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COLORADO STATE UNIVERSITY

Agricultural Experiment Station

College of Agricultural Sciences - Department of Soil & Crop Sciences - Extension

2025

GRAIN AND FORAGE SORGHUM PERFORMANCE TRIALS

Making Better Decisions

CROPS TESTING PROGRAM

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Disclaimer

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Additional Sorghum Resources

Colorado State University Crop Variety Testing Program: www.csucrops.org

2025 Colorado Grain and Forage Sorghum Hybrid Performance Trials

Sally Jones-Diamond, Zane Jenkins

Colorado State University (CSU) conducts grain and forage sorghum performance trials to provide research-based, unbiased, current, and reliable information to Colorado sorghum producers to make better planting decisions. CSU promotes crop variety testing as a service to crop producers and seed companies who depend on us for crop variety performance information. The sorghum trials are made possible by funding received from company entry fees, the Colorado Sorghum Producers, and the CSU Agricultural Experiment Station.

Colorado State University personnel planted at six different locations in 2025. Akron, Seibert, Sheridan Lake, Walsh, and Wiggins each had dryland grain sorghum variety trials. Irrigated grain sorghum trials were held at Walsh and Wiggins. Full and limited irrigated forage sorghum trials were performed at Rocky Ford and a dryland trial was conducted at Walsh, where twenty-four total forage sorghum varieties were tested. Forty-four unique grain sorghum hybrids were tested in dryland conditions and thirty in irrigated conditions.

All trial results were statistically analyzed and reported shortly after harvest on our website at www.csucrops.org

Testing Methods

Hybrids were included in the tests based on paid company entries, in which company representatives selected hybrids and provided seeds for planting. Check hybrids were included at the request of farmer cooperators or at our discretion, based on past performance and the production acreage of certain hybrids in the region.

All trial entries were randomized within each replication using a randomized complete block design. Variety trials at Walsh had fifty-foot-long plots that were four rows wide and contained four replications. At Rocky Ford, the forage sorghum trial was planted in two-row plots that were thirty feet long with four replications. The entire plot width was harvested for data collection in the Walsh dryland grain sorghum and Rocky Ford trials. Only the center two rows were harvested for data in the Walsh dryland forage sorghum and irrigated grain sorghum trials. At all other trial locations (Seibert, Sheridan Lake, Akron, and Wiggins), plots were thirty feet long and four rows wide, with the center two rows harvested for yield data. Four replications were planted for dryland trials and three replications for irrigated trials at those sites.

Plots at Akron, Sheridan Lake, Seibert, and Wiggins were planted using a four-row Seed Research Equipment Solutions (SRES) 2013 Classic Aire small-plot vacuum planter equipped with Monosem seed meters. Trials at Rocky Ford were planted with an International 800 cone planter. Trials at Walsh were planted using an eight-row SRES 2004 Advanced Twin Line Drawn vacuum planter equipped with Monosem seed meters. Irrigated grain sorghum trials were planted at 45,000 (Walsh) and 83,500 (Wiggins) seeds per acre. The dryland grain sorghum trial at Walsh was planted at 35,000 seeds per acre, and the remaining dryland trials were planted at 45,500 seeds per acre. The irrigated forage sorghum trial at Rocky Ford was planted at 124,500 seeds per acre, and the Walsh dryland forage sorghum was planted at 70,000 seeds per acre.

Grain sorghum plots at all locations except the Walsh dryland site were harvested using a 2024 Zurn 150 plot combine equipped with an H2 GrainGage system, which records grain weight, moisture, and test weight. In the Walsh dryland trial, plots were harvested with a modified Gleaner F3 combine, equipped with a HarvestMaster H2 weighing system and a four-row row-crop head to enhance the harvest of lodged tillers; this system recorded all test weights. Forage sorghum was chopped using a two-row, self-propelled New Holland 1880 silage chopper at Walsh and a two-row, pull-type New Holland 880 at Rocky Ford. Both silage choppers were equipped with electronic automated weighing systems. All grain sorghum yields were adjusted to 14% moisture content, and all forage yields were reported in both dry-matter and moisture-adjusted (65%) units. Yields for all trial entries are summarized in their respective tables.

Data Results

The least significant difference (LSD) is provided at the bottom of each results table. The LSD is used to determine whether differences in hybrid yields are statistically significant. If the difference between two hybrid yields equals or exceeds the LSD value, the difference is considered significant. If the yield difference between two entries is less than the LSD value, those entries are considered equal-yielding. Farmers should use the LSD ($P < 0.30$) when selecting superior hybrids to minimize economic loss from false-negative conclusions (i.e., concluding hybrids are the same when they are different). Scientists, academics, and others may prefer using LSD ($P < 0.05$) to minimize the risk of false-positive conclusions (i.e., concluding hybrids are different when they are the same). Hybrid yields displayed in bold are in the highest LSD yield group and are considered equal-yielding to one another but higher-yielding than all non-bolded hybrids. Hybrids in the table are sorted from highest to lowest yield.

While yield performance is the primary focus of this report, many factors should be considered when selecting a hybrid. These factors may include time to maturity, herbicide tolerance, disease resistance, pest tolerance, standability, drought tolerance, and cost.

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2025 Dryland Grain Sorghum Hybrid Performance Trial at Akron

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Brand	Hybrid	Grain Yield[a]	Yield	2-Year Avg. Yield	Test Weight	Moisture	Emerged Plant Population	Harvest Population[b]	Tillering[c]	Maturity Group[d]	Grain Color
		bu/ac	% of test avg.	bu/ac	lb/bu	percent	plants/ac	heads/ac	tillers/plant		
BH Genetics	BH 3701C	**141.6**	140%	147	57.2	11.0	21,300	60,300	1.9	ME	Cream
Dekalb	DKS29-28	127.3	126%	136	57.9	10.9	17,200	58,300	2.4	E	Bronze
Dekalb	DKS28-07	125.0	124%	135	57.5	10.2	21,200	58,200	1.8	E	Bronze
Dyna-Gro Seed	M62GC23	122.4	121%	136	56.4	11.4	17,500	51,000	2.0	ME	Cream
Dyna-Gro Seed	M59GB57	119.0	118%	130	**58.6**	9.9	14,200	53,500	2.8	E	Bronze
Dyna-Gro Seed	GX24911	117.3	116%	-	53.8	10.1	16,300	53,100	2.4	E	Red
Croplan	CP6011	117.1	116%	-	**59.2**	10.7	19,400	52,100	1.7	ME	Bronze
Channel	5R45	116.8	116%	130	57.4	11.5	15,800	52,300	2.3	ME	Red
Channel	5B29	116.8	116%	125	57.5	9.1	18,900	56,100	2.1	E	Bronze
Croplan	CP6111A	116.6	115%	-	57.7	11.3	21,200	58,100	1.8	ME	Red
Hoegemeyer Seed	H6020	113.4	112%	125	**59.9**	11.0	17,000	50,900	2.1	ME	Red
Channel	5B70	111.0	110%	129	55.4	11.7	17,700	58,400	2.5	E	Bronze
Dekalb	DKS28-16	109.6	109%	125	**59.0**	11.3	18,900	59,200	2.2	E	Bronze
Channel	5B96	107.3	106%	-	55.6	11.3	18,200	55,200	2.0	ME	Bronze
BH Genetics	BH 3818	107.2	106%	125	56.9	11.3	19,200	62,100	2.3	ME	Red
Hoegemeyer Seed	H6006	105.1	104%	122	**59.6**	11.6	18,300	55,300	2.1	ME	Red
Dekalb	DKS29-95	103.2	102%	125	51.6	10.7	18,500	51,800	1.8	E	Dark Red
Dyna-Gro Seed	M59GB94	102.3	101%	126	52.8	11.3	15,200	53,000	2.5	E	Bronze
Croplan	CP5811A	101.6	101%	-	58.0	10.8	18,700	48,500	1.6	E	Bronze
BH Genetics	BH 3520	97.5	97%	122	**58.4**	11.0	17,000	48,000	1.8	E	Bronze
Dyna-Gro Seed	GX25914	88.8	88%	-	54.7	12.0	21,100	50,200	1.4	ME	Bronze
Dyna-Gro Seed	GX25305	88.5	88%	-	53.1	8.8	10,500	48,100	3.7	ME	Bronze
Dyna-Gro Seed	GX25301	85.4	85%	-	57.3	11.8	6,300	27,700	3.4	E	Bronze
Rob-See-Co	GS5199	79.1	78%	-	**60.0**	11.2	8,700	35,400	3.2	ME	Bronze
Rob-See-Co	GS5423	78.4	78%	-	57.8	10.5	8,900	34,500	2.9	ME	Bronze
Alta Seeds	ADV G1125IG	73.7	73%	-	51.3	9.6	9,500	26,800	1.9	ME	Red
American Acres	AS212R	72.0	71%	-	**59.4**	10.9	6,600	27,100	3.1	E	Red
Dyna-Gro Seed	M62GB36	65.4	65%	102	45.8	11.7	8,600	29,700	2.4	ME	Bronze
Dyna-Gro Seed	GX25302	64.6	64%	-	43.4	7.9	9,600	34,000	2.6	E	Cream
Dyna-Gro Seed	GX25304	55.6	55%	-	51.1	11.9	8,200	26,600	2.3	E	Cream
	Average	**101.0**	**100%**	**128**	**55.8**	**10.8**	**15,300**	**47,900**	**2.3**	**-**	**-**
	[e]LSD (.30)	8.6			1.8						
	[e]LSD (.05)	16.4			3.4						
	Coefficient of Variation (CV)	6.4%			2.4%						

