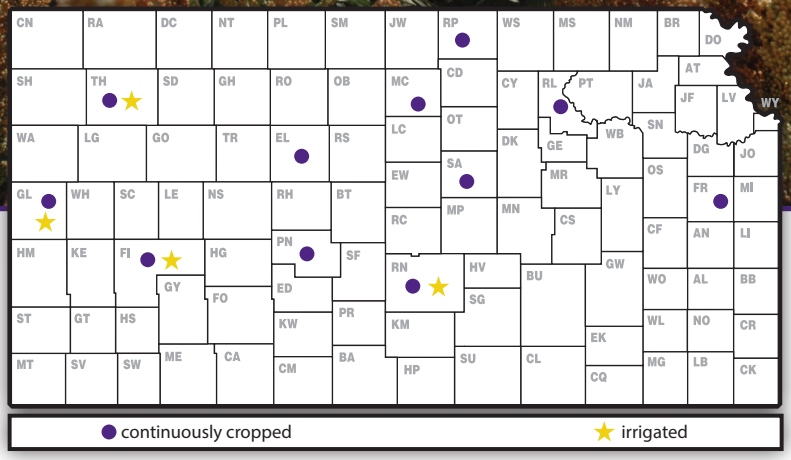
2023 Kansas Performance Tests with

Grain Sorghum Hybrids



Report of Progress 1182

K-STATE
Research and Extension

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

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Contribution no. 24-161-S from the Kansas Agricultural Experiment Station.

2023 GRAIN SORGHUM CROP REVIEW

Statewide Growing Conditions

Starting from the beginning of 2023, Kansas's drought condition has been persistent and there were no improvements at all for the last four months. Water supply shortage affected crop growth and yields as well as livestock conditions.

The average temperature for May was 65.8°F, 1.9°F above normal. This ranked as the 29th warmest May out of 129 years of records, dating back to 1895. Average precipitation for May was 3.58 inches, which was 0.63 inches below normal. This ranked as the 65th driest May on record. The three western climate regions all finished the month above normal. Northwest Kansas was the wettest division. When combined with April's precipitation, the growing season to date ranks in the top 20 driest in four regions: north-central, central, south-central, and southeast. Northwest and southwest Kansas were the only two regions above normal since April 1.

Rootzone moisture was very dry in the eastern regions in May, while the south-central and western regions were relatively wet due to rainfall in May. Subsoil moisture supplies rated 29% very short, 31% short, 39% adequate, and 1% surplus on May 28.

The average temperature for June was 73.2°F, 1.0°F below normal. The three eastern Kansas regions were above normal; all other regions were below normal. Average precipitation for June was 4.06 inches, which was 0.01 inches above normal. The three eastern climate regions and north-central had below normal precipitation while the remaining regions were above normal. South-central was the wettest division (6.21 inches) while east central was the driest (2.25 inches). Soil moisture supplies were rated as follows: 44% very short and short, 55% adequate, and 3% surplus.

The average temperature for July was 78.3°F, 0.7°F below normal. This ranked as the 56th coldest July out of 129 years of records, dating back to 1895. Seven of Kansas' nine climate regions were below normal; only east-central and southeast were above normal.

Average precipitation for June was 4.39 inches, 114% of normal. Southwest (6.09 inches) and south-central (6.01 inches) Kansas were the two wettest regions; their totals ranked as the 6th and 7th wettest Julys on record, respectively. North-central and central Kansas tied for driest division (3.14 inches). When combined with April, May, and June, the past 4-month period is the 5th wettest on record in southwest Kansas. Their total of 16.29 inches is 5.80 inches above normal.

In August, accumulated precipitation showed variations from very dry conditions in the northeast to very wet for the northwest of the state. For soil moisture, the central and west regions were under water-stressed conditions. The root zone moisture indicated drought conditions across the eastern portion of the state.

Impressive heat took hold of the region with absolutely no precipitation statewide (Figures 1 and 2). Like corn fields, dryland grain sorghum fields experienced significant heat stress. Despite many areas of the state seeing drought improvement over the last month, the duration of record-breaking heat exacerbated in-field moisture stress.

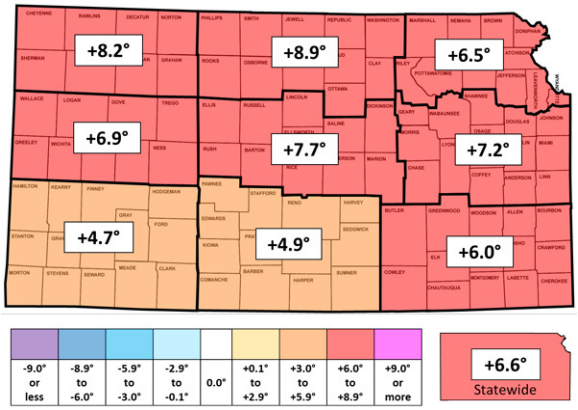


Figure 1. Temperature anomalies (°F) by division for the period August 18-24, 2023. All regions were above normal. Source: Kansas Weather Data Library.

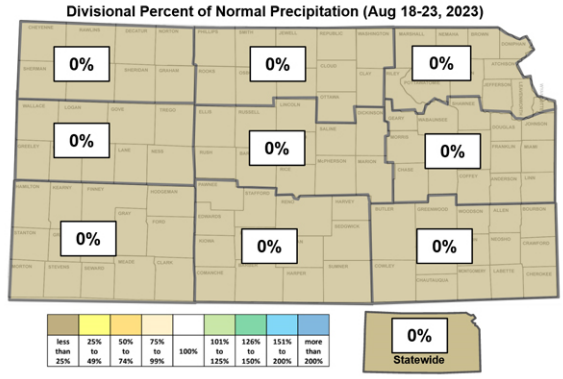


Figure 2. Percent of normal precipitation by division for the time period August 18-23, 2023. All regions recorded negligible precipitation. Source: Kansas Weather Data Library.

The 2023 grain sorghum season ended abruptly in many fields with freezing temperatures (28°) on October 7. There was a hard freeze October 29 through November 1, with temperatures dropping to 23°/16°/21°/22°, respectively, that did not allow fuller season hybrids to reach physiological maturity. (Matt Sittell, Kansas State University Assistant State Climatologist)

Diseases

The most important and prevalent diseases of 2023 were again stalk rots, depending on the growing location. Fusarium stalk rot would have given the lower nodes of the plant a tan discoloration; Gibberella stalk rot would have a reddish-brown or purple discoloration; and charcoal stalk rot had a grayish-brown discoloration. Fusarium and Gibberella stalk rot occur when there are dry conditions early in the season and warm, wet weather 2 to 3 weeks after pollination. Charcoal stalk rot occurs when soils are dry and temperatures are high; it is not caused by drought but the plants are weakened and more susceptible to charcoal stalk rot when there are drought conditions. Lodging caused by stalk rot was reported at most of the performance trial sites.

