

2010 Colorado Spring Crop Variety Performance Trial Results

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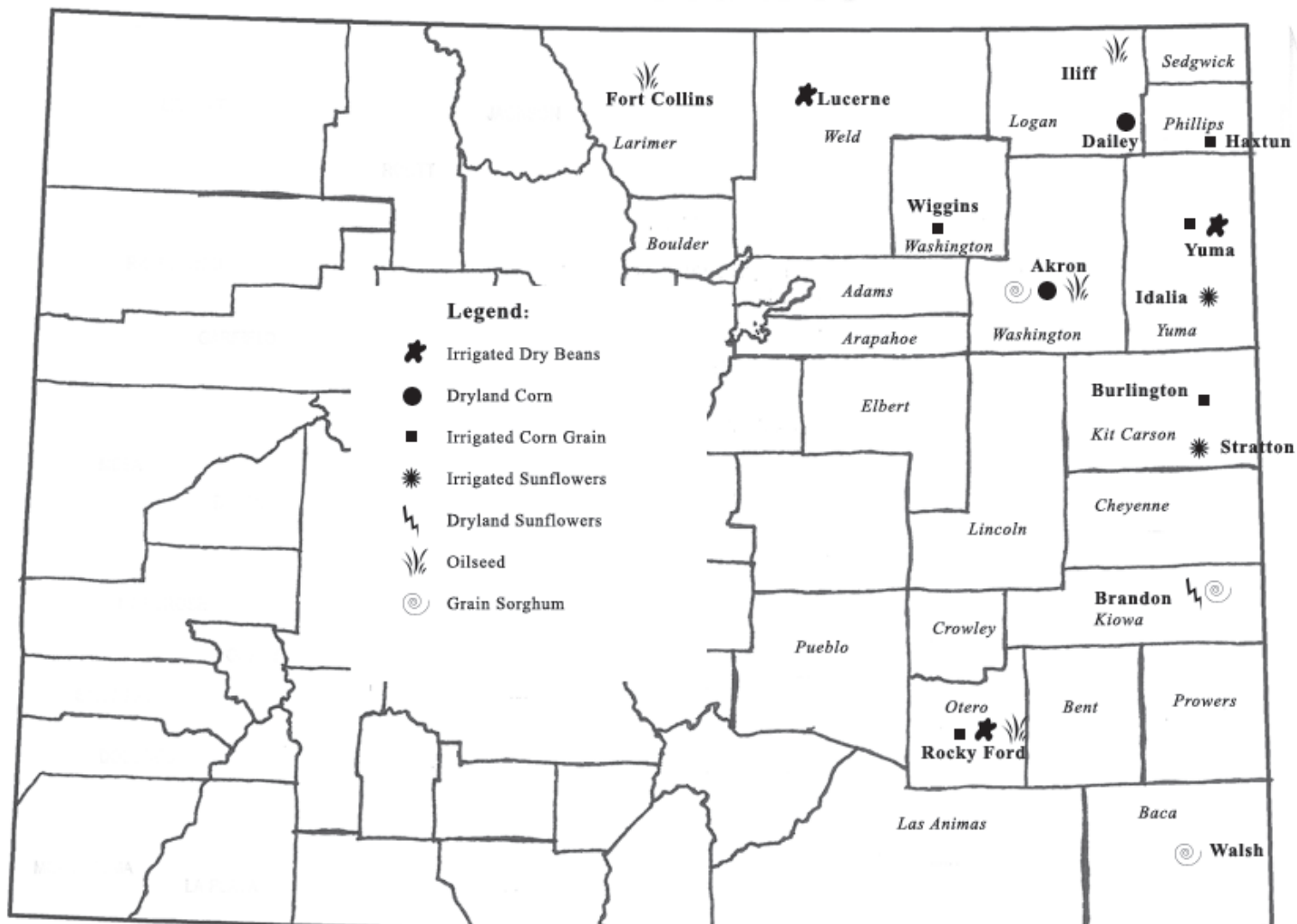
Colorado State University Crops Testing program annually collaborates with university breeding programs and seed companies to conduct variety trials to provide unbiased and reliable performance results to help Colorado crop producers make better variety decisions. These variety trials allow universities and seed companies an opportunity to screen elite experimental lines for adaptability to diverse and variable Colorado cropping environments. Seed companies can use results to make variety marketing decisions. Some trials are also part of CSU's formal education efforts- graduate thesis research and undergraduate training- as universities train 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 fourth time 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,

soybean, oilseed-for-biofuel (camelina and canola), and grain 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 2010 crop performance trial results for each crop is available on the Crops Testing website: 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, who donate their land, time, and equipment so that all Colorado crop producers can benefit from these trial results. These trials are made possible with funding from seed company entry fees; funding from the Colorado Dry Bean Administrative Committee, the Colorado Sorghum Producers, and the Colorado Sunflower Administrative Committee; as well as a grant from the Colorado Water Institute.