[a]Yields adjusted to 14% moisture and hybrids ranked by yield. Hybrid yields in bold are in the top LSD group (.30).

[b]Harvest population is the total number of grain-producing heads/panicles counted at harvest that were mature, including tillers.

[c]Average number of productive (grain containing and mature) tiller heads per plant. Does not include main plant head.

dMaturity group: E=Early; ME=Medium-Early. Maturity groups are provided by the company and may not align with the observed flowering dates in the trial due to the latitude and relatively high elevation of the trial site (4,659 feet).

[e]Farmers selecting a variety based on yield should use the LSD (.30) to protect themselves from false negative conclusions (concluding varieties are the same when they are actually different). Companies or researchers may use the LSD (.05) to avoid false positive conclusions (concluding varieties are different when they are actually the same).

Site Information

Collaborator:	USDA-ARS Central Great Plains Research Center
Planting Date:	June 2, 2025
Harvest Date:	November 6, 2025
Fertilizer:	Starter: 3.5 lb/ac N and 11.8 lb/ac of P as 10-34-0 in furrow
Herbicide:	Burndown 4/22/25: Buccaneer Plus 32oz/ac + Dicamba HD 4.0 oz/ac + Sharpen 2.0 oz/ac 7/9/25: Starane Ultra 1.16 pts/ac + Dicamba HD 8.0 oz/ac
Previous Crop:	Winter wheat
Soil Type:	Rago Silt Loam
GPS Coordinates:	40.1507562, -103.135265
Trial Comments:	Trial planted into excellent moisture and stripper-header wheat stubble. Seedling emergence was delayed and established plant stands were lower than expected due to heavy wheat residue and cool temperatures in early June. Seeding rate was 44,000 seeds per acre. Final grain yield was largely driven by hybrid, with hybrids that had lower emergence tending to yield lower. Within-hybrid and within-plot variation in plant stands was minimal. Good weed control throughout the season, light grass weed pressure was noted in August. Nearby weather station totals showed the trial received about 15 inches of rain from planting to harvest.

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2025 Dryland Grain Sorghum Hybrid Performance Trial at Sheridan Lake

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Brand	Hybrid	Grain Yield[a]	Yield	2-Year Avg. Yield	Test Weight	Moisture	Emerged Plant Population	Harvest Population[b]	Tillering[c]	50% Maturity	Plant Height	Maturity Group[d]	Grain Color
		bu/ac	% of test avg.	bu/ac	lb/bu	percent	plants/ac	heads/ac	tillers/plant	days after planting	inches		
Dyna-Gro Seed	GX25914	**126.3**	125%	-	63.0	13.7	32,726	44,474	0.4	128	51	ME	Bronze
Dekalb	DKS36-07	**124.0**	123%	84	62.7	12.4	38,342	48,060	0.3	111	52	ME	Bronze
Dyna-Gro Seed	M62GC23	118.0	117%	87	62.4	12.3	36,708	48,105	0.3	104	47	ME	Cream
Dyna-Gro Seed	M59GB94	115.9	115%	83	62.0	13.2	29,410	39,194	0.3	116	50	E	Bronze
Dekalb	DKS38-16	115.1	114%	78	**64.2**	13.3	31,542	42,140	0.3	108	51	ME	Bronze
Alta Seeds	ADV G1125IG	114.3	113%	-	60.0	12.3	28,579	36,458	0.3	111	47	ME	Red
Dyna-Gro Seed	GX24911	112.9	112%	-	61.8	12.3	33,698	46,797	0.4	112	41	E	Red
BH Genetics	BH 3701C	106.2	105%	78	61.7	12.2	35,420	44,471	0.3	107	48	ME	Cream
Croplan	CP6111A	105.8	105%	-	61.7	12.3	33,494	44,159	0.3	112	43	ME	Red
Hoegemeyer Seed	H6020	102.1	101%	73	62.0	11.8	35,894	46,771	0.3	108	50	ME	Red
Croplan	CP5811A	99.2	98%	-	61.2	11.2	39,164	46,649	0.2	109	46	E	Bronze
Hoegemeyer Seed	H6041	96.8	96%	-	61.6	11.8	36,204	50,755	0.4	106	48	ME	White
Dekalb	DKS29-95	96.3	96%	73	59.6	11.4	32,260	43,439	0.4	107	43	E	Dark Red
BH Genetics	BH 3818	95.9	95%	68	61.9	12.1	33,050	42,903	0.3	110	42	ME	Red
Dekalb	DKS29-28	94.8	94%	71	60.2	11.0	29,045	48,687	0.7	109	40	E	Bronze
Dekalb	DKS28-16	94.5	94%	68	62.1	12.4	36,268	58,356	0.6	108	45	E	Bronze
Croplan	CP6011	93.6	93%	-	61.8	12.1	36,914	47,214	0.3	109	49	ME	Bronze
American Acres	AS258R	93.2	92%	-	61.6	12.7	26,262	30,085	0.1	109	55	ME	Red
Dekalb	DKS28-07	91.1	90%	67	59.5	10.9	36,025	47,028	0.3	107	42	E	Bronze
Dyna-Gro Seed	GX25301	90.7	90%	-	60.7	12.0	25,959	43,764	0.7	113	42	E	Bronze
Dyna-Gro Seed	M59GB57	87.9	87%	64	60.8	12.0	33,644	42,899	0.3	104	41	E	Bronze
Hoegemeyer Seed	H6006	85.4	85%	62	61.9	12.3	32,747	55,281	0.7	107	47	ME	Red
American Acres	AS212R	80.3	80%	-	61.8	12.1	31,097	42,517	0.4	105	44	E	Red
Dyna-Gro Seed	GX25304	79.6	79%	-	59.9	13.1	28,756	36,865	0.3	122	45	E	Cream
	Average	**100.8**	**100%**	**73**	**61.5**	**12.2**	**33,100**	**44,900**	**0.4**	**September 11, 2025**	**46**	**-**	**-**
	[e]LSD (.30)	5.7			0.4								
	[e]LSD (.05)	10.8			0.8								
	Coefficient of Variation (CV)	7%			0.5%								

[a]Yields adjusted to 14% moisture and hybrids ranked by yield. Hybrid yields in bold are in the top LSD group (.30).

