44	--	85	1.0
GOLDEN WORLD	GW X3064	168	--	--	--	--	99	--	--	--	--	64	15	60	47	--	80	1.0
MIDLAND	M-4665	181	--	--	--	--	107	--	--	--	--	64	15	60	44	--	88	1.0
CROPLAN GEN.	514	147	--	--	--	--	86	--	--	--	--	67	15	60	49	--	83	1.0
FRONTIER	F-700E	149	197	--	173	--	87	106	--	65	14	67	15	60	46	--	80	1.0
GOLDEN WORLD	GW 1489	176	192	--	184	--	103	103	--	66	14	67	15	60	46	--	86	1.0
GOLDEN WORLD	GW X1464	158	--	--	--	--	93	--	--	--	--	67	15	60	43	--	85	1.0
SORG. PARTNERS	EXP 828	181	194	--	188	--	106	104	--	70	14	67	15	60	47	--	88	1.0
ASGROW	A571	180	197	162	189	180	106	106	103	68	14	68	15	60	45	--	86	1.0
GARST	5440	155	--	--	--	--	91	--	--	--	--	68	15	60	46	--	88	1.0
MYCOGEN	775Y	176	--	--	--	--	104	--	--	--	--	68	15	59	41	--	86	1.0
PIONEER	84Y00	202	196	--	199	--	119	105	--	66	14	68	15	60	44	--	87	1.0
ASGROW	MISSILE	175	194	190	184	186	103	104	121	67	14	68	16	60	46	--	79	1.0
TRIUMPH	TR 481	171	204	--	187	--	100	109	--	68	14	69	15	60	47	--	88	1.0
DEKALB	DKS54-00	159	204	177	182	180	94	109	112	69	14	70	15	60	44	--	88	1.0
GARST	N0479	172	--	--	--	--	101	--	--	--	--	70	15	60	41	--	86	1.0
MATURITY CHECK	TX2752xTX430	184	205	169	195	186	108	110	107	68	14	70	15	60	44	--	79	1.0
MONSANTO	X126	199	--	--	--	--	117	--	--	--	--	70	15	61	44	--	87	1.0
NO GAUCHO*	TX2752xTX430	178	187	161	182	175	104	100	102	68	14	70	15	60	45	--	83	1.0
PIONEER	84G62	220	206	206	213	211	129	110	131	67	14	70	15	60	45	--	85	1.0
SORG. PARTNERS	K73-J6	193	206	--	199	--	113	111	--	67	14	70	15	60	45	--	87	1.0
	AVERAGES	170	187	158	178	172	170	187	158	66	14	67	15	60	45	--	85	1.0
	CV(%)	4	4	4	--	--	4	4	4	--	--	1	1	1	1	--	4	1.3
	LSD(0.05)**	10	11	8	--	--	6	6	5	--	--	1	0	1	1	--	5	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.

NORTHWEST KANSAS IRRIGATED GRAIN SORGHUM TEST ON SILT LOAM SOIL

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

Keith silt loam; Sunflower in 2001

110 - 45 - 0 lb/a N, P, K

Planted on 5/29/02; Harvested on 10/21/02

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

Preirrigated in April for stand establishment. Very dry spring and early summer. No diseases, insects, or lodging.

	Precipitation		Average Temp.		GDU	
Month	2002	Norm.	2002	Norm.	2002	Norm.
Nov.-Mar	2.1	3.0	35	32	12	7
April	0.4	1.8	52	49	527	433
May	1.4	2.9	59	60	742	770
June	1.4	3.1	77	70	1261	1063
July	1.5	2.9	79	76	1359	1286
August	4.4	2.2	75	74	1228	1210
Sept.	1.2	1.5	66	65	924	898
Oct.	2.0	1.1	48	53	452	543
Totals:	14.4	18.6	53	51	6,502	6,210

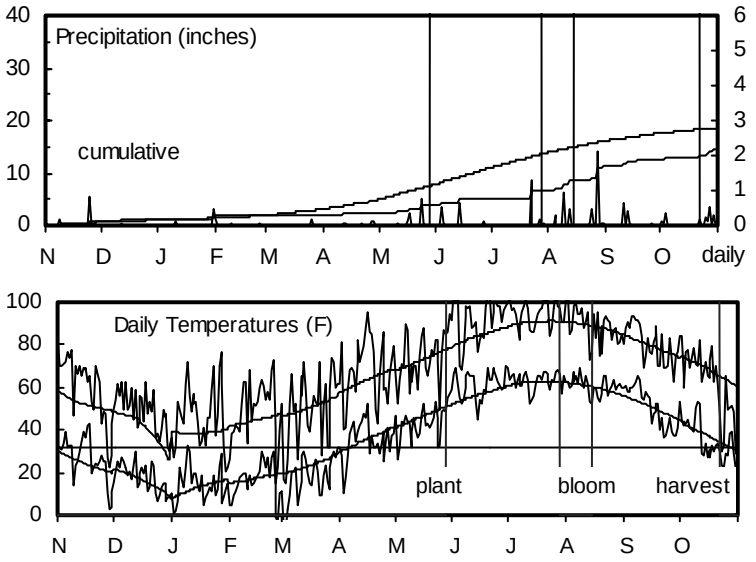


Table 18. Colby Irr. Grain Sorghum Performance Test, 2000-2002.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
BRAND	NAME	2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
MATURITY CHECK	TX3042xTX2737	158	142	107	150	136	90	101	108	65	13	60	14	61	51	--	86	1.1
NO GAUCHO*	TX3042xTX2737	150	132	102	141	128	85	93	103	65	13	60	14	61	50	--	92	1.0
NC+	6B50	162	--	--	--	--	92	--	--	--	--	61	14	60	49	--	99	1.0
MATURITY CHECK	OK11xTX2741	146	122	111	134	126	83	86	112	65	13	62	14	61	44	--	60	1.1
MYCOGEN	697	167	--	--	--	--	95	--	--	--	--	62	16	60	51	--	83	1.0
NC+	7B47	163	--	--	--	--	93	--	--	--	--	64	15	60	48	--	90	1.1
PIONEER	84Y00	169	--	--	--	--	96	--	--	--	--	64	16	61	50	--	81	1.1
TRIUMPH	TR 459	174	--	--	--	--	99	--	--	--	--	64	16	61	46	--	103	1.0
SORG. PARTNERS	KS 585	169	137	--	153	--	96	97	--	69	14	65	15	61	47	--	103	1.0
FRONTIER	F-700E	174	152	102	163	143	99	107	103	69	15	66	16	61	55	--	92	1.0
CROPLAN GEN.	514	174	--	--	--	--	99	--	--	--	--	67	16	61	54	--	83	0.9
MATURITY CHECK	TX2752xTX430	189	168	113	178	157	107	119	114	71	14	68	16	59	53	--	75	1.1
NO GAUCHO*	TX2752xTX430	183	144	89	164	139	104	102	90	72	16	68	17	59	53	--	75	1.0
PIONEER	84G62	201	153	91	177	148	114	108	92	73	16	69	17	61	52	--	87	1.0
ASGROW	MISSILE	183	163	93	173	146	104	115	94	72	17	69	18	60	53	--	66	1.0
MONSANTO	X126	200	--	--	--	--	114	--	--	--	--	70	17	61	51	--	95	1.0
DEKALB	DKS54-00	204	159	121	182	161	116	112	122	75	15	72	17	58	56	--	88	0.9
NC+	7R83	187	133	--	160	--	106	94	--	77	17	73	17	59	55	--	91	1.0
ASGROW	A571	188	140	94	164	141	107	99	95	78	18	74	18	59	55	--	80	1.0
SORG. PARTNERS	EXP 828	172	--	--	--	--	98	--	--	--	--	76	17	60	50	--	88	1.0
SEED RESOURCE	SR 522	180	--	--	--	--	102	--	--	--	--	77	18	59	50	--	99	0.9
	AVERAGES	176	142	99	159	139	176	142	99	70	15	67	16	60	51	--	86	1.0
	CV(%)	5	5	14	--	--	5	5	14	--	--	2	3	1	3	--	9	5.9
	LSD(0.05)**	12	10	16	--	--	7	7	17	--	--	2	1	1	2	--	11	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.

SOUTHWEST KANSAS IRRIGATED GRAIN SORGHUM TEST ON SILT LOAM SOIL

Southwest Res.-Ext. Center, Garden City; Merle Witt, agronomist

Keith silt loam; Fallow in 2001

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

Planted on 5/23/02; Harvested on 11/16/02

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

Good emergence and final stands. Rainfall was below normal. A total of 15 in. of irrigation water was applied in 3 flood irrigations.

