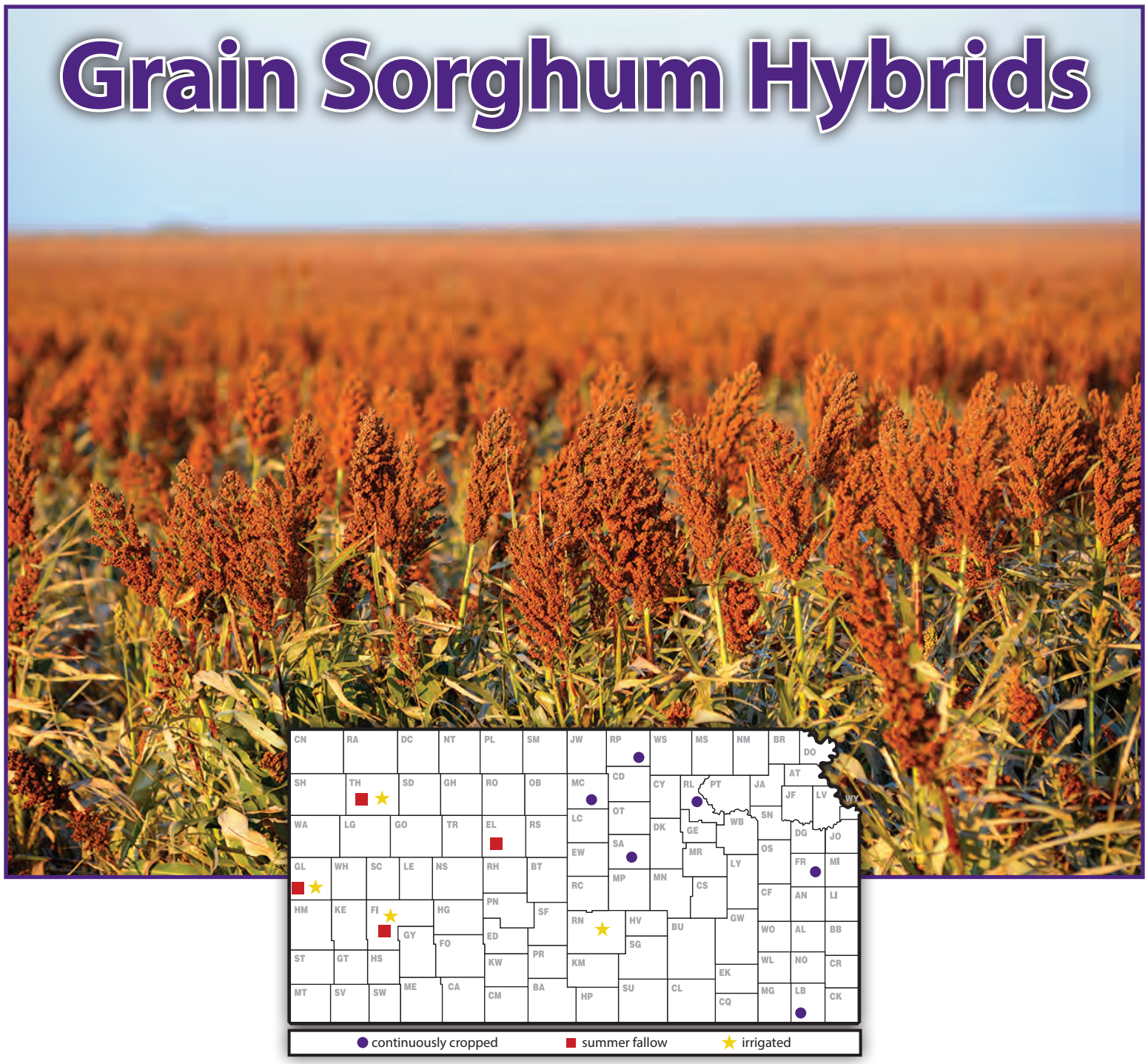
2017 Kansas Performance Tests with

Grain Sorghum Hybrids



Report of Progress 1138

K-STATE
Research and Extension

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

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Contribution no. 18-235-S from the Kansas Agricultural Experiment Station.

2017 GRAIN SORGHUM CROP REVIEW

Statewide Growing Conditions

The 2017 sorghum season presented an overall favorable weather pattern, with more than 50% of the crop condition rated as good and excellent at harvest. Wet conditions in the spring delayed planting in specific locations, but overall planting progress was near or slightly delayed from last year but close to the average as relative to the last 5-yr average (2012-2016). Mid-season warm temperatures sped up the vegetative progress at some point, compensating for the delay caused by the early-wet conditions or delayed planting.

Sorghum heading was concentrated during early-August (50% state-level) and early-September (close to 100% state-level). Vegetative-phase and pollination conditions remained wet with near-average temperatures, favoring the pollination time and early-reproductive period.

Hail was a problem across the state. There were 586 reports of large hail through October 15. Of those events, 160 were reported in May (mostly outside of the sorghum season). Hail has the largest impact when occurring around flowering time or during the grain filling when the plant depends on the leaves, potentially affecting grain number and seed weight.

As related to precipitation conditions, most divisions averaged above normal for the period of April 1 through October 15. The greatest departure was in the west central region, where the divisional average was 19.74 inches or 123% of normal. The northeast division faced the greatest shortfall, with an average of 23.59 inches or 89% of normal. At the Hiawatha station, rainfall dropped below normal in mid-June and remained below normal for the rest of the season. The western divisions enjoyed wetter than normal conditions throughout the summer before entering a drier pattern in September and October.

Temperature wasn't as much of a factor. The warmest readings were seen in mid-July, with the highest read of 111°F reported on July 24 at Webster Dam and the Salina Airport. West central Kansas did see a brief hot spell, when Tribune reached 110°F on June 13. There were some late freeze dates, with multiple locations in northwest Kansas dropping to 30°F on May 5. The first autumn freezes were later than average, with Sharon Springs dropping to 31°F on the 14th of October, and Concordia reaching 30°F on the 27th. Low temperatures, depending on the timing of crop development, impacted final seed weight and potentially grain quality.

As related to grain filling, this period started with good or above average moisture content and went to dry conditions later when the crop was approaching harvest time. Temperatures also went from near normal to above normal, hastening maturity and harvest time.

The sugarcane aphid (*Melanaphis sacchari*) advanced far north (Marshall County, Kansas), appearing in new areas and impacting sorghum primarily from the mid-vegetative to late reproductive stages. Fortunately, fewer reports were documented during 2017 compared to the 2016 growing season.

Harvest progress for sorghum across the state was delayed and was primarily concentrated during late October and late November.

Despite the abovementioned challenges, USDA forecasted in October a sorghum yield of 82 bushels per acre for the state of Kansas for the 2017 season, down from the 91 bushels per acre from the 2016 season (Ignacio A. Ciampitti, Kansas State University Cropping Systems Specialist, and Mary Knapp, Kansas State University Climatologist).

Table 1. 2017 temperatures by crop production district

Division	Extreme Tmax (°F)	Date	Avg Tmax (°F)	Avg Tmin (°F)	Avg Tmean (°F)	Extreme Tmin (°F)	Date
Northwest	110	22-Jul	79.3	50.3	64.8	14	28-Oct
North Central	111	22-Jul	80.3	53.7	67.0	11	28-Oct
Northeast	108	21-Jul	79.1	55.5	67.3	20	31-Oct
West Central	110	17-Jun	80.2	51.3	65.7	12	29-Oct
Central	111	23-Jul	81.4	55.3	68.3	11	28-Oct
East Central	108	23-Jul	79.2	57.1	68.2	21	31-Oct
Southwest	106	23-Jul	81.3	53.2	67.3	16	28-Oct
South Central	108	23-Jul	82.0	57.1	69.5	14	29-Oct
Southeast	107	22-Sep	79.8	57.5	68.6	22	29-Oct

Diseases

The 2017 Kansas sorghum crop was generally healthy. Unlike 2016 when sooty stripe and rust could readily be found, foliar diseases were kept to a minimum. One interesting note is that sorghum downy mildew was reported in northwest Kansas, where unusually high rainfall amounts triggered the disease in a few fields with chronic wet spots in them.

The most significant disease in 2017 was Fusarium stalk rot. Fusarium is favored by wetter springs, followed by a dry summer, and then more rain as harvest approaches. This scenario occurred in many places in the state. Late season lodging due to Fusarium stalk rot was reported from many locations. (Doug Jardine, Kansas State University Department of Plant Pathology)

Insects

Sorghum concerns started early this year with chinch bugs, and these pests remained a problem all season. Eventually some fields even had lodging due to chinch bug feeding.

Sorghum headworms (a combination of corn earworms, fall armyworms, and armyworms) were common throughout much of the state whenever the sorghum was between flowering and soft dough.

Sugarcane aphids were not nearly as problematic in Kansas in 2017, although a few fields were treated in the south central and southwestern parts of the state. (Holly Shwarting and Jeff Whitworth, Kansas State University Department of Entomology)

2017 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. 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 at all test locations.

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 2017 and the 30-year normal in addition to daily rainfall amounts since 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.

Explanatory information precedes data summaries for each test. Tables 3 through 20 contain results from the individual performance tests. Hybrids are listed in order of increasing days to half bloom when that information is available, so hybrids of similar maturity appear together.

As with individual test results, small differences should not be overemphasized. Relative ranking and large differences are better indicators of performance.

Three or four plots (replications) of each hybrid were grown in a randomized complete block design at each location. Each harvested plot consisted of two rows trimmed to a specific length ranging from 20 to 30 feet at the different locations.

Grain yields are reported as bushels per acre of shelled grain (56 lb/bu) adjusted to a moisture content of 12.5%. Yields also are presented as a percentage 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 must also be considered.

Relative maturity is measured in terms of both number of days from planting to half bloom and grain moisture at harvest. 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 (LSD) 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, a CV of less than 10% generally indicates reliable, uniform data, whereas a CV of 10 to 15% is not uncommon and usually indicates that data are acceptable for the rough performance comparisons desired from these tests. Tests with a CV greater than 15% still may be useful, especially in situations with low yields.

Table 2. Entrants in the 2017 Kansas Grain Sorghum Performance Tests

Agventure-Pinnacle
Minden, NE
308-832-1050
avpinnacle.com

Alta Seeds
Irving, TX
806-340-2031
altaseeds.com

B-H Genetics
Ganado, TX
361-771-2755
bhgenetics.com

Blue River Hybrids
Ames, IA
800-370-7979
blueriverorgseed.com

Chromatin Inc.
Lubbock, TX
806-300-0593
chromatininc.com

DeKalb
Monsanto Seed
St. Louis, MO
800-335-2676
dekalb.com

Dyna-Gro Seed
Goddard, KS
800-950-2231
cpsagu.com

Gayland Ward Seed
Hereford, TX
806-258-7394
gaylandwardseed.com

Golden Acres Genetics
Waco, TX
254-761-9838
goldenacres.com

Heartland Genetics LLC
Beloit, KS
785-738-5134

Phillips Seed Farms
Hope, KS
785-949-2204
phillipsseed.com

Scott Seed Co.
Hereford, TX
806-683-1868

NORTHEAST KANSAS DRYLAND GRAIN SORGHUM TEST

Manhattan, Riley County
Agronomy North Farm
Planted: 5/30/2017
Harvested: 11/15/2017
180-0-0 lb/a N, P, K
Reading silt loam
Previous crop: wheat

