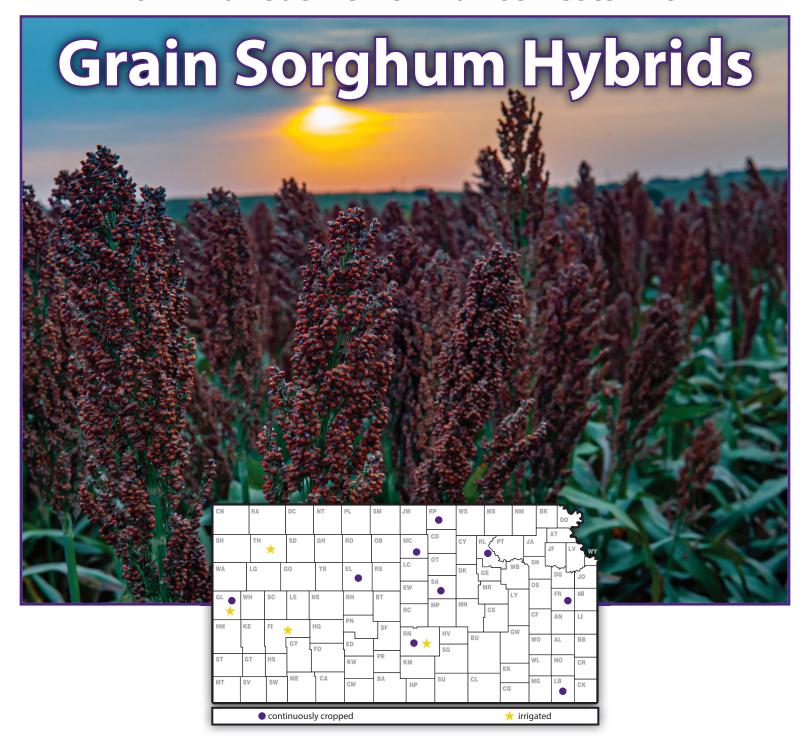
# 2022 Kansas Performance Tests with



**Report of Progress 1175** 



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### 2022 GRAIN SORGHUM CROP REVIEW

# **Statewide Growing Conditions**

The meteorological summer of 2022 began on June 1 and ended on August 31. Between those two dates, Kansans endured a dry, hot summer. As a result, drought conditions deteriorated (Figure 1) to the worst we have seen in nearly a decade.

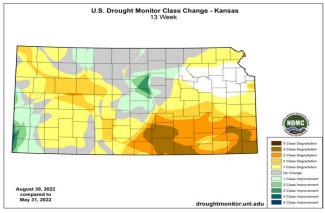


Figure 1. Change in drought status in Kansas during meteorological summer 2022. Source: National Drought Mitigation Center.

Entering the summer of 2022, the conditions were near the climatological median. However, it quickly deviated towards drier-than-normal as the dry periods began to add up. At the end of August, Kansas was running near the 10th percentile in yearly-accumulated precipitation. Kansas should average about 22 inches of rain statewide; this year, Kansas observed a little over 17.5 inches. As a result, the condition of grain sorghum progressively decreased through the summer. Only 3% was considered in "Excellent" condition and 27% considered "Very Poor" according to USDA NASS data. The degradation of conditions matches very well with the trend downward in accumulated precipitation (Figure 2).

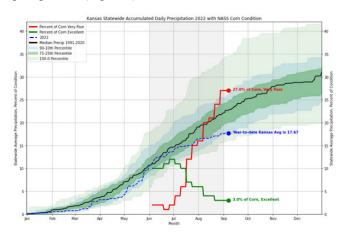


Figure 2. Accumulated statewide precipitation plotted with previous and current corn crop condition from USDA NASS.

The nine Kansas climate divisions have climate data as far back as 1895. Table 1 shows how 2022 ranks against the previous 127 prior years of data. Each climate division ranked within the top 50 on both the lists of warmest and driest summers on record. Many areas ranked much higher, as both northwest and west central Kansas finished in the top 10 on both lists. Northeast Kansas was the only division not to rank in the top quarter of warmest summers; ranking as 33rd warmest out of 128 years. Southwest and south central Kansas both finished as 10th warmest, and southeast and central both finished in the top 20. Statewide, summer 2022 ranks as the 18th warmest on record.

For precipitation, only east central finished outside the top third of driest summers, but its rank of 46th is still well inside the top half of driest summers, despite averaging less than an inch below normal. All other regions averaged from 1.5 to 3.8 inches below normal for summer. Statewide, summer 2022 ranks as the 20th driest on record. (Matthew Sittel, Assistant State Climatologist; Christopher "Chip" Redmond, Kansas Mesonet Manager, Kansas State University)

Table 1. Statewide and climate division averages, departures from normal, and rankings for meteorological summer 2022 (June-July-August, abbreviated JJA here.

		Temperature (rank-warmest season/months)					
Div.	Region	2022 Average	Departure	JJA	June	July	August
#		(°F)	(°F)	Rank	Rank	Rank	Rank
1	Northwest	77.4	+3.2	6	20	14	20
2	North Central	77.7	+1.4	29	32	65	36
3	Northeast	76.8	+0.6	33	28	70	43
4	West Central	78.1	+2.8	10	32	15	24
5	Central	79.4	+1.8	18	34	38	24
6	East Central	78.3	+1.6	21	27	36	37
7	Southwest	79.4	+2.7	10	33	11	30
8	South Central	80.9	+1.9	10	37	19	25
9	Southeast	80.2	+2.4	14	30	13	23
S	tatewide	78.6	+2.1	18	29	25	31

#### **Diseases**

Hot, dry weather with soil temperatures in the range of 90°F or more were ideal for the development of charcoal rot. Drought does not cause the problem, but it weakens the plants' defenses. Charcoal rot is usually less severe if drought stress is not a factor.

While it is difficult to separate the effects of charcoal rot from simple drought stress, a good rule of thumb is that plants infected with charcoal rot will die about two weeks earlier from dry weather than plants that do not have charcoal rot. Grain fill that would have occurred during this period was the amount of yield loss that can be attributed to charcoal rot.

Fusarium root and stalk rot is generally found in the same areas where charcoal rot develops. The pith of Fusarium stalk rot infected plants will have a shredded appearance and is typically tan in color, but in some hybrids, the pith in the lower stalk may be pink to red in color. Plants may die prematurely or lodge.

Fusarium stalk rot is favored by wet conditions early in the season, when denitrification or nitrogen loss from leaching occurs. Research has shown that mid-season dry weather may predispose plants to later season problems. Later in the season, following pollination, warm (82 to 86°F), wet weather can leach remaining nutrients from the soil, resulting in late-season nitrogen stress and an increase in stalk rot.

The drought monitor index map for Kansas provides clues as to where stalk rot problems occurred (Figure 3). In the areas of the state under drought stress, charcoal rot may have been more common. In other parts of the state where there were alternating wet and dry periods throughout the growing season, Fusarium stalk rot may have been more common.

September 13, 2022

d Thursday, Sep. 15, 2022) Valid 8 a.m. EDT

U.S. Drought Monitor

Kansas

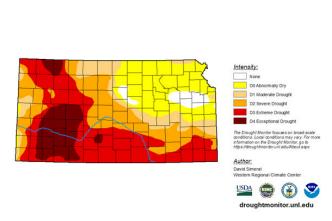


Figure 3. U.S. Drought Monitor Index map for Kansas for September 13, 2022. https://droughtmonitor.unl.edu/

#### Insects

Sorghum had a few problems with chinch bugs, "head worms", and there were scattered reports of sugarcane (sorghum) aphids. Chinch bugs were quite common and caused some late season lodging due to their feeding, which was acerbated by the hot, dry conditions of the 2022 growing season.

