

2012 Colorado Spring Crop Variety Performance Trial Results

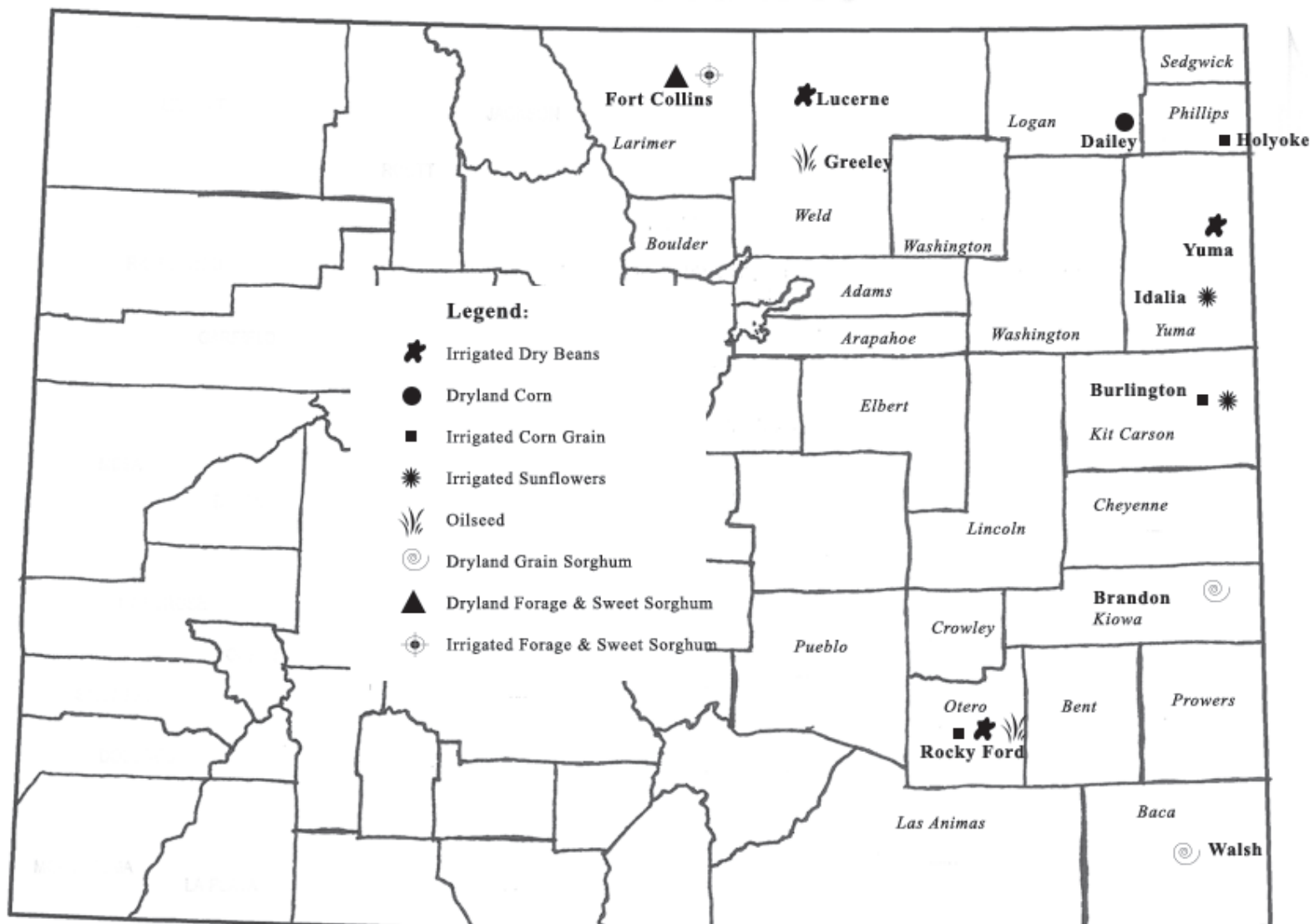
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The Colorado State University Crops Testing program annually collaborates with university breeding programs and seed companies to conduct crop performance trials to provide unbiased and reliable results to help Colorado crop producers make better variety decisions. These trials allow universities and seed companies to screen elite experimental lines for adaptability to diverse and variable Colorado cropping environments. Seed companies use results to make variety and hybrid marketing decisions. Some trials are also part of CSU's formal education efforts where graduate students are required to conduct thesis research and training is provided to undergraduates as universities prepare the next generation of the world's plant breeders and agronomists. CSU extension agents and CSU Agriculture Experiment Station personnel participate in conducting these trials and use trial results to make agronomic and variety recommendations to Colorado crop producers.

This publication marks the sixth year that CSU spring crop performance trial results have been published by the High Plains Journal and we are thankful for their collaboration. Selected pinto bean, corn, sunflower, camelina (for biofuel), and grain and forage sorghum trial results are featured in the following tables. Please note that these tables are intended to be stand alone and self-explanatory. The complete set of 2012 crop performance trial results for each crop is available on the Crops Testing website at www.csucrops.com. Crop performance trial results for previous years are also available at the same site.

The map below provides the approximate location of these trials within eastern Colorado. Some of the trials are conducted on CSU Agricultural Experiment Stations and others in superior farmer fields. We are especially thankful to the collaborating farmers, whose names are provided at the bottom of each trial results table. They donate their land, time, and equipment so that all Colorado crop producers can benefit from these trial results. The trials are made possible with funding from seed company entry fees, funding from the Colorado Dry Bean Administrative Committee, the Colorado Sorghum Producers, the Colorado Sunflower Administrative Committee, as well as a grant from the CSU Clean Energy Supercluster.