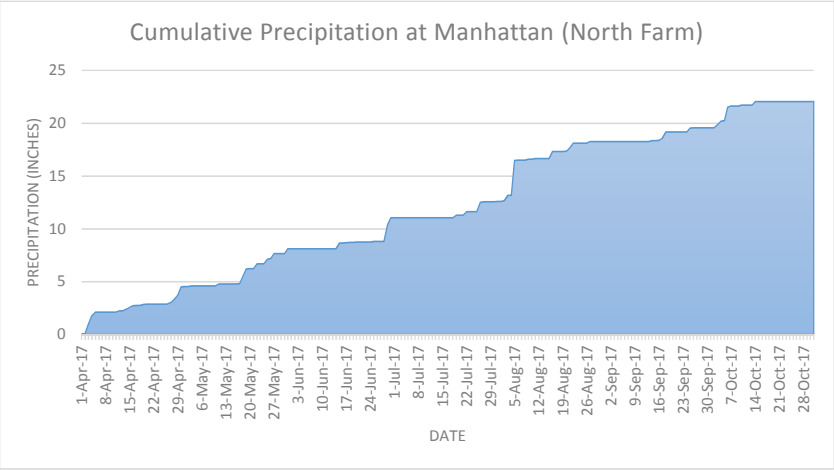

Table 3. Riley County Dryland Grain Sorghum Performance Test, 2015-2017

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			Days to	Grain moist.	Test wt.	Plnt ht.	Ldg	Pop. 1000
					2-yr.	3-yr.									
BRAND	**NAME**	**2017**	**2016**	**2015**	**AVG.**	**AVG.**	**2017**	**2016**	**2015**	**blm**	**%**	**lb/bu**	**in.**	**%**	**ppa**
BLUE RIVER HYBRIDS	63C5	**160**	81	--	--	--	107	74	--	--	9	62	45	--	46
BLUE RIVER HYBRIDS	64YT5	**148**	70	--	--	--	99	64	--	--	9	61	42	--	41
CHECK	EARLY	**152**	120	83	136	118	102	110	95	--	9	61	56	--	48
CHECK	LATE	145	**131**	**101**	138	126	97	120	115	--	9	61	58	--	44
CHECK	MED	132	**125**	87	129	115	89	115	99	--	9	61	49	--	48
CHROMATIN	CHR0029	**163**	--	--	--	--	109	--	--	--	9	61	58	--	43
CHROMATIN	CHR0072	**157**	--	--	--	--	105	--	--	--	9	62	48	--	49
CHROMATIN	CHR2042	**167**	--	--	--	--	112	--	--	--	9	61	58	--	47
DEKALB	DKS28-05	**158**	107	--	133	--	106	99	--	--	9	61	46	--	45
DEKALB	DKS37-07	**155**	--	--	--	--	104	--	--	--	9	60	53	--	37
DEKALB	DKS38-16	137	**126**	--	131	--	91	116	--	--	8	60	50	--	38
DEKALB	DKS45-23	144	103	--	124	--	97	95	--	--	9	61	56	--	47
DEKALB	DKS51-01	142	**139**	92	141	124	95	128	104	--	9	62	58	--	49
DEKALB	DKS53-53	144	**125**	**100**	135	123	97	115	114	--	9	61	54	--	39
DYNA-GRO	GX15371	139	110	--	--	--	93	101	--	--	9	61	60	--	46
DYNA-GRO	GX16367	**153**	--	--	--	--	103	--	--	--	9	62	60	--	43
DYNA-GRO	GX16833	**150**	--	--	--	--	100	--	--	--	9	62	58	--	33
DYNA-GRO	GX16855	**156**	--	--	--	--	105	--	--	--	9	61	49	--	44
DYNA-GRO	GX17818	137	--	--	--	--	92	--	--	--	8	60	50	--	40
DYNA-GRO	M60GB31	**152**	**128**	--	140	--	102	117	--	--	9	61	50	--	49
DYNA-GRO	M73GR55	143	--	--	--	--	96	--	--	--	9	60	56	--	39
DYNA-GRO	M74GB17	**154**	--	--	--	--	103	--	--	--	9	61	57	--	44
GOLDEN ACRES	5556	**151**	--	--	--	--	101	--	--	--	9	62	60	--	33
GOLDEN ACRES	3960B	**155**	--	--	--	--	104	--	--	--	9	61	52	--	41
HEARTLAND GENETICS	HG EX1750A	142	--	--	--	--	95	--	--	--	8	60	60	--	48
HEARTLAND GENETICS	HG EX1751B	136	--	--	--	--	91	--	--	--	9	61	61	--	45
HEARTLAND GENETICS	HG52-B	**160**	108	93	134	120	107	100	106	--	9	61	61	--	27
	Average	149	109	88	129	115	100	100	100	--	9	61	54	--	43
	CV (%)	9	10	9	--	--	9	10	9	--	4	2	--	--	--
	LSD (0.05)	20	15	12	--	--	13	14	12	--	0	2	--	--	--

*Y*Yields in bold are not statistically different than the highest-yielding hybrid.ds in bold are not statistically different than the highestielding hybrid.

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

NORTHEAST KANSAS DRYLAND GRAIN SORGHUM TEST

Belleville, Republic County
North Central Experiment Field
Planted: 6/12/2017
Harvested: 11/7/2017
150-0-0 lb/a N, P, K
Crete silt loam
Previous crop: wheat

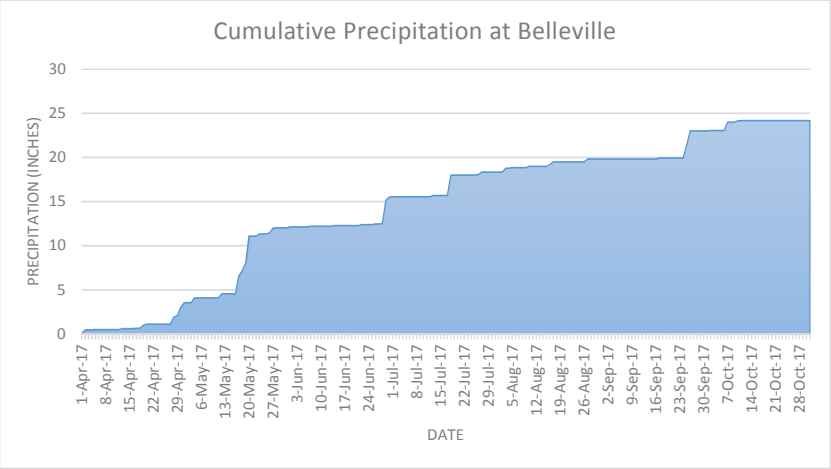

Table 4. Republic County Dryland Grain Sorghum Performance Test, 2015-2017

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			Days	Grain	Test	Plnt		Pop.
					2-yr.	3-yr.				to	moist.	wt.	ht.	Ldg	1000
BRAND	NAME	2017	2016	2015	AVG.	AVG.	2017	2016	2015	blm	%	lb/bu	in.	%	ppa
CHECK	EARLY	114	**103**	122	109	113	105	135	99	--	16	58	--	--	57
CHECK	LATE	85	81	**137**	83	101	78	106	112	--	16	59	--	--	57
CHECK	MED	118	83	**130**	100	110	108	108	106	--	16	58	--	--	57
CHROMATIN	CHR0029	79	--	--	--	--	72	--	--	--	18	58	--	--	57
CHROMATIN	CHR0072	109	--	--	--	--	100	--	--	--	18	59	--	--	57
CHROMATIN	CHR2042	96	--	--	--	--	88	--	--	--	16	59	--	--	57
DEKALB	DKS28-05	93	61	--	77	--	85	80	--	--	16	59	--	--	57
DEKALB	DKS37-07	115	--	--	--	--	105	--	--	--	17	60	--	--	57
DEKALB	DKS38-16	122	79	--	100	--	112	103	--	--	17	60	--	--	57
DEKALB	DKS45-23	**148**	**109**	--	129	--	136	142	--	--	18	60	--	--	57
DEKALB	DKS51-01	120	87	**129**	103	112	110	114	105	--	16	59	--	--	57
DEKALB	DKS53-53	**133**	**105**	**132**	119	123	122	138	108	--	16	60	--	--	57
DYNA-GRO	GX15371	112	--	--	--	--	103	--	--	--	16	59	--	--	57
DYNA-GRO	GX16367	**137**	--	--	--	--	126	--	--	--	16	60	--	--	57
DYNA-GRO	GX16833	107	--	--	--	--	98	--	--	--	17	61	--	--	57
DYNA-GRO	GX16855	105	--	--	--	--	97	--	--	--	16	59	--	--	57
DYNA-GRO	GX17818	93	--	--	--	--	86	--	--	--	18	59	--	--	57
DYNA-GRO	M59GB57	60	--	--	--	--	55	--	--	--	17	59	--	--	57
DYNA-GRO	M60GB31	128	73	--	101	--	118	96	--	--	15	60	--	--	57
DYNA-GRO	M73GR55	89	--	--	--	--	81	--	--	--	17	58	--	--	57
DYNA-GRO	M74GB17	98	--	--	--	--	90	--	--	--	17	59	--	--	57
GAYLAND WARD SEED	EXP 8016	114	--	--	--	--	104	--	--	--	17	61	--	--	57
GAYLAND WARD SEED	EXP 9050	126	--	--	--	--	115	--	--	--	19	61	--	--	57
GAYLAND WARD SEED	EXP 9066	127	--	--	--	--	117	--	--	--	16	60	--	--	57
GAYLAND WARD SEED	EXP 9100	**147**	--	--	--	--	135	--	--	--	16	61	--	--	57
GAYLAND WARD SEED	EXP 9123	118	--	--	--	--	108	--	--	--	17	60	--	--	57
GAYLAND WARD SEED	EXP 9127	109	--	--	--	--	100	--	--	--	16	59	--	--	57
GAYLAND WARD SEED	EXP 9135	108	--	--	--	--	100	--	--	--	17	60	--	--	57
GAYLAND WARD SEED	GW 15G901	75	--	--	--	--	69	--	--	--	20	59	--	--	57
GAYLAND WARD SEED	GW 15G926	123	--	--	--	--	113	--	--	--	18	61	--	--	57
GAYLAND WARD SEED	GW EXP 9092	100	--	--	--	--	92	--	--	--	18	59	--	--	57
GAYLAND WARD SEED	GW EXP 9134	101	--	--	--	--	93	--	--	--	16	60	--	--	57
GAYLAND WARD SEED	GW EXP 9138	112	--	--	--	--	103	--	--	--	17	60	--	--	57
GAYLAND WARD SEED	GW EXP 9139	94	--	--	--	--	86	--	--	--	16	59	--	--	57
GAYLAND WARD SEED	GW-1160	111	--	--	--	--	102	--	--	--	17	59	--	--	57

Table 4 continued. Republic County Dryland Grain Sorghum Performance Test, 2015-2017

BRAND	NAME	ACRE YIELD, BUSHELS 2017	2016	2015	2-yr. AVG.	3-yr. AVG.	YIELD AS % OF TEST AVERAGE 2017	2016	2015	Days to blm	Grain moist. %	Test wt. lb/bu	Plnt ht. in.	Ldg %	Pop. 1000 ppa
GOLDEN ACRES	3960B	113	--	--	--	--	104	--	--	--	16	60	--	--	57
GOLDEN ACRES	5556	116	--	--	--	--	106	--	--	--	17	59	--	--	57
HEARTLAND GENETICS	HG EX1750A	107	--	--	--	--	98	--	--	--	17	59	--	--	57
HEARTLAND GENETICS	HG EX1751B	87	--	--	--	--	80	--	--	--	17	58	--	--	57
	Average	109	76	123	92	103	100	100	100	--	17	59	--	--	57
	CV (%)	8	10	8	--	--	8	10	9	--	10	1	--	--	--
	LSD (0.05)	15	12	16	--	--	14	16	15	--	3	1	--	--	--

*Yields in bold are not statistically different than the highest yielding hybrid.

Yields in bold are not statistically different than the highest yielding hybrid.ds in bold are not statistically different than the highestielding hybrid.

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

NORTHEAST KANSAS DRYLAND GRAIN SORGHUM TEST

Beloit, Mitchell County
Tom Deneke Farm
Planted: 6/6/2017
Harvested: 11/21/2017
100-0-0 lb/a N, P, K
Harney silt loam
Previous crop: wheat

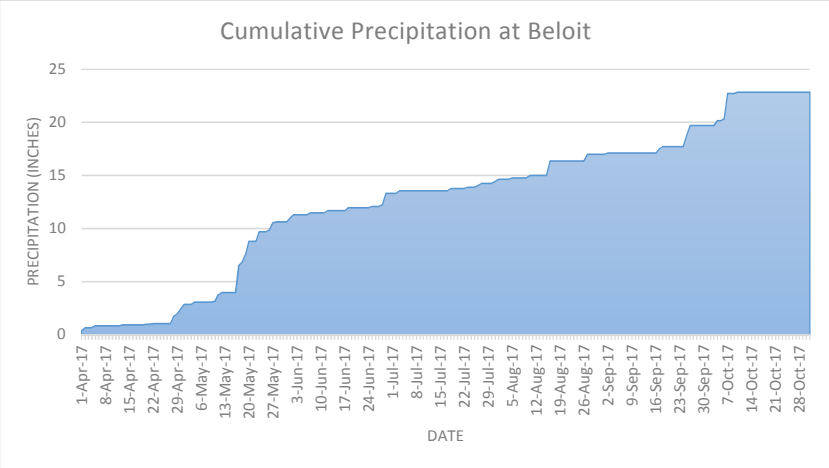

Table 5. Mitchell County Dryland Grain Sorghum Performance Test, 2015-2017

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			Days to	Grain moist.	Test wt.	Plnt ht.	Ldg	Pop. 1000
BRAND	NAME	2017	2016	2015	2-yr. AVG.	3-yr. AVG.	2017	2016	2015	blm	%	lb/bu	in.	%	ppa
CHECK	EARLY	70	144	71	107	95	76	107	80	--	9	60	54	--	--
CHECK	LATE	99	152	83	126	111	107	113	93	--	9	62	59	--	--
CHECK	MED	79	151	**101**	115	110	85	113	114	--	9	61	56	--	--
CHROMATIN	CHR0029	76	--	--	--	--	81	--	--	--	8	59	57	--	--
CHROMATIN	CHR0072	72	--	--	--	--	78	--	--	--	8	60	58	--	--
CHROMATIN	CHR2042	83	--	--	--	--	89	--	--	--	8	60	58	--	--
DEKALB	DKS28-05	**111**	83	--	97	--	119	62	--	--	9	61	54	--	--
DEKALB	DKS37-07	98	--	--	--	--	105	--	--	--	8	61	60	--	--
DEKALB	DKS38-16	93	153	--	123	--	100	114	--	--	10	59	58	--	--
DEKALB	DKS45-23	75	**159**	--	117	--	80	119	--	--	8	61	59	--	--
DEKALB	DKS51-01	77	150	99	113	109	82	111	111	--	8	61	62	--	--
DEKALB	DKS53-53	100	**164**	75	132	113	107	122	84	--	9	61	58	--	--
DYNA-GRO	GX15371	91	--	--	--	--	98	--	--	--	8	59	59	--	--
DYNA-GRO	GX16367	91	--	--	--	--	98	--	--	--	8	61	58	--	--
DYNA-GRO	GX16833	97	--	--	--	--	105	--	--	--	8	60	58	--	--
DYNA-GRO	GX16855	**106**	--	--	--	--	114	--	--	--	8	61	60	--	--
DYNA-GRO	GX17818	97	--	--	--	--	104	--	--	--	8	63	55	--	--
DYNA-GRO	M59GB57	**107**	--	--	--	--	115	--	--	--	8	61	59	--	--
DYNA-GRO	M60GB31	80	140	--	110	--	86	104	--	--	8	61	60	--	--
DYNA-GRO	M73GR55	**108**	--	--	--	--	116	--	--	--	8	61	60	--	--
DYNA-GRO	M74GB17	100	--	--	--	--	108	--	--	--	9	61	58	--	--
GAYLAND WARD SEED	EXP 9123	96	--	--	--	--	104	--	--	--	8	61	59	--	--
GAYLAND WARD SEED	EXP 9127	**115**	--	--	--	--	123	--	--	--	9	61	59	--	--
GAYLAND WARD SEED	EXP 9135	86	--	--	--	--	92	--	--	--	9	60	60	--	--
GAYLAND WARD SEED	GW EXP 9134	**115**	--	--	--	--	123	--	--	--	8	60	58	--	--
GAYLAND WARD SEED	GW EXP 9138	**118**	--	--	--	--	127	--	--	--	8	60	59	--	--
GAYLAND WARD SEED	GW EXP 9139	73	--	--	--	--	79	--	--	--	8	59	58	--	--
GAYLAND WARD SEED	GW-1160	95	--	--	--	--	103	--	--	--	8	61	60	--	--
GOLDEN ACRES	5556	99	--	--	--	--	106	--	--	--	8	61	56	--	--
GOLDEN ACRES	3960B	69	--	--	--	--	75	--	--	--	9	61	58	--	--
HEARTLAND GENETICS	HG EX1750A	89	--	--	--	--	96	--	--	--	8	61	55	--	--
HEARTLAND GENETICS	HG EX1751B	**113**	--	--	--	--	121	--	--	--	8	61	58	--	--
	Average	93	134	89	114	105	100	100	100	--	8	61	58	--	--
	CV (%)	9	7	7	--	--	9	7	7	--	5	2	--	--	--
	LSD (0.05)	14	16	9	--	--	15	12	10	--	1	2	--	--	--