Insects

Sorghum producers had a tough year in 2023 and it started at germination with heat/drought and chinch bugs. Chinch bug populations seriously overpowered many fields early on that were planted even anywhere close to wheat, as the young sorghum plants struggled for moisture. Many of these chinch bug populations were unrelenting in their attack on the sorghum up until just before harvest. Many fields were plowed under early due to this combination of chinch bugs and heat/drought. Some fields were treated with focused sprays in an effort to protect young plants.

A few areas, mainly in southcentral Kansas, had "head worm" requiring treatment, but overall, these infestations seemed much less prevalent than in most years. Sugarcane (sorghum) aphids continued to migrate into the state but once again did not develop into populations significant enough to require treatments over large areas. (Jeff Whitworth, Kansas State University Department of Entomology)

2023 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 2023 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 14 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 1. Entrants in the 2023 Kansas Grain Sorghum Performance Tests

Corteva AgriSciences
Johnston, IA
800-233-7333
pioneer.com
*maturity checks

Center for Sorghum Improvement Program
Manhattan, KS
785-477-6018

Polansky Seed, Inc
Belleville, KS
785-527-2271
polanskyseed.com

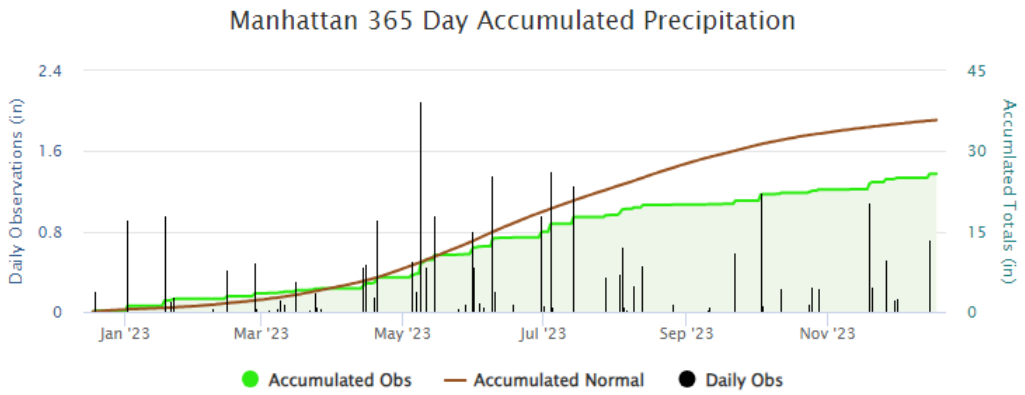
Croplan Genetics
Arden Hills, MN
855-494-6343
winfieldcustomercervice@landolakes.com

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

RAGT Semences
Winnipeg, Manitoba
Canada
+3-367-225-5830

Table 2. Manhattan, Kansas Dryland Grain Sorghum Performance Test, Riley County, 2023

Agronomy North Farm, Kansas State University, Manhattan
Planted: 5/24/2023
Harvested: 10/10/2023
180-0-0 lb/ac N, P, K
Herbicide: 3 qts/ac Lexar, 24 oz/ac glyphosate 53.8%

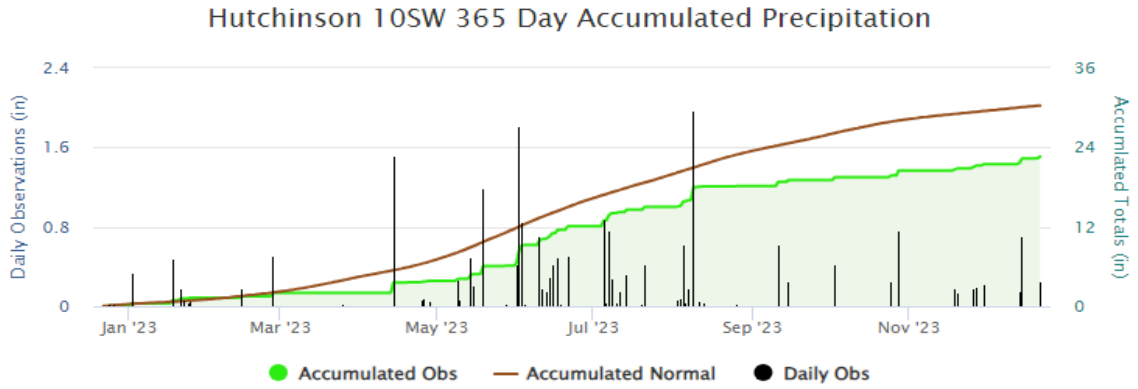


BRAND	NAME	YIELD (bu/a)	PAVG (%)	MOIST (%)	TW (lb/bu)
POLANSKY	5629	126.4	131.4	12.6	57.1
MATURITY CHECK	MED	124.5	129.3	13.4	59.7
PIONEER	84980	122.0	126.7	13.0	58.7
POLANSKY	X70B-A18	120.2	124.8	14.1	60.8
CROPLAN	CP 7011A	117.3	121.8	14.2	60.3
DYNA-GRO	M71GR91	110.0	114.3	14.1	60.6
CROPLAN	CP 6367IG	107.6	111.8	13.2	59.4
DYNA-GRO	M60GB31	105.6	109.7	13.9	60.2
PIONEER	86920	104.3	108.3	13.2	58.2
CROPLAN	CP 6811	104.3	108.3	12.9	59.0
POLANSKY	X68R-D7	104.0	108.1	13.4	58.1
CROPLAN	CP 6664IGA	104.0	108.0	14.4	60.5
POLANSKY	5719	103.2	107.3	14.5	60.8
DYNA-GRO	M67GB87	102.3	106.3	13.8	57.2
DYNA-GRO	M59GB94	101.3	105.3	13.1	59.8
DYNA-GRO	M63GB78	95.5	99.2	13.5	58.9
DYNA-GRO	M72GB71	92.3	95.9	14.0	60.3
MATURITY CHECK	EARLY	92.2	95.8	12.8	59.0
CROPLAN	CP 6011	90.0	93.5	13.3	59.7
DYNA-GRO	GX22923	84.8	88.1	13.5	59.9
CROPLAN	CP 6021A	84.7	88.0	12.0	57.3
CROPLAN	CP 6211A	84.1	87.4	14.1	60.1
MATURITY CHECK	LATE	80.8	84.0	12.0	59.0
CROPLAN	CP 5811A	78.1	81.2	13.3	57.9
CROPLAN	CP 5921A	74.1	77.0	12.5	58.2
RAGT	AC2104	69.6	72.4	13.6	57.0
RAGT	AC2103	61.8	64.2	13.3	59.3
DYNA-GRO	M54GR24	57.0	59.2	14.3	58.7
RAGT	AC2203	51.5	53.5	14.2	57.8
Average		96.3	100.0	13.4	58.8
CV (%)		6.3	6.3	0.7	1.0
LSD (0.05)		19.3	20.0	0.6	1.4

*Yields must differ by more than the LSD value to be considered statistically different.
different.