2012 Colorado Crop Variety Performance Trial Locations



2012 Irrigated Dry Bean Variety Performance Trial at Lucerne

Variety	Source	Yield ^a	Moisture	Seeds/Pound
		lb/ac	percent	count
La Paz	ProVita, Inc.	4285	10.6	1215
GTS-904	Gentec Inc.	4284	9.4	1092
CO 90693-5	Colorado State University	4276	9.3	1189
CO 91212-14	Colorado State University	4213	11.0	1291
Mariah	Seminis	4178	8.8	1197
Sinaloa	ProVita, Inc.	4078	8.5	1251
CO 91216-15	Colorado State University	3921	8.7	1071
CO 90848-11	Colorado State University	3902	9.4	1224
CO 91160-11	Colorado State University	3891	8.5	1136
CO 24972	Colorado State University	3889	11.3	1220
CO 91003-10	Colorado State University	3889	9.9	1069
CO 93096-02	Colorado State University	3884	7.3	1183
CO 91160-14	Colorado State University	3878	8.6	1130
CO 91007-11	Colorado State University	3855	12.6	1103
RS810	Seacat Farms	3807	11.3	1343
Croissant	Colorado State University	3765	8.7	1203
Long's Peak	Colorado State University	3702	8.9	1115
CO 91364-04	Colorado State University	3687	9.8	1233
Bill Z	Colorado State University	3664	8.1	1295
Windbreaker	Seminis	3654	7.8	1116
CO 92838-13	Colorado State University	3609	9.5	1040
CO 91003-13	Colorado State University	3569	11.2	1111
CO 90848-14	Colorado State University	3554	8.5	1116
Montrose	Colorado State University	3550	7.9	1188
CO 92838-07	Colorado State University	3498	9.6	1001
COB-816-03	Gentec Inc.	3483	11.6	1192
CO 91212-10	Colorado State University	3379	9.1	1103
RS971	Seacat Farms	3376	16.7	1365
Medicine Hat	Seminis	3353	7.8	1167
CO 91137-03	Colorado State University	3347	8.9	1155
Othello	Washington State University	3311	8.1	1232
Average		3765	9.6	1172

^bLSD (P<0.30)

291

^aYields corrected to 14% moisture.

^bIf the difference between two hybrid yields equals or exceeds the LSD value, there is a 70% chance the difference is statistically significant.

Plot Size: 10' x 30'

Site Information

Cooperator: Brian Leafgren

Planting Date: 5/25/2012

Harvest Date: 9/10/2012

Seeding Rate: 85,000 seeds/ac

Fertilizer: Nitrogen at 50 lb/ac

Herbicides: Eptam and Dual

Irrigation Type: Furrow

Disease Comments: Trace infections of white mold and Fusarium wilt were observed in a few plots, but were too variable to rate.

2012 Irrigated Dry Bean Variety Performance Trial at Yuma

Variety	Source	Yield ^a lb/ac	Test Weight lb/bu	Moisture percent	Seeds/Pound count
Montrose	Colorado State University	4076	61.4	9.9	1164
CO 93096-02	Colorado State University	3864	58.6	10.2	1153
Sinaloa	ProVita, Inc.	3833	60.2	10.9	1191
GTS-904	Gentec Inc.	3826	59.9	14.6	1160
CO 91364-04	Colorado State University	3773	60.1	12.3	1219
COB-816-03	Gentec Inc.	3765	60.0	14.9	1191
La Paz	ProVita, Inc.	3747	61.3	13.3	1308
Medicine Hat	Seminis	3741	58.6	10.1	1161
CO 91212-14	Colorado State University	3718	60.6	15.2	1279
CO 92838-13	Colorado State University	3629	58.6	13.8	1064
CO 90848-11	Colorado State University	3612	60.0	13.2	1236
Othello	Washington State University	3608	61.1	9.6	1184
Bill Z	Colorado State University	3595	60.1	11.2	1253
CO 91160-11	Colorado State University	3526	59.3	11.1	1129
Mariah	Seminis	3513	60.5	10.8	1231
CO 92838-07	Colorado State University	3510	59.6	12.5	1017
Croissant	Colorado State University	3419	59.5	11.1	1231
CO 91216-15	Colorado State University	3417	58.5	12.3	1091
Windbreaker	Seminis	3411	58.4	8.9	1185
CO 91003-10	Colorado State University	3298	58.8	13.3	1183
Long's Peak	Colorado State University	3157	58.5	15.6	1177
CO 91212-10	Colorado State University	3084	59.9	13.8	1135
RS971	Seacat Farms	3070	54.7	27.1	1297
CO 91003-13	Colorado State University	3063	58.4	15.6	1081
CO 91007-11	Colorado State University	2980	58.6	16.8	1145
CO 24972	Colorado State University	2892	59.7	14.5	1260
CO 91137-03	Colorado State University	2749	59.7	9.9	1127
CO 91160-14	Colorado State University	2681	58.8	11.9	1107
RS810	Seacat Farms	2674	58.2	17.4	1312
CO 90693-5	Colorado State University	2655	58.9	14.3	1140
CO 90848-14	Colorado State University	2360	59.7	12.3	1181
Average		3363	59.4	13.2	1180

^bLSD (P<0.30)

399

^aYields corrected to 14% moisture.

^bIf the difference between two hybrid yields equals or exceeds the LSD value, there is a 70% chance the difference is statistically significant.

Plot Size: 10' x 30'

Site Information

Cooperator: Richard Wacker

Planting Date: 5/30/2012

Harvest Date: 9/18/2012

Seeding Rate: 85,000 seeds/ac

Fertilizer: N-P-K-S-Zn at 85-60-21-20-1.5 lb/ac

Herbicides: Dual, Sonalan, Raptor, Basagran, and Outlook

Fungicides: Copper and Headline

Insecticide: Bifenthrin

Irrigation Type: Center Pivot

Disease Comments: Common bacterial blight infection varied from trace to moderate, and was most severe and consistent in entries such as Othello, Bill Z, and a few experimental lines. A mid-season yellowing of plots in the center of the nursery was observed, but did not appear to reduce plant vigor or yield.

2012 Irrigated Dry Bean Variety Performance Trial at Rocky Ford

Variety	Source	Yield ^a lb/ac	Test Weight lb/bu	Moisture percent	Seeds/Pound count
Mariah	Seminis	3702	59.4	9.5	1111
GTS-904	Gentec Inc.	3452	57.9	10.3	999
Montrose	Colorado State University	3398	59.1	10.3	1059
CO 91007-11	Colorado State University	3383	58.1	14.3	1061
CO 91003-10	Colorado State University	3317	58.6	11.7	1030
Othello	Washington State University	3313	59.5	9.6	1136
Bill Z	Colorado State University	3295	58.4	12.3	1142
CO 92838-07	Colorado State University	3188	56.6	10.4	1003
Long's Peak	Colorado State University	3129	57.6	10.3	1124
CO 90848-11	Colorado State University	3075	59.3	9.8	1080
CO 91160-14	Colorado State University	3059	58.8	10.4	1116
CO 91003-13	Colorado State University	3020	58.7	11.4	1056
Windbreaker	Seminis	3009	56.0	9.4	1017
La Paz	ProVita, Inc.	2995	59.3	9.8	1070
RS971	Seacat Farms	2967	56.2	14.0	1146
RS810	Seacat Farms	2948	57.1	12.6	1205
COB-816-03	Gentec Inc.	2893	58.0	11.0	1077
CO 92838-13	Colorado State University	2880	57.4	11.2	946
CO 90693-5	Colorado State University	2843	59.0	10.8	1103
Sinaloa	ProVita, Inc.	2811	58.7	9.4	1117
CO 24972	Colorado State University	2727	59.4	10.7	1259
CO 91212-14	Colorado State University	2719	60.6	10.3	1207
CO 91216-15	Colorado State University	2710	55.5	9.8	997
Medicine Hat	Seminis	2706	56.7	9.1	1064
CO 93096-02	Colorado State University	2633	56.2	9.9	1001
CO 90848-14	Colorado State University	2593	58.1	9.3	1104
Croissant	Colorado State University	2526	59.5	9.6	1158
CO 91364-04	Colorado State University	2421	59.2	9.7	1177
CO 91137-03	Colorado State University	2328	59.5	9.3	1044
CO 91160-11	Colorado State University	2314	58.7	11.5	1058
CO 91212-10	Colorado State University	2212	58.3	9.9	1063
Average		2921	58.2	10.6	1088
^b LSD (P<0.30)		361			

^aYields corrected to 14% moisture.