*Yields in bold are not statistically different than the highest yielding hybrid.
**Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

Table 6. NORTHEAST Kansas Grain Sorghum Hybrid Yield Summary (% of test avg.), 2017

BRAND/NAME	RLD	RPD	MTD	AVG.
BLUE RIVER HYBRIDS				
63C5	107	--	--	--
64YT5	99	--	--	--
CHECK				
EARLY	102	105	76	94
LATE	97	78	107	94
MED	89	108	85	94
CHROMATIN				
CHR0029	109	72	81	88
CHR0072	105	100	78	94
CHR2042	112	88	89	96
DEKALB				
DKS28-05	106	85	119	103
DKS37-07	104	105	105	105
DKS38-16	91	112	100	101
DKS45-23	97	136	80	104
DKS51-01	95	110	82	96
DKS53-53	97	122	107	109
DYNA-GRO				
GX15371	93	103	98	98
GX16367	103	126	98	109
GX16833	100	98	105	101
GX16855	105	97	114	105
GX17818	92	86	104	94
M59GB57	--	55	115	--
M60GB31	102	118	86	102
M73GR55	96	81	116	98
M74GB17	103	90	108	100
GAYLAND WARD SEED				
EXP 8016	--	104	--	--
EXP 9050	--	115	--	--
EXP 9066	--	117	--	--
EXP 9100	--	135	--	--
EXP 9123	--	108	104	--
EXP 9127	--	100	123	--
EXP 9135	--	100	92	--
GW 15G901	--	69	--	--
GW 15G926	--	113	--	--
GW EXP 9092	--	92	--	--
GW EXP 9134	--	93	123	--
GW EXP 9138	--	103	127	--
GW EXP 9139	--	86	79	--
GW-1160	--	102	103	--
GOLDEN ACRES				
3960B	104	104	75	94
5556	101	106	106	105
HEARTLAND GENETICS				
HG EX1750A	95	98	96	96
HG EX1751B	91	80	121	97
HG52-B	107	--	--	--
AVERAGES (bu/a)	149	109	93	117
CV (%)	9	8	9	--
LSD (0.05)	13	14	15	--

* RLD = Riley Co., Manhattan RPD = Republic Co., Belleville MTD = Mitchell Co., Beloit

SOUTHEAST KANSAS DRYLAND GRAIN SORGHUM TEST

Ottawa, Franklin County
East Central Experiment Field
Planted: 5/16/2017
Harvested: 10/3/2017
140-40-15 lb/a N, P, K
Woodson silt loam
Previous crop: soybean

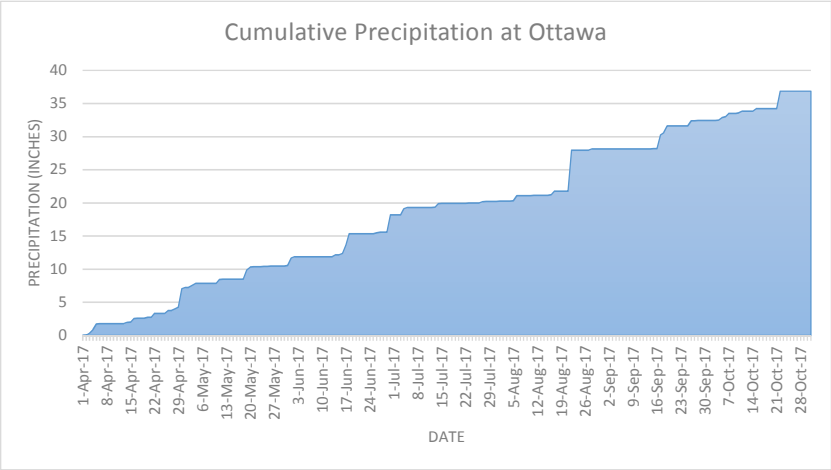

Table 7. Franklin County Dryland Grain Sorghum Performance Test, 2015-2017

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			Days to	Grain moist.	Test wt.	Plnt ht.	Ldg	Pop. 1000
BRAND	NAME	2017	2016	2015	2-yr. AVG.	3-yr. AVG.	2017	2016	2015	blm	%	lb/bu	in.	%	ppa
CHECK	EARLY	176	**72**	**125**	124	124	100	126	109	71	14	65	--	--	47
CHECK	LATE	169	**68**	116	118	118	96	119	101	68	15	62	--	--	45
CHECK	MED	163	53	110	108	109	93	93	96	67	14	63	--	--	45
CHROMATIN	CHR0029	168	39	--	103	--	95	69	--	74	15	63	--	--	47
CHROMATIN	CHR0072	176	--	--	--	--	100	--	--	70	14	63	--	--	46
CHROMATIN	CHR2042	176	50	--	113	--	100	88	--	72	15	63	--	--	46
DEKALB	DKS28-05	168	**73**	--	120	--	95	128	--	66	14	63	--	--	47
DEKALB	DKS37-07	165	--	--	--	--	94	--	--	69	14	63	--	--	41
DEKALB	DKS38-16	171	**67**	--	119	--	97	117	--	70	14	65	--	--	37
DEKALB	DKS45-23	175	60	--	118	--	99	--	--	71	14	65	--	--	45
DEKALB	DKS51-01	169	75	130	122	125	96	131	113	72	14	65	--	--	50
DEKALB	DKS53-53	184	**75**	**121**	129	127	104	132	106	72	15	64	--	--	42
DYNA-GRO	GX15371	188	--	--	--	--	106	--	--	74	14	65	--	--	45
DYNA-GRO	GX16367	168	--	--	--	--	96	--	--	74	14	63	--	--	43
DYNA-GRO	GX16833	186	--	--	--	--	105	--	--	74	15	64	--	--	40
DYNA-GRO	GX16855	180	--	--	--	--	102	--	--	74	15	62	--	--	35
DYNA-GRO	GX17818	172	--	--	--	--	98	--	--	71	14	64	--	--	43
DYNA-GRO	M60GB31	183	--	--	--	--	104	--	--	71	14	64	--	--	45
DYNA-GRO	M73GR55	**203**	--	--	--	--	115	--	--	73	16	63	--	--	41
DYNA-GRO	M74GB17	186	--	--	--	--	105	--	--	71	14	64	--	--	43
GOLDEN ACRES	5556	178	--	--	--	--	101	--	--	69	14	63	--	--	48
GOLDEN ACRES	3960B	175	--	--	--	--	99	--	--	71	14	64	--	--	39
	Average	176	57	115	117	116	100	100	100	71	14	64	--	--	44
	CV (%)	5	12	7	--	--	5	12	7	2	3	1	--	--	10
	LSD (0.05)	13	9	12	--	--	7	16	11	2	1	1	--	--	6

*Yields in bold are not statistically different than the highestyielding hybrid.ds in bold are not statistically different than the highestielding hybrid.

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

SOUTHEAST KANSAS DRYLAND GRAIN SORGHUM TEST

Parsons, Labette County
Southeast Agricultural Research Center
Planted: 6/7/2017
Harvested: 10/26/2017
150-46-0 lb/a N, P, K
Parsons silt loam
Previous crop: soybean

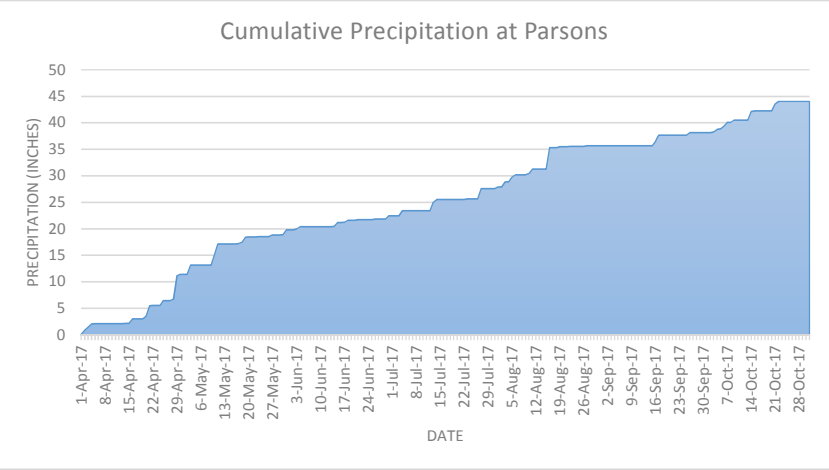

Table 8. Labette County Dryland Grain Sorghum Performance Test, 2015-2017

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			Days	Grain	Test	Plnt		Pop.
					2-yr.	3-yr.				to	moist.	wt.	ht.	Ldg	1000
BRAND	NAME	2017	2016	2015	AVG.	AVG.	2017	2016	2015	blm	%	lb/bu	in.	%	ppa
CHECK	EARLY	91	91	31	91	71	67	107	78	49	14	60	47	0	70
CHECK	LATE	**181**	81	--	131	--	133	96	--	56	14	62	55	0	76
CHECK	MED	126	98	**73**	112	99	93	116	187	49	13	61	50	0	75
CHROMATIN	CHR0029	167	89	--	128	--	123	106	--	60	14	61	61	0	73
CHROMATIN	CHR0072	118	--	--	--	--	87	--	--	57	14	63	51	0	73
CHROMATIN	CHR2042	144	72	--	108	--	106	86	--	57	14	62	63	1	74
DEKALB	DKS28-05	94	55	--	75	--	69	65	--	47	13	60	45	0	76
DEKALB	DKS37-07	146	--	--	--	--	108	--	--	53	14	62	51	0	68
DEKALB	DKS38-16	167	92	--	130	--	124	110	--	54	13	64	52	0	73
DEKALB	DKS45-23	**172**	**107**	--	139	--	127	126	--	57	14	63	60	0	74
DEKALB	DKS51-01	**172**	66	46	119	95	127	79	118	58	14	62	62	0	76
DEKALB	DKS53-53	**186**	**113**	25	150	108	137	134	65	60	14	61	61	0	70
DYNA-GRO	GX15371	51	--	--	--	--	37	--	--	61	14	63	59	83	76
DYNA-GRO	GX16367	**170**	--	--	--	--	125	--	--	56	13	61	63	0	65
DYNA-GRO	GX16833	82	--	--	--	--	60	--	--	61	14	63	61	53	72
DYNA-GRO	GX16855	80	--	--	--	--	59	--	--	59	14	62	64	71	57
DYNA-GRO	GX17818	131	--	--	--	--	97	--	--	62	14	61	55	30	70
DYNA-GRO	M60GB31	142	--	--	--	--	105	--	--	55	13	66	55	0	71
DYNA-GRO	M73GR55	117	--	--	--	--	86	--	--	64	14	61	65	39	70
DYNA-GRO	M74GB17	149	--	--	--	--	110	--	--	58	14	62	62	1	67
GOLDEN ACRES	5556	130	--	--	--	--	96	--	--	52	13	62	50	0	72
GOLDEN ACRES	3960B	164	--	--	--	--	121	--	--	54	13	62	53	0	70
	Average	135	84	39	110	86	100	100	100	56	14	62	56	13	71
	CV (%)	9	7	10	--	--	9	7	10	2	2	4	3	79	5
	LSD (0.05)	17	8	6	--	--	12	10	14	1	0	3	3	14	5

YYields in bold are not statistically different than the highestyielding hybrid.Yields in bold are not statistically different than the highestyielding hybrid.ds in bold are not statistically different than the highestielding hybrid.