2010 Colorado Crop Variety Performance Trial Locations



2010 Pinto Bean Variety Performance Trial at Lucerne

Variety	Source	Yield ^a lb/ac	Moisture percent	Test Weight lb/bu	Seeds/Pound count
Windbreaker	Seminis	3937	7.7	57.4	1265
Montrose	Colorado State University	3520	7.6	58.9	1303
Bill Z	Colorado State University	3435	7.6	59.3	1290
06185	ProVita, Inc.	3390	9.1	59.7	1488
CO 24972	Colorado State University	3330	8.6	57.1	1334
Stampede	North Dakota State University	3300	8.4	57.2	1288
Poncho	Colorado State University	3297	8.0	59.6	1258
GTS-904	Gentec Inc.	3244	9.1	58.5	1350
06187	ProVita, Inc.	3218	7.2	58.0	1251
Durango	ProVita, Inc.	3138	7.9	59.1	1238
Othello	USDA Prosser, WA	3117	7.6	59.3	1236
Lariat	North Dakota State University	3101	9.1	59.3	1323
99217	ProVita, Inc.	3088	8.4	59.5	1217
COB-2594-03	Gentec Inc.	3053	8.5	60.6	1507
Grand Mesa	Colorado State University	3035	7.7	58.8	1357
06203	ProVita, Inc.	2963	8.2	61.0	1290
07167 (LP-7)	ProVita, Inc.	2944	9.2	59.2	1437
ND-307	North Dakota State University	2941	8.1	57.6	1340
Medicine Hat	Seminis	2867	7.6	58.5	1220
05200	ProVita, Inc.	2863	6.9	59.1	1366
P7025615	ADM-Seedwest	2861	8.0	58.6	1432
CO 55646	Colorado State University	2857	8.6	59.1	1338
La Paz	ProVita, Inc.	2852	9.4	60.1	1511
GTS-903	Gentec Inc.	2844	8.5	59.2	1512
CO 55024-4	Colorado State University	2705	7.8	58.0	1391
CO 55695	Colorado State University	2538	8.7	58.8	1445
CO 55024-13	Colorado State University	2488	7.8	58.0	1308
CO 33986	Colorado State University	2392	8.7	58.6	1210
CO 67084	Colorado State University	2254	8.4	57.0	1494
IP08-2	University of Idaho	1926	7.7	57.0	1438
Average		2983	8.2	58.7	1348

LSD_(0.30)

314

^aYields corrected to 14% moisture

Experimental Design: randomized complete block with three replications

Field Plot Size: 10' x 31'

Site Information

Cooperator: Steve Jelly

Harvest Date: 9/6/2010

Planting Date: 6/2/2010

Seeding Rate: 85,000 seeds/acre

Previous Crop: Corn for silage

Fertilizer: N-P-K (40-0-0) lbs/ac

Herbicide: Eptam and Dual

Irrigation: Furrow

2010 Pinto Bean Variety Performance Trial at Yuma

Variety	Source	Yield ^a	Moisture	Test Weight	Seeds/Pound
		lb/ac	percent	lb/bu	count
99217	ProVita, Inc.	4028	11.3	60.3	1164
Bill Z	Colorado State University	3971	9.2	59.6	1387
Mariah	Seminis	3963	9.9	59.4	1218
Montrose	Colorado State University	3812	9.6	60.5	1173
Durango	ProVita, Inc.	3706	9.8	60.4	1276
CO 33986	Colorado State University	3634	10.8	60.3	1000
Lariat	North Dakota State University	3595	11.1	60.1	1233
ND-307	North Dakota State University	3593	10.4	58.1	1175
P7025613	ADM-Seedwest	3553	9.4	58.8	1276
GTS-904	Gentec Inc.	3496	10.6	59.1	1199
Windbreaker	Seminis	3443	9.3	58.4	1215
CO 55024-4	Colorado State University	3432	10.3	59.9	1256
La Paz	ProVita, Inc.	3419	10.1	61.0	1443
P7025615	ADM-Seedwest	3390	9.8	59.6	1251
07167 (LP-7)	ProVita, Inc.	3388	10.4	61.1	1428
99195MR	ProVita, Inc.	3330	11.8	60.3	1404
06185	ProVita, Inc.	3326	9.8	60.6	1380
Poncho	Colorado State University	3303	10.2	60.7	1187
Stampede	North Dakota State University	3278	9.7	59.3	1312
CO 67084	Colorado State University	3265	11.2	59.5	1184
Croissant	Colorado State University	3209	8.9	59.8	1227
Grand Mesa	Colorado State University	3208	9.4	59.8	1347
COB-2594-03	Gentec Inc.	3193	10.3	60.1	1429
CO 54150	Colorado State University	3185	13.5	59.1	1221
Othello	USDA Prosser, WA	3183	9.0	61.0	1252
CO 55024-13	Colorado State University	3161	10.1	60.3	1184
06189	ProVita, Inc.	3156	9.7	60.8	1425
Medicine Hat	Seminis	3145	9.0	59.5	1240
CO 55646	Colorado State University	3124	10.4	59.9	1243
06187	ProVita, Inc.	3100	10.1	59.1	1188
GTS-903	Gentec Inc.	2980	10.5	60.3	1347
05200	ProVita, Inc.	2888	10.6	58.6	1359
CO 55695	Colorado State University	2673	11.7	60.1	1249
CO 24972	Colorado State University	2604	10.7	58.6	1175
IP08-2	University of Idaho	2262	16.2	58.8	1413
06203	ProVita, Inc.	2245	10.7	61.0	1385
Average		3284	10.4	59.8	1270