^bIf the difference between two hybrid yields equals or exceeds the LSD value, there is a 70% chance the difference is statistically significant.

Plot Size: 10' x 30'

Site Information

Cooperator: Arkansas Valley Research Center

Planting Date: 5/23/2012

Harvest Dates: 9/10/2012 and 9/12/2012

Seeding Rate: 85,000 seeds/ac

Fertilizer: 125 lb/ac of 18-46-0 applied Feb. 20, 2012

Irrigation Type: Furrow

2012 Irrigated Corn Hybrid Performance Trial at Rocky Ford

Source	Hybrid	Yield ^a bu/ac	Moisture percent	Test Weight lb/bu	Plant Height in	Silk Date days after planting	Population plants/ac
DEKALB	DKC62-09 (GENVT3P)	270.0	17.5	57.8	98	69	36,881
LG Seeds	LG2636 VT3Pro	263.6	20.1	54.7	103	68	36,590
DEKALB	DKC63-07 (GENVT3P)	263.6	18.0	57.3	95	67	33,106
LG Seeds	2642 VT3	261.9	21.6	54.0	96	67	35,138
DEKALB	DKC61-17 (GENVT3P)	261.6	17.7	56.6	93	67	36,881
Triumph	TRX21366H	260.9	21.1	54.2	103	71	31,944
Triumph	TRX21343H	255.6	19.7	53.6	102	69	32,234
DEKALB	DKC64-69 (GENVT3P)	252.2	18.2	58.1	94	67	36,300
DEKALB	DKC62-97 (GENVT3P)	251.2	18.5	57.2	98	66	38,333
LG Seeds	LG5630 VT3Pro	246.3	20.6	53.1	103	68	31,654
Mycogen	2A787	244.4	20.8	54.6	96	67	36,881
LG Seeds	LG2602 VT3Pro	240.4	19.2	55.0	102	69	34,848
Mycogen	2V738	227.4	18.5	56.4	103	70	35,138
Mycogen	2T784	218.9	20.1	55.4	102	70	39,204
Mycogen	2V707	207.8	19.2	55.2	100	70	32,815
Triumph	1217S	189.4	18.4	56.2	96	70	37,752
Average		244.7	19.3	55.6	99	68	35,356

^bLSD (P<0.30)

20.4

^aYields corrected to 15.5% moisture.

^bIf the difference between two hybrid yields equals or exceeds the LSD value, there is a 70% chance the difference is statistically significant.

Plot size: 5' x 31'

Site Information

Collaborators: Arkansas Valley Research Center

Planting Date: 5/1/2012

Harvest Date: 10/9/2012

Previous Crop: Alfalfa

Fertilizer: Pre-plant: N-P at 123-60 lb/ac applied dry using 18-48-0 and 82-0-0.

Post-plant: N at 90 lb/ac applied as liquid using 28-0-0.

Irrigation: Furrow (24 inches applied over 6 irrigations)

Soil Type: Rocky Ford silty clay loam

2012 Irrigated Corn Hybrid Performance Trial at Holyoke

Source	Hybrid	Yield ^a bu/ac	Moisture percent	Test	Plant	Population plants/ac	Lodging percent	Ear Drop percent
				Weight lb/bu	Height in			
NuTech	5B-604	211.5	12.8	56.5	84	28,017	4.2	2.2
DEKALB	DKC52-04 (GENVT3P)	204.0	14.1	60.1	91	27,878	6.5	0.3
DEKALB	DKC62-97 (GENVT3P)	203.6	13.6	59.2	92	27,434	6.7	0.4
G2 Genetics	5H-0504™	200.0	15.7	59.7	99	27,252	1.5	3.6
DEKALB	DKC49-30 (GENVT3P)	199.6	13.1	59.7	89	29,594	1.7	1.0
Producers Hybrids	7224 VT3P	195.8	13.4	56.9	94	28,330	13.9	2.5
Mycogen	2R547	194.1	15.2	58.9	91	26,250	4.6	1.5
G2 Genetics	5X-0004™	192.9	13.0	56.4	90	28,763	1.3	0.7
Triumph	TRX29946S	190.1	13.8	60.0	90	28,266	0.0	0.6
Producers Hybrids	7014 VT3	189.8	14.7	56.3	96	26,228	10.7	2.6
NuTech	5N-001	185.0	12.7	56.9	89	27,975	16.9	0.4
Producers Hybrids	6424 VT3P	181.4	13.1	58.2	96	27,742	1.8	1.4
G2 Genetics	5H-806™	181.0	14.2	58.0	95	27,364	5.1	4.1
G2 Genetics	5X-502™	179.2	13.7	58.0	93	29,068	14.7	1.9
DEKALB	DKC63-07 (GENVT3P)	178.7	15.8	59.3	89	27,789	20.1	0.7
Mycogen	2V676	176.1	15.0	58.9	94	28,411	32.3	0.7
G2 Genetics	5H-501™	175.7	14.2	60.3	96	26,858	16.6	1.9
Triumph	4401X	174.8	15.6	59.5	97	28,524	17.2	4.9
Triumph	1002S	172.3	14.6	59.2	99	29,101	41.3	1.7
DEKALB	DKC56-55 (GENVT3P)	169.5	14.4	60.4	92	28,276	9.8	1.0
Mycogen	2V707	167.0	15.7	57.4	97	28,943	31.3	4.0
G2 Genetics	5H-903™	159.9	14.0	57.7	91	27,449	3.2	1.8
Mycogen	2K757	147.0	13.5	56.9	99	28,912	18.7	5.3
G2 Genetics	5H-202™	143.7	15.6	61.7	96	27,318	11.5	3.0
Producers Hybrids	6624 VT3P	116.4	13.3	56.9	96	27,975	8.0	8.4
Producers Hybrids	6884 VT3P	93.4	14.3	59.4	99	26,627	4.4	11.9
Average		176.2	14.2	58.6	94	27,936	11.7	2.6

^bLSD (P<0.30) 15.0

^aYields corrected to 15.5% moisture.