	Precipitation		Average Temp.		GDU	
Month	2002	Norm.	2002	Norm.	2002	Norm.
Nov.-Mar	0.9	2.8	37	34	13	12
April	1.2	1.7	56	51	627	509
May	0.9	2.9	62	62	848	865
June	1.2	2.9	77	72	1258	1145
July	2.5	2.5	79	78	1359	1352
August	2.2	2.2	76	75	1261	1275
Sept.	0.8	1.6	68	67	996	986
Oct.	1.8	1.0	49	54	446	632
Totals:	11.4	17.7	54	53	6,807	6,774

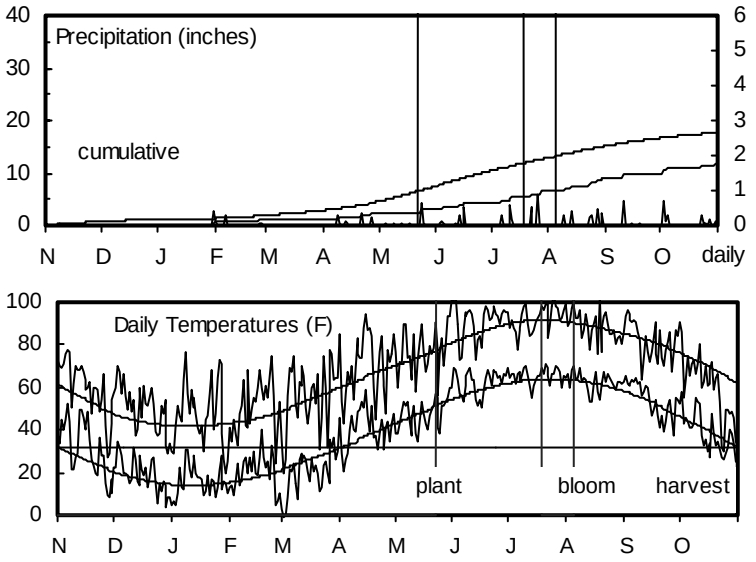


Table 19. Garden City Irr. Grain Sorghum Performance Test, 2000-2002.

BRAND	NAME	ACRE YIELD, BUSHELS 2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	YIELD AS % OF TEST AVERAGE 2002	2001	2000	2001-2002 Days to Blm	Grain Moist. %	2002 Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
NC+	5B74E	110	--	--	--	--	84	--	--	--	--	56	14	59	43	--	100	1.1
MATURITY CHECK	OK11xTX2741	111	107	91	109	103	85	81	88	65	13	58	14	59	44	--	78	1.1
MATURITY CHECK	TX3042xTX2737	128	111	95	119	111	97	83	92	66	13	58	14	59	51	--	99	1.1
NC+	6B50	132	--	87	--	--	100	--	84	--	--	58	14	60	49	--	118	1.0
NO GAUCHO*	TX3042xTX2737	130	131	94	130	118	99	98	91	65	13	58	14	60	51	--	100	1.1
SORG. PARTNERS	KS 585	106	119	--	113	--	81	90	--	67	13	59	14	60	46	--	119	1.0
GOLDEN WORLD	GW X3064	107	--	--	--	--	82	--	--	--	--	60	14	59	51	--	72	1.3
MYCOGEN	697	125	--	--	--	--	95	--	--	--	--	60	14	59	48	--	91	1.1
SEED RESOURCE	SR 420	126	--	--	--	--	96	--	--	--	--	60	14	59	50	--	108	1.0
CROPLAN GEN.	514	135	--	--	--	--	103	--	--	--	--	61	14	60	53	--	99	1.0
FRONTIER	F-700E	131	150	96	140	126	100	113	94	70	13	61	14	60	53	--	98	0.9
GARST	5440	134	--	--	--	--	102	--	--	--	--	61	14	60	53	--	108	1.0
PIONEER	84Y00	127	--	--	--	--	97	--	--	--	--	61	14	60	51	--	93	1.1
SORG. PARTNERS	K73-J6	140	138	--	139	--	106	104	--	68	13	61	14	60	53	--	108	1.0
GARST	5515	134	--	--	--	--	102	--	--	--	--	62	14	59	48	--	89	1.0
GOLDEN WORLD	GW X1464	137	--	--	--	--	105	--	--	--	--	62	14	59	50	--	78	1.1
MATURITY CHECK	TX2752xTX430	130	123	108	126	120	99	92	105	71	13	62	14	60	52	--	93	1.1
GOLDEN WORLD	GW 1489	141	--	--	--	--	107	--	--	--	--	62	15	60	53	--	89	1.0
ASGROW	MISSILE	138	165	121	152	141	105	124	117	70	13	64	14	60	52	--	85	1.1
FRONTIER	F-457E	147	173	--	160	--	112	130	--	72	13	64	14	61	50	--	86	1.1
MONSANTO	X126	137	--	--	--	--	104	--	--	--	--	64	14	60	51	--	105	0.9
NO GAUCHO*	TX2752xTX430	126	133	94	130	118	96	100	91	72	13	64	14	60	51	--	90	1.1
PIONEER	84G62	146	146	115	146	135	111	110	111	72	13	64	14	60	51	--	93	1.0

(continued)

Table 19. Garden City Irr. Grain Sorghum Performance Test, 2000-2002.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
		2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
MYCOGEN	3696	139	139	104	139	127	106	105	101	73	13	65	14	60	47	--	80	1.2
NC+	7R83	145	164	126	154	145	110	123	122	71	13	65	14	59	53	--	98	0.9
SEED RESOURCE	SR 544	131	--	--	--	--	100	--	--	--	--	65	14	60	53	--	98	1.0
SORG. PARTNERS	EXP 828	133	--	--	--	--	102	--	--	--	--	65	14	60	53	--	81	1.0
TRIUMPH	TR 481	136	111	109	123	118	103	83	106	73	13	65	14	60	56	--	101	1.0
ASGROW	A571	141	136	104	138	127	108	102	101	74	13	66	14	59	53	--	81	1.0
DEKALB	DKS54-00	132	113	114	123	120	101	85	111	74	13	68	14	60	53	--	80	1.0
GARST	N0479	141	--	--	--	--	107	--	--	--	--	71	14	60	47	--	103	0.9
SEED RESOURCE	SR 522	124	--	--	--	--	95	--	--	--	--	73	14	60	46	--	100	0.9
	AVERAGES	131	133	103	132	122	131	133	103	70	13	62	14	60	50	--	94	1.0
	CV(%)	5	12	10	--	--	5	12	10	--	--	2	1	1	2	--	8	5.1
	LSD(0.05)**	11	25	15	--	--	8	19	14	--	--	2	0	1	2	--	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.

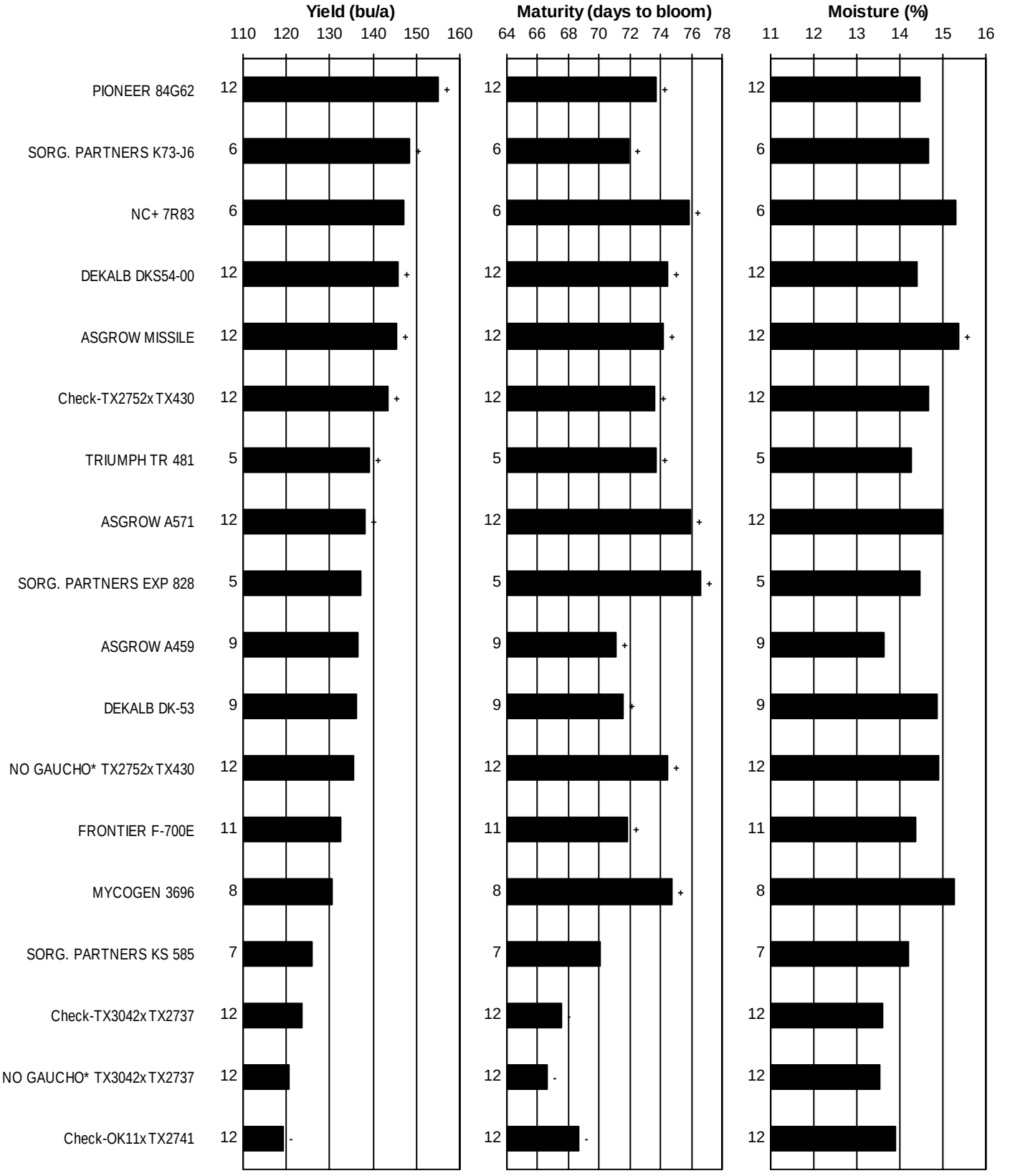
Table 20. Kansas IRRIGATED grain sorghum hybrid yield summary (% of test average), 2002.