"Head worm" problems were much more localized then in most past years. Timing is most critical for "head worms" as they attack the heads for about 2 weeks-between flowering and soft dough.

Sugarcane (sorghum) aphids continued to migrate into Kansas well into October, but, like the past 4 years, failed to develop into significant colonies. Few infestations that required insecticide applications were noted. (Jeff Whitworth, Kansas State University Department of Entomology)

### **2022 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 2022 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 8 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 2022 Kansas Grain Sorghum Performance Tests

Advanta Seeds Amarillo, TX 806-340-2031 advantaseeds.com	Clemson University Florence, SC 843-519-0488	Dyna-Gro Seed Ralls, TX 806-781-6910 nutrien.com	RAGT Semences Winnipeg, Manitoba Canada +1-431-451-9541
Beck's Hybrids	Corteva AgriSciences Johnston, IA 800-233-7333 pioneer.com *maturity checks	Polansky Seed, Inc	Winfield Solutions-Croplan
Atlanta, IN		Belleville, KS	Arden Hills, MN
800-937-2325		785-527-2271	855-494-6343
beckshybrids.com		polanskyseed.com	WinfieldCustomerService@landolakes.com

Table 3. Manhattan, Kansas Dryland Grain Sorghum Performance Test, Riley County, 2022

Agronomy North Farm, Kansas State University, Manhattan

Planted: 6/14/2022

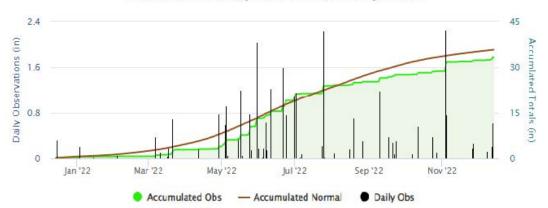
Fertilizer: 192-40-0 lb/a N, P, K

Herbicide: 5.4 oz/ac Explorer, 80 oz/ac Warrant, 32 oz/ac Atrazine 4L, 32 oz/ac Buccaneer Plus on 6/10/22;

6 oz/ac Huskie and 8 oz/ac Atrazine 4L on 7/17/22.

Harvested: 10/21/22

# Manhattan 365 Day Accumulated Precipitation



BRAND	NAME	YIELD	PAVG	MOIST	TW
		(bu/a)	(%)	(%)	(lb/bu)
BECKS	FULL	144.0	136.7	13.4	58.9
POLANSKY	X70B-A18	136.8	129.8	14.7	60.8
POLANSKY	5629	136.6	129.6	14.0	58.4
POLANSKY	5719	126.6	120.2	14.9	60.9
DYNA-GRO	M71GR91	120.8	114.6	15.1	60.7
POLANSKY	X69R-A17	119.4	113.3	15.1	60.8
DYNA-GRO	M60GB31	118.5	112.5	14.4	60.2
BECKS	MED	114.6	108.8	13.5	60.9
DYNA-GRO	M67GB87	111.6	106.0	14.0	59.4
BECKS	EARLY	111.0	105.3	13.0	61.3
DYNA-GRO	M72GB71	107.7	102.2	17.1	58.4
RAGT	AC2104	106.4	101.0	12.4	61.0
MATURITY CHECK	MED	105.9	100.5	13.5	59.9
MATURITY CHECK	EARLY	96.9	92.0	12.5	60.5
CLEMSON	CU19S427	96.5	91.6	12.9	60.3
DYNA-GRO	M57GC29	95.0	90.2	12.9	59.7
DYNA-GRO	M63GB78	88.7	84.2	13.6	60.2
DYNA-GRO	M59GB94	88.2	83.7	14.6	59.8
RAGT	AC2103	84.4	80.1	12.7	60.9
DYNA-GRO	M54GR24	81.9	77.7	11.7	59.9
MATURITY CHECK	LATE	81.0	76.9	13.0	60.0
CLEMSON	CU16S159	76.6	72.7	15.6	58.8
RAGT	AC2203	74.1	70.3	13.3	60.5
	AVERAGE	105.4	100.0	13.8	60.1
	CV (%)	7.1	7.1	0.6	0.5
	LSD (0.05)	19.7	18.7	1.2	0.8

<sup>\*</sup>Yields must differ by more than the LSD value to be considered statistically different.

Table 4. Belleville, Kansas Grain Sorghum Performance Test, Republic County, 2022

North Central Experiment Field, Kansas State University, Belleville

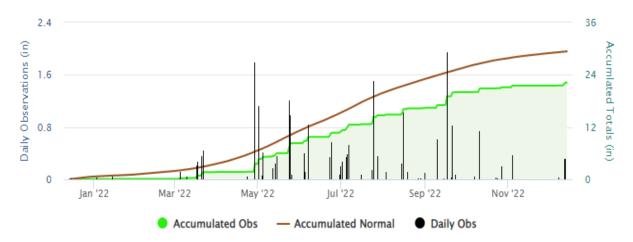
Planted: 6/28/2022 at 63,600 seeds/acre

Fertilizer: 108-0-0 lb/ac N, P, K

Herbicide: 2 oz/ac Sharpen, 1.5 qt/ac Makaze, 1 qt/ac Atrazine 4L, 1.6 pt/a Dual II Magnum, MSO on 6/8/22.

Harvest: 11/3/2022 Previous Crop: Soybeans

Belleville 2W 365 Day Accumulated Precipitation



BRAND	NAME	YIELD	PAVG	TW
		(bu/a)	(%)	(lb/bu)
BECKS	FULL	108.1	136.1	54.6
DYNA-GRO	M67GB87	97.4	122.7	55.1
ADVANTA	ADV G2165	93.8	118.2	57.3
DYNA-GRO	M59GB94	91.4	115.2	54.8
BECKS	EARLY	90.4	113.9	57.6
DYNA-GRO	M60GB31	85.6	107.8	55.6
MATURITY CHECK	MED	84.7	106.7	56.3
ADVANTA	ADV G1153	83.8	105.6	56.0
MATURITY CHECK	EARLY	81.1	102.2	58.0
DYNA-GRO	M63GB78	77.9	98.1	55.0
ADVANTA	ADV G1120IG	76.3	96.1	54.9
BECKS	MED	75.2	94.7	55.3
DYNA-GRO	M54GR24	73.1	92.1	55.8
MATURITY CHECK	LATE	72.3	91.1	54.9
RAGT	AC2104	70.2	88.4	56.5
RAGT	AC2103	67.4	84.9	55.8
DYNA-GRO	M57GC29	66.5	83.8	55.0
ADVANTA	ADV XG272	65.7	82.8	55.3
RAGT	AC2203	63.7	80.3	55.6
ADVANTA	ADV G2168IG	63.0	79.4	55.5
	AVERAGE	79.4	100.0	55.7
	CV (%)	11.2	11.2	0.7
	LSD (0.05)	12.1	15.2	0.9

<sup>\*</sup>Yields must differ by more than the LSD value to be considered statistically different.