^bIf the difference between two hybrid yields equals or exceeds the LSD value, there is a 70% chance the difference is statistically significant.

Plot size: 5' x 30'

Site Information

Collaborator: Brent Adler
 Planting Date: 5/2/2012
 Harvest Date: 10/22/2012
 Previous Crop: Corn
 Fertilizer: N-P-K-S-Zn at 230-75-73-40-1.5 lb/ac
 Herbicide: Roundup, Status, and Dual
 Insecticide: Brigade
 Fungicide: Quilt
 Soil Type: Valent sand

2012 Irrigated Corn Hybrid Performance Trial at Burlington

Source	Hybrid	Yield ^a bu/ac	Moisture percent	Test Plant		Population plants/ac	Lodging percent	Ear Drop percent
				Weight lb/bu	Height in			
DEKALB	DKC49-30 (GENVT3P)	196.2	13.8	60.4	79	27,007	2.2	1.1
DEKALB	DKC52-04 (GENVT3P)	190.5	14.2	60.3	78	28,750	9.1	1.5
DEKALB	DKC62-97 (GENVT3P)	187.0	15.0	60.2	85	29,774	3.0	0.0
Producers Hybrids	XP6104 VT3P	174.4	13.9	60.6	75	29,476	1.0	0.0
Triumph	1002S	171.8	15.4	59.3	85	28,479	25.5	4.4
Mycogen	2V676	168.6	15.6	60.0	84	28,277	23.9	3.7
Producers Hybrids	6624 VT3P	166.5	15.0	57.6	81	29,040	1.0	4.0
NuTech	5B-604	165.0	13.4	57.4	83	26,862	2.2	1.1
G2 Genetics	5X-502™	158.6	13.1	58.0	85	27,443	3.7	1.5
G2 Genetics	5H-0504™	157.0	15.7	60.1	84	27,878	1.6	3.8
DEKALB	DKC56-55 (GENVT3P)	153.7	14.7	61.6	84	27,614	9.2	6.5
Triumph	1217S	151.3	17.2	59.7	90	28,750	8.6	6.3
G2 Genetics	5H-806™	148.3	15.8	61.0	88	29,208	3.1	3.6
DEKALB	DKC59-88 (VT3)	146.6	16.5	61.3	85	29,911	26.2	4.4
Triumph	4401X	143.1	16.1	61.5	90	28,604	29.9	2.0
Producers Hybrids	6884 VT3P	142.5	15.1	61.2	86	27,152	2.1	1.6
Mycogen	2V707	141.1	17.0	59.8	86	30,637	5.7	2.4
Producers Hybrids	6424 VT3P	138.3	13.5	59.2	86	26,136	1.1	0.5
Mycogen	2V715	137.1	16.2	59.1	86	30,928	24.4	9.8
Mycogen	2V738	131.3	18.1	60.8	85	30,202	15.3	9.2
Triumph	1157X	127.4	15.7	59.6	89	29,756	29.1	14.6
G2 Genetics	5H-903™	126.7	14.4	58.6	83	27,878	2.1	11.5
Average		155.6	15.2	59.8	84	28,626	10.4	4.2

^bLSD (P<0.30)

26.5

^aYields corrected to 15.5% moisture.

^bIf the difference between two hybrid yields equals or exceeds the LSD value, there is a 70% chance the difference is statistically significant.

Plot size: 5' x 30'

Site Information

Collaborator: Tim Stahlecker
 Planting Date: 5/3/2012
 Harvest Date: 10/23/2012
 Previous Crop: Corn
 Fertilizer: N-P-K-S-Zn at 220-60-0-15-1.5 lb/ac
 Herbicide: Roundup PowerMax and atrazine
 Insecticide: Brigade and dimethoate
 Soil Type: Yuma-Keith silt loam

2012 Dryland Corn Hybrid Performance Trial at Dailey

Source	Hybrid	Yield ^a bu/ac	Moisture percent	Test Weight lb/bu	Ear Height in	Population plants/ac
DEKALB	DKC46-20 (GENVT3P)	41.6	11.7	57.1	29	13,588
DEKALB	DKC49-30 (GENVT3P)	35.6	10.5	53.8	21	14,946
DEKALB	DKC43-10 (GENVT2P)	33.3	13.1	60.4	22	13,464
DEKALB	DKC43-27 (VT3)	27.3	12.9	59.0	23	14,543
Triumph	TRX29946S	25.1	11.4	57.9	25	14,614
Triumph	9969S	14.4	12.7	59.7	24	14,614
Average		29.5	12.0	58.0	24	14,295

^bLSD (P<0.30)

11.8

^aYields corrected to 15.5% moisture.

^bIf the difference between two hybrid yields equals or exceeds the LSD value, there is a 70% chance the difference is statistically significant.

Plot size: 5' x 30'

Site Information

Collaborators: Mark & Neal Lambert

Planting Date: 5/10/2012

Harvest Date: 10/3/2012

Previous Crop: Wheat

Tillage: No-till

Fertilizer: Pre-plant: composted manure applied at 1.5 tons/ac
Planting: N-P at 18-48 lb/ac

Herbicides: Roundup PowerMax, Laudis, and atrazine

Soil Type: Haxtun sandy loam

Comments: The trial location experienced very hot and dry conditions during the growing season. The trial received 0.78 inches of rainfall and had 19 days where the high temperature was over 100 degrees Fahrenheit during the growing season. Stand establishment was very good except where the wheat residue was heavier in a few spots.

