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2003

KANSAS PERFORMANCE TESTS WITH GRAIN SORGHUM HYBRIDS

REPORT OF PROGRESS 915

Kansas State University
Agricultural Experiment Station
and Cooperative Extension Service

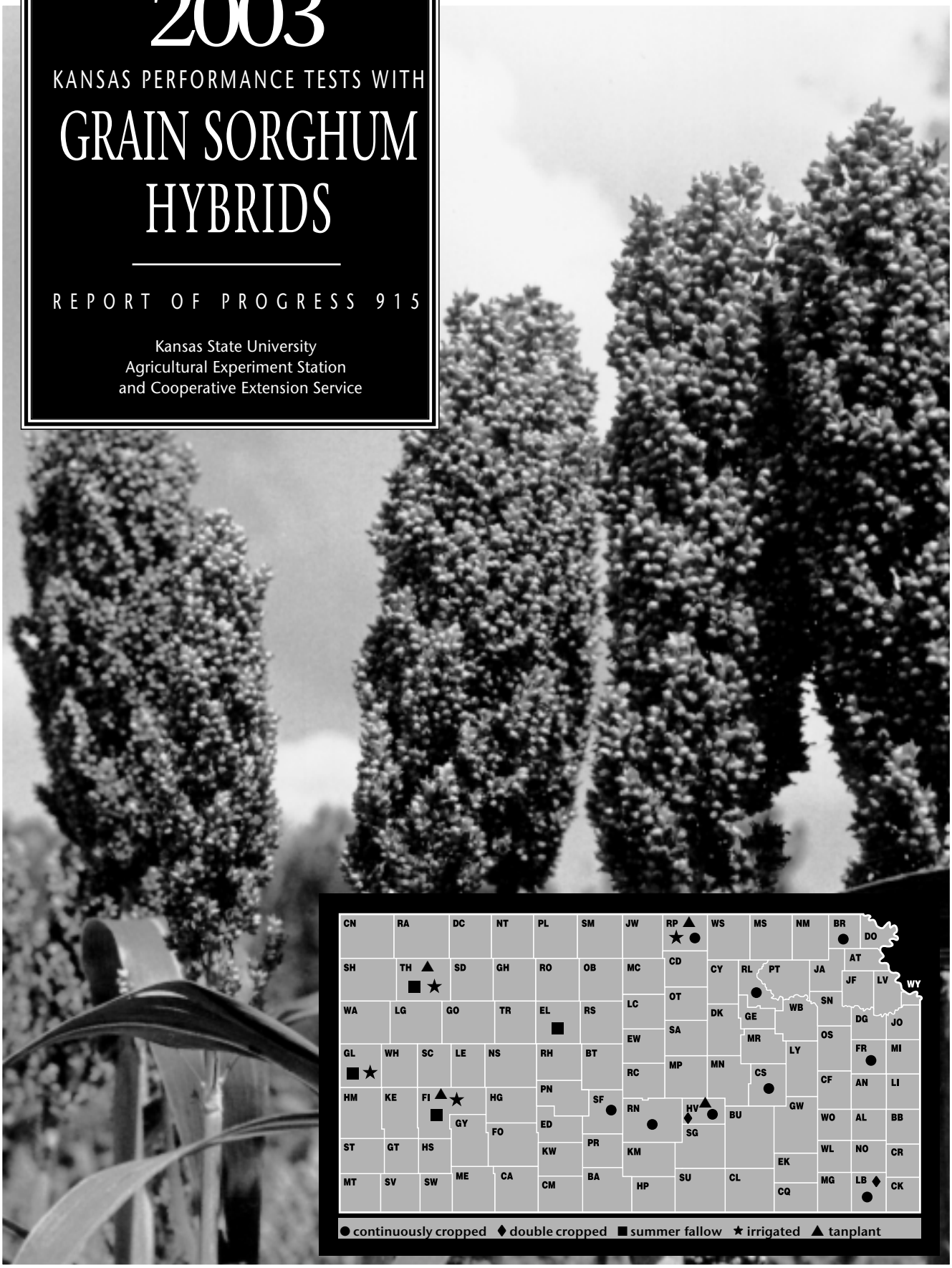

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TABLE OF CONTENTS

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2003 GRAIN SORGHUM CROP REVIEW

Statewide Growing Conditions

The 2003 growing season was similar to the previous year with a prolonged dry period in July and August. The 2003 season started out with better soil moisture than in 2002. The favorable topsoil moisture situation continued through late June in most areas. However, during July and August, much of Kansas received little rainfall, and maximum temperatures often were over 100°F, rapidly depleting stored soil moisture. The percent of Kansas crop acreage with topsoil moisture rated as short or very short increased from less than 20% in late June to nearly 90% in late July (Figure 1). More than 90% of the crop acreage was rated as short or very short during August. Late August and September rains improved the soil moisture situation and enabled much of the later-maturing sorghum to produce some grain.

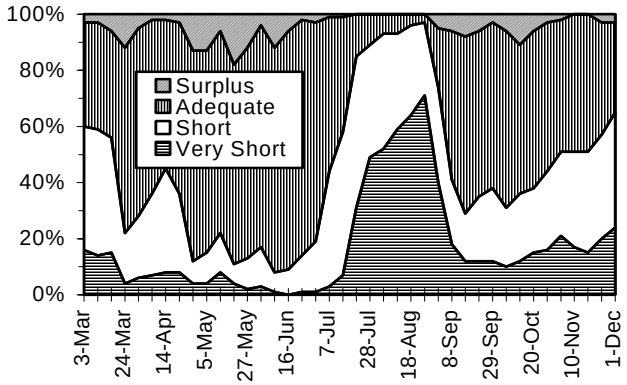

Figure 1. Statewide status of topsoil moisture.

The limited rainfall and high temperatures in July and August caused the condition of the sorghum crop to decline dramatically (Figure 2). Until mid-July, close to 70% of the sorghum crop was rated as good or excellent. By the end of August, 60% of the sorghum crop was rated poor or very poor. The hot, dry conditions delayed heading and maturation by 10 to 14 days compared to the 5-year average. Secondary heads stimulated by the late rains matured slowly and delayed grain harvest as well. (Crop-Weather Reports, Kansas Agricultural Statistics, Topeka)

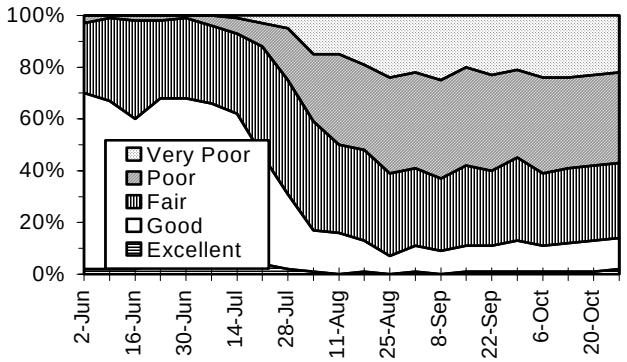

Figure 2. Condition of 2003 Kansas sorghum crop.

Diseases

Relatively few disease problems occurred in the 2003 Kansas grain sorghum crop. Early in the season, there were a few reported cases of Fusarium seedling blight.

As the season progressed and soils dried out, there were several cases of what is referred to as rootless sorghum syndrome. This problem develops when windy days combine with hot, dry soil surfaces at the time of brace root development. Under these conditions, the growing point of the brace root is often killed, leaving few if any brace roots to support the plant and provide needed water and nutrients. Plants typically fall over and often die.

Because of the lack of moisture throughout the summer, there was relatively little foliar disease. A few serious cases of sooty stripe were reported, but disease levels were generally below normal.

Late season problems were generally confined to typical stalk rot problems. Both Fusarium stalk rot and charcoal rot were reported. There was at least one report of ergot occurring in south-central Kansas on late-planted sorghum.

(Doug Jardine, Kansas State University Department of Plant Pathology)

Insects

Chinch bugs continued to be the primary problem for young sorghum in central Kansas in 2003. Populations weren't devastating but did require some replanting of rows bordering wheat and even some partial fields. Sugarcane rootstock weevils also damaged some sorghum fields in central Kansas. The hot, dry weather experienced in June and July compounded the stress induced by the feeding of this occasional pest. Lygus bugs caused some damage in south-central Kansas by attacking early-maturing seeds but did not seem to be a widespread problem. Grasshoppers caused some early concerns in central and western Kansas but seemed to be controlled by treating field borders and waterways with insecticides.

(Jeff Whitworth, Kansas State University Department of Entomology)

Harvest Statistics

The Kansas Agricultural Statistics Office predicted a 133.3 million bushel crop in their November 12 Crops Report, down 1% from last year (Figure 3). The number of acres harvested was 3.1 million, up by 100,000 acres from last year. The November 12 estimate for average yield of 43 bushels per acre was 2 bushels below the final estimate in 2002. These are the lowest production and yield estimates in the past 14 years. (Kansas Agricultural Statistics)

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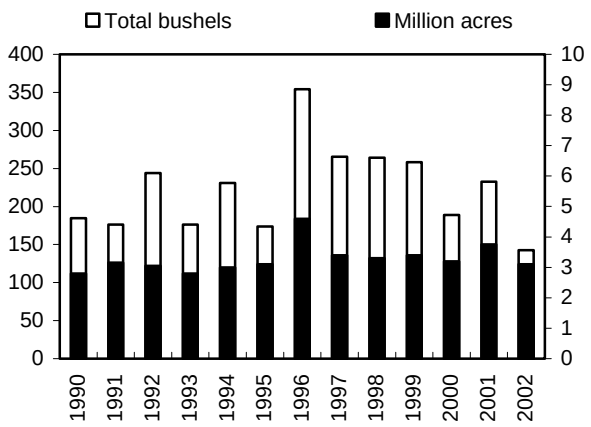

Figure 3. Historical Kansas grain sorghum production.

2003 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 2003 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

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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 in situations with low yields.

Iron Chlorosis and Sooty Stripe Screening

All entries were screened for susceptibility to iron chlorosis at Colby and Tribune. Replicated rows were planted in areas where sorghum had previously exhibited iron chlorosis symptoms. Each hybrid was visually rated at the seedling stage for plant color and vigor. Ratings from this year and averaged over the past three years can be found in Table 29.

Table 1. Companies entering hybrids in the 2003 Kansas Grain Sorghum Performance Tests.

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

Channel Bio Corp.
Kentland, IN
800-369-8218
channelbio.com

CroPlan Genetics
Shoreview, MN
651-765-5712
croplangenetics.com

DeLange Seed
Girard, KS
620-724-6223
delangeseed.com

Drussel Seed, Inc.
Garden City, KS
620-275-2359

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

Fontanelle Hybrids
Fontanelle, NE
800-279-4353
fontanelle.com

Frontier Hybrids
Abernathy, TX
800-872-0522
frontierhybrid.com

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

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

Kaystar Seed
Huron, SD
800-288-8791
kaystarseed.com

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

Mycogen Seeds
Indianapolis, IN
1-800-MYCOGEN
mycogen.com

NC+ Hybrids
Lincoln, NE
800-279-7999
nc-plus.com

Pioneer, A DuPont Company
Lakewood, CO
800-258-5604
pioneer.com

Producers Hybrids
Battle Creek, NE
402-675-2975
producershybrids.com

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

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

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

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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 2002

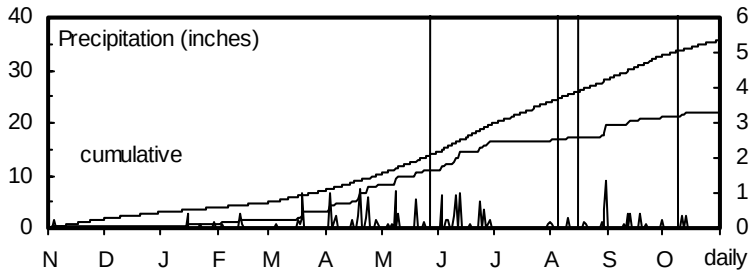
130 - 30 - 0 lb/a N, P, K

Planted on 5/28/2003; Harvested on 10/8/2003

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

Good moisture at planting and in early June. Dry in July and August. Late rains helped fill grain.

	Precipitation		Average Temp.		GDU	
Month	2003	Norm.	2003	Norm.	2003	Norm.
Nov.-Mar	3.3	7.1	35	34	22	12
April	4.7	3.1	56	55	630	588
May	2.8	4.2	62	65	848	920
June	5.6	5.4	70	73	1047	1154
July	0.3	4.1	79	78	1373	1339
August	2.8	4.2	79	76	1369	1274
Sept.	1.7	4.7	63	68	854	981
Oct.	0.7	3.0	57	56	695	661
Totals:	21.8	35.7	54	53	6,838	6,929



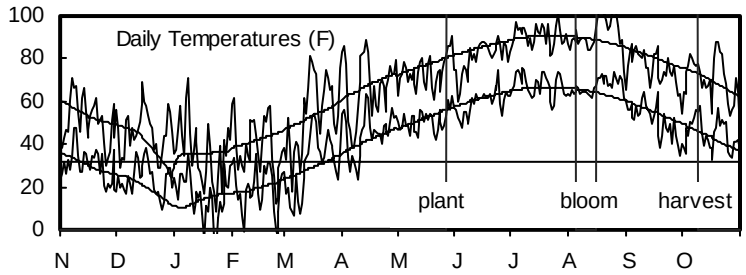


Table 2. Powhattan Grain Sorghum Performance Test, 2001-2003.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
BRAND	NAME	2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	2003	2002	2001	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	91	80	127	85	99	95	88	97	66	15	68	15	56	47	--	110	1.0
SORG. PARTNERS	KS 585	95	90	129	92	105	99	98	99	67	16	68	16	58	40	--	118	1.0
DEKALB	DKS42-20	97	99	--	98	--	101	109	--	68	14	70	14	50	47	--	118	1.0
MATURITY CHECK	OK11xTX2741	82	84	101	83	89	85	92	78	69	15	70	15	57	41	--	115	0.9
SORG. PARTNERS	NK5418	87	--	--	--	--	91	--	--	--	--	70	16	56	41	--	113	1.0
SORG. PARTNERS	K73-J6	105	94	137	100	112	109	104	105	70	17	71	17	55	49	--	120	1.0
SORG. PARTNERS	NK7633	99	--	--	--	--	104	--	--	--	--	71	17	54	44	--	117	1.0
ASGROW	A459	88	69	138	79	99	92	76	106	70	16	72	16	58	46	--	124	0.9
NC+	7B47	94	91	137	93	107	99	100	105	70	16	72	17	56	44	--	112	1.0
PRODUCERS	PH69	95	--	--	--	--	99	--	--	--	--	74	18	57	47	--	108	1.0
GARST	5460	96	--	--	--	--	100	--	--	--	--	74	19	56	48	--	109	1.0
MATURITY CHECK	TX2752xTX430	98	99	147	98	115	102	108	113	73	18	75	17	54	47	--	113	1.0
SORG. PARTNERS	NK7655	93	--	--	--	--	97	--	--	--	--	75	17	56	46	--	110	1.0
DEKALB	DKS44-41	77	76	--	77	--	80	84	--	72	17	75	18	57	42	--	95	1.0
DEKALB	DKS54-00	110	101	156	105	122	115	111	120	73	20	75	19	54	50	--	112	1.0
MONSANTO	X128	105	103	--	104	--	110	113	--	73	21	76	21	56	47	--	124	1.0
GARST	5382	94	93	--	93	--	98	102	--	73	19	76	22	55	43	--	117	1.0
MONSANTO	X218	104	--	--	--	--	109	--	--	--	--	76	22	56	50	--	126	1.0
NC+	7W51	101	95	155	98	117	106	104	119	74	20	77	21	54	43	--	91	1.0
DEKALB	DKS53-11	99	96	--	98	--	104	106	--	74	21	77	23	56	48	--	113	1.0
ASGROW	A571	106	95	150	100	117	110	104	115	74	18	78	18	54	45	--	122	1.0
PRODUCERS	PH79FG	102	--	--	--	--	107	--	--	--	--	78	21	55	49	--	88	1.0
SORG. PARTNERS	NK8828	85	70	--	78	--	89	77	--	77	19	79	19	58	43	--	121	0.9
	AVERAGES	96	91	130	93	106	96	91	130	72	18	74	18	56	46	--	113	1.0
	CV(%)	7	6	6	--	--	7	6	6	--	--	2	7	2	5	--	5	5.4
	LSD(0.05)**	10	8	11	--	--	10	9	8	--	--	2	2	2	3	--	8	0.1

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

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NORTHEAST KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL

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

Reading silt loam; Soybean in 2002

135 - 60 - 0 lb/a N, P, K

Planted on 5/13/2003; Harvested on 9/24/2003

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

Favorable rainfall and temperatures persisted up to heading. Stored soil moisture allowed the test to finish fairly well, but hot, dry conditions during late July and August reduced yields and test weights.

	Precipitation		Average Temp.		GDU	
Month	2003	Norm.	2003	Norm.	2003	Norm.
Nov.-Mar	3.5	6.1	37	35	25	14
April	4.2	2.7	58	54	678	574
May	2.8	4.6	63	65	882	919
June	7.8	5.1	71	73	1072	1155
July	2.1	3.9	82	79	1448	1361
August	4.6	3.5	81	77	1433	1309
Sept.	2.2	3.8	65	69	908	1017
Oct.	3.2	2.8	59	57	732	679
Totals:	30.4	32.4	56	54	7,177	7,025

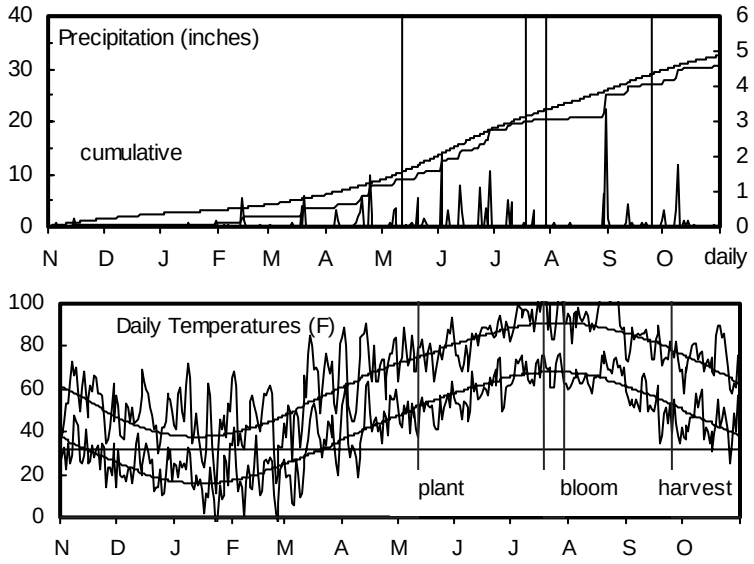

Table 3. Manhattan Grain Sorghum Performance Test, 2001-2003.

BRAND	NAME	ACRE YIELD, BUSHELS 2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	YIELD AS % OF TEST AVERAGE 2003	2002	2001	2002-2003 Days to Blm	Grain Moist. %	2003 Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
SORG. PARTNERS	NK5418	106	--	--	--	--	95	--	--	--	--	66	14	54	45	14	107	1.2
MATURITY CHECK	TX3042xTX2737	119	73	126	96	106	107	85	113	62	16	66	17	54	57	16	108	1.1
FRONTIER	F270E	93	--	--	--	--	84	--	--	--	--	68	12	53	47	11	86	1.1
SORG. PARTNERS	KS 585	114	72	119	93	102	102	84	106	63	13	68	13	58	49	2	121	1.1
GARST	5515	108	91	109	100	103	97	106	97	65	13	68	14	54	51	5	102	1.1
DEKALB	DKS42-20	117	92	--	104	--	105	107	--	66	13	70	13	53	57	3	113	1.1
NC+	7C22	107	--	--	--	--	96	--	--	--	--	70	13	56	56	6	109	1.0
PIONEER	85G01	130	--	--	--	--	117	--	--	--	--	70	13	55	54	4	121	1.0
FRONTIER	F-303C	92	--	--	--	--	83	--	--	--	--	70	14	53	50	18	109	1.0
PIONEER	84G50	129	--	--	--	--	115	--	--	--	--	70	15	56	58	2	114	1.0
MYCOGEN	1G600	111	--	--	--	--	99	--	--	--	--	72	11	53	52	9	125	1.0
SORG. PARTNERS	NK7633	105	--	--	--	--	94	--	--	--	--	72	12	55	50	1	115	1.0
MATURITY CHECK	OK11xTX2741	94	75	88	85	86	84	88	78	66	13	72	14	53	49	12	103	1.0
DYNA-GRO	DGX-1763	110	--	--	--	--	99	--	--	--	--	73	14	54	54	2	116	1.0
DYNA-GRO	DGX-1738	101	--	--	--	--	91	--	--	--	--	73	15	53	53	3	113	1.0
MIDWEST SEED	G 567	110	--	114	--	--	99	--	102	--	--	74	12	54	49	2	92	1.1
MYCOGEN	737	111	90	114	101	105	100	105	102	68	13	74	12	54	47	1	115	1.0
DEKALB	DKS44-41	106	83	--	95	--	95	97	--	71	13	74	13	56	50	0	87	1.2
MONSANTO	X218	130	--	--	--	--	117	--	--	--	--	74	13	58	55	0	122	1.0
ASGROW	A459	115	80	99	98	98	104	94	88	70	14	74	14	56	56	1	120	1.0
ASGROW	A571	113	85	121	99	106	102	99	108	71	14	74	14	55	56	7	123	1.0
FRONTIER	F-457E	104	--	107	--	--	94	--	96	--	--	74	14	56	54	10	84	1.2
GARST	5440	115	85	123	100	107	103	99	109	68	13	74	14	56	51	5	110	1.0

(continued)

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Table 3. Manhattan Grain Sorghum Performance Test, 2001-2003.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
BRAND	NAME	2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	2003	2002	2001	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
MONSANTO	X128	133	92	--	112	--	119	107	--	71	14	74	14	58	54	1	116	1.1
DEKALB	DKS54-00	105	106	124	106	112	94	124	111	73	16	74	15	52	54	6	103	1.0
MATURITY CHECK	TX2752xTX430	116	85	131	100	111	104	99	117	69	15	74	16	52	55	12	100	1.1
DYNA-GRO	DGX-1753	101	--	--	--	--	91	--	--	--	--	75	12	51	52	4	115	1.0
DYNA-GRO	DGX-1754	120	--	--	--	--	108	--	--	--	--	75	12	52	54	5	112	1.1
PIONEER	84G62	129	108	135	118	124	116	125	120	71	13	75	12	56	54	2	118	1.0
SORG. PARTNERS	K73-J6	122	80	131	101	111	109	92	117	70	13	75	12	54	57	1	117	1.0
SORG. PARTNERS	NK7655	113	--	--	--	--	102	--	--	--	--	75	13	53	52	4	113	1.0
SORG. PARTNERS	NK8828	77	82	--	80	--	69	96	--	76	15	75	14	53	51	19	115	0.9
TRIUMPH	TR 481	126	89	--	107	--	113	104	--	74	15	75	14	57	56	0	121	1.0
DEKALB	DKS53-11	125	102	--	114	--	112	119	--	73	15	76	14	57	55	0	113	1.0
NC+	7W51	115	78	112	97	102	103	91	100	69	14	76	14	52	51	2	87	1.1
DYNA-GRO	DGX-1765	87	--	--	--	--	78	--	--	--	--	77	11	48	47	1	117	1.0
	AVERAGES	111	86	112	99	103	111	86	112	69	13	73	13	54	53	5	110	1.0
	CV(%)	9	9	7	--	--	9	9	7	--	--	2	11	4	4	109	5	5.6
	LSD(0.05)**	13	11	10	--	--	12	13	9	--	--	2	2	3	3	8	8	0.1

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

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NORTH CENTRAL KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL

North Central Kansas Exp. Field, Belleville; Barney Gordon, agronomist; Michael Larson and Allan Milner, technicians

Crete silt loam; Soybean in 2002

150 - 30 - 0 lb/a N, P, K

Planted on 5/27/2003; Harvested on 10/22/2003

Target stand of 50,000 plants/acre; 4.2 in. spacing

Ideal planting conditions, excellent stands. Good rainfall, cool temperatures through June. Hot and dry in July and August. Late August rains stimulated late heading and grain formation.