Table 5. NORTHEAST Kansas Grain Sorghum Hybrid Yield Summary (% of test average), 2022

BRAND/NAME	RLD	RPD	MTD	AVG.
ADVANTA	ILD	NF D	IVIID	AVG.
ADV G1120IG		96		96
ADV G11201G ADV G1153		106		106
ADV G1133 ADV G2165		118		118
ADV G2168IG		79		79
ADV XG272		83		83
BECKS				
EARLY	105	114		114
FULL	137	136		136
MED	109	95		95
CLEMSON	103			
CU16S159	73			73
CU19S427	92			92
DYNA-GRO				
M54GR24	78	92		92
M57GC29	90	84		84
M59GB94	84	115		115
M60GB31	113	108		108
M63GB78	84	98		98
M67GB87	106	123		123
M71GR91	115			115
M72GB71	102			102
MATURITY CHECK				
EARLY	92	102		102
LATE	77	91		91
MED	101	107		107
POLANSKY				
5629	130			130
5719	120			120
X69R-A17	113			113
X70B-A18	130			130
RAGT				
AC2103	80	85		85
AC2104	101	88		88
AC2203	70	80		80
AVERAGE (bu/a)	105	79		92
CV (%)	7	11		
LSD (0.05)	19	15		

RLD = Riley Co., Manhattan

RPD = Republic Co., Belleville

MTD = Mitchell Co., Beloit. Abandoned.

Table 6. Ottawa, Kansas Dryland Grain Sorghum Performance Test, Franklin County, 2022

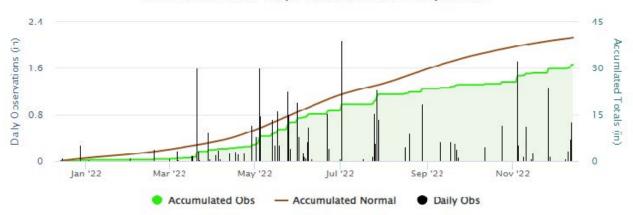
East Central Experiment Field, Kansas State University, Ottawa

Planted: 5/12/2022

Fertilitizer: 120-49-31-10 lb/ac N,P,K,S on 4/14/22.

Harvest: 10/27/2022

Ottawa 2SE 365 Day Accumulated Precipitation



BRAND	NAME	YIELD	PAVG	MOIST	TW	DAYS
		(bu/a)	(%)	(%)	(lb/bu)	(1/2 bloom)
DYNA-GRO	GX21965	134.6	123.1	15.9	60.7	77
DYNA-GRO	M72GB71	129.5	118.4	15.6	61.3	77
DYNA-GRO	M60GB31	127.6	116.6	15.3	60.9	75
DEKALB	DKS36-07	125.0	114.3	15.5	60.5	73
MATURITY CHECK	MED	122.5	112.0	15.7	61.5	72
DYNA-GRO	GX22934	120.9	110.5	15.8	59.4	77
DYNA-GRO	M60GB88	120.1	109.9	14.9	59.8	71
DEKALB	DKS38-16	118.6	108.5	15.6	62.5	75
DYNA-GRO	GX22932	118.5	108.3	15.5	61.8	76
DYNA-GRO	M71GR91	117.6	107.5	15.6	61.9	78
BECKS	FULL	112.0	102.4	15.1	56.1	74
POLANSKY	5629	107.7	98.5	14.9	57.7	74
DYNA-GRO	M67GB87	106.8	97.6	15.0	58.3	74
BECKS	MED	101.8	93.1	15.3	58.6	73
ADVANTA	ADV G1153	99.9	91.3	16.5	59.6	77
MATURITY CHECK	EARLY	96.3	88.0	14.9	59.1	70
DYNA-GRO	M63GB78	94.7	86.6	15.1	59.6	73
MATURITY CHECK	LATE	80.5	73.6	14.5	58.2	70
BECKS	EARLY	77.8	71.1	14.3	57.5	70
DYNA-GRO	M59GB94	74.9	68.5	15.0	57.9	71
	Average	109.4	100.0	15.3	59.6	74
	CV (%)	6.3	6.3	0.3	1.1	1
	LSD (0.05)	17.1	15.6	0.5	1.7	3

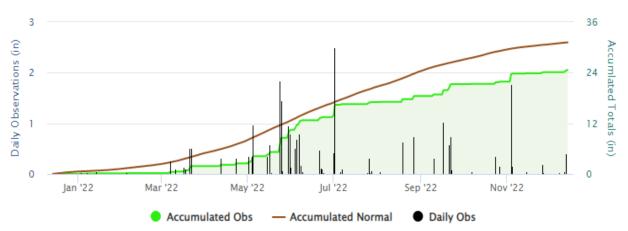
<sup>\*</sup>Yields must differ by more than the LSD value to be considered statistically different.

Table 7. Assaria, Kansas Grain Sorghum Performance Test, Saline County, 2022

Farmer's Field, 38.67267502, -97.60305025, Assaria

Planted: 6/17/2022 Tillage: Conventional Harvest: 11/21/2022 Previous Crop: Corn

Gypsum 365 Day Accumulated Precipitation



BRAND	NAME	YIELD	PAVG	MOIST	TW
		(bu/a)	(%)	(%)	(lb/bu)
MATURITY CHECK	LATE	93.8	144.1	15.2	54.7
BECKS	MED	89.2	137.1	14.1	52.8
DYNA-GRO	M59GB94	85.3	131.1	13.5	56.6
DYNA-GRO	M63GB78	74.3	114.3	14.8	50.0
DYNA-GRO	M72GB71	73.2	112.4	16.4	53.1
ADVANTA	ADV G1153	72.5	111.4	13.3	50.0
DYNA-GRO	M71GR91	69.4	106.7	15.4	53.4
DYNA-GRO	M60GB88	66.6	102.3	12.8	52.0
MATURITY CHECK	MED	63.9	98.2	15.7	53.5
ADVANTA	ADV XG272	63.6	97.8	16.5	52.5
BECKS	FULL	63.6	97.8	14.3	50.0
DYNA-GRO	M67GB87	63.2	97.1	14.6	50.3
DYNA-GRO	M57GC29	62.8	96.5	13.7	55.1
DYNA-GRO	M60GB31	62.2	95.6	13.5	52.4
BECKS	EARLY	61.0	93.7	15.6	55.8
MATURITY CHECK	EARLY	57.2	87.9	15.6	53.2
DYNA-GRO	M54GR24	45.9	70.6	16.6	52.9
ADVANTA	ADV G1120IG	42.7	65.6	15.2	54.8
ADVANTA	ADV G2168IG	25.8	39.7	16.4	50.0
	AVERAGE	65.1	100.0	14.9	52.8
	CV (%)	10.0	10.0	1.1	1.0
	LSD (0.05)	15.5	23.8	1.2	4.0

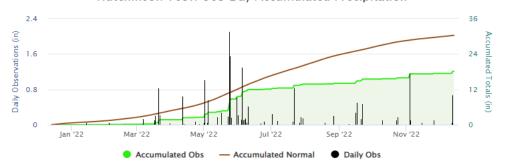
<sup>\*</sup>Yields must differ by more than the LSD value to be considered statistically different.