Table 3. Hutchinson, Kansas Dryland Grain Sorghum Performance Test, Reno County, 2023

Farmer's Field, 37.82324483, -98.11901913, Hutchinson
Planted: 6/13/2023
Harvested: 11/15/2023
Previous Crop: Cotton

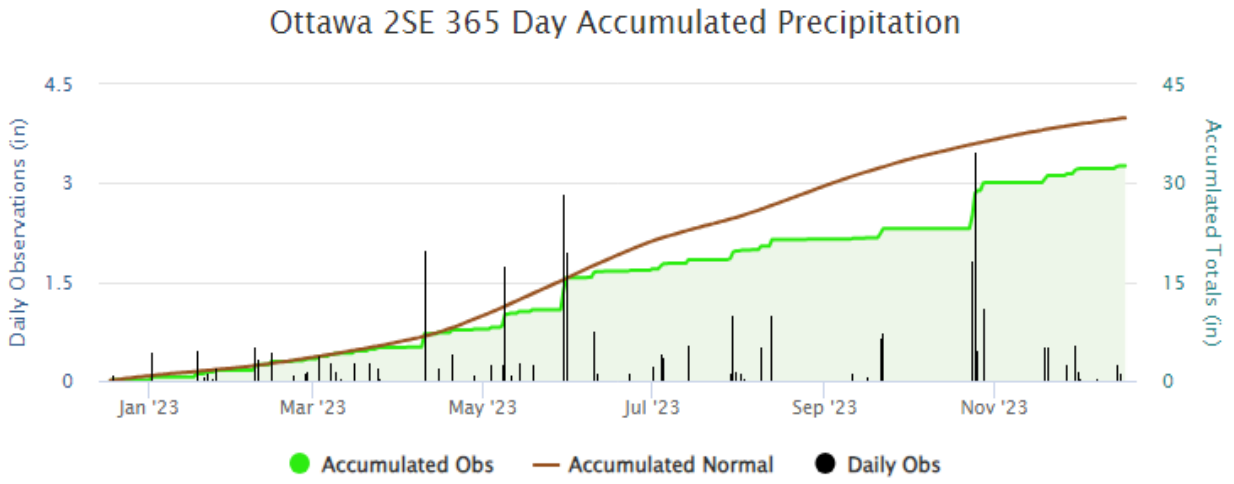


BRAND	NAME	YIELD (bu/a)	PAVG (%)	MOIST (%)	TW (lb/bu)	LODGE (%)
CROPLAN	CP 68XC3-23	162.6	136.1	14.2	59.3	
POLANSKY	5522	147.1	123.1	14.2	57.3	
CROPLAN	CP 64X1-23	146.0	122.2	15.4	56.8	35
CROPLAN	CP 66XI-22	144.3	120.8	14.7	58.7	75
CROPLAN	CP 7011A	140.4	117.5	17.0	56.3	
DYNA-GRO	M63GB78	135.6	113.5	15.7	55.4	40
DYNA-GRO	M71GR91	135.2	113.1	16.0	57.9	43
DYNA-GRO	GX22923	129.9	108.7	14.0	51.9	55
CROPLAN	CP 6811	128.4	107.4	14.8	57.6	73
RAGT	AC2103	128.0	107.1	13.8	55.2	
CROPLAN	CP 66X2C-23	127.9	107.0	13.5	52.1	45
CROPLAN	CP 6367IG	127.2	106.4	16.2	54.4	
MATURITY CHECK	EARLY	124.8	104.5	14.4	54.1	33
MATURITY CHECK	MED	123.9	103.7	14.0	58.1	45
POLANSKY	5629	123.1	103.0	14.5	51.4	
CROPLAN	CP 6011	121.9	102.0	15.8	54.1	70
POLANSKY	X68R-D7	118.8	99.5	15.4	55.1	
POLANSKY	5719	118.6	99.2	16.3	57.6	
DYNA-GRO	M72GB71	112.5	94.2	15.3	53.4	45
RAGT	AC2104	112.4	94.1	11.8	53.5	
DYNA-GRO	M67GB87	112.4	94.0	14.5	52.1	
CROPLAN	CP 61XI-22	111.2	93.0	13.0	54.8	47
CROPLAN	CP 6664IGA	110.8	92.7	14.0	51.4	50
DYNA-GRO	M60GB31	110.3	92.3	14.3	53.7	50
MATURITY CHECK	LATE	109.5	91.6	13.5	56.8	73
DYNA-GRO	M59GB94	109.1	91.3	14.5	54.7	63
CROPLAN	CP 67X1-23	108.8	91.0	14.7	56.9	45
CROPLAN	CP 6211A	107.6	90.1	14.3	54.2	86
CROPLAN	CP 6021A	104.1	87.1	14.1	53.5	45
RAGT	AC2203	101.5	85.0	14.6	55.7	
DYNA-GRO	M60GB88	101.3	84.8	14.3	54.1	
DYNA-GRO	M54GR24	91.8	76.8	15.0	55.6	50
CROPLAN	CP 5811A	89.3	74.7	14.6	53.4	63
CROPLAN	CP 5921A	86.4	72.3	13.5	55.7	70
	Average	119.5	100.0	14.6	55.1	55
	CV (%)	10.8	10.8	1.5	2.0	--
	LSD (0.05)	17.0	14.2	1.0	2.1	--

*Yields must differ by more than the LSD value to be considered statistically different.

Table 4. Ottawa, Kansas Dryland Grain Sorghum Performance Test, Franklin County, 2023

East Central Experiment Field, Kansas State University, Ottawa
Planted: 5/24/2023
Harvested: 11/15/2023
117-38-25-20 lb/ac N, P, K, S

