Technical Report TR21-1 January 2021

Agricultural Experiment Station

Colorado State University

College of Agricultural Sciences

Department of Soil and Crop Sciences

Extension

2020 Sorghum Hybrid Performance Trials in Eastern Colorado

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Funded by the Colorado Agricultural Experiment Station and

Crop Management and Sorghum Improvement, USDA, NIFA Project No. COL00654

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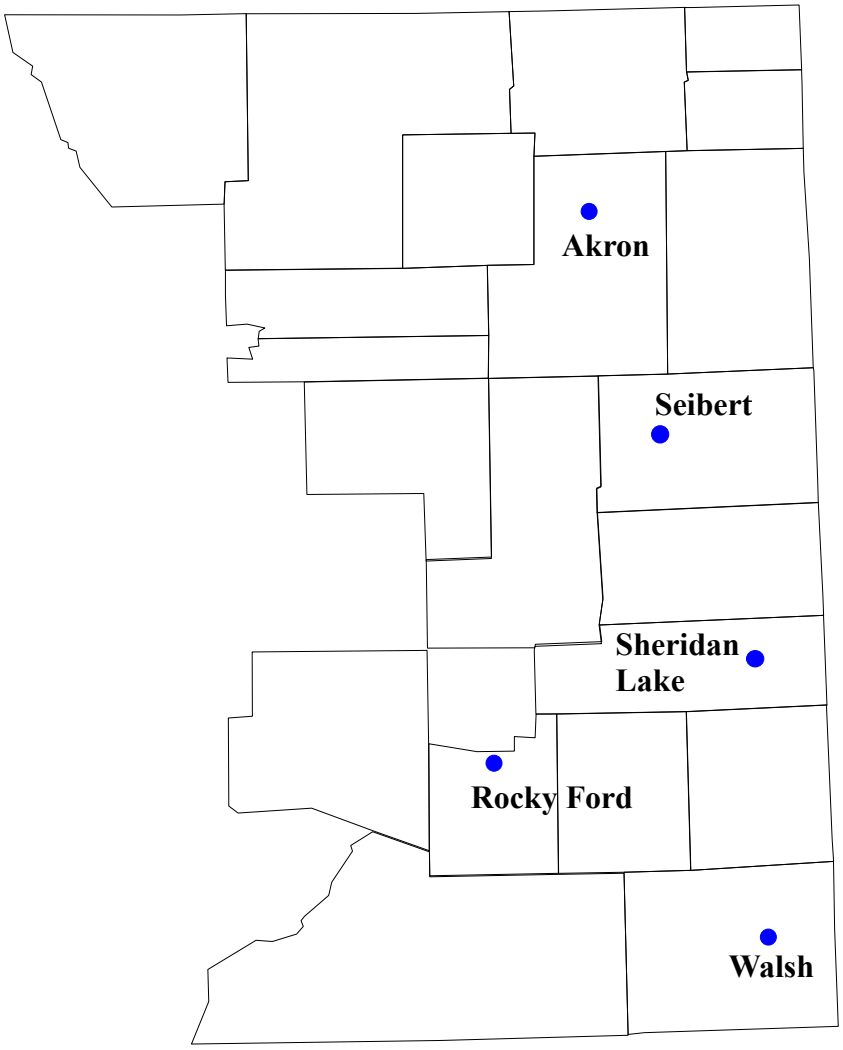
2020 SORGHUM HYBRID PERFORMANCE TRIALS IN EASTERN COLORADO

2020 Sorghum Trial Testing Locations in Eastern Colorado



SORGHUM HYBRID PERFORMANCE TRIALS IN EASTERN COLORADO, 2020

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This publication is a progress report of the sorghum hybrid performance trials conducted by the Department of Soil and Crop Sciences at Colorado State University, Colorado Agricultural Experiment Station (AES), and Colorado State University Extension. The grain sorghum trials were conducted at four sites in eastern Colorado: Akron, Seibert, Sheridan Lake and Walsh. Forage sorghum trials were conducted at Rocky Ford (irrigated) and at Walsh (dryland). No grain sorghum results are reported from Akron and Walsh, and no forage sorghum results are reported from Walsh because of extremely dry conditions.