2012 Irrigated Oil Sunflower Hybrid Performance Trial at Burlington

Source	Hybrid	Yield ^a	Moisture	Test Weight	Plant Height	Population	Oil Content
		lb/ac	percent	lb/bu	in	plants/ac	percent
Triumph Seed	s673	3313	7.7	30.3	50	21,139	44.6
Seeds 2000	Torino-CL	3246	6.9	33.1	64	21,296	44.4
Mycogen	8N678S	3119	9.4	31.8	54	21,877	44.7
Mycogen	8N510	3069	5.5	29.6	63	20,715	42.1
Triumph Seed	TRXs11431HO	3032	8.4	30.8	45	22,264	44.6
Triumph Seed	TRX1284CPDM	2987	6.0	32.7	61	21,705	45.8
Mycogen	8N421CLDM	2978	6.1	31.5	66	21,490	44.9
Syngenta Seed	NX24123	2967	8.0	28.1	65	21,006	42.2
Seeds 2000	Falcon-SU	2965	6.8	32.8	51	19,660	43.5
Syngenta Seed	3158 Pelleted	2874	5.6	31.0	60	18,779	43.6
Triumph Seed	TRX1262CLDM	2861	6.3	30.9	65	21,253	44.2
Syngenta Seed	3845 HO	2787	5.8	31.8	61	19,554	45.7
CROPLAN	432 E	2779	6.4	30.5	62	21,490	39.8
Mycogen	8H449CLDM	2763	6.2	33.5	58	19,844	46.0
Syngenta Seed	NX24122	2732	7.2	29.5	67	20,522	40.7
Syngenta Seed	3733 NS/DM Pelleted	2727	5.2	31.5	59	19,270	45.9
Triumph Seed	s668	2697	8.8	30.5	50	22,748	44.5
Seeds 2000	Daytona-CL	2689	7.7	31.0	56	22,554	42.4
CROPLAN	559 CL	2653	5.5	31.4	62	20,231	44.9
CROPLAN	460 E	2622	6.6	30.3	62	20,812	46.5
Seeds 2000	Durango-SU	2579	6.3	31.5	52	19,457	43.6
Triumph Seed	TRX1261	2527	5.6	30.1	60	20,715	43.5
Seeds 2000	X6814-CL/DMR	2478	6.7	31.1	64	22,070	42.0
Triumph Seed	TRX11345CPD	2338	6.5	29.6	66	20,458	46.1
Syngenta Seed	3995 NS/SU	2316	5.9	31.1	58	20,328	41.5
Syngenta Seed	3158 NS/CL/DM	2313	6.1	31.1	55	20,231	42.8
Syngenta Seed	3495 NS/CL/DM	2312	5.3	32.5	59	20,715	44.0
Syngenta Seed	3990 NS/CL/DM	2235	6.0	32.9	60	21,490	43.4
Syngenta Seed	3733 ND/DM	2227	5.0	32.0	58	19,360	44.7
Seeds 2000	X6872-CL/DMR	2198	7.1	29.6	61	22,718	40.3
Seeds 2000	X6878-CL/DMR	2181	5.7	32.6	66	23,716	44.9
CROPLAN	548 CL	2141	5.5	31.4	60	19,277	41.8
Seeds 2000	X6822-CL/DMR	2121	6.6	30.9	61	21,780	41.4
Syngenta Seed	NX24121	2119	5.7	31.6	61	21,296	38.6
Average		2645	6.5	31.2	59	20,936	43.5

^bLSD (P<0.30)

272

^aYields were corrected to 10% moisture.

^bIf the difference between two hybrid yields equals or exceeds the LSD value, there is a 70% chance the difference is statistically significant.

Plot size: 5' x 30'

Site Information

Collaborator: Gerhardt Heintges
 Planting Date: 6/7/2012
 Harvest Date: 10/17/2012
 Fertilizer: N-P at 110-30 lb/ac
 Herbicide: Spartan applied at 3 oz/ac

2012 Irrigated Confection Sunflower Hybrid Performance Trial at Burlington

Source	Hybrid	Yield ^a lb/ac	Moisture percent	Test Weight lb/bu	Plant Height in	Population plants/ac	Seed Size							
							Over 24/64	Over 23/64	Over 22/64	Over 21/64	Over 20/64	Over 19/64	Over 16/64	Through 16/64
Red River Commodities	2215 CL	3278	10.4	21.2	70	15,261	5.8	10.4	14.6	20.6	22.0	17.8	8.2	0.6
Seeds 2000	X4334-CL	3251	15.1	19.9	65	16,166	6.6	10.2	16.4	19.2	13.8	16.8	16.4	0.6
Red River Commodities	8015	3209	10.7	17.7	63	16,746	7.6	9.8	15.4	22.4	16.2	16.4	11.0	1.2
Seeds 2000	Jaguar II-CL	3119	11.0	19.8	69	15,294	8.2	9.8	13.2	17.6	21.2	17.8	10.0	2.2
Mycogen	8C451CP	3095	9.9	19.9	65	15,144	9.0	10.0	11.8	25.4	14.6	18.4	9.8	1.0
Seeds 2000	5009	3034	11.8	20.3	64	15,874	3.0	5.0	7.4	19.2	15.4	22.6	25.2	2.2
Red River Commodities	2217	2865	8.7	19.1	70	16,750	13.6	12.4	20.2	19.8	18.4	9.2	5.6	0.8
Red River Commodities	2215	2833	9.5	19.9	69	15,175	4.6	11.4	15.8	21.4	22.0	15.6	8.4	0.8
Seeds 2000	X4337-CL	2738	15.5	19.4	70	12,580	5.2	4.2	5.2	9.2	12.6	19.0	37.2	7.4
Seeds 2000	Jaguar-CL	2715	10.8	20.1	60	14,845	6.4	12.4	18.8	21.0	14.0	12.0	12.8	2.6
Average		3014	11.3	19.7	67	15,383	7.0	9.6	13.9	19.6	17.0	16.6	14.5	1.9

^bLSD (P<0.30)

357

^aYields were corrected to 10% moisture.

^bIf the difference between two hybrid yields equals or exceeds the LSD value, there is a 70% chance the difference is statistically significant.

Plot size: 5' x 30'

Site Information

Collaborator: Gerhardt Heintges
 Planting Date: 6/7/2012
 Harvest Date: 10/17/2012
 Fertilizer: N-P at 110-30 lb/ac
 Herbicide: Spartan applied at 3 oz/ac