[b]Harvest population is the total number of grain-producing heads/panicles counted at harvest that were mature, including tillers.

[c]Average number of productive (grain containing and mature) tiller heads per plant. Does not include main plant head.

dMaturity group: E=Early; ME=Medium-Early; M=Medium. Maturity groups are provided by the company and may not align with the observed maturity dates in the trial due to the latitude and relatively high elevation of the trial site (3,990 feet).

[e]Farmers selecting a variety based on yield should use the LSD (.30) to protect themselves from false negative conclusions (concluding varieties are the same when they are actually different). Companies or researchers may use the LSD (.05) to avoid false positive conclusions (concluding varieties are different when they are actually the same).

Site Information

Collaborator: Scherler Farms
Planting Date: May 23, 2025
Harvest Date: October 31, 2025
Fertilizer: Starter: 3.5 lb/ac N and 11.8 lb/ac of P as 10-34-0 in furrow
Soil Type: Fort Collins sandy loam
GPS Coordinates: 38.5419698, -102.4591133
Trial Comments: Planted 1" deep into moisture. Average stands and emergence, partially due to heavy rain two weeks after planting. Heavy sandbur weed pressure, which was 70% controlled in harvested rows by pre-emerge herbicide, and a single application of glyphosate with a hooded sprayer. Trial average maturity date of Sept. 11th. Nearby weather station totals showed the trial received about 19.3 inches of rain from planting to harvest.

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2025 Dryland Grain Sorghum Hybrid Performance Trial at Seibert

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Brand	Hybrid	Grain Yield[a]	Yield	Test Weight	Moisture	Emerged Plant Population	Harvest Population[b]	Tillering[c]	50% Maturity	Maturity Group[d]	Grain Color
		bu/ac	% of test avg.	lb/bu	percent	plants/ac	heads/ac	tillers/plant	days after planting		
Dyna-Gro	M59GB94	**86.7**	118%	60.0	9.5	24,300	42,000	0.7	110	E	Bronze
BH Genetics	BH 3701C	**86.3**	118%	**61.0**	9.2	34,800	38,700	0.1	99	E	Cream
Dyna-Gro	M62GC23	**84.2**	115%	59.5	9.3	29,300	41,500	0.4	100	ME	Cream
Dyna-Gro	M62GB36	**83.0**	113%	59.3	8.6	23,000	34,400	0.5	120	ME	Bronze
Dekalb	DKS29-95	**80.6**	110%	56.3	8.1	24,700	45,200	0.8	100	E	Dark Red
Channel	5B96	78.9	108%	**61.0**	9.2	30,800	39,300	0.3	109	ME	Bronze
Channel	5R45	78.2	107%	**60.5**	9.5	21,500	36,200	0.7	102	ME	Red
Dyna-Gro	GX25914	78.1	107%	**60.1**	9.7	28,100	37,100	0.3	122	ME	Bronze
Channel	5B70	77.7	106%	**60.1**	9.5	18,600	34,000	0.9	114	E	Bronze
Dekalb	DKS28-07	77.5	106%	59.4	9.2	28,100	43,500	0.6	100	E	Bronze
Channel	5B29	77.4	106%	57.8	7.8	27,600	49,100	0.8	96	E	Bronze
Dyna-Gro	M59GB57	75.4	103%	59.8	8.9	32,700	44,700	0.4	98	E	Bronze
Dekalb	DKS29-28	75.2	103%	58.2	8.8	27,400	40,600	0.5	102	E	Bronze
Dekalb	DKS28-16	70.0	96%	**61.4**	9.8	27,400	46,900	0.7	103	E	Bronze
Croplan	CP5811A	70.0	96%	58.0	8.7	35,600	42,500	0.2	98	E	Bronze
Dyna-Gro	GX25305	68.0	93%	59.0	8.8	30,100	42,100	0.4	112	ME	Bronze
Croplan	CP6111A	67.9	93%	57.8	8.2	29,200	39,400	0.4	103	ME	Red
Dyna-Gro	GX25301	67.6	92%	58.1	8.5	25,000	51,000	1.0	105	E	Bronze
BH Genetics	BH 3818	66.5	91%	56.1	7.8	26,100	40,600	0.6	105	ME	Red
Dyna-Gro	GX25302	64.8	89%	52.6	7.0	17,200	30,600	0.8	123	ME	Cream
Hoegemeyer	6041	64.2	88%	58.0	7.7	33,100	43,200	0.3	100	ME	White
Dyna-Gro	GX24911	63.3	87%	55.9	7.4	23,000	39,300	0.7	104	E	Red
Croplan	CP6011	61.9	85%	57.2	7.5	28,800	44,900	0.6	99	ME	Bronze
Dyna-Gro	GX25304	52.8	72%	54.1	7.5	19,400	30,400	0.6	121	E	Cream
	Average	**73.2**	**100%**	**58.4**	**8.6**	**26,900**	**40,700**	**0.6**	**September 16, 2025**	-	-
	[e]LSD (.30)	6.8		1.3							
	[e]LSD (.05)	13.0		2.4							
	Coefficient of Variation (CV)	7.1%		1.6%							

[a]Yields adjusted to 14% moisture and hybrids ranked by yield. Hybrid yields in bold are in the top LSD group (.30).

[b]Harvest population is the total number of grain-producing heads/panicles counted at harvest that were mature, including tillers.

[c]Average number of productive (grain containing and mature) tiller heads per plant. Does not include main plant head.

[d]Maturity group: E=Early; ME=Medium-Early. Maturity groups are provided by the company and may not align with the observed flowering or black layer maturity dates in the trial due to the latitude and relatively high elevation of the trial site (4,712 feet).

[e]Farmers selecting a variety based on yield should use the LSD (.30) to protect themselves from false negative conclusions (concluding varieties are the same when they are actually different). Companies or researchers may use the LSD (.05) to avoid false positive conclusions (concluding varieties are different when they are actually the same).

Site Information

Collaborator: Farm S Inc.
Planting Date: June 2, 2025
Harvest Date: November 17, 2025
Fertilizer: Starter: 3.5 lb/ac N and 11.8 lb/ac of P as 10-34-0 in furrow plus 46 lb/ac N from Urea with 1 lb/ac Zn from Zinc Sulfate
Soil Type: Nunn sandy clay loam
GPS Coordinates: 39.269712, -102.817357
Trial Comments: Planted into moisture, good emergence. Moderate Palmer amaranth pressure in field throughout season. Trial received approximately 9.3" of rainfall from planting to harvest according to radar estimates.

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2025 Dryland Grain Sorghum Hybrid Performance Trial at Walsh