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

Table 9. SOUTHEAST Kansas Grain Sorghum Hybrid Yield Summary (% of test avg.), 2017

BRAND/NAME	FRD	LBD	AVG.
CHECK			
EARLY	100	67	84
LATE	96	133	115
MED	93	93	93
CHROMATIN			
CHR0029	95	123	109
CHR0072	100	87	94
CHR2042	100	106	103
DEKALB			
DKS28-05	95	69	82
DKS37-07	94	108	101
DKS38-16	97	124	110
DKS45-23	99	127	113
DKS51-01	96	127	112
DKS53-53	104	137	121
DYNA-GRO			
GX15371	106	37	72
GX16367	96	125	110
GX16833	105	60	83
GX16855	102	59	80
GX17818	98	97	97
M60GB31	104	105	104
M73GR55	115	86	101
M74GB17	105	110	108
GOLDEN ACRES			
3960B	99	121	110
5556	101	96	98
AVERAGES (bu/a)	176	135	156
CV (%)	5	9	--
LSD (0.05)	7	12	--

FRD = Franklin Co., Ottawa LBD = Labette Co., Parsons

CENTRAL KANSAS DRYLAND GRAIN SORGHUM TEST

Assaria, Saline County
Clayton Short Farm
Planted: 6/15/2017
Harvested: 11/16/2017
150-0-0 lb/a N, P, K
Ulysses silt loam
Previous crop: soybean

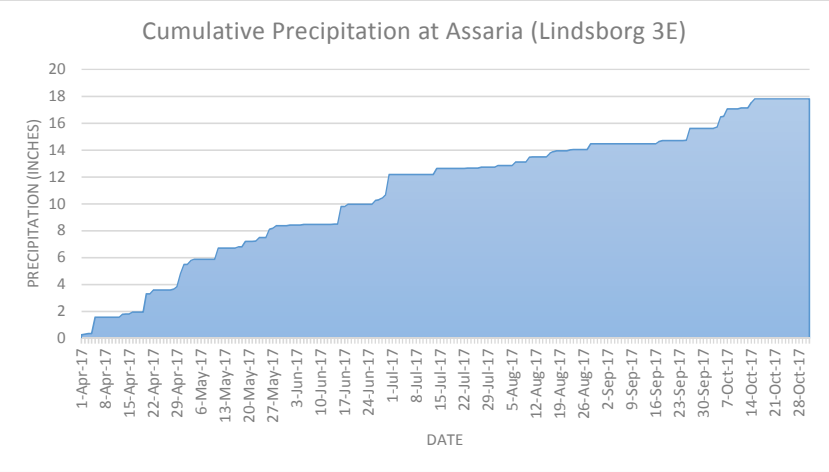

Table 10. Saline County Dryland Grain Sorghum Performance Test, 2015-2017

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			Days	Grain	Test	Plnt		Pop.
BRAND	NAME	2017	2016	2015	2-yr. AVG.	3-yr. AVG.	2017	2016	2015	to blm	moist. %	wt. lb/bu	ht. in.	Ldg %	1000 ppa
CHECK	EARLY	**58**	--	**98**	--	78	135	--	126	--	17	56	--	--	--
CHECK	LATE	**55**	--	64	--	60	128	--	82	--	15	54	--	--	--
CHECK	MED	34	--	68	--	51	80	--	87	--	16	50	--	--	--
DEKALB	DKS28-05	48	--	--	--	--	112	--	--	--	16	50	--	--	--
DEKALB	DKS37-07	32	--	--	--	--	75	--	--	--	16	50	--	--	--
DEKALB	DKS38-16	49	--	--	--	--	113	--	--	--	17	51	--	--	--
DEKALB	DKS45-23	44	--	--	--	--	102	--	--	--	17	53	--	--	--
DEKALB	DKS51-01	33	--	**94**	--	64	78	--	120	--	15	56	--	--	--
DEKALB	DKS53-53	50	--	**96**	--	73	116	--	123	--	15	54	--	--	--
DYNA-GRO	772B	28	--	--	--	--	66	--	--	--	16	55	--	--	--
DYNA-GRO	GX15371	49	--	--	--	--	114	--	--	--	15	53	--	--	--
DYNA-GRO	GX16367	19	--	--	--	--	44	--	--	--	16	50	--	--	--
DYNA-GRO	GX16833	47	--	--	--	--	109	--	--	--	15	50	--	--	--
DYNA-GRO	GX16855	**56**	--	--	--	--	130	--	--	--	17	51	--	--	--
DYNA-GRO	GX17818	47	--	--	--	--	109	--	--	--	18	51	--	--	--
DYNA-GRO	M60GB31	40	--	--	--	--	92	--	--	--	17	50	--	--	--
DYNA-GRO	M73GR55	42	--	--	--	--	98	--	--	--	16	52	--	--	--
DYNA-GRO	M74GB17	35	--	--	--	--	82	--	--	--	18	50	--	--	--
GAYLAND WARD SEED	EXP 9135	**51**	--	--	--	--	118	--	--	--	17	51	--	--	--
GAYLAND WARD SEED	GW EXP 9134	43	--	--	--	--	101	--	--	--	17	51	--	--	--
GAYLAND WARD SEED	GW EXP 9138	27	--	--	--	--	64	--	--	--	16	50	--	--	--
GAYLAND WARD SEED	GW EXP 9139	41	--	--	--	--	94	--	--	--	15	51	--	--	--
GAYLAND WARD SEED	GW-1160	**51**	--	53	--	52	119	--	67	--	16	53	--	--	--
GOLDEN ACRES	5556	**53**	--	--	--	--	122	--	--	--	15	52	--	--	--
GOLDEN ACRES	3960B	32	--	--	--	--	74	--	--	--	16	50	--	--	--
HEARTLAND GENETICS	HG EX1750A	37	--	--	--	--	87	--	--	--	16	50	--	--	--
HEARTLAND GENETICS	HG EX1751B	50	--	--	--	--	117	--	--	--	15	50	--	--	--
HEARTLAND GENETICS	HG52-B	41	--	**98**	--	69	95	--	125	--	16	50	--	--	--
PHILLIPS	PSF698	43	--	--	--	--	99	--	--	--	16	50	--	--	--
PHILLIPS	PSF746	44	--	--	--	--	103	--	--	--	16	50	--	--	--
PHILLIPS	PSF756	**53**	--	--	--	--	124	--	--	--	16	52	--	--	--
	Average	43	--	78	--	60	100	--	100	--	16	52	--	--	--
	CV (%)	11	--	8	--	--	11	--	8	--	10	1	--	--	--
	LSD (0.05)	7	--	9	--	--	16	--	11	--	2	1	--	--	--

*Yields in bold are not statistically different than the highest-yielding hybrid.

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

Table 11. CENTRAL Kansas Sorghum Hybrid Yield Summary (% of test avg.), 2017

BRAND/NAME	SAD	RND	AVG.
CHECK			
EARLY	135	--	135
LATE	128	--	128
MED	80	--	80
DEKALB			
DKS28-05	112	--	112
DKS37-07	75	--	75
DKS38-16	113	--	113
DKS45-23	102	--	102
DKS51-01	78	--	78
DKS53-53	116	--	116
DYNA-GRO			
772B	66	--	66
GX15371	114	--	114
GX16367	44	--	44
GX16833	109	--	109
GX16855	130	--	130
GX17818	109	--	109
M60GB31	92	--	92
M73GR55	98	--	98
M74GB17	82	--	82
GAYLAND WARD SEED			
EXP 9135	118	--	118
GW EXP 9134	101	--	101
GW EXP 9138	64	--	64
GW EXP 9139	94	--	94
GW-1160	119	--	119
GOLDEN ACRES			
3960B	74	--	74
5556	122	--	122
HEARTLAND GENETICS			
HG EX1750A	87	--	87
HG EX1751B	117	--	117
HG52-B	95	--	95
PHILLIPS			
PSF698	99	--	99
PSF746	103	--	103
PSF756	124	--	124
AVERAGES (bu/a)	43	--	43
CV (%)	11	--	11
LSD (0.05)	16	--	16

SAD = Saline Co., Assaria

RND = Reno Co., Hutchinson. Abandoned; severe bird feeding.

WESTERN KANSAS DRYLAND GRAIN SORGHUM TEST

Hays, Ellis County
Western Kansas Research Center
Planted: 6/5/2017
Harvested: 11/2/2017
60-0-0 lb/a N, P, K
Harney clay loam
Previous crop: wheat

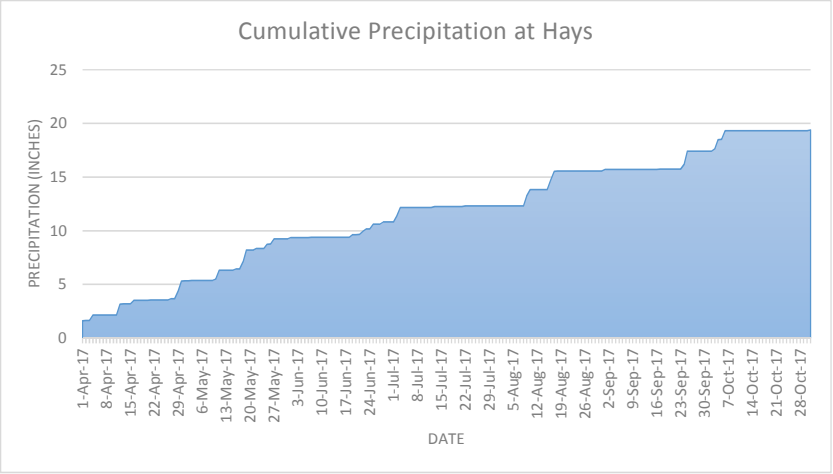

Table 12. Ellis County Dryland Grain Sorghum Performance Test, 2015-2017

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			Days	Grain	Test	Plnt		Pop.
					2-yr.	3-yr.				to	moist.	wt.	ht.	Ldg	1000
BRAND	NAME	2017	2016	2015	AVG.	AVG.	2017	2016	2015	blm	%	lb/bu	in.	%	ppa
ALTA	ADV G1150	56	--	--	--	--	101	--	--	77	14	62	--	--	--
ALTA	AG1203	64	**126**	--	95	--	115	127	--	76	16	63	--	--	--
ALTA	AG1301	55	101	--	78	--	99	102	--	75	14	62	--	--	--
CHECK	EARLY	57	**125**	--	91	--	102	126	--	67	16	63	--	--	--
CHECK	LATE	59	**122**	--	91	--	107	123	--	77	14	63	--	--	--
CHECK	MED	51	**120**	--	85	--	91	121	--	72	14	62	--	--	--
CHROMATIN	CHR0029	43	--	--	--	--	76	--	--	78	18	63	--	--	--
CHROMATIN	CHR0072	61	--	--	--	--	110	--	--	78	18	61	--	--	--
CHROMATIN	CHR2042	65	--	--	--	--	117	--	--	78	15	63	--	--	--
DEKALB	DKS28-05	52	96	--	74	--	94	97	--	73	15	62	--	--	--
DEKALB	DKS37-07	42	105	--	73	--	75	106	--	75	15	61	--	--	--
DEKALB	DKS38-16	**77**	**116**	--	97	--	139	117	--	72	15	65	--	--	--
DEKALB	DKS45-23	55	--	--	--	--	98	--	--	77	16	63	--	--	--
DEKALB	DKS51-01	**74**	**114**	--	94	--	133	116	--	75	14	62	--	--	--
DEKALB	DKS53-53	58	**124**	--	91	--	105	126	--	78	17	63	--	--	--
DYNA-GRO	742C	63	--	--	--	--	113	--	--	73	14	63	--	--	--
DYNA-GRO	GX16523	47	--	--	--	--	84	--	--	73	14	62	--	--	--
DYNA-GRO	GX16535	**68**	--	--	--	--	122	--	--	77	17	62	--	--	--
DYNA-GRO	GX16855	55	--	--	--	--	98	--	--	78	15	63	--	--	--
DYNA-GRO	M59GB57	62	--	--	--	--	112	--	--	69	13	63	--	--	--
DYNA-GRO	M60GB31	61	111	--	86	--	110	112	--	78	15	63	--	--	--
DYNA-GRO	M60GB88	66	--	--	--	--	118	--	--	74	14	62	--	--	--
DYNA-GRO	M71GB01	53	--	--	--	--	95	--	--	65	13	62	--	--	--
GAYLAND WARD SEED	GW-1160	32	--	--	--	--	58	--	--	75	17	62	--	--	--
GOLDEN ACRES	3960B	49	--	--	--	--	88	--	--	77	15	62	--	--	--
GOLDEN ACRES	H-390W	54	--	--	--	--	97	--	--	75	15	62	--	--	--
GOLDEN ACRES	X-2703	55	--	--	--	--	99	--	--	70	16	63	--	--	--
HEARTLAND GENETICS	HG EX1750A	48	--	--	--	--	86	--	--	78	17	63	--	--	--
HEARTLAND GENETICS	HG EX1751B	56	--	--	--	--	100	--	--	78	17	62	--	--	--
HEARTLAND GENETICS	HG52-B	44	118	--	81	--	78	119	--	78	18	62	--	--	--
PHILLIPS	PSF698	50	--	--	--	--	90	--	--	77	15	63	--	--	--
PHILLIPS	PSF746	60	--	--	--	--	107	--	--	75	17	63	--	--	--
PHILLIPS	PSF756	47	--	--	--	--	84	--	--	78	19	62	--	--	--
	Average	56	99	--	77	--	100	100	--	75	16	63	--	--	--
	CV (%)	12	9	--	--	--	12	9	--	2	10	2	--	--	--
	LSD (0.05)	9	13	--	--	--	17	13	--	2	2	1	--	--	--

*Yields in bold are not statistically different than the highestielding hybrid.ds in bold are not statistically different than the highestielding hybrid.