2012 Irrigated Oil Sunflower Hybrid Performance Trial at Idalia

Source	Hybrid	Yield ^a	Moisture	Test Weight	Plant Height	Population	Lodging	Oil Content
		lb/ac	percent	lb/bu	in	plants/ac	percent	percent
Mycogen	8N421CLDM	2015	8.3	30.0	60	19,010	10.8	42.8
Syngenta Seed	3845 HO	1900	7.1	29.0	61	18,642	9.3	44.4
Triumph Seed	TRX1261	1879	9.3	29.7	57	20,422	8.8	42.3
Triumph Seed	TRX1284CPDM	1849	9.7	29.9	50	17,892	11.3	43.6
Seeds 2000	Falcon-SU	1808	9.2	28.9	62	18,061	11.3	40.1
Mycogen	8N510	1771	10.5	28.3	61	18,878	8.3	40.8
Triumph Seed	TRX1262CLDM	1720	8.7	29.2	59	20,328	13.3	42.0
Triumph Seed	TRXs11431HO	1706	10.8	28.9	50	16,668	19.8	42.2
Syngenta Seed	3733 ND/DM	1667	9.1	29.4	59	19,685	19.0	43.3
Triumph Seed	s668	1647	10.4	29.1	47	16,391	14.7	42.3
Mycogen	8H449CLDM	1625	9.2	30.2	52	18,907	9.8	43.3
Mycogen	8N678S	1486	12.5	28.8	49	19,040	6.6	40.9
Syngenta Seed	3158 NS/CL/DM	1440	9.1	27.8	53	19,017	14.8	40.4
Syngenta Seed	3733 NS/DM Pelleted	1391	10.1	28.6	52	18,361	20.9	42.6
Seeds 2000	Durango-SU	1387	12.7	28.0	53	16,932	16.6	38.3
Seeds 2000	Torino-CL	1380	9.0	29.9	56	19,672	20.3	44.0
CROPLAN	460 E	1378	10.6	28.3	56	17,692	20.6	43.6
Syngenta Seed	NX24123	1369	10.3	25.4	60	17,429	12.3	39.0
Syngenta Seed	NX24122	1357	10.4	27.3	60	17,883	25.6	38.1
Triumph Seed	s673	1350	8.5	28.9	45	17,421	15.4	42.1
Syngenta Seed	3158 Pelleted	1335	8.6	28.7	57	19,485	27.1	42.5
Triumph Seed	TRX11345CPD	1293	9.7	29.0	65	17,934	10.5	44.3
Syngenta Seed	3495 NS/CL/DM	1289	9.2	29.6	56	17,049	24.8	40.3
Syngenta Seed	3995 NS/SU	1274	10.4	29.2	59	20,245	20.4	41.6
Seeds 2000	Daytona-CL	1265	10.7	27.3	54	18,935	8.1	40.5
CROPLAN	432 E	1214	9.3	29.0	59	19,298	20.2	39.2
Syngenta Seed	3990 NS/CL/DM	1211	10.0	30.0	56	19,400	12.7	39.2
Syngenta Seed	NX24121	1200	10.2	29.3	52	19,496	8.2	37.9
Seeds 2000	X6872-CL/DMR	1192	9.7	28.4	58	20,609	12.7	41.8
Seeds 2000	X6814-CL/DMR	1184	9.9	28.3	56	17,424	17.0	40.2
CROPLAN	559 CL	1184	11.6	28.7	66	19,110	22.5	42.6
Seeds 2000	X6822-CL/DMR	1105	9.6	27.7	50	19,234	12.8	41.0
Seeds 2000	X6878-CL/DMR	1055	9.3	30.2	60	19,672	35.8	41.8
CROPLAN	548 CL	1054	10.4	28.2	60	17,577	19.0	39.5
Average		1441	9.8	28.8	56	18,641	15.9	41.4

^bLSD (P<0.30)

271

^aYields were corrected to 10% moisture.

^bIf the difference between two hybrid yields equals or exceeds the LSD value, there is a 70% chance the difference is statistically significant.

Plot size: 5' x 30'

Site Information

Collaborator: Brad Rock

Planting Date: 5/29/2012

Harvest Date: 10/3/2012

Fertilizer: Nitrogen at 50 lb/ac

Herbicides: Prowl and Roundup PowerMax

Trial Comments: Plots were severely infested with Amaranth, which adversely affected yield. Seed samples from each plot were cleaned for accurate measurement of seed moisture and test weight. Yields were adjusted based on percent clean seed in each plot sample.

2012 Irrigated Confection Sunflower Hybrid Performance Trial at Idalia

Source	Hybrid	Yield ^a lb/ac	Moisture percent	Test Weight lb/bu	Plant Height in	Population plants/ac	Lodging percent	Seed Size							
								Over 24/64	Over 23/64	Over 22/64	Over 21/64	Over 20/64	Over 19/64	Over 16/64	Through 16/64
Dahlgren/Sunopta	D-9579	2377	12.5	18.2	61	15,082	9.8	8.6	11.0	15.0	25.4	13.2	17.2	8.8	0.8
Red River Commodities	8015	2284	12.9	18.2	63	16,862	6.1	9.6	14.8	17.2	25.0	12.2	13.0	7.6	0.6
Seeds 2000	5009	2271	14.9	20.7	66	15,550	7.9	1.6	4.0	7.2	13.0	23.6	26.4	22.6	1.6
Red River Commodities	2217	2158	12.3	20.8	66	13,666	9.5	9.2	14.8	18.2	21.2	17.4	10.8	6.8	1.6
Seeds 2000	Jaguar-CL	1986	12.6	20.4	58	13,821	13.1	10.4	15.8	18.0	21.4	11.6	13.8	8.0	1.0
Seeds 2000	Jaguar II-CL	1971	14.7	21.3	62	14,096	10.2	10.4	11.4	20.6	20.0	17.0	10.8	8.0	1.8
Red River Commodities	2215	1860	11.9	20.9	65	13,692	8.7	3.2	5.8	15.6	22.6	20.0	20.6	10.6	1.6
Seeds 2000	X4337-CL	1736	17.6	19.9	63	12,342	7.4	2.0	3.4	3.8	7.8	18.8	28.0	32.4	3.8
Red River Commodities	2215 CL	1701	12.9	21.0	67	14,730	6.6	8.6	10.2	16.4	19.4	19.0	15.0	10.2	1.2
Triumph Seed	770CL	1666	15.3	18.3	71	15,641	6.7	14.2	12.6	21.2	23.4	11.2	10.2	5.6	1.6
Seeds 2000	X4334-CL	1664	13.9	20.2	67	16,383	14.9	1.6	5.6	12.2	17.8	23.6	25.4	12.8	1.0
Dahlgren/Sunopta	D-9530CL	1628	15.8	20.8	63	13,805	11.0	2.2	5.0	9.4	21.8	16.6	27.0	17.4	0.6
Dahlgren/Sunopta	D-9592CL	1603	13.2	20.0	68	16,289	8.1	11.8	15.8	16.6	26.4	12.6	10.4	5.8	0.6
Triumph Seed	751C	1582	14.1	19.6	69	10,941	9.7	12.8	13.2	14.0	18.0	17.6	15.0	7.8	1.6
Mycogen	8C451CP	1545	15.1	19.2	67	13,184	6.7	10.2	11.8	16.8	18.2	18.6	14.6	8.8	1.0
Dahlgren/Sunopta	D-9530	1448	12.0	21.1	66	14,769	7.9	3.2	7.0	14.0	28.8	16.4	17.2	12.2	1.2
Triumph Seed	755C	1233	14.7	19.1	74	13,809	16.1	6.2	8.6	12.8	19.6	15.4	21.0	14.4	2.0
Average		1807	13.9	20.0	66	14,392	9.4	7.4	10.0	14.6	20.6	16.8	17.4	11.8	1.4

^bLSD (P<0.30)

308

^aYields were corrected to 10% moisture.

^bIf the difference between two hybrid yields equals or exceeds the LSD value, there is a 70% chance the difference is statistically significant.