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Brand	Hybrid	Grain Yield[a]	Yield	2-Year Avg. Yield	Test Weight	Moisture	Emerged Plant Population	Plant Height	Maturity Group[b]	Grain Color
		bu/ac	% of test avg.	bu/ac	lb/bu	percent	plants/ac	inches		
Dyna-Gro Seed	M62GC23	**84.5**	123%	69	54.2	13.1	27,400	34	ME	Cream
Dekalb	DKS28-16	**80.8**	117%	63	**56.9**	13.7	27,100	39	E	Bronze
Dekalb	DKS28-07	76.3	111%	63	56.2	13.8	25,100	35	E	Bronze
Rob-See-Co	GS6455	75.4	109%	60	55.3	13.8	27,100	38	ME	Bronze
BH Genetics	BH 3701C	75.0	109%	65	55.4	14.2	30,100	34	ME	Cream
Dekalb	DKS36-07	74.4	108%	62	54.8	13.3	27,100	36	ME	Bronze
Dekalb	DKS29-95	74.1	108%	61	56.2	14.7	27,500	35	E	Dark Red
BH Genetics	BH 3818	72.2	105%	66	55.0	13.3	24,700	33	ME	Red
Dyna-Gro Seed	GX24911	71.5	104%	-	**57.1**	14.1	23,400	33	E	Red
American Acres	AS258R	70.4	102%	-	55.4	13.8	20,900	45	ME	Red
Dekalb	DKS29-28	69.8	101%	62	**58.2**	14.3	28,100	31	E	Bronze
Rob-See-Co	GS6166W	67.3	98%	55	55.7	13.3	27,800	38	ME	White
Dyna-Gro Seed	M59GB94	67.1	97%	56	53.4	12.9	21,200	39	E	Bronze
Rob-See-Co	GS5199	66.8	97%	-	56.4	13.5	26,100	34	E	Red
Dyna-Gro Seed	M59GB57	66.0	96%	62	**57.3**	14.6	24,200	31	E	Bronze
Dyna-Gro Seed	GX25301	64.6	94%	-	56.3	14.2	29,000	33	E	Bronze
Dyna-Gro Seed	M62GB36	64.2	93%	53	54.2	13.3	26,800	39	ME	Bronze
American Acres	AS212R	63.8	93%	-	56.3	13.6	28,900	36	E	Red
Rob-See-Co	GS5423	63.7	93%	54	56.4	14.1	29,600	30	E	Bronze
Dyna-Gro Seed	GX25305	63.6	92%	-	52.7	14.8	27,400	38	ME	Red
Dekalb	DKS38-16	63.4	92%	60	**57.3**	14.3	27,700	38	ME	Bronze
Dyna-Gro Seed	GX25914	60.4	88%	-	54.1	13.2	29,300	40	ME	Bronze
Dyna-Gro Seed	GX25304	48.7	71%	-	54.6	14.0	28,400	36	E	Cream
	Average	**68.9**	**100%**	**61**	**55.6**	**13.8**	**26,700**	**36**	-	-
	[c]LSD (.30)	6.3			1.3					
	[c]LSD (.05)	12.0			2.4					
	Coefficient of Variation (CV)	6.5%			1.6%					

[a]Yields adjusted to 14% moisture and hybrids ranked by yield. Hybrid yields in bold are in the top LSD group (.30).

[b]Maturity group: E=Early; ME=Medium-Early; M=Medium. Maturity groups are provided by the company.

[c]Farmers selecting a variety based on yield should use the LSD (.30) to protect themselves from false negative conclusions (concluding varieties are the same when they are actually different). Companies or researchers may use the LSD (.05) to avoid false positive conclusions (concluding varieties are different when they are actually the same).

Site Information

Collaborator:	Plainsman Research Center
Planting Date:	June 23, 2025
Harvest Date:	November 29, 2025
Fertilizer:	Fall strip tillage applied 60 lb of N and 20 lb of P per acre
Herbicides:	Early pre-plant: Valkos SC at 2 oz/ac, Dicamba DMA at 4 oz/ac, Buccaneer 5 Extra at 36.5 oz/ac Pre-plant: Buccaneer 5 Extra at 32 oz/ac, Moccasin at 21 oz/ac, Explorer at 5 oz/ac, Atrazine 4L at 32 oz/ac Pre-emerge: Buccaneer 5 Extra at 32 oz/ac, Warrant at 64 oz/ac, and Atrazine 4L at 16 oz/ac
Soil Type:	Richfield silt loam
GPS Coordinates:	37.435727039, -102.3189338
Trial Comments:	Planted into moisture, good stands and emergence. Excellent weed control throughout the season. Nearby weather station totals showed the trial received about 6.7 inches of rain from planting to harvest.

Contact Zane Jenkins at zane.jenkins@colostate.edu or Sally Jones-Diamond at sally.jones@colostate.edu

SOIL AND CROP SCIENCES
COLORADO STATE UNIVERSITY

CROPS TESTING PROGRAM

2025 Sprinkler Irrigated Grain Sorghum Hybrid Performance Trial at Walsh

Brand	Hybrid	Grain Yield[a]	Yield	Test Weight	Moisture	Emerged Plant Population	Maturity Group[b]	Grain Color
		bu/ac	% of test average	lb/bu	percent	plants/ac		
Dekalb	DKS36-07	**130.6**	118%	63.2	12.5	30,395	ME	Bronze
Dyna-Gro	GX25914	**130.3**	117%	**64.2**	13.9	28,556	ME	Bronze
BH Genetics	BH 4220	**129.9**	117%	63.4	13.1	30,105	ME	Bronze
Rob-See-Co	GS6166W	**127.5**	115%	62.8	13.3	29,718	ME	White
Rob-See-Co	GS6455	123.0	111%	**64.7**	13.0	27,491	ME	Bronze
BH Genetics	BH 4820	122.1	110%	**64.1**	13.5	26,039	M	Red
Advanta	ADV G1125IG	115.6	104%	63.1	13.4	27,588	ME	Red
Dyna-Gro	GX25305	113.5	102%	62.0	11.9	26,717	ME	Bronze
Dyna-Gro	M62GB36	113.3	102%	62.8	13.0	29,040	ME	Bronze
Dyna-Gro	M59GB94	111.9	101%	63.1	13.0	28,943	E	Bronze
Dyna-Gro	M62GC23	110.2	99%	62.4	11.6	25,168	ME	Cream
Dekalb	DKS38-16	110.0	99%	**64.3**	12.6	27,104	ME	Bronze
Dekalb	DKS29-95	108.7	98%	60.9	10.8	27,201	E	Dark Red
Dekalb	DKS28-16	95.0	86%	62.5	11.3	27,298	E	Bronze
Dekalb	DKS28-07	94.7	85%	60.1	10.5	28,459	E	Bronze
Dekalb	DKS29-28	93.2	84%	60.8	10.4	26,136	E	Bronze
Rob-See-Co	GS5199	89.6	81%	60.7	11.1	27,104	E	Red
Rob-See-Co	GS5423	76.2	69%	58.6	9.3	23,426	E	Bronze
	Average	**110.9**	**100%**	**62.4**	**12.1**	**27,600**	-	-
	[c]LSD (.30)	6.1		0.7				
	[c]LSD (.05)	11.7		1.4				
	CV:	7.4		5.1				

[a]Yields adjusted to 14% moisture and hybrids ranked by yield. Hybrid yields in bold are in the top LSD group (.30).

[b]Maturity group: E=Early; ME=Medium-Early; M=Medium. Maturity groups are provided by the company.

[c]Farmers selecting a variety based on yield should use the LSD (.30) to protect themselves from false negative conclusions (concluding varieties are the same when they are actually different). Companies or researchers may use the LSD (.05) to avoid false positive conclusions (concluding varieties are different when they are actually the same).

Site Information

Collaborator:	Plainsman Research Center: Zane Jenkins and Perry Jones
Planting Date:	June 4, 2025
Harvest Date:	October 31, 2025
Fertilizer:	Fall Strip Till: N at 158 and P at 30 lb/ac Planter: N at 5, P at 20, and Zn at 0.5 lb/ac
Previous Crop:	Corn
Herbicide:	Early Pre-plant: Buccaneer 5 Extra at 32 oz/ac, Moccasin at 21 oz/ac, Explorer at 5 oz/ac, Atrazine 4L at 32 oz/ac, Sharpen at 2 oz/ac Pre-plant: Buccaneer 5 Extra at 32 oz/ac, Atrazine 4L at 16 oz/ac, Sharpen at 3 oz/ac
Soil Type:	Ulysses and Norka silt loams
GPS Coordinates:	37.4282760, -102.3258907
Trial Comments:	Planted into moisture. Average stands and emergence. Nearby weather station totals showed the trial received about 6.7 inches of rain from planting to harvest and 15.0" of irrigation water.