The 2020 Colorado grain sorghum crop is estimated at 10.50 million bushels, 17% lower than the 2019 sorghum crop of 12.71 million bushels. The 2020 sorghum crop is the fifth largest crop in the last 10 years. The fifth highest sorghum production this year is due to the fifth highest harvested acres, 300,000 acres, for the last 10 years. The grain yield this year is estimated at 35.0 bu/acre, which is tied with the fifth highest average in the last 10 years. Sorghum silage statistics are not published during the current year; however, Colorado sorghum silage statistics are available for the previous year. In 2019, 306,000 tons of sorghum silage was produced, which is the third highest sorghum silage production in a decade. The average yield was 17.0 tons/acre from 18,000 harvested acres. (USDA and National Agricultural Statistics Service, Colorado Field Office, 2020).

Tests are partially funded by entry fees paid by commercial firms. Commercial seed representatives interested in entering sorghum hybrids in any of the trials should contact Jerry Johnson, phone (970) 491-1454, email Jerry.Johnson@colostate.edu; or Kevin Larson, phone (719) 324-5643, email Kevin.Larson@colostate.edu for further details. Names and addresses of sorghum seed companies submitting entries in 2020 are shown in Table 1. Each firm selected entries for testing and furnished seed for the trials. AES researchers selected closed-pedigree hybrids as standards of comparison.

Summary tables for weather data (CoAgMet and NOAA, 2020), soil analysis (Soil, Plant and Water Testing Laboratory, Colorado State University), fertilization, and available soil water graphs derived from gypsum block readings are provided for certain trial locations. Other information, where available, was included: site description, irrigation, pest control, field history, and pertinent comments.

[a]Superintendent and Research Scientist II, Plainsman Research Center, Walsh;
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Table 1.--Entrants in the 2020 Colorado Sorghum Performance Trials.

Brand	Entered by
DEKALB	Bayer Crop Science, 800 N. Lindbergh Blvd., Creve Coeur, MO 63141
DYNA-GRO SEED	Loveland Products, Inc., 3005 Rocky Mountain Ave, Loveland, CO 80538
GAYLAND WARD SEED	Gayland Ward Seed Co. Inc., 4395 US Hwy 60, Hereford, TX 79045
GOLDEN ACRES	AgReliant Genetics, 1122 East 169th St., Westfield, IN 46074
HOEGEMEYER HYBRIDS	Corteva Agriscience, P.O. Box 1000, Johnston, IA 50131
SORGHUM PARTNERS/ S&W SEED CO	S&W Seed, 2101 Ken Pratt Blvd, Suite 201 Longmont, CO 80501-6085
WARNER SEEDS	Warner Seeds, Inc., 120 South Lawton St., P.O. Box 1877, Hereford, TX 79045

Growing Degree Days for sorghum were calculated from planting through first freeze using a maximum of 111°F and a minimum of 50°F for threshold temperatures (Peacock and Heinrich, 1984). They are calculated by averaging daily high and low temperatures and subtracting the base temperature of 50°F from the average. When daily temperatures are less than 50°F, 50°F is used, when temperatures are above 111°F a maximum temperature of 111°F is used:

$$\frac{\text{(Daily Minimum Temp. + Daily Maximum Temp.)}}{2} - 50^{o}F$$

Experimental Methods and Evaluations

Trials at Walsh were planted with a four-row cone planter and harvested with a modified, self-propelled John Deere 4420 combine equipped with a four-row row-crop head to enhance harvest of lodged tillers. Trials at Akron, Seibert, and Sheridan Lake were planted with a four-row Seeds Research precision planter and harvested with a four-row Case 1620 combine modified as a multiple crop plot combine equipped with a Harvest Master weighing system. Forage sorghum was chopped using a single row John Deere 6 silage chopper at Walsh and a two-row New Holland 880 at Rocky Ford.