LSD_(0.30)

420

^aYields corrected to 14% moisture

Experimental Design: randomized complete block with three replications

Field Plot Size: 10' x 30'

Site Information

Cooperator: Richard Wacker

Harvest date: 9/15/2010

Planting date: 6/7/2010

Seeding Rate: 85,000 seeds/acre

Previous Crop: Corn

Fertilizer: N-P-K-S-Zn (70-60-20-20-1.5) lbs/ac

Herbicide: Dual II, Eptam, Rapture, Basagram, Outlook, and Select

Fungicide: Kocide and Headline

Insecticide: Brigade

Irrigation: Sprinkler

Soil Type: Ascalon Sandy Loam

2010 Irrigated Corn Variety Performance Trial at Burlington

Source	Hybrid ^a	Yield bu/ac	Moisture percent	Test Weight lb/bu	Plant Height in	Population plants/ac	Lodging percent
Triumph Seed	1204V	248.3	24.1	55.7	97	32,912	0.6
Dekalb	DKC52-59 (VT3)	247.7	15.6	58.0	88	36,217	0.0
Producers Hybrids	7014VT3	243.5	17.5	55.8	95	34,074	0.9
Winfield Solutions	6525VT3	242.3	19.3	57.7	97	32,815	0.0
Producers Hybrids	6944VT3	239.2	18.8	56.8	98	34,170	0.0
Golden Harvest	H-9253 3000GT	233.6	19.9	56.6	97	32,228	0.0
NK Brand Seed	N61P-3000GT	233.1	17.0	57.1	102	32,138	0.0
Dekalb	DKC54-16 (VT3)	233.0	17.4	59.0	95	32,622	0.0
LG Seeds	LG2555VT3	232.7	17.6	56.9	101	34,053	0.0
Mycogen Seeds	2V732	232.4	25.4	55.7	96	33,009	0.3
Producers Hybrids	6464VT3	232.1	16.2	58.8	98	34,170	0.8
Dekalb	DKC62-63 (GENVT3P)	231.4	16.3	58.7	100	32,488	0.3
Garst	85R08-3000GT	229.4	17.8	57.9	97	34,267	1.7
Producers Hybrids	6364GT3	229.2	15.8	58.1	100	32,428	0.6
Triumph Seed	1121V	228.9	18.4	59.0	99	33,106	0.3
NK Brand Seed	N68B-3000GT	226.7	18.5	56.7	91	33,168	0.0
Producers Hybrids	7134VT3	225.9	19.2	56.5	95	32,176	4.3
Seeds 2000	104 G3	224.0	15.2	58.1	100	31,838	0.0
LG Seeds	LG2549VT3	221.8	17.8	55.5	97	33,299	0.3
Dekalb	DKC59-88 (VT3)	220.6	22.0	58.1	96	32,674	0.0
Mycogen Seeds	2A551	220.2	17.2	58.8	97	31,943	0.4
Garst	85Z64 GT/CB/LL	220.1	18.1	57.4	100	31,187	1.0
Dekalb	DKC55-24 (VT3)	219.9	14.4	59.3	94	33,493	0.0
Winfield Solutions	5757VT3	218.9	16.5	60.0	98	33,202	1.1
Mycogen Seeds	2C641	211.0	17.7	57.1	92	32,912	0.6
Mycogen Seeds	2T784	210.6	19.7	56.6	106	33,396	0.0
Golden Harvest	H-9084 GT/CB/LL	207.1	18.9	54.7	100	33,590	0.0
LG Seeds	LG2547VT3	206.7	17.1	58.0	95	32,539	0.3
Triumph Seed	1157CbRR	204.4	19.3	55.8	99	33,202	2.0
Producers Hybrids	6634VT3	203.2	15.9	58.5	94	33,202	0.6
LG Seeds	LG2544VT3	203.0	16.8	56.3	97	33,202	0.3
Winfield Solutions	4421VT3	197.7	14.1	58.6	88	32,041	0.3
Triumph Seed	5501S	195.1	15.8	57.5	102	33,493	0.9
Seeds 2000	9901 VT3	176.3	14.8	60.3	95	32,245	0.3
Average		222.0	17.8	57.5	97	33,044	0.5

^bLSD_{0.30}

12.0

LSD_{0.05}

23.0

^aYields corrected to 15.5% moisture

^bLSD_{0.30} is most useful for producers using these results to select a variety but some collaborators find LSD_{0.05} useful