Contact Zane Jenkins at zane.jenkins@colostate.edu or Sally Jones-Diamond at sally.jones@colostate.edu

SOIL AND CROP SCIENCES
COLORADO STATE UNIVERSITY

2025 Dryland Grain Sorghum Hybrid Performance Trial at Wiggins

CROPS TESTING PROGRAM

Brand	Hybrid	Grain Yield[a]	Yield	Test Weight	Moisture	Plant Population	Maturity Group[b]	Grain Color
		bu/ac	% of test avg.	lb/bu	percent	plants/ac		
BH Genetics	BH 3520	**44.9**	183%	**57.4**	8.4	24,700	E	Bronze
Croplan	CP5811A	**37.9**	155%	**57.3**	7.9	25,600	E	Bronze
Dekalb	DKS28-16	**37.7**	154%	**59.9**	8.4	21,700	E	Bronze
Channel	5B29	35.2	144%	**57.1**	7.1	21,600	E	Bronze
Dyna-Gro	M62GC23	34.8	142%	54.6	6.9	21,500	ME	Cream
Dekalb	DKS29-95	32.5	133%	55.6	7.8	22,400	E	Dark Red
Dekalb	DKS29-28	31.9	130%	**58.9**	8.1	19,400	E	Bronze
Dekalb	DKS28-07	28.7	117%	**56.9**	7.8	21,700	E	Bronze
Dyna-Gro	M59GB57	28.1	115%	54.6	7.2	26,500	E	Bronze
Hoegemeyer	H6041	27.4	112%	53.0	8.4	21,000	ME	White
Channel	5B70	25.0	102%	51.4	6.9	22,300	E	Bronze
Dyna-Gro	M59GB94	23.8	97%	46.5	7.7	23,000	E	Bronze
Hoegemeyer	H6006	23.6	96%	51.4	7.8	21,700	ME	Red
Dyna-Gro	GX25301	23.0	94%	55.1	7.9	18,300	E	Bronze
BH Genetics	BH 3701C	23.0	94%	49.1	6.5	23,500	E	Cream
Channel	5R45	21.8	89%	53.8	7.9	21,300	ME	Red
Dyna-Gro	GX25304	20.0	81%	-	7.4	17,200	E	Cream
Channel	5B96	19.1	78%	-	7.7	24,100	ME	Bronze
Advanta	ADV G1125IG	18.9	77%	49.8	7.7	19,200	ME	Red
Dyna-Gro	GX25914	18.3	75%	49.1	7.8	24,300	ME	Bronze
Dyna-Gro	M62GB36	16.9	69%	52.5	7.2	14,100	ME	Bronze
Croplan	CP6011	16.9	69%	53.7	6.3	24,700	ME	Bronze
Dyna-Gro	GX24911	16.8	69%	-	7.6	21,300	E	Red
Croplan	CP6111A	16.3	67%	-	7.6	19,100	ME	Red
BH Genetics	BH 3818	14.8	60%	50.6	7.0	21,400	ME	Red
Dyna-Gro	GX25302	12.6	51%	-	7.6	16,500	ME	Cream
Dyna-Gro	GX25305	11.5	47%	-	7.6	23,200	ME	Bronze
	Average	**24.5**	**100%**	**53.7**	**7.6**	**21,500**	-	-
	[c]LSD (.30)	7.2		3.3				
	[c]LSD (.05)	13.7		6.6				
	Coefficient of Variation (CV)	21.1%		4.4%				

[a]Yields adjusted to 14% moisture and hybrids ranked by yield. Hybrid yields in bold are in the top LSD group (.30).

[b]Maturity group: E=Early; ME=Medium-Early; M=Medium. Maturity groups are provided by the company and may not align with the observed flowering dates in the trial due to the latitude and relatively high elevation of the trial site (4,900 feet).

[c]Farmers selecting a variety based on yield should use the LSD (.30) to protect themselves from false negative conclusions (concluding varieties are the same when they are actually different). Companies or researchers may use the LSD (.05) to avoid false positive conclusions (concluding varieties are different when they are actually the same).

Site Information

Collaborator: Cooksey Farms, LLC
Planting Date: June 14, 2025
Harvest Date: November 7, 2025
Soil Type: Weld loam
GPS Coordinates: 40.043262693, -104.18718628
Trial Comments: Trial planted into moisture and had good emergence and stands. Excellent weed control throughout the season. Seeding rate was 30,000 seeds/ac. Trial received approximately 9.5" of rainfall from planting to harvest according to radar estimates. Missing test weights are due to insufficient grain for an accurate sample from low yield.

SOIL AND CROP SCIENCES
COLORADO STATE UNIVERSITY

2025 Irrigated Grain Sorghum Hybrid Performance Trial at Wiggins

CROPS TESTING PROGRAM

Brand	Hybrid	Grain Yield[a]	Yield	2-Year Average Yield	Test Weight	Moisture	Plant Population	Maturity Group[b]	Grain Color
		bu/ac	% of test avg.	bu/ac	lb/bu	percent	plants/ac		
Dekalb	DKS29-95	**157.2**	111%	145	57.5	9.5	37,300	E	Dark Red
Hoegemeyer	H6006	**151.5**	107%	-	**60.9**	10.5	34,500	ME	Red
Dyna-Gro	M62GC23	**151.1**	107%	147	59.0	10.3	38,000	ME	Cream
Hoegemeyer	H6020	**150.3**	106%	-	58.7	9.3	31,300	ME	Red
Dyna-Gro	M59GB57	147.5	104%	131	58.1	9.6	37,400	E	Bronze
Dekalb	DKS28-07	146.4	103%	141	58.0	9.3	34,700	E	Bronze
Dekalb	DKS29-28	146.1	103%	133	58.3	10.0	36,400	E	Bronze
Dyna-Gro	GX25914	145.9	103%	-	**59.9**	10.2	40,200	ME	Bronze
Dyna-Gro	M59GB94	145.8	103%	150	57.9	10.6	35,800	E	Bronze
Dekalb	DKS28-16	144.0	102%	136	59.5	10.1	38,600	E	Bronze
BH Genetics	BH 4220	142.6	101%	-	57.5	10.9	33,000	ME	Bronze
Advanta	ADV G1125IG	139.6	98%	70	58.5	10.1	33,000	ME	Red
Channel	5R45	137.0	97%	131	58.5	10.6	25,900	ME	Red
Dyna-Gro	GX25305	135.2	95%	-	58.0	9.6	31,900	ME	Bronze
Channel	5B70	130.4	92%	139	57.4	10.6	31,300	E	Bronze
Dyna-Gro	GX25302	120.2	85%	-	53.2	8.2	27,100	ME	Cream
Dyna-Gro	M62GB36	119.6	84%	126	57.3	7.7	35,100	ME	Bronze
	Average	**141.8**	**100%**	**132**	**58.1**	**9.8**	**34,200**	-	-
	[c]LSD (.30)	9.3			1.0				
	[c]LSD (.05)	17.8			2.0				
	Coefficient of Variation (CV)	4.5%			1.2%				

[a]Yields adjusted to 14% moisture and hybrids ranked by yield. Hybrid yields in bold are in the top LSD group (.30).

[b]Maturity group: E=Early; ME=Medium-Early. Maturity groups are provided by the company and may not align with the observed flowering dates in the trial due to the latitude and relatively high elevation of the trial site (4,775 feet).

[c]Farmers selecting a variety based on yield should use the LSD (.30) to protect themselves from false negative conclusions (concluding varieties are the same when they are actually different). Companies or researchers may use the LSD (.05) to avoid false positive conclusions (concluding varieties are different when they are actually the same).

Site Information

Collaborator: Cooksey Family Farms
Planting Date: June 14, 2025
Harvest Date: November 7, 2025
Soil Type: Heldt clay
GPS Coordinates: 40.00020, -104.11022
Trial Comments: Trial was planted into good moisture and weed control was excellent throughout the season. Trial was planted at 83,500 seeds per acre.