BRAND/NAME	RPI[1]	STI	THI	GRI	FNI	AVG.
ASGROW						
A571	106	--	107	--	108	107
MISSILE	103	--	104	--	105	104
CROPLAN GEN.						
514	86	--	99	--	103	96
DEKALB						
DKS54-00	94	--	116	--	101	104
FRONTIER						
F-457E	--	--	--	--	112	--
F-700E	87	--	99	--	100	95
GARST						
5440	91	--	--	--	102	--
5515	--	--	--	--	102	--
N0479	101	--	--	--	107	--
GOLDEN WORLD						
GW 1489	103	--	--	--	107	--
GW X1464	93	--	--	--	105	--
GW X3064	99	--	--	--	82	--
MIDLAND						
M-4665	107	--	--	--	--	--
MONSANTO						
X126	117	--	114	--	104	112
MYCOGEN						
3696	--	--	--	--	106	--
697	--	--	95	--	95	--
775Y	104	--	--	--	--	--
NC+						
5B74E	--	--	--	--	84	--
6B50	--	--	92	--	100	--
7B47	--	--	93	--	--	--
7R83	--	--	106	--	110	--

BRAND/NAME	RPI	STI	THI	GRI	FNI	AVG.
PIONEER						
84G62	129	--	114	--	111	118
84Y00	119	--	96	--	97	104
SEED RESOURCE						
SR 420	--	--	--	--	96	--
SR 522	--	--	102	--	95	--
SR 544	--	--	--	--	100	--
SORG. PARTNERS						
EXP 828	106	--	98	--	102	102
K73-J6	113	--	--	--	106	--
KS 585	82	--	96	--	81	86
TRIUMPH						
TR 459	--	--	99	--	--	--
TR 481	100	--	--	--	103	--
MATURITY CHECK						
OK11xTX2741	78	--	83	--	85	82
TX2752xTX430	108	--	107	--	99	105
TX3042xTX2737	94	--	90	--	97	94
NO GAUCHO*						
TX2752xTX430	104	--	104	--	96	102
TX3042xTX2737	75	--	85	--	99	86
AVERAGES	170	--	176	--	131	159
CV(%)	4	--	5	--	5	--
LSD(0.05)**	6	--	7	--	8	--

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

Figure 8. Kansas IRRIGATED sorghum hybrid standardized performance summary, 2000-2002.



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

DOUBLE-CROP GRAIN SORGHUM TESTS

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

Parsons silt loam
30 - 0 - 0 lb/a N, P, K
Planted on 6/26/02; Harvested on 9/25/02
Target stand of 45,000 plants/acre; 4.6 in. spacing

Excellent no-till planting conditions resulted in adequate stands. Early season rainfall enabled the test to get off to a good start. Insecticide was needed to control worm feeding in late July. Hot, dry weather in August blasted later-maturing hybrids. Increasing bird feeding prompted early harvest.

Table 21. Parsons Double-Crop Grain Sorghum Performance Test, 2000-2002.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
BRAND	NAME	2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
SORG. PARTNERS	KS 310	77	--	--	--	--	121	--	--	--	--	46	11	57	38	4	104	1.4
NO GAUCHO*	TX3042xTX2737	75	--	--	--	--	118	--	--	--	--	50	16	55	43	1	105	1.3
PIONEER	87G57	74	--	--	--	--	117	--	--	--	--	49	13	56	40	2	108	1.3
SORG. PARTNERS	K35-Y5	73	--	--	--	--	115	--	--	--	--	49	13	56	38	0	92	1.6
DEKALB	DKS29-28	72	--	--	--	--	113	--	--	--	--	46	11	56	40	3	99	1.4
MATURITY CHECK	TX3042xTX2737	69	--	--	--	--	109	--	--	--	--	51	17	56	45	0	86	1.4
MIDLAND	M-4595	68	--	--	--	--	107	--	--	--	--	50	17	54	35	3	99	1.3
MIDLAND	M-4664	66	--	--	--	--	105	--	--	--	--	53	20	53	41	3	104	1.3
FRONTIER	F-222E	64	--	--	--	--	100	--	--	--	--	49	13	56	39	1	77	1.4
SORG. PARTNERS	251	59	--	--	--	--	94	--	--	--	--	45	10	56	34	1	102	1.3
SORG. PARTNERS	KS 585	55	--	--	--	--	86	--	--	--	--	53	21	54	41	1	110	1.3
MATURITY CHECK	OK11xTX2741	54	--	--	--	--	85	--	--	--	--	51	19	54	42	1	83	1.2
DELANGE	DSA 115C	48	--	--	--	--	75	--	--	--	--	55	26	49	41	0	80	1.4
MIDLAND	M-4665	35	--	--	--	--	55	--	--	--	--	55	28	48	43	1	104	1.3
	AVERAGES	63	--	--	--	--	63	--	--	--	--	50	17	54	40	2	96	1.3
	CV(%)	21	--	--	--	--	21	--	--	--	--	3	16	4	7	130	14	12.6
	LSD(0.05)**	19	--	--	--	--	30	--	--	--	--	2	4	3	4	NS	20	NS

Harvey County Experiment Field, Hesston; Mark Claassen, agronomist; Lowell Stucky and Kevin Duerksen, technicians

Smolan silty clay loam
80 - 37 - 0 lb/a N, P, K
Planted on 7/1/02; Harvested on 11/21/02
Target stand of 35,000 plants/acre; 6.0 in. spacing

Temik was applied in furrow for chinch bug control. Wet soil conditions persisted after wheat harvest and delayed sorghum planting. However, rainfall for July, August, and September was 5.5 in. below normal. Heavy rains in October delayed harvest. Most entries stood well until harvest.

Table 22. Hesston Double-Crop Grain Sorghum Performance Test, 2000-2002.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
BRAND	NAME	2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
MIDLAND	M-4664	75	--	--	--	--	111	--	--	--	--	57	14	54	38	6	102	1.1
SORG. PARTNERS	KS 585	75	--	--	--	--	111	--	--	--	--	56	15	60	37	0	98	1.1
DELANGE	DSA 115C	75	--	--	--	--	111	--	--	--	--	59	14	58	39	0	86	1.1
SORG. PARTNERS	K35-Y5	72	--	--	--	--	107	--	--	--	--	53	13	58	35	1	92	1.5
MIDLAND	M-4595	69	--	--	--	--	103	--	--	--	--	53	14	57	33	2	98	1.2
MATURITY CHECK	TX3042xTX2737	69	--	--	--	--	103	--	--	--	--	54	15	58	41	23	96	1.1
DEKALB	DKS29-28	69	--	--	--	--	102	--	--	--	--	47	14	60	35	1	102	1.0
NO GAUCHO*	TX3042xTX2737	68	--	--	--	--	101	--	--	--	--	54	14	57	42	23	100	1.1
PIONEER	87G57	68	--	--	--	--	101	--	--	--	--	48	15	59	38	3	92	1.4
SORG. PARTNERS	KS 310	68	--	--	--	--	100	--	--	--	--	49	14	58	36	1	94	1.1
MIDLAND	M-4665	68	--	--	--	--	100	--	--	--	--	64	15	57	42	1	95	1.1
MATURITY CHECK	OK11xTX2741	60	--	--	--	--	89	--	--	--	--	55	14	57	36	7	73	1.2
FRONTIER	F-222E	56	--	--	--	--	83	--	--	--	--	53	14	56	36	2	76	1.1
SORG. PARTNERS	251	51	--	--	--	--	76	--	--	--	--	46	14	58	33	5	88	1.1
	AVERAGES	67	--	--	--	--	67	--	--	--	--	54	14	58	37	5	92	1.1
	CV(%)	8	--	--	--	--	8	--	--	--	--	1	2	2	5	121	8	6.6
	LSD(0.05)**	9	--	--	--	--	13	--	--	--	--	1	1	2	3	11	13	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.