Experimental Design: randomized complete block design with three replications

Plot size: 5' x 30'

Site Information

Collaborator: George Stahlecker
 Planting Date: 5/6/2010
 Harvest Date: 10/9/2010
 Previous Crop: Corn
 Fertilizer: N-P-K-S-Zn (220-60-0-15-1.25) lbs/ac
 Herbicide: Round-Up, Atrazine, and Halex
 Irrigation: Center Pivot
 Soil Type: Yuma-Kieth Silt Loam

2010 Irrigated Corn Variety Performance Trial at Haxtun

Source	Hybrid ^a	Yield bu/ac	Moisture percent	Test Weight lb/bu	Plant Height in	Population plants/ac
Mycogen Seeds	2C641	254.2	15.2	59.3	90	31,868
Dekalb	DKC54-16 (VT3)	248.8	14.2	60.3	91	34,461
Mycogen Seeds	2P612	246.0	14.1	57.7	94	34,074
LG Seeds	LG2525RR	245.7	14.4	60.2	97	31,911
Golden Harvest	H-8577 3000GT	242.0	13.9	57.6	97	33,963
NK Brand Seed	N68B-3000GT	240.5	16.3	58.0	90	33,493
Dekalb	DKC55-24 (VT3)	233.3	13.1	59.8	92	32,943
Garst	86T82-3000GT	232.5	13.7	58.6	97	33,009
Garst	85R08-3000GT	232.2	15.2	58.7	97	32,204
Dekalb	DKC62-63 (GENVT3P)	230.6	14.5	59.5	94	33,157
LG Seeds	LG2547VT3	230.2	15.2	58.9	90	31,523
LG Seeds	LG2509GT3	228.1	13.0	58.6	99	32,805
NK Brand Seed	N49J-3000GT	227.1	13.3	58.2	99	33,880
Triumph Seeds	1023S	226.8	16.4	58.7	104	32,001
Triumph Seeds	3212X	226.2	12.9	58.8	96	32,291
LG Seeds	LG2544VT3	225.3	14.1	57.3	98	31,460
Dekalb	DKC59-88 (VT3)	221.8	15.6	58.8	89	31,664
Mycogen Seeds	2H523	218.9	13.0	59.1	93	31,230
Seeds 2000	104 G3	217.0	13.6	58.3	101	32,041
Triumph Seeds	9811X	216.4	13.9	60.5	96	33,299
Triumph Seeds	5501S	214.6	12.9	58.6	96	31,737
Dekalb	DKC52-59 (VT3)	214.6	13.2	58.4	92	33,456
Mycogen Seeds	2A551	211.4	13.2	59.2	93	32,299
Seeds 2000	9901 VT3	210.9	13.1	60.3	87	33,299
Golden Harvest	H-7647 3000GT	200.1	13.5	58.2	89	32,413
Average		227.8	14.0	58.9	94	32,659

^bLSD_{0.30}

16.9

LSD_{0.05}

32.4

^aYields corrected to 15.5% moisture

^bLSD_{0.30} is most useful for producers using these results to select a variety but some collaborators find LSD_{0.05} useful

Experimental Design: randomized complete block design with three replications

Plot size: 5' x 30'

Site Information

Collaborator: Brent Adler
 Planting Date: 5/10/2010
 Harvest Date: 10/21/2010
 Previous Crop: Pinto Beans
 Fertilizer: N-P-K-S-Zn (240-65-40-30-1.5) lbs/ac
 Herbicide: Round-Up Weather Max and Dual
 Irrigation: Sprinkler
 Soil Type: Valent Sand

2010 Irrigated Corn Variety Performance Trial at Rocky Ford

Source	Hybrid ^a	Yield bu/ac	Moisture percent	Test Weight lb/bu	Plant Height in	Population plants/ac
Dekalb	DKC64-83 (GENVT3P)	243.2	17.8	59.1	88	36,300
Garst	83P07 GT/CB/LL	235.2	24.8	51.2	99	30,129
Dekalb	DKC64-69 (GENVT3P)	232.9	18.7	55.7	80	28,677
LG Seeds	LG2642VT3	220.9	22.0	54.1	91	31,581
Triumph Seeds	1420X	217.7	21.3	54.9	90	29,403
Dekalb	DKC62-97 (GENVT3P)	213.6	18.9	56.1	90	31,218
Garst	83E90-3000GT	212.2	22.6	53.5	98	27,951
LG Seeds	LG2555VT3	210.3	17.4	55.8	98	33,759
Mycogen Seeds	2V732	209.8	20.2	55.7	94	29,766
Croplan Genetics	6818VT3	208.5	21.2	55.3	88	28,314
NK Brand Seed	N68B-3000GT	207.8	17.7	55.3	87	32,307
Golden Harvest	H-9084 GT/CB/LL	206.5	18.9	54.5	93	31,581
Mycogen Seeds	X20785	204.5	21.1	54.0	87	27,225
Dekalb	DKC62-63 (GENVT3P)	200.9	20.7	55.7	94	29,766
LG Seeds	LG2616VT3	199.5	16.7	55.5	97	30,855
Golden Harvest	H-9173 3000GT	197.9	21.7	53.1	97	30,492
Triumph Seeds	1326X	196.8	18.6	56.7	84	28,677
Triumph Seeds	7514S	195.1	22.3	53.9	97	29,040
Mycogen Seeds	2T784	190.5	20.2	54.5	92	25,410
LG Seeds	LG2620VT3	187.1	15.7	57.1	99	32,307
NK Brand Seed	N74C-3000GT	185.7	19.7	54.8	97	27,225
Dekalb	DKC63-84 (VT3)	183.8	21.3	54.9	94	33,396
Croplan Genetics	5757VT3	169.5	17.0	58.9	90	27,225
Croplan Genetics	4421VT3	168.2	13.8	56.6	82	34,122
Average		204.1	19.6	55.3	92	30,280