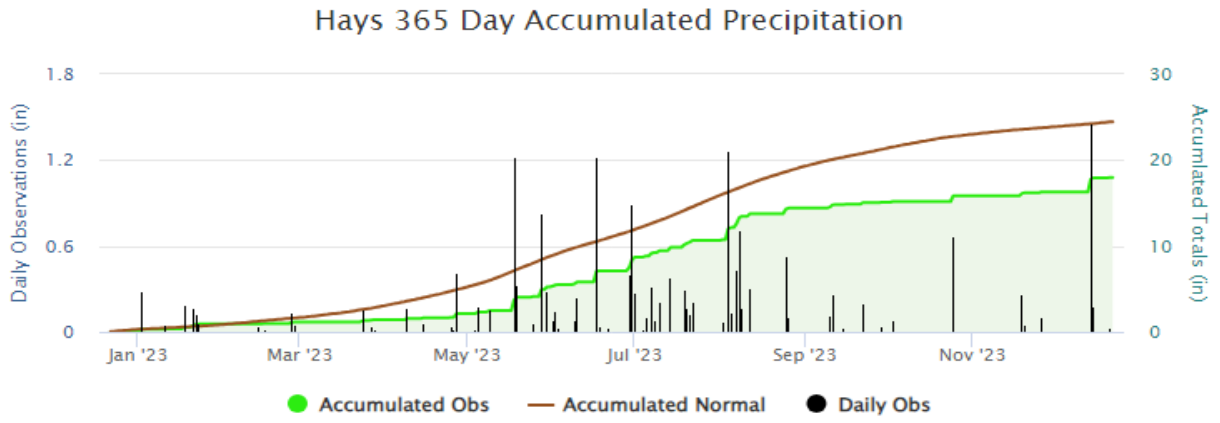


BRAND	NAME	YIELD (bu/a)	PAVG (%)	MOIST (%)	TW (lb/bu)
POLANSKY	5719	137.2	107.8	14.7	59.1
DYNA-GRO	M60GB88	135.3	106.3	14.0	57.9
DYNA-GRO	GX22936	134.7	105.8	13.9	58.7
POLANSKY	5522	132.3	103.9	13.9	58.4
DYNA-GRO	GX22932	131.8	103.6	14.5	59.1
DYNA-GRO	M72GB71	130.9	102.9	14.5	59.0
MATURITY CHECK	MED	128.7	101.1	14.0	58.2
DYNA-GRO	M71GR91	128.7	101.1	14.4	59.3
PIONEER	86920	128.1	100.7	13.9	57.9
MATURITY CHECK	EARLY	127.9	100.5	14.2	58.8
POLANSKY	5629	126.5	99.4	13.8	57.2
MATURITY CHECK	LATE	126.2	99.2	14.2	58.3
PIONEER	84980	125.5	98.6	14.1	58.8
DYNA-GRO	M60GB31	124.9	98.2	14.2	59.2
DYNA-GRO	GX22934	122.8	96.5	14.6	59.5
DYNA-GRO	M63GB78	122.7	96.4	13.9	58.0
DYNA-GRO	GX22937	121.3	95.4	14.2	58.4
DYNA-GRO	GX22923	121.2	95.2	13.7	55.8
DYNA-GRO	M67GB87	120.5	94.7	13.9	56.1
DYNA-GRO	M59GB94	117.7	92.5	13.8	57.7
	AVERAGE	127.2	100.0	14.1	58.3
	CV (%)	8.4	8.4	0.3	0.8
	LSD (0.05)	5.2	4.1	0.3	0.3

*Yields must differ by more than the LSD value to be considered statistically different.

Table 5. Hays, Kansas Dryland Grain Sorghum Performance Test, Ellis County, 2023

Kansas State University Agricultural Research Center, Hays
Plant: 5/28/2023
Harvest: 10/18/2023

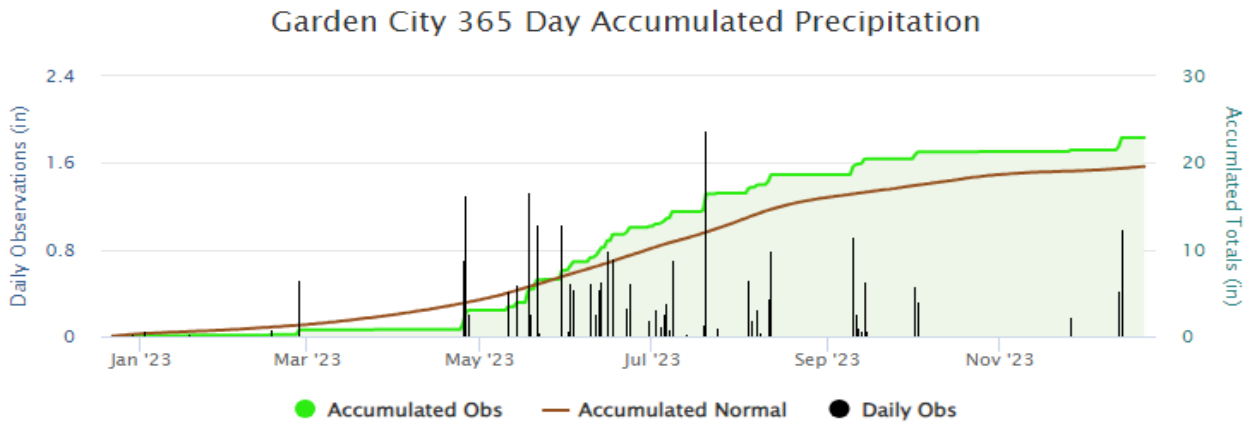


BRAND	NAME	YIELD (bu/a)	PAVG (%)	MOIST (%)	TW (lb/bu)
CROPLAN	CP 64X1-23	40.8	157.6	13.4	57.1
CROPLAN	CP 5921A	37.7	145.8	10.2	56.1
MATURITY CHECK	EARLY	36.0	139.2	11.9	54.5
POLANSKY	5512	34.1	131.9	11.1	55.4
CROPLAN	CP 6011	33.9	130.8	9.1	53.7
POLANSKY	5433	33.3	128.6	11.4	55.8
POLANSKY	5519	32.8	126.5	13.1	55.9
DYNA-GRO	GX22923	32.1	123.9	11.9	56.5
DYNA-GRO	M59GB57	28.2	109.1	10.5	55.1
DYNA-GRO	M60GB88	26.8	103.4	13.8	56.0
POLANSKY	5629	26.7	103.1	14.3	53.7
MATURITY CHECK	LATE	26.4	101.9	15.5	54.8
MATURITY CHECK	MED	26.2	101.1	10.5	53.2
DYNA-GRO	M60GB31	25.9	99.9	15.2	55.8
PIONEER	86920	25.7	99.4	10.7	53.7
CROPLAN	CP 61XI-22	25.4	98.3	13.0	51.9
DYNA-GRO	M67GB87	25.0	96.6	15.7	53.6
POLANSKY	X61R-A15	23.1	89.1	12.2	54.6
POLANSKY	5522	22.8	88.0	12.8	56.2
CROPLAN	CP 6367IG	22.7	87.7	13.7	51.7
DYNA-GRO	M63GB78	22.5	87.1	10.9	57.4
CROPLAN	CP 5811A	21.1	81.6	12.3	52.8
POLANSKY	X66R-D21	20.8	80.3	14.3	55.2
DYNA-GRO	M59GB94	19.2	74.2	11.8	56.2
CROPLAN	CP 6211A	18.3	70.6	15.3	54.2
CROPLAN	CP 6021A	17.9	69.3	9.9	53.0
DYNA-GRO	M54GR24	16.8	65.1	11.6	51.8
PIONEER	84980	15.3	59.1	14.9	55.7
	Average	25.9	100.0	12.5	54.7
	CV (%)	9.3	9.3	1.8	1.2
	LSD (0.05)	6.9	26.7	1.8	1.6

*Yields must differ by more than the LSD value to be considered statistically different.