	Precipitation		Average Temp.		GDU	
Month	2003	Norm.	2003	Norm.	2003	Norm.
Nov.-Mar	2.9	5.4	36	33	24	11
April	2.7	2.5	57	53	651	545
May	4.9	3.9	62	64	849	895
June	9.3	4.7	72	74	1101	1158
July	0.3	3.8	82	79	1471	1367
August	6.4	3.7	80	77	1394	1304
Sept.	7.1	3.9	66	67	916	974
Oct.	0.8	2.0	58	56	718	647
Totals:	34.5	29.9	55	53	7,123	6,902

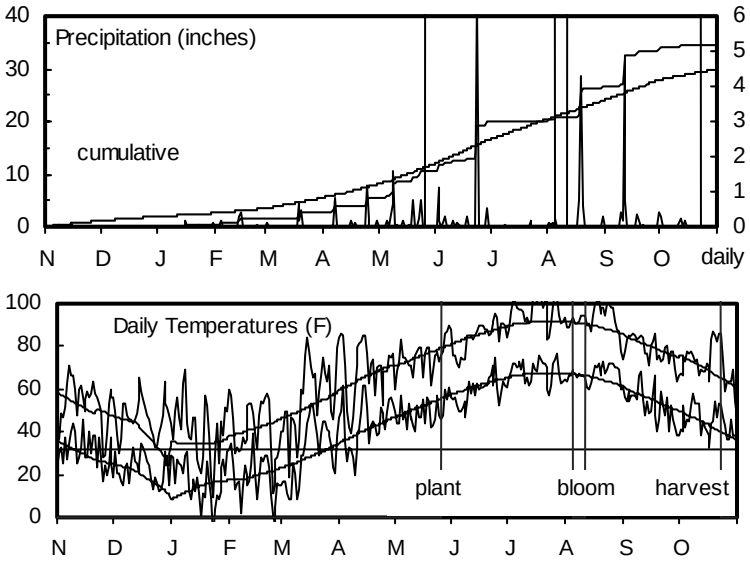

Table 4. Belleville Dryland Grain Sorghum Performance Test, 1999-2003.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2003		2003						
BRAND	NAME	2003	2001	1999	2-Yr. AVG.	3-Yr. AVG.	2003	2001	1999	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
PIONEER	85G01	93	--	--	--	--	115	--	--	--	--	69	14	58	33	--	113	--
MATURITY CHECK	TX3042xTX2737	75	96	141	85	104	92	83	105	66	15	69	16	59	33	--	111	--
DEKALB	DKS42-20	94	--	--	--	--	115	--	--	--	--	70	14	58	33	--	111	--
SORG. PARTNERS	NK5418	73	--	--	--	--	91	--	--	--	--	70	14	59	28	--	111	--
GARST	5750	73	135	--	104	--	90	116	--	65	14	70	15	58	33	--	113	--
SORG. PARTNERS	KS 585	77	160	122	118	119	95	138	91	66	14	70	15	59	28	--	110	--
TRIUMPH	TR 460	69	--	--	--	--	85	--	--	--	--	70	15	59	34	--	109	--
MATURITY CHECK	OK11xTX2741	92	67	116	80	92	113	58	86	66	14	71	14	59	32	--	113	--
MIDWEST SEED	G 530	67	--	--	--	--	83	--	--	--	--	71	14	59	33	--	112	--
MYCOGEN	1G600	88	--	--	--	--	109	--	--	--	--	71	14	59	33	--	112	--
CROPLAN GEN.	484	81	--	--	--	--	100	--	--	--	--	71	15	58	33	--	109	--
GARST	5515	84	118	136	101	113	104	102	102	67	14	71	15	58	34	--	110	--
TRIUMPH	TR 438	67	--	--	--	--	83	--	--	--	--	71	15	58	33	--	111	--
PIONEER	84G62	77	150	160	113	129	95	129	119	71	14	72	14	59	33	--	115	--
DYNA-GRO	DGX-1738	82	--	--	--	--	101	--	--	--	--	72	16	58	33	--	116	--
DYNA-GRO	DGX-1753	63	--	--	--	--	78	--	--	--	--	73	14	59	33	--	116	--
MIDWEST SEED	G 567	98	--	--	--	--	121	--	--	--	--	73	14	59	33	--	110	--
DEKALB	DKS53-11	81	--	--	--	--	100	--	--	--	--	73	15	59	32	--	116	--
DYNA-GRO	DGX-1763	76	--	--	--	--	94	--	--	--	--	73	15	59	32	--	109	--
MYCOGEN	1506	84	--	140	--	--	104	--	104	--	--	73	16	58	34	--	113	--
DEKALB	DKS44-41	109	--	--	--	--	135	--	--	--	--	74	14	59	33	--	115	--
NC+	7C22	103	--	--	--	--	127	--	--	--	--	74	14	58	33	--	110	--
PIONEER	84G50	75	--	--	--	--	92	--	--	--	--	74	14	58	35	--	110	--

(continued)

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Table 4. Belleville Dryland Grain Sorghum Performance Test, 1999-2003.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2001-2003		2003						
		2003	2001	1999	2-Yr. AVG.	3-Yr. AVG.	2003	2001	1999	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
DEKALB	DKS54-00	110	141	--	126	--	136	122	--	73	15	74	16	58	32	--	110	--
DYNA-GRO	DGX-1754	94	--	--	--	--	116	--	--	--	--	74	16	58	34	--	110	--
MONSANTO	X218	49	--	--	--	--	60	--	--	--	--	74	16	58	41	--	114	--
ASGROW	A459	41	136	134	88	103	50	117	100	71	15	74	17	58	34	--	111	--
MONSANTO	X128	93	--	--	--	--	115	--	--	--	--	75	15	59	35	--	112	--
SORG. PARTNERS	K73-J6	48	142	143	95	111	60	123	107	71	14	75	15	58	33	--	112	--
MATURITY CHECK	TX2752xTX430	91	125	132	108	116	113	108	99	73	15	75	16	58	34	--	111	--
NC+	7W51	91	162	--	126	--	112	139	--	73	15	75	16	59	33	--	106	--
SORG. PARTNERS	NK7633	92	--	--	--	--	114	--	--	--	--	75	16	58	33	--	108	--
SORG. PARTNERS	NK7655	74	--	--	--	--	91	--	--	--	--	75	17	58	34	--	115	--
DYNA-GRO	DGX-1765	66	--	--	--	--	82	--	--	--	--	76	15	58	32	--	113	--
SORG. PARTNERS	NK8828	86	--	--	--	--	106	--	--	--	--	76	15	58	33	--	117	--
ASGROW	A571	101	152	146	126	133	124	131	109	74	15	76	16	59	33	--	115	--
	AVERAGES	81	116	134	98	110	81	116	134	70	14	73	15	58	33	--	112	--
	CV(%)	8	7	4	--	--	8	7	4	--	--	2	1	1	2	--	4	--
	LSD(0.05)**	8	12	7	--	--	10	11	5	--	--	2	0	NS	1	--	NS	--

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

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Table 5. NORTHEAST Kansas grain sorghum hybrid yield summary (% of test average), 2003.

BRAND/NAME	BRD[1]	RLD	RPD	AVG.
ASGROW				
A459	92	104	50	82
A571	110	102	124	112
CROPLAN GEN.				
484	--	--	100	--
DEKALB				
DKS42-20	101	105	115	107
DKS44-41	80	95	135	103
DKS53-11	104	112	100	105
DKS54-00	115	94	136	115
DYNA-GRO				
DGX-1738	--	91	101	--
DGX-1753	--	91	78	--
DGX-1754	--	108	116	--
DGX-1763	--	99	94	--
DGX-1765	--	78	82	--
FRONTIER				
F270E	--	84	--	--
F-303C	--	83	--	--
F-457E	--	94	--	--
GARST				
5382	98	--	--	--
5440	--	103	--	--
5460	100	--	--	--
5515	--	97	104	--
5750	--	--	90	--
MIDWEST SEED				
G 530	--	--	83	--
G 567	--	99	121	--
MONSANTO				
X128	110	119	115	114
X218	109	117	60	95
MYCOGEN				
1506	--	--	104	--
1G600	--	99	109	--
737	--	100	--	--
NC+				
7B47	99	--	--	--
7C22	--	96	127	--
7W51	106	103	112	107
PIONEER				
84G50	--	115	92	--
84G62	--	116	95	--
85G01	--	117	115	--
PRODUCERS				
PH69	99	--	--	--
PH79FG	107	--	--	--
SORG. PARTNERS				
K73-J6	109	109	60	93
KS 585	99	102	95	99
NK5418	91	95	91	92
NK7633	104	94	114	104
NK7655	97	102	91	97
NK8828	89	69	106	88
TRIUMPH				
TR 438	--	--	83	--
TR 460	--	--	85	--
TR 481	--	113	--	--
MATURITY CHECK				
OK11xTX2741	85	84	113	94
TX2752xTX430	102	104	113	106
TX3042xTX2737	95	107	92	98
AVERAGES	96	111	81	96
CV(%)	7	9	8	--
LSD(0.05)**	10	12	10	--

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

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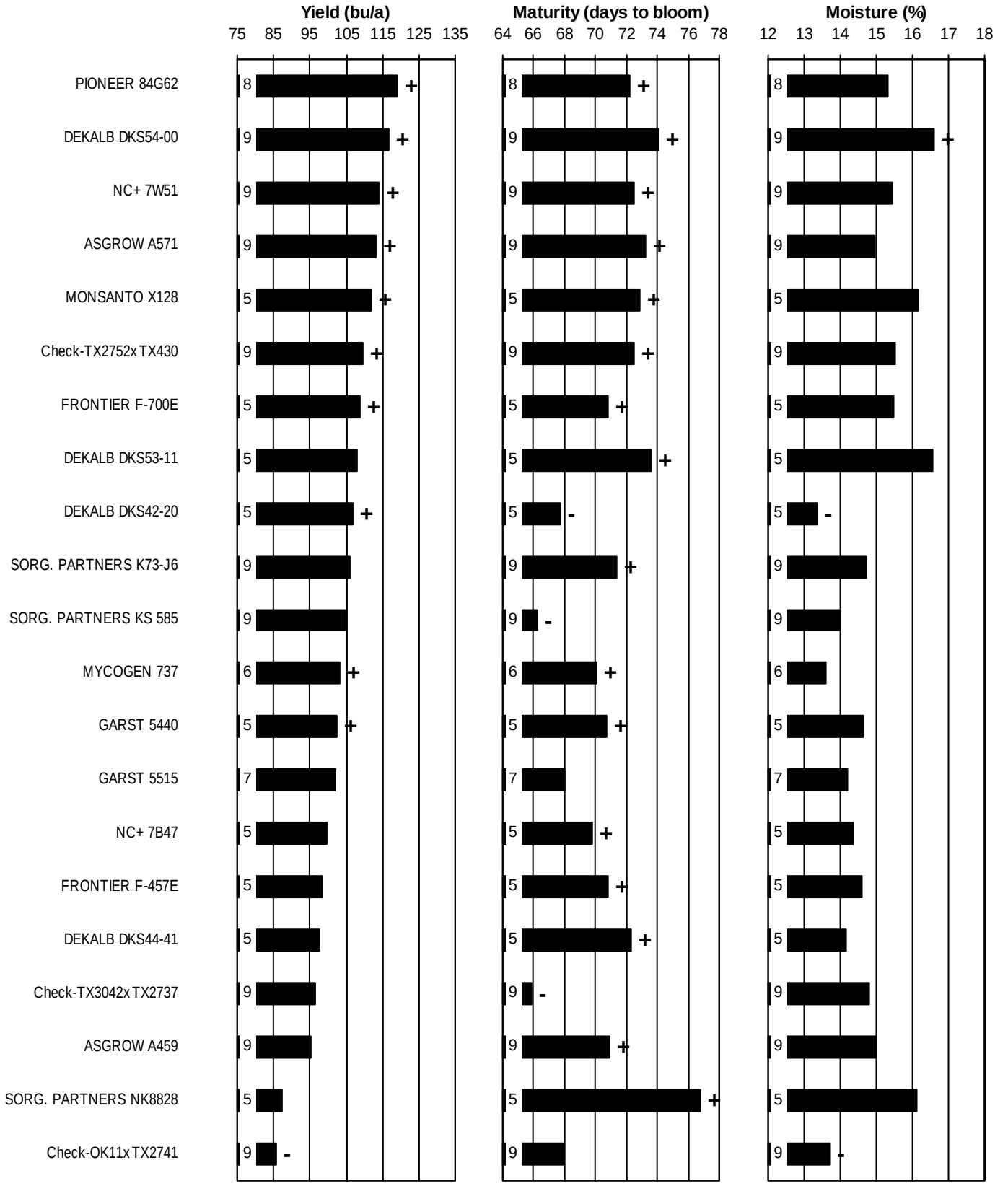
Figure 4. NORTHEAST Kansas sorghum hybrid standardized performance summary, 2001-2003.



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

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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 2002

93 - 34 - 11 lb/a N, P, K

Planted on 5/18/2003; Harvested on 9/19/2003

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

Good seedbed, stand establishment, and early growth. Hot, dry conditions in July and August severely stressed the test and contributed to lodging.

	Precipitation		Average Temp.		GDU	
Month	2003	Norm.	2003	Norm.	2003	Norm.
Nov.-Mar	4.1	6.5	39	37	24	15
April	4.3	2.9	59	57	718	645
May	4.1	4.2	66	66	956	961
June	5.1	4.9	73	75	1130	1192
July	1.5	4.0	82	80	1471	1400
August	5.0	3.2	82	79	1456	1355
Sept.	4.0	4.1	66	70	923	1050
Oct.	1.4	2.7	60	59	762	742
Totals:	29.5	32.5	57	56	7,439	7,359

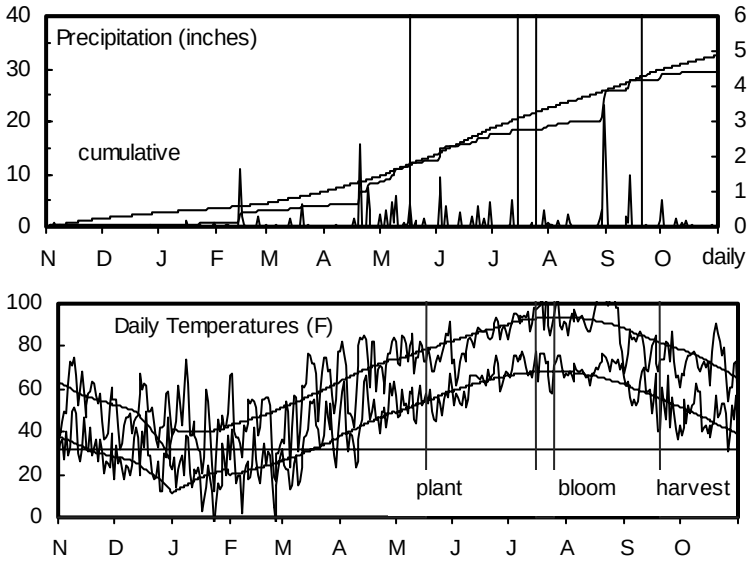

Table 6. Ottawa Grain Sorghum Performance Test, 2001-2003.

BRAND	NAME	ACRE YIELD, BUSHELS 2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	YIELD AS % OF TEST AVERAGE 2003	2002	2001	2002-2003 Days to Blm	Grain Moist. %	2003 Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
SORG. PARTNERS	NK5418	62	--	--	--	--	113	--	--	--	--	58	12	54	40	10	119	1.1
SORG. PARTNERS	KS 585	71	56	102	63	76	128	91	108	58	13	58	13	57	39	16	117	1.0
CROPLAN GEN.	484	59	--	--	--	--	107	--	--	--	--	58	14	55	43	58	117	1.1
GARST	5750	58	69	--	64	--	106	113	--	60	14	58	14	57	45	28	105	1.1
GARST	5515	55	--	91	--	--	99	--	96	--	--	59	12	55	43	34	99	1.0
PIONEER	8500	65	62	104	64	77	118	102	109	59	13	59	12	56	41	29	131	1.0
MYCOGEN	1G600	53	--	--	--	--	95	--	--	--	--	60	11	52	43	31	133	1.0
NC+	6B50	59	58	--	59	--	106	96	--	59	11	60	11	52	43	33	130	1.0
MATURITY CHECK	OK11xTX2741	51	56	77	53	61	91	92	81	60	12	60	12	55	41	16	119	1.0
DEKALB	DKS42-20	58	51	--	55	--	105	84	--	60	12	60	14	53	44	48	121	1.0
PIONEER	85G01	55	--	--	--	--	100	--	--	--	--	60	15	56	46	49	125	0.9
MATURITY CHECK	TX3042xTX2737	45	43	68	44	52	81	71	72	59	14	60	16	54	47	65	107	1.1
PRODUCERS	PH67	47	--	--	--	--	86	--	--	--	--	61	11	53	40	10	118	1.0
DELANGE	DSA 115C	48	--	--	--	--	87	--	--	--	--	61	13	54	40	19	100	1.0
PIONEER	84G50	46	--	--	--	--	83	--	--	--	--	61	17	55	47	49	122	0.8
NC+	6B73	58	--	--	--	--	104	--	--	--	--	62	12	55	40	6	110	1.0
DEKALB	DKS44-41	54	60	--	57	--	98	98	--	62	14	62	13	56	42	6	84	1.1
TRIUMPH	TR 481	54	66	138	60	86	98	109	145	63	14	62	15	57	47	1	132	0.9
NC+	7B47	65	71	107	68	81	117	117	113	62	13	63	12	53	41	3	116	0.9
MIDLAND	M-4758Y	61	63	135	62	86	110	104	142	62	13	63	13	57	43	1	110	0.9
SORG. PARTNERS	K73-J6	58	64	--	61	--	105	106	--	63	13	63	13	55	44	3	122	0.9
MONSANTO	X128	66	75	--	71	--	119	123	--	63	14	63	14	57	45	15	110	1.1
MIDLAND	M-4818	43	68	126	55	79	77	111	132	63	15	63	16	57	47	6	106	0.9

(continued)

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Table 6. Ottawa Grain Sorghum Performance Test, 2001-2003.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
		2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	2003	2002	2001	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-4614W	54	61	113	58	76	97	100	119	63	11	64	11	55	40	4	98	1.0
SORG. PARTNERS	NK7633	49	--	--	--	--	89	--	--	--	--	64	11	54	42	3	110	1.0
MIDWEST SEED	G 567	47	--	--	--	--	85	--	--	--	--	64	12	54	39	14	82	1.0
SORG. PARTNERS	NK8828	40	51	--	45	--	73	83	--	65	13	64	12	51	45	46	103	0.8
DEKALB	DKS54-00	56	68	89	62	71	101	112	94	64	13	64	13	55	47	0	108	0.9
PIONEER	84G62	53	63	109	58	75	96	103	114	63	14	64	13	56	44	28	125	0.9
SORG. PARTNERS	NK7655	64	--	--	--	--	116	--	--	--	--	64	13	54	44	19	111	1.0
DEKALB	DKS53-11	61	59	--	60	--	110	96	--	64	14	64	15	57	46	6	119	0.9
MONSANTO	X218	62	--	--	--	--	111	--	--	--	--	65	15	57	44	5	128	0.9
MATURITY CHECK	TX2752xTX430	51	61	68	56	60	92	101	71	65	13	66	13	54	45	26	114	0.9
PRODUCERS	PH69	58	--	--	--	--	106	--	--	--	--	66	15	56	46	19	99	0.9
DYNA-GRO	DGX-1753	57	--	--	--	--	102	--	--	--	--	67	13	53	41	0	123	0.8
ASGROW	A571	54	65	127	59	82	98	106	133	65	14	67	14	53	40	7	137	0.7
NC+	7W51	50	70	--	60	--	90	114	--	66	14	67	15	55	43	0	78	1.1
NC+	7R83	50	--	--	--	--	91	--	--	--	--	68	13	53	41	4	104	0.9
MYCOGEN	X31730	61	--	--	--	--	110	--	--	--	--	68	14	57	44	2	121	0.9
	AVERAGES	55	61	95	58	70	55	61	95	63	13	63	13	55	43	18	113	1.0
	CV(%)	13	11	12	--	--	13	11	12	--	--	2	11	2	5	83	6	10.2
	LSD(0.05)**	10	9	16	--	--	18	15	17	--	--	2	2	2	3	21	10	0.1

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

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SOUTHEAST KANSAS GRAIN SORGHUM TEST ON SILTY CLAY SOIL

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

Osage silty clay; Soybean in 2002

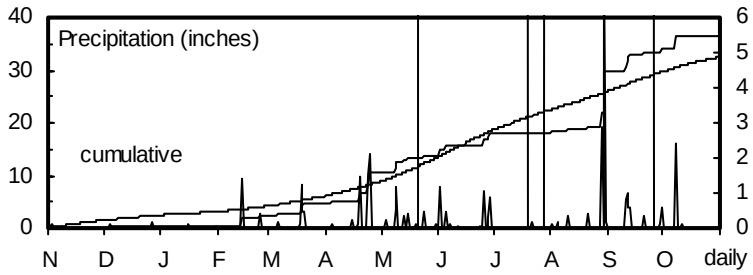
110 - 30 - 0 lb/a N, P, K

Planted on 5/21/2003; Harvested on 9/25/2003

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

Good stand establishment and early growth. July and early August very dry, causing light test weights.

	Precipitation		Average Temp.		GDU	
Month	2003	Norm.	2003	Norm.	2003	Norm.
Nov.-Mar	4.8	6.1	37	35	15	14
April	5.7	2.7	58	54	680	574
May	3.3	4.6	65	65	924	919
June	4.1	5.1	70	73	1055	1155
July	0.2	3.9	81	79	1436	1361
August	11.8	3.5	81	77	1433	1309
Sept.	4.1	3.8	64	69	883	1017
Oct.	2.5	2.8	58	57	706	679
Totals:	36.5	32.4	55	54	7,131	7,025



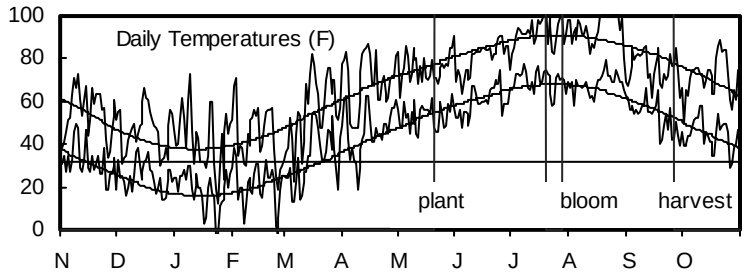


Table 7. Strong City Grain Sorghum Performance Test, 2001-2003.

BRAND	NAME	ACRE YIELD, BUSHELS 2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	YIELD AS % OF TEST AVERAGE 2003	2002	2001	2002-2003 Days to Blm	Grain Moist. %	2003 Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
MATURITY CHECK	TX3042xTX2737	58	43	126	51	76	92	100	97	57	14	58	13	50	47	29	100	1.0
PIONEER	85G01	75	--	--	--	--	118	--	--	--	--	59	12	54	47	5	112	1.0
SORG. PARTNERS	NK5418	66	--	--	--	--	104	--	--	--	--	59	12	51	41	7	96	1.0
GARST	5515	61	--	117	--	--	97	--	90	--	--	60	10	50	44	5	99	0.9
DEKALB	DKS42-20	69	55	--	62	--	109	126	--	59	12	60	12	50	45	3	107	0.9
PIONEER	8500	67	54	129	60	83	106	124	99	59	13	60	14	54	45	6	109	1.0
SORG. PARTNERS	KS 585	70	50	133	60	85	111	116	102	60	13	61	12	54	41	1	110	1.0
DEKALB	DKS44-41	59	39	--	49	--	94	89	--	61	13	62	12	52	42	1	81	0.9
MATURITY CHECK	OK11xTX2741	58	34	103	46	65	91	79	79	60	13	62	12	50	42	3	100	1.0
DELANGE	DSA 133	63	42	140	53	82	100	97	107	62	13	63	12	51	44	7	102	1.0
PIONEER	84G50	57	--	--	--	--	90	--	--	--	--	63	17	51	49	1	108	0.8
DEKALB	DKS54-00	65	38	152	51	85	102	88	116	63	13	64	11	49	47	2	101	0.9
SORG. PARTNERS	NK7633	62	--	--	--	--	99	--	--	--	--	64	11	50	44	1	104	0.9
MONSANTO	X128	71	53	--	62	--	112	123	--	63	14	64	13	54	45	1	117	0.9
PIONEER	84G62	66	49	151	58	89	104	113	116	62	13	64	13	51	45	10	115	0.9
MONSANTO	X218	70	--	--	--	--	110	--	--	--	--	65	12	52	46	0	115	1.0
SORG. PARTNERS	K73-J6	63	33	--	48	--	100	75	--	63	13	65	12	50	45	0	109	0.9
DEKALB	DKS53-11	71	48	--	59	--	111	111	--	63	14	65	14	54	46	1	108	0.9
DELANGE	DSA 147	58	42	146	50	82	92	96	112	63	15	65	14	51	47	18	105	0.9
SORG. PARTNERS	NK7655	64	--	--	--	--	101	--	--	--	--	66	10	47	44	2	98	0.9
MATURITY CHECK	TX2752xTX430	57	43	142	50	80	90	99	109	64	12	67	10	46	44	15	100	0.9
ASGROW	A571	60	35	140	48	78	95	82	108	65	12	68	10	46	43	0	114	0.9
SORG. PARTNERS	NK8828	46	22	--	34	--	73	51	--	66	15	68	13	48	44	1	106	0.8
	AVERAGES	63	43	130	53	79	63	43	130	62	13	63	12	51	45	5	105	0.9
	CV(%)	8	16	7	--	--	8	16	7	--	--	1	12	4	3	84	5	9.8
	LSD(0.05)**	7	10	12	--	--	11	23	9	--	--	1	2	3	2	6	8	0.1

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

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SOUTHEAST KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL

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

Parsons silt loam; Soybean in 2002

100 - 50 - 50 lb/a N, P, K

Planted on 5/29/2003; Harvested on 9/25/2003

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

Conditions were excellent for planting and early growth. Summer was dry and hot. Warrior applied August 16 to control head worms.