EAST CENTRAL KANSAS TAN-PLANT GRAIN SORGHUM TEST

East Central Kansas Experiment Field, Ottawa; Keith Janssen, agronomist; Jim Kimball, technician

Woodson silt loam; Soybean in 2001

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

Planted on 5/23/02; Harvested on 9/18/02

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

Emergence of many entries was inhibited by heavy rains and wet soils soon after planting. Drought stress during late June, July, and August contributed to extensive lodging. Yields were better than expected, considering the growing conditions.

Table 23. Ottawa Tan-plant Performance Test, 2000-2002.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
BRAND	NAME	2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
MONSANTO	X135	64	--	--	--	--	102	--	--	--	--	58	12	57	40	27	80	1.2
MATURITY CHECK	OK11xTX2741	66	59	120	63	82	106	68	93	63	12	60	12	57	40	42	73	0.9
MMR GENETICS	MMR341/10	57	--	111	--	--	91	--	86	--	--	61	12	57	42	73	91	0.9
CHECK	ATX631*RTX437	82	--	--	--	--	131	--	--	--	--	62	12	57	47	65	106	0.8
SORG. PARTNERS	1486	75	--	--	--	--	119	--	--	--	--	62	12	58	40	5	114	0.9
ASGROW	ECLIPSE	75	123	--	99	--	119	140	--	67	12	63	13	59	38	0	94	1.0
ASGROW	ORBIT	67	--	--	--	--	108	--	--	--	--	63	13	60	43	1	68	1.1
CHECK	AHF14*R9120	55	--	--	--	--	87	--	--	--	--	63	13	56	44	45	99	0.9
CHECK	ATX378*RTX430	76	76	111	76	88	122	87	85	67	13	63	13	56	49	67	99	1.0
DEKALB	DKS44-41	67	--	--	--	--	107	--	--	--	--	63	13	60	43	4	67	1.2
CHECK	ATX623*RTX430	58	55	108	56	74	92	63	83	66	12	63	14	55	48	83	78	1.0
MATURITY CHECK	TX399 X TX430	80	--	--	--	--	128	--	--	--	--	64	12	56	41	10	101	0.9
CHECK	ATX631*TX2903	54	47	125	51	75	87	54	96	68	13	64	13	58	45	41	70	1.0
MATURITY CHECK	TX2752xTX430	75	70	--	72	--	119	80	--	67	13	64	13	58	42	63	86	0.9
CHECK	ATX631*5CA4625	53	--	--	--	--	85	--	--	--	--	64	14	59	46	90	66	1.0
MATURITY CHECK	TX2752xTX2783	64	--	--	--	--	102	--	--	--	--	64	14	60	45	83	105	0.9
CHECK	AHF8*5CA4205-3	50	--	--	--	--	80	--	--	--	--	64	15	61	45	5	48	1.2
CHECK	A9306*RTX436	66	--	--	--	--	105	--	--	--	--	65	12	58	44	22	94	1.0
WARNER	902W	66	86	153	76	102	105	99	118	69	12	65	12	59	45	48	83	0.9
TAES-DTR	AHF14*EON361	71	93	--	82	--	113	107	--	68	13	65	13	60	46	27	85	1.0
TAES-WLR	ATx631*R8901	72	83	--	77	--	115	95	--	70	13	65	13	60	45	34	100	0.9
WARNER	WX-99277	63	--	--	--	--	101	--	--	--	--	65	13	60	44	3	74	0.9
CHECK	ATX631xTX436	65	90	150	78	102	104	103	116	69	12	66	12	59	44	37	103	0.9
MMR GENETICS	JOWAR I	74	91	136	82	100	118	104	105	70	12	66	13	58	44	33	80	1.0
SORG. PARTNERS	EXP 828	55	--	--	--	--	88	--	--	--	--	66	13	58	45	67	87	0.9
CHECK	A0PR59*5BRON131	62	--	--	--	--	99	--	--	--	--	66	14	60	44	27	87	0.9
CROSBYTON	CSC6346	56	96	133	76	95	89	110	103	70	13	66	14	59	45	25	51	1.2
FONTANELLE	W1000	56	--	--	--	--	90	--	--	--	--	66	14	59	45	20	61	1.2
CHECK	AHF8*R9603	59	--	--	--	--	95	--	--	--	--	66	15	59	47	10	72	1.0
CHECK	ATXArg1*RTX436	64	87	127	76	93	102	100	98	70	12	67	13	59	44	7	77	0.9
NC+	7W97	50	103	--	76	--	79	118	--	71	13	67	13	59	43	5	43	1.1
CHECK	ATX635xTX436	70	87	132	78	96	111	100	102	71	14	67	14	60	54	40	86	1.0
NC+	7W92	47	--	--	--	--	74	--	--	--	--	67	15	59	46	53	40	1.4
TAES-GCP	A8PR1059*LG35	32	87	--	59	--	51	99	--	70	14	67	15	59	40	3	27	1.3
DEKALB	D69	62	--	125	--	--	100	--	96	--	--	68	15	57	47	3	84	0.8
CHECK	A8PR1059*5BRON139	45	--	--	--	--	72	--	--	--	--	69	17	58	41	13	18	1.5
	AVERAGES	63	87	130	75	93	63	87	130	68	13	65	13	58	44	33	78	1.0
	CV(%)	12	11	9	--	--	12	11	9	--	--	1	7	2	5	61	11	18.3
	LSD(0.05)**	13	16	16	--	--	20	18	13	--	--	1	2	2	4	32	14	0.3

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

SOUTH CENTRAL KANSAS TAN-PLANT GRAIN SORGHUM TEST

Harvey County Experiment Field, Hesston; Mark Claassen, agronomist; Kevin Duerksen and Lowell Stucky, technicians

Ladysmith silty clay loam; Soybean in 2001

90 - 37 - 0 lb/a N, P, K

Planted on 6/10/02; Harvested on 10/15/02

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

Heavy rains after planting caused crusting which reduced stands of several entries. Drought stress in July and August resulted in stalk rots which caused severe late-season lodging in most entries. Limited, timely rains prevented more severe yield loss.