Days to Emergence. Seedling emergence was determined as the number of days after planting until approximately half of the seedlings became visible down a planted row.

50% Bloom. Number of days after planting until half of the main heads had pollinating florets. Number of days to half bloom provided a good measure of relative maturity between hybrids.

50% Maturity. Number of days after planting until half of the kernels in half of the main heads reached physiological maturity, i.e., the black layer became visible at the base of the kernel.

Plant Height. Plant height was measured in inches from the soil to the tip of the main head.

Lodging. The percentage of tillers with broken basal stems or broken peduncles or stems leaning more than a 45-degree angle were considered lodged. Since both combines were equipped with row crop heads, most of the leaning tillers were harvested.

Harvest Density. Plant population in plants per acre was measured after final stand and total harvestable tillers were measured prior to harvest.

Test Weight. Test weight are typically determined using a hand-held bushel weight tester at Walsh and recorded by a Harvest Master measuring system at Akron, Seibert and Sheridan Lake. A low test weight may indicate that a hybrid did not fully mature

prior to the first freeze or that it suffered environmental stress, such as a water deficiency. Given moderate test weights, a low test weight may indicate a genetic difference.

Grain Yield. The grain yield in bushels per acre was adjusted to 14 percent moisture content.

Yield as a % of Test Average. Yield as a percentage of test average provided a comparison among yields within a trial and allowed comparisons among years, irrespective of annual growing conditions.

Forage Yield. Forage yield in tons per acre was adjusted to 65% moisture content. A representative sample of fresh silage was oven-dried at 167°F (75°C) until there was no more weight loss, and then yields were adjusted to 65% moisture content.

Stem Sugar. The sugar content (Brix), expressed as a percent, in the stem of forage sorghums at harvest was measured with a hand refractometer.

Available Soil Water

Available soil water was measured by placing gypsum blocks at 6, 18, 30, and 42 inches below the soil surface. Electrical resistance readings were made weekly or biweekly. Resistance readings varied with the amount of soil water present. Using resistance readings, available soil water was determined by extrapolating from soil water depletion curves for each soil type.

Statistical Method

Trials were planted in a randomized complete block design with four replications. No less than three replications were harvested. Analysis of variance was applied to the results and the least significant difference (LSD) was computed at alpha = 0.20 or 0.30 for all trials. Analysis of variance and regression were performed and with CoStat Statistical Software, a product of Cohort Software, Berkeley, California, and with SAS, SAS Institute, Cary, North Carolina.

Acknowledgements

We are appreciative to the staffs at the Central Great Plains Research Station at Akron, Arkansas Valley Research Center at Rocky Ford, and Plainsman Research Center at Walsh for their assistance in conducting these trials. We would like to extend a special thank you to Tim Stahlecker, grower-cooperator, for his assistance with the Seibert trial and Burl Scherler for his assistance with the Sheridan Lake trial.

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2020 Dryland Grain Sorghum Hybrid Performance Trial at Seibert