Table 8. Hutchinson, Kansas Irrigated Grain Sorghum Performance Test, Reno County, 2022

Farmer's Field, 37.97434267, -97.91303995, Hutchinson

Planted: 6/25/2022 Tillage: No-till Irrigation: Pivot Harvest: 11/12/2022 Previous Crop: Sorghum

### Hutchinson 10SW 365 Day Accumulated Precipitation



CROPLAN	BRAND	NAME	YIELD	PAVG	MOIST	TW	LODGE
MATURITY CHECK         MED         165.5         133.4         12.3         61.4         90           DYNA-GRO         M60GB31         150.6         121.4         11.8         66.3         75           ADVANTA         ADV G3144         147.4         118.8         12.3         56.3         50           CLEMSON         CU16S159         144.5         116.5         12.6         56.9         77           CROPLAN         CP 5811A         144.5         116.3         12.6         62.5         0           DYNA-GRO         GX22932         144.3         116.3         12.6         62.5         0           BECKS         EARLY         141.3         113.8         11.8         59.2         25           CROPLAN         CP 64XI-22         138.6         111.7         11.8         59.6         72           DYNA-GRO         M71GR91         135.3         109.0         12.0         60.7         0           CROPLAN         CP 6021A         135.0         108.8         12.6         59.8         0           CROPLAN         CP 61XI-22         134.5         108.4         12.9         60.1         0           DYNA-GRO         M53G878			(bu/a)	(%)	(%)	(lb/bu)	(%)
DYNA-GRO         M60GB31         150.6         121.4         11.8         66.3         75           ADVANTA         ADV G3144         147.4         118.8         12.3         56.3         50           CLEMSON         CU16S159         144.5         116.5         12.6         56.9         77           CROPLAN         CP 5811A         144.5         116.4         11.9         58.3         40           DYNA-GRO         GX22932         144.3         113.8         11.8         59.2         25           CROPLAN         CP 64XI-22         138.6         111.7         11.8         59.6         72           DYNA-GRO         M71GR91         135.3         109.0         12.0         60.7         0           CROPLAN         CP 6021A         135.3         109.0         12.0         60.7         0           CROPLAN         CP 601XI-22         134.5         108.4         12.9         60.1         0           CROPLAN         CP 601XI-22         134.5         108.4         12.9         60.1         0           DYNA-GRO         M52GS94         134.0         108.0         12.0         58.5         0           CROPLAN         CP 7011A	CROPLAN	CP 60XI-22	177.0	142.6	12.0	59.5	50
ADVANTA	MATURITY CHECK	MED	165.5	133.4	12.3	61.4	90
CLEMSON         CU16S159         144.5         116.5         12.6         56.9         77           CROPLAN         CP S811A         144.5         116.4         11.9         58.3         40           DYNA-GRO         GX22932         144.3         116.3         12.6         62.5         0           BECKS         EARLY         141.3         113.8         11.8         59.2         25           CROPLAN         CP 6021A         135.0         108.8         12.6         59.8         0           CROPLAN         CP 6021A         135.0         108.8         12.6         59.8         0           CROPLAN         CP 6021A         135.0         108.8         12.6         59.8         0           CROPLAN         CP 6012A         135.0         108.8         12.6         59.8         0           CROPLAN         CP 6011A         134.5         108.4         12.9         60.1         0           DYNA-GRO         GX22934         134.5         108.4         12.9         60.1         0           CROPLAN         CP 7011A         128.9         103.9         12.5         59.2         40           DYNA-GRO         M63GB78         128.	DYNA-GRO	M60GB31	150.6	121.4	11.8	66.3	75
CROPLAN         CP 5811A         144.5         116.4         11.9         58.3         40           DYNA-GRO         GX22932         144.3         116.3         12.6         62.5         0           BECKS         EARLY         141.3         113.8         11.8         59.2         25           CROPLAN         CP 64XI-22         138.6         111.7         11.8         59.6         72           DYNA-GRO         M71GR91         135.3         109.0         12.0         60.7         0           CROPLAN         CP 61XI-22         134.5         108.4         12.9         60.1         0           CROPLAN         CP 61XI-22         134.5         108.4         12.9         60.1         0           DYNA-GRO         GX22934         134.0         108.0         12.0         58.5         0           RACT         AC2103         133.3         107.4         12.4         61.8         0           CROPLAN         CP 7011A         128.9         103.9         12.5         59.2         40           DYNA-GRO         M63GB78         128.8         103.8         12.2         58.4         90           ADVANTA         ADV 62116BIG <t< td=""><td>ADVANTA</td><td>ADV G3144</td><td>147.4</td><td>118.8</td><td>12.3</td><td>56.3</td><td>50</td></t<>	ADVANTA	ADV G3144	147.4	118.8	12.3	56.3	50
DYNA-GRO         GX22932         144.3         116.3         12.6         62.5         0           BECKS         EARLY         141.3         113.8         11.8         59.2         25           CROPLAN         CP 64XI-22         138.6         111.7         11.8         59.6         72           DYNA-GRO         M71GR91         135.3         109.0         12.0         60.7         0           CROPLAN         CP 60ZIA         135.0         108.8         12.6         59.8         0           CROPLAN         CP 60ZIA         134.0         108.0         12.0         58.5         0           CROPLAN         CP 61XI-22         134.5         108.4         12.9         60.1         0           PYNA-GRO         GX22934         134.0         108.0         12.0         58.5         0           RAGT         AC2103         133.3         107.4         12.4         61.8         0           CROPLAN         CP 7011A         128.8         103.8         12.2         58.4         90           ADVANTA         ADV G2168IG         126.6         102.0         13.0         59.7         80           CROPLAN         CP 6011         125	CLEMSON	CU16S159	144.5	116.5	12.6	56.9	77
BECKS         EARLY         141.3         113.8         11.8         59.2         25           CROPLAN         CP 64XI-22         138.6         111.7         11.8         59.6         72           DYNA-GRO         M71GR91         135.3         109.0         12.0         60.7         0           CROPLAN         CP 6021A         135.0         108.8         12.6         59.8         0           CROPLAN         CP 6021A         135.0         108.8         12.6         59.8         0           CROPLAN         CP 6021A         135.0         108.8         12.6         59.8         0           CROPLAN         CP 6011         133.3         107.4         12.4         61.8         0           CROPLAN         CP 7011A         128.9         103.9         12.5         59.2         40           DYNA-GRO         M636878         128.8         103.8         12.2         58.4         90           ADVANTA         ADV 62168IG         126.6         102.0         13.0         59.7         80           CROPLAN         CP 6011         125.6         101.2         12.5         59.8         0           CROPLAN         CP 637IG	CROPLAN	CP 5811A	144.5	116.4	11.9	58.3	40
CROPLAN         CP 64XI-22         138.6         111.7         11.8         59.6         72           DYNA-GRO         M71GR91         135.3         109.0         12.0         60.7         0           CROPLAN         CP 6021A         135.0         108.8         12.6         59.8         0           CROPLAN         CP 61XI-22         134.5         108.4         12.9         60.1         0           DYNA-GRO         GX22934         134.0         108.0         12.0         58.5         0           RAGT         AC2103         133.3         107.4         12.4         61.8         0           CROPLAN         CP 7011A         128.8         103.9         12.5         59.2         40           DYNA-GRO         M63G878         128.8         103.8         12.2         58.4         90           ADVANTA         ADV G2168IG         126.6         102.0         13.0         59.7         80           CROPLAN         CP 6011         125.6         101.2         12.5         59.8         0           CROPLAN         CP 6011         123.9         99.9         12.4         57.2         80           CROPLAN         CP 6211A <td< td=""><td>DYNA-GRO</td><td>GX22932</td><td>144.3</td><td>116.3</td><td>12.6</td><td>62.5</td><td>0</td></td<>	DYNA-GRO	GX22932	144.3	116.3	12.6	62.5	0
DYNA-GRO	BECKS	EARLY	141.3	113.8	11.8	59.2	25
CROPLAN         CP 6021A         135.0         108.8         12.6         59.8         0           CROPLAN         CP 61XI-22         134.5         108.4         12.9         60.1         0           DYNA-GRO         GX22934         134.0         108.0         12.0         58.5         0           RAGT         AC2103         133.3         107.4         12.4         61.8         0           CROPLAN         CP 7011A         128.9         103.9         12.5         59.2         40           DYNA-GRO         M63GB78         128.8         103.8         12.2         58.4         90           ADVANTA         ADV 62168IG         126.6         102.0         13.0         59.7         80           CROPLAN         CP 6011         125.6         101.2         12.5         59.8         0           BECKS         FULL         123.9         99.9         12.4         57.2         80           CROPLAN         CP 6211A         123.0         99.1         11.9         59.1         90           MATURITY CHECK         LATE         122.6         98.8         11.6         60.4         0           CROPLAN         CP 6811         119.5<	CROPLAN	CP 64XI-22	138.6	111.7	11.8	59.6	72