SOIL AND CROP SCIENCES
COLORADO STATE UNIVERSITY

2025 Dryland Forage Sorghum Variety Performance Trial at Walsh

CROPS TESTING PROGRAM

		Yield											Forage Quality[a]												
Variety	Brand	Forage[b]	Dry Matter	Yield	2-Year Forage Avg.	Moisture	Brix	Plant Height	Plant Population	Forage Type[c]	Relative Maturity[d]	Traits[e]	RFQ	CP	aNDFom	Lignin	WSC (Sugar)	Starch	Ash	Fat	NDFD 30hr	NDFD 240hr	TDN	NEL	Milk/Ton
		tons/ac		% of test avg.	tons/ac	% at harvest	percent	in	plants/ac				index	percent										Mcal/cwt	lb/ton
FX25001	Dyna-Gro Seed	**16.0**	**5.6**	160%	-	38	11	77	37,600	SS	ML	-	148	8.2	43	3.6	10.6	20.5	4.4	1.1	50	65	66	72	3299
Super Sile 30	Dyna-Gro Seed	11.3	4.0	112%	10.3	52	18	65	28,600	FS	ME	-	129	8.1	50	3.1	12.0	5.8	8.6	0.8	59	73	63	63	2843
F71FS72 BMR	Dyna-Gro Seed	11.2	3.9	112%	9.8	51	19	75	48,600	FS	E	BMR	135	8.2	50	3.0	12.3	6.1	9.0	0.9	61	73	64	64	2890
SweetTon MS	Dyna-Gro Seed	11.0	3.8	109%	9.4	54	14	82	43,500	GS	ML	SCA	109	7.2	53	3.6	12.3	3.5	6.0	0.6	51	66	60	63	2760
F75FS15	Dyna-Gro Seed	10.6	3.7	106%	-	50	16	68	21,900	FS	M	-	148	7.4	42	3.4	14.9	16.3	6.0	1.0	50	66	65	70	3210
Fullgraze II BMR	Dyna-Gro Seed	9.8	3.4	97%	9.0	57	12	94	50,000	SS	ML	BMR	121	6.7	51	3.1	14.0	3.2	7.9	0.7	55	69	62	63	2811
Danny Boy II BMR	Dyna-Gro Seed	9.7	3.4	96%	8.4	55	13	68	45,800	SS	ME	BMR	168	9.4	44	2.4	15.6	3.4	8.2	0.7	64	76	69	68	3221
Fullgraze II	Dyna-Gro Seed	9.6	3.3	95%	9.3	52	16	74	36,200	SS	ML	-	105	6.5	55	3.8	10.6	4.5	6.9	0.7	52	67	59	62	2661
FS250	Rob-See-Co	9.5	3.3	95%	-	49	18	44	39,700	FS	M	SCA	129	10.2	50	3.3	10.8	6.8	6.0	0.7	54	71	64	66	2974
F72FS05	Dyna-Gro Seed	9.4	3.3	93%	10.2	49	21	44	40,300	FS	ME	-	136	10.4	49	2.9	11.4	5.8	8.8	0.9	60	75	64	64	2915
Super Sile 20	Dyna-Gro Seed	9.1	3.2	91%	9.6	52	19	75	31,200	FS	ML	-	140	8.1	45	3.4	12.5	12.4	7.3	0.9	54	70	65	67	3055
Dynagraze II BMR	Dyna-Gro Seed	9.0	3.1	89%	7.1	50	15	80	45,100	SS	ME	BMR	138	9.1	48	3.6	12.0	10.4	5.4	0.9	55	68	65	68	3129
Super Sweet 10	Dyna-Gro Seed	8.9	3.1	89%	7.6	50	18	50	26,600	SS	M	-	132	8.8	47	4.1	9.5	16.6	5.2	1.0	50	66	64	68	3080
F74FS72 BMR	Dyna-Gro Seed	8.5	3.0	85%	8.2	51	26	45	40,800	FS	M	BMR	142	9.9	50	3.4	10.8	4.3	8.8	0.8	63	76	66	64	2954
Dynagraze II	Dyna-Gro Seed	7.0	2.4	70%	6.2	49	16	72	24,500	SS	ME	-	117	7.5	50	4.5	9.7	13.9	6.3	0.9	50	66	61	65	2851
	Average	**10.0**	**3.5**	**100%**	**8.8**	**51**	**17**	**68**	**37,360**	**-**	**-**	**-**	**133**	**8.4**	**48**	**3.4**	**11.9**	**8.9**	**7.0**	**0.8**	**55**	**70**	**64**	**66**	**2977**
	[f]LSD (0.30)	1.2	0.4																						
	[f]LSD (0.05)	2.3	0.8																						
	Coefficient of Variation (CV)	8.8%	8.8%																						

aAll 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 digestible nutrients; NEL=net energy for lactation; Milk/ton=predicted amount of milk produced per ton of silage dry matter calculated using MILK2013.

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

[c]Forage Type: GS=grain sorghum; FS=forage sorghum; SS=sorghum sudangrass.

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

[e]Traits are provided by the companies. Dashes mean conventional (no traits) or information isn't available. BMR=brown mid-rib; SCA=sugar cane aphid.

[f]Farmers selecting a variety based on yield should use the LSD (.30) to protect themselves from false negative conclusions (concluding varieties are the same when they are actually different). Companies or researchers may use the LSD (.05) to avoid false positive conclusions (concluding varieties are different when they are actually the same).

Site Information

Collaborator:	Plainsman Research Center: (Zane Jenkins, Perry Jones Tanner Dunivan)
Planting Date:	June 23, 2025
Harvest Date:	November 6, 2025
Fertilizer:	Fall Strip-Till: N at 60 and P at 20 lb/ac applied as NH3 & 10-34-0
Herbicide:	Pre-plant: Buccaneer 5 Extra at 32 oz/ac, Moccasin at 21 oz/ac, and Atrazine 4L at 32 oz/ac; Pre-emerge: Buccaneer 5 Extra at 32 oz/ac, Warrant at 64 oz/ac, and Atrazine 4L at 16 oz/ac
Soil Type:	Richfield silt loam
GPS Coordinates:	37.4362045, -102.3184154
Trial Comments:	Planted into moisture and wheat stubble. Trial had excellent weed control throughout the season. Nearby weather station showed trial received about 6" of rain from planting through harvest.

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2025 Limited Irrigated Forage Sorghum Variety Performance Trial at Rocky Ford