Brand	Hybrid	Grain Yield[a]	Yield	2-Year Avg. Yield	Test Weight	Emerged Plant Population[b]	50% Bloom	Lodging	Maturity Group[c]	Grain Color
		bu/ac	% of test avg.	bu/ac	lb/bu	thousand plants/ac	days after planting	percent		
Warner Seed	W5501	**34**	144%	-	54	33	71	10	E	Red
Dyna-Gro Seed	GX18919	**33**	140%	55	55	35	71	20	E	Cream
Dekalb	DKS29-28	**33**	139%	54	54	35	72	20	E	Bronze
Dekalb	DKS28-05	**33**	139%	50	54	35	71	10	E	Bronze
Dyna-Gro Seed	M62GB77	**30**	128%	54	55	33	77	20	ME	Bronze
Dekalb	DKS27-80	**30**	128%	-	55	29	71	10	E	Bronze
Dyna-Gro Seed	M54GR24	27	116%	46	54	32	74	-	E	Red
Dyna-Gro Seed	M59GB57	27	116%	49	53	34	71	-	E	Bronze
Sorghum Partners	SP 25C10	26	112%	49	55	33	72	-	E	Cream
Warner Seed	W5911	26	110%	-	56	34	78	-	ME	Red
Sorghum Partners	SP 43M80	24	103%	47	54	31	74	10	E	Bronze
Sorghum Partners	SP 33S40	24	102%	47	53	33	75	10	E	Cream
Sorghum Partners	SP 68M57	24	101%	-	53	35	81	30	M	Bronze
Dekalb	DKS29-95	23	100%	-	53	36	74	10	E	Red
Dyna-Gro Seed	M60GB88	23	97%	46	53	32	78	35	ME	Bronze
Dyna-Gro Seed	M57GB19	23	97%	48	53	36	77	30	ME	Bronze
Dyna-Gro Seed	M59GB94	22	95%	52	54	34	76	-	ME	Bronze
Dyna-Gro Seed	M57GC29	20	86%	43	54	24	75	10	E	Cream
Dyna-Gro Seed	GX17912	19	83%	48	51	36	73	50	E	Cream
Sorghum Partners	SP 31A15	19	81%	43	53	37	79	20	ME	Bronze
Gayland Ward Seed	19007	18	76%	-	50	37	80	-	ME	Red
Gayland Ward Seed	19015	17	72%	-	53	37	80	-	ME	Red
Gayland Ward Seed	18290	15	63%	-	52	35	83	-	M	Red
Gayland Ward Seed	19014	15	63%	-	45	35	81	-	M	Red
Dyna-Gro Seed	M60GB31	13	57%	47	53	30	83	-	M	Bronze
Gayland Ward Seed	18057	12	52%	37	49	34	80	-	ME	Red
Average		**23**		**48**	**53**	**34**	**76**	**20**		
[d]LSD (P<0.30)		4								
[d]LSD (P<0.05)		8								

[a]Yields adjusted to 14% moisture and hybrids ranked by yield. Hybrid yields in bold are in the top LSD group (P<0.30).

[b]Emerged plant population counts do not include tiller stems or grain heads that may appear later in the season.

[c]Maturity group: E=early; ME=medium-early; M=medium. Groupings are based on trial observations in addition to company provided data.

[d]Farmers selecting a hybrid based on yield should use the LSD (.30) to protect themselves from false negative decisions. Companies or researchers may be interested in the LSD (.05) to avoid false positive conclusions.

Site Information

Collaborator: Tim Stahlecker
Planting Date: May 29, 2020
Harvest Date: October 11, 2020
Soil Type: Ascalon sandy loam
GPS Coordinates: 39.26, -102.817
Trial Comments: Planted into moisture, good stand establishment. Trial received infrequent and low rainfall totaling about 0.9" in June and 1.8" in July. About 0.7" of rain received from August through harvest in October. Hard freeze occurred on Sept. 10th (<30°F) which caused light test weight grain for some later-season hybrids.