Table 6. Garden City, Kansas Dryland Grain Sorghum Performance Test, Finney County, 2023

Southwest Research-Extension Center, Kansas State University, Garden City
Plant: 6/5/2023
Harvest: 12/7/2023

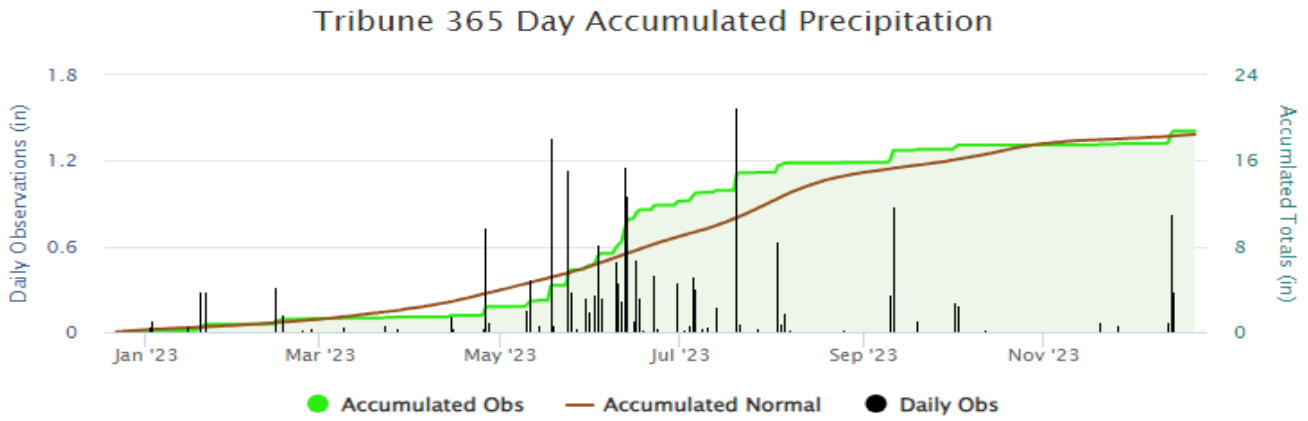


BRAND	NAME	YIELD (bu/a)	PAVG (%)	MOIST (%)	TW (lb/bu)
DYNA-GRO	M59GB94	57.2	146.9	11.6	49.9
DYNA-GRO	GX22923	56.0	143.9	12.9	51.1
POLANSKY	5522	52.1	133.8	12.2	52.1
POLANSKY	X61R-A15	50.6	129.9	11.8	50.0
DYNA-GRO	M67GB87	50.1	128.7	12.6	50.0
CROPLAN	CP 61XI-22	48.3	124.0	12.3	50.2
RAGT	AC2104	47.8	122.7	12.0	50.0
CROPLAN	CP 5921A	46.6	119.7	10.1	50.0
MATURITY CHECK	EARLY	46.1	118.3	11.3	50.8
DYNA-GRO	M60GB31	46.0	118.0	13.1	52.1
POLANSKY	5629	45.9	117.9	13.9	50.8
RAGT	AC2203	45.2	116.0	11.3	49.9
POLANSKY	5512	44.8	115.0	13.2	50.0
DYNA-GRO	M54GR24	42.3	108.7	7.4	51.5
CROPLAN	CP 6367IG	42.2	108.4	11.2	50.1
DYNA-GRO	M71GR91	42.0	107.8	11.1	50.0
DYNA-GRO	M72GB71	41.4	106.3	12.2	49.9
MATURITY CHECK	MED	39.6	101.7	12.1	50.0
POLANSKY	5519	37.1	95.3	13.4	50.0
CROPLAN	CP 6211A	35.1	90.0	10.6	50.0
CROPLAN	CP 64X1-23	33.6	86.4	11.3	50.0
CROPLAN	CP 6021A	25.9	66.5	10.7	50.0
RAGT	AC2103	23.5	60.2	8.0	50.0
CROPLAN	CP 5811A	23.2	59.7	10.6	50.2
DYNA-GRO	M60GB88	20.2	51.8	13.2	51.2
CROPLAN	CP 6011	18.5	47.4	10.1	50.0
MATURITY CHECK	LATE	13.4	34.4	11.1	50.0
	Average	38.9	100.0	11.4	50.3
	CV (%)	8.8	8.8	--	--
	LSD (0.05)	12.3	31.7	--	--

*Yields must differ by more than the LSD value to be considered statistically different.

Table 7. Tribune, Kansas Dryland Grain Sorghum Performance Test, Greeley County, 2023

Southwest Research-Extension Center, Kansas State University, Tribune
Plant: 6/20/2023
Harvest: 11/7/2023

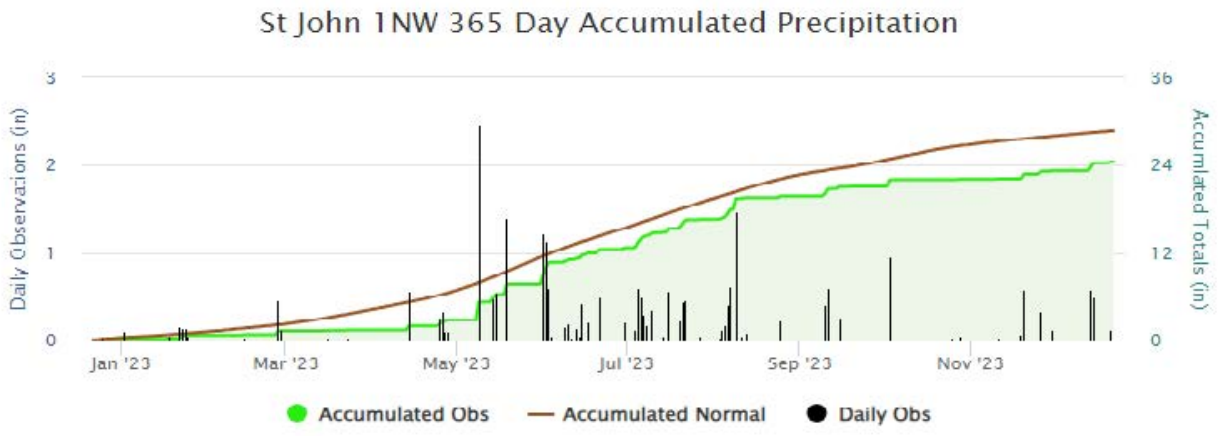


BRAND	NAME	YIELD (bu/a)	PAVG (%)	MOIST (%)	TW (lb/bu)	DAYS (1/2 bloom)	HT (in)	LODGE (%)	PLANTS per acre
POLANSKY	5629	117.9	127.8	12.2	58.2	26-Aug-23	50.5	10	46555
POLANSKY	5522	112.7	122.1	12.1	58.1	30-Aug-23	48.3	0	38932
MATURITY CHECK	MED	109.1	118.2	12.2	57.7	31-Aug-23	47.5	0	28260
DYNA-GRO	GX22923	102.6	111.2	12.3	58.8	23-Aug-23	48.3	25	44159
POLANSKY	5719	101.8	110.4	12.2	59.2	30-Aug-23	48.3	10	40892
CROPLAN	CP 6211A	97.4	105.5	12.5	60.0	25-Aug-23	50.5	26	33922
MATURITY CHECK	LATE	94.5	102.5	12.0	56.9	01-Sep-23	48.0	5	32126
CROPLAN	CP 6011	92.8	100.5	12.3	60.2	21-Aug-23	44.5	53	33922
DYNA-GRO	M59GB94	92.1	99.9	12.4	59.8	25-Aug-23	48.0	28	37462
CROPLAN	CP 5811A	86.5	93.7	12.1	58.2	20-Aug-23	46.8	0	29621
DYNA-GRO	M60GB31	84.7	91.8	12.1	58.7	30-Aug-23	48.0	33	42308
DYNA-GRO	M59GB57	83.6	90.6	12.1	58.8	20-Aug-23	41.5	25	40402
DYNA-GRO	M60GB88	81.2	88.0	12.0	58.3	25-Aug-23	47.8	49	43397
MATURITY CHECK	EARLY	77.1	83.6	12.3	60.1	23-Aug-23	46.0	34	35719
DYNA-GRO	M54GR24	73.6	79.7	12.1	58.4	23-Aug-23	45.5	67	37516
CROPLAN	CP 5921A	68.6	74.4	12.3	58.5	26-Aug-23	38.3	29	35883
	Average	92.3	100.0	12.2	58.7	25-Aug-23	46.7	25	37567
	CV (%)	7.6	7.6	0.1	0.7	--	--	--	--
	LSD (0.05)	13.7	14.9	0.1	0.9	--	--	--	--

*Yields must differ by more than the LSD value to be considered statistically different.