CROPLAN         CP 61XI-22         134.5         108.4         12.9         60.1         0           DYNA-GRO         GX22934         134.0         108.0         12.0         58.5         0           RAGT         AC2103         133.3         107.4         12.4         61.8         0           CROPLAN         CP 7011A         128.9         103.9         12.5         59.2         40           DYNA-GRO         M63GB78         128.8         103.8         12.2         58.4         90           ADVANTA         ADV G2168IG         126.6         102.0         13.0         59.7         80           CROPLAN         CP 6011         125.6         101.2         12.5         59.8         0           BECKS         FULL         123.9         99.9         12.4         57.2         80           CROPLAN         CP 6011         125.6         101.2         12.5         59.8         0           MATURITY CHECK         LATE         122.6         98.8         11.6         60.4         0           CROPLAN         CP 6367IG         121.5         97.9         13.0         58.7         0           CROPLAN         CP 6367IG         121.0	DYNA-GRO	M71GR91	135.3	109.0	12.0	60.7	0
DYNA-GRO         GX22934         134.0         108.0         12.0         58.5         0           RAGT         AC2103         133.3         107.4         12.4         61.8         0           CROPLAN         CP 7011A         128.9         103.9         12.5         59.2         40           DYNA-GRO         M63GB78         128.8         103.8         12.2         58.4         90           ADVANTA         ADV G2168IG         126.6         102.0         13.0         59.7         80           CROPLAN         CP 6011         125.6         101.2         12.5         59.8         0           BECKS         FULL         123.9         99.9         12.4         57.2         80           CROPLAN         CP 6211A         123.0         99.1         11.9         59.1         90           MATURITY CHECK         LATE         122.6         98.8         11.6         60.4         0           CROPLAN         CP 6367IG         121.5         97.9         13.0         58.7         0           BECKS         MED         121.0         97.5         12.5         58.5         0           CROPLAN         CP 6811         119.5	CROPLAN	CP 6021A	135.0	108.8	12.6	59.8	0
RAGT         AC2103         133.3         107.4         12.4         61.8         0           CROPLAN         CP 7011A         128.9         103.9         12.5         59.2         40           DYNA-GRO         M63GB78         128.8         103.8         12.2         58.4         90           ADVANTA         ADV 62168IG         126.6         100.2         13.0         59.7         80           CROPLAN         CP 6011         125.6         101.2         12.5         59.8         0           BECKS         FULL         123.9         99.9         12.4         57.2         80           CROPLAN         CP 6211A         123.0         99.1         11.9         59.1         90           MATURITY CHECK         LATE         122.6         98.8         11.6         60.4         0           CROPLAN         CP 6367IG         121.5         97.9         13.0         58.7         0           CROPLAN         CP 6811         119.5         96.3         12.5         59.4         0           CROPLAN         CP 6641GA         117.4         94.6         12.2         59.3         0           CROPLAN         CP 6641GA         117.4 <td>CROPLAN</td> <td>CP 61XI-22</td> <td>134.5</td> <td>108.4</td> <td>12.9</td> <td>60.1</td> <td>0</td>	CROPLAN	CP 61XI-22	134.5	108.4	12.9	60.1	0
CROPLAN         CP 7011A         128.9         103.9         12.5         59.2         40           DYNA-GRO         M63GB78         128.8         103.8         12.2         58.4         90           ADVANTA         ADV G2168IG         126.6         102.0         13.0         59.7         80           CROPLAN         CP 6011         125.6         101.2         12.5         59.8         0           BECKS         FULL         123.9         99.9         12.4         57.2         80           CROPLAN         CP 6211A         123.0         99.1         11.9         59.1         90           MATURITY CHECK         LATE         122.6         98.8         11.6         60.4         0           CROPLAN         CP 6367IG         121.5         97.9         13.0         58.7         0           BECKS         MED         121.0         97.5         12.5         58.5         0           CROPLAN         CP 6811         119.5         96.3         12.5         59.4         0           CROPLAN         CP 664IGA         117.4         94.6         12.2         59.3         0           CROPLAN         CP 6664IGA         117.4	DYNA-GRO	GX22934	134.0	108.0	12.0	58.5	0
DYNA-GRO         M63GB78         128.8         103.8         12.2         58.4         90           ADVANTA         ADV G2168IG         126.6         102.0         13.0         59.7         80           CROPLAN         CP 6011         125.6         101.2         12.5         59.8         0           BECKS         FULL         123.9         99.9         12.4         57.2         80           CROPLAN         CP 6211A         123.0         99.1         11.9         59.1         90           MATURITY CHECK         LATE         122.6         98.8         11.6         60.4         0           CROPLAN         CP 6367IG         121.5         97.9         13.0         58.7         0           BECKS         MED         121.0         97.5         12.5         58.5         0           CROPLAN         CP 6811         119.5         96.3         12.5         59.4         0           CROPLAN         CP 6811         119.5         96.3         12.5         59.4         0           CROPLAN         CP 664IGA         117.4         94.6         12.2         59.3         0           RAGT         AC2104         115.8         <	RAGT	AC2103	133.3	107.4	12.4	61.8	0
ADVANTA         ADV G2168IG         126.6         102.0         13.0         59.7         80           CROPLAN         CP 6011         125.6         101.2         12.5         59.8         0           BECKS         FULL         123.9         99.9         12.4         57.2         80           CROPLAN         CP 6211A         123.0         99.1         11.9         59.1         90           MATURITY CHECK         LATE         122.6         98.8         11.6         60.4         0           CROPLAN         CP 6367IG         121.5         97.9         13.0         58.7         0           BECKS         MED         121.0         97.5         12.5         58.5         0           CROPLAN         CP 6811         119.5         96.3         12.5         59.4         0           CROPLAN         CP 5921A         118.8         95.7         12.1         60.7         0           CROPLAN         CP 6664IGA         117.4         94.6         12.2         59.3         0           CROPLAN         CP 6664IGA         117.4         94.6         12.2         59.3         0           RAGT         AC2104         115.8	CROPLAN	CP 7011A	128.9	103.9	12.5	59.2	40
CROPLAN         CP 6011         125.6         101.2         12.5         59.8         0           BECKS         FULL         123.9         99.9         12.4         57.2         80           CROPLAN         CP 6211A         123.0         99.1         11.9         59.1         90           MATURITY CHECK         LATE         122.6         98.8         11.6         60.4         0           CROPLAN         CP 6367IG         121.5         97.9         13.0         58.7         0           BECKS         MED         121.0         97.5         12.5         58.5         0           CROPLAN         CP 6811         119.5         96.3         12.5         59.4         0           CROPLAN         CP 6811         119.5         96.3         12.5         59.4         0           CROPLAN         CP 6921A         118.8         95.7         12.1         60.7         0           CROPLAN         CP 664IGA         117.4         94.6         12.2         59.3         0           CROPLAN         CP 6664IGA         117.4         94.6         12.2         59.3         0           DYNA-GRO         M576B71         115.8         <	DYNA-GRO	M63GB78	128.8	103.8	12.2	58.4	90
BECKS         FULL         123.9         99.9         12.4         57.2         80           CROPLAN         CP 6211A         123.0         99.1         11.9         59.1         90           MATURITY CHECK         LATE         122.6         98.8         11.6         60.4         0           CROPLAN         CP 6367IG         121.5         97.9         13.0         58.7         0           BECKS         MED         121.0         97.5         12.5         58.5         0           CROPLAN         CP 6811         119.5         96.3         12.5         59.4         0           CROPLAN         CP 5921A         118.8         95.7         12.1         60.7         0           CROPLAN         CP 6664IGA         117.4         94.6         12.2         59.3         0           CROPLAN         CP 6664IGA         117.4         94.6         12.2         59.3         0           CROPLAN         CP 6664IGA         117.4         94.6         12.2         59.3         0           RAGT         AC2104         115.8         93.3         12.2         59.0         0           DYNA-GRO         M72GB71         115.8 <t< td=""><td>ADVANTA</td><td>ADV G2168IG</td><td>126.6</td><td>102.0</td><td>13.0</td><td>59.7</td><td>80</td></t<>	ADVANTA	ADV G2168IG	126.6	102.0	13.0	59.7	80