Table 24. Hesston Tan-plant Performance Test, 2000-2002.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
BRAND	NAME	2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
MATURITY CHECK	OK11xTX2741	51	68	47	60	55	95	128	95	62	15	55	14	58	39	70	68	1.3
MONSANTO	X135	54	--	--	--	--	101	--	--	--	--	55	14	58	35	63	84	1.7
ASGROW	ECLIPSE	57	57	--	57	--	106	107	--	65	15	56	14	60	37	59	88	1.5
ASGROW	ORBIT	70	--	--	--	--	129	--	--	--	--	56	14	60	40	52	87	1.4
SORG. PARTNERS	1486	59	--	--	--	--	109	--	--	--	--	56	14	59	38	70	96	1.4
CHECK	ATX631*RTX437	50	--	--	--	--	93	--	--	--	--	57	14	58	44	94	86	1.3
DEKALB	DKS44-41	57	--	--	--	--	106	--	--	--	--	57	14	59	39	65	87	1.2
MMR GENETICS	MMR341/10	50	--	39	--	--	92	--	78	--	--	57	14	57	41	51	79	1.4
MATURITY CHECK	TX399 X TX430	62	--	--	--	--	115	--	--	--	--	58	14	58	39	69	95	1.4
CROSBYTON	CSC6346	78	66	42	72	62	145	125	84	66	16	58	15	60	44	66	75	1.6
CHECK	A9306*RTX436	70	--	--	--	--	129	--	--	--	--	59	14	60	42	73	94	1.3
CHECK	AHF8*R9603	61	--	--	--	--	113	--	--	--	--	59	14	60	40	56	73	1.6
CHECK	ATX378*RTX430	42	72	54	57	56	77	137	109	65	17	59	14	58	40	88	73	1.4
CHECK	ATX623*RTX430	49	67	41	58	52	90	127	82	64	17	59	14	57	41	88	74	1.5
CHECK	ATX631*TX2903	42	56	51	49	50	78	106	102	67	16	59	14	58	42	91	85	1.1
CHECK	ATX631xTX436	63	39	50	51	50	116	73	101	69	17	59	14	59	40	76	91	1.2
FONTANELLE	W1000	56	--	--	--	--	103	--	--	--	--	59	14	59	42	71	79	1.3
MATURITY CHECK	TX2752xTX430	54	66	--	60	--	99	125	--	66	16	59	14	57	36	68	76	1.5
MMR GENETICS	JOWAR I	63	57	49	60	56	116	108	98	67	16	59	14	59	43	79	85	1.3
TAES-WLR	ATx631*R8901	64	61	--	63	--	118	116	--	67	16	59	14	59	42	74	90	1.3
WARNER	WX-99277	68	--	--	--	--	126	--	--	--	--	60	14	59	40	26	65	1.8
CHECK	AHF14*R9120	47	--	--	--	--	87	--	--	--	--	60	15	55	41	55	85	1.0
WARNER	902W	51	50	49	50	50	94	95	98	68	16	61	14	58	39	59	74	1.3
CHECK	ATX631*5CA4625	58	--	--	--	--	108	--	--	--	--	61	15	59	46	69	72	1.5
NC+	7W92	53	--	--	--	--	97	--	--	--	--	62	14	59	41	66	57	1.6
CHECK	AHF8*5CA4205-3	56	--	--	--	--	104	--	--	--	--	62	15	59	42	28	77	1.4
CHECK	ATXArg1*RTX436	50	41	51	45	47	92	77	103	72	17	63	14	58	39	28	82	1.1
NC+	7W97	53	39	--	46	--	98	74	--	73	17	63	14	59	40	16	68	1.3
MATURITY CHECK	TX2752xTX2783	54	--	--	--	--	99	--	--	--	--	64	15	59	40	48	78	1.3
SORG. PARTNERS	EXP 828	56	--	--	--	--	104	--	--	--	--	66	14	57	41	16	98	1.0
TAES-DTR	AHF14*EON361	57	46	--	51	--	105	87	--	71	16	66	14	58	42	24	78	1.1
CHECK	A0PR59*5BRON131	42	--	--	--	--	77	--	--	--	--	66	15	58	41	28	70	1.2
CHECK	ATX635xTX436	72	51	38	61	54	134	96	76	78	18	68	14	59	46	16	81	1.5
TAES-GCP	A8PR1059*LG35	25	40	--	32	--	45	76	--	72	16	68	15	59	42	6	47	1.1
CHECK	A8PR1059*5BRON139	7	--	--	--	--	14	--	--	--	--	73	16	58	41	3	53	1.0
DEKALB	D69	47	--	33	--	--	86	--	67	--	--	75	16	57	46	4	81	1.0
	AVERAGES	54	53	50	53	52	54	53	50	68	16	61	14	58	41	53	79	1.3
	CV(%)	14	17	10	--	--	14	17	10	--	--	3	3	2	5	27	13	15.4
	LSD(0.05)**	13	15	7	--	--	23	28	14	--	--	3	1	2	3	24	17	0.3

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

NORTH CENTRAL KANSAS IRR. TAN-PLANT GRAIN SORGHUM TEST ON SILT LOAM SOIL

Irrigation Experiment Field, Scandia; Barney Gordon, agronomist; Michael Larson and Allan Milner, technicians

Crete silt loam; Soybean in 2001

180 - 30 - 0 lb/a N, P, K

Planted on 5/14/02; Harvested on 10/2/02

Target stand of 82,200 plants/acre; 2.5 in. spacing

Good growing conditions early. Very hot, dry summer; lowest rainfall since 1934. No disease or insect problems of importance.

Table 25. Scandia Irrigated Tan-plant Performance Test, 2000-2002.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
BRAND	NAME	2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
MATURITY CHECK	OK11xTX2741	133	--	--	--	--	84	--	--	--	--	63	14	60	44	--	77	1.0
ASGROW	ECLIPSE	134	--	--	--	--	85	--	--	--	--	63	15	60	45	--	79	1.0
ASGROW	ORBIT	137	--	--	--	--	87	--	--	--	--	64	14	60	45	--	78	1.0
SORG. PARTNERS	1486	115	--	--	--	--	73	--	--	--	--	64	14	59	40	--	78	1.0
MMR GENETICS	MMR341/10	158	--	--	--	--	101	--	--	--	--	65	14	60	46	--	77	1.0
MATURITY CHECK	TX399 X TX430	144	--	--	--	--	92	--	--	--	--	65	15	60	46	--	78	1.0
MONSANTO	X135	130	--	--	--	--	83	--	--	--	--	65	15	59	39	--	77	1.0
CHECK	A9306*RTX436	134	--	--	--	--	85	--	--	--	--	66	14	60	44	--	76	1.0
MATURITY CHECK	TX2752xTX430	153	--	--	--	--	97	--	--	--	--	66	15	60	44	--	78	1.0
TAES-GCP	A8PR1059*LG35	166	--	--	--	--	106	--	--	--	--	66	16	60	46	--	76	1.0
CHECK	A8PR1059*5BRON139	167	--	--	--	--	106	--	--	--	--	67	16	59	47	--	76	1.0
DEKALB	DKS44-41	170	--	--	--	--	108	--	--	--	--	68	15	61	46	--	77	1.0
CHECK	ATX378*RTX430	161	--	--	--	--	103	--	--	--	--	69	14	60	47	--	78	1.0
CHECK	AHF8*5CA4205-3	161	--	--	--	--	102	--	--	--	--	69	15	61	45	--	74	1.0
CHECK	ATX623*RTX430	159	--	--	--	--	101	--	--	--	--	69	15	60	52	--	76	1.0
CROSBYTON	CSC6346	169	--	--	--	--	108	--	--	--	--	69	15	60	47	--	76	1.0
MATURITY CHECK	TX2752xTX2783	191	--	--	--	--	121	--	--	--	--	69	15	61	51	--	79	1.0
CHECK	AHF8*R9603	178	--	--	--	--	113	--	--	--	--	70	15	61	46	--	75	1.0
CHECK	ATX631*RTX437	183	--	--	--	--	116	--	--	--	--	70	15	60	53	--	80	1.0
CHECK	ATX631*TX2903	157	--	--	--	--	100	--	--	--	--	70	15	60	45	--	78	1.0
CHECK	ATX631xTX436	176	--	--	--	--	112	--	--	--	--	70	15	61	50	--	75	1.0
CHECK	ATX635xTX436	178	--	--	--	--	113	--	--	--	--	70	15	61	47	--	77	1.0
FONTANELLE	W1000	179	--	--	--	--	113	--	--	--	--	70	15	61	50	--	77	1.0
NC+	7W92	179	--	--	--	--	114	--	--	--	--	70	15	61	48	--	76	1.0
SORG. PARTNERS	EXP 828	175	--	--	--	--	111	--	--	--	--	70	15	60	48	--	74	1.0
TAES-WLR	ATx631*R8901	157	--	--	--	--	99	--	--	--	--	70	15	61	45	--	75	1.0
WARNER	902W	179	--	--	--	--	114	--	--	--	--	70	15	61	48	--	77	1.0
WARNER	WX-99277	132	--	--	--	--	84	--	--	--	--	71	14	60	48	--	76	1.0
CHECK	A0PR59*5BRON131	173	--	--	--	--	110	--	--	--	--	71	15	61	48	--	77	1.0
CHECK	AHF14*R9120	144	--	--	--	--	92	--	--	--	--	71	15	59	46	--	78	1.0
CHECK	ATX631*5CA4625	162	--	--	--	--	103	--	--	--	--	71	15	60	50	--	76	1.0
CHECK	ATXArg1*RTX436	160	--	--	--	--	102	--	--	--	--	71	15	61	45	--	77	1.0
DEKALB	D69	126	--	--	--	--	80	--	--	--	--	71	15	59	43	--	75	1.0
NC+	7W97	144	--	--	--	--	91	--	--	--	--	71	15	61	46	--	76	1.0
TAES-DTR	AHF14*EON361	119	--	--	--	--	76	--	--	--	--	71	15	60	45	--	79	1.0
MMR GENETICS	JOWAR I	180	--	--	--	--	114	--	--	--	--	72	15	61	46	--	79	1.0
	AVERAGES	157	--	--	--	--	157	--	--	--	--	69	15	60	46	--	77	1.0
	CV(%)	5	--	--	--	--	5	--	--	--	--	1	2	1	2	--	3	1.1
	LSD(0.05)**	13	--	--	--	--	8	--	--	--	--	1	1	1	1	--	NS	NS

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

NORTHWEST KANSAS IRRIGATED TAN-PLANT GRAIN SORGHUM TEST ON SILT LOAM SOIL

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

Keith silt loam; Sunflower in 2001

110 - 45 - 0 lb/a N, P, K

Planted on 5/29/02; Harvested on 10/21/02

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

A total of 19 in. of water applied in 4 irrigations. Stands below 50% (45,450 plants/acre) adversely affected yields. Hybrids with stands above 50% were not adversely affected. No disease or insect problems were noted.