Plot size: 5' x 30'

Site Information

Collaborator: Brad Rock

Planting Date: 5/29/2012

Harvest Date: 10/3/2012

Fertilizer: Nitrogen at 50 lb/ac

Herbicides: Prowl and Roundup PowerMax

Trial Comments: Plots were severely infested with Amaranth, which adversely affected yield. Seed samples from each plot were cleaned for accurate measurement of seed moisture and test weight. Yields were adjusted based on percent clean seed in each plot sample.

2012 Dryland Grain Sorghum Hybrid Performance Trial at Brandon

Source	Hybrid	Grain Yield ^a bu/ac	Yield Percent of Trial Average percent	Test Weight lb/bu	Lodging percent	Harvest Plant Population plants/ac	Plant Height in	50% Bloom days after planting	GDD ^b	50% Mature days after planting	Maturity Group ^c
Triumph	TR424	50.8	149	59	2	26,300	34	67	1886	113	E
Sorghum Partners	KS310	46.7	137	59	2	22,900	33	71	1993	115	E
Dekalb	DKS29-28	45.3	133	59	4	19,400	33	66	1852	111	E
Mycogen	1G557	44.8	131	58	1	22,300	32	68	1917	113	E
Dekalb	DKS28-05	40.4	118	58	4	21,300	33	73	2052	118	E
Dekalb	Pulsar	39.5	116	57	8	22,700	32	73	2052	119	E
Advanta	96275	36.4	107	58	2	17,200	30	66	1852	111	E
Sorghum Partners	251	32.8	96	57	1	21,500	29	63	1785	107	E
Syngenta	H-307	32.8	96	58	2	20,500	34	68	1917	113	E
Dekalb	39Y	31.2	91	56	1	15,900	34	72	2026	118	E
Triumph	TR438	45.0	132	57	1	17,400	37	80	2197	121	ME
Dekalb	DKS44-20	38.2	112	56	6	19,200	36	81	2215	123	ME
Mycogen	627	34.7	102	55	1	17,600	36	81	2215	123	ME
Mycogen	1G600	30.3	89	54	1	18,200	36	80	2197	122	ME
Sorghum Partners	NK5418	27.3	80	55	0	19,800	36	82	2235	122	ME
Triumph	TR452	26.2	77	54	1	19,000	36	82	2235	123	ME
Dekalb	DKS37-07	24.1	71	54	1	25,900	36	81	2215	123	ME
Mycogen	M3838	22.2	65	53	1	18,200	34	83	2260	HD	M
Triumph	TR448	18.0	53	50	1	17,200	37	87	2347	SD	M
Advanta	97524	14.7	43	53	0	16,300	36	83	2260	HD	M
Average		34.1		56	2	19,940	34	75	2085		

^cLSD (P<0.20)

6.4

1.6

^aYields corrected to 14% moisture.

^bGDD: Growing degree-days to 50% bloom date.

^cMaturity Group: E=early; ME=medium-early; M=medium.

^dDays after planting or maturation of seed at first freeze. HD=hard dough, SD=soft dough.

^eIf the difference between two varieties yields equals or exceeds the LSD value, there is an 80% chance the difference is statistically significant.

Site Information

Collaborator: Burl Scherler

Planting Date: 6/1/2012

Harvest Date: 10/29/2012

2012 Dryland Grain Sorghum Hybrid Performance Trial at Walsh

Source	Hybrid	Grain Yield ^a bu/ac	Yield Percent of Trial Average percent	Test Weight lb/bu	Harvest Plant Population plants/ac	Plant Height in	Emergence days after planting	50% Bloom days after planting	GDD ^b	50% Mature days after planting ^d	Maturity Group ^c
Triumph	TR424	37.2	149	61	25,900	33	12	65	1812	102	E
Dekalb	39Y	31.2	125	62	19,800	34	13	67	1879	106	E
Advanta	96275	29.8	120	57	21,500	33	12	61	1677	99	E
Dekalb	DKS29-28	29.7	119	61	25,900	32	13	63	1745	102	E
Dekalb	Pulsar	25.7	103	61	24,200	30	12	68	1910	109	E
Dekalb	DKS28-05	25.3	102	59	25,800	25	12	68	1910	106	E
Sorghum Partners	KS310	24.4	98	59	27,100	30	12	69	1929	107	E
Mycogen	1G557	19.5	78	59	24,400	31	12	63	1745	101	E
Sorghum Partners	251	18.4	74	58	26,700	29	12	58	1584	96	E
Dekalb	DKS44-20	35.6	143	61	25,600	36	12	75	2098	119	ME
Dekalb	DKS37-07	29.2	117	56	26,300	32	12	77	2155	121	ME
Triumph	TR438	28.8	116	60	27,700	35	13	70	1955	108	ME
Triumph	TR452	25.3	102	60	25,000	36	12	76	2132	114	ME
Sorghum Partners	NK5418	21.8	88	57	22,100	35	13	77	2155	121	ME
Mycogen	627	15.0	60	58	23,600	32	13	76	2132	114	ME
Mycogen	1G600	13.2	53	57	22,300	33	12	76	2132	115	ME
Triumph	TR448	23.2	93	55	25,200	33	13	80	2233	125	M
Mycogen	M3838	20.1	81	56	27,500	36	13	78	2184	122	M
Advanta	97524	19.8	80	56	23,000	34	13	80	2233	124	M
Average		24.9		59	24,716	33	12	71	1979	111	

^cLSD (P<0.20) 13.3

^aYields corrected to 14% moisture.

^bGDD: Growing degree-days to 50% bloom date.

^cMaturity Group: E=early; ME=medium-early; M=medium.

^dDays after planting or maturation of seed at first freeze.

^eIf the difference between two varieties yields equals or exceeds the LSD value, there is an 80% chance the difference is statistically significant.