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

WESTERN KANSAS DRYLAND GRAIN SORGHUM TEST

Colby, Thomas County
K-State Northwest Research Center
Planted: 6/2/2017
Harvested: 11/8/2017
100-30-0 lb/a N, P, K
Keith silt loam
Previous crop: fallow

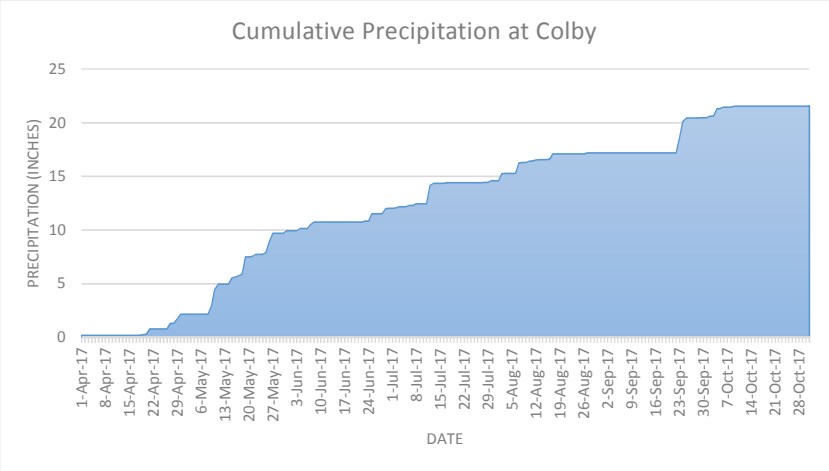

Table 13. Thomas County Dryland Grain Sorghum Performance Test, 2015-2017

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			Days	Grain	Test	Plnt		Pop.
					2-yr.	3-yr.				to	moist.	wt.	ht.	Ldg	1000
BRAND	NAME	2017	2016	2015	AVG.	AVG.	2017	2016	2015	blm	%	lb/bu	in.	%	ppa
ALTA	ADV G1150	122	--	--	--	--	100	--	--	85	16	50	49	1	27
ALTA	AG1203	128	105	64	116	99	106	111	103	84	16	50	57	0	28
ALTA	AG1301	103	110	87	107	100	85	116	140	83	16	50	47	0	21
B-H GENETICS	BH 3400	124	59	44	91	76	102	62	72	68	13	50	48	0	27
B-H GENETICS	BH 3616	104	--	--	--	--	86	--	--	80	14	48	42	2	27
B-H GENETICS	BH 4433C	113	--	--	--	--	93	--	--	82	15	50	48	1	28
CHECK	EARLY	123	106	81	114	103	101	112	131	87	16	51	52	1	29
CHECK	LATE	**136**	100	28	118	88	112	105	45	76	14	52	45	0	30
CHECK	MED	**141**	106	69	123	105	116	111	111	79	17	53	50	0	31
DEKALB	DKS28-05	**142**	107	52	124	100	117	113	85	77	12	46	51	1	30
DEKALB	DKS37-07	115	89	58	102	87	95	94	94	81	15	50	51	0	24
DEKALB	DKS38-16	**140**	**120**	--	130	--	115	126	--	81	17	54	57	0	27
DEKALB	DKS45-23	121	--	--	--	--	100	--	--	85	16	48	60	0	31
DEKALB	DKS51-01	113	86	--	100	--	93	91	--	88	17	50	62	0	31
DEKALB	DKS53-53	125	**121**	--	123	--	103	128	--	88	14	45	54	0	27
DYNA-GRO	742C	115	--	--	--	--	95	--	--	82	15	50	46	0	23
DYNA-GRO	GX16523	119	--	--	--	--	99	--	--	83	17	52	52	0	17
DYNA-GRO	GX16535	121	--	--	--	--	100	--	--	82	16	53	56	1	25
DYNA-GRO	GX16855	94	--	--	--	--	77	--	--	90	18	47	60	0	19
DYNA-GRO	M59GB57	101	--	--	--	--	83	--	--	79	12	46	45	0	26
DYNA-GRO	M60GB31	132	108	--	120	--	109	114	--	84	16	49	56	0	28
DYNA-GRO	M60GB88	**134**	--	--	--	--	110	--	--	83	14	47	52	0	29
DYNA-GRO	M71GB01	119	--	--	--	--	98	--	--	69	14	50	47	2	26
GAYLAND WARD SEED	GW-1160	130	--	--	--	--	107	--	--	83	14	49	53	0	29
GOLDEN ACRES	3960B	131	--	--	--	--	108	--	--	83	17	53	56	0	26
GOLDEN ACRES	H-390W	112	--	--	--	--	93	--	--	81	15	50	46	0	25
GOLDEN ACRES	X-2703	**148**	--	--	--	--	122	--	--	78	16	55	57	0	31
HEARTLAND GENETICS	HG52-B	91	--	--	--	--	75	--	--	90	13	41	55	1	22
	Average	121	95	62	108	93	100	100	100	82	15	50	52	0	26
	CV (%)	8	11	11	--	--	8	11	11	2	7	3	2	--	11
	LSD (0.05)	14	15	9	--	--	12	15	15	2	1	2	2	1	4

*Yields in bold are not statistically different than the highest-yielding hybrid.

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

WESTERN KANSAS DRYLAND GRAIN SORGHUM TEST

Tribune, Greeley County
K-State Northwest Research Center
Planted: 6/1/2017
Harvested: 11/2/2017
130-40-0 lb/a N, P, K
Ulyssess silt loam
Previous crop: wheat

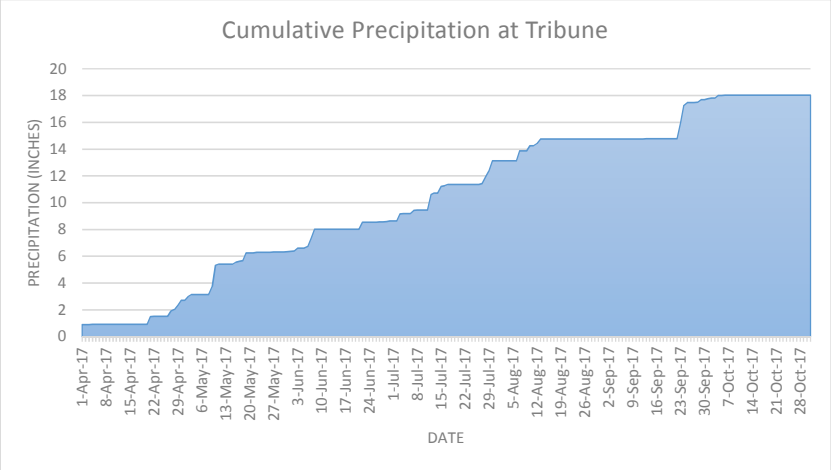

Table 14. Greeley County Dryland Grain Sorghum Performance Test, 2015-2017

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			Days	Grain	Test	Plnt		Pop.
					2-yr.	3-yr.				to	moist.	wt.	ht.	Ldg	1000
BRAND	NAME	2017	2016	2015	AVG.	AVG.	2017	2016	2015	blm	%	lb/bu	in.	%	ppa
ALTA	ADV G1150	117	--	--	--	--	96	--	--	77	15	57	48	--	24
ALTA	AG1203	126	**156**	**152**	141	145	104	116	109	78	16	59	55	--	30
ALTA	AG1301	104	136	136	120	125	85	101	98	81	17	55	48	--	25
B-H GENETICS	BH 3616	106	--	--	--	--	87	--	--	67	15	56	44	--	28
B-H GENETICS	BH 4100	128	**167**	--	148	--	105	124	--	78	16	59	55	--	27
B-H GENETICS	BH 4433C	111	--	--	--	--	92	--	--	80	16	56	48	--	27
CHECK	EARLY	128	129	**155**	129	137	105	96	112	63	16	57	55	--	30
CHECK	LATE	122	**160**	118	141	133	101	119	85	81	14	58	50	--	29
CHECK	MED	129	**161**	**170**	145	153	106	120	122	66	15	58	54	--	29
DEKALB	DKS28-05	**141**	120	--	130	--	116	90	--	59	14	58	53	--	30
DEKALB	DKS37-07	118	133	**152**	126	134	97	99	109	69	16	59	54	--	21
DEKALB	DKS38-16	128	141	--	135	--	106	105	--	70	16	59	59	--	25
DEKALB	DKS45-23	**134**	--	--	--	--	110	--	--	80	17	59	60	--	30
DEKALB	DKS51-01	126	134	--	130	--	104	99	--	76	15	58	60	--	30
DEKALB	DKS53-53	**136**	**157**	--	146	--	112	116	--	82	16	57	57	--	26
DYNA-GRO	742C	106	--	--	--	--	88	--	--	81	16	55	48	--	23
DYNA-GRO	GX16523	111	--	--	--	--	91	--	--	67	15	58	52	--	19
DYNA-GRO	GX16535	126	--	--	--	--	103	--	--	72	16	59	57	--	27
DYNA-GRO	GX16855	120	--	--	--	--	98	--	--	87	17	55	60	--	21
DYNA-GRO	M59GB57	117	--	--	--	--	96	--	--	58	14	57	44	--	26
DYNA-GRO	M60GB31	129	155	--	142	--	106	115	--	77	16	59	55	--	30
DYNA-GRO	M60GB88	129	--	--	--	--	106	--	--	68	15	58	53	--	27
DYNA-GRO	M71GB01	103	--	--	--	--	85	--	--	55	16	56	46	--	24
GAYLAND WARD SEED	GW-1160	116	--	--	--	--	95	--	--	75	16	58	53	--	27
GOLDEN ACRES	3960B	122	--	--	--	--	100	--	--	77	15	59	55	--	29
GOLDEN ACRES	H-390W	110	--	--	--	--	90	--	--	79	16	56	49	--	25
GOLDEN ACRES	X-2703	**141**	--	--	--	--	116	--	--	66	17	60	58	--	27
	Average	122	135	139	128	132	100	100	100	73	16	58	53	--	27
	CV (%)	6	6	9	--	--	6	6	9	2	4	1	2	--	7
	LSD (0.05)	10	11	17	--	--	9	8	13	2	1	1	2	--	3

*Yields in bold are not statistically different than the highest-yielding hybrid.

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

WESTERN KANSAS DRYLAND GRAIN SORGHUM TEST

Garden City, Finney County
K-State Southwest Research Center
Planted: 6/7/2017
Harvested: 10/30/2017
100-0-0 lb/a N, P, K
Keith silt loam
Previous crop: wheat

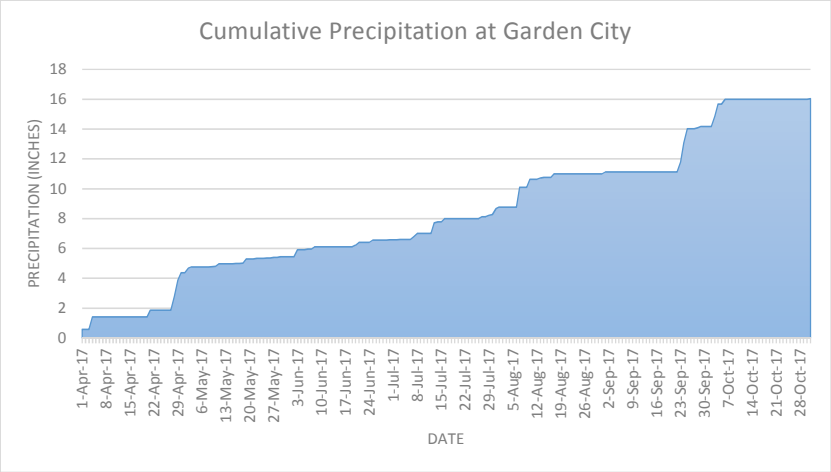

Table 15. Finney County Dryland Grain Sorghum Performance Test, 2015-2017

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			Days	Grain	Test	Plnt		Pop.
					2-yr.	3-yr.				to	moist.	wt.	ht.	Ldg	1000
BRAND	NAME	2017	2016	2015	AVG.	AVG.	2017	2016	2015	blm	%	lb/bu	in.	%	ppa
AGVENTURE	7R01	95	--	--	--	--	99	--	--	71	16	62	--	--	--
ALTA	ADV G1150	91	--	--	--	--	95	--	--	73	15	62	--	--	--
ALTA	AG1203	97	114	116	106	109	101	119	93	69	15	64	--	--	--
ALTA	AG1301	127	106	122	116	118	132	110	98	71	13	61	--	--	--
B-H GENETICS	BH 3616	114	--	--	--	--	119	--	--	67	14	62	--	--	--
B-H GENETICS	BH 4100	96	--	--	--	--	101	--	--	70	15	64	--	--	--
B-H GENETICS	BH 4433C	109	--	--	--	--	113	--	--	70	13	62	--	--	--
B-H GENETICS	XPS 1713	91	--	--	--	--	95	--	--	67	16	65	--	--	--
CHECK	EARLY	80	102	181	91	121	83	106	145	75	16	63	--	--	--
CHECK	LATE	103	90	112	96	102	107	94	90	66	16	62	--	--	--
CHECK	MED	100	74	160	87	111	104	76	129	66	15	64	--	--	--
DEKALB	DKS28-05	110	109	127	109	115	114	113	102	68	13	62	--	--	--
DEKALB	DKS37-07	93	101	112	97	102	97	105	90	70	16	62	--	--	--
DEKALB	DKS38-16	109	112	--	110	--	113	116	--	69	16	65	--	--	--
DEKALB	DKS45-23	106	--	--	--	--	111	--	--	71	16	61	--	--	--
DEKALB	DKS51-01	100	101	--	100	--	104	105	--	72	14	64	--	--	--
DEKALB	DKS53-53	92	62	--	77	--	96	65	--	76	16	62	--	--	--
DYNA-GRO	742C	111	--	--	--	--	116	--	--	72	14	62	--	--	--
DYNA-GRO	GX15371	105	--	--	--	--	109	--	--	74	15	64	--	--	--
DYNA-GRO	GX16367	81	--	--	--	--	84	--	--	76	14	63	--	--	--
DYNA-GRO	GX16523	107	--	--	--	--	112	--	--	69	14	62	--	--	--
DYNA-GRO	GX16535	71	--	--	--	--	74	--	--	69	15	63	--	--	--
DYNA-GRO	GX16833	94	--	--	--	--	98	--	--	75	16	64	--	--	--
DYNA-GRO	GX16855	66	--	--	--	--	69	--	--	78	16	62	--	--	--
DYNA-GRO	GX17818	117	--	--	--	--	122	--	--	76	14	63	--	--	--
DYNA-GRO	M59GB57	72	--	--	--	--	75	--	--	66	12	62	--	--	--
DYNA-GRO	M60GB31	107	89	--	98	--	111	92	--	69	15	64	--	--	--
DYNA-GRO	M60GB88	94	--	--	--	--	98	--	--	70	16	62	--	--	--
DYNA-GRO	M71GB01	70	--	--	--	--	73	--	--	72	15	62	--	--	--
GAYLAND WARD SEED	GW-1160	76	--	--	--	--	79	--	--	71	15	62	--	--	--
GOLDEN ACRES	3960B	108	--	--	--	--	113	--	--	71	16	63	--	--	--
GOLDEN ACRES	H-390W	120	--	--	--	--	125	--	--	70	14	62	--	--	--
GOLDEN ACRES	X-2703	74	--	--	--	--	77	--	--	68	15	66	--	--	--
HEARTLAND GENETICS	HG EX1750A	84	--	--	--	--	88	--	--	74	14	63	--	--	--
HEARTLAND GENETICS	HG EX1751B	95	--	--	--	--	99	--	--	78	15	61	--	--	--
PHILLIPS	PSF698	98	--	--	--	--	102	--	--	72	14	63	--	--	--
PHILLIPS	PSF746	112	--	--	--	--	117	--	--	72	15	63	--	--	--
PHILLIPS	PSF756	69	--	--	--	--	72	--	--	79	16	61	--	--	--
	Average	96	96	124	96	105	100	100	100	71	15	63	--	--	--
	CV (%)	9	8	7	--	--	9	8	7	3	10	2	--	--	--
	LSD (0.05)	12	11	12	--	--	13	12	10	3	2	2	--	--	--

*Yields in bold are not statistically different than the highest-yielding hybrid.