Table 26. Colby Irr. Tan-plant Performance Test, 2000-2002.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
BRAND	NAME	2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
MONSANTO	X135	146	--	--	--	--	90	--	--	--	--	57	14	59	44	--	73	1.2
MMR GENETICS	MMR341/10	134	--	--	--	--	83	--	--	--	--	58	14	61	49	--	74	1.0
MATURITY CHECK	OK11xTX2741	151	100	--	126	--	94	85	--	64	15	59	15	61	45	--	57	1.2
ASGROW	ORBIT	138	--	--	--	--	86	--	--	--	--	60	14	60	51	--	70	1.1
CHECK	ATX623*RTX430	169	137	--	153	--	105	116	--	64	14	60	14	56	61	--	74	1.0
DEKALB	DKS44-41	145	--	--	--	--	90	--	--	--	--	60	15	61	47	--	66	1.0
MATURITY CHECK	TX399 X TX430	188	--	--	--	--	117	--	--	--	--	60	15	58	49	--	83	1.2
ASGROW	ECLIPSE	149	105	--	127	--	92	88	--	67	15	61	15	61	48	--	73	1.1
CHECK	ATX631*RTX437	165	--	--	--	--	102	--	--	--	--	62	15	58	59	--	72	1.0
CHECK	ATX378*RTX430	194	156	--	175	--	120	132	--	68	15	63	15	58	61	--	83	1.1
SORG. PARTNERS	1486	149	--	--	--	--	93	--	--	--	--	63	15	59	46	--	81	1.1
CHECK	AHF8*5CA4205-3	141	--	--	--	--	87	--	--	--	--	64	17	62	51	--	48	1.2
WARNER	902W	172	142	--	157	--	107	120	--	71	17	65	16	59	59	--	70	1.0
MMR GENETICS	JOWAR I	183	135	--	159	--	113	114	--	71	17	65	17	60	59	--	66	1.1
CHECK	ATX631*TX2903	165	132	--	149	--	103	112	--	70	16	66	16	58	57	--	58	1.1
TAES-DTR	AHF14*EON361	171	135	--	153	--	106	114	--	69	16	66	16	59	51	--	71	1.0
CHECK	ATX631*5CA4625	156	--	--	--	--	97	--	--	--	--	66	17	61	59	--	45	1.1
CROSBYTON	CSC6346	176	137	--	156	--	109	116	--	71	18	66	17	59	59	--	77	1.0
MATURITY CHECK	TX2752xTX430	198	155	--	177	--	123	131	--	70	17	66	17	59	55	--	73	1.1
CHECK	AHF14*R9120	161	--	--	--	--	100	--	--	--	--	67	15	58	53	--	89	1.0
FONTANELLE	W1000	167	--	--	--	--	104	--	--	--	--	67	17	59	58	--	67	1.0
TAES-WLR	ATx631*R8901	177	140	--	159	--	110	118	--	72	18	67	17	58	58	--	66	1.0
CHECK	AHF8*R9603	128	--	--	--	--	79	--	--	--	--	67	18	60	54	--	32	1.5
MATURITY CHECK	TX2752xTX2783	210	--	--	--	--	131	--	--	--	--	67	18	61	58	--	81	1.0
CHECK	A0PR59*5BRON131	171	--	--	--	--	106	--	--	--	--	68	16	61	57	--	56	1.2
CHECK	A9306*RTX436	184	--	--	--	--	114	--	--	--	--	68	17	59	54	--	67	1.0
NC+	7W92	159	--	--	--	--	99	--	--	--	--	68	19	58	57	--	35	1.4
TAES-GCP	A8PR1059*LG35	115	78	--	97	--	71	66	--	73	18	69	16	61	50	--	25	1.6
CHECK	ATX631xTX436	166	124	--	145	--	103	105	--	73	18	69	18	58	59	--	55	1.1
SORG. PARTNERS	EXP 828	175	--	--	--	--	109	--	--	--	--	70	17	60	53	--	94	1.0
NC+	7W97	156	124	--	140	--	97	105	--	74	18	71	17	59	53	--	49	1.1
WARNER	WX-99277	150	--	--	--	--	93	--	--	--	--	72	17	58	52	--	71	1.1
CHECK	A8PR1059*5BRON139	63	--	--	--	--	39	--	--	--	--	72	19	57	51	--	8	1.9
CHECK	ATXArg1*RTX436	142	115	--	128	--	88	97	--	75	20	72	19	58	53	--	36	1.1
DEKALB	D69	190	--	--	--	--	118	--	--	--	--	73	18	55	63	--	82	0.9
CHECK	ATX635xTX436	194	128	--	161	--	121	108	--	77	21	73	21	57	65	--	62	1.1
	AVERAGES	161	118	--	140	--	161	118	--	70	17	66	16	59	54	--	64	1.1
	CV(%)	8	9	--	--	--	8	9	--	--	--	1	4	1	3	--	15	12.9
	LSD(0.05)**	22	18	--	--	--	13	15	--	--	--	2	1	1	3	--	16	0.2

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

SOUTHWEST KANSAS IRRIGATED TAN-PLANT GRAIN SORGHUM TEST ON SILT LOAM SOIL

Southwest Res.-Ext. Center, Garden City; Merle Witt, agronomist

Keith silt loam; Fallow in 2001

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

Planted on 5/23/02; Harvested on 11/20/02

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

Stands were somewhat lower than for the standard performance test. Rainfall was well below normal. A total of 15 in. of irrigation water was applied in 3 flood irrigations.

Table 27. Garden City Irr. Tan-plant Performance Test, 2000-2002.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
BRAND	NAME	2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
MONSANTO	X135	101	--	--	--	--	94	--	--	--	--	57	12	58	46	--	91	1.2
ASGROW	ECLIPSE	93	90	--	92	--	87	86	--	67	12	58	12	60	47	--	85	1.1
ASGROW	ORBIT	94	--	--	--	--	88	--	--	--	--	58	12	60	51	--	79	1.3
MATURITY CHECK	OK11xTX2741	95	104	--	100	--	89	99	--	65	12	58	12	59	46	--	81	1.1
MMR GENETICS	MMR341/10	95	--	--	--	--	89	--	--	--	--	58	12	59	50	--	83	1.1
CHECK	ATX623*RTX430	91	124	--	107	--	86	118	--	68	12	59	12	58	60	--	91	1.1
CHECK	ATX631*RTX437	98	--	--	--	--	91	--	--	--	--	60	12	59	60	--	95	1.1
DEKALB	DKS44-41	100	--	--	--	--	94	--	--	--	--	60	12	60	48	--	78	1.1
MATURITY CHECK	TX399 X TX430	125	--	--	--	--	117	--	--	--	--	60	12	58	51	--	98	1.2
SORG. PARTNERS	1486	97	--	--	--	--	91	--	--	--	--	60	12	57	44	--	91	1.2
TAES-DTR	AHF14*EON361	118	105	--	111	--	110	101	--	69	12	60	12	59	51	--	93	1.1
CHECK	ATX378*RTX430	105	121	--	113	--	98	116	--	69	12	61	12	59	59	--	96	1.2
MATURITY CHECK	TX2752xTX430	111	123	--	117	--	104	118	--	69	12	61	12	59	54	--	99	1.1
CHECK	AHF8*5CA4205-3	102	--	--	--	--	95	--	--	--	--	61	13	61	52	--	65	1.3
CHECK	A9306*RTX436	122	--	--	--	--	114	--	--	--	--	62	12	60	54	--	108	1.0
CROSBYTON	CSC6346	122	103	--	112	--	114	98	--	72	12	62	12	60	58	--	86	1.1
MMR GENETICS	JOWAR I	113	125	--	119	--	106	119	--	71	12	62	12	60	58	--	90	1.0
WARNER	902W	117	137	--	127	--	109	130	--	71	12	62	12	60	59	--	89	1.1
CHECK	ATX631*5CA4625	98	--	--	--	--	92	--	--	--	--	62	13	60	60	--	77	1.1
FONTANELLE	W1000	113	--	--	--	--	106	--	--	--	--	62	13	60	59	--	83	1.1
MATURITY CHECK	TX2752xTX2783	109	--	--	--	--	102	--	--	--	--	62	13	61	57	--	99	1.0
CHECK	A0PR59*5BRON131	108	--	--	--	--	101	--	--	--	--	63	12	61	55	--	72	1.2
CHECK	AHF14*R9120	112	--	--	--	--	105	--	--	--	--	63	12	59	51	--	87	1.0
CHECK	ATX631xTX436	112	120	--	116	--	105	114	--	73	12	64	12	60	57	--	75	1.3
CHECK	ATXArg1*RTX436	128	121	--	124	--	119	115	--	73	12	64	12	60	53	--	78	1.1
CHECK	AHF8*R9603	117	--	--	--	--	109	--	--	--	--	64	13	61	55	--	64	1.3
CHECK	ATX631*TX2903	103	91	--	97	--	97	87	--	71	12	64	13	59	58	--	92	1.0
TAES-WLR	ATx631*R8901	110	114	--	112	--	103	109	--	71	12	64	13	60	58	--	98	1.0
NC+	7W97	113	117	--	115	--	106	111	--	74	12	65	12	60	53	--	43	1.5
SORG. PARTNERS	EXP 828	108	--	--	--	--	101	--	--	--	--	65	12	60	53	--	102	1.0
NC+	7W92	108	--	--	--	--	101	--	--	--	--	65	13	60	57	--	41	1.7
CHECK	ATX635xTX436	88	109	--	99	--	82	104	--	74	12	66	13	61	67	--	87	1.1
TAES-GCP	A8PR1059*LG35	109	110	--	109	--	102	105	--	75	12	66	13	61	49	--	35	1.9
WARNER	WX-99277	95	--	--	--	--	89	--	--	--	--	66	13	61	53	--	50	1.5
CHECK	A8PR1059*5BRON139	126	--	--	--	--	117	--	--	--	--	68	13	60	49	--	38	1.7
DEKALB	D69	95	--	--	--	--	88	--	--	--	--	68	13	60	65	--	96	1.0
	AVERAGES	107	105	--	106	--	107	105	--	71	12	62	12	60	54	--	81	1.2
	CV(%)	11	22	--	--	--	11	22	--	--	--	1	2	1	2	--	11	10.1
	LSD(0.05)**	20	38	--	--	--	19	36	--	--	--	1	0	1	2	--	14	0.2