CROPLAN         CP 6211A         123.0         99.1         11.9         59.1         90           MATURITY CHECK         LATE         122.6         98.8         11.6         60.4         0           CROPLAN         CP 6367IG         121.5         97.9         13.0         58.7         0           BECKS         MED         121.0         97.5         12.5         58.5         0           CROPLAN         CP 6811         119.5         96.3         12.5         59.4         0           CROPLAN         CP 5921A         118.8         95.7         12.1         60.7         0           CROPLAN         CP 6664IGA         117.4         94.6         12.2         59.3         0           CROPLAN         CP 6664IGA         117.4         94.6         12.2         59.3         0           CROPLAN         CP 6664IGA         117.4         94.6         12.2         59.3         0           CROPLAN         CP 6664IGA         115.8         93.3         12.2         59.0         0           DYNA-GRO         M72GB71         115.8         93.3         12.3         58.3         0           DYNA-GRO         M54GR24         115.7 <td>CROPLAN</td> <td>CP 6011</td> <td>125.6</td> <td>101.2</td> <td>12.5</td> <td>59.8</td> <td>0</td>	CROPLAN	CP 6011	125.6	101.2	12.5	59.8	0
MATURITY CHECK         LATE         122.6         98.8         11.6         60.4         0           CROPLAN         CP 6367IG         121.5         97.9         13.0         58.7         0           BECKS         MED         121.0         97.5         12.5         58.5         0           CROPLAN         CP 6811         119.5         96.3         12.5         59.4         0           CROPLAN         CP 5921A         118.8         95.7         12.1         60.7         0           CROPLAN         CP 6664IGA         117.4         94.6         12.2         59.3         0           DYNA-GRO         M72GB71         115.8         93.3         12.3         58.3         0           DYNA-GRO         M54GR24         115.7 <td>BECKS</td> <td>FULL</td> <td>123.9</td> <td>99.9</td> <td>12.4</td> <td>57.2</td> <td>80</td>	BECKS	FULL	123.9	99.9	12.4	57.2	80
CROPLAN         CP 6367IG         121.5         97.9         13.0         58.7         0           BECKS         MED         121.0         97.5         12.5         58.5         0           CROPLAN         CP 6811         119.5         96.3         12.5         59.4         0           CROPLAN         CP 5921A         118.8         95.7         12.1         60.7         0           CROPLAN         CP 6664IGA         117.4         94.6         12.2         59.3         0           RAGT         AC2104         115.8         93.3         12.2         59.0         0           DYNA-GRO         M72GB71         115.8         93.3         12.3         58.3         0           DYNA-GRO         M54GR24         115.7         93.3         11.9         60.5         0           RAGT         AC2203         110.3	CROPLAN	CP 6211A	123.0	99.1	11.9	59.1	90
BECKS         MED         121.0         97.5         12.5         58.5         0           CROPLAN         CP 6811         119.5         96.3         12.5         59.4         0           CROPLAN         CP 5921A         118.8         95.7         12.1         60.7         0           CROPLAN         CP 6664IGA         117.4         94.6         12.2         59.3         0           RAGT         AC2104         115.8         93.3         12.2         59.0         0           DYNA-GRO         M72GB71         115.8         93.3         12.3         58.3         0           DYNA-GRO         M54GR24         115.7         93.3         11.9         60.5         0           MATURITY CHECK         EARLY         113.2         91.2         12.1         60.7         0           RAGT         AC2203         110.3         88.9         12.0         60.7         0           DYNA-GRO         M59GB94         110.3         88.8         12.0         57.4         0           ADVANTA         ADV G2193IG         109.1         87.9         11.7         59.3         50           ADYNA-GRO         M57GC29         106.1 <t< td=""><td>MATURITY CHECK</td><td>LATE</td><td>122.6</td><td>98.8</td><td>11.6</td><td>60.4</td><td>0</td></t<>	MATURITY CHECK	LATE	122.6	98.8	11.6	60.4	0
CROPLAN         CP 6811         119.5         96.3         12.5         59.4         0           CROPLAN         CP 5921A         118.8         95.7         12.1         60.7         0           CROPLAN         CP 6664IGA         117.4         94.6         12.2         59.3         0           RAGT         AC2104         115.8         93.3         12.2         59.0         0           DYNA-GRO         M72GB71         115.8         93.3         12.3         58.3         0           DYNA-GRO         M54GR24         115.7         93.3         11.9         60.5         0           MATURITY CHECK         EARLY         113.2         91.2         12.1         60.7         0           RAGT         AC2203         110.3         88.9         12.0         60.7         0           DYNA-GRO         M59GB94         110.3         88.8         12.0         57.4         0           ADVANTA         ADV G2193IG         109.1         87.9         11.7         59.3         50           ADYNA-GRO         M57GC29         106.1         85.5         12.4         60.3         0           DYNA-GRO         M67GB87         105.2	CROPLAN	CP 6367IG	121.5	97.9	13.0	58.7	0
CROPLAN         CP 5921A         118.8         95.7         12.1         60.7         0           CROPLAN         CP 6664IGA         117.4         94.6         12.2         59.3         0           RAGT         AC2104         115.8         93.3         12.2         59.0         0           DYNA-GRO         M72GB71         115.8         93.3         12.3         58.3         0           DYNA-GRO         M54GR24         115.7         93.3         11.9         60.5         0           MATURITY CHECK         EARLY         113.2         91.2         12.1         60.7         0           RAGT         AC2203         110.3         88.9         12.0         60.7         0           DYNA-GRO         M59GB94         110.3         88.8         12.0         57.4         0           ADVANTA         ADV G2193IG         109.1         87.9         11.7         59.3         50           ADVANTA         ADV G2165         108.3         87.3         12.0         57.2         0           DYNA-GRO         M57GC29         106.1         85.5         12.4         60.3         0           DYNA-GRO         M67GB87         105.2	BECKS	MED	121.0	97.5	12.5	58.5	0
CROPLAN         CP 6664IGA         117.4         94.6         12.2         59.3         0           RAGT         AC2104         115.8         93.3         12.2         59.0         0           DYNA-GRO         M72GB71         115.8         93.3         12.3         58.3         0           DYNA-GRO         M54GR24         115.7         93.3         11.9         60.5         0           MATURITY CHECK         EARLY         113.2         91.2         12.1         60.7         0           RAGT         AC2203         110.3         88.9         12.0         60.7         0           DYNA-GRO         M59GB94         110.3         88.8         12.0         57.4         0           ADVANTA         ADV G2193IG         109.1         87.9         11.7         59.3         50           ADVANTA         ADV G2165         108.3         87.3         12.0         57.2         0           DYNA-GRO         M57GC29         106.1         85.5         12.4         60.3         0           DYNA-GRO         M67GB87         105.2         84.8         12.2         56.4         0           CROPLAN         CP 66XI-22         103.6	CROPLAN	CP 6811	119.5	96.3	12.5	59.4	0
RAGT AC2104 115.8 93.3 12.2 59.0 0 DYNA-GRO M72GB71 115.8 93.3 12.3 58.3 0 DYNA-GRO M54GR24 115.7 93.3 11.9 60.5 0 MATURITY CHECK EARLY 113.2 91.2 12.1 60.7 0 RAGT AC2203 110.3 88.9 12.0 60.7 0 DYNA-GRO M59GB94 110.3 88.8 12.0 57.4 0 ADVANTA ADV G2193IG 109.1 87.9 11.7 59.3 50 ADVANTA ADV G2165 108.3 87.3 12.0 57.2 0 DYNA-GRO M57GC29 106.1 85.5 12.4 60.3 0 DYNA-GRO M57GC29 105.8 85.3 12.5 59.7 0 DYNA-GRO M67GB87 105.2 84.8 12.2 56.4 0 CROPLAN CP 66XI-22 103.6 83.5 12.1 58.3 0 CLEMSON CU195427 99.8 80.4 12.1 54.8 0 ADVANTA ADV G3127 92.2 74.3 12.7 59.0 0 ADVANTA ADV G3127 81.2 65.4 11.5 56.7 50 AVERAGE 124.1 100.0 12.2 59.2 24 CV (%) 11.0 11.0 0.6 1.9	CROPLAN	CP 5921A	118.8	95.7	12.1	60.7	0
DYNA-GRO         M72GB71         115.8         93.3         12.3         58.3         0           DYNA-GRO         M54GR24         115.7         93.3         11.9         60.5         0           MATURITY CHECK         EARLY         113.2         91.2         12.1         60.7         0           RAGT         AC2203         110.3         88.9         12.0         60.7         0           DYNA-GRO         M59GB94         110.3         88.8         12.0         57.4         0           ADVANTA         ADV G2193IG         109.1         87.9         11.7         59.3         50           ADVANTA         ADV G2165         108.3         87.3         12.0         57.2         0           DYNA-GRO         M57GC29         106.1         85.5         12.4         60.3         0           DYNA-GRO         M67GB87         105.8         85.3         12.5         59.7         0           DYNA-GRO         M67GB87         105.2         84.8         12.2         56.4         0           CROPLAN         CP 66XI-22         103.6         83.5         12.1         58.3         0           CLEMSON         CU195427         99.8 <td>CROPLAN</td> <td>CP 6664IGA</td> <td>117.4</td> <td>94.6</td> <td>12.2</td> <td>59.3</td> <td>0</td>	CROPLAN	CP 6664IGA	117.4	94.6	12.2	59.3	0