	Precipitation		Average Temp.		GDU	
Month	2003	Norm.	2003	Norm.	2003	Norm.
Nov.-Mar	7.5	10.6	38	40	11	18
April	4.8	3.7	57	58	659	677
May	5.4	5.0	65	66	936	961
June	4.8	4.7	71	75	1083	1185
July	2.4	3.5	80	80	1409	1387
August	6.6	3.9	81	78	1434	1340
Sept.	3.6	4.5	66	70	928	1065
Oct.	2.3	3.8	59	60	13	760
Totals:	37.4	39.7	56	57	6,472	7,391

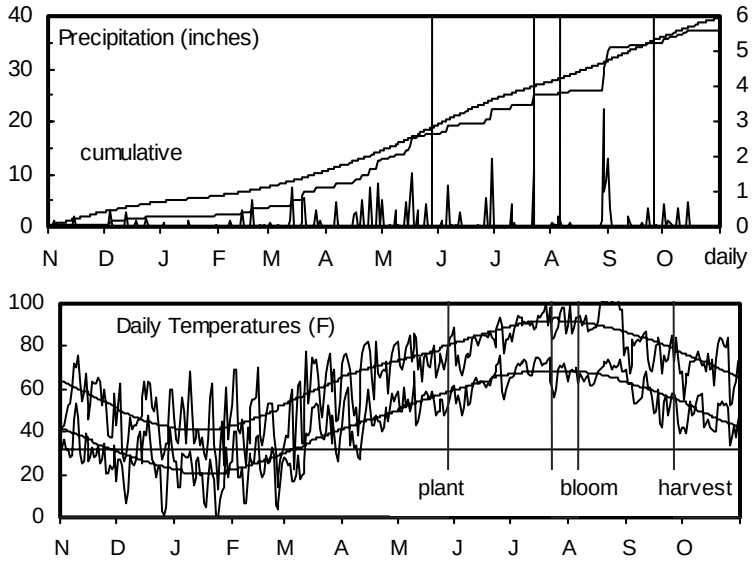

Table 8. Parsons Grain Sorghum Performance Test, 2001-2003.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
BRAND	NAME	2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	2003	2002	2001	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	89	65	65	77	73	97	108	74	68	14	54	13	58	52	21	110	1.1
GARST	5750	101	75	--	88	--	111	126	--	70	14	57	13	58	49	0	108	1.3
SORG. PARTNERS	NK5418	91	--	--	--	--	99	--	--	--	--	57	13	58	43	4	117	1.3
DEKALB	DKS42-20	101	68	--	85	--	111	114	--	70	14	58	13	58	52	13	121	1.1
NC+	6B50	92	70	--	81	--	101	117	--	70	14	58	13	57	50	5	117	1.2
SORG. PARTNERS	KS 585	103	68	97	86	89	112	115	110	70	14	58	13	59	46	1	125	1.1
DELANGE	DSA 147	88	59	83	73	77	96	99	94	71	15	58	14	57	52	13	122	1.1
MYCOGEN	1G600	84	--	--	--	--	92	--	--	--	--	58	14	57	49	3	121	1.1
PIONEER	8500	94	62	92	78	83	103	104	105	70	14	58	14	58	49	6	126	1.2
CROPLAN GEN.	484	91	--	--	--	--	100	--	--	--	--	59	13	57	46	3	124	1.1
GARST	5515	90	64	88	77	81	98	108	100	71	14	59	13	57	50	2	112	1.0
MATURITY CHECK	OK11xTX2741	79	54	65	67	66	87	91	74	71	14	59	13	58	46	3	113	1.1
PIONEER	85G01	101	--	--	--	--	110	--	--	--	--	59	13	58	51	7	124	1.0
DELANGE	DSA 133	102	56	96	79	85	112	95	109	72	14	59	14	58	51	8	119	1.2
DEKALB	DKS44-41	91	55	--	73	--	99	92	--	72	14	60	13	58	49	1	96	1.2
SORG. PARTNERS	NK7633	89	--	--	--	--	97	--	--	--	--	60	13	58	48	0	120	1.0
MIDLAND	M-4758Y	91	55	--	73	--	100	92	--	73	15	60	14	58	52	1	113	1.1
NC+	7B47	101	68	99	85	90	111	115	112	72	14	60	14	57	48	1	115	1.1
PIONEER	84G62	106	66	110	86	94	116	111	125	74	14	60	14	57	51	35	127	1.0
SORG. PARTNERS	NK7655	90	--	--	--	--	98	--	--	--	--	61	13	57	48	6	113	1.2
PIONEER	84G50	81	--	--	--	--	88	--	--	--	--	61	14	57	55	7	115	1.0
SORG. PARTNERS	K73-J6	91	61	97	76	83	100	103	109	74	14	61	14	58	51	0	122	1.1
WILLCROSS	WX 420	94	60	--	77	--	103	100	--	72	14	61	14	58	50	8	115	1.2

(continued)

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Table 8. Parsons Grain Sorghum Performance Test, 2001-2003.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
		2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	2003	2002	2001	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
MONSANTO	X128	102	64	--	83	--	112	108	--	73	15	61	15	58	53	2	126	1.0
MATURITY CHECK	TX2752xTX430	92	63	90	77	81	101	105	101	75	14	62	13	58	50	16	115	1.1
NC+	7R83	94	--	--	--	--	103	--	--	--	--	62	14	57	50	2	117	1.0
TRIUMPH	TR 481	90	48	100	69	80	99	81	114	75	15	62	14	58	52	1	125	1.0
MONSANTO	X218	100	--	--	--	--	110	--	--	--	--	62	15	57	54	3	123	1.0
ASGROW	A571	81	50	92	66	75	89	84	105	76	14	63	14	56	50	2	131	1.0
MIDLAND	M-4818	88	52	--	70	--	97	87	--	75	15	63	14	58	54	0	110	1.0
MYCOGEN	X30750	92	--	--	--	--	100	--	--	--	--	63	14	56	47	1	109	1.1
TRIUMPH	TR 461	75	54	--	64	--	82	90	--	75	15	63	14	56	54	10	116	1.0
DEKALB	DKS54-00	94	41	105	67	80	102	69	119	76	16	63	15	57	53	6	107	1.1
DEKALB	DKS53-11	101	69	--	85	--	111	116	--	75	15	63	16	57	53	5	120	1.0
NC+	7W51	84	75	114	79	91	92	125	130	75	14	65	14	56	49	1	97	1.2
WILLCROSS	WX 544	80	40	--	60	--	88	68	--	79	15	67	14	58	50	1	110	1.1
SORG. PARTNERS	NK8828	68	31	79	49	59	74	52	90	79	16	68	16	56	48	1	117	0.9
	AVERAGES	91	60	88	76	80	91	60	88	73	14	61	14	57	50	5	117	1.1
	CV(%)	8	13	9	--	--	8	13	9	--	--	2	4	1	4	80	6	6.2
	LSD(0.05)**	10	11	11	--	--	11	18	12	--	--	2	1	1	3	6	9	0.1

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

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Table 9. SOUTHEAST Kansas grain sorghum hybrid yield summary (% of test average), 2003.

BRAND/NAME	FRD[1]	CHD	LBD	AVG.
ASGROW				
A571	98	95	89	94
CROPLAN GEN.				
484	107	--	100	--
DEKALB				
DKS42-20	105	109	111	108
DKS44-41	98	94	99	97
DKS53-11	110	111	111	111
DKS54-00	101	102	102	102
DELANGE				
DSA 115C	87	--	--	--
DSA 133	--	100	112	--
DSA 147	--	92	96	--
DYNA-GRO				
DGX-1753	102	--	--	--
GARST				
5515	99	97	98	98
5750	106	--	111	--
MIDLAND				
M-4614W	97	--	--	--
M-4758Y	110	--	100	--
M-4818	77	--	97	--
MIDWEST SEED				
G 567	85	--	--	--
MONSANTO				
X128	119	112	112	114
X218	111	110	110	110
MYCOGEN				
1G600	95	--	92	--
X30750	--	--	100	--
X31730	110	--	--	--
NC+				
6B50	106	--	101	--
6B73	104	--	--	--
7B47	117	--	111	--
7R83	91	--	103	--
7W51	90	--	92	--
PIONEER				
84G50	83	90	88	87
84G62	96	104	116	105
8500	118	106	103	109
85G01	100	118	110	110
PRODUCERS				
PH67	86	--	--	--
PH69	106	--	--	--
SORG. PARTNERS				
K73-J6	105	100	100	102
KS 585	128	111	112	117
NK5418	113	104	99	105
NK7633	89	99	97	95
NK7655	116	101	98	105
NK8828	73	73	74	73
TRIUMPH				
TR 461	--	--	82	--
TR 481	98	--	99	--
WILLCROSS				
WX 420	--	--	103	--
WX 544	--	--	88	--
MATURITY CHECK				
OK11xTX2741	91	91	87	90
TX2752xTX430	92	90	101	94
TX3042xTX2737	81	92	97	90
AVERAGES	55	63	91	70
CV(%)	13	8	8	--
LSD(0.05)**	18	11	11	--

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

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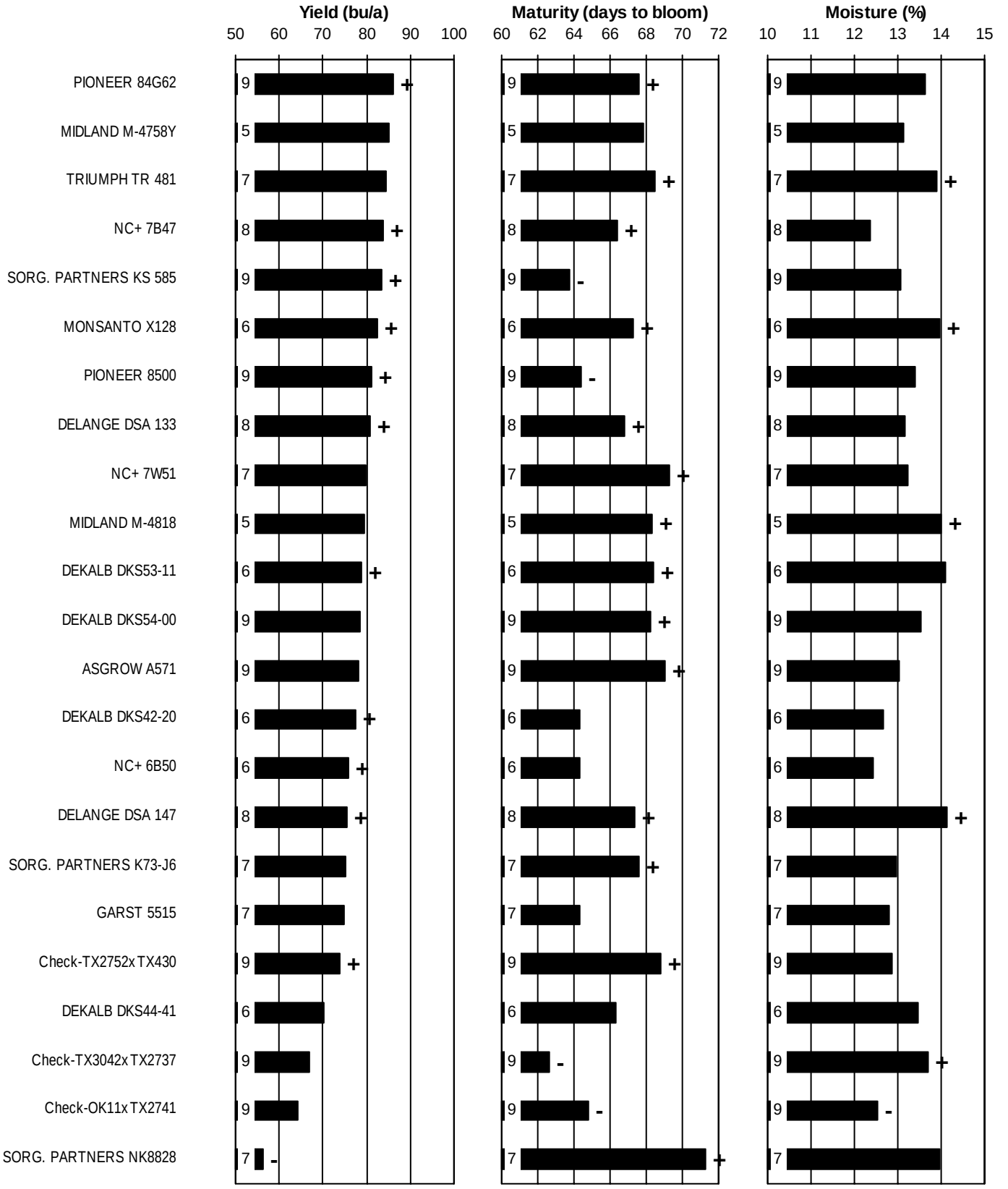
Figure 5. SOUTHEAST Kansas sorghum hybrid standardized performance summary, 2001-2003.



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

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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; Winter wheat in 2002

120 - 37 - 0 lb/a N, P, K

Planted on 6/12/2003; Harvested on 11/20/2003

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

No-till planting into wheat stubble delayed by wet soils. Good moisture through June. July and August very hot and dry. Late rains stimulated tillers and helped grain fill.

	Precipitation		Average Temp.		GDU	
Month	2003	Norm.	2003	Norm.	2003	Norm.
Nov.-Mar	4.8	6.3	37	37	21	15
April	4.5	2.6	57	56	646	641
May	4.8	4.5	62	66	849	959
June	2.9	4.7	71	76	1092	1221
July	0.6	3.6	83	81	1491	1429
August	4.8	3.0	81	79	1433	1376
Sept.	4.6	3.7	65	71	894	1068
Oct.	4.5	2.6	58	59	701	749
Totals:	31.3	31.0	55	56	7,127	7,458

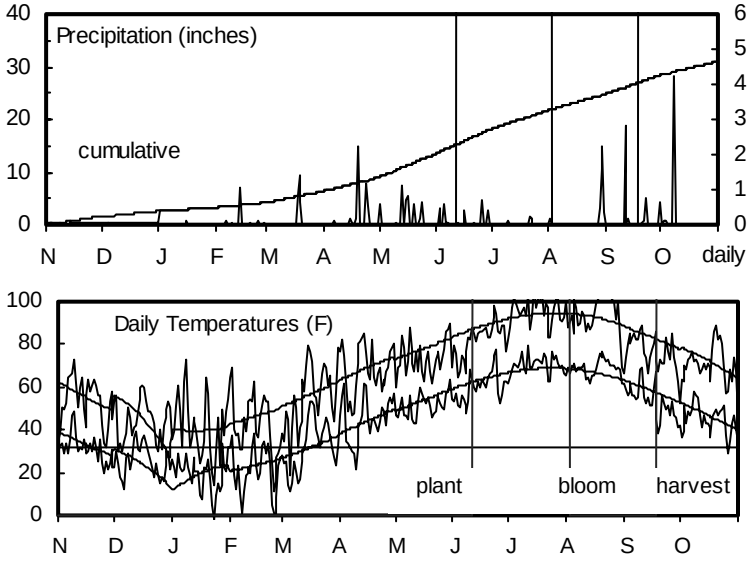

Table 10. Hesston Grain Sorghum Performance Test, 2001-2003.

BRAND	NAME	ACRE YIELD, BUSHELS 2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	YIELD AS % OF TEST AVERAGE 2003	2002	2001	2002-2003 Days to Blm	Grain Moist. %	2003 Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
GOLDEN WORLD	GW X3406-55	32	--	--	--	--	81	--	--	--	--	51	18	52	29	8	99	1.2
GARST	5750	46	100	66	73	70	115	113	122	56	16	55	17	56	38	1	91	1.1
ASGROW	PULSAR	50	77	--	63	--	125	87	--	55	16	57	17	53	36	0	98	1.2
DEKALB	DKS36-00	51	90	--	70	--	127	102	--	55	16	58	17	55	35	0	93	1.1
GOLDEN WORLD	GW X3406-54	40	--	--	--	--	101	--	--	--	--	59	17	53	33	0	88	1.2
MATURITY CHECK	TX3042xTX2737	43	89	58	66	63	108	100	107	57	16	60	18	54	36	1	96	1.0
MATURITY CHECK	OK11xTX2741	49	55	43	52	49	122	63	80	59	17	63	18	56	36	0	100	1.0
TRIUMPH	TR 438	49	92	--	71	--	122	105	--	60	16	63	18	56	38	0	106	1.0
MONSANTO	X210	54	--	--	--	--	134	--	--	--	--	63	19	55	39	0	94	1.0
NC+	6B50	48	102	61	75	71	120	116	114	59	17	64	18	56	37	0	105	1.0
PIONEER	8500	52	107	66	79	75	129	121	122	60	17	65	18	57	38	0	100	1.0
SORG. PARTNERS	KS 585	50	109	62	80	74	125	123	116	60	16	65	18	59	34	0	97	1.0
DEKALB	DKS42-20	56	102	--	79	--	140	115	--	61	17	67	19	57	39	0	89	1.0
DELANGE	DSA 133	44	79	60	62	61	111	89	112	63	16	68	18	56	36	0	81	0.9
DEKALB	DK-44	37	88	52	63	59	93	100	96	63	17	69	18	56	37	0	89	0.9
MIDLAND	MX-667	41	--	--	--	--	102	--	--	--	--	69	18	56	38	0	100	0.8
SORG. PARTNERS	NK5418	37	--	--	--	--	92	--	--	--	--	69	19	56	32	0	90	0.9
PIONEER	84G50	40	--	--	--	--	100	--	--	--	--	69	20	55	41	0	86	0.8
DEKALB	DKS44-41	34	77	--	56	--	86	87	--	64	17	70	19	54	38	0	79	0.7
MONSANTO	X128	57	98	--	77	--	143	111	--	65	17	70	19	57	37	0	106	0.9
ASGROW	A459	43	70	57	56	57	107	79	106	66	16	71	18	56	38	0	105	0.9
DELANGE	DSA 115C	51	89	--	70	--	128	101	--	64	16	71	18	56	35	0	80	0.9

(continued)

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Table 10. Hesston Grain Sorghum Performance Test, 2001-2003.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
		2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	2003	2002	2001	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
GARST	5440	51	96	61	73	69	127	108	113	64	17	71	18	58	35	0	74	0.9
NC+	7B47	34	--	--	--	--	85	--	--	--	--	71	18	56	35	0	89	0.8
DELANGE	DSA 147	53	91	49	72	64	132	103	92	65	17	71	19	57	37	0	104	0.9
MIDWEST SEED	G 567	54	--	58	--	--	136	--	107	--	--	71	19	57	37	0	76	1.0
SORG. PARTNERS	NK7655	33	--	--	--	--	83	--	--	--	--	72	18	54	37	0	95	0.8
NC+	6B73	42	--	--	--	--	105	--	--	--	--	72	19	56	32	0	88	1.0
SORG. PARTNERS	K73-J6	42	103	--	73	--	105	117	--	65	17	72	19	55	36	0	97	0.9
DEKALB	DKS53-11	42	97	--	69	--	105	109	--	67	17	73	19	56	38	0	96	0.8
MATURITY CHECK	TX2752xTX430	34	79	49	56	54	84	89	91	67	17	74	19	56	35	0	96	0.8
MYCOGEN	627	46	--	--	--	--	114	--	--	--	--	74	19	55	34	0	97	0.9
SORG. PARTNERS	NK7633	52	--	--	--	--	131	--	--	--	--	74	20	55	36	0	95	1.0
GARST	5515	25	94	62	60	60	64	106	115	67	18	77	20	54	35	0	98	0.6
MIDLAND	M-4665	34	95	--	64	--	86	107	--	68	18	77	21	52	34	0	99	0.8
MONSANTO	X218	38	--	--	--	--	95	--	--	--	--	78	21	55	37	0	105	0.8
MIDLAND	M-4758Y	24	--	--	--	--	60	--	--	--	--	78	22	53	36	0	92	0.7
MIDWEST SEED	O 256	28	117	65	72	70	70	132	120	69	17	80	20	54	36	0	101	0.6
PIONEER	84G62	20	112	66	66	66	50	126	123	72	18	84	21	53	33	0	101	0.5
MYCOGEN	1506	31	104	67	68	67	77	118	124	72	18	85	21	53	37	0	102	0.8
TRIUMPH	TR 481	17	96	52	57	55	44	109	98	77	15	90	15	53	35	0	108	0.6
ASGROW	A571	24	88	55	56	55	60	99	102	77	21	94	27	46	35	0	104	0.6
DEKALB	DKS54-00	19	100	56	59	58	47	113	105	80	17	96	19	40	42	0	91	0.6
SORG. PARTNERS	NK8828	13	73	--	43	--	32	82	--	84	15	98	14	49	36	0	104	0.5
	AVERAGES	40	88	54	64	61	40	88	54	65	17	72	19	54	36	0	95	0.9
	CV(%)	18	10	8	--	--	18	10	8	--	--	7	7	4	5	450	8	10.2
	LSD(0.05)**	10	14	7	--	--	24	16	13	--	--	7	2	3	2	2	11	0.1

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

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SOUTH CENTRAL KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL

South Central Kansas Experiment Field, Hutchinson; William Heer, agronomist

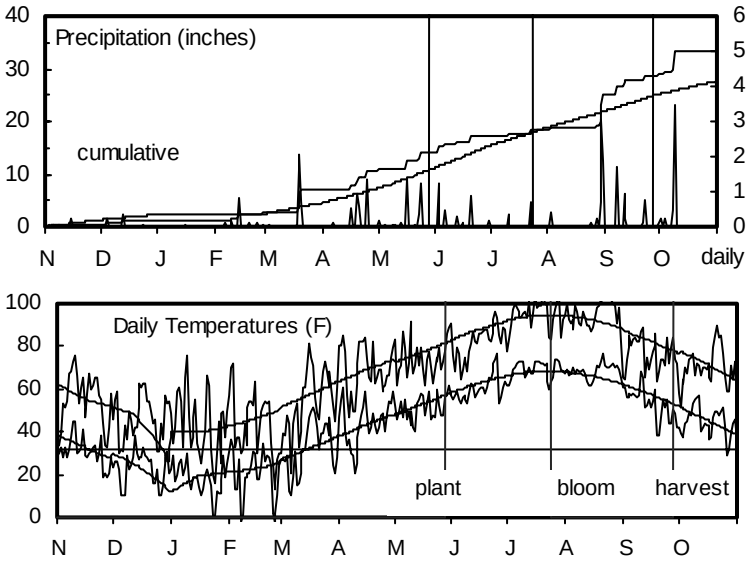
Ost loam; Wheat in 2002

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

Planted on 5/29/2003; Harvested on 11/16/2003

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

Excellent planting conditions and early growth. Very hot and dry from late June to late August. Secondary heads developed after late rains and contributed to yield, but delayed maturation and harvest. No insects or diseases of note.



Month	Precipitation 2003	Precipitation Norm.	Average Temp. 2003	Average Temp. Norm.	GDU 2003	GDU Norm.
Nov.-Mar	7.1	4.5	37	37	10	15
April	3.6	2.6	56	56	643	627
May	3.5	3.9	63	65	875	936
June	3.2	4.3	71	75	1082	1204
July	1.1	3.4	82	81	1467	1423
August	6.5	3.1	81	79	1439	1354
Sept.	4.0	3.3	65	70	889	1042
Oct.	4.4	2.5	57	58	688	717
Totals:	33.2	27.7	55	56	7,093	7,318

Table 11. Hutchinson Grain Sorghum Performance Test, 2001-2003.