2020 Dryland Grain Sorghum Hybrid Performance Trial at Sheridan Lake

Brand	Hybrid	Grain Yield[a]	Yield	2-Year Avg. Yield	Test Weight	Emerged Plant Population[b]	50% Bloom	Lodging	Maturity Group[c]	Grain Color
		bu/ac	% of test avg.	bu/ac	lb/bu	thousand plants/ac	days after planting	percent		
Hoegemeyer Seed	H6020	**65**	144%	-	58	33	72	25	E	Red
Warner Seed	W5501	**62**	137%	69	57	20	74	0	E	Red
Dyna-Gro Seed	GX17912	59	131%	83	57	28	77	0	ME	Cream
Golden Acres	2620C	59	130%	78	58	27	75	0	E	Cream
Hoegemeyer Seed	H6041	58	129%	-	59	27	72	38	E	Cream
Sorghum Partners	SP 68M57	57	126%	-	57	22	80	0	ME	Bronze
Dyna-Gro Seed	M54GR24	56	126%	81	57	31	77	0	ME	Red
Dekalb	DKS28-05	56	124%	78	58	26	73	0	E	Bronze
Golden Acres	1510C	55	124%	-	58	29	73	0	E	Cream
Sorghum Partners	SP 43M80	54	120%	77	59	29	78	0	ME	Bronze
Golden Acres	2730B	54	120%	76	57	30	76	0	ME	Bronze
Dyna-Gro Seed	M59GB94	52	115%	79	58	22	79	0	ME	Bronze
Dekalb	DKS29-28	52	115%	77	57	27	74	0	E	Bronze
Dekalb	DKS27-80	52	115%	-	58	23	72	0	E	Bronze
Sorghum Partners	SP 25C10	52	115%	66	58	22	71	25	E	Cream
Dyna-Gro Seed	M60GB88	51	114%	78	58	23	78	6	ME	Bronze
Hoegemeyer Seed	H6037	50	112%	-	58	31	73	0	E	Red
Dyna-Gro Seed	GX18919	50	112%	73	57	24	73	25	E	Cream
Dekalb	DKS29-95	50	111%	-	57	32	76	0	ME	Red
Dyna-Gro Seed	M59GB57	49	108%	75	57	23	72	0	E	Bronze
Gayland Ward Seed	19009	48	107%	-	57	32	81	0	M	Red
Dyna-Gro Seed	M57GB19	48	107%	74	58	28	78	0	ME	Bronze
Dyna-Gro Seed	M62GB77	48	106%	73	59	24	82	0	M	Bronze
Warner Seed	W5911	46	102%	76	59	30	81	0	M	Red
Gayland Ward Seed	18290	45	99%	-	56	28	80	0	ME	Red
Hoegemeyer Seed	H6064	44	98%	-	56	22	80	50	ME	Bronze
Sorghum Partners	SP 31A15	42	93%	78	57	30	78	0	ME	Bronze
Gayland Ward Seed	19007	41	92%	-	57	27	82	0	M	Red
Dyna-Gro Seed	M57GC29	40	89%	69	58	19	77	0	ME	Cream
Dyna-Gro Seed	M60GB31	39	86%	73	58	26	81	0	M	Bronze
Gayland Ward Seed	18044	38	85%	-	57	26	82	0	M	Red
Gayland Ward Seed	18036	36	80%	-	58	26	81	0	M	Red
Warner Seed	625Y	34	75%	-	53	24	86	0	ML	Bronze
Gayland Ward Seed	18072	33	73%	-	57	31	87	0	ML	White
Gayland Ward Seed	19014	32	72%	65	57	26	80	0	ME	Red
Gayland Ward Seed	19010	32	71%	-	58	28	83	0	M	Red
Gayland Ward Seed	19015	32	71%	-	57	29	80	0	ME	Red
Gayland Ward Seed	18057	28	63%	68	56	28	85	0	M	Red
Gayland Ward Seed	18063	27	60%	-	57	28	85	0	ML	Red
Gayland Ward Seed	18062	27	60%	-	57	21	83	0	M	Red
Gayland Ward Seed	19016	18	41%	-	54	25	100	0	L	Red
Gayland Ward Seed	18567	18	40%	-	51	31	99	0	L	White
Average		**45**		**74**	**57**	**27**	**79**	**4**		
[d]LSD (P<0.30)		6								
[d]LSD (P<0.05)		11								

[a]Yields adjusted to 14% moisture and hybrids ranked by yield. Hybrid yields in bold are in the top LSD group (P<0.30).

[b]Emerged plant population counts do not include tiller stems or grain heads that may appear later in the season.

[c]Maturity group: E=early; ME=medium-early; M=medium; ML=medium-late; L=Late. Groupings are based on trial observations in addition to company provided data.

[d]Farmers selecting a hybrid based on yield should use the LSD (.30) to protect themselves from false negative decisions. Companies or researchers may be interested in the LSD (.05) to avoid false positive conclusions.