Site Information

Collaborator: Plainsman Research Center

Planting Date: 5/29/2012

Harvest Date: 10/25/2012

2012 Dryland Forage and Sweet Sorghum Variety Performance Trial at Fort Collins

Source	Variety	Forage Yield ^a tons/ac	Brix (Stem Sugar) percent	Plant Height in	Flowering percent at harvest	Type	Maturity Group ^b
Chromatin	FS0000HS	18.03	15.0	19.0	12.5	Forage	P
Chromatin	FS00504	13.83	13.8	25.7	12.5	Forage	L
Richardson Seeds	X36400	13.18	14.5	18.3	33.3	Hybrid Forage	L
Eastern CO Seeds	HP99BMR	12.71	15.1	20.3	0.0	Forage	ME
Chromatin	FS0000HT	12.55	15.9	20.5	12.5	Forage	P
Chromatin	FS00991	12.15	14.5	13.2	0.0	Forage	L
Gayland Ward Seed	Super Sugar*	11.55	17.2	46.2	100.0	Sweet	E
Eastern CO Seeds	HP1010BMR	11.45	13.6	18.2	0.0	Forage	L
Eastern CO Seeds	HP95BMR	11.23	14.3	19.5	0.0	Forage	ME
AERC	CSSH-45*	9.97	16.9	31.2	28.6	Sweet	E
Richardson Seeds	X38400*	9.61	14.0	18.9	33.3	Sorghum x Sudan	ME
Gayland Ward Seed	Sweet For Ever*	9.58	16.0	20.2	33.3	Sweet	P
Richardson Seeds	Silo 700D*	9.24	15.8	14.6	20.0	Hybrid Forage	L
Eastern CO Seeds	HPECS12EXP	9.01	15.3	11.9	12.5	Forage	ME
Eastern CO Seeds	HP120BMR	8.44	15.9	11.5	0.0	Forage	L
AERC	CSSPM-7*	8.26	14.1	33.2	56.3	Pearl Millet	E
Eastern CO Seeds	HP85BMR	7.52	13.8	17.8	0.0	Forage	E
Average		11.08	15.0	21.2	20.9		
^c LSD (P<0.05)		4.77					
^c LSD (P<0.20)		3.24					

^aYields are adjusted to 70% moisture content based on oven-dried samples.

^bMaturity Group: E=early; ME=medium-early; ML=medium-late; L=late, P=Photoperiod sensitive.

^cIf the difference between two varieties yields equals or exceeds the LSD value, there is a 95% (at P<0.05) or 80% (at P<0.20) chance the difference is statistically significant.

Plot size: 10' x 35'

Site Information

Collaborator: Agricultural Research, Development and Education Center (ARDEC)

Planting Date: 6/1/2012

Harvest Date: Varieties with an asterisk symbol were harvested on 9/5/2012. All other varieties were harvested on 9/15/2012.

Fertilizer: Nitrogen at 40 lb/ac

Herbicide: Starane

Soil Type: Fort Collins loam

2012 Irrigated Forage and Sweet Sorghum Variety Performance Trial at Fort Collins

Source	Variety	Forage Yield ^a tons/ac	Brix (Stem Sugar) percent	Plant Height in	Flowering percent at harvest	Type	Maturity Group ^b
AERC	CSSH-45*	31.04	14.2	91.1	100.0	Sweet	E
Richardson Seeds	X38400*	30.18	8.3	82.9	100.0	Sorghum x Sudan	ME
Gayland Ward Seed	Sweet for Ever*	29.85	7.3	72.8	100.0	Sweet	P
Chromatin	FS00504	29.79	13.0	98.4	100.0	Forage	L
Chromatin	FS0000HS	28.50	10.8	92.3	100.0	Forage	P
Gayland Ward Seed	Super Sugar*	27.55	12.0	86.7	100.0	Sweet	E
Richardson Seeds	Silo 700D*	26.47	13.1	55.1	100.0	Hybrid Forage	ML
Chromatin	FS00991	24.19	9.1	74.6	14.3	Forage	L
Chromatin	FS0000HT	23.96	12.0	99.6	100.0	Forage	P
Eastern CO Seeds	HP95BMR	23.24	12.1	85.6	100.0	Forage	ME
Eastern CO Seeds	HP85BMR	22.83	11.9	83.0	100.0	Forage	E
Eastern CO Seeds	HP99BMR	21.33	12.9	92.1	100.0	Forage	ME
AERC	CSSPM-7*	20.39	13.2	84.2	100.0	Pearl Millet	E
Richardson Seeds	X36400	19.92	12.5	70.6	20.0	Hybrid Forage	L
Eastern CO Seeds	HP1010BMR	18.20	13.3	71.0	100.0	Forage	L
Eastern CO Seeds	HPECS12EXP	18.03	9.9	48.7	100.0	Forage	ME
Eastern CO Seeds	HP120BMR	17.75	9.5	47.4	100.0	Forage	L
Average		24.31	11.5	78.6	90.3		
^c LSD (P<0.05)		6.65					
^c LSD (P<0.20)		4.60					

^aYields are adjusted to 70% moisture content based on oven-dried samples.

^bMaturity Group: E=early; ME=medium-early; ML=medium-late; L=late, P=Photoperiod sensitive.

^cIf the difference between two varieties yields equals or exceeds the LSD value, there is a 95% (at P<0.05) or 80% (at P<0.20) chance the difference is statistically significant.

Plot size: 10' x 35'

Site Information

Collaborator: Agricultural Research, Development and Education Center (ARDEC)

Planting Date: 6/1/2012

Harvest Date: Varieties with an asterisk symbol were harvested on 9/5/2012. All other varieties were harvested on 9/15/2012.

Fertilizer: Nitrogen at 40 lb/ac

Herbicide: Starane

Soil Type: Fort Collins loam

2012 Multi-Location Camelina Variety Performance Trial Yield Summary

Variety	Source	Greeley,	Rocky	Kalispell,	Torrington,	Average Across		
		CO	Ford, CO	MT	WY	Lind, WA	Locations	
		lb/ac						
Ligena	Europe	125	277	1887	298	1389	795	
Calena	Europe	104	218	1801	374	1369	773	
SSD 87*	Univ. Giessen ^a	92	232	1842	268	1409	769	
Suneson	MSU	79	203	1910	280	1333	761	
SSD186*	Univ. Giessen	107	219	1974	210	1221	746	
SSD 10*	Univ. Giessen	75	265	1840	284	1262	745	
SSD 177*	Univ. Giessen	114	184	2023	303	1070	739	
Yellowstone	Great Plains Oil	94	189	1905	323	1176	738	
BSX G24	Blue Sun Biodiesel	103	305	1809	256	1172	729	
HPX G72	Blue Sun Biodiesel	95	327	1766	247	1205	728	
SSD 138*	Univ. Giessen	88	251	1902	255	1122	723	
Celine	Europe	117	243	1638	276	1328	720	
Blaine Creek	MSU	64	252	1776	294	1198	717	
Licalla	Univ. Giessen	164	315	1630	264	1207	716	
Cheyenne	Blue Sun Biodiesel	128	218	1690	271	1195	700	
Lindo	Univ. Giessen	80	233	1821	219	1043	679	
BSX G22	Blue Sun Biodiesel	95	210	1798	201	1024	666	
Average		101	244	1824	272	1219	732	
LSD (P<0.30)		31	86	53	52	224		
Plant Date:		4/9/2012	3/19/2012	3/20/2012	3/16/2012	4/3/2012		
Harvest Date:		7/11/2012	6/28/2012	8/18/2012	7/20/2012	8/9/2012		

^aUniversity of Giessen (Germany)

*Experimental line

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