^bLSD_{0.30}

16.8

LSD_{0.05}

32.3

^aYields corrected to 15.5% moisture

^bLSD_{0.30} is most useful for producers using these results to select a variety but some collaborators find LSD_{0.05} useful

Experimental Design: randomized complete block design with three replications

Plot size: 5' x 30'

Site Information

Collaborator: Arkansas Valley Research Center

Planting Date: 4/30/2010

Harvest Date: 10/11/2010 and 10/12/2010

Previous Crop: Alfalfa

Fertilizer: N-P-K (186-104-0) lbs/ac

Herbicide: 32 oz./ac of glyphosate and 8 oz./ac of Banvel

Irrigation: Furrow

Soil Type: Rocky Ford Silty Clay Loam

Note: Some plot variability was due to isolated soil compaction and irrigation issues.

2010 Irrigated Corn Variety Performance Trial at Wiggins

Source	Hybrid ^a	Yield	Moisture	Test Weight	Plant Height	Population	Lodging
		bu/ac	percent	lb/bu	in	plants/ac	percent
Mycogen Seeds	2C641	251.3	14.0	60.4	86	31,944	0.9
Golden Harvest	H-8577 3000GT	234.7	12.8	57.9	97	32,718	0.9
Dekalb	DKC54-16 (VT3)	229.6	13.7	61.1	89	32,912	0.3
Producers Hybrids	6634VT3	228.5	13.8	59.9	86	31,869	2.8
Producers Hybrids	6364GT3	222.6	15.2	60.0	94	31,750	2.4
LG Seeds	LG2525RR	212.7	15.6	61.8	91	32,417	2.5
Producers Hybrids	6464VT3	208.1	14.3	60.7	95	32,525	3.6
Triumph Seeds	3212X	205.4	15.1	61.3	90	29,407	0.7
Dekalb	DKC55-24 (VT3)	205.2	13.3	60.9	87	31,460	0.0
Garst	86G35-3000GT	204.3	15.0	60.4	90	30,589	0.0
Dekalb	DKC62-63 (GENVT3P)	203.8	13.6	60.8	90	31,066	6.2
Dekalb	DKC59-88 (VT3)	203.0	16.1	60.3	85	32,997	5.1
NK Brand Seed	N53W-3000GT	202.0	14.3	59.3	93	30,998	1.8
Triumph Seeds	9811X	201.8	13.6	61.8	94	30,104	1.0
LG Seeds	LG2509GT3	200.3	14.7	60.0	98	32,234	1.8
Dekalb	DKC52-59 (VT3)	199.9	12.7	58.7	83	32,048	2.5
Triumph Seeds	5501S	195.1	15.4	60.2	91	31,116	5.4
Triumph Seeds	TRX 01024S	194.5	15.9	59.6	92	29,533	0.3
Mycogen Seeds	2P612	192.6	16.7	59.5	88	29,771	5.4
LG Seeds	LG2478STX	188.4	12.3	59.6	87	31,670	1.3
Garst	87T18-3000GT	184.5	16.1	64.7	84	28,122	0.0
Golden Harvest	H-7949 3000GT	184.3	13.0	58.3	97	30,948	7.2
Seeds 2000	104 G3	181.1	14.4	59.7	93	29,642	2.1
Seeds 2000	9901 VT3	180.1	11.8	60.8	85	31,727	1.2
Mycogen Seeds	2H523	178.8	14.8	61.0	91	33,541	4.4
Mycogen Seeds	2A551	175.4	15.4	61.5	88	31,329	1.8
NK Brand Seed	N47V-3000GT	168.4	15.1	59.7	83	32,359	0.9
Average		201.4	14.4	60.4	90	31,363	2.3
^b LSD _{0.30}		17.2					
LSD _{0.05}		32.9					

^aYields corrected to 15.5% moisture

^bLSD_{0.30} is most useful for producers using these results to select a variety but some collaborators find LSD_{0.05} useful

Experimental Design: randomized complete block design with three replications

Plot size: 5' x 30'