Table 8. Larned, Kansas Dryland Grain Sorghum Performance Test, Pawnee County, 2023

Farmer's Field, 38.204385, -99.225223, Larned
Plant: 6/14/2023
Harvest: 10/17/2023

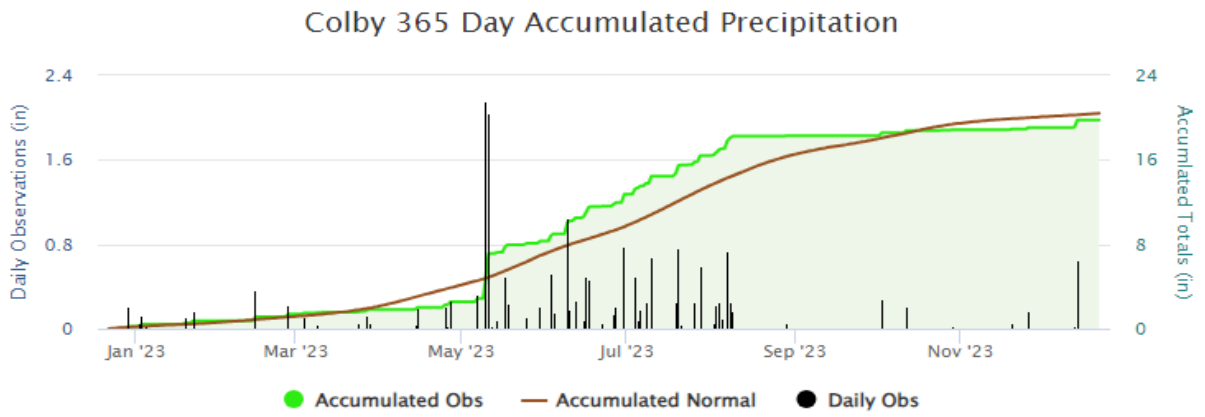


BRAND	NAME	YIELD (bu/a)	PAVG (%)	MOIST (%)	TW (lb/bu)
MATURITY CHECK	EARLY	177.7	119.6	14.4	59.8
POLANSKY	5629	176.3	118.6	14.2	58.4
POLANSKY	5719	176.0	118.4	14.5	58.1
DYNA-GRO	M63GB78	171.0	115.1	14.2	57.7
DYNA-GRO	M59GB94	169.0	113.8	13.9	56.7
MATURITY CHECK	MED	167.1	112.5	14.3	57.1
MATURITY CHECK	LATE	160.4	107.9	14.0	57.2
DYNA-GRO	M72GB71	159.3	107.2	14.7	59.4
DYNA-GRO	M60GB88	159.0	107.0	14.2	59.7
POLANSKY	5522	153.1	103.0	14.4	58.3
DYNA-GRO	M71GR91	150.8	101.5	14.6	62.1
DYNA-GRO	M60GB31	130.2	87.6	14.1	55.7
DYNA-GRO	M67GB87	123.3	83.0	14.8	55.9
DYNA-GRO	GX22923	107.8	72.6	13.9	57.3
DYNA-GRO	M54GR24	85.8	57.7	13.7	58.0
	Average	148.6	100.0	14.2	57.7
	CV (%)	9.7	9.7	0.4	1.1
	LSD (0.05)	27.3	18.4	0.3	1.9

*Yields must differ by more than the LSD value to be considered statistically different.

Table 9. Colby, Kansas Dryland Grain Sorghum Performance Test, Thomas County, 2023

Farmer's Field, 39.20470802, -100.8243812, Colby
Plant: 6/22/2023
Harvest: 11/15/2023
Previous crop: Corn