DYNA-GRO         M54GR24         115.7         93.3         11.9         60.5         0           MATURITY CHECK         EARLY         113.2         91.2         12.1         60.7         0           RAGT         AC2203         110.3         88.9         12.0         60.7         0           DYNA-GRO         M59GB94         110.3         88.8         12.0         57.4         0           ADVANTA         ADV G2193IG         109.1         87.9         11.7         59.3         50           ADVANTA         ADV G2165         108.3         87.3         12.0         57.2         0           DYNA-GRO         M57GC29         106.1         85.5         12.4         60.3         0           DYNA-GRO         GX21965         105.8         85.3         12.5         59.7         0           DYNA-GRO         M67GB87         105.2         84.8         12.2         56.4         0           CROPLAN         CP 66XI-22         103.6         83.5         12.1         58.3         0           CLEMSON         CU195427         99.8         80.4         12.1         54.8         0           ADVANTA         ADV XG272         81.2 <td>RAGT</td> <td>AC2104</td> <td>115.8</td> <td>93.3</td> <td>12.2</td> <td>59.0</td> <td>0</td>	RAGT	AC2104	115.8	93.3	12.2	59.0	0
MATURITY CHECK         EARLY         113.2         91.2         12.1         60.7         0           RAGT         AC2203         110.3         88.9         12.0         60.7         0           DYNA-GRO         M59GB94         110.3         88.8         12.0         57.4         0           ADVANTA         ADV G2193IG         109.1         87.9         11.7         59.3         50           ADVANTA         ADV G2165         108.3         87.3         12.0         57.2         0           DYNA-GRO         M57GC29         106.1         85.5         12.4         60.3         0           DYNA-GRO         GX21965         105.8         85.3         12.5         59.7         0           DYNA-GRO         M67GB87         105.2         84.8         12.2         56.4         0           CROPLAN         CP 66XI-22         103.6         83.5         12.1         58.3         0           CLEMSON         CU195427         99.8         80.4         12.1         54.8         0           ADVANTA         ADV G3127         92.2         74.3         12.7         59.0         0           ADVANTA         ADV XG272         81.2 <td>DYNA-GRO</td> <td>M72GB71</td> <td>115.8</td> <td>93.3</td> <td>12.3</td> <td>58.3</td> <td>0</td>	DYNA-GRO	M72GB71	115.8	93.3	12.3	58.3	0
RAGT         AC2203         110.3         88.9         12.0         60.7         0           DYNA-GRO         M59GB94         110.3         88.8         12.0         57.4         0           ADVANTA         ADV G2193IG         109.1         87.9         11.7         59.3         50           ADVANTA         ADV G2165         108.3         87.3         12.0         57.2         0           DYNA-GRO         M57GC29         106.1         85.5         12.4         60.3         0           DYNA-GRO         GX21965         105.8         85.3         12.5         59.7         0           DYNA-GRO         M67GB87         105.2         84.8         12.2         56.4         0           CROPLAN         CP 66XI-22         103.6         83.5         12.1         58.3         0           CLEMSON         CU19S427         99.8         80.4         12.1         54.8         0           ADVANTA         ADV G3127         92.2         74.3         12.7         59.0         0           ADVANTA         ADV XG272         81.2         65.4         11.5         56.7         50           Average         124.1         100.0	DYNA-GRO	M54GR24	115.7	93.3	11.9	60.5	0
DYNA-GRO         M59GB94         110.3         88.8         12.0         57.4         0           ADVANTA         ADV G2193IG         109.1         87.9         11.7         59.3         50           ADVANTA         ADV G2165         108.3         87.3         12.0         57.2         0           DYNA-GRO         M57GC29         106.1         85.5         12.4         60.3         0           DYNA-GRO         GX21965         105.8         85.3         12.5         59.7         0           DYNA-GRO         M67GB87         105.2         84.8         12.2         56.4         0           CROPLAN         CP 66XI-22         103.6         83.5         12.1         58.3         0           CLEMSON         CU19S427         99.8         80.4         12.1         54.8         0           ADVANTA         ADV G3127         92.2         74.3         12.7         59.0         0           ADVANTA         ADV XG272         81.2         65.4         11.5         56.7         50           AVERAGE         124.1         100.0         12.2         59.2         24           CV (%)         11.0         11.0         0.6	MATURITY CHECK	EARLY	113.2	91.2	12.1	60.7	0
ADVANTA ADV G2193IG 109.1 87.9 11.7 59.3 50  ADVANTA ADV G2165 108.3 87.3 12.0 57.2 0  DYNA-GRO M57GC29 106.1 85.5 12.4 60.3 0  DYNA-GRO GX21965 105.8 85.3 12.5 59.7 0  DYNA-GRO M67GB87 105.2 84.8 12.2 56.4 0  CROPLAN CP 66XI-22 103.6 83.5 12.1 58.3 0  CLEMSON CU19S427 99.8 80.4 12.1 54.8 0  ADVANTA ADV G3127 92.2 74.3 12.7 59.0 0  ADVANTA ADV KG272 81.2 65.4 11.5 56.7 50  AVERAGE 124.1 100.0 12.2 59.2 24  CV (%) 11.0 11.0 0.6 1.9	RAGT	AC2203	110.3	88.9	12.0	60.7	0
ADVANTA ADV G2165 108.3 87.3 12.0 57.2 0 DYNA-GRO M57GC29 106.1 85.5 12.4 60.3 0 DYNA-GRO GX21965 105.8 85.3 12.5 59.7 0 DYNA-GRO M67GB87 105.2 84.8 12.2 56.4 0 CROPLAN CP 66XI-22 103.6 83.5 12.1 58.3 0 CLEMSON CU19S427 99.8 80.4 12.1 54.8 0 ADVANTA ADV G3127 92.2 74.3 12.7 59.0 0 ADVANTA ADV XG272 81.2 65.4 11.5 56.7 50 AVERAGE 124.1 100.0 12.2 59.2 24 CV (%) 11.0 11.0 0.6 1.9	DYNA-GRO	M59GB94	110.3	88.8	12.0	57.4	0
DYNA-GRO         M57GC29         106.1         85.5         12.4         60.3         0           DYNA-GRO         GX21965         105.8         85.3         12.5         59.7         0           DYNA-GRO         M67GB87         105.2         84.8         12.2         56.4         0           CROPLAN         CP 66XI-22         103.6         83.5         12.1         58.3         0           CLEMSON         CU19S427         99.8         80.4         12.1         54.8         0           ADVANTA         ADV G3127         92.2         74.3         12.7         59.0         0           ADVANTA         ADV XG272         81.2         65.4         11.5         56.7         50           Average         124.1         100.0         12.2         59.2         24           CV (%)         11.0         11.0         0.6         1.9	ADVANTA	ADV G2193IG	109.1	87.9	11.7	59.3	50
DYNA-GRO         GX21965         105.8         85.3         12.5         59.7         0           DYNA-GRO         M67GB87         105.2         84.8         12.2         56.4         0           CROPLAN         CP 66XI-22         103.6         83.5         12.1         58.3         0           CLEMSON         CU19S427         99.8         80.4         12.1         54.8         0           ADVANTA         ADV G3127         92.2         74.3         12.7         59.0         0           ADVANTA         ADV XG272         81.2         65.4         11.5         56.7         50           Average         124.1         100.0         12.2         59.2         24           CV (%)         11.0         11.0         0.6         1.9	ADVANTA	ADV G2165	108.3	87.3	12.0	57.2	0
DYNA-GRO         M67GB87         105.2         84.8         12.2         56.4         0           CROPLAN         CP 66XI-22         103.6         83.5         12.1         58.3         0           CLEMSON         CU19S427         99.8         80.4         12.1         54.8         0           ADVANTA         ADV G3127         92.2         74.3         12.7         59.0         0           ADVANTA         ADV XG272         81.2         65.4         11.5         56.7         50           Average         124.1         100.0         12.2         59.2         24           CV (%)         11.0         11.0         0.6         1.9	DYNA-GRO	M57GC29	106.1	85.5	12.4	60.3	0
CROPLAN         CP 66XI-22         103.6         83.5         12.1         58.3         0           CLEMSON         CU195427         99.8         80.4         12.1         54.8         0           ADVANTA         ADV G3127         92.2         74.3         12.7         59.0         0           ADVANTA         ADV XG272         81.2         65.4         11.5         56.7         50           Average         124.1         100.0         12.2         59.2         24           CV (%)         11.0         11.0         0.6         1.9	DYNA-GRO	GX21965	105.8	85.3	12.5	59.7	0
CLEMSON     CU195427     99.8     80.4     12.1     54.8     0       ADVANTA     ADV G3127     92.2     74.3     12.7     59.0     0       ADVANTA     ADV XG272     81.2     65.4     11.5     56.7     50       Average     124.1     100.0     12.2     59.2     24       CV (%)     11.0     11.0     0.6     1.9	DYNA-GRO	M67GB87	105.2	84.8	12.2	56.4	0
ADVANTA ADV G3127 92.2 74.3 12.7 59.0 0 ADVANTA ADV XG272 81.2 65.4 11.5 56.7 50 Average 124.1 100.0 12.2 59.2 24 CV (%) 11.0 11.0 0.6 1.9	CROPLAN	CP 66XI-22	103.6	83.5	12.1	58.3	0
ADV XG272 81.2 65.4 11.5 56.7 50 Average 124.1 100.0 12.2 59.2 24 CV (%) 11.0 11.0 0.6 1.9	CLEMSON						0
Average 124.1 100.0 12.2 59.2 24 CV (%) 11.0 11.0 0.6 1.9	ADVANTA	ADV G3127	92.2	74.3	12.7	59.0	0
Average 124.1 100.0 12.2 59.2 24 CV (%) 11.0 11.0 0.6 1.9	ADVANTA	ADV XG272	81.2	65.4	11.5	56.7	50
CV (%) 11.0 11.0 0.6 1.9							24
		•	11.0		0.6	1.9	