BRAND	NAME	ACRE YIELD, BUSHELS 2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	YIELD AS % OF TEST AVERAGE 2003	2002	2001	2002-2003 Days to Blm	Grain Moist. %	2003 Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
FRONTIER	F270E	13	--	--	--	--	61	--	--	--	--	56	12	50	27	--	82	--
GARST	5750	30	37	59	34	42	141	118	125	63	12	56	12	53	28	--	111	--
NC+	5B89	24	20	41	22	28	111	64	87	60	13	56	12	51	28	--	124	--
ASGROW	PULSAR	24	27	--	25	--	109	88	--	63	12	59	12	48	26	--	116	--
SORG. PARTNERS	KS 585	23	33	63	28	40	108	106	132	62	13	59	12	51	29	--	120	--
DEKALB	DKS36-00	19	28	--	24	--	90	90	--	63	12	60	12	51	27	--	113	--
MATURITY CHECK	TX3042xTX2737	27	19	48	23	31	125	61	101	62	13	60	12	51	28	--	110	--
PIONEER	8500	28	30	58	29	39	129	98	122	64	13	60	12	51	29	--	124	--
NC+	6B50	33	31	58	32	41	152	100	122	63	13	61	12	50	28	--	126	--
SORG. PARTNERS	NK5418	26	--	--	--	--	119	--	--	--	--	61	12	52	28	--	108	--
DELANGE	DSA 115C	20	30	57	25	36	95	96	121	65	12	62	12	51	29	--	98	--
MONSANTO	X210	26	--	--	--	--	120	--	--	--	--	62	12	49	28	--	118	--
DEKALB	DKS42-20	25	27	--	26	--	118	86	--	65	13	63	11	48	28	--	110	--
MYCOGEN	M3838	21	--	--	--	--	99	--	--	--	--	63	12	51	29	--	115	--
DELANGE	DSA 133	14	30	54	22	33	67	97	114	67	13	64	11	47	28	--	108	--
MATURITY CHECK	OK11xTX2741	21	23	40	22	28	100	73	84	64	13	64	12	52	30	--	114	--
MIDWEST SEED	G 530	24	--	--	--	--	110	--	--	--	--	64	12	51	30	--	87	--
FRONTIER	F-303C	17	--	--	--	--	80	--	--	--	--	64	13	50	29	--	114	--
PIONEER	85G01	25	--	--	--	--	116	--	--	--	--	65	12	49	29	--	126	--
MIDLAND	MX-667	23	--	--	--	--	107	--	--	--	--	66	12	47	31	--	127	--
WILLCROSS	WX 420	24	30	--	27	--	114	95	--	68	13	66	12	51	29	--	123	--
DYNA-GRO	DGX-1738	23	--	--	--	--	106	--	--	--	--	67	11	50	28	--	116	--

(continued)

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Table 11. Hutchinson Grain Sorghum Performance Test, 2001-2003.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
		2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	2003	2002	2001	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
DYNA-GRO	DGX-1754	13	--	--	--	--	60	--	--	--	--	68	12	46	31	--	119	--
MIDLAND	M-4665	26	32	--	29	--	119	102	--	68	13	69	12	48	29	--	116	--
MIDWEST SEED	G 567	29	--	51	--	--	137	--	108	--	--	70	12	49	30	--	80	--
SORG. PARTNERS	NK7633	19	--	--	--	--	87	--	--	--	--	70	12	50	29	--	117	--
GARST	5460	16	--	--	--	--	74	--	--	--	--	70	13	51	33	--	102	--
DEKALB	DKS44-41	14	22	--	18	--	63	69	--	72	13	71	12	49	34	--	68	--
MIDLAND	M-4758Y	29	--	--	--	--	135	--	--	--	--	71	12	49	32	--	108	--
TRIUMPH	TR 460	24	19	--	21	--	113	60	--	71	13	71	12	49	29	--	120	--
GARST	5440	23	--	55	--	--	105	--	115	--	--	72	12	54	30	--	102	--
NC+	6B73	20	--	--	--	--	92	--	--	--	--	73	12	50	27	--	108	--
NC+	7C22	20	--	--	--	--	93	--	--	--	--	73	12	49	29	--	113	--
SORG. PARTNERS	K73-J6	27	43	46	35	39	124	139	96	72	13	73	12	53	32	--	123	--
MYCOGEN	1506	17	36	46	26	33	79	116	97	71	14	73	13	50	32	--	122	--
DYNA-GRO	DGX-1763	23	--	--	--	--	105	--	--	--	--	74	12	49	28	--	124	--
DEKALB	DK-44	12	30	47	21	30	56	97	98	74	13	76	12	51	32	--	118	--
SORG. PARTNERS	NK7655	23	--	--	--	--	107	--	--	--	--	78	12	51	32	--	112	--
FRONTIER	F-457E	18	--	--	--	--	82	--	--	--	--	78	13	49	30	--	90	--
MONSANTO	X218	21	--	--	--	--	98	--	--	--	--	78	13	52	33	--	127	--
MIDWEST SEED	O 256	18	35	61	27	38	82	114	130	75	13	79	12	47	32	--	123	--
ASGROW	A459	23	35	60	29	39	107	112	126	76	13	81	13	49	33	--	128	--
DYNA-GRO	DGX-1753	23	--	--	--	--	106	--	--	--	--	81	13	49	29	--	117	--
MONSANTO	X128	23	41	--	32	--	105	131	--	77	14	82	13	51	33	--	126	--
TRIUMPH	TR 481	21	41	43	31	35	99	131	91	79	15	85	14	54	31	--	126	--
MATURITY CHECK	TX2752xTX430	24	38	52	31	38	112	121	111	79	13	86	12	50	30	--	117	--
WILLCROSS	WX 544	23	--	--	--	--	109	--	--	--	--	86	13	55	32	--	117	--
ASGROW	A571	17	37	34	27	29	79	120	71	80	13	88	13	52	30	--	125	--
DYNA-GRO	DGX-1765	21	--	--	--	--	99	--	--	--	--	90	13	51	30	--	124	--
DEKALB	DKS53-11	16	41	--	28	--	74	131	--	83	14	92	13	53	34	--	92	--
PIONEER	84G62	27	43	64	35	44	126	138	134	82	14	92	13	54	29	--	127	--
DEKALB	DKS54-00	12	50	58	31	40	56	163	122	90	15	106	15	43	34	--	107	--
SORG. PARTNERS	NK8828	9	18	28	13	18	41	58	59	98	16	121	13	49	32	--	126	--
	AVERAGES	22	31	47	26	33	22	31	47	71	13	72	12	50	30	--	114	--
	CV(%)	24	17	17	--	--	24	17	17	--	--	9	4	6	5	--	7	--
	LSD(0.05)**	6	7	11	--	--	28	24	24	--	--	8	1	3	2	--	9	--

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

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Table 12. SOUTH CENTRAL Kansas sorghum hybrid yield summary (% of test average), 2003.

BRAND/NAME	HVD[1]	RND	STD	AVG.
ASGROW				
A459	107	107	--	107
A571	60	79	--	69
PULSAR	125	109	--	117
DEKALB				
DK-44	93	56	--	75
DKS36-00	127	90	--	108
DKS42-20	140	118	--	129
DKS44-41	86	63	--	74
DKS53-11	105	74	--	89
DKS54-00	47	56	--	51
DELANGE				
DSA 115C	128	95	--	112
DSA 133	111	67	--	89
DSA 147	132	--	--	--
DYNA-GRO				
DGX-1738	--	106	--	--
DGX-1753	--	106	--	--
DGX-1754	--	60	--	--
DGX-1763	--	105	--	--
DGX-1765	--	99	--	--
FRONTIER				
F270E	--	61	--	--
F-303C	--	80	--	--
F-457E	--	82	--	--
GARST				
5440	127	105	--	116
5460	--	74	--	--
5515	64	--	--	--
5750	115	141	--	128
GOLDEN WORLD				
GW X3406-54	101	--	--	--
GW X3406-55	81	--	--	--
MIDLAND				
M-4665	86	119	--	102
M-4758Y	60	135	--	97
MX-667	102	107	--	104
MIDWEST SEED				
G 530	--	110	--	--
G 567	136	137	--	136
O 256	70	82	--	76
MONSANTO				
X128	143	105	--	124
X210	134	120	--	127
X218	95	98	--	96
MYCOGEN				
1506	77	79	--	78
627	114	--	--	--
M3838	--	99	--	--
NC+				
5B89	--	111	--	--
6B50	120	152	--	136
6B73	105	92	--	98
7B47	85	--	--	--
7C22	--	93	--	--
PIONEER				
84G50	100	--	--	--
84G62	50	126	--	88
8500	129	129	--	129
85G01	--	116	--	--
SORG. PARTNERS				
K73-J6	105	124	--	115
KS 585	125	108	--	117
NK5418	92	119	--	106
NK7633	131	87	--	109
NK7655	83	107	--	95
NK8828	32	41	--	36
TRIUMPH				
TR 438	122	--	--	--
TR 460	--	113	--	--
TR 481	44	99	--	71
WILLCROSS				
WX 420	--	114	--	--
WX 544	--	109	--	--
MATURITY CHECK				
OK11xTX2741	122	100	--	111
TX2752xTX430	84	112	--	98
TX3042xTX2737	108	125	--	116
AVERAGES	40	22	--	31
CV(%)	18	24	--	--
LSD(0.05)**	24	28	--	--

[1] HVD = Harvey Co., Hesston RND = Reno Co., Hutchinson STD = Stafford Co., St. John (lost to drought)

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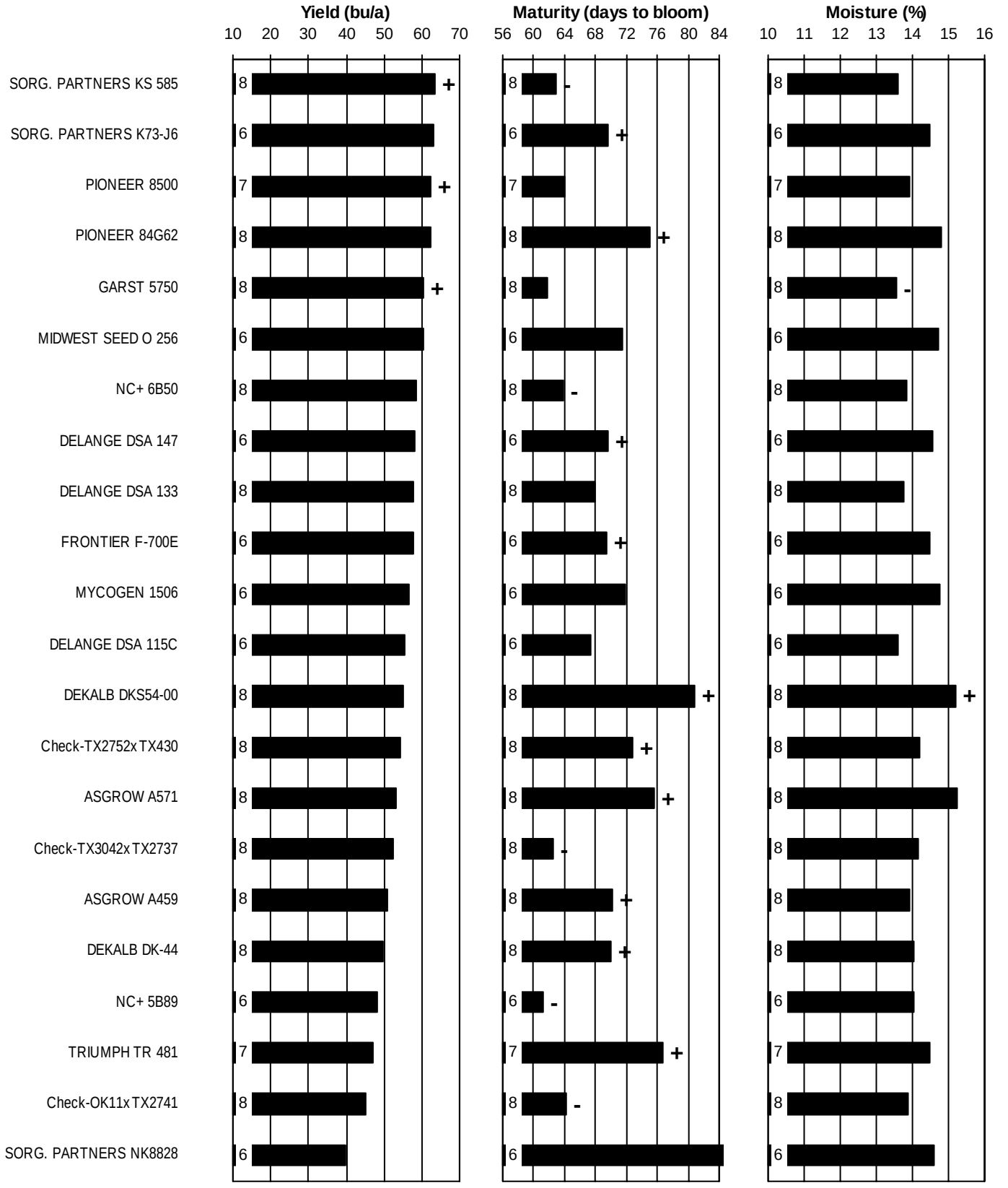
Figure 6. SOUTH CENTRAL Kansas sorghum hybrid standardized performance summary, 2001-2003.



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

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NORTH CENTRAL KANSAS GRAIN SORGHUM TEST ON SILT LOAM SOIL

Agricultural Research Center, Hays; Kenneth Kofoid, agronomist

Harney silt loam; Soybean in 2002

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

Planted on 5/22/2003; Harvested on 10/9/2003

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

Good planting and emergence. Hot and dry in July and August. Only early hybrids headed normally. Late rains stimulated late tillers, which delayed maturation.

	Precipitation		Average Temp.		GDU	
Month	2003	Norm.	2003	Norm.	2003	Norm.
Nov.-Mar	2.7	3.6	36	33	11	10
April	3.7	1.9	55	51	612	479
May	2.3	3.2	62	62	824	834
June	4.5	3.8	70	72	1048	1111
July	0.0	3.3	83	78	1485	1335
August	3.0	2.8	80	76	1405	1270
Sept.	6.5	2.2	65	67	899	965
Oct.	0.1	1.4	58	55	707	607
Totals:	22.8	22.1	54	52	6,989	6,609

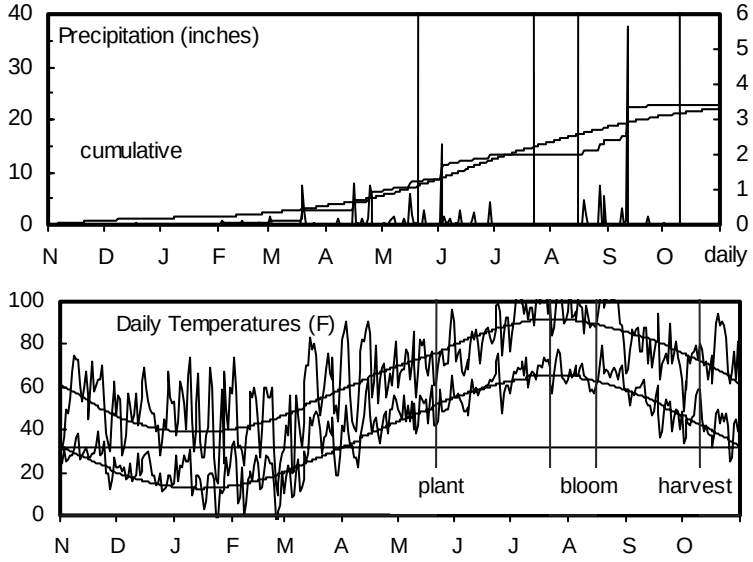

Table 13. Hays Grain Sorghum Performance Test, 2001-2003.

BRAND	NAME	ACRE YIELD, BUSHELS 2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	YIELD AS % OF TEST AVERAGE 2003	2002	2001	2002-2003 Days to Blm	Grain Moist. %	2003 Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
PIONEER	87G57	46	37	103	41	62	100	73	100	61	15	61	17	53	29	40	--	--
ASGROW	PULSAR	41	22	--	32	--	90	43	--	66	12	65	13	56	26	13	--	--
DEKALB	DKS36-00	51	31	84	41	55	111	62	83	65	13	65	14	57	26	13	--	--
NC+	5B89	52	47	82	50	60	113	94	80	64	13	65	15	57	27	27	--	--
MONSANTO	X210	57	--	--	--	--	123	--	--	--	--	65	16	56	28	30	--	--
TRIUMPH	TR 438	52	--	--	--	--	114	--	--	--	--	70	16	54	29	37	--	--
PIONEER	85G01	49	--	--	--	--	108	--	--	--	--	70	24	54	30	77	--	--
FONTANELLE	GE-4445	48	--	--	--	--	105	--	--	--	--	71	15	56	27	3	--	--
MYCOGEN	627	54	69	103	62	75	118	136	101	73	15	71	16	55	29	13	--	--
MYCOGEN	M3838	53	59	117	56	76	115	117	115	74	13	72	14	58	26	13	--	--
GARST	5750	54	53	--	53	--	117	105	--	73	14	72	15	56	26	20	--	--
NC+	7R83	38	--	--	--	--	83	--	--	--	--	72	22	56	28	3	--	--
GARST	5515	42	83	111	62	79	92	163	109	77	13	74	14	56	30	10	--	--
NC+	Y363	40	--	--	--	--	87	--	--	--	--	74	14	56	28	40	--	--
CROPLAN GEN.	414	41	43	104	42	63	89	84	102	70	13	74	15	56	26	10	--	--
GOLDEN WORLD	GW X5964	45	--	--	--	--	99	--	--	--	--	74	15	56	27	3	--	--
SORG. PARTNERS	NK5418	43	--	--	--	--	95	--	--	--	--	74	16	56	25	23	--	--
MATURITY CHECK	TX3042xTX2737	51	55	97	53	68	112	109	95	72	15	74	17	55	29	33	--	--
SORG. PARTNERS	KS 585	52	53	111	53	72	114	104	109	73	13	75	14	55	26	10	--	--
GARST	5624	35	52	114	43	67	76	102	112	80	14	75	15	55	26	0	--	--
SORG. PARTNERS	NK7633	58	--	--	--	--	127	--	--	--	--	75	16	56	28	33	--	--
TRIUMPH	TR 459	62	30	--	46	--	134	60	--	77	15	76	16	55	28	10	--	--

(continued)

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Table 13. Hays Grain Sorghum Performance Test, 2001-2003.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
		2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	2003	2002	2001	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
GARST	5460	46	--	--	--	--	100	--	--	--	--	76	21	55	30	77	--	--
DYNA-GRO	DGX-1738	49	--	--	--	--	107	--	--	--	--	77	14	56	27	3	--	--
MIDWEST SEED	G 567	67	--	--	--	--	146	--	--	--	--	77	15	57	28	60	--	--
DYNA-GRO	DGX-1763	52	--	--	--	--	114	--	--	--	--	77	16	55	26	43	--	--
GOLDEN WORLD	GW X3064	41	37	--	39	--	89	74	--	75	14	77	16	56	27	57	--	--
MATURITY CHECK	OK11xTX2741	40	35	95	38	57	88	70	94	72	14	77	16	57	30	33	--	--
NC+	6B50	55	50	119	52	75	119	98	117	73	14	77	16	54	27	50	--	--
GOLDEN WORLD	GW 1489	37	59	108	48	68	80	117	106	78	17	77	20	55	29	20	--	--
DEKALB	DK-44	33	40	95	36	56	71	79	93	75	15	78	17	56	29	10	--	--
MIDWEST SEED	G 530	57	--	--	--	--	125	--	--	--	--	79	14	58	28	17	--	--
FONTANELLE	GE-5615	54	--	--	--	--	118	--	--	--	--	79	21	54	28	70	--	--
MIDLAND	M-4725	43	68	124	56	78	93	135	121	78	16	80	18	56	29	33	--	--
SORG. PARTNERS	NK7655	37	--	--	--	--	81	--	--	--	--	80	19	55	30	40	--	--
SORG. PARTNERS	NK8828	29	51	--	40	--	64	100	--	81	18	80	22	53	28	63	--	--
SORG. PARTNERS	K73-J6	68	74	123	71	88	147	147	121	81	14	82	15	56	32	17	--	--
DYNA-GRO	DGX-1754	19	--	--	--	--	42	--	--	--	--	83	15	57	28	3	--	--
MIDLAND	M-4758Y	46	--	70	--	--	100	--	68	--	--	83	17	54	29	3	--	--
GOLDEN WORLD	GW X1464	28	79	--	53	--	60	156	--	80	15	84	16	56	27	7	--	--
PIONEER	84G62	38	88	145	63	90	84	174	142	83	17	84	19	58	29	17	--	--
MATURITY CHECK	TX2752xTX430	48	64	128	56	80	104	126	125	82	15	85	17	56	29	13	--	--
GOLDEN WORLD	GW X7464	31	--	--	--	--	68	--	--	--	--	85	18	55	31	27	--	--
MIDLAND	M-4614W	35	--	106	--	--	76	--	104	--	--	85	20	55	29	30	--	--
	AVERAGES	46	51	102	48	66	46	51	102	75	15	76	17	56	28	26	--	--
	CV(%)	16	16	13	--	--	16	16	13	--	--	2	11	3	7	75	--	--
	LSD(0.05)**	10	13	21	--	--	22	27	20	--	--	2	2	3	3	27	--	--

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

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NORTHWEST KANSAS FALLOW GRAIN SORGHUM TEST ON SILT LOAM SOIL

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

Keith silt loam; Fallow in 2002

60 - 10 - 0 lb/a N, P, K

Planted on 5/29/2003; Harvested on 10/7/2003

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

Good early summer precipitation, stand establishment and early growth. Little stored moisture and little precipitation in July and August severely limited yields.

	Precipitation		Average Temp.		GDU	
Month	2003	Norm.	2003	Norm.	2003	Norm.
Nov.-Mar	1.8	3.1	35	32	12	7
April	2.2	1.8	52	49	534	433
May	2.3	2.9	60	60	783	770
June	4.7	3.1	68	70	989	1063
July	0.4	2.9	80	76	1400	1286
August	3.0	2.2	77	74	1300	1210
Sept.	0.0	1.5	64	65	869	898
Oct.	0.2	1.1	57	53	668	543
Totals:	14.8	18.6	53	51	6,555	6,210

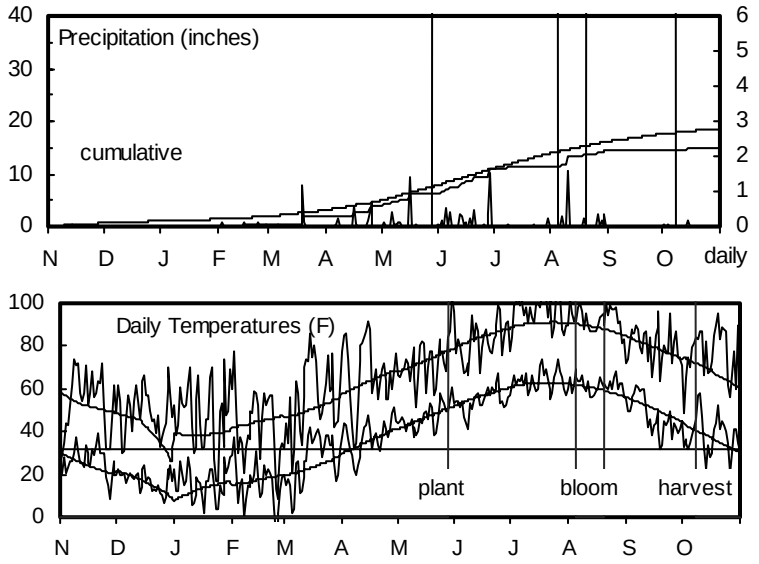

Table 14. Colby Fallow Grain Sorghum Performance Test, 2001-2003.

BRAND	NAME	ACRE YIELD, BUSHELS 2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	YIELD AS % OF TEST AVERAGE 2003	2002	2001	2002-2003 Days to Blm	Grain Moist. %	2003 Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
PIONEER	87G57	23	68	63	45	51	201	100	120	64	--	71	--	--	33	5	136	0.3
DYNA-GRO	DGX-1737	20	--	--	--	--	174	--	--	--	--	73	--	--	28	1	133	0.7
NC+	5B89	20	67	64	43	50	173	99	123	67	--	73	--	--	30	1	151	0.5
ASGROW	PULSAR	17	62	--	39	--	151	91	--	67	--	74	--	--	30	0	137	0.5
TRIUMPH	TR 434	17	--	--	--	--	149	--	--	--	--	74	--	--	30	10	135	0.4
DEKALB	DKS36-00	16	73	59	44	49	144	107	112	67	--	75	--	--	30	0	137	0.5
MATURITY CHECK	TX3042xTX2737	21	82	68	51	57	184	120	130	69	--	75	--	--	33	2	131	0.5
GARST	5750	12	68	62	40	47	102	101	118	71	--	77	--	--	31	0	128	0.3
MONSANTO	X210	12	--	--	--	--	108	--	--	--	--	77	--	--	31	0	131	0.3
SORG. PARTNERS	NK5418	13	--	--	--	--	111	--	--	--	--	78	--	--	30	0	130	0.4
MYCOGEN	627	14	68	--	41	--	120	100	--	72	--	79	--	--	31	0	142	0.2
PIONEER	85G01	5	--	--	--	--	43	--	--	--	--	79	--	--	31	0	150	0.1
FONTANELLE	GE-4445	8	--	--	--	--	75	--	--	--	--	80	--	--	31	0	134	0.2
FRONTIER	F-303C	12	75	57	43	48	106	110	110	73	--	80	--	--	32	0	135	0.3
MIDWEST SEED	G 530	12	--	--	--	--	108	--	--	--	--	80	--	--	31	0	123	0.3
MYCOGEN	M3838	13	71	54	42	46	119	104	104	74	--	80	--	--	31	0	126	0.4
NC+	6B50	13	71	--	42	--	114	105	--	73	--	80	--	--	32	3	152	0.2
TRIUMPH	TR 459	11	70	--	41	--	99	104	--	73	--	80	--	--	30	0	141	0.3
SORG. PARTNERS	KS 585	8	65	45	36	39	68	96	87	74	--	81	--	--	29	0	136	0.0
DEKALB	DK-44	6	73	55	40	45	55	107	105	74	--	82	--	--	32	0	133	0.4
MATURITY CHECK	OK11xTX2741	5	67	50	36	40	44	99	95	73	--	82	--	--	31	0	129	0.2
MIDLAND	M-4758Y	6	--	--	--	--	53	--	--	--	--	82	--	--	32	0	126	0.2
NC+	Y363	10	75	61	43	49	87	111	118	74	--	82	--	--	31	0	137	0.2
PIONEER	84G62	4	--	--	--	--	37	--	--	--	--	82	--	--	32	0	144	0.1
MATURITY CHECK	TX2752xTX430	1	68	51	34	40	8	100	97	78	--	84	--	--	32	0	132	0.1
MIDWEST SEED	G 567	7	--	--	--	--	66	--	--	--	--	84	--	--	31	0	116	0.2
FRONTIER	F-457E	10	66	--	38	--	88	97	--	80	--	85	--	--	31	0	125	0.1
MIDLAND	M-4614W	6	--	--	--	--	57	--	--	--	--	85	--	--	33	0	130	0.1
MIDLAND	M-4725	6	--	--	--	--	57	--	--	--	--	87	--	--	32	0	137	0.1
	AVERAGES	11	68	52	40	44	11	68	52	72	--	79	--	--	31	1	134	0.3
	CV(%)	44	14	15	--	--	44	14	15	--	--	3	--	--	5	320	7	72.7
	LSD(0.05)**	7	13	11	--	--	62	20	21	--	--	3	--	--	2	3	12	0.3

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

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WEST CENTRAL KANSAS FALLOW GRAIN SORGHUM TEST ON SILT LOAM SOIL

Southwest Research-Extension Center, Tribune; Alan Schlegel, agronomist

Ulysses silt loam; Wheat in 2002

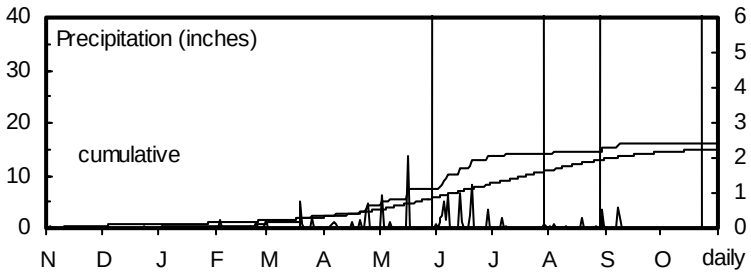
80 - 0 - 0 lb/a N, P, K

Planted on 5/30/2003; Harvested on 10/22/2003

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

Hot, dry summer delayed heading and reduced yield potential.