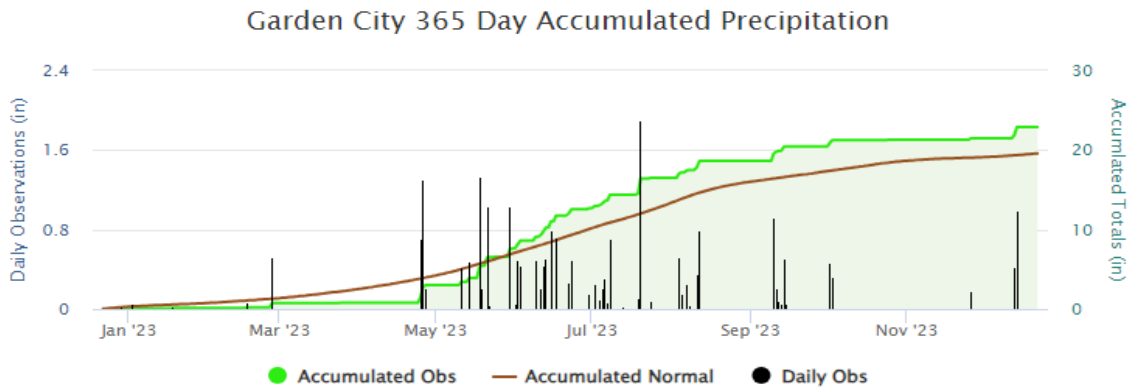


BRAND	NAME	YIELD (bu/a)	PAVG (%)	MOIST (%)	TW (lb/bu)	LODGE (%)
RAGT	AC2103	179.4	131.0	15.1	55.1	30
DYNA-GRO	GX22923	174.7	127.6	13.6	54.0	30
CROPLAN	CP 6011	159.1	116.1	12.8	58.8	20
CROPLAN	CP 61XI-22	158.9	116.0	13.8	57.9	10
POLANSKY	X61R-A15	157.2	114.8	13.2	60.1	0
POLANSKY	X61C-A23	154.2	112.6	12.6	55.1	10
DYNA-GRO	M59GB94	152.9	111.7	12.0	54.8	10
CROPLAN	CP 6211A	150.4	109.8	12.7	60.2	18
RAGT	AC2104	147.3	107.6	13.3	54.3	65
DYNA-GRO	M54GR24	146.2	106.8	11.8	58.9	15
DYNA-GRO	M63GB78	144.8	105.7	13.3	55.3	10
CROPLAN	CP 5921A	140.7	102.7	12.1	55.4	0
POLANSKY	5512	140.6	102.7	11.5	56.0	0
POLANSKY	5522	140.5	102.6	11.6	54.3	0
RAGT	AC2203	139.9	102.2	14.0	60.6	73
DYNA-GRO	M59GB57	138.6	101.2	12.3	55.0	0
POLANSKY	5519	137.3	100.3	12.1	58.9	40
DYNA-GRO	M71GR91	135.3	98.8	13.0	55.7	0
CROPLAN	CP 6021A	134.8	98.4	11.7	56.6	0
POLANSKY	5433	131.8	96.2	12.1	55.6	0
CROPLAN	CP 5811A	129.3	94.4	11.5	58.6	0
CROPLAN	CP 64X1-23	125.4	91.6	12.5	50.6	0
MATURITY CHECK	LATE	122.8	89.7	12.7	56.9	10
MATURITY CHECK	EARLY	118.9	86.8	12.9	54.4	0
DYNA-GRO	M67GB87	108.7	79.4	11.2	53.0	0
CROPLAN	CP 6367IG	105.5	77.0	11.4	56.0	0
MATURITY CHECK	MED	105.0	76.7	12.6	50.2	0
DYNA-GRO	M60GB31	104.9	76.6	11.8	55.9	0
DYNA-GRO	M72GB71	85.9	62.7	12.6	51.8	0
	AVERAGE	136.9	100.0	12.5	55.9	12
	CV (%)	12.6	12.6	1.4	2.1	--
	LSD (0.05)	21.0	15.4	0.9	2.6	--

*Yields must differ by more than the LSD value to be considered statistically different.

Table 10. Garden City, Kansas Irrigated Grain Sorghum Performance Test, Finney County, 2023

Southwest Research-Extension Center, Kansas State University, Garden City
Plant: 6/5/2023
Harvest: 12/5/2023

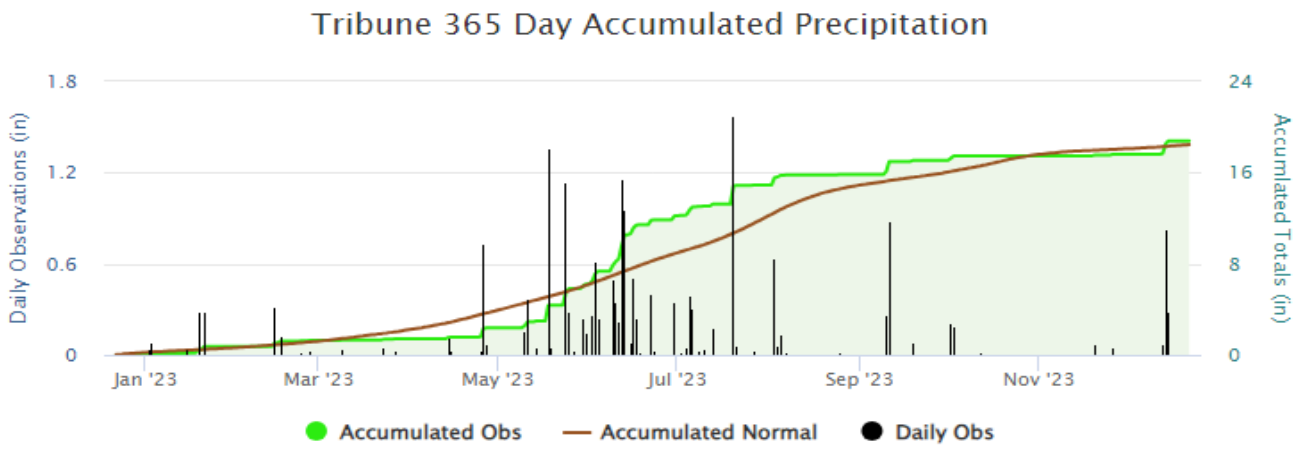


BRAND	NAME	YIELD (bu/a))	PAVG (%)	MOIST (%)	TW (lb/bu)
DYNA-GRO	GX22932	119.3	153.1	14.1	57.1
CROPLAN	CP 66X2C-23	117.0	150.1	13.9	51.6
CROPLAN	CP 64X1-23	111.0	142.5	15.3	53.8
DYNA-GRO	GX22936	109.7	140.7	15.4	55.3
CROPLAN	CP 67X1-23	104.8	134.6	16.0	57.1
DYNA-GRO	GX22923	104.0	133.5	12.7	50.1
DYNA-GRO	GX22937	102.7	131.8	17.4	56.6
DYNA-GRO	M67GB87	102.4	131.4	14.9	52.4
DYNA-GRO	M60GB31	99.4	127.5	16.5	55.1
DYNA-GRO	GX22934	98.9	126.9	17.6	57.1
CROPLAN	CP 6211A	98.4	126.3	13.7	52.1
RAGT	AC2203	98.1	125.9	16.5	56.7
RAGT	AC2103	95.3	122.3	16.2	55.9
PIONEER	86920	93.7	120.3	16.6	52.7
CROPLAN	CP 7011A	91.1	117.0	18.0	55.5
CROPLAN	CP 61XI-22	89.8	115.3	14.3	51.7
RAGT	AC2104	87.9	112.8	15.4	54.6
DYNA-GRO	M72GB71	85.0	109.1	16.3	53.4
DYNA-GRO	M71GR91	83.9	107.6	15.4	55.3
CROPLAN	CP 5811A	80.9	103.8	13.6	53.2
MATURITY CHECK	MED	77.9	100.0	16.5	53.0
DYNA-GRO	M59GB94	77.0	98.8	14.2	51.6
CROPLAN	CP 66XI-22	72.4	92.9	11.3	50.1
DYNA-GRO	M63GB78	72.3	92.8	15.5	52.4
CROPLAN	CP 5921A	68.2	87.5	13.6	52.4
CROPLAN	CP 6664IGA	60.8	78.1	11.3	50.0
CROPLAN	CP 6021A	60.0	77.0	11.9	50.2
CROPLAN	CP 68XC3-23	58.9	75.6	13.6	51.0
CROPLAN	CP 6011	48.3	62.0	13.4	51.3
CROPLAN	CP 6367IG	40.9	52.5	11.3	50.0
DYNA-GRO	M54GR24	33.4	42.9	11.5	50.0
CROPLAN	CP 6811	31.3	40.2	9.7	50.0
MATURITY CHECK	EARLY	26.2	33.6	11.0	50.2
PIONEER	84980	16.0	20.5	8.1	52.6
MATURITY CHECK	LATE	10.2	13.1	9.0	50.0
	Average	77.9	100.0	14.0	52.9
	CV (%)	10.3	10.3	1.4	--
	LSD (0.05)	29.0	37.2	2.5	--

*Yields must differ by more than the LSD value to be considered statistically different.

Table 11. Tribune, Kansas Irrigated Grain Sorghum Performance Test, Greeley County, 2023

Southwest Research-Extension Center, Kansas State University, Tribune
Plant: 6/21/2023
Harvest: 11/6/2023
**Iron chlorosis was prevalent due to unseasonably cool summer temperatures and increased precipitation.