CROPS TESTING PROGRAM

		Yield										Forage Quality[a]												
Variety	Brand	Forage[b]	Dry Matter	Yield	5-Year Forage Avg.	Moisture	Brix	Plant Height	Forage Type[c]	Relative Maturity[d]	Traits[c]	RFQ	CP	aNDFom	Lignin	WSC (Sugar)	Starch	Ash	Fat	NDFD 30hr	NDFD 240hr	TDN	NEL	Milk/Ton
		tons/ac		% of test avg.	tons/ac	% at harvest	percent	in				index	percent										Mcal/cwt	lb/ton
Fullgraze II	Dyna-Gro Seed	**33.1**	**11.6**	139%	31.4	69	9	164	SS	ML	-	75	7.5	63	5.8	8.3	3.2	8.2	0.6	48	65	55	54	2117
Big Country	Western Select Genetics	**32.0**	**11.2**	135%	-	81	6	158	SS	PS	-	67	7.4	69	6.2	7.0	0.1	10.0	0.5	51	67	50	48	1787
FX25001	Dyna-Gro Seed	30.7	10.7	129%	-	82	7	147	SS	ML	-	70	8.1	70	5.7	5.6	0.1	10.6	0.4	53	67	50	48	1802
F72FS05	Dyna-Gro Seed	27.0	9.4	114%	23.1	72	2	86	FS	ME	-	103	7.5	48	4.1	9.9	24.1	10.0	1.2	46	62	61	61	2562
Excel II	Star Seed	26.8	9.4	113%	-	73	9	136	SS	L	-	81	8.2	53	4.5	11.1	8.1	11.9	0.8	45	63	56	55	2135
Fullgraze II BMR	Dyna-Gro Seed	26.1	9.1	110%	26.2	72	14	143	SS	ML	BMR	85	8.2	56	4.8	10.1	3.6	11.3	0.9	49	63	56	55	2192
EXP 101	Star Seed	25.3	8.9	107%	-	68	8	108	SS	M	-	108	7.6	47	4.8	10.4	19.3	8.9	1.1	45	62	61	63	2658
Danny Boy II BMR	Dyna-Gro Seed	25.3	8.9	106%	28.4	82	6	131	SS	ME	BMR	80	8.4	63	4.1	7.4	0.1	16.7	0.5	58	70	50	46	1721
Packer HGY	Star Seed	24.5	8.6	103%	-	70	2	85	FS	ME	-	137	8.0	42	4.4	10.6	30.2	7.0	1.4	46	62	65	69	3076
Super Sile 30	Dyna-Gro Seed	24.4	8.6	103%	25.2	75	13	107	FS	ME	-	83	7.2	55	4.9	9.1	11.0	11.0	0.8	49	64	56	55	2204
Dynagraze II BMR	Dyna-Gro Seed	23.8	8.3	100%	23.7	69	10	106	SS	ME	BMR	107	7.5	47	5.2	10.8	21.1	8.4	1.2	44	62	61	63	2686
Mad Cow	Western Select Genetics	22.6	7.9	95%	-	70	2	82	SS	ME	-	117	8.2	48	4.5	9.0	23.0	8.6	1.2	50	66	61	64	2769
Super Sile 20	Dyna-Gro Seed	22.5	7.9	95%	26.4	75	11	115	FS	ML	-	82	7.6	52	4.4	10.3	13.3	11.5	0.9	43	60	58	56	2192
Nutrimaxx BMR	Star Seed	21.1	7.4	89%	-	78	9	129	SS	L	BMR	94	8.0	58	4.6	10.1	3.6	9.7	0.6	53	71	57	56	2321
SweetTon MS	Dyna-Gro Seed	20.3	7.1	85%	22.4	76	11	117	GS	ML	SCA	101	7.2	48	3.5	13.1	12.6	10.0	1.0	46	63	62	61	2538
F71FS72 BMR	Dyna-Gro Seed	18.7	6.5	79%	18.4	71	3	83	FS	E	BMR	155	7.2	38	4.1	11.2	33.1	7.7	1.6	47	59	66	71	3213
F74FS72 BMR	Dyna-Gro Seed	16.7	5.8	70%	17.0	77	8	73	FS	M	BMR	124	8.7	49	3.7	9.4	19.0	11.5	1.1	57	67	59	61	2693
Neigher	Western Select Genetics	15.8	5.5	66%	-	82	7	102	SS	PS	-	82	10.5	59	3.8	7.1	0.4	15.6	0.6	54	70	52	48	1827
Suge	Western Select Genetics	14.9	5.2	63%	-	69	9	101	SS	ME	BD, BMR6, DS	117	9.0	45	4.2	10.5	17.8	11.5	1.2	49	62	60	61	2602
	Average	**23.8**	**8.3**	**100%**	**24.2**	**74**	**8**	**114**				**98**	**8.0**	**53**	**4.6**	**9.5**	**12.8**	**10.5**	**0.9**	**49**	**64**	**58**	**58**	**2373**
	[e]LSD (0.30)	2.1	0.7																					
	[e]LSD (0.05)	4.0	1.4																					
	Coefficient of Variation (CV)	6.0	6.0																					

aAll 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 digestible nutrients; NEL=net energy for lactation; Milk/ton=predicted amount of milk produced per ton of silage dry matter calculated using MILK2013.

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

[c]Forage Type: GS=grain sorghum; FS=forage sorghum; SS=sorghum sudangrass.

[d]Relative maturities are provided by the companies. E=early; ME=medium-early; M=medium; ML=medium-late; PS=Photoperiod sensitive; L=late.

[e]Traits are provided by the companies. Dashes mean conventional (no traits) or information isn't available. BD=brachytic dwarf; BMR=brown mid-rib; SCA=sugar cane aphid.

[f]Farmers selecting a variety based on yield should use the LSD (.30) to protect themselves from false negative conclusions (concluding varieties are the same when they are actually different). Companies or researchers may use the LSD (.05) to avoid false positive conclusions (concluding varieties are different when they are actually the same).

Site Information

Collaborator:	CSU Arkansas Valley Research Center (Jeff Davidson and Kevin Tanabe)
Planting Date:	May 30, 2025
Harvest Date:	September 22, 2025
Fertilizer:	Side-dress: N at 106 lb/ac applied as 32-0-0
Herbicide:	None in-season
Soil Type:	Rocky Ford silty clay loam
GPS Coordinates:	38.0389, -103.6933
Trial Comments:	Planted into marginal moisture, hot and dry through June until mid-July. Trial was cultivated twice and minimal weed pressure was present throughout the season.

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2025 Full Irrigated Forage Sorghum Variety Performance Trial at Rocky Ford

CROPS TESTING PROGRAM

		Yield										Forage Quality[a]												
Variety	Brand	Forage[b]	Dry Matter	Yield	5-Year Forage Avg.	Moisture	Brix	Plant Height	Forage Type[c]	Relative Maturity[d]	Traits[e]	RFQ	CP	aNDFom	Lignin	WSC (Sugar)	Starch	Ash	Fat	NDFD 30hr	NDFD 240hr	TDN	NEL	Milk/Ton
		tons/ac		% of test avg.	tons/ac	% at harvest	percent	in				index	percent										Mcal/cwt	lb/ton
Fullgraze II	Dyna-Gro Seed	**29.5**	**10.4**	129%	30.7	71	13.1	161	SS	ML	-	66	7.1	63	5.1	9.1	0.7	9.3	0.5	46	63	55	51	1934
FX25001	Dyna-Gro Seed	**28.8**	**10.1**	125%	-	83	6.0	149	SS	ML	BMR	70	7.8	67	5.0	6.6	0.1	12.0	0.4	54	69	51	47	1765
Fullgraze II BMR	Dyna-Gro Seed	24.1	8.5	105%	25.8	75	3.4	142	SS	ML	BMR	81	7.6	56	5.2	10.4	1.3	12.7	0.5	49	64	54	53	2049
Danny Boy II BMR	Dyna-Gro Seed	19.4	6.8	85%	27.2	82	8.6	136	SS	PS	BMR	89	9.2	61	5.1	7.4	0.2	13.9	0.6	57	69	51	50	1996
F74FS72 BMR	Dyna-Gro Seed	12.9	4.6	56%	16.2	79	1.3	70	FS	M	BMR	109	10.0	51	4.7	8.4	15.1	11.5	1.0	54	67	57	59	2490
	Average	**22.9**	**8.1**	**100%**	**25.0**	**78**	**6.5**	**131**				**83**	**8.3**	**60**	**5.0**	**8.4**	**3.5**	**11.9**	**0.6**	**52**	**66**	**53**	**52**	**2047**
	[f]LSD (0.30)	1.1	0.3																					
	[f]LSD (0.05)	2.3	0.7																					
	Coefficient of Variation (CV)	8.3	8.3																					

aAll 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 digestible nutrients; NEL=net energy for lactation; Milk/ton=predicted amount of milk produced per ton of silage dry matter calculated using MILK2013.

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

[c]Forage Type: FS=forage sorghum; SS=sorghum sudangrass.

[d]Relative maturities are provided by the companies. M=medium; ML=medium-late; PS=Photoperiod sensitive.

[e]Traits are provided by the companies. Dashes mean conventional (no traits) or information isn't available. BMR=brown mid-rib.

[f]Farmers selecting a variety based on yield should use the LSD (.30) to protect themselves from false negative conclusions (concluding varieties are the same when they are actually different). Companies or researchers may use the LSD (.05) to avoid false positive conclusions (concluding varieties are different when they are actually the same).