	Precipitation		Average Temp.		GDU	
Month	2003	Norm.	2003	Norm.	2003	Norm.
Nov.-Mar	2.2	2.1	37	34	15	9
April	2.0	1.3	53	50	546	437
May	3.4	2.4	61	60	812	776
June	6.0	2.5	68	70	992	1063
July	0.6	2.5	80	76	1399	1276
August	1.1	2.2	78	74	1319	1200
Sept.	0.9	1.3	64	65	859	914
Oct.	0.0	0.7	58	53	706	566
Totals:	16.1	15.1	54	52	6,649	6,240



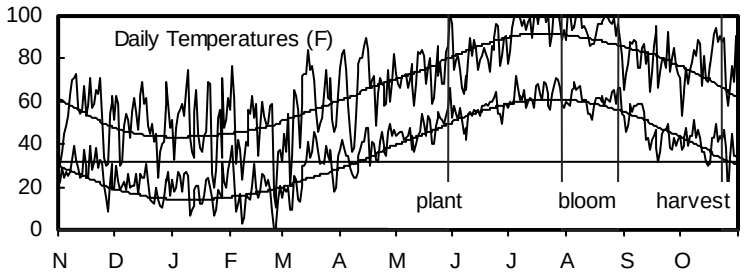


Table 15. Tribune Fallow Grain Sorghum Performance Test, 2001-2003.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
BRAND	NAME	2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	2003	2002	2001	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	56	--	--	--	--	119	--	--	--	--	60	8	55	39	--	--	--
DYNA-GRO	DGX-1737	58	--	--	--	--	122	--	--	--	--	61	7	51	31	--	--	--
PIONEER	87G57	62	--	--	--	--	130	--	--	--	--	62	8	56	36	--	--	--
DSS	B60	51	--	--	--	--	108	--	--	--	--	67	8	57	31	--	--	--
ASGROW	PULSAR	51	--	--	--	--	107	--	--	--	--	68	9	55	32	--	--	--
DEKALB	DKS36-00	52	--	--	--	--	110	--	--	--	--	68	9	56	33	--	--	--
GARST	9135	39	--	--	--	--	82	--	--	--	--	68	9	57	34	--	--	--
PIONEER	85Y34	65	--	--	--	--	137	--	--	--	--	69	8	55	36	--	--	--
MONSANTO	X210	52	--	--	--	--	111	--	--	--	--	70	11	55	36	--	--	--
PIONEER	85G01	70	--	--	--	--	148	--	--	--	--	71	9	56	38	--	--	--
SORG. PARTNERS	NK5418	56	--	--	--	--	118	--	--	--	--	73	9	58	31	--	--	--
GARST	5750	58	--	--	--	--	123	--	--	--	--	73	10	57	36	--	--	--
TRIUMPH	TR 438	53	--	--	--	--	113	--	--	--	--	73	10	58	38	--	--	--
FONTANELLE	GE-4445	47	--	--	--	--	100	--	--	--	--	74	10	57	36	--	--	--
MYCOGEN	M3838	41	--	--	--	--	87	--	--	--	--	74	11	56	36	--	--	--
DSS	B64	53	--	--	--	--	112	--	--	--	--	74	12	58	35	--	--	--
SORG. PARTNERS	KS 585	46	--	--	--	--	96	--	--	--	--	74	14	56	34	--	--	--
MIDLAND	M-4758Y	50	--	--	--	--	106	--	--	--	--	76	12	58	39	--	--	--
MATURITY CHECK	OK11xTX2741	53	--	--	--	--	112	--	--	--	--	77	11	55	36	--	--	--
TRIUMPH	TR 460	42	--	--	--	--	88	--	--	--	--	77	12	57	33	--	--	--
CROPLAN GEN.	414	43	--	--	--	--	90	--	--	--	--	78	14	57	33	--	--	--
MATURITY CHECK	TX2752xTX430	36	--	--	--	--	76	--	--	--	--	79	17	50	36	--	--	--
GARST	5460	41	--	--	--	--	88	--	--	--	--	80	15	55	36	--	--	--
MYCOGEN	1G600	56	--	--	--	--	119	--	--	--	--	81	10	55	39	--	--	--
DEKALB	DK-44	28	--	--	--	--	59	--	--	--	--	81	11	55	35	--	--	--
TRIUMPH	TR 461	44	--	--	--	--	93	--	--	--	--	82	12	56	38	--	--	--
MIDLAND	M-4614W	9	--	--	--	--	19	--	--	--	--	85	16	54	34	--	--	--
MIDLAND	M-4725	14	--	--	--	--	29	--	--	--	--	90	17	53	36	--	--	--
	AVERAGES	47	--	--	--	--	47	--	--	--	--	74	11	56	35	--	--	--
	CV(%)	25	--	--	--	--	25	--	--	--	--	9	16	3	5	--	--	--
	LSD(0.05)**	14	--	--	--	--	29	--	--	--	--	8	2	2	2	--	--	--

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

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SOUTHWEST KANSAS FALLOW GRAIN SORGHUM TEST ON SILT LOAM SOIL

Southwest Research-Extension Center, Garden City; Merle Witt, agronomist

Keith silt loam; Fallow in 2002

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

Planted on 5/29/2003; Harvested on 10/28/2003

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

Cool, wet conditions in June slowed emergence, but good stands were obtained. July and August were hot and dry. Drought stress induced lodging.

	Precipitation		Average Temp.		GDU	
Month	2003	Norm.	2003	Norm.	2003	Norm.
Nov.-Mar	3.5	2.9	37	34	14	11
April	2.5	1.7	55	51	595	479
May	3.0	2.9	63	62	864	834
June	3.9	2.9	70	72	1063	1115
July	0.6	2.5	82	78	1452	1321
August	3.1	2.2	80	75	1395	1244
Sept.	1.3	1.6	67	67	963	956
Oct.	0.0	1.0	61	54	811	601
Totals:	17.9	17.7	55	53	7,156	6,559

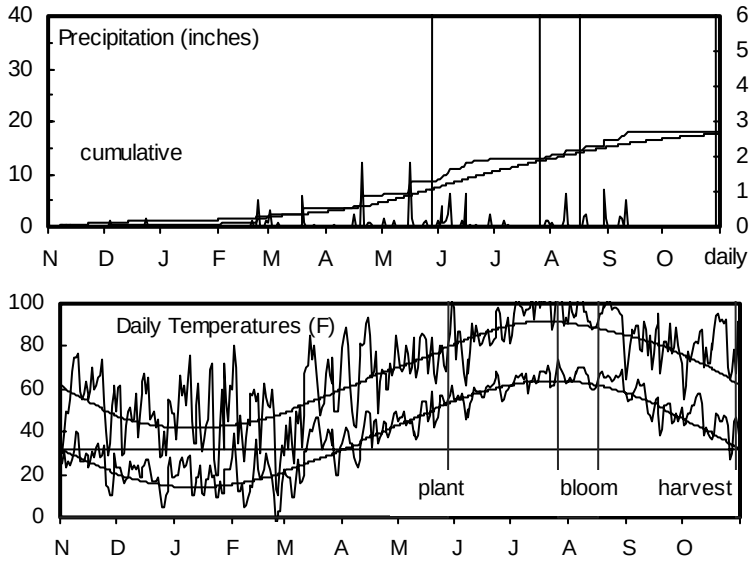

Table 16. Garden City Fallow Grain Sorghum Performance Test, 2001-2003.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
BRAND	NAME	2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	2003	2002	2001	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	52	--	--	--	--	85	--	--	--	--	58	11	60	35	75	96	1.9
DSS	B60	42	--	--	--	--	69	--	--	--	--	60	11	60	32	15	100	1.7
NC+	5B89	73	58	--	66	--	119	86	--	58	13	61	12	60	36	6	101	1.7
MATURITY CHECK	TX3042xTX2737	65	65	129	65	87	105	96	127	60	13	63	11	60	38	10	94	1.8
ASGROW	PULSAR	46	69	--	57	--	74	101	--	60	13	64	11	60	37	42	97	1.9
DEKALB	DKS36-00	59	57	73	58	63	96	84	71	59	13	64	11	60	35	53	100	1.8
MONSANTO	X210	57	--	--	--	--	93	--	--	--	--	64	11	60	39	5	93	1.9
MYCOGEN	627	52	--	--	--	--	84	--	--	--	--	66	11	60	37	17	94	1.8
GARST	5750	75	58	--	67	--	123	86	--	62	13	66	12	59	36	0	101	1.8
DEKALB	DK-44	69	73	73	71	72	113	108	72	62	13	67	11	60	39	37	102	1.6
DSS	B64	66	--	--	--	--	107	--	--	--	--	67	11	60	38	3	108	1.7
MYCOGEN	M3838	75	--	--	--	--	122	--	--	--	--	67	11	61	36	13	98	1.5
TRIUMPH	TR 460	61	--	--	--	--	99	--	--	--	--	67	11	61	37	7	103	1.7
MIDWEST SEED	G 530	62	--	--	--	--	101	--	--	--	--	68	10	61	36	33	85	1.6
DYNA-GRO	DGX-1763	48	--	--	--	--	78	--	--	--	--	68	11	60	38	3	96	1.8
NC+	5B74E	46	76	--	61	--	75	112	--	63	13	68	11	60	35	2	103	1.6
GARST	5515	62	78	109	70	83	101	115	107	67	13	69	11	60	39	0	100	1.5
GOLDEN WORLD	GW X3064	54	64	--	59	--	88	95	--	65	13	69	11	60	38	5	108	1.8
MIDLAND	M-4758Y	51	--	--	--	--	83	--	--	--	--	69	11	60	39	12	102	1.8
NC+	7C22	53	--	--	--	--	87	--	--	--	--	69	11	60	39	9	99	1.7
PIONEER	85G01	59	--	--	--	--	96	--	--	--	--	69	11	60	37	4	96	1.7
FONTANELLE	GE-5615	66	--	--	--	--	108	--	--	--	--	70	11	60	39	2	96	1.7
GARST	5460	66	--	--	--	--	107	--	--	--	--	70	11	60	39	62	95	1.7

(continued)

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Table 16. Garden City Fallow Grain Sorghum Performance Test, 2001-2003.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
BRAND	NAME	2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	2003	2002	2001	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	61	65	95	63	74	99	96	93	65	13	70	11	60	37	2	104	1.5
SORG. PARTNERS	KS 585	50	82	109	66	80	81	120	106	65	13	70	11	61	34	0	98	2.0
SORG. PARTNERS	NK5418	53	--	--	--	--	87	--	--	--	--	70	11	60	33	7	110	2.0
SORG. PARTNERS	NK7633	76	--	--	--	--	124	--	--	--	--	70	11	60	39	12	90	1.9
PIONEER	84G62	67	91	130	79	96	109	134	127	69	13	72	11	60	38	1	104	1.7
SORG. PARTNERS	K73-J6	79	60	103	69	80	128	88	100	66	13	72	11	60	41	2	102	2.0
DYNA-GRO	DGX-1754	69	--	--	--	--	112	--	--	--	--	73	11	60	37	3	98	1.7
DYNA-GRO	DGX-1738	56	--	--	--	--	92	--	--	--	--	73	12	60	37	3	99	1.6
GOLDEN WORLD	GW X5964	69	--	--	--	--	113	--	--	--	--	73	12	60	37	4	102	1.7
SORG. PARTNERS	NK7655	77	--	--	--	--	126	--	--	--	--	75	11	60	39	1	99	1.8
SORG. PARTNERS	NK8828	54	77	--	65	--	88	113	--	70	13	75	11	60	37	26	105	1.4
MATURITY CHECK	TX2752xTX430	52	83	96	68	77	85	123	94	69	13	76	11	60	39	3	94	1.7
GOLDEN WORLD	GW 1489	80	73	115	77	89	131	108	113	69	13	76	12	60	41	33	100	1.5
GOLDEN WORLD	GW X1464	55	74	--	65	--	90	109	--	67	13	77	12	60	35	0	104	1.6
MIDLAND	M-4725	73	--	--	--	--	119	--	--	--	--	77	12	60	39	0	100	1.5
DYNA-GRO	DGX-1765	56	--	--	--	--	91	--	--	--	--	79	12	60	39	0	105	1.5
GOLDEN WORLD	GW X7464	67	--	--	--	--	110	--	--	--	--	79	12	59	39	0	104	1.5
MIDLAND	M-4614W	63	--	--	--	--	103	--	--	--	--	79	12	60	37	0	92	1.8
	AVERAGES	61	68	102	65	77	61	68	102	65	13	70	11	60	37	12	99	1.7
	CV(%)	16	11	9	--	--	16	11	9	--	--	2	5	1	5	147	7	8.6
	LSD(0.05)**	13	12	19	--	--	22	17	18	--	--	2	1	1	2	25	9	0.2

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

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Table 17. WEST Kansas grain sorghum hybrid yield summary (% of test average), 2003.

BRAND/NAME	ELD[1]	THD	GRD	FND	AVG.
ASGROW					
PULSAR	90	151	107	74	106
CROPLAN GEN.					
414	89	--	90	--	--
DEKALB					
DK-44	71	55	59	113	75
DKS36-00	111	144	110	96	115
DSS					
B60	--	--	108	69	--
B64	--	--	112	107	--
DYNA-GRO					
DGX-1737	--	174	122	--	--
DGX-1738	107	--	--	92	--
DGX-1754	42	--	--	112	--
DGX-1763	114	--	--	78	--
DGX-1765	--	--	--	91	--
FONTANELLE					
GE-4445	105	75	100	--	--
GE-5615	118	--	--	108	--
FRONTIER					
F-303C	--	106	--	--	--
F-457E	--	88	--	--	--
GARST					
5460	100	--	88	107	--
5515	92	--	--	101	--
5624	76	--	--	--	--
5750	117	102	123	123	116
9135	--	--	82	--	--
GOLDEN WORLD					
GW 1489	80	--	--	131	--
GW X1464	60	--	--	90	--
GW X3064	89	--	--	88	--
GW X5964	99	--	--	113	--
GW X7464	68	--	--	110	--
MIDLAND					
M-4614W	76	57	19	103	63
M-4725	93	57	29	119	74
M-4758Y	100	53	106	83	85
MIDWEST SEED					
G 530	125	108	--	101	--
G 567	146	66	--	--	--
MONSANTO					
X210	123	108	111	93	109
MYCOGEN					
1G600	--	--	119	--	--
627	118	120	--	84	--
M3838	115	119	87	122	111
NC+					
5B74E	--	--	--	75	--
5B89	113	173	--	119	--
6B50	119	114	--	--	--
7C22	--	--	--	87	--
7R83	83	--	--	--	--
Y363	87	87	--	--	--
PIONEER					
84G62	84	37	--	109	--
85G01	108	43	148	96	99
85Y34	--	--	137	--	--
87G57	100	201	130	85	129
SORG. PARTNERS					
K73-J6	147	--	--	128	--
KS 585	114	68	96	81	90
NK5418	95	111	118	87	103
NK7633	127	--	--	124	--
NK7655	81	--	--	126	--
NK8828	64	--	--	88	--
TRIUMPH					
TR 434	--	149	--	--	--
TR 438	114	--	113	--	--
TR 459	134	99	--	--	--
TR 460	--	--	88	99	--
TR 461	--	--	93	--	--
MATURITY CHECK					
OK11xTX2741	88	44	112	99	86
TX2752xTX430	104	8	76	85	68
TX3042xTX2737	112	184	119	105	130
AVERAGES	46	11	47	61	41
CV(%)	16	44	25	16	--
LSD(0.05)**	22	62	29	22	--

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

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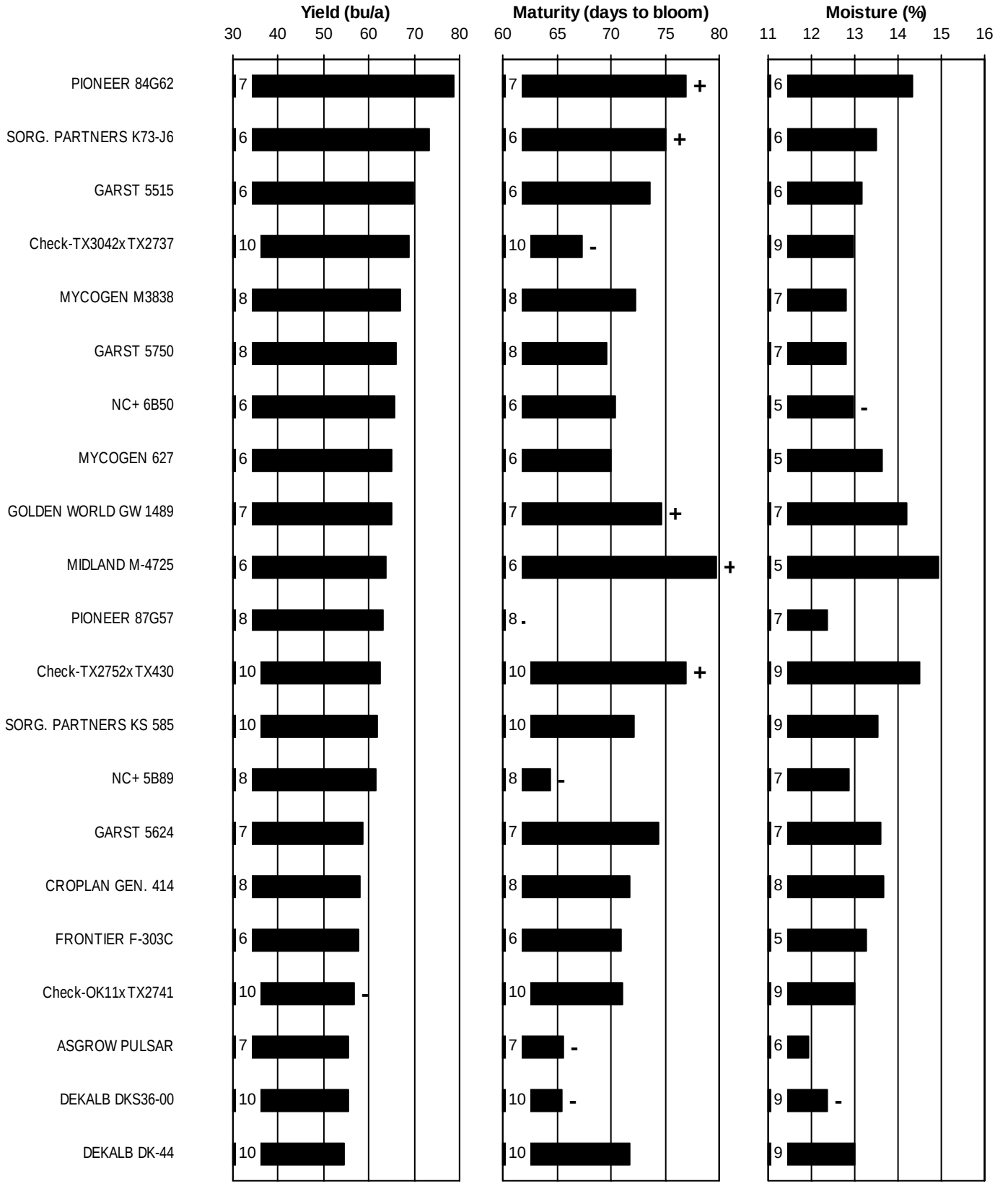
Figure 7. WEST Kansas sorghum hybrid standardized performance summary, 2001-2003.



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

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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 2002

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

Planted on 5/14/2003; Harvested on 10/15/2003

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

Ideal planting conditions, uniform stands, but emergence reduced by heavy rains after planting. Favorable precipitation and temperatures through June. Hot, dry July and August.