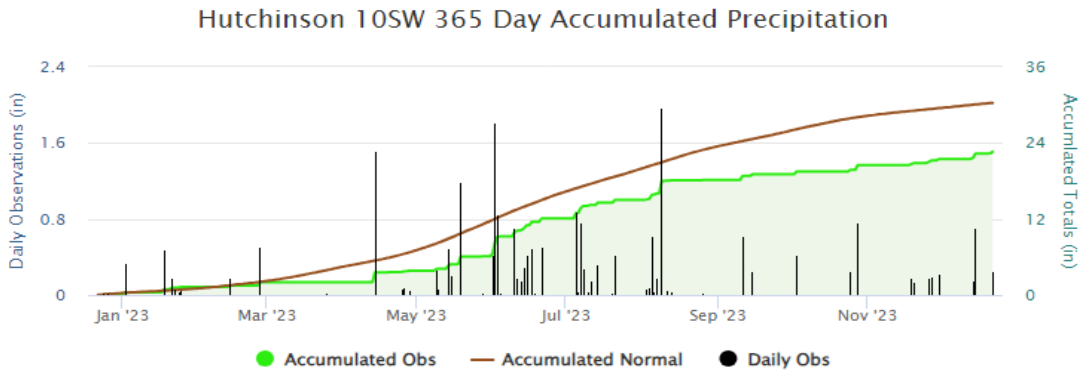


BRAND	NAME	YIELD (bu/a)	PAVG (%)	MOIST (%)	TW (lb/bu)	DATE (1/2 bloom)	PHT (in)	CHLOROSIS** (%)	POP (ppa)
POLANSKY	5719	61.0	134.9	11.3	50.0	9/15/2023	51.3	50	57099
DYNA-GRO	M60GB88	52.2	115.6	12.3	51.0	8/31/2023	46.0	50	56981
DYNA-GRO	GX22923	50.5	111.6	12.2	50.0	9/5/2023	45.5	100	62456
POLANSKY	5522	50.2	111.2	12.8	50.0	9/9/2023	49.0	50	54803
DYNA-GRO	M54GR24	48.8	107.9	12.6	53.3	8/26/2023	43.3		59336
POLANSKY	5629	48.5	107.4	12.6	50.0	9/10/2023	49.0	50	60219
DYNA-GRO	M72GB71	48.0	106.1	12.5	50.0	9/14/2023	54.5	75	60513
DYNA-GRO	M67GB87	46.5	102.8	12.2	50.0	9/16/2023	49.0	100	51566
DYNA-GRO	M71GR91	46.2	102.2	13.5	57.0	9/17/2023	55.5		59336
DYNA-GRO	M60GB31	46.2	102.2	12.4	50.7	9/10/2023	46.5	67	62102
MATURITY CHECK	EARLY	45.1	99.8	11.7	50.0	8/27/2023	42.5		63751
DYNA-GRO	M59GB94	43.4	96.1	11.8	50.0	9/6/2023	48.0	100	53920
DYNA-GRO	M59GB57	39.3	86.9	12.1	50.0	8/29/2023	33.3		54038
MATURITY CHECK	LATE	35.6	78.7	12.2	50.5	9/15/2023	47.8	75	58512
MATURITY CHECK	MED	34.1	75.5	11.6	50.0	9/7/2023	48.5		55039
DYNA-GRO	M63GB78	27.6	61.1	13.0	50.0	9/8/2023	51.3		54215
	Average	45.2	100.0	12.3	50.8	9/8/2023	47.5	72	57743
	CV (%)	7.7	7.7	0.9					
	LSD (0.05)	7.7	9.0	0.5					

*Yields must differ by more than the LSD value to be considered statistically different.

Table 12. Hutchinson, Kansas Irrigated Grain Sorghum Performance Test, Reno County, 2023

Farmer's Field, 37.8335556946535, -98.0814759161307, Hutchinson
Planted: 6/30/2023
Harvested: 11/15/2023
Previous Crop: Wheat



BRAND	NAME	YIELD (bu/a)	PAVG (%)	MOIST (%)	TW (lb/bu)
CROPLAN	CP 66XI-22	191.2	122.1	15.5	62.9
CROPLAN	CP 68XC3-23	184.2	117.7	15.5	63.2
DYNA-GRO	M67GB87	182.9	116.9	15.1	57.6
DYNA-GRO	GX22937	179.0	114.4	15.5	60.6
PIONEER	84980	177.4	113.3	15.7	60.1
DYNA-GRO	GX22934	174.5	111.4	16.2	62.1
CROPLAN	CP 66X2C-23	173.2	110.6	14.6	56.6
DYNA-GRO	M71GR91	170.7	109.0	15.5	60.8
MATURITY CHECK	MED	167.4	106.9	15.4	61.0
CROPLAN	CP 67X1-23	165.7	105.8	15.7	61.2
CROPLAN	CP 64X1-23	164.2	104.9	15.6	60.1
DYNA-GRO	GX22936	161.9	103.4	15.9	60.7
DYNA-GRO	GX22932	160.3	102.4	16.0	60.1
DYNA-GRO	GX22923	159.8	102.0	14.9	57.4
CROPLAN	CP 6367IG	159.2	101.7	16.1	58.9
CROPLAN	CP 7011A	157.9	100.9	15.9	62.6
RAGT	AC2203	157.7	100.7	15.4	61.4
MATURITY CHECK	LATE	157.2	100.4	14.9	61.4
DYNA-GRO	M59GB94	156.6	100.0	15.0	58.0
MATURITY CHECK	EARLY	156.2	99.7	15.5	59.0
CROPLAN	CP 61XI-22	150.9	96.4	14.7	58.9
CROPLAN	CP 6664IGA	149.8	95.7	14.9	58.9
CROPLAN	CP 6211A	149.5	95.5	15.2	60.5
DYNA-GRO	M72GB71	149.1	95.3	15.5	57.4
PIONEER	86920	148.1	94.6	15.0	60.8
CROPLAN	CP 6011	147.6	94.3	15.2	61.5
CROPLAN	CP 6811	147.2	94.0	15.3	61.3
DYNA-GRO	M60GB31	143.2	91.5	15.5	59.0
CROPLAN	CP 5811A	141.6	90.5	15.1	59.2
DYNA-GRO	M54GR24	139.4	89.0	15.3	61.6
DYNA-GRO	M63GB78	139.3	89.0	15.5	56.6
RAGT	AC2103	138.0	88.2	15.4	61.4
RAGT	AC2104	137.9	88.1	15.1	60.7
CROPLAN	CP 6021A	128.1	81.8	14.8	58.1
CROPLAN	CP 5921A	112.5	71.9	15.0	60.2
	AVERAGE	156.6	100.0	15.3	60.0
	CV (%)	11.1	11.1	0.4	1.3
	LSD (0.05)	16.5	10.6	0.4	1.7

*Yields must differ by more than the LSD value to be considered statistically different.

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

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