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

Table 28. Combined Tan-plant tests, 2000-2002.*

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2002		2002						
		2002	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2002	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
MONSANTO	X135	99	--	--	--	--	91	--	--	--	--	58	13	58	41	18	81	1.3
MATURITY CHECK	OK11xTX2741	99	83	84	91	89	92	86	93	63	14	59	14	59	43	22	71	1.1
MMR GENETICS	MMR341/10	99	--	75	--	--	91	--	84	--	--	60	13	59	45	25	81	1.1
ASGROW	ECLIPSE	102	101	--	101	--	94	106	--	66	14	60	14	60	43	12	84	1.1
ASGROW	ORBIT	101	--	--	--	--	93	--	--	--	--	60	14	60	46	10	76	1.2
SORG. PARTNERS	1486	99	--	--	--	--	91	--	--	--	--	61	13	58	42	15	92	1.1
MATURITY CHECK	TX399 X TX430	120	--	--	--	--	111	--	--	--	--	61	14	58	45	16	91	1.2
CHECK	ATX623*RTX430	105	105	74	105	95	97	110	83	66	14	62	14	57	53	34	79	1.1
CHECK	ATX631*RTX437	116	--	--	--	--	107	--	--	--	--	62	14	58	52	32	88	1.0
DEKALB	DKS44-41	108	--	--	--	--	100	--	--	--	--	62	14	60	45	14	75	1.1
CHECK	ATX378*RTX430	116	104	82	110	101	107	108	92	67	14	63	14	58	51	31	86	1.1
MATURITY CHECK	TX2752xTX430	118	109	--	113	--	109	113	--	68	14	63	14	59	46	26	82	1.1
CHECK	A9306*RTX436	115	--	--	--	--	106	--	--	--	--	64	14	59	48	19	88	1.1
CHECK	AHF8*5CA4205-3	102	--	--	--	--	94	--	--	--	--	64	15	61	47	7	63	1.2
CROSBYTON	CSC6346	120	102	87	111	103	111	106	97	70	15	64	15	60	51	18	73	1.2
CHECK	AHF14*R9120	104	--	--	--	--	96	--	--	--	--	65	14	57	47	20	88	1.0
CHECK	ATX631*TX2903	105	81	88	93	91	97	85	98	69	14	65	14	59	49	26	77	1.1
MMR GENETICS	JOWAR I	122	109	92	115	108	113	113	103	70	14	65	14	60	50	23	80	1.1
TAES-WLR	ATx631*R8901	116	111	--	113	--	107	115	--	70	14	65	14	59	50	22	86	1.1
WARNER	902W	117	110	101	114	109	108	115	113	70	14	65	14	59	50	21	79	1.1
CHECK	AHF8*R9603	109	--	--	--	--	100	--	--	--	--	65	15	60	48	13	63	1.3
CHECK	ATX631*5CA4625	106	--	--	--	--	97	--	--	--	--	65	15	60	52	32	67	1.2
FONTANELLE	W1000	114	--	--	--	--	105	--	--	--	--	65	15	59	51	18	73	1.1
MATURITY CHECK	TX2752xTX2783	125	--	--	--	--	116	--	--	--	--	65	15	60	50	26	88	1.0
CHECK	ATX631xTX436	116	100	100	108	105	107	104	111	71	14	66	14	59	50	23	80	1.1
TAES-DTR	AHF14*EON361	107	102	--	105	--	99	106	--	69	14	66	14	59	47	10	81	1.0
NC+	7W92	109	--	--	--	--	100	--	--	--	--	66	15	59	50	24	50	1.4
CHECK	A0PR59*5BRON131	111	--	--	--	--	103	--	--	--	--	67	14	60	49	11	72	1.1
NC+	7W97	103	103	--	103	--	95	107	--	73	14	67	14	60	47	4	56	1.2
SORG. PARTNERS	EXP 828	114	--	--	--	--	105	--	--	--	--	67	14	59	48	17	91	1.0
WARNER	WX-99277	102	--	--	--	--	94	--	--	--	--	67	14	60	47	6	67	1.3
CHECK	ATXArg1*RTX436	109	101	89	105	100	100	105	100	73	15	67	15	59	47	7	70	1.1
TAES-GCP	A8PR1059*LG35	89	87	--	88	--	82	91	--	72	15	67	15	60	45	2	42	1.4
CHECK	ATX635xTX436	120	99	85	110	102	111	103	95	75	16	69	15	60	56	11	79	1.1
CHECK	A8PR1059*5BRON139	82	--	--	--	--	75	--	--	--	--	70	16	58	46	3	38	1.4
DEKALB	D69	104	--	79	--	--	96	--	88	--	--	71	15	58	53	1	83	0.9
	AVERAGES	108	96	90	102	98	108	96	90	69	14	64	14	59	48	17	76	1.1
	CV(%)	9	16	10	--	--	9	16	10	--	--	2	4	1	3	64	11	13.2
	LSD(0.05)**	7	11	9	--	--	7	12	10	--	--	1	0	1	1	8	6	0.1

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

* 2002 locations: Ottawa, Scandia irrigated, Hesston, Colby irrigated, Garden City irrigated
2001 locations: Ottawa, Belleville, Hesston, Colby irrigated, Garden City irrigated
2000 locations: Ottawa, Hesston