<sup>\*</sup>Yields must differ by more than the LSD value to be considered statistically different.

**Table 9. Entries in the 2022 Kansas Grain Sorghum Performance Tests** 

BRAND/NAME
ADVANTA
ADV G1120IG
ADV G1153
ADV G1329
ADV G2165
ADV G2168IG
ADV G2193IG
ADV G3127
ADV G3144
ADV XG272
BECKS
EARLY
FULL
MED
CLEMSON
CU16S159
CU19S427
CROPLAN
CP 5811A
CP 5921A
CP 6011
CP 6021A
CP 60XI-22
CP 61XI-22
CP 6211A
CP 6367IG
CP 64XI-22
CP 6664IGA
CP 66XI-22
CP 6811
CP 7011A
DYNA-GRO
GX21965
GX22923
GX22932
GX22934
M54GR24
M57GC29

M59GB57

DYNA-GRO	
M59GB94	
M60GB31	
M60GB88	
M63GB78	
M67GB87	
M71GR91	
M72GB71	
MATURITY CHECK	(
EARLY	
LATE	
MED	
POLANSKY	
5420	
5519	
5522	
5629	
5719	
X61R-A15	
X69R-A17	
X70B-A18	
RAGT	
AC2103	
AC2104	
AC2203	

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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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.

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