Site Information

Collaborator: Cooksey Farms
 Planting Date: 5/5/2010
 Harvest Date: 11/6/2010
 Previous Crop: Pumpkins
 Fertilizer: N-P-K (200-40-10) lbs/ac
 Herbicide: Lumax
 Irrigation: Sprinkler
 Soil Type: Clay Loam

2010 Irrigated Corn Variety Performance Trial at Yuma

Source	Hybrid ^a	Yield	Moisture	Test Weight	Plant Height	Population	Lodging
		bu/ac	percent	lb/bu	in	plants/ac	percent
Triumph Seeds	1204V	272.3	24.0	55.6	91	33,493	0.9
Mycogen Seeds	2V732	261.2	24.3	55.1	92	32,667	0.6
Triumph Seeds	1157CbRR	255.1	22.7	54.7	91	32,525	0.3
Golden Harvest	H-9173 3000GT	254.0	21.2	53.5	93	31,317	1.2
Mycogen Seeds	2T784	250.0	21.6	54.0	96	28,696	0.3
Producers Hybrids	6944VT3	246.8	20.2	55.2	91	33,009	1.5
Dekalb	DKC55-24 (VT3)	243.9	18.1	58.9	89	31,241	0.4
Golden Harvest	H-8577 3000GT	231.7	18.9	55.1	98	31,391	7.5
Producers Hybrids	7014VT3	230.7	20.9	53.5	90	33,009	2.4
LG Seeds	LG2552VT3	230.4	19.9	54.8	91	32,041	3.1
NK Brand Seed	N68B-3000GT	230.1	22.0	53.9	86	32,163	1.7
Triumph Seeds	1121V	228.8	20.8	59.0	90	33,009	0.9
LG Seeds	LG2544VT3	219.8	21.6	53.6	93	31,578	2.7
Dekalb	DKC62-63 (GENVT3P)	216.1	21.2	56.2	90	30,279	6.6
Dekalb	DKC52-59 (VT3)	215.9	17.6	57.1	90	32,622	2.4
Triumph Seeds	1023S	214.2	20.8	56.0	93	30,270	2.0
Producers Hybrids	6464VT3	210.7	17.6	58.9	97	31,591	1.0
Garst	83E90-3000GT	210.1	22.2	53.7	92	32,097	7.2
Producers Hybrids	6364GT3	206.6	18.8	58.1	92	32,158	0.9
Mycogen Seeds	2C641	205.9	18.6	58.8	88	33,106	2.6
Producers Hybrids	6634VT3	203.3	19.2	57.8	88	31,170	0.0
Seeds 2000	104 G3	196.2	18.9	57.4	93	31,654	0.0
Dekalb	DKC59-88 (VT3)	194.3	21.3	56.2	87	31,882	0.3
Garst	86G35-3000GT	190.4	18.2	59.0	88	32,138	0.6
LG Seeds	LG2547VT3	187.5	18.6	59.0	87	30,418	0.7
Dekalb	DKC54-16 (VT3)	185.0	18.7	57.9	90	32,718	2.8
LG Seeds	LG2525RR	184.2	18.5	58.5	92	32,912	5.5
NK Brand Seed	N49J-3000GT	182.1	16.2	57.9	94	31,363	0.6
Mycogen Seeds	2A551	179.3	18.7	57.2	91	32,525	0.3
Seeds 2000	9901 VT3	165.7	17.0	60.0	86	32,138	0.6
Average		216.7	19.9	56.6	91	31,906	1.9

^bLSD_{0.30}

21.2

LSD_{0.05}

40.5

^aYields corrected to 15.5% moisture

^bLSD_{0.30} is most useful for producers using these results to select a variety but some collaborators find LSD_{0.05} useful

Experimental Design: randomized complete block design with three replications

Plot size: 5' x 30'

Site Information

Collaborator: Larry Gardner

Planting Date: 5/11/2010

Harvest Date: 10/12/2010

Previous Crop: Rye Pasture

Fertilizer: N-P-K-S-Zn-Fe-Mg (165-47-22-22-1.5-.8-.8) lbs/ac

Herbicide: Round-Up and Atrazine

Irrigation: Center Pivot

Soil Type: Julesburg Loamy Sand

2010 Dryland Corn Variety Performance Trial at Akron

Source	Hybrid ^a	Yield	Moisture	Test Weight	Ear Height	Population
		bu/ac	percent	lb/bu	in	plants/ac
Dekalb	DKC52-59 (VT3)	52.3	15.3	56.6	30	11,326
Dekalb	DKC43-27 (VT3)	50.4	14.2	57.4	27	10,672
Dekalb	DKC42-72 (VT3)	50.1	14.0	56.7	25	11,253
Seeds 2000	104 G3	47.9	14.5	55.9	29	10,309
Golden Harvest	N39Z-3000GT	47.0	13.2	54.2	26	13,649
Dekalb	DKC45-52 (GENVT3P)	45.2	13.3	57.1	28	11,761
Garst	85R08-3000GT	44.6	16.9	57.3	33	10,963
Seeds 2000	9901 VT3	44.0	15.0	58.3	26	7,986
Golden Harvest	H-7122 3000GT	43.1	13.6	56.4	27	9,946
Garst	85V88-3000GT	42.3	14.9	54.6	35	10,454
Golden Harvest	H-8254 3000GT	41.3	16.4	57.0	28	9,293
Golden Harvest	N49J-3000GT	39.4	16.8	57.3	31	9,293
Average		45.6	14.8	56.6	28	10,575