**Unless two varieties differ by more than the LSD, little confidence can be placed

Table 16. WESTERN Kansas Grain Sorghum Hybrid Yield Summary (% of test avg.), 2017

BRAND/NAME	ELD	THD	GRD	FND	AVG.
AGVENTURE					
7R01	--	--	--	99	--
ALTA					
ADV G1150	101	100	96	95	98
AG1203	115	106	104	101	106
AG1301	99	85	85	132	101
B-H GENETICS					
BH 3400	--	102	--	--	--
BH 3616	--	86	87	119	--
BH 4100	--	--	105	101	--
BH 4433C	--	93	92	113	--
XPS 1713	--	--	--	95	--
CHECK					
EARLY	102	101	105	83	98
LATE	107	112	101	107	107
MED	91	116	106	104	104
CHROMATIN					
CHR0029	76	--	--	--	--
CHR0072	110	--	--	--	--
CHR2042	117	--	--	--	--
DEKALB					
DKS28-05	94	117	116	114	110
DKS37-07	75	95	97	97	91
DKS38-16	139	115	106	113	118
DKS45-23	98	100	110	111	105
DKS51-01	133	93	104	104	108
DKS53-53	105	103	112	96	104
DYNA-GRO					
742C	113	95	88	116	103
GX15371	--	--	--	109	--
GX16367	--	--	--	84	--
GX16523	84	99	91	112	97
GX16535	122	100	103	74	100
GX16833	--	--	--	98	--
GX16855	98	77	98	69	86
GX17818	--	--	--	122	--
M59GB57	112	83	96	75	92
M60GB31	110	109	106	111	109
M60GB88	118	110	106	98	108
M71GB01	95	98	85	73	88
GAYLAND WARD SEED					
GW-1160	58	107	95	79	85
GOLDEN ACRES					
3960B	88	108	100	113	102
H-390W	97	93	90	125	101
X-2703	99	122	116	77	103
HEARTLAND GENETICS					
HG EX1750A	86	--	--	88	--
HG EX1751B	100	--	--	99	--
HG52-B	78	75	--	--	--
PHILLIPS					
PSF698	90	--	--	102	--
PSF746	107	--	--	117	--
PSF756	84	--	--	72	--
AVERAGES (bu/a)	56	121	122	96	99
CV (%)	12	8	6	9	--
LSD (0.05)	17	12	9	13	--

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

SOUTH CENTRAL KANSAS IRRIGATED GRAIN SORGHUM TEST

Hutchinson, Reno County
Southwest Seed Research Farm
Planted: 6/17/2017
Harvested: 11/13/2017
150-0-0 lb/a N, P, K
Punkin silt loam
Previous crop: wheat

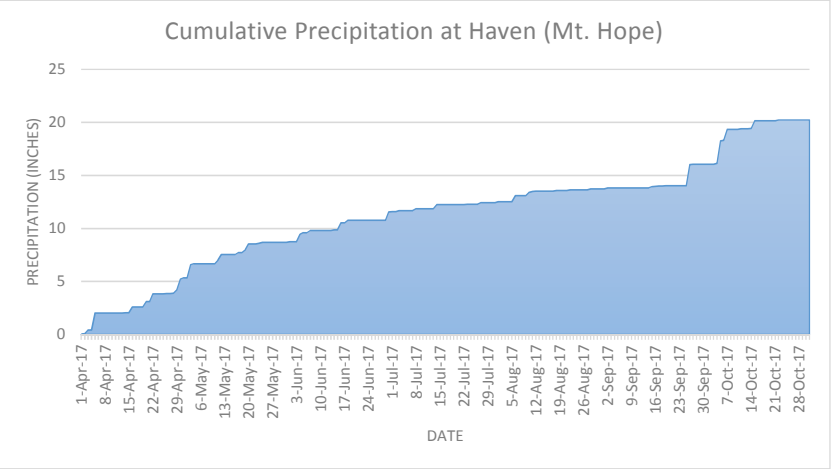

Table 17. Reno County Irrigated Grain Sorghum Performance Test, 2015-2017

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			Days	Grain	Test	Plnt		Pop.
					2-yr.	3-yr.				to	moist.	wt.	ht.	Ldg	1000
BRAND	NAME	2017	2016	2015	AVG.	AVG.	2017	2016	2015	blm	%	lb/bu	in.	%	ppa
ALTA	AG1203	103	102	--	103	--	80	98	--	--	17	58	--	--	--
ALTA	AG2115	129	--	--	--	--	100	--	--	--	17	60	--	--	--
ALTA	AG3201	110	107	--	108	--	85	102	--	--	18	60	--	--	--
BLUE RIVER HYBRIDS	70C5	**144**	109	--	127	--	112	104	--	--	18	58	--	--	--
BLUE RIVER HYBRIDS	76WT4	134	101	--	117	--	104	97	--	--	16	55	--	--	--
CHECK	EARLY	113	102	--	108	--	88	98	--	--	18	58	--	--	--
CHECK	LATE	89	97	--	93	--	69	93	--	--	17	57	--	--	--
CHECK	MED	101	88	--	95	--	78	85	--	--	17	58	--	--	--
CHROMATIN	CHR0029	**147**	94	--	121	--	114	90	--	--	17	60	--	--	--
CHROMATIN	CHR0072	117	--	--	--	--	90	--	--	--	17	60	--	--	--
CHROMATIN	CHR2042	104	109	--	107	--	81	105	--	--	18	59	--	--	--
DEKALB	DKS28-05	126	82	--	104	--	98	79	--	--	17	60	--	--	--
DEKALB	DKS37-07	99	--	--	--	--	76	--	--	--	17	57	--	--	--
DEKALB	DKS38-16	**145**	90	--	117	--	112	86	--	--	17	57	--	--	--
DEKALB	DKS45-23	**137**	114	--	126	--	106	110	--	--	18	54	--	--	--
DEKALB	DKS51-01	129	81	--	105	--	100	77	--	--	17	57	--	--	--
DEKALB	DKS53-53	**141**	**127**	--	134	--	109	122	--	--	17	59	--	--	--
DYNA-GRO	772B	**136**	111	--	123	--	105	107	--	--	17	59	--	--	--
DYNA-GRO	GX15371	**150**	84	--	117	--	116	81	--	--	17	60	--	--	--
DYNA-GRO	GX16367	**137**	--	--	--	--	106	--	--	--	17	60	--	--	--
DYNA-GRO	GX16523	100	--	--	--	--	78	--	--	--	17	58	--	--	--
DYNA-GRO	GX16535	124	--	--	--	--	96	--	--	--	17	59	--	--	--
DYNA-GRO	GX16833	**156**	--	--	--	--	121	--	--	--	17	58	--	--	--
DYNA-GRO	GX16855	101	--	--	--	--	78	--	--	--	17	57	--	--	--
DYNA-GRO	GX17818	125	--	--	--	--	97	--	--	--	18	59	--	--	--
DYNA-GRO	M60GB31	**148**	105	--	126	--	114	101	--	--	17	58	--	--	--
DYNA-GRO	M68GR41	113	--	--	--	--	87	--	--	--	17	59	--	--	--
DYNA-GRO	M73GR55	**138**	--	--	--	--	107	--	--	--	17	59	--	--	--
DYNA-GRO	M74GB17	**139**	--	--	--	--	108	--	--	--	16	56	--	--	--
GAYLAND WARD SEED	EXP 9123	**157**	--	--	--	--	121	--	--	--	17	59	--	--	--
GAYLAND WARD SEED	EXP 9127	**139**	--	--	--	--	107	--	--	--	17	58	--	--	--
GAYLAND WARD SEED	EXP 9135	**136**	--	--	--	--	105	--	--	--	17	60	--	--	--
GAYLAND WARD SEED	GW EXP 9134	132	--	--	--	--	102	--	--	--	17	58	--	--	--
GAYLAND WARD SEED	GW EXP 9138	**146**	--	--	--	--	113	--	--	--	17	60	--	--	--
GAYLAND WARD SEED	GW EXP 9139	114	--	--	--	--	88	--	--	--	18	60	--	--	--
GOLDEN ACRES	3960B	**139**	102	--	121	--	108	97	--	--	18	60	--	--	--
GOLDEN ACRES	G3545	**148**	109	--	128	--	114	105	--	--	17	59	--	--	--
PHILLIPS	PSF698	**140**	--	--	--	--	108	--	--	--	17	60	--	--	--
PHILLIPS	PSF746	**144**	--	--	--	--	111	--	--	--	17	57	--	--	--
PHILLIPS	PSF756	**140**	--	--	--	--	109	--	--	--	17	58	--	--	--
SCOTT SEED	X50215	124	--	--	--	--	96	--	--	--	17	59	--	--	--
SCOTT SEED	X5055	122	--	--	--	--	94	--	--	--	17	57	--	--	--
SCOTT SEED	X50615	134	--	--	--	--	104	--	--	--	17	58	--	--	--
SCOTT SEED	X54515	134	--	--	--	--	104	--	--	--	18	60	--	--	--
	Average	129	104	--	117	--	100	100	--	--	17	58	--	--	--
	CV (%)	12	10	--	--	--	12	10	--	--	4	5	--	--	--
	LSD (0.05)	21	14	--	--	--	16	14	--	--	1	4	--	--	--

*Yields in bold are not statistically different than the highest yielding hybrid.

*Yields in bold are not statistically different than the highest yielding hybrid.

WESTERN KANSAS IRRIGATED GRAIN SORGHUM TESTS

Colby, Thomas County
K-State Northwest Research Center
Planted: 6/2/2017
Harvested: 11/8/2017
170-30-0 lb/a N, P, K
Keith silt loam
Previous crop: fallow

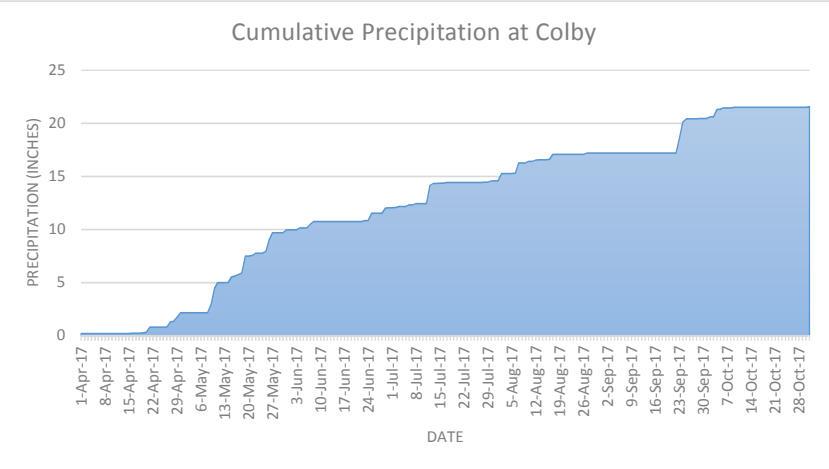

Table 18. Thomas County Irrigated Grain Sorghum Performance Test, 2015-2017

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			Days	Grain	Test	Plnt		Pop.
					2-yr.	3-yr.				to	moist.	wt.	ht.	Ldg	1000
BRAND	NAME	2017	2016	2015	AVG.	AVG.	2017	2016	2015	blm	%	lb/bu	in.	%	ppa
ALTA	AG1203	**170**	157	168	163	165	103	104	104	65	17	58	53	0	62
ALTA	AG2115	164	--	--	--	--	100	--	--	62	16	55	52	2	59
ALTA	AG3201	157	163	**185**	160	168	96	108	115	69	17	55	58	0	58
B-H GENETICS	BH 4100	**175**	156	180	165	170	106	104	112	65	17	57	52	0	61
B-H GENETICS	BH 4433C	160	--	--	--	--	98	--	--	65	16	55	48	0	64
B-H GENETICS	XPS 1713	**184**	--	--	--	--	112	--	--	59	17	59	57	0	59
BLUE RIVER HYBRIDS	59CT4	118	123	--	120	--	72	82	--	60	15	53	45	0	28
CHECK	EARLY	167	**172**	181	169	173	102	114	112	57	16	54	56	0	63
CHECK	LATE	**172**	147	152	160	157	105	98	94	71	16	55	50	0	64
CHECK	MED	**182**	158	179	170	173	111	105	112	59	16	57	51	0	64
CHROMATIN	CHR0029	150	--	--	--	--	92	--	--	73	17	54	57	1	60
CHROMATIN	CHR0072	**173**	--	--	--	--	106	--	--	64	16	54	52	0	62
CHROMATIN	CHR2042	**172**	--	--	--	--	105	--	--	66	16	56	58	0	61
DEKALB	DKS28-05	149	117	--	133	--	91	78	--	54	13	51	51	0	62
DEKALB	DKS37-07	**168**	--	--	--	--	102	--	--	63	16	56	54	0	54
DEKALB	DKS38-16	**186**	159	--	172	--	113	106	--	64	17	58	60	0	61
DEKALB	DKS45-23	**180**	**176**	--	178	--	110	117	--	69	16	55	61	0	64
DEKALB	DKS51-01	**172**	162	159	167	164	105	107	99	65	17	56	62	0	63
DEKALB	DKS53-53	**172**	**170**	**199**	171	180	105	113	124	73	16	54	57	0	59
DYNA-GRO	GX16523	**173**	--	--	--	--	105	--	--	60	16	56	54	1	58
DYNA-GRO	GX16535	**172**	--	--	--	--	105	--	--	61	17	56	57	1	56
DYNA-GRO	GX16855	**168**	--	--	--	--	103	--	--	74	17	56	66	0	47
DYNA-GRO	M59GB57	134	--	--	--	--	82	--	--	54	15	53	43	0	56
DYNA-GRO	M60GB31	166	155	--	161	--	101	103	--	66	17	57	52	0	57
DYNA-GRO	M60GB88	155	--	--	--	--	95	--	--	60	16	55	53	0	58
DYNA-GRO	M68GR41	161	--	--	--	--	98	--	--	68	18	55	56	1	65
GOLDEN ACRES	3960B	164	153	--	159	--	100	102	--	66	17	57	52	0	62
GOLDEN ACRES	G3545	163	162	178	162	168	99	107	111	70	17	55	57	0	45
SCOTT SEED	X50215	159	--	--	--	--	97	--	--	68	16	54	56	0	65
SCOTT SEED	X5055	152	--	--	--	--	93	--	--	56	15	53	50	0	56
SCOTT SEED	X50615	153	--	--	--	--	94	--	--	75	17	54	66	0	43
SCOTT SEED	X54515	157	--	--	--	--	96	--	--	73	17	57	54	0	58
	Average	164	150	161	157	158	100	100	100	65	16	55	55	0	58
	CV (%)	8	7	7	--	--	8	7	7	2	5	3	3	--	10
	LSD (0.05)	18	16	15	--	--	11	10	9	2	1	2	2	1	8