	Precipitation		Average Temp.		GDU	
Month	2003	Norm.	2003	Norm.	2003	Norm.
Nov.-Mar	4.1	5.4	35	33	23	11
April	3.7	2.5	54	53	578	545
May	5.7	3.9	61	64	791	895
June	10.8	4.7	70	74	1058	1158
July	0.1	3.8	80	79	1400	1367
August	5.6	3.7	78	77	1335	1304
Sept.	7.5	3.9	63	67	841	974
Oct.	1.0	2.0	56	56	646	647
Totals:	38.4	29.9	53	53	6,672	6,902

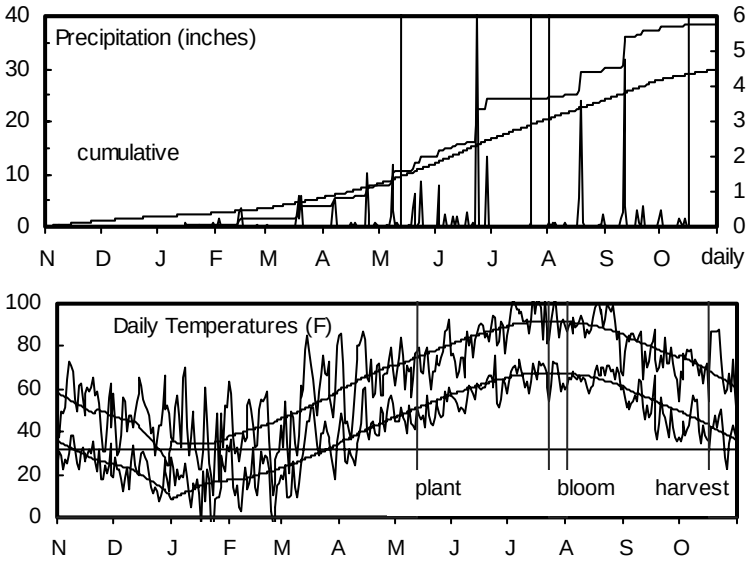

Table 18. Scandia Irrigated Grain Sorghum Performance Test, 2001-2003.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
BRAND	NAME	2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	2003	2002	2001	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	133	160	172	146	155	87	94	92	67	15	70	16	59	48	--	94	1.0
GARST	5750	149	--	--	--	--	97	--	--	--	--	71	16	59	50	--	87	1.0
FRONTIER	F-303C	126	--	--	--	--	83	--	--	--	--	72	16	59	44	--	90	1.0
SORG. PARTNERS	KS 585	144	139	187	142	157	94	82	100	68	15	72	16	59	46	--	90	1.0
SORG. PARTNERS	NK5418	124	--	--	--	--	81	--	--	--	--	72	16	59	45	--	93	1.0
MIDWEST SEED	G 567	161	--	--	--	--	105	--	--	--	--	73	15	59	45	--	87	1.0
PIONEER	84G50	171	--	--	--	--	112	--	--	--	--	73	16	59	51	--	93	1.0
KAYSTAR	KS-5615	157	--	--	--	--	103	--	--	--	--	73	17	59	54	--	97	1.0
PRODUCERS	PH67	126	--	--	--	--	82	--	--	--	--	73	17	59	44	--	94	1.0
MONSANTO	X128	168	--	--	--	--	110	--	--	--	--	74	17	59	47	--	98	1.0
ASGROW	A571	150	180	197	165	176	98	106	106	71	15	75	16	59	46	--	99	1.0
FONTANELLE	GE-5615	157	--	--	--	--	102	--	--	--	--	75	16	59	51	--	87	1.0
GOLDEN WORLD	GW X5964	145	--	--	--	--	95	--	--	--	--	75	16	59	47	--	95	1.0
KAYSTAR	KS-505	147	--	--	--	--	96	--	--	--	--	75	16	59	48	--	88	1.0
SORG. PARTNERS	NK7633	145	--	--	--	--	95	--	--	--	--	75	16	59	47	--	89	1.0
FRONTIER	F-700E	158	149	197	153	168	103	87	106	71	16	75	17	59	51	--	87	1.0
GARST	5460	151	--	--	--	--	99	--	--	--	--	75	17	59	49	--	91	1.0
GOLDEN WORLD	GW X3064	160	168	--	164	--	105	99	--	69	16	75	17	59	51	--	94	1.0
MONSANTO	X218	176	--	--	--	--	115	--	--	--	--	75	17	59	50	--	93	1.0
TRIUMPH	TR 481	156	171	204	163	177	102	100	109	72	16	75	17	59	50	--	92	1.0
MATURITY CHECK	OK11xTX2741	146	133	180	140	153	95	78	96	70	15	76	16	59	47	--	89	1.0
MATURITY CHECK	TX2752xTX430	147	184	205	166	179	96	108	110	73	15	76	16	59	49	--	89	1.0
DEKALB	DKS54-00	151	159	204	155	172	99	94	109	73	16	76	17	59	48	--	88	1.0

(continued)

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Table 18. Scandia Irrigated Grain Sorghum Performance Test, 2001-2003.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
		2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	2003	2002	2001	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-457E	153	--	--	--	--	100	--	--	--	--	76	17	59	50	--	89	1.0
MYCOGEN	X31730	178	--	--	--	--	117	--	--	--	--	76	17	59	51	--	91	1.0
GARST	N0479	171	172	--	171	--	112	101	--	74	15	77	16	59	44	--	87	1.0
GOLDEN WORLD	GW 1489	155	176	192	166	174	102	103	103	72	15	77	16	59	49	--	88	1.0
SORG. PARTNERS	NK7655	147	--	--	--	--	96	--	--	--	--	77	16	59	47	--	93	1.0
CROPLAN GEN.	514	160	147	--	153	--	104	86	--	72	16	77	17	59	48	--	90	1.0
MYCOGEN	X30750	156	--	--	--	--	102	--	--	--	--	77	17	59	47	--	89	1.0
NC+	7R83	146	--	--	--	--	95	--	--	--	--	77	17	59	49	--	93	1.0
PIONEER	84G62	179	220	206	200	202	117	129	110	73	16	77	17	59	47	--	94	1.0
PRODUCERS	PH69	146	--	--	--	--	95	--	--	--	--	77	17	59	48	--	88	1.0
SORG. PARTNERS	K73-J6	146	193	206	169	182	95	113	111	74	16	77	17	59	49	--	89	1.0
GOLDEN WORLD	GW X7464	138	--	--	--	--	90	--	--	--	--	78	16	59	47	--	91	1.0
DEKALB	DKS53-11	177	--	--	--	--	116	--	--	--	--	78	17	59	51	--	87	1.0
GOLDEN WORLD	GW X1464	143	158	--	151	--	93	93	--	72	16	78	17	59	49	--	94	1.0
KAYSTAR	KS-5606	150	--	--	--	--	98	--	--	--	--	78	17	59	49	--	91	1.0
KAYSTAR	KS-5660	140	--	--	--	--	91	--	--	--	--	78	17	59	50	--	87	1.0
NC+	7W51	176	--	--	--	--	115	--	--	--	--	78	17	59	46	--	89	1.0
PRODUCERS	PH79FG	169	--	--	--	--	111	--	--	--	--	78	17	59	55	--	90	1.0
FONTANELLE	GE-6715	145	--	--	--	--	95	--	--	--	--	79	17	59	45	--	91	1.0
SORG. PARTNERS	NK8828	158	181	194	169	178	103	106	104	73	16	79	17	59	49	--	88	1.0
	AVERAGES	153	170	187	162	170	153	170	187	72	15	76	16	59	48	--	91	1.0
	CV(%)	5	4	4	--	--	5	4	4	--	--	1	1	0	4	--	5	3.3
	LSD(0.05)**	10	10	11	--	--	7	6	6	--	--	1	0	NS	3	--	6	NS

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

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NORTHWEST KANSAS IRRIGATED GRAIN SORGHUM TEST ON SILT LOAM SOIL

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

Keith silt loam; Soybean in 2002

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

Planted on 5/28/2003; Harvested on 10/20/2003

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

Good planting conditions. Hot, dry summer. Small hail in early August caused minor leaf shredding. Low greenbug populations.

	Precipitation		Average Temp.		GDU	
Month	2003	Norm.	2003	Norm.	2003	Norm.
Nov.-Mar	1.8	3.1	35	32	12	7
April	2.2	1.8	52	49	534	433
May	2.3	2.9	60	60	783	770
June	4.7	3.1	68	70	989	1063
July	0.4	2.9	80	76	1400	1286
August	3.0	2.2	77	74	1300	1210
Sept.	0.0	1.5	64	65	869	898
Oct.	0.2	1.1	57	53	668	543
Totals:	14.8	18.6	53	51	6,555	6,210

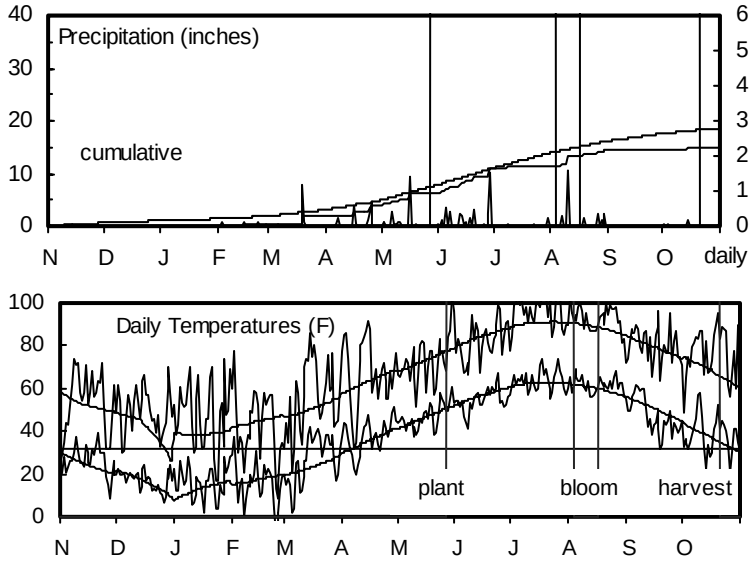

Table 19. Colby Irrigated Grain Sorghum Performance Test, 2001-2003.

BRAND	NAME	ACRE YIELD, BUSHELS 2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	YIELD AS % OF TEST AVERAGE 2003	2002	2001	2002-2003 Days to Blm	Grain Moist. %	2003 Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
MATURITY CHECK	TX3042xTX2737	150	158	142	154	150	92	90	101	63	12	66	9	59	48	--	97	1.0
FONTANELLE	GE-4445	144	--	--	--	--	89	--	--	--	--	68	9	57	45	--	95	1.0
CROPLAN GEN.	484	158	--	--	--	--	97	--	--	--	--	68	10	56	48	--	103	1.0
TRIUMPH	TR 459	153	174	--	163	--	94	99	--	66	13	68	10	58	46	--	102	1.1
FRONTIER	F-303C	151	--	--	--	--	93	--	--	--	--	69	9	59	46	--	99	1.0
KAYSTAR	KS-505	164	--	--	--	--	101	--	--	--	--	69	9	58	50	--	92	1.1
SORG. PARTNERS	NK5418	158	--	--	--	--	97	--	--	--	--	69	9	53	45	--	92	1.1
MYCOGEN	M3838	155	--	--	--	--	95	--	--	--	--	70	9	56	46	--	83	1.2
SORG. PARTNERS	KS 585	165	169	137	167	157	101	96	97	68	13	70	10	56	45	--	89	1.2
GARST	5460	167	--	--	--	--	102	--	--	--	--	71	9	58	48	--	95	1.0
MATURITY CHECK	OK11xTX2741	151	146	122	148	140	93	83	86	66	12	71	9	57	45	--	92	1.0
DEKALB	DKS53-11	173	--	--	--	--	106	--	--	--	--	72	10	57	50	--	97	1.0
FRONTIER	F-457E	171	--	142	--	--	105	--	100	--	--	72	10	57	52	--	88	1.0
MONSANTO	X128	176	--	--	--	--	108	--	--	--	--	72	10	58	50	--	108	1.0
CROPLAN GEN.	514	176	174	--	175	--	108	99	--	70	12	73	9	60	52	--	101	1.0
FRONTIER	F-700E	176	174	152	175	167	108	99	107	69	13	73	10	57	52	--	87	1.0
PIONEER	84G50	166	--	--	--	--	102	--	--	--	--	73	10	56	54	--	95	1.0
MONSANTO	X218	174	--	--	--	--	107	--	--	--	--	73	11	59	51	--	104	1.0
MATURITY CHECK	TX2752xTX430	161	189	168	175	173	99	107	119	71	13	74	10	57	47	--	82	1.1
MIDWEST SEED	G 567	157	--	--	--	--	97	--	--	--	--	74	10	57	49	--	86	1.0
MYCOGEN	697	159	167	--	163	--	98	95	--	68	13	74	10	56	49	--	109	0.8
DEKALB	DKS54-00	168	204	159	186	177	103	116	112	73	14	75	10	56	50	--	95	1.0
PIONEER	84G62	182	201	153	192	179	112	114	108	72	13	75	10	57	50	--	109	0.9
KAYSTAR	KS-5660	145	--	--	--	--	89	--	--	--	--	77	11	52	49	--	64	1.3
NC+	7W51	159	--	--	--	--	98	--	--	--	--	77	11	53	50	--	75	1.1
KAYSTAR	KS-5606	154	--	--	--	--	94	--	--	--	--	77	12	55	49	--	49	1.5
ASGROW	A571	177	188	140	182	168	109	107	99	76	13	78	9	52	51	--	106	0.9
KAYSTAR	KS-5615	173	--	--	--	--	106	--	--	--	--	78	11	55	55	--	79	1.0
NC+	7R83	159	187	133	173	160	98	106	94	77	14	80	10	55	49	--	92	1.1
	AVERAGES	163	176	142	169	160	163	176	142	70	13	73	10	57	49	--	92	1.0
	CV(%)	6	5	5	--	--	6	5	5	--	--	2	7	4	4	--	13	16.5
	LSD(0.05)**	14	12	10	--	--	8	7	7	--	--	2	1	3	3	--	17	0.2

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

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WEST CENTRAL KANSAS IRRIGATED GRAIN SORGHUM TEST ON SILT LOAM SOIL

Southwest Research-Extension Center, Tribune; Alan Schlegel, agronomist

Ulysses silt loam; Wheat in 2002

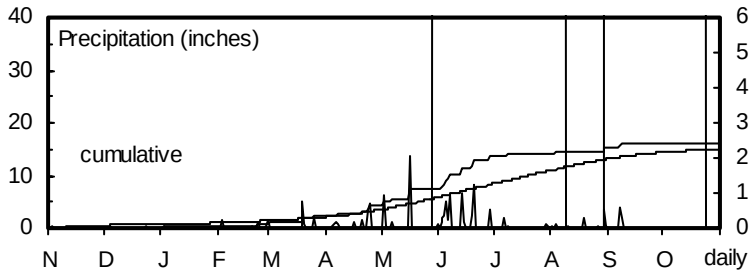
120 - 17 - 0 lb/a N, P, K

Planted on 5/29/2003; Harvested on 10/23/2003

Target stand of 70,000 plants/acre; 3.0 in. spacing

Susceptible hybrids displayed iron chlorosis symptoms early in the season. Maturity and iron chlorosis appeared to have the largest effect on yields.

	Precipitation		Average Temp.		GDU	
Month	2003	Norm.	2003	Norm.	2003	Norm.
Nov.-Mar	2.2	2.1	37	34	15	9
April	2.0	1.3	53	50	546	437
May	3.4	2.4	61	60	812	776
June	6.0	2.5	68	70	992	1063
July	0.6	2.5	80	76	1399	1276
August	1.1	2.2	78	74	1319	1200
Sept.	0.9	1.3	64	65	859	914
Oct.	0.0	0.7	58	53	706	566
Totals:	16.1	15.1	54	52	6,649	6,240



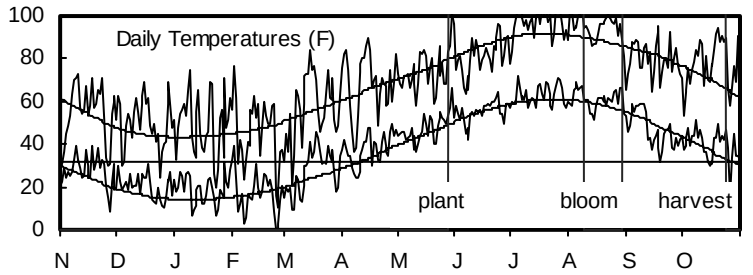


Table 20. Tribune Irrigated Grain Sorghum Performance Test, 2001-2003.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
BRAND	NAME	2003	2001	2000	2-Yr. AVG.	3-Yr. AVG.	2003	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	119	135	72	127	109	100	95	118	69	10	72	9	56	55	--	--	--
NC+	5B74E	128	134	74	131	112	107	95	121	72	10	76	9	57	46	--	--	--
PIONEER	85G01	113	--	--	--	--	94	--	--	--	--	76	9	58	50	--	--	--
MONSANTO	X128	152	--	--	--	--	127	--	--	--	--	76	10	59	55	--	--	--
MYCOGEN	M3838	143	122	75	133	113	120	86	122	75	11	77	9	58	50	--	--	--
CROPLAN GEN.	484	118	--	--	--	--	99	--	--	--	--	78	9	57	48	--	--	--
KAYSTAR	KS-505	123	--	--	--	--	103	--	--	--	--	78	9	58	52	--	--	--
SORG. PARTNERS	NK5418	129	--	--	--	--	108	--	--	--	--	78	9	57	49	--	--	--
DSS	B64	131	--	--	--	--	110	--	--	--	--	78	10	57	47	--	--	--
MONSANTO	X218	133	--	--	--	--	112	--	--	--	--	78	11	59	57	--	--	--
TRIUMPH	TR 460	129	--	--	--	--	108	--	--	--	--	79	10	59	51	--	--	--
FONTANELLE	GE-4445	128	--	--	--	--	108	--	--	--	--	80	9	56	50	--	--	--
TRIUMPH	TR 461	125	158	--	142	--	105	112	--	75	11	80	9	58	55	--	--	--
DEKALB	DKS54-00	141	155	85	148	127	118	110	138	77	11	80	10	58	56	--	--	--
FONTANELLE	GE-5615	120	--	--	--	--	100	--	--	--	--	80	10	57	55	--	--	--
GARST	5460	128	--	--	--	--	107	--	--	--	--	80	10	57	55	--	--	--
DEKALB	DKS53-11	152	--	--	--	--	127	--	--	--	--	80	11	58	55	--	--	--
CROPLAN GEN.	414	131	--	--	--	--	110	--	--	--	--	81	9	57	50	--	--	--
MATURITY CHECK	OK11xTX2741	99	129	37	114	88	83	91	60	76	11	82	10	56	48	--	--	--
MYCOGEN	697	128	--	--	--	--	107	--	--	--	--	82	10	56	50	--	--	--
PIONEER	84G62	127	173	84	150	128	106	122	136	78	11	82	10	56	53	--	--	--
MATURITY CHECK	TX2752xTX430	94	155	67	124	105	79	110	110	80	12	84	10	56	54	--	--	--
SORG. PARTNERS	KS 585	114	151	--	133	--	95	107	--	79	11	84	10	56	49	--	--	--
DSS	R66	103	--	--	--	--	86	--	--	--	--	85	10	54	50	--	--	--
CROPLAN GEN.	514	99	--	--	--	--	83	--	--	--	--	85	11	57	57	--	--	--
ASGROW	A571	122	148	55	135	108	102	105	90	82	11	86	9	55	55	--	--	--
NC+	7R83	104	--	--	--	--	87	--	--	--	--	87	10	54	56	--	--	--
KAYSTAR	KS-5606	94	--	--	--	--	79	--	--	--	--	87	11	53	52	--	--	--
KAYSTAR	KS-5660	65	--	--	--	--	55	--	--	--	--	91	12	52	52	--	--	--
KAYSTAR	KS-5615	89	--	--	--	--	74	--	--	--	--	92	15	48	56	--	--	--
	AVERAGES	119	141	61	130	107	119	141	61	77	11	81	10	56	52	--	--	--
	CV(%)	16	8	21	--	--	16	8	21	--	--	3	14	3	5	--	--	--
	LSD(0.05)**	26	17	15	--	--	22	12	25	--	--	3	2	3	4	--	--	--

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

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SOUTHWEST KANSAS IRRIGATED GRAIN SORGHUM TEST ON SILT LOAM SOIL

Southwest Research-Extension Center, Garden City; Merle Witt, agronomist

Keith silt loam; Fallow in 2002

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

Planted on 5/29/2003; Harvested on 11/1/2003

Target stand of 70,000 plants/acre; 3.0 in. spacing

Cool May and June slowed emergence. Hot July and August. No disease or insect problems. Standing well at harvest.

	Precipitation		Average Temp.		GDU	
Month	2003	Norm.	2003	Norm.	2003	Norm.
Nov.-Mar	3.5	2.9	37	34	14	11
April	2.5	1.7	55	51	595	479
May	3.0	2.9	63	62	864	834
June	3.9	2.9	70	72	1063	1115
July	0.6	2.5	82	78	1452	1321
August	3.1	2.2	80	75	1395	1244
Sept.	1.3	1.6	67	67	963	956
Oct.	0.0	1.0	61	54	811	601
Totals:	17.9	17.7	55	53	7,156	6,559

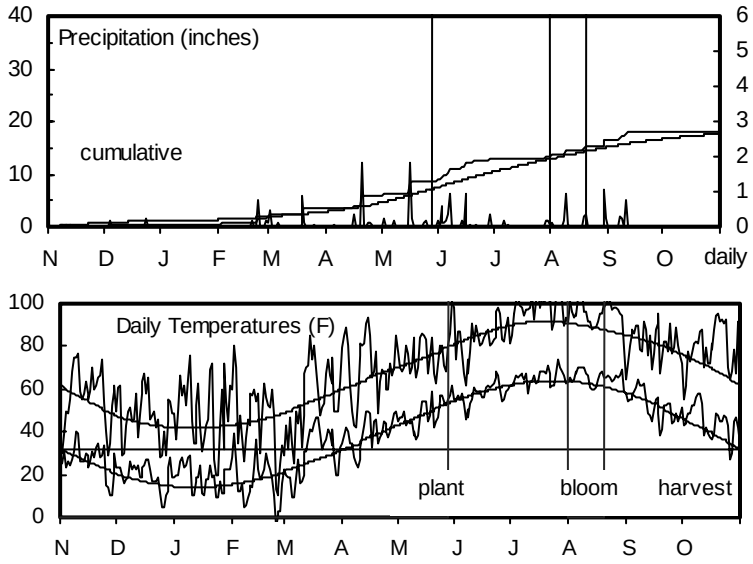

Table 21. Garden City Irrigated Grain Sorghum Performance Test, 2001-2003.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
BRAND	NAME	2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	2003	2002	2001	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
NC+	5B89	51	--	--	--	--	51	--	--	--	--	63	12	60	41	--	102	1.5
MATURITY CHECK	TX3042xTX2737	83	128	111	105	107	82	97	83	62	13	65	12	60	49	--	100	1.5
DSS	B64	78	--	--	--	--	78	--	--	--	--	66	11	60	44	--	108	1.3
SORG. PARTNERS	NK5418	84	--	--	--	--	84	--	--	--	--	67	11	61	43	--	97	1.4
GOLDEN WORLD	GW X3064	69	107	--	88	--	68	82	--	64	13	68	12	60	46	--	98	1.5
MATURITY CHECK	OK11xTX2741	91	111	107	101	103	90	85	81	64	13	69	11	61	45	--	100	1.3
FONTANELLE	GE-5615	85	--	--	--	--	84	--	--	--	--	69	12	61	48	--	101	1.3
FRONTIER	F-303C	83	--	--	--	--	83	--	--	--	--	69	12	61	45	--	104	1.3
MONSANTO	X128	98	--	--	--	--	97	--	--	--	--	69	12	61	48	--	102	1.5
NC+	7C22	79	--	--	--	--	79	--	--	--	--	69	12	61	47	--	99	1.3
DEKALB	DKS53-11	82	--	--	--	--	81	--	--	--	--	70	12	61	50	--	96	1.4
GARST	5460	91	--	--	--	--	90	--	--	--	--	70	12	61	47	--	97	1.4
MONSANTO	X218	109	--	--	--	--	108	--	--	--	--	70	12	61	49	--	98	1.4
SORG. PARTNERS	NK7633	117	--	--	--	--	115	--	--	--	--	70	12	61	47	--	98	1.4
GARST	5440	91	134	--	113	--	91	102	--	66	13	71	12	61	51	--	94	1.5
MIDWEST SEED	G 567	110	--	--	--	--	109	--	--	--	--	71	12	60	46	--	89	1.2
SORG. PARTNERS	KS 585	92	106	119	99	106	91	81	90	65	13	71	12	61	45	--	103	1.3
FRONTIER	F-700E	101	131	150	116	127	100	100	113	66	13	72	12	61	49	--	86	1.2
PIONEER	84G62	119	146	146	132	137	118	111	110	68	13	72	12	61	47	--	104	1.3
SORG. PARTNERS	K73-J6	116	140	138	128	131	115	106	104	66	13	72	12	61	49	--	100	1.4
TRIUMPH	TR 481	91	136	111	113	112	90	103	83	68	13	72	12	61	53	--	109	1.3
FRONTIER	F-457E	117	147	173	132	145	116	112	130	69	13	73	12	61	48	--	91	1.3
GOLDEN WORLD	GW 1489	102	141	--	122	--	101	107	--	68	13	73	12	61	51	--	96	1.2

(continued)

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Table 21. Garden City Irrigated Grain Sorghum Performance Test, 2001-2003.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
		2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	2003	2002	2001	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 X5964	103	--	--	--	--	102	--	--	--	--	73	12	61	47	--	101	1.3
MYCOGEN	X30750	72	--	--	--	--	71	--	--	--	--	73	12	60	50	--	94	1.2
PIONEER	84G50	117	--	--	--	--	116	--	--	--	--	73	12	61	51	--	103	1.2
MATURITY CHECK	TX2752xTX430	116	130	123	123	123	115	99	92	68	13	74	12	61	49	--	98	1.3
SORG. PARTNERS	NK7655	128	--	--	--	--	126	--	--	--	--	74	12	61	49	--	101	1.3
NC+	7R83	127	145	164	136	145	125	110	123	70	13	75	11	60	49	--	94	1.3
MYCOGEN	X31730	137	--	--	--	--	136	--	--	--	--	75	12	61	49	--	94	1.4
SORG. PARTNERS	NK8828	106	133	--	120	--	105	102	--	71	13	76	11	61	47	--	97	1.2
ASGROW	A571	116	141	136	129	131	115	108	102	71	13	76	12	60	49	--	101	1.2
DEKALB	DKS54-00	105	132	113	119	117	104	101	85	72	13	76	12	61	52	--	99	1.3
DYNA-GRO	DGX-1753	124	--	--	--	--	123	--	--	--	--	76	12	61	46	--	102	1.3
GOLDEN WORLD	GW X7464	102	--	--	--	--	101	--	--	--	--	77	12	60	48	--	98	1.3
DSS	R66	96	--	--	--	--	95	--	--	--	--	78	12	60	47	--	94	1.4
DYNA-GRO	DGX-1765	113	--	--	--	--	112	--	--	--	--	78	12	60	49	--	91	1.3
GOLDEN WORLD	GW X1464	119	137	--	128	--	118	105	--	70	13	78	12	60	47	--	103	1.2
FONTANELLE	GE-6715	98	--	--	--	--	98	--	--	--	--	83	12	60	47	--	95	1.2
GARST	N0479	117	141	--	129	--	116	107	--	77	14	83	13	60	48	--	95	1.2
	AVERAGES	101	131	133	116	122	101	131	133	67	13	72	12	61	48	--	98	1.3
	CV(%)	11	5	12	--	--	11	5	12	--	--	2	2	1	2	--	6	7.2
	LSD(0.05)**	16	11	25	--	--	15	8	19	--	--	2	0	0	1	--	9	0.1

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

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Table 22. Kansas IRRIGATED grain sorghum hybrid yield summary (% of test average), 2003.