Appendix: Entries in the 2002 Kansas Grain Sorghum Performance Tests*

BRAND	GC	EC	PC	Mat.	Days	GB	Fe chlor. ratings Col.	Trib.	02	01-02
ASGROW										
PULSAR	-	-	-	-	-	-	3.0	3.0	3.0	-
A459	B	W	P	M	68	CE	3.1	2.0	2.5	3.2
ORBIT	C	W	T	M	69	CE	2.5	2.8	2.6	-
ECLIPSE	C	W	T	M	70	CE	2.9	3.0	2.9	3.2
A571	R	W	P	L	71	-	2.8	2.0	2.4	2.8
MISSILE	B	HY	P	L	74	CE	3.2	2.2	2.7	3.4
CROPLAN GEN.										
414	R	-	P	ME	62	C	3.0	3.4	3.2	3.3
514	R	-	-	M	66	E	2.8	2.1	2.5	-
DEKALB										
DKS29-28	-	-	-	-	-	-	-	-	-	-
DKS36-00	B	HY	P	E	68	CEI	3.0	2.2	2.6	2.7
DK-39Y	Y	Y	P	E	69	CE	2.7	2.6	2.6	-
DKS42-20	B	HY	P	M	70	CE	2.4	3.0	2.7	-
DK-44	B	HY	P	M	71	CE	2.8	3.2	3.0	3.3
DKS44-41	Y	Y	T	M	71	CE	2.0	2.4	2.2	-
DK-53	B	HY	P	L	74	CE	3.2	2.4	2.8	3.0
DKS54-00	B	HY	P	L	75	CEI	2.2	2.6	2.4	2.7
DELANGE										
DSA 115C	C	HY	P	ME	62	CE	3.2	2.6	2.9	3.5
DSA 133	B	HY	P	M	66	CE	2.8	2.0	2.4	2.7
DSA 147	R	W	P	ML	70	CE	3.0	1.8	2.4	3.0
DYNA-GRO										
DG-730B	B	Y	P	ME	62	CE	3.0	2.8	2.9	-
DG-740C	C	Y	P	ME	62	C	3.5	3.4	3.5	-
DG-760C	C	Y	P	M	66	C	3.0	2.4	2.7	3.0
FRONTIER										
F-222E	R	Y	P	E	52	E	-	-	-	-
F-303C	Y	Y	T	M	60	E	2.6	2.5	2.6	3.1
F-457E	Br	Y	P	M	60	E	2.6	3.3	3.0	3.4
F-700E	R	HY	P	L	70	E	3.3	2.5	2.9	3.2
GARST										
9135	B	HY	P	E	58	-	3.1	3.0	3.0	3.6
5750	B	HY	P	E	60	CE	3.2	2.5	2.9	3.1
5624	B	HY	P	ME	63	C	2.4	2.3	2.3	2.9
5515	B	HY	P	M	68	-	3.4	3.7	3.5	3.6
N1354	B	HY	P	L	68	-	3.8	2.5	3.2	-
N0479	R	HY	P	L	69	C	2.3	2.7	2.5	-
5440	R	W	P	M	70	CE	2.1	3.0	2.6	3.2
5382	B	HY	P	L	72	-	4.0	2.9	3.4	3.7
GOLDEN WORLD										
GW X1464	Bz	HY	P	M	65	E	2.3	2.4	2.4	-
GW X3064	Bz	HY	P	M	65	E	4.4	2.4	3.4	-
GW 1489	R	W	P	ML	68	E	3.3	2.9	3.1	3.4
HOEGEMEYER										
6055	B	Y	-	M	62	-	2.6	2.1	2.4	3.2
6870	B	Y	-	L	70	CE	2.7	2.6	2.7	2.8
KAYSTAR										
KS-505	R	Y	P	ME	65	CE	3.5	2.8	3.2	-
K-STATE										
TX399x00-7645	-	-	-	-	-	-	3.5	4.5	4.0	-
MIDLAND										
M-4595	-	-	-	-	-	-	-	-	-	-
M-4664	B	W	P	ME	60	O	2.2	2.8	2.5	2.7
M-4614	C	W	P	ME	62	E	2.9	2.4	2.6	3.0
M-4665	B	W	P	ME	63	C	2.7	2.4	2.5	-
M-4725	C	HY	P	M	64	O	2.6	2.2	2.4	3.0
M-4758Y	Y	HY	P	M	65	O	2.3	2.4	2.4	3.3
MX 212	B	-	P	M	68	CE	2.3	2.7	2.5	-
MX 994	R	-	P	ML	69	C	2.8	2.8	2.8	-
M-4818	B	W	P	ML	70	CE	3.8	3.2	3.5	4.0
MIDWEST SEED										
O 256	B	Y	P	ML	68	CE	3.3	2.7	3.0	3.1
MONSANTO										
X135	C	W	T	E	68	CE	3.3	3.2	3.2	-
X128	B	HY	P	L	73	CE	3.1	2.2	2.7	-
X126	B	HY	P	L	74	CEI	2.6	1.9	2.3	-
X129	B	HY	P	L	74	CEI	2.6	2.2	2.4	-
MYCOGEN										
1G125	-	-	-	-	-	-	2.4	3.1	2.7	-
1482	R	HY	P	M	64	CE	3.2	2.2	2.7	3.3
M3838	C	HY	P	M	67	CE	2.6	3.3	2.9	3.3
1506	LR	HY	P	M	68	CE	2.6	2.2	2.4	2.9
627	B	HY	P	M	68	CEIK	2.1	1.8	1.9	2.7
697	B	HY	P	M	68	CEIK	3.6	2.2	2.9	3.0
737	B	HY	P	M	70	C	1.2	1.7	1.5	2.4
775Y	C	Y	P	M	70	CEIK	2.7	3.5	3.1	3.6
3696	Y	Y	T	ML	74	CEI	3.6	2.8	3.2	3.2
NC+										
5B74E	B	HY	P	E	60	CE	3.4	2.5	2.9	3.0
5B89	B	HY	P	E	61	C	1.9	2.5	2.2	2.7
6B50	B	HY	P	ME	62	-	2.4	2.3	2.4	2.9
Y363	Y	Y	P	ME	64	C	2.8	2.2	2.5	2.9
6B70	B	HY	P	M	65	C	3.9	2.5	3.2	3.4
7B47	B	Y	P	M	70	-	1.9	2.5	2.2	2.7
7R83	R	W	P	ML	70	-	2.8	2.0	2.4	3.2
7W51	W	W	P	M	70	CE	2.3	2.1	2.2	2.7
7Y57K	Y	Y	P	M	70	CEIK	2.7	1.7	2.2	2.7
PIONEER										
87G57	B	Y	P	E	63	CE	2.2	2.4	2.3	2.8
86G71	B	Y	P	E	65	CE	3.0	3.0	3.0	3.5
85Y34	Y	Y	P	E	66	CE	2.2	3.0	2.6	3.0
8500	R	W	P	M	68	-	2.6	2.1	2.3	3.0
8505	R	W	P	M	68	CE	3.3	2.4	2.8	-
85G85	B	Y	P	M	69	-	2.5	1.6	2.0	2.9
84G62	B	Y	P	L	72	CE	2.0	2.1	2.1	2.4
84Y00	W	Y	P	L	72	-	1.8	2.5	2.1	2.6
SEED RESOURCE										
SR 251	B	HY	P	ME	62	CE	3.6	2.0	2.8	-
SR 255c	C	HY	P	ME	62	C	2.9	2.5	2.7	-
SR 420	B	W	P	M	66	CE	2.7	2.7	2.7	-
SR 522	R	W	P	ML	67	CE	2.9	2.8	2.8	-
SR 544	R	W	P	ML	70	CE	2.5	2.8	2.6	-

(continued)

Appendix: Entries in the 2002 Kansas Grain Sorghum Performance Tests*

BRAND	GC	EC	PC	Mat.	Days	GB	Fe chlor. ratings Col.	Trib.	02	01-02
SORG. PARTNERS										
251	-	-	-	-	-	-	-	-	-	-
KS 310	B	HY	P	E	55	E	-	-	-	-
K35-Y5	C	HY	-	E	65	E	-	-	-	-
KS 585	B	HY	P	M	67	CE	2.7	2.7	2.7	3.2
EXP 828	W	HY	T	ML	73	-	3.0	3.4	3.2	3.7
K73-J6	R	HY	P	ML	73	CE	2.9	2.4	2.7	3.3
TRIUMPH										
TR 438	B	W	P	E	60	CE	3.7	2.0	2.9	3.1
TR 461	R	W	P	M	62	CE	2.2	2.8	2.5	3.1
TR 465	B	W	P	M	62	CEI	2.4	3.0	2.7	3.2
TR460	Y	W	P	M	62	CEI	2.7	1.7	2.2	-
TR 459	B	W	P	ME	64	CE	2.9	2.9	2.9	3.4
TR 462	R	W	P	M	70	CE	3.0	2.8	2.9	3.5
TR 481	R	W	P	ML	72	CE	2.9	2.2	2.5	3.4
VALLEY PREMIUM										
VP 53+	R	WAX	P	ME	66	CDE	2.5	2.6	2.5	3.2
VP 53	R	R	P	ME	67	CDE	3.5	2.9	3.2	3.7
VP 70	C	W	P	M	69	CDE	3.3	1.8	2.6	3.2
VP 90	B	HY	P	ML	72	CDE	3.8	2.2	3.0	3.3
WILLCROSS										
WX 251	B	HY	P	ME	62	CE	3.1	2.5	2.8	-
WX 255	C	HY	P	ME	62	C	3.8	3.1	3.5	-
WX 420	B	W	P	M	66	CE	3.0	2.7	2.9	-
WX 522	R	W	P	ML	67	CE	2.6	3.1	2.9	-
WX 544	R	W	P	ML	70	CE	3.3	3.2	3.3	-
MATURITY CHECK										
TX3042xTX2737	B	W	P	E	65	-	2.4	2.4	2.4	2.9
OK11xTX2741	W	W	P	M	69	-	3.6	2.7	3.1	3.3
TX2752xTX430	B	W	P	L	73	-	2.7	2.7	2.7	2.8

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

From iron chlorosis screening tests:
Fe chlor. ratings = visual rating of plant color and vigor
1 = green, no chlorosis; 5 = all leaves yellow (chlorotic), stunted
Col. = Colby, Trib. = Tribune
02 = average of 2002 ratings
01-02 = average of ratings made in 2001 and 2002 (4 tests)

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