*Yields in bold are not statistically different than the highest yielding hybrid.ds in bold are not statistically different than the highestielding hybrid.

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

WESTERN KANSAS IRRIGATED GRAIN SORGHUM TEST

Tribune, Greeley County
K-State Northwest Research Center
Planted: 6/1/2017
Harvested: 11/4/2017
170-40-0 lb/a N, P, K
Ulyssess silt loam
Previous crop: fallow

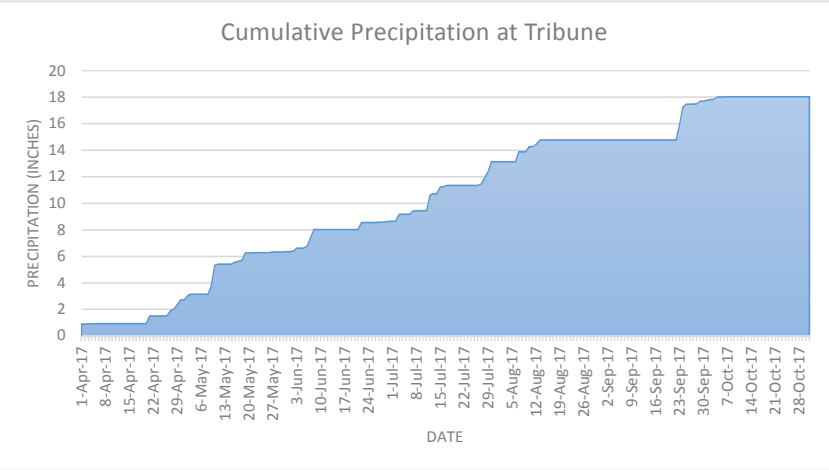

Table 19. Greeley County Irrigated Grain Sorghum Performance Test, 2015-2017

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE			Days	Grain	Test	Plnt		Pop.
					2-yr.	3-yr.				to	moist.	wt.	ht.	Ldg	1000
BRAND	NAME	2017	2016	2015	AVG.	AVG.	2017	2016	2015	blm	%	lb/bu	in.	%	ppa
ALTA	AG1203	142	167	199	154	169	104	110	101	61	14	59	52	0	--
ALTA	AG2115	142	--	--	--	--	104	--	--	63	14	57	52	0	--
ALTA	AG3201	**168**	158	196	163	174	123	104	99	69	14	58	57	0	--
B-H GENETICS	BH 4100	147	166	196	156	170	107	109	99	62	14	59	54	0	--
B-H GENETICS	BH 4433C	145	--	--	--	--	106	--	--	68	14	57	49	0	--
B-H GENETICS	BH 5677	140	--	--	--	--	103	--	--	66	15	58	58	3	--
BLUE RIVER HYBRIDS	59CT4	100	104	--	102	--	73	68	--	57	13	55	44	0	--
CHECK	EARLY	148	151	**211**	150	170	109	99	106	71	15	58	56	3	--
CHECK	LATE	110	**183**	199	147	164	81	120	100	54	13	56	47	0	--
CHECK	MED	126	166	**214**	146	169	93	109	108	57	13	56	49	0	--
CHROMATIN	CHR0029	123	--	--	--	--	90	--	--	72	17	56	57	0	--
CHROMATIN	CHR0072	152	--	--	--	--	111	--	--	66	14	58	53	0	--
CHROMATIN	CHR2042	138	--	--	--	--	101	--	--	65	17	57	58	8	--
DEKALB	DKS28-05	118	123	--	120	--	86	81	--	53	12	53	49	0	--
DEKALB	DKS37-07	129	--	--	--	--	94	--	--	60	14	58	51	0	--
DEKALB	DKS38-16	140	160	--	150	--	103	105	--	59	14	60	56	1	--
DEKALB	DKS45-23	152	174	--	163	--	111	114	--	66	16	58	60	3	--
DEKALB	DKS51-01	138	171	198	154	169	101	113	100	64	14	60	59	1	--
DEKALB	DKS53-53	**169**	**190**	203	180	187	124	125	103	68	14	58	59	0	--
DYNA-GRO	772B	139	--	--	--	--	102	--	--	65	15	58	56	0	--
DYNA-GRO	GX15371	144	--	--	--	--	106	--	--	75	19	57	60	13	--
DYNA-GRO	GX16367	141	--	--	--	--	103	--	--	71	13	58	57	0	--
DYNA-GRO	GX16833	145	--	--	--	--	106	--	--	75	17	58	60	3	--
DYNA-GRO	GX16855	126	--	--	--	--	92	--	--	75	18	57	64	5	--
DYNA-GRO	GX17818	146	--	--	--	--	107	--	--	65	15	59	55	5	--
DYNA-GRO	M59GB57	96	--	--	--	--	70	--	--	54	12	53	41	0	--
DYNA-GRO	M60GB31	150	160	--	155	--	110	105	--	60	14	59	53	0	--
DYNA-GRO	M73GR55	150	--	--	--	--	110	--	--	77	15	58	61	0	--
DYNA-GRO	M74GB17	145	--	--	--	--	106	--	--	66	17	58	58	3	--
GAYLAND WARD SEED	EXP 9123	130	--	--	--	--	95	--	--	65	21	56	61	4	--
GAYLAND WARD SEED	EXP 9127	114	--	--	--	--	83	--	--	61	18	56	63	1	--
GAYLAND WARD SEED	GW EXP 9092	135	--	--	--	--	99	--	--	63	14	57	58	0	--
GOLDEN ACRES	3960B	139	173	--	156	--	102	114	--	60	15	59	54	0	--
GOLDEN ACRES	G3545	134	153	**212**	144	166	98	101	107	66	15	58	56	1	--
SCOTT SEED	X50215	146	--	--	--	--	107	--	--	72	14	57	56	0	--
SCOTT SEED	X5055	105	--	--	--	--	77	--	--	54	12	54	50	0	--
SCOTT SEED	X50615	124	--	--	--	--	91	--	--	76	19	56	63	3	--
SCOTT SEED	X54515	149	--	--	--	--	109	--	--	65	15	58	56	0	--
	Average	136	152	198	144	162	100	100	100	65	15	57	55	1	--
	CV (%)	7	5	8	--	--	7	5	8	2	14	2	3	--	--
	LSD (0.05)	14	11	23	--	--	10	8	12	2	3	1	2	7	--

YYields in bold are not statistically different than the highestyielding hybrid.ds in bold are not statistically different than the highestielding hybrid.
**Unless two varieties differ by more than the LSD, little confidence can be placed in one being superior to the other.

WESTERN KANSAS IRRIGATED GRAIN SORGHUM TEST

Garden City, Finney County
K-State Southwest Research Center
Planted: 7/12/2017
Harvested: 11/9/2017
100-0-0 lb/a N, P, K
Keith silt loam
Previous crop: fallow

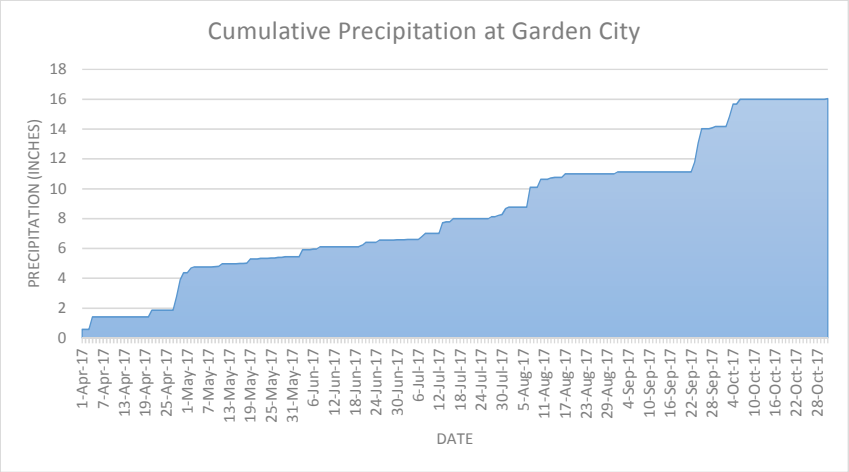

Table 20. Finney County Irrigated Grain Sorghum Performance Test, 2015-2017

		ACRE YIELD, BUSHELS					YIELD AS % OF TEST AVERAGE								
BRAND	NAME	2017	2016	2015	2-yr. AVG.	3-yr. AVG.	2017	2016	2015	Days to blm	Grain moist. %	Test wt. lb/bu	Plnt ht. in.	Ldg %	Pop. 1000 ppa
AGVENTURE	7R01	115	--	187	--	151	101	--	104	41	14	58	--	--	--
AGVENTURE	7R21	105	--	**227**	--	166	92	--	127	41	16	59	--	--	--
ALTA	AG1203	**142**	--	183	--	163	125	--	103	43	14	60	--	--	--
ALTA	AG2115	96	--	--	--	--	85	--	--	43	14	55	--	--	--
ALTA	AG3201	93	--	193	--	143	82	--	108	44	15	58	--	--	--
B-H GENETICS	BH 4100	134	--	--	--	--	118	--	--	42	14	58	--	--	--
B-H GENETICS	BH 5677	134	--	--	--	--	118	--	--	44	15	59	--	--	--
B-H GENETICS	BH 5737	106	--	--	--	--	94	--	--	46	15	57	--	--	--
BLUE RIVER HYBRIDS	63C5	114	--	--	--	--	101	--	--	44	14	57	--	--	--
BLUE RIVER HYBRIDS	64YT5	48	--	--	--	--	43	--	--	44	14	55	--	--	--
CHECK	EARLY	115	--	**226**	--	171	102	--	127	39	14	57	--	--	--
CHECK	LATE	114	--	163	--	139	101	--	92	45	15	59	--	--	--
CHECK	MED	**151**	--	**211**	--	181	133	--	118	36	14	59	--	--	--
CHROMATIN	CHR0029	99	--	--	--	--	88	--	--	46	15	57	--	--	--
CHROMATIN	CHR0072	116	--	--	--	--	102	--	--	44	14	57	--	--	--
CHROMATIN	CHR2042	**146**	--	--	--	--	129	--	--	45	17	58	--	--	--
DEKALB	DKS28-05	129	--	--	--	--	114	--	--	38	14	57	--	--	--
DEKALB	DKS37-07	129	--	--	--	--	114	--	--	41	15	60	--	--	--
DEKALB	DKS38-16	128	--	--	--	--	113	--	--	39	16	60	--	--	--
DEKALB	DKS45-23	111	--	--	--	--	98	--	--	44	15	59	--	--	--
DEKALB	DKS51-01	111	--	192	--	151	98	--	107	43	14	59	--	--	--
DEKALB	DKS53-53	107	--	**215**	--	161	94	--	120	46	15	58	--	--	--
DYNA-GRO	772B	123	--	--	--	--	109	--	--	44	15	59	--	--	--
DYNA-GRO	GX15371	134	--	--	--	--	118	--	--	46	16	60	--	--	--
DYNA-GRO	GX16367	102	--	--	--	--	90	--	--	46	14	59	--	--	--
DYNA-GRO	GX16523	116	--	--	--	--	102	--	--	40	14	58	--	--	--
DYNA-GRO	GX16833	114	--	--	--	--	101	--	--	47	15	59	--	--	--
DYNA-GRO	GX16855	116	--	--	--	--	103	--	--	47	15	58	--	--	--
DYNA-GRO	GX17818	**142**	--	--	--	--	125	--	--	44	14	59	--	--	--
DYNA-GRO	M60GB31	124	--	--	--	--	110	--	--	43	14	60	--	--	--
DYNA-GRO	M73GR55	126	--	--	--	--	111	--	--	47	16	58	--	--	--
DYNA-GRO	M74GB17	111	--	--	--	--	98	--	--	45	15	59	--	--	--
GAYLAND WARD SEED	EXP 8016	100	--	--	--	--	88	--	--	42	15	61	--	--	--
GAYLAND WARD SEED	EXP 9050	103	--	--	--	--	91	--	--	46	14	58	--	--	--
GAYLAND WARD SEED	EXP 9066	105	--	--	--	--	93	--	--	43	15	59	--	--	--
GAYLAND WARD SEED	EXP 9100	83	--	--	--	--	73	--	--	46	16	58	--	--	--
GAYLAND WARD SEED	EXP 9123	107	--	--	--	--	94	--	--	41	15	59	--	--	--
GAYLAND WARD SEED	EXP 9127	92	--	--	--	--	81	--	--	41	15	58	--	--	--
GAYLAND WARD SEED	EXP 9135	81	--	--	--	--	72	--	--	41	15	58	--	--	--
GAYLAND WARD SEED	GW 15G901	92	--	--	--	--	81	--	--	44	15	59	--	--	--
GAYLAND WARD SEED	GW 15G926	114	--	--	--	--	100	--	--	45	14	58	--	--	--
GAYLAND WARD SEED	GW EXP 9092	81	--	--	--	--	72	--	--	41	15	59	--	--	--
GAYLAND WARD SEED	GW EXP 9134	101	--	--	--	--	89	--	--	42	15	59	--	--	--