BRAND/NAME	RPI[1]	THI	GRI	FNI	AVG.
ASGROW					
A571	98	109	102	115	106
CROPLAN GEN.					
414	--	--	110	--	--
484	--	97	99	--	--
514	104	108	83	--	--
DEKALB					
DKS53-11	116	106	127	81	108
DKS54-00	99	103	118	104	106
DSS					
B64	--	--	110	78	--
R66	--	--	86	95	--
DYNA-GRO					
DGX-1753	--	--	--	123	--
DGX-1765	--	--	--	112	--
FONTANELLE					
GE-4445	--	89	108	--	--
GE-5615	102	--	100	84	--
GE-6715	95	--	--	98	--
FRONTIER					
F-303C	83	93	--	83	--
F-457E	100	105	--	116	--
F-700E	103	108	--	100	--
GARST					
5440	--	--	--	91	--
5460	99	102	107	90	99
5750	97	--	--	--	--
N0479	112	--	--	116	--
GOLDEN WORLD					
GW 1489	102	--	--	101	--
GW X1464	93	--	--	118	--
GW X3064	105	--	--	68	--
GW X5964	95	--	--	102	--
GW X7464	90	--	--	101	--
KAYSTAR					
KS-505	96	101	103	--	--
KS-5606	98	94	79	--	--
KS-5615	103	106	74	--	--
KS-5660	91	89	55	--	--
MIDWEST SEED					
G 567	105	97	--	109	--
MONSANTO					
X128	110	108	127	97	110
X218	115	107	112	108	110
MYCOGEN					
697	--	98	107	--	--
M3838	--	95	120	--	--
X30750	102	--	--	71	--
X31730	117	--	--	136	--
NC+					
5B74E	--	--	107	--	--
5B89	--	--	--	51	--
7C22	--	--	--	79	--
7R83	95	98	87	125	101
7W51	115	98	--	--	--
PIONEER					
84G50	112	102	--	116	--
84G62	117	112	106	118	113
85G01	--	--	94	--	--
PRODUCERS					
PH67	82	--	--	--	--
PH69	95	--	--	--	--
PH79FG	111	--	--	--	--
SORG. PARTNERS					
K73-J6	95	--	--	115	--
KS 585	94	101	95	91	96
NK5418	81	97	108	84	93
NK7633	95	--	--	115	--
NK7655	96	--	--	126	--
NK8828	103	--	--	105	--
TRIUMPH					
TR 459	--	94	--	--	--
TR 460	--	--	108	--	--
TR 461	--	--	105	--	--
TR 481	102	--	--	90	--
MATURITY CHECK					
OK11xTX2741	95	93	83	90	90
TX2752xTX430	96	99	79	115	97
TX3042xTX2737	87	92	100	82	90
AVERAGES	153	163	119	101	134
CV(%)	5	6	16	11	--
LSD(0.05)**	7	8	22	15	--

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

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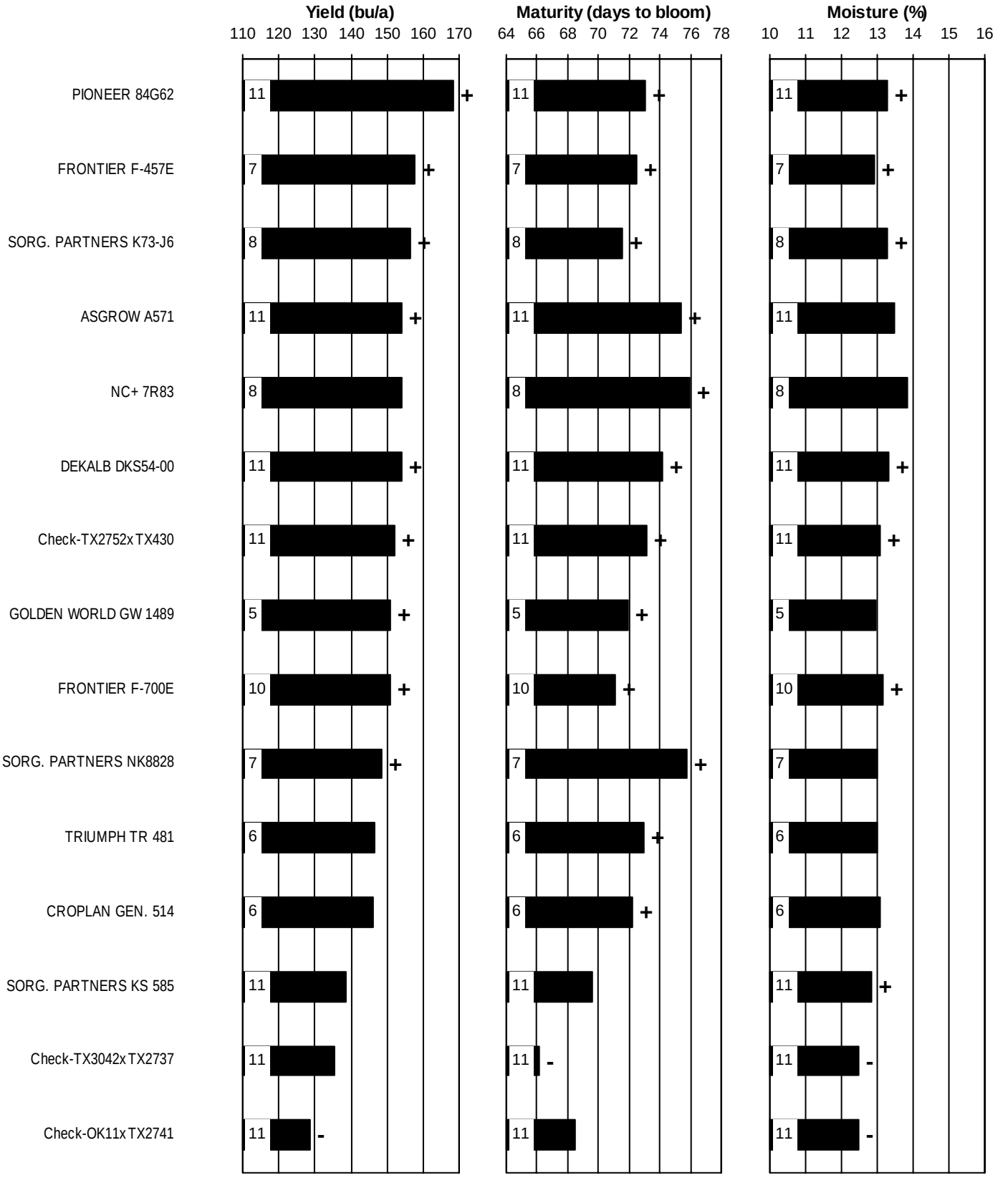
Figure 8. Kansas IRRIGATED sorghum hybrid standardized performance summary, 2001-2003.



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

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DOUBLE-CROP GRAIN SORGHUM TEST

Southeast Agricultural Research Center, Columbus; James Long, agronomist; Kelly Kusel, technician

Parsons silt loam; Wheat in 2002

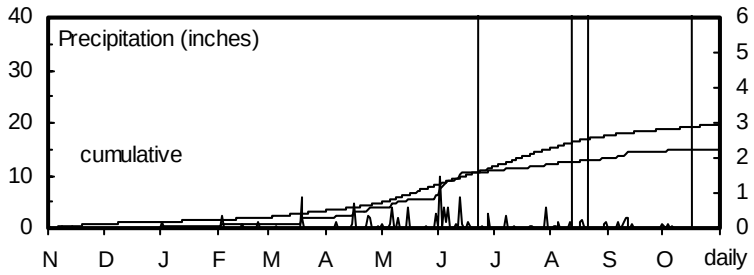
68 - 0 - 0 lb/a N, P, K

Planted on 6/23/2003; Harvested on 10/15/2003

Target stand of 52,000 plants/acre; 4.0 in. spacing

Dry in July and early August. Late rains allowed medium-late hybrids to head and fill grain. Insecticide applied 8/21 to control headworms.

	Precipitation		Average Temp.		GDU	
Month	2003	Norm.	2003	Norm.	2003	Norm.
Nov.-Mar	2.1	3.3	36	33	22	9
April	1.7	1.5	52	49	530	413
May	2.3	3.5	60	59	767	733
June	4.9	3.3	67	70	963	1036
July	1.1	3.5	80	75	1400	1242
August	1.3	2.5	76	73	1265	1182
Sept.	1.2	1.1	63	64	845	870
Oct.	0.2	1.1	57	52	678	518
Totals:	14.9	19.7	53	51	6,469	6,002



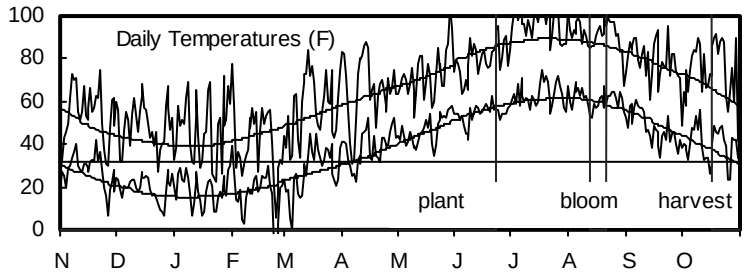


Table 23. Columbus Double-Crop Grain Sorghum Performance Test, 2001-2003.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
BRAND	NAME	2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	2003	2002	2001	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	251	42	59	--	51	--	64	94	--	48	13	50	16	50	31	--	129	0.9
GOLDEN WORLD	GW X3406-55	54	--	--	--	--	83	--	--	--	--	51	15	52	28	--	103	0.9
SORG. PARTNERS	KS 310	55	77	--	66	--	85	121	--	49	13	51	16	56	33	--	115	1.0
DEKALB	DKS29-28	72	72	--	72	--	109	113	--	49	13	52	15	56	33	--	111	1.0
ASGROW	REWARD	76	--	--	--	--	116	--	--	--	--	52	16	55	34	--	118	1.0
GOLDEN WORLD	GW X3406-54	50	--	--	--	--	76	--	--	--	--	52	16	52	31	--	73	1.1
SORG. PARTNERS	K35-Y5	59	73	--	66	--	90	115	--	50	15	52	16	55	33	--	93	1.0
MATURITY CHECK	TX3042xTX2737	74	69	--	72	--	112	109	--	53	17	54	17	56	38	--	109	1.0
DELANGE	DSA 111	69	--	--	--	--	105	--	--	--	--	55	16	54	32	--	120	0.9
SORG. PARTNERS	KS 585	77	55	--	66	--	117	86	--	54	20	55	18	57	33	--	118	1.0
MATURITY CHECK	OK11xTX2741	79	54	--	66	--	120	85	--	54	18	56	17	56	37	--	117	0.9
SORG. PARTNERS	NK5418	76	--	--	--	--	116	--	--	--	--	56	18	56	35	--	117	0.9
SORG. PARTNERS	1486	58	--	--	--	--	88	--	--	--	--	58	16	55	32	--	121	0.9
DELANGE	DSA 115C	78	48	--	63	--	119	75	--	57	22	58	18	56	37	--	95	0.9
	AVERAGES	66	63	--	65	--	66	63	--	52	16	54	16	55	33	--	110	0.9
	CV(%)	8	21	--	--	--	13	21	--	--	--	2	2	2	6	--	8	8.1
	LSD(0.05)**	8	19	--	--	--	12	30	--	--	--	1	0	2	3	--	12	0.1

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

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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 2002

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

Planted on 6/11/2003; Harvested on 11/20/2003

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

No-till planting delayed by wet soils. Good moisture through June. July and August very hot and dry. Late rains stimulated tillers and helped grain fill.

Table 24. Hesston Tan-plant Performance Test, 2001-2003.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
		2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	2003	2002	2001	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	NK 251	36	--	--	--	--	96	--	--	--	--	47	15	56	31	7	99	1.1
SORG. PARTNERS	NKX2586	37	--	--	--	--	99	--	--	--	--	57	16	56	35	0	86	0.9
MATURITY CHECK	TX3042xTX2737	44	--	60	--	--	118	--	113	--	--	58	16	55	39	1	98	1.0
MONSANTO	X224	41	--	--	--	--	108	--	--	--	--	61	15	57	32	0	95	1.1
MMR	99V148/149	46	--	--	--	--	122	--	--	--	--	61	16	57	44	0	102	1.0
RICHARDSON SEED	X34110	38	--	38	--	--	102	--	73	--	--	63	15	55	39	0	95	1.0
SORG. PARTNERS	NKX2595	33	--	--	--	--	89	--	--	--	--	63	16	56	33	3	98	0.9
ASGROW	ECLIPSE	36	57	57	47	50	97	106	107	60	15	64	16	56	35	0	79	1.0
NC+	973080	40	--	--	--	--	107	--	--	--	--	64	16	55	36	1	97	1.0
CHECK	ATX2928*RTX437	34	--	--	--	--	92	--	--	--	--	65	15	56	38	0	98	0.9
MATURITY CHECK	TX399 X TX430	50	62	--	56	--	133	115	--	62	15	66	16	56	36	1	86	1.0
NC+	7Y32-K	35	--	--	--	--	92	--	--	--	--	66	16	56	37	1	105	0.9
SORG. PARTNERS	1486	18	59	--	39	--	49	109	--	61	15	66	16	55	34	0	31	1.9
CHECK	ATX623*RTX430	36	49	67	42	51	96	90	127	63	14	67	15	56	42	3	87	1.0
DEKALB	DKS44-41	38	57	--	48	--	103	106	--	62	15	67	16	56	39	0	71	1.0
MATURITY CHECK	TX2752xTX2783	55	54	--	54	--	148	99	--	66	15	67	16	57	39	2	84	1.0
MONSANTO	X213	33	--	--	--	--	88	--	--	--	--	67	16	57	36	9	92	1.0
NC+	010547	32	--	--	--	--	87	--	--	--	--	67	16	55	34	1	85	0.9
CHECK	AHF14*RTx2917	49	--	--	--	--	130	--	--	--	--	68	16	56	38	0	93	1.0
CHECK	ATX631*RTX437	45	50	--	48	--	120	93	--	63	15	68	16	56	42	2	71	1.0
GARRISON & TOWN	23009	47	--	--	--	--	124	--	--	--	--	68	16	55	42	0	111	1.0
WARNER	WX01557	50	--	--	--	--	134	--	--	--	--	68	16	56	42	1	102	0.9
CHECK	ABE7*86EON361	38	--	--	--	--	100	--	--	--	--	68	17	56	39	1	100	0.7
CHECK	ATX631*RTx2917	33	--	--	--	--	89	--	--	--	--	69	16	54	41	0	58	1.1
MMR GENETICS	JOWAR I	39	63	57	51	53	103	116	108	65	15	70	16	56	40	1	81	0.9
SORG. PARTNERS	NKX2571	39	--	--	--	--	104	--	--	--	--	70	16	56	37	0	87	1.0
WARNER	902W	44	51	50	47	48	117	94	95	65	15	70	16	56	42	1	80	1.0
CHECK	AHF8*86EON361	46	--	--	--	--	122	--	--	--	--	70	17	57	40	1	66	1.1
NC+	7W92	42	53	--	47	--	113	97	--	67	15	71	16	56	39	1	68	1.0
CHECK	ATX631xTX436	40	63	39	51	47	108	116	73	65	15	72	16	55	39	0	79	0.8
CHECK	AV26*RTx436	40	--	--	--	--	108	--	--	--	--	72	16	57	37	1	96	0.8
CHECK	ABE8*86EON361	35	--	--	--	--	95	--	--	--	--	72	18	55	39	1	97	0.8
GARRISON & TOWN	SG 98019	40	--	58	--	--	106	--	109	--	--	73	17	56	42	4	95	0.9
GARRISON & TOWN	22019	35	--	--	--	--	95	--	--	--	--	75	17	55	42	4	88	0.9
WARNER	WX01372	27	--	--	--	--	73	--	--	--	--	78	16	56	36	1	100	0.7
NC+	973427	26	--	--	--	--	69	--	--	--	--	81	15	55	34	4	98	0.8
SORG. PARTNERS	NK8828	25	56	--	40	--	66	104	--	74	16	82	17	54	34	7	73	0.6
CHECK	ATX635xTX436	21	72	51	47	48	56	134	96	80	15	92	16	53	45	0	90	0.8
CHECK	ATXArg1*RTX436	15	50	41	33	35	41	92	77	78	16	92	17	56	34	0	60	0.7
	AVERAGES	37	54	53	46	48	37	54	53	65	15	69	16	56	38	2	87	1.0
	CV(%)	11	14	17	--	--	11	14	17	--	--	5	4	1	4	180	7	12.6
	LSD(0.05)**	6	13	15	--	--	15	23	28	--	--	5	1	1	2	4	8	0.2

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

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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 2002

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

Planted on 5/14/2003; Harvested on 10/15/2003

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

Ideal planting conditions, uniform stands, but emergence reduced by heavy rains after planting. Good precipitation, cool temperatures through June. Hot, dry July and August.

Table 25. Scandia Irrigated Tan-plant Performance Test, 2001-2003.

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
BRAND	NAME	2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	2003	2002	2001	Days to Blm	Grain Moist. %	Days to Blm	Grain Moist. %	Test Wt. lb/bu	Plnt Ht. in.	Ldg %	Final Stand %	Hds per Plnt
MONSANTO	X224	102	--	--	--	--	78	--	--	--	--	70	15	60	44	--	79	1.1
SORG. PARTNERS	NK 251	72	--	--	--	--	55	--	--	--	--	70	15	59	39	--	80	1.1
ASGROW	ECLIPSE	134	134	--	134	--	103	85	--	67	15	71	16	59	46	--	74	1.1
SORG. PARTNERS	NKX2595	104	--	--	--	--	80	--	--	--	--	72	15	60	40	--	67	1.1
DEKALB	DKS44-41	149	170	--	160	--	115	108	--	70	15	72	16	60	48	--	68	1.2
MATURITY CHECK	TX3042xTX2737	114	--	--	--	--	87	--	--	--	--	72	16	59	50	--	74	1.1
MONSANTO	X213	135	--	--	--	--	104	--	--	--	--	72	16	60	47	--	79	1.1
RICHARDSON SEED	X34110	128	--	--	--	--	99	--	--	--	--	72	16	60	51	--	69	1.2
SORG. PARTNERS	NKX2586	86	--	--	--	--	66	--	--	--	--	73	16	59	44	--	79	1.1
CHECK	ABE8*86EON361	140	--	--	--	--	108	--	--	--	--	75	16	60	47	--	77	1.1
CHECK	AHF8*86EON361	147	--	--	--	--	113	--	--	--	--	75	16	60	49	--	73	1.1
MMR	99V148/149	128	--	--	--	--	98	--	--	--	--	75	16	60	52	--	79	1.1
NC+	010547	126	--	--	--	--	97	--	--	--	--	75	16	60	47	--	69	1.2
CHECK	ABE7*86EON361	133	--	--	--	--	102	--	--	--	--	76	16	60	50	--	80	1.1
CHECK	ATX2928*RTX437	141	--	--	--	--	108	--	--	--	--	76	16	59	50	--	74	1.2
CHECK	ATX623*RTX430	133	159	--	146	--	102	101	--	73	15	76	16	60	55	--	72	1.1
CHECK	ATX631*RTX437	149	183	--	166	--	115	116	--	73	15	76	16	60	52	--	64	1.2
SORG. PARTNERS	NKX2571	123	--	--	--	--	94	--	--	--	--	76	16	59	44	--	76	1.1
NC+	973080	130	--	--	--	--	100	--	--	--	--	77	15	60	48	--	75	1.1
CHECK	ATX631xTX436	151	176	--	163	--	116	112	--	74	15	77	16	60	49	--	65	1.2
CHECK	ATX635xTX436	173	178	--	175	--	133	113	--	74	15	77	16	60	54	--	74	1.1
CHECK	AV26*RTx436	116	--	--	--	--	89	--	--	--	--	77	16	60	49	--	78	1.1
GARRISON & TOWN	22019	140	--	--	--	--	107	--	--	--	--	77	16	60	49	--	74	1.1
GARRISON & TOWN	23009	132	--	--	--	--	101	--	--	--	--	77	16	60	50	--	83	1.0
MATURITY CHECK	TX2752xTX2783	119	191	--	155	--	91	121	--	73	15	77	16	59	49	--	75	1.1
MATURITY CHECK	TX399 X TX430	126	144	--	135	--	97	92	--	71	15	77	16	59	48	--	76	1.1
SORG. PARTNERS	1486	71	115	--	93	--	55	73	--	71	15	77	16	60	46	--	22	2.1
WARNER	902W	166	179	--	172	--	127	114	--	74	15	77	16	60	51	--	67	1.2
WARNER	WX01557	141	--	--	--	--	109	--	--	--	--	77	16	59	50	--	87	1.0
CHECK	AHF14*RTx2917	145	--	--	--	--	111	--	--	--	--	78	16	60	50	--	81	1.1
CHECK	ATXArg1*RTX436	132	160	--	146	--	102	102	--	74	15	78	16	60	48	--	68	1.1
NC+	7W92	158	179	--	169	--	121	114	--	74	16	78	16	59	51	--	72	1.0
NC+	7Y32-K	117	--	--	--	--	90	--	--	--	--	78	16	60	48	--	80	1.1
SORG. PARTNERS	NK8828	129	175	--	152	--	99	111	--	74	15	78	16	60	46	--	68	1.2
WARNER	WX01372	127	--	--	--	--	97	--	--	--	--	78	16	60	49	--	77	1.1
CHECK	ATX631*RTx2917	136	--	--	--	--	105	--	--	--	--	79	16	60	49	--	68	1.2
GARRISON & TOWN	SG 98019	130	--	--	--	--	100	--	--	--	--	79	16	60	50	--	72	1.1
MMR GENETICS	JOWAR I	157	180	--	168	--	120	114	--	75	15	79	16	60	50	--	71	1.1
NC+	973427	141	--	--	--	--	108	--	--	--	--	79	16	60	51	--	71	1.2
	AVERAGES	130	157	--	144	--	130	157	--	72	15	76	16	60	48	--	73	1.1
	CV(%)	6	5	--	--	--	6	5	--	--	--	1	1	0	4	--	8	8.1
	LSD(0.05)**	11	13	--	--	--	8	8	--	--	--	1	0	NS	3	--	8	0.1

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

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

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

Keith silt loam; Soybean in 2002

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

Planted on 5/28/2003; Harvested on 10/20/2003

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

Good planting conditions. Hot, dry summer. Small hail in early August caused minor leaf shredding. Low greenbug populations.

Table 26. Colby Irrigated Tan-plant Performance Test, 2001-2003.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
		2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	2003	2002	2001	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	NK 251	112	--	--	--	--	72	--	--	--	--	58	8	56	37	0	101	1.0
SORG. PARTNERS	NKX2595	124	--	--	--	--	80	--	--	--	--	64	8	56	40	0	90	1.0
MONSANTO	X224	146	--	--	--	--	94	--	--	--	--	65	9	56	42	0	83	1.2
SORG. PARTNERS	NKX2586	110	--	--	--	--	71	--	--	--	--	65	9	55	40	0	95	1.1
MATURITY CHECK	TX3042xTX2737	156	--	145	--	--	101	--	122	--	--	66	9	58	48	0	103	1.0
RICHARDSON SEED	X34110	146	--	77	--	--	95	--	65	--	--	67	8	56	49	0	93	1.0
MMR	99V148/149	160	--	--	--	--	104	--	--	--	--	67	10	60	52	2	101	1.0
CHECK	ATX2928*RTX437	182	--	--	--	--	118	--	--	--	--	69	8	56	51	0	94	1.0
CHECK	ATX623*RTX430	163	169	137	166	156	105	105	116	65	12	70	9	55	56	0	92	1.0
MONSANTO	X213	152	--	--	--	--	98	--	--	--	--	70	10	60	44	0	89	1.1
SORG. PARTNERS	1486	122	149	--	135	--	79	93	--	67	12	71	9	57	42	0	30	1.9
ASGROW	ECLIPSE	161	149	105	155	138	104	92	88	66	12	71	10	58	46	0	79	1.1
DEKALB	DKS44-41	171	145	--	158	--	111	90	--	66	13	71	11	59	48	0	76	1.0
MATURITY CHECK	TX399 X TX430	164	188	--	176	--	106	117	--	66	12	72	9	57	47	0	97	1.0
CHECK	ATX631*RTX437	165	165	--	165	--	107	102	--	67	12	72	10	58	55	0	58	1.1
GARRISON & TOWN	23009	171	--	--	--	--	111	--	--	--	--	72	10	58	54	0	94	1.0
NC+	010547	160	--	--	--	--	103	--	--	--	--	72	10	59	48	0	74	1.1
NC+	7Y32-K	146	--	--	--	--	94	--	--	--	--	72	10	57	36	0	103	1.0
NC+	973080	154	--	--	--	--	100	--	--	--	--	72	10	57	46	0	102	1.0
WARNER	WX01557	159	--	--	--	--	103	--	--	--	--	73	10	59	55	1	100	1.0
CHECK	ABE7*86EON361	179	--	--	--	--	116	--	--	--	--	74	9	57	38	0	89	1.0
CHECK	AHF14*RTx2917	184	--	--	--	--	119	--	--	--	--	74	9	58	51	0	91	1.1
CHECK	AHF8*86EON361	172	--	--	--	--	111	--	--	--	--	74	9	58	50	0	90	1.1
CHECK	ATX631*RTx2917	147	--	--	--	--	95	--	--	--	--	74	9	57	54	0	55	1.1
CHECK	AV26*RTx436	180	--	--	--	--	116	--	--	--	--	74	9	56	49	0	87	1.1
CHECK	ABE8*86EON361	183	--	--	--	--	118	--	--	--	--	74	10	56	51	0	93	1.0
MATURITY CHECK	TX2752xTX2783	176	210	--	193	--	114	131	--	70	14	74	10	58	50	0	81	1.1
SORG. PARTNERS	NKX2571	145	--	--	--	--	94	--	--	--	--	74	10	57	44	0	93	1.0
SORG. PARTNERS	NK8828	162	175	--	169	--	105	109	--	73	13	75	9	59	51	0	73	1.0
GARRISON & TOWN	SG 98019	159	--	130	--	--	103	--	110	--	--	75	10	57	54	1	93	1.0
WARNER	902W	171	172	142	172	162	111	107	120	70	13	75	10	56	56	0	89	1.0
WARNER	WX01372	160	--	--	--	--	103	--	--	--	--	75	10	59	52	0	91	1.0
GARRISON & TOWN	22019	156	--	--	--	--	101	--	--	--	--	76	9	56	52	0	85	1.0
CHECK	ATXArg1*RTX436	144	142	115	143	134	93	88	97	74	14	76	10	58	52	0	52	1.3
CHECK	ATX631xTX436	171	166	124	169	154	111	103	105	73	15	76	11	59	54	0	75	1.0
MMR GENETICS	JOWAR I	170	183	135	176	162	110	113	114	71	14	76	11	58	54	0	87	0.9
NC+	7W92	164	159	--	162	--	106	99	--	72	15	76	11	60	55	0	64	1.1
NC+	973427	156	--	--	--	--	101	--	--	--	--	77	9	54	52	0	95	1.1
CHECK	ATX635xTX436	177	194	128	185	166	114	121	108	77	17	80	12	57	61	2	76	1.3
	AVERAGES	159	161	118	160	146	159	161	118	69	13	72	10	57	49	0	84	1.1
	CV(%)	7	8	9	--	--	7	8	9	--	--	1	6	3	12	310	11	14.3
	LSD(0.05)**	14	22	18	--	--	9	13	15	--	--	1	1	3	8	1	13	0.2

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

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

Southwest Research-Extension Center, Garden City; Merle Witt, agronomist

Keith silt loam; Fallow in 2002

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

Planted on 5/29/2003; Harvested on 10/29/2003

Target stand of 70,000 plants/acre; 3.0 in. spacing

Cool May and June slowed emergence and reduced stands. Hot July and August. No insect or disease problems. Slight lodging.