^bLSD_{0.30}

3.7

LSD_{0.05}

7.2

^aYields corrected to 15.5% moisture

^bLSD_{0.30} is most useful for producers using these results to select a variety but some collaborators find LSD_{0.05} useful

Experimental Design: randomized complete block design with four replications

Plot size: 5' x 30'

Site Information

Collaborator: Central Great Plains Research Station
 Planting Date: 5/18/2010
 Harvest Date: 10/14/2010
 Previous Crop: Millet
 Fertilizer: N-P-K (35-0-0) lbs/ac
 Herbicide: Round-Up and Atrazine
 Soil Type: Platner Loam

2010 Dryland Corn Variety Performance Trial at Dailey

Source	Hybrid ^a	Yield	Moisture	Test Weight	Ear Height	Population
		bu/ac	percent	lb/bu	in	plants/ac
Dekalb	DKC45-52 (GENVT3P)	115.2	14.7	58.4	36	16,045
Dekalb	DKC52-59 (VT3)	109.0	16.0	57.5	39	15,028
Seeds 2000	9901 VT3	103.2	16.4	60.4	35	14,520
Dekalb	DKC42-72 (VT3)	101.9	14.4	57.9	34	17,279
Seeds 2000	104 G3	101.6	17.3	57.8	39	14,447
NK Brand Seed	N37D-3000GT	101.0	15.2	58.5	36	14,665
Golden Harvest	H-8254 3000GT	100.6	19.3	57.5	38	13,358
Golden Harvest	H-8211 3000GT	100.2	18.3	57.9	41	14,012
Dekalb	DKC43-27 (VT3)	98.4	15.5	58.8	34	15,464
Garst	86J49-3000GT	95.6	16.8	57.6	43	15,028
NK Brand Seed	N31M-GT	93.0	13.3	56.8	37	15,972
Garst	88B37-3000GT	90.4	15.6	57.4	36	15,246
Average		100.8	16.1	58.0	37	15,089

^bLSD_{0.30}

6.0

LSD_{0.05}

11.6

^aYields corrected to 15.5% moisture

^bLSD_{0.30} is most useful for producers using these results to select a variety but some collaborators find LSD_{0.05} useful

Experimental Design: randomized complete block design with four replications

Plot size: 5' x 30'

Site Information

Collaborator: Mark and Neil Lambert

Planting Date: 5/18/2010

Harvest Date: 10/13/2010

Previous Crop: Wheat

Fertilizer: N-P-K (85-47-0) lbs/ac

Herbicide: Round-Up and Atrazine

Soil Type: Haxtun Sandy Loam

2010 Irrigated Oil Sunflower Variety Performance Trial at Idalia

Source	Hybrid ^a	Yield	Moisture	Test Weight	Plant Height	Population	Oil Content
		lb/ac	percent	lb/bu	in	plants/ac	percent
Mycogen Seeds	8N433DM	3145	6.5	29.2	73	21,780	44.6
Syngenta	3845 HO	3114	5.7	30.6	66	19,457	45.3
Mycogen Seeds	8N453DM	2907	7.1	33.1	74	20,134	45.9
Mycogen Seeds	8N510	2852	6.1	30.4	70	20,985	41.4
Syngenta	3433 NS/DM	2731	5.8	32.4	71	19,482	44.6
Triumph Seed	TRX 8341	2660	9.2	30.6	75	19,747	43.4
Triumph Seed	s678	2653	10.3	32.7	63	21,133	44.8
Triumph Seed	TRXs10325	2647	7.8	32.0	60	21,683	37.4
Croplan Genetics	356A NS	2614	8.7	30.7	70	17,193	42.3
Mycogen Seeds	8H449DM	2582	7.8	33.7	75	19,207	45.1
Croplan Genetics	460 E NS	2542	7.9	29.2	75	19,966	42.5
Triumph Seed	s673	2523	6.6	29.2	57	18,769	43.1
Seeds 2000	X9464-CL	2515	6.9	28.0	78	20,752	38.9
Syngenta	3732 NS	2513	6.6	30.9	68	20,618	41.6
Mycogen Seeds	8N358CLDM	2464	6.1	31.3	72	18,005	43.7
Triumph Seed	s668	2425	7.3	31.2	60	20,812	44.8
Seeds 2000	Sierra	2387	13.2	26.2	74	19,557	38.2
Triumph Seed	657	2377	9.0	26.4	75	19,070	44.1
Advanta US Inc.	F91034NS,SU	2354	6.3	29.5	71	20,634	37.7
Seeds 2000	Firebird Express	2329	8.7	28.2	71	19,454	38.6
Seeds 2000	Blazer CL	2298	10.7	29.3	78	20,687	41.6
Triumph Seed	664	2242	9.4	29.9	81	16,863	44.0
Syngenta	3980 NS/CL	2207	9.2	28.3	75	21,393	38.6
Seeds 2000	X9866-CL DMR	2061	11.0	29.7	72	19,365	40.0
Croplan Genetics	559 CL DMR NS	2046	7.8	29.6	78	18,295	41.2
Triumph Seed	610CLD	2027	8.2	29.0	76	20,134	42.4
Croplan Genetics	555 CL DMR NS	2011	8.4	30.2	76	19,844	40.4
Advanta US Inc.	F89057NS,SU	1993	8.3	28.6	83	20,909	37.8
Syngenta	4651 NS/DM	1968	10.6	29.5	77	19,462	40.5
Average		2455	8.2	30.0	72	19,841	41.9
^b LSD _{0.30}		252					
LSD _{0.05}		482					