Site Information

Collaborator:	Burl Scherler
Planting Date:	May 23, 2020
Harvest Date:	October 11, 2020
Fertilizer:	Pre-plant: N at 55 lb/ac and S at 10 lb/ac; Planting: N at 5, P at 16, and Zn at 0.5 lb/ac
Herbicide:	Pre-plant (fall '19): Flumioxazin at 2 oz/ac and atrazine at 1 lb/ac; Spring 2020: Flumioxazin at 1 oz/ac, and 2,4-D, glyphosate, and acetochlor at labeled rates. Summer 2020 (pre-heading): 2,4-D LV-6 at 1/2 lb/ac.
Soil Type:	Olney sandy loam
GPS Coordinates:	38.529, -102.47
Trial Comments:	Planted into moisture and received ~0.11" of rain within three days. Consistent rain received in June and July, totaling about 1.8" in June and 1.3" in July. About 0.5" of rain received from August through harvest in October. Killing freeze occurred on Sept. 30th.

2020 Irrigated Forage Sorghum Hybrid Performance Trial at Rocky Ford

Brand	Hybrid	Yield Forage[a]	Yield Dry Matter	Yield	Moisture	Forage Type[b]	Relative Maturity[c]	Traits[d]
		tons/ac		% of test avg.	% at harvest			
Sorghum Partners	SP 3905	**19.6**	6.7	125	66.4	FS	ME	-
Gayland Ward Seed	18119	**19.6**	6.4	125	69.0	FS	M	BMR-6, MS, DS
Gayland Ward Seed	19102	**18.0**	6.3	115	74.3	SS	PPS	-
Dyna-Gro Seed	TopTon	**17.7**	5.7	113	71.4	FS	L	-
Dyna-Gro Seed	Fullgraze II	**17.7**	6.0	113	63.6	SS	ML	-
Sorghum Partners	NK300	**17.5**	6.1	112	67.6	FS	ME	BMR
Dyna-Gro Seed	F74FS72 BMR	**17.4**	6.4	111	71.4	FS	ML	BMR, BD
Gayland Ward Seed	19038	17.3	6.0	111	74.4	FS	M	BD
Gayland Ward Seed	19042	17.2	6.0	110	74.3	FS	ML	BD
Dyna-Gro Seed	F71FS72 BMR	17.0	6.2	108	70.0	FS	E	BMR
Sorghum Partners	SS405	16.7	5.9	106	69.0	FS	L	-
Dyna-Gro Seed	F70FS91 BMR	16.2	5.5	103	70.2	FS	E	BMR
Dyna-Gro Seed	Super Sile 20	15.8	5.4	101	72.9	FS	ML	-
Gayland Ward Seed	18180	15.6	5.3	99	69.6	SS	L	-
Dyna-Gro Seed	Fullgraze II BMR	15.5	5.4	99	71.0	SS	ML	BMR
Dyna-Gro Seed	Dynagraze II	15.0	5.6	96	67.5	SS	ME	-
Sorghum Partners	SP 3904	15.0	5.0	96	74.2	FS	ME	BMR
Gayland Ward Seed	20268	14.8	5.4	95	70.8	SS	ML	BMR-6
Gayland Ward Seed	19011	14.8	5.1	94	69.9	SS	M	BMR-6, BD
Gayland Ward Seed	18096	14.5	4.9	93	72.6	DP	ME	-
Dyna-Gro Seed	Dual Forage SCA II	14.5	4.9	93	66.0	DP	ML	-
Dyna-Gro Seed	Danny Boy II BMR	14.4	5.4	92	74.3	SS	PS	BMR
Dyna-Gro Seed	F74FS23 BMR	14.2	5.0	91	73.8	FS	M	BMR
Dyna-Gro Seed	F72FS05	13.9	4.9	89	70.5	FS	ME	SCA
Gayland Ward Seed	19040	13.9	4.9	89	76.0	FS	M	BD
Gayland Ward Seed	19174	12.9	4.8	82	69.6	FS	ME	BMR-6, DS
Dyna-Gro Seed	Super Sile 30	12.8	4.6	82	73.2	FS	ME	-
Dyna-Gro Seed	F75FS13	12.5	4.5	80	70.3	SS	ML	-
Dyna-Gro Seed	Super Sweet 10	12.3	4.5	78	72.2	SS	ME	-
Average		**15.7**	**5.5**		**70.9**			
[e]LSD (P<0.30)		2.2						
[e]LSD (P<0.05)		4.2						

[a]Forage yield adjusted to 65% moisture content based on dried samples.