Table 27. Garden City Irrigated Tan-plant Performance Test, 2001-2003.

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
		2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	2003	2002	2001	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	NK 251	46	--	--	--	--	52	--	--	--	--	57	11	60	34	15	86	1.8
MONSANTO	X224	77	--	--	--	--	88	--	--	--	--	61	11	60	44	1	85	1.6
SORG. PARTNERS	NKX2595	41	--	--	--	--	46	--	--	--	--	62	10	60	38	1	77	1.5
MATURITY CHECK	TX3042xTX2737	90	--	100	--	--	103	--	95	--	--	63	11	61	51	3	87	1.6
SORG. PARTNERS	NKX2586	35	--	--	--	--	40	--	--	--	--	63	11	61	39	8	82	1.4
MMR	99V148/149	73	--	--	--	--	83	--	--	--	--	64	11	61	48	0	86	1.5
RICHARDSON SEED	X34110	72	--	67	--	--	81	--	64	--	--	65	11	60	43	0	75	1.5
DEKALB	DKS44-41	92	100	--	96	--	104	94	--	63	12	66	11	60	45	0	80	1.5
MONSANTO	X213	76	--	--	--	--	86	--	--	--	--	66	11	61	45	0	83	1.5
NC+	973427	93	--	--	--	--	106	--	--	--	--	66	11	61	51	1	93	1.3
WARNER	WX01557	87	--	--	--	--	99	--	--	--	--	67	10	60	54	3	90	1.4
ASGROW	ECLIPSE	86	93	90	90	90	98	87	86	63	12	67	11	61	45	0	72	1.6
CHECK	ATX631*RTX437	79	98	--	89	--	90	91	--	64	11	67	11	60	51	6	65	1.5
NC+	973080	81	--	--	--	--	92	--	--	--	--	67	11	61	46	0	78	1.7
CHECK	ATX2928*RTX437	88	--	--	--	--	101	--	--	--	--	68	10	61	50	0	85	1.5
CHECK	ATX623*RTX430	74	91	124	83	96	85	86	118	64	11	68	11	60	53	3	83	1.4
GARRISON & TOWN	23009	79	--	--	--	--	90	--	--	--	--	69	11	60	51	2	81	1.6
MATURITY CHECK	TX399 X TX430	106	125	--	115	--	120	117	--	64	11	69	11	60	46	0	86	1.4
NC+	7Y32-K	79	--	--	--	--	90	--	--	--	--	69	11	61	49	2	79	1.6
CHECK	ABE7*86EON361	112	--	--	--	--	128	--	--	--	--	70	11	61	51	5	82	1.6
CHECK	AHF14*RTx2917	81	--	--	--	--	92	--	--	--	--	70	11	60	50	0	88	1.4
SORG. PARTNERS	NKX2571	97	--	--	--	--	110	--	--	--	--	70	11	61	45	0	77	1.5
CHECK	ABE8*86EON361	115	--	--	--	--	131	--	--	--	--	71	11	60	49	3	80	1.6
CHECK	AHF8*86EON361	86	--	--	--	--	98	--	--	--	--	71	11	61	50	2	72	1.7
CHECK	ATX631*RTx2917	103	--	--	--	--	117	--	--	--	--	71	11	60	51	5	69	1.6
CHECK	AV26*RTx436	98	--	--	--	--	111	--	--	--	--	71	11	61	51	0	83	1.6
GARRISON & TOWN	22019	94	--	--	--	--	107	--	--	--	--	71	11	60	52	0	77	1.5
MATURITY CHECK	TX2752xTX2783	99	109	--	104	--	113	102	--	66	12	71	11	61	49	0	77	1.4
GARRISON & TOWN	SG 98019	115	--	99	--	--	130	--	94	--	--	72	11	61	51	2	77	1.5
WARNER	902W	106	117	137	111	120	120	109	130	67	12	72	11	61	55	3	81	1.6
CHECK	ATX631xTX436	83	112	120	98	105	94	105	114	69	12	73	11	61	54	4	83	1.4
NC+	010547	89	--	--	--	--	102	--	--	--	--	73	11	60	49	2	75	1.6
NC+	7W92	106	108	--	107	--	121	101	--	69	12	73	11	61	53	2	59	1.6
SORG. PARTNERS	1486	79	97	--	88	--	90	91	--	66	11	73	11	60	45	0	55	1.4
SORG. PARTNERS	NK8828	101	108	--	104	--	115	101	--	69	12	73	11	61	48	1	72	1.3
CHECK	ATX635xTX436	107	88	109	98	101	122	82	104	70	12	74	11	61	62	1	79	1.6
MMR GENETICS	JOWAR I	119	113	125	116	119	135	106	119	68	12	74	11	61	55	3	75	1.5
WARNER	WX01372	81	--	--	--	--	92	--	--	--	--	74	11	61	51	0	88	1.3
CHECK	ATXArg1*RTX436	102	128	121	115	117	116	119	115	70	12	75	11	61	51	0	61	1.5
	AVERAGES	88	107	105	97	100	88	107	105	66	12	69	11	61	49	2	79	1.5
	CV(%)	15	11	22	--	--	15	11	22	--	--	5	3	1	3	213	8	9.8
	LSD(0.05)**	18	20	38	--	--	21	19	36	--	--	4	0	0	2	NS	8	NS

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

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Table 28. Combined Tan-plant tests, 2001-2003.*

BRAND	NAME	ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			2002-2003		2003						
		2003	2002	2001	2-Yr. AVG.	3-Yr. AVG.	2003	2002	2001	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	NK 251	66	--	--	--	--	69	--	--	--	--	58	12	58	35	7	92	1.2
MONSANTO	X224	91	--	--	--	--	92	--	--	--	--	64	13	58	41	0	85	1.3
SORG. PARTNERS	NKX2586	67	--	--	--	--	69	--	--	--	--	64	13	58	39	3	86	1.1
SORG. PARTNERS	NKX2595	76	--	--	--	--	74	--	--	--	--	65	12	58	38	1	83	1.2
MATURITY CHECK	TX3042xTX2737	101	--	108	--	--	102	--	112	--	--	65	13	58	47	2	90	1.2
MMR	99V148/149	102	--	--	--	--	102	--	--	--	--	67	13	59	49	1	92	1.2
RICHARDSON SEED	X34110	96	--	68	--	--	94	--	71	--	--	67	13	58	45	0	83	1.2
ASGROW	ECLIPSE	104	102	101	103	102	101	94	106	64	13	68	13	59	43	0	76	1.2
CHECK	ATX2928*RTX437	112	--	--	--	--	105	--	--	--	--	69	12	58	47	0	88	1.2
DEKALB	DKS44-41	113	108	--	110	--	108	100	--	65	13	69	13	59	45	0	74	1.2
MONSANTO	X213	99	--	--	--	--	94	--	--	--	--	69	13	59	43	3	86	1.2
CHECK	ATX623*RTX430	101	105	105	103	104	97	97	110	66	13	70	13	58	51	2	83	1.1
NC+	973080	101	--	--	--	--	100	--	--	--	--	70	13	58	44	0	88	1.2
CHECK	ATX631*RTX437	110	116	--	113	--	108	107	--	67	13	71	13	58	50	3	65	1.2
MATURITY CHECK	TX399 X TX430	111	120	--	116	--	114	111	--	66	13	71	13	58	44	0	86	1.1
NC+	7Y32-K	94	--	--	--	--	92	--	--	--	--	71	13	58	43	1	92	1.2
WARNER	WX01557	109	--	--	--	--	111	--	--	--	--	71	13	59	50	1	95	1.1
CHECK	ABE7*86EON361	116	--	--	--	--	112	--	--	--	--	72	13	59	44	2	88	1.1
CHECK	AHF14*RTx2917	114	--	--	--	--	113	--	--	--	--	72	13	58	47	0	88	1.1
CHECK	AHF8*86EON361	113	--	--	--	--	111	--	--	--	--	72	13	59	47	1	75	1.2
GARRISON & TOWN	23009	107	--	--	--	--	106	--	--	--	--	72	13	58	49	1	92	1.1
MATURITY CHECK	TX2752xTX2783	112	125	--	119	--	116	116	--	69	14	72	13	59	47	1	79	1.2
NC+	010547	102	--	--	--	--	97	--	--	--	--	72	13	59	45	1	76	1.2
SORG. PARTNERS	1486	73	99	--	86	--	68	91	--	67	13	72	13	58	42	0	34	1.8
SORG. PARTNERS	NKX2571	101	--	--	--	--	101	--	--	--	--	72	13	58	43	0	83	1.2
CHECK	ATX631*RTx2917	105	--	--	--	--	102	--	--	--	--	73	13	58	49	2	62	1.2
CHECK	ABE8*86EON361	118	--	--	--	--	113	--	--	--	--	73	14	58	46	1	87	1.1
CHECK	AV26*RTx436	109	--	--	--	--	106	--	--	--	--	74	13	58	46	0	86	1.1
WARNER	902W	122	117	110	119	116	119	108	115	69	14	74	13	58	51	1	79	1.2
GARRISON & TOWN	22019	106	--	--	--	--	102	--	--	--	--	75	13	58	49	1	81	1.1
GARRISON & TOWN	SG 98019	111	--	95	--	--	110	--	99	--	--	75	13	58	49	2	84	1.1
MMR GENETICS	JOWAR I	121	122	109	122	117	117	113	113	70	14	75	13	59	49	1	79	1.1
CHECK	ATX631xTX436	111	116	100	114	109	107	107	104	70	14	75	14	59	49	2	76	1.1
NC+	7W92	118	109	--	113	--	115	100	--	71	15	75	14	59	49	1	66	1.2
NC+	973427	104	--	--	--	--	96	--	--	--	--	76	13	58	47	2	90	1.1
WARNER	WX01372	99	--	--	--	--	91	--	--	--	--	76	13	59	47	0	89	1.0
SORG. PARTNERS	NK8828	104	114	--	109	--	96	105	--	72	14	77	13	58	45	3	72	1.0
CHECK	ATXArg1*RTX436	98	109	101	104	103	88	100	105	74	14	80	13	58	46	0	60	1.2
CHECK	ATX635xTX436	119	120	99	120	113	106	111	103	75	15	81	14	58	55	1	80	1.2
	AVERAGES	103	108	96	106	103	103	108	96	68	14	71	13	58	46	1	80	1.2
	CV(%)	9	9	16	--	--	9	9	16	--	--	3	4	2	4	285	9	11.7
	LSD(0.05)**	6	7	11	--	--	6	7	12	--	--	2	0	1	1	2	5	0.1

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

* 2003 locations: Hesston, Scandia irrigated, Colby irrigated, and Garden City irrigated
2002 locations: Ottawa, Scandia irrigated, Hesston, Colby irrigated, and Garden City irrigated
2001 locations: Ottawa, Belleville, Hesston, Colby irrigated, and Garden City irrigated

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Table 29. Entries in the 2003 Kansas Grain Sorghum Performance Tests*

BRAND	GC	EC	PC	Mat.	Days	GB	Fe chlor. ratings Col.	Trib.	03	2Yr	3Yr
ASGROW											
REWARD	B	HY	P	E	56	-	2.8	1.5	2.1	-	-
A459	B	HY	P	M	68	CE	3.4	1.3	2.4	2.4	2.9
PULSAR	B	HY	P	E	68	CEI	3.3	1.2	2.3	2.6	-
A571	B	HY	P	L	71	-	3.1	1.6	2.4	2.4	2.7
CROPLAN GEN.											
414	R	HY	P	ME	62	C	3.4	1.7	2.6	2.9	3.1
484	R	HY	P	M	65	-	2.9	0.8	1.9	-	-
514	R	HY	P	M	68	E	3.1	1.5	2.3	2.4	-
DEKALB											
DKS29-28	B	HY	P	E	56	E	2.7	1.6	2.2	-	-
DKS36-00	B	HY	P	E	68	CEI	3.4	1.3	2.3	2.5	2.6
DKS42-20	B	HY	P	M	70	CE	3.3	1.6	2.4	2.6	-
DK-44	B	HY	P	M	71	CE	3.2	1.1	2.2	2.6	3.0
DKS44-41	Y	Y	T	M	71	CE	3.3	1.1	2.2	2.2	-
DKS53-11	B	HY	P	L	74	CEI	3.2	1.1	2.1	2.3	-
DKS54-00	B	HY	P	L	75	CEI	2.6	0.9	1.8	2.1	2.4
DELANGE											
DSA 111	B	HY	P	E	60	C	3.4	1.1	2.3	-	-
DSA 115C	C	HY	P	ME	60	CE	3.7	1.1	2.4	2.6	3.1
DSA 133	B	HY	P	M	68	CE	3.3	1.1	2.2	2.3	2.6
DSA 147	R	W	P	M	70	CE	3.5	1.9	2.7	2.6	2.9
DSS											
B60	B	W	R	E	60	C	3.2	1.3	2.2	-	-
B64	B	W	R	ME	64	C	2.9	1.1	2.0	-	-
R66	R	W	R	ML	66	C	3.1	2.1	2.6	-	-
DYNA-GRO											
DGX-1737	R	W	-	E	54	E	2.7	1.0	1.9	-	-
DGX-1738	B	HY	-	M	60	E	3.0	1.2	2.1	-	-
DGX-1754	B	HY	-	M	60	E	3.3	1.2	2.3	-	-
DGX-1763	B	HY	-	M	60	E	2.9	1.3	2.1	-	-
DGX-1753	B	HY	-	M	62	E	2.7	1.3	2.0	-	-
DGX-1765	C	HY	-	ML	64	E	3.4	1.3	2.3	-	-
FONTANELLE											
GE-4445	B	-	-	M	58	C	3.3	1.2	2.2	-	-
GE-5615	B	-	-	ML	65	CE	3.3	0.9	2.1	-	-
GE-6715	R	-	-	L	69	CE	3.2	1.9	2.6	-	-
FRONTIER											
F270E	B	Y	P	E	54	E	3.0	1.5	2.3	-	-
F-303C	C	HY	P	M	58	E	4.1	1.7	2.9	2.7	3.0
F-457E	R	Y	P	M	60	E	3.3	1.4	2.3	2.6	3.0
F-700E	R	HY	P	L	65	E	3.1	1.0	2.1	2.5	2.9
GARST											
9135	B	HY	P	E	58	-	3.1	1.3	2.2	2.6	3.1
5624	B	HY	P	ME	63	-	3.2	1.0	2.1	2.2	2.6
5750	B	HY	P	ME	63	CE	2.9	1.2	2.1	2.5	2.7
5460	B	HY	P	M	68	-	2.5	1.1	1.8	-	-
5515	B	HY	P	M	68	-	3.3	1.7	2.5	3.0	3.2
N0479	R	HY	P	L	69	C	3.5	1.7	2.6	2.5	-
5440	R	W	P	M	70	CE	2.6	1.2	1.9	2.2	2.8
5382	B	HY	P	L	72	-	3.9	1.5	2.7	3.1	3.3
GOLDEN WORLD											
GW X3406-54	R	W	P	E	54	E	3.6	1.2	2.4	-	-
GW X3406-55	R	W	P	E	54	E	3.3	1.2	2.2	-	-
GW X3064	B	HY	P	M	65	E	3.3	1.7	2.5	2.9	-
GW X5964	B	HY	P	M	65	E	3.5	1.1	2.3	-	-
GW 1489	R	W	P	ML	68	E	3.6	1.4	2.5	2.8	3.1
GW X1464	B	HY	P	ML	68	E	3.9	1.0	2.4	2.4	-
GW X7464	C	HY	P	ML	68	E	3.2	1.0	2.1	-	-
KAYSTAR											
KS-5606	R	-	-	L	69	-	3.6	1.4	2.5	-	-
KS-505	R	Y	P	M	70	CE	3.6	1.2	2.4	2.8	-
KS-5615	R	-	-	ML	70	-	3.6	1.0	2.3	-	-
KS-5660	R	-	-	L	71	-	3.8	1.4	2.6	-	-
MIDLAND											
M-4665	B	W	P	ME	63	C	3.4	1.1	2.2	2.4	-
M-4614W	C	W	P	ME	64	C	3.8	0.9	2.4	2.5	2.8
M-4725	C	R	P	ME	65	O	4.0	0.7	2.3	2.4	2.7
MX-667	B	W	P	M	65	CEO	3.3	1.2	2.2	-	-
M-4758Y	Y	HY	P	M	67	O	2.9	1.1	2.0	2.2	2.8
M-4818	R	W	P	ML	71	CE	3.5	1.5	2.5	3.0	3.5
MIDWEST SEED											
G 530	C	HY	P	M	63	CE	3.5	1.1	2.3	-	-
G 567	B	W	P	ML	67	CEIK	2.8	1.0	1.9	-	-
O 256	B	HY	P	L	68	CE	3.5	1.0	2.3	2.6	2.8
MONSANTO											
X210	B	HY	P	E	67	CEI	2.8	1.2	2.0	-	-
X128	B	HY	P	L	73	CE	2.5	1.0	1.7	2.2	-
X218	B	HY	P	L	73	CE	3.2	0.9	2.0	-	-
MYCOGEN											
1G600	B	HY	P	ME	65	-	3.0	1.0	2.0	-	-
627	B	W	P	ME	66	CEIK	2.6	0.9	1.8	1.9	2.4
737	B	W	P	M	67	C	3.5	1.0	2.3	1.9	2.4
M3838	C	HY	P	ME	67	CE	2.9	1.1	2.0	2.5	2.9
697	B	W	P	M	68	CEIK	3.1	1.5	2.3	2.6	2.8
1506	LR	HY	P	ML	70	CE	3.2	1.1	2.1	2.3	2.6
X30750	W	W	P	ML	71	CE	3.1	0.9	2.0	-	-
X31730	R	W	P	ML	72	-	3.5	0.8	2.1	-	-
NC+											
5B74E	B	HY	P	E	60	CE	2.9	1.5	2.2	2.6	2.7
5B89	B	HY	P	E	61	C	3.5	1.5	2.5	2.3	2.6
6B50	B	HY	P	ME	62	-	3.3	1.3	2.3	2.3	2.7
Y363	Y	Y	P	ME	64	C	3.3	0.9	2.1	2.3	2.6
6B73	B	HY	P	M	65	C	3.5	1.9	2.7	-	-
7C22	Cr	HY	P	M	68	C	3.8	1.8	2.8	-	-
7B47	B	Y	P	M	70	-	3.5	0.7	2.1	2.2	2.5
7R83	R	W	P	ML	70	-	2.7	1.0	1.8	2.1	2.7
7W51	W	W	P	M	70	CE	2.9	0.8	1.9	2.0	2.4

(continued)

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Table 29. Entries in the 2003 Kansas Grain Sorghum Performance Tests*

BRAND	GC	EC	PC	Mat.	Days	GB	Fe chlor. ratings Col.	Trib.	03	2Yr	3Yr
PIONEER											
87G57	B	Y	P	E	63	E	3.3	1.2	2.2	2.3	2.6
85Y34	Y	Y	P	ME	66	E	3.3	2.3	2.8	2.7	3.0
8500	R	W	P	M	68	-	3.4	1.3	2.3	2.3	2.8
85G01	R	W	P	M	69	E	3.0	1.8	2.4	-	-
84G50	B	Y	P	M	70	-	3.5	1.3	2.4	-	-
84G62	B	Y	P	ML	72	E	3.6	1.5	2.5	2.3	2.5
PRODUCERS											
PH67	C	W	P	M	60	C	3.8	1.6	2.7	-	-
PH69	R	W	P	M	63	E	3.4	1.0	2.2	-	-
PH79FG	W	W	T	L	67	-	2.8	1.4	2.1	-	-
SORG. PARTNERS											
251	R	-	P	E	52	-	3.1	1.6	2.3	-	-
KS 310	B	HY	P	E	57	CE	2.9	1.2	2.0	-	-
K35-Y5	C	HY	P	ME	59	CE	3.8	1.5	2.6	-	-
1486	Y	HY	T	ME	63	CEI	2.9	1.3	2.1	-	-
NK5418	B	HY	P	M	66	CE	2.6	0.9	1.8	-	-
KS 585	B	HY	P	M	67	CE	3.4	0.8	2.1	2.4	2.8
NK7655	C	HY	P	ML	72	C	3.3	1.3	2.3	-	-
K73-J6	B	HY	P	ML	73	CE	3.6	1.4	2.5	2.6	3.0
NK7633	B	HY	P	ML	73	-	3.0	0.8	1.9	-	-
NK8828	W	HY	T	L	75	-	3.8	1.5	2.6	2.9	3.4
TRIUMPH											
TR 434	R	W	P	E	58	CE	2.7	1.3	2.0	-	-
TR 438	B	W	P	E	60	CE	3.0	0.8	1.9	2.4	2.7
TR 460	Y	W	P	M	62	CEI	2.6	1.3	2.0	2.1	-
TR 461	R	W	P	M	62	CE	2.9	0.6	1.8	2.1	2.6
TR 459	B	W	P	ME	64	CE	3.2	1.4	2.3	2.6	3.0
TR 481	R	W	P	ML	72	CE	3.1	1.0	2.1	2.3	2.9
WILLCROSS											
WX 420	B	W	P	M	66	CE	3.9	1.4	2.6	2.8	-
WX 544	R	W	P	ML	70	CE	3.4	1.5	2.4	2.9	-
MATURITY CHECK											
TX3042xTX2737	B	W	P	E	65	-	3.7	1.7	2.7	2.5	2.9
OK11xTX2741	W	W	P	M	69	-	3.9	1.6	2.7	2.9	3.1
TX2752xTX430	B	W	P	L	73	-	3.1	1.5	2.3	2.5	2.7
AVERAGES	-	-	-	-	-	-	3.2	1.3	2.3	-	-
CV(%)	-	-	-	-	-	-	13.3	28.4	17.9	-	-
LSD(0.05)**	-	-	-	-	-	-	0.6	0.5	0.4	-	-

BRAND	GC	EC	PC	Mat.	Days	GB	Fe chlor. ratings Col.	Trib.	03	2Yr	3Yr

* 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
03 = average of 2003 ratings
2Yr = average of ratings made in 2003 and 2002 (4 tests)
3Yr = average of ratings made in 2003, 2002, and 2001 (6 tests)

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CONTRIBUTORS

MAIN STATION, MANHATTAN

Kraig Roozeboom, Associate Agronomist (Senior Author)
Doug Jardine, Extension Plant Pathologist
Jeff Whitworth, Extension Entomologist
Mary Knapp, KSU State Climatologist
James R. Cochrane, Assistant Scientist
Edward O. Quigley, Agricultural Technician
Brad Luebbe, Student

EXPERIMENT FIELDS

Mark Claassen, Hesston
W. Barney Gordon, Scandia
William Heer, Hutchinson
Keith Janssen, Ottawa
Larry Maddux, Topeka
Victor Martin, St. John

RESEARCH CENTERS

Patrick Evans, Colby
Ken Kofoid, Hays
James Long, Parsons
Alan Schlegel, Tribune
Merle Witt, Garden City

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