Site Information

Collaborator:	CSU Arkansas Valley Research Center (Jeff Davidson and Kevin Tanabe)
Planting Date:	May 30, 2025
Harvest Date:	September 22, 2025
Fertilizer:	Side-dress: N at 106 lb/ac applied as 32-0-0
Herbicide:	None in-season
Soil Type:	Rocky Ford silty clay loam
GPS Coordinates:	38.0389, -103.6933
Trial Comments:	Planted into marginal moisture, hot and dry through June until mid-July. Trial was cultivated twice and minimal weed pressure was present throughout the season.

Sorghum Starter Fertilizer Study In-Furrow vs Surface Stream with Phosphorus Focus

Sally Jones-Diamond and Jason Webb

A variety of phosphorus input sources exist in the agricultural marketplace and are used as starter fertilizers. These fertilizers can be applied either in-furrow or on the surface of the soil. Each product contains a different salt index, which may adversely affect the crop if applied at an incorrect rate or placement. Little research, if any, has been conducted to determine which type of fertilizer or application method is most effective for grain sorghum in Colorado. This study compared commonly sold phosphorus-based starter fertilizers with an untreated control to determine whether differences in crop response and/or yield occur due to fertilizer application and/or placement.

The trial was conducted at three locations (Akron, Seibert, and Sheridan Lake) using one grain sorghum hybrid (M59GB57) in 2025. The five treatments in the study were an untreated check, 10-34-0 applied in-furrow, 10-34-0 applied on the soil surface in a band, 5N-15P-3K-0.8Zn (Lumen by CHS) applied in-furrow, and 7N-23P-5K (XLR-Rate by CHS) applied in-furrow. Phosphorus needs were determined using soil test data, and application rates were set according to product labels to meet those needs. Total phosphorus applied was kept constant across all treatments, excluding the check. The 2024 Starter Fertilizer Trial at Akron has been included for reference (Seibert site lost to drought).

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2025 Starter Fertilizer Trials at Akron, Sheridan Lake, and Seibert

CROPS TESTING PROGRAM

Treatment	Rate/Acre	Application Type	Grain Yield[a]	Yield	Moisture	Test Weight	Population
			bu/ac	% of test avg.	percent	lb/bu	plants/ac
Akron (Starting soil N of 51 lb/ac and P of 18 lb/ac (low))							
Untreated	N/A	N/A	114	103%	8.3	58.2	23,445
Lumen @ 3 gal/ac	3.0 gal	In-Furrow	112	101%	8.2	57.5	23,021
10-34-0 @ 3.2 gal/acre	3.2 gal	Surface Band	112	101%	8.3	56.7	25,609
7-23-5 @ 5 gal/ac	5.0 gal	In-Furrow	109	98%	7.9	56.6	16,254
10-34-0 @ 3.2 gal/acre	3.2 gal	In-Furrow	105	95%	8.7	58.0	19,270
		Average	**111**	**100%**	**8.3**	**57.4**	**21,520**
		Coefficient of Variation (%)	**7.8**				
Sheridan Lake (Starting soil N of 180 lb/ac and P of 24 lb/ac (med))							
10-34-0 @ 3.2 gal/acre	3.2 gal	Surface Band	102	105%	11.5	60.4	33,934
Untreated	N/A	N/A	100	104%	11.7	60.9	35,592
7-23-5 @ 5 gal/ac	5.0 gal	In-Furrow	99	103%	11.3	60.8	32,890
Lumen + 7-23-5	1.5 gal + 2.5 gal	In-Furrow	96	100%	11.4	61.2	34,022
Lumen @ 3 gal/ac	3.0 gal	In-Furrow	93	96%	11.5	60.6	33,963
10-34-0 @ 3.2 gal/acre	3.2 gal	In-Furrow	88	91%	11.3	61.0	34,455
		Average	**96**	**100%**	**11.5**	**60.8**	**34,143**
		Coefficient of Variation (%)	**10.4**				
Seibert (Starting soil N of 110 lb/ac and P of 34 lb/ac (med))							
Lumen @ 3 gal/ac	3.0 gal	In-Furrow	84	107%	9.1	61.7	32,497
10-34-0 @ 3.2 gal/acre	3.2 gal	In-Furrow	80	103%	9.3	61.0	33,757
7-23-5 @ 5 gal/ac	5.0 gal	In-Furrow	79	102%	9.4	61.2	34,676
Lumen + 7-23-5	1.5 gal + 2.5 gal	In-Furrow	77	99%	9.2	60.4	30,768
Untreated	N/A	N/A	76	97%	9.2	60.3	34,996
10-34-0 @ 3.2 gal/acre	3.2 gal	Surface Band	72	92%	9.2	59.2	36,538
		Average	**78**	**100%**	**9.2**	**60.6**	**33,872**
		Coefficient of Variation (%)	**10.3**				

No statistical significance was found (P-values greater than 0.50)
[a]Yields corrected to 14% moisture.

Site Information - Akron

Collaborator:	USDA-ARS Station
Planting Date:	June 2, 2025
Harvest Date:	November 15, 2025
Soil Type:	Rago Silt Loam
Trial Comments:	Trial was planted 1" deep into great moisture and received 15.0" of precipitation during the season. Weed control was excellent and there were no pest or storm issues with the trial. M59GB57 was used for trial.

Site Information - Sheridan Lake

Collaborator:	Scherler Farms
Planting Date:	May 23, 2025
Harvest Date:	October 31, 2025
Soil Type:	Fort Collins sandy loam
GPS Coordinates:	38.5419698, -102.4591133
Trial Comments:	Planted 1" deep into moisture. Average stands and emergence, partially due to heavy rain two weeks after planting. Heavy sandbur weed pressure, which was 70% controlled in harvested rows by pre-emerge herbicide, and a single application of glyphosate with a hooded sprayer. Trial average maturity date of Sept. 11th. Nearby weather station totals showed the trial received about 19.3 inches of rain from planting to harvest. M59GB57 was used for trial.

Site Information - Seibert

Collaborator:	Tim Stahlecker
Planting Date:	June 2, 2025
Harvest Date:	November 17, 2025
Soil Type:	Ascalon Sandy Loam
GPS Coordinates:	39.269712, -102.817357
Trial Comments:	Trial was planted into great moisture. M59GB57 was used for trial.

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2024 Starter Fertilizer Trial at Akron

CROPS TESTING PROGRAM

Treatment	Rate/Acre	Application Type	Grain Yield[a]	Yield	Moisture	Weight	Population
			bu/ac	% of test avg.	percent	lb/bu	plants/ac
Akron (Starting soil N of 62 lb/ac and high level of P)							
Lumen @ 3 gal/ac	3.0 gal	In-Furrow	**160.4**	103%	10.9	56.0	24,800
10-34-0 @ 3.2 gal/acre	3.2 gal	In-Furrow	**159.7**	103%	10.5	56.5	26,100
10-34-0 @ 3.2 gal/acre	3.2 gal	Surface Band	154.6	99%	10.6	55.3	26,300
7-23-5 @ 5 gal/ac	5.0 gal	In-Furrow	152.8	98%	10.5	55.1	25,700
Untreated	N/A	N/A	149.7	96%	10.0	54.5	24,500
		Average	**155.4**	**100%**	**10.5**	**55.5**	**25,480**
		LSD (0.10)	**4**				
		Coefficient of Variation (%)	**2.2**				

[a]Yields corrected to 14% moisture.

Site Information - Akron

Collaborator:	USDA-ARS Station
Planting Date:	May 28, 2024
Harvest Date:	October 25, 2024
Soil Type:	Rago Silt Loam
Trial Comments:	Planted into excellent moisture into very heavy wheat residue. Average stands and emergence. Very timely and frequent rainfall allowed for excellent yield. No lodging noted at harvest. First frost date was Oct. 14th. Radar estimates showed the trial received 9.74 inches of rain from planting to harvest, and 18.57 inches since January 1st, which is 120% of the ten-year average (year-to-date). Weed control was excellent and there were no pest or storm issues with the trial. M59GB57 was used for trial.

Contact Sally Jones-Diamond at sally.jones@colostate.edu or Jason Webb at jason.webb@colostate.edu.