[b]Forage Type: DP=Dual Purpose Sorghum; FS=forage sorghum; SS=sorghum sudangrass.

[c]Relative maturities are provided by the companies. E=early; ME=medium-early; M=medium; ML=medium-late; L=late; PPS=photoperiod

[d]Traits are provided by the companies. Dashes mean conventional (no traits) or information isn't available. BD=brachytic dwarf; BMR=brown mid-rib; BMR-6=one of the three main brown mid-rib genes; DS=dry stalk; MS=Male sterile; SCA=Sugar Cane Aphid.

[e]Farmers selecting a hybrid based on yield should use the LSD (.30) to protect themselves from false negative decisions. Companies or researchers may be interested in the LSD (.05) to avoid false positive conclusions.

Site Information

Collaborator:	Arkansas Valley Research Station (Mike Bartolo and Kevin Tanabe)
Planting Date:	May 26, 2020
Harvest Date:	September 29 and 30, 2020
Herbicide:	Pre-Emerge: Dual II Magnum at 1.3 pt/ac and Mad Dog Plus at 1 qt/ac applied May 27 Post-Emerge: Huskie at 14 oz/ac and Starane at 5 oz/ac applied June 19
Fertilizer:	Pre-plant incorporated: N at 16.5, P at 78 lb/ac in April
Irrigation:	Furrow irrigated
Soil Texture:	Silty clay (12% sand, 40% silt, 48% clay)
Comments:	Trial received 4 inches of snow on September 8th and station reached a low temperature of 31.7°F on the morning of Sept. 9th.