Table 20 continued. Finney County Irrigated Grain Sorghum Performance Test, 2015-2017

BRAND	NAME	ACRE YIELD, BUSHELS 2017	2016	2015	2-yr. AVG.	3-yr. AVG.	YIELD AS % OF TEST AVERAGE 2017	2016	2015	Days to blm	Grain moist. %	Test wt. lb/bu	Plnt ht. in.	Ldg %	Pop. 1000 ppa
GAYLAND WARD SEED	GW EXP 9138	103	--	--	--	--	91	--	--	41	14	60	--	--	--
GAYLAND WARD SEED	GW EXP 9139	108	--	--	--	--	96	--	--	40	16	60	--	--	--
GAYLAND WARD SEED	GW-1160	100	--	--	--	--	88	--	--	38	15	58	--	--	--
GOLDEN ACRES	3960B	133	--	--	--	--	117	--	--	42	14	60	--	--	--
GOLDEN ACRES	G3545	91	--	183	--	137	81	--	102	44	16	58	--	--	--
PHILLIPS	PSF698	125	--	--	--	--	110	--	--	44	14	60	--	--	--
PHILLIPS	PSF746	**146**	--	--	--	--	129	--	--	43	15	59	--	--	--
PHILLIPS	PSF756	108	--	--	--	--	96	--	--	45	16	57	--	--	--
SCOTT SEED	X50215	135	--	--	--	--	119	--	--	45	15	59	--	--	--
SCOTT SEED	X5055	90	--	--	--	--	80	--	--	36	14	60	--	--	--
SCOTT SEED	X50615	**142**	--	--	--	--	125	--	--	45	15	59	--	--	--
SCOTT SEED	X54515	**138**	--	--	--	--	121	--	--	44	15	59	--	--	--
	Average	113	--	179	--	146	100	--	100	43	15	59	--	--	--
	CV (%)	9	--	9	--	--	9	--	9	5	9	2	--	--	--
	LSD (0.05)	15	--	21	--	--	13	--	12	3	2	2	--	--	--

Yields in bold are not statistically different than the highest yielding hybrid.

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

Table 21. Kansas IRRIGATED Grain Sorghum Hybrid Yield Summary (% of test avg.), 2017

BRAND/NAME	RNI	THI	GRI	FNI	AVG.
AGVENTURE					
7R01	--	--	--	101	--
7R21	--	--	--	92	--
ALTA					
AG1203	80	103	104	125	103
AG2115	100	100	104	85	97
AG3201	85	96	123	82	96
B-H GENETICS					
BH 4100	--	106	107	118	--
BH 4433C	--	98	106	--	--
BH 5677	--	--	103	118	--
BH 5737	--	--	--	94	--
XPS 1713	--	112	--	--	--
BLUE RIVER HYBRIDS					
59CT4	--	72	73	--	--
63C5	--	--	--	101	--
64YT5	--	--	--	43	--
70C5	112	--	--	--	--
76WT4	104	--	--	--	--
CHECK					
EARLY	88	102	109	102	100
LATE	69	105	81	101	89
MED	78	111	93	133	104
CHROMATIN					
CHR0029	114	92	90	88	96
CHR0072	90	106	111	102	102
CHR2042	81	105	101	129	104
DEKALB					
DKS28-05	98	91	86	114	97
DKS37-07	76	102	94	114	97
DKS38-16	112	113	103	113	110
DKS45-23	106	110	111	98	106
DKS51-01	100	105	101	98	101
DKS53-53	109	105	124	94	108
DYNA-GRO					
772B	105	--	102	109	--
GX15371	116	--	106	118	--
GX16367	106	--	103	90	--
GX16523	78	105	--	102	--
GX16535	96	105	--	--	--
GX16833	121	--	106	101	--
GX16855	78	103	92	103	94
GX17818	97	--	107	125	--
M59GB57	--	82	70	--	--
M60GB31	114	101	110	110	109
M60GB88	--	95	--	--	--
M68GR41	87	98	--	--	--
M73GR55	107	--	110	111	--
M74GB17	108	--	106	98	--
GAYLAND WARD SEED					
EXP 8016	--	--	--	88	--
EXP 9050	--	--	--	91	--
EXP 9066	--	--	--	93	--
EXP 9100	--	--	--	73	--
EXP 9123	121	--	95	94	--
EXP 9127	107	--	83	81	--
EXP 9135	105	--	--	72	--
GW 15G901	--	--	--	81	--
GW 15G926	--	--	--	100	--
GW EXP 9092	--	--	99	72	--
GW EXP 9134	102	--	--	89	--
GW EXP 9138	113	--	--	91	--
GW EXP 9139	88	--	--	96	--
GW-1160	--	--	--	88	--
GOLDEN ACRES					
3960B	108	100	102	117	107
G3545	114	99	98	81	98

RNI=Reno Co., Hutchinson THI=Thomas Co., Colby GRI=Greeley Co., Tribune FNI=Finney Co., Garden City

Table 21 continued. Kansas IRRIGATED Grain Sorghum Hybrid Yield Summary (% of test avg.), 2017

BRAND/NAME	RNI	THI	GRI	FNI	AVG.
PHILLIPS					
PSF698	108	--	--	110	--
PSF746	111	--	--	129	--
PSF756	109	--	--	96	--
SCOTT SEED					
X50215	96	97	107	119	105
X5055	94	93	77	80	86
X50615	104	94	91	125	103
X54515	104	96	109	121	108
AVERAGES (bu/a)	129	164	136	113	136
CV (%)	12	8	7	9	--
LSD (0.05)	16	11	10	13	--

RNI=Reno Co., Hutchinson THI=Thomas Co., Colby GRI=Greeley Co., Tribune FNI=Finney Co., Garden City

Table 22. Entries in the 2017 Kansas Grain Sorghum Performance Tests

BRAND	GC	EC	PC	Mat.	Days	GB	SCA
AGVENTURE							
7R01	R	W	-	M	70	-	-
7R21	R	Y	-	M	72	-	-
ALTA							
ADV G1150	B	W	R	ME	63	-	-
AG1203	B	W	R	ME	63	-	R
AG1301	C	-	R	ME	63	-	R
AG2115	R	-	P	M	-	-	-
AG3201	B	-	P	ML	-	-	-
B-H GENETICS							
BH 3400	B	-	-	VE	-	-	-
BH 3616	B	-	-	E	-	-	-
BH 4100	B	-	-	M	-	-	-
BH 4433C	C	-	-	M	-	-	-
BH 5677	B	-	-	ML	-	-	-
BH 5737	B	-	-	ML	-	-	-
XPS 1713	B	-	-	ME	-	-	-
BLUE RIVER HYBRIDS							
59CT4	C	-	-	E	59	-	-
63C5	C	-	-	M	63	-	-
64YT5	Y	-	-	M	64	-	-
70C5	C	-	-	L	70	-	-
76WT4	W	-	-	L	76	-	-
CHECK							
EARLY	-	-	-	-	-	-	-
LATE	-	-	-	-	-	-	-
MED	-	-	-	-	-	-	-
CHROMATIN							
CHR0029	B	-	P	ML	72	-	R
CHR0072	B	-	P	M	66	-	R
CHR2042	B	-	P	ML	72	-	MR
DEKALB							
DKS28-05	B	HY	P	E	58	-	-
DKS37-07	B	HY	P	E	67	I	-
DKS38-16	B	HY	P	E	62	-	-
DKS45-23	B	HY	P	M	68	-	-
DKS51-01	B	HY	P	M	70	E,I	-
DKS53-53	B	HY	P	L	72	I	-
DYNA-GRO							
742C	C	HY	P	ME	63	C	R
772B	B	HY	T	M	68	C,E	-
GX15371	R	HY	T	ML	73	C,E	R
GX16367	R	HY	T	ML	71	C,E	-
GX16523	W	HY	P	ME	61	-	-
GX16535	B	HY	T	ME	63	-	-
GX16833	R	HY	T	ML	70	C,E	R
GX16855	R	HY	T	M	67	C,E	R
GX17818	R	HY	T	ML	72	C,E	R
M59GB57	B	HY	P	E	54	-	-
M60GB31	B	HY	T	ME	60	C,E	R
M60GB88	B	HY	T	ME	60	-	-
M68GR41	R	HY	P	M	68	-	-
M71GB01	B	HY	P	E	55	C	-
M73GR55	R	HY	T	ML	73	C,E	R
M74GB17	B	HY	T	ML	74	C,E	R
GAYLAND WARD SEED							
EXP 8016	B	-	P	M	66	-	-
EXP 9050	B	-	P	M	66	-	-
EXP 9066	R	-	P	E	63	-	-
EXP 9100	B	-	P	M	66	-	-
EXP 9123	B	-	P	M	66	-	-
EXP 9127	B	-	T	M	64	-	-
EXP 9135	-	-	-	-	-	-	-
GW 15G901	W	-	T	M	65	-	-
GW 15G926	W	-	T	M	66	-	-
GW EXP 9092	R	-	P	M	66	-	-
GW EXP 9134	-	-	-	-	-	-	-
GW EXP 9138	-	-	-	-	-	-	-
GW EXP 9139	B	-	P	ME	65	-	-
GW-1160	R	-	P	E	62	-	-
GOLDEN ACRES							
3960B	B	HY	P	M	68	C,E	R
5556	R	HY	P	E	62	C,E	-
G3545	B	HY	P	M	71	C,E	-
H-390W	W	W	P	E	62	C,E	R
X-2703	B	-	-	ME	62	-	R

Table 22 continued. Entries in the 2017 Kansas Grain Sorghum Performance Tests

BRAND	GC	EC	PC	Mat.	Days	GB	SCA
HEARTLAND GENETICS							
HG EX1750A	B	HY	P	ML	73	C,E	-
HG EX1751B	B	HY	P	ML	73	C,E	-
HG52-B	B	HY	P	ML	73	C,E	-
PHILLIPS							
PSF698	R	-	P	M	72	C,E	R
PSF746	B	-	-	M	74	C,I	R
PSF756	R	-	-	M	74	C, E	R
SCOTT SEED							
X50215	R	Y	P	ML	80	C,E	-
X5055	B	V	P	ME	65	-	-
X50615	R	Y	P	ML	80	C,E	-
X54515	R	Y	P	ML	80	C,E	-

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.

SCA = resistance to Sugarcane Aphids

A series of three K-State Sorghum Production Schools will be offered in early February 2018 to provide in-depth training targeted for sorghum producers and key stakeholders. The schools will be held at three locations around the state.

The one-day schools will cover a number of issues facing sorghum growers: weed control strategies; production practices; nutrient fertility; and insect and disease management.

The dates and locations of the K-State Sorghum Production Schools are:

- **February 6** – Dodge City - Boot Hill Casino Conference Ctr., 4100 W Comanche St
  Andrea Burns, Ford County, aburns@ksu.edu, 620-227-4542

- **February 7** – Hutchinson – Hutchinson Community College, 1300 N Plum St
  Darren Busick, Reno County, darrenbusick@ksu.edu, 620-662-2371

- **February 8** – Washington – FNB Washington 101 C Street, Box 215
  Tyler Husa, River Valley District, thusa@ksu.edu, 785-243-8185

Lunch will be provided courtesy of Kansas Grain Sorghum Commission. There is no cost to attend, but participants are asked to pre-register by January 31.

Online registration is available at: http://bit.ly/KSSORGHUMSchools

You can also pre-register by emailing or calling the nearest local K-State Research and Extension office for the location you plan to attend.

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To access crop performance testing information electronically, visit our website. The information contained in this publication, plus more, is available for viewing or downloading at:

www.agronomy.k-state.edu/services/crop-performance-tests/index.html

Excerpts from the University Research Policy Agreement with Cooperating Seed Companies

Permission is hereby given to Kansas State University (KSU) to test varieties and/or hybrids designated on the attached entry forms in the manner indicated in the test announcements. I certify that seed submitted for testing is a true sample of the seed being offered for sale.

I understand that all results from Kansas Crop Performance Tests belong to the University and the public and shall be controlled by the University so as to produce the greatest benefit to the public. Performance data may be used in the following ways: 1) Tables may be reproduced in their entirety provided the source is referenced and data are not manipulated or reinterpreted; 2) Advertising statements by an individual company about the performance of its entries may be made as long as they are accurate statements about the data as published, with no reference to other companies' names or cultivars. In both cases, the following must be included with the reprint or ad citing the appropriate publication number and title: "See the official Kansas State University Agricultural Experiment Station and Cooperative Extension Service Report of Progress 1138, '2017 Kansas Performance Tests with Grain Sorghum Hybrids,' or the Kansas Crop Performance Test website, *www.agronomy.k-state.edu/services/crop-performance-tests/index.html*, for details.

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