2020 Irrigated Forage Sorghum Hybrid Performance Trial Feed Quality at Rocky Ford

		Forage Quality												
Brand	Hybrid	RFQ	CP	aNDFom	Lignin	WSC	Starch	Ash	Fat	NDFD	NDFD	TDN	NEL	Milk/Ton
							percent						Mcal/cwt	lb/ton
Gayland Ward Seed	20268	131	9.1	50.7	2.8	8.6	9.9	10.3	2.8	52.6	68.4	62.3	64.0	2,677
Dyna-Gro Seed	F71FS72 BMR	131	6.8	44.4	1.9	8.2	17.7	9.7	2.8	49.6	65.9	65.8	67.9	2,913
Sorghum Partners	SP 3904	127	8.4	51.9	2.1	7.5	9.3	13.5	3.2	60.5	72.7	61.7	63.3	2,541
Dyna-Gro Seed	F74FS72 BMR	124	8.0	48.9	2.6	7.6	9.8	13.1	3.0	54.2	70.0	60.9	62.5	2,525
Dyna-Gro Seed	Dual Forage SCA II	120	9.2	54.5	3.3	6.0	6.8	12.4	2.8	53.2	67.8	59.2	60.6	2,344
Dyna-Gro Seed	F70FS91 BMR	118	8.1	53.1	2.4	6.9	7.9	11.9	2.6	51.5	68.9	60.1	61.5	2,407
Gayland Ward Seed	19011	117	8.5	49.5	3.0	7.1	9.0	12.9	2.7	48.1	64.8	60.1	61.6	2,389
Gayland Ward Seed	19040	116	7.9	52.1	3.1	10.6	4.7	12.0	2.7	49.2	66.2	60.5	62.0	2,438
Gayland Ward Seed	19042	115	6.5	53.3	3.6	11.5	5.7	8.7	2.3	46.2	66.3	59.8	61.2	2,571
Gayland Ward Seed	19038	114	7.6	55.0	3.1	8.2	5.6	11.7	2.7	53.8	69.8	59.8	61.2	2,403
Gayland Ward Seed	18119	113	7.5	54.7	3.5	8.9	4.8	11.2	2.5	51.0	66.6	58.8	60.1	2,400
Gayland Ward Seed	19174	112	6.6	53.5	2.4	12.1	5.1	10.9	2.8	52.5	70.0	61.1	62.6	2,487
Gayland Ward Seed	18180	111	7.6	54.4	4.1	8.8	7.0	10.1	2.4	46.0	63.7	58.4	59.7	2,372
Gayland Ward Seed	18096	110	8.3	53.0	3.1	7.2	6.6	12.8	2.5	47.9	65.6	59.8	61.2	2,266
Dyna-Gro Seed	TopTon	110	6.5	48.2	3.1	10.7	10.6	10.9	2.6	41.3	60.5	61.4	63.0	2,471
Dyna-Gro Seed	Super Sweet 10	109	7.9	52.4	4.2	7.6	8.8	11.1	2.4	43.5	62.1	58.1	59.4	2,313
Sorghum Partners	SP 3905	109	6.9	55.0	2.6	6.9	4.9	13.3	2.6	54.2	69.0	58.0	59.2	2,308
Dyna-Gro Seed	Super Sile 30	104	6.4	52.9	3.9	8.3	11.1	9.3	2.4	41.2	62.0	59.0	60.3	2,376
Dyna-Gro Seed	Danny Boy II BMR	103	8.1	52.7	4.2	7.4	8.1	11.2	2.3	40.1	56.1	58.6	59.8	2,202
Dyna-Gro Seed	Super Sile 20	103	6.6	55.4	4.1	7.9	7.1	10.3	2.3	45.7	63.0	58.8	60.1	2,296
Dyna-Gro Seed	Fullgraze II BMR	100	6.3	60.5	3.6	8.6	2.6	9.8	2.3	50.8	66.8	56.9	58.0	2,257
Dyna-Gro Seed	Dynagraze II	100	6.6	53.9	5.0	6.2	9.1	10.3	2.2	41.1	59.4	57.4	58.5	2,237
Dyna-Gro Seed	F74FS23 BMR	98	5.7	53.5	2.6	7.1	5.8	14.3	2.5	51.6	66.4	59.0	60.4	2,203
Dyna-Gro Seed	F72FS05	97	7.1	59.1	4.1	6.5	3.8	11.9	2.6	50.8	69.0	56.2	57.2	2,123
Dyna-Gro Seed	Fullgraze II	97	6.0	57.6	4.5	9.4	4.7	9.1	2.3	42.8	61.6	57.1	58.2	2,235
Dyna-Gro Seed	F75FS13	95	5.6	55.0	4.1	9.7	4.9	10.9	2.4	44.2	62.5	57.6	58.8	2,233
Sorghum Partners	NK300	94	6.2	59.6	3.8	4.8	3.2	13.0	2.4	49.6	67.6	55.7	56.7	1,975
Sorghum Partners	SS405	93	5.4	58.3	4.3	8.8	5.3	9.8	2.1	45.6	65.7	56.8	57.8	2,231
Gayland Ward Seed	19102	91	6.8	61.7	5.2	7.3	3.0	9.2	1.9	44.7	63.7	54.3	55.1	2,092
		109	**7.2**	**54.0**	**3.5**	**8.1**	**7.0**	**11.2**	**2.5**	**48.4**	**65.6**	**59.1**	**60.4**	**2,355**

Varieties ranked from highest to lowest relative feed quality (RFQ) values.

All forage quality analyses results are dry basis values. CP=crude protein; aNDFom=ash free neutral detergent fiber; WSC=water-soluble carbohydrates; NDFD=neutral detergent fiber digestibility; TDN=total digestable nutrients; NEL=net energy for lactation; Milk/ton= predicted amount of milk produced per ton of silage dry matter calculated using MILK2013.