^aYields corrected to 10% moisture

^bLSD_{0.30} is most useful for producers using these results to select a variety but some collaborators find LSD_{0.05} useful

Experimental Design: randomized complete block design with three replications

Plot size: 5' x 30'

Site Information

Collaborator: Shulte Bros.
 Planting Date: 6/3/2010
 Seeding Rate: Overplanted and thinned to a target of 20,000 plants/acre
 Harvest Date: 10/5/2010
 Previous Crop: Corn
 Fertilizer: N-P-K (100-30-0) lbs/ac
 Herbicide: Round-Up, Spartan, and Advance
 Irrigation: Center Pivot
 Soil Type: Kuma-Kieth Silt Loam

2010 Irrigated Confection Sunflower Variety Performance Trial at Idalia

Source	Hybrid ^a	Yield	Moisture	Test Weight	Plant Height	Population	Seed Size				
							Above 24/64	23/64 to 22/64	21/64 to 20/64	19/64 to 16/64	16/64 and below
		lb/ac	percent	lb/bu	in	plants/ac	percent				
Croplan Genetics	179	2618	12.9	20.5	74	12,111	6.4	16.6	37.0	38.6	1.4
Triumph Seed	TRX10454C	2545	11.7	21.2	73	14,283	16.2	35.6	34.2	12.2	1.8
Seeds 2000	X9151	2480	10.5	23.0	70	13,906	8.2	25.4	37.6	26.4	2.4
Red River Commodities	2215	2433	10.4	20.2	77	13,721	12.4	39.8	34.2	11.8	1.8
Triumph Seed	768C	2261	17.5	19.7	77	13,595	6.2	22.0	41.8	27.8	2.2
Red River Commodities	8015	2219	14.5	17.5	74	14,774	14.0	38.8	32.8	12.2	2.2
Dahlgren & Company	9579	2183	12.6	18.2	73	15,972	9.8	28.0	42.0	18.4	1.8
Mycogen Seeds	8C451	2172	12.0	19.4	74	14,934	22.0	38.6	24.8	13.2	1.4
Red River Commodities	2217	2135	10.8	20.0	76	15,758	21.4	36.0	29.6	11.4	1.6
Dahlgren & Company	9530	2103	12.2	19.8	78	15,955	5.4	38.4	39.4	15.4	1.4
Seeds 2000	Jaguar	2071	12.6	20.4	70	14,888	12.2	36.0	34.8	15.0	2.0
Red River Commodities	2215 CL	2049	12.8	19.8	81	15,198	15.6	32.6	34.0	15.8	2.0
Dahlgren & Company	9592	2016	9.6	19.9	76	16,528	16.0	35.4	34.0	12.6	2.0
Seeds 2000	Panther II	1977	14.5	20.5	70	14,070	11.4	29.4	39.0	18.4	1.8
Triumph Seed	747C	1964	20.1	19.9	73	14,255	4.6	16.6	37.2	39.0	2.6
Dahlgren & Company	95EXCL-9530CL	1927	11.0	21.1	74	13,918	9.6	35.4	37.8	15.8	1.4
Triumph Seed	770CL	1835	16.4	18.8	84	11,077	23.4	40.6	20.4	10.6	5.0
Triumph Seed	777C	1675	15.9	18.3	83	13,068	21.8	35.4	26.8	14.2	1.8
Average		2148	13.2	19.9	75	14,334	13.1	32.3	34.3	18.3	2.0

^bLSD_{0.30}

LSD_{0.05}

^aYields corrected to 10% moisture

^bLSD_{0.30} is most useful for producers using these results to select a variety but some collaborators find LSD_{0.05} useful

Experimental Design: randomized complete block design with three replications

Plot size: 5' x 30'

Site Information

Collaborator: Shulte Bros.
 Planting Date: 6/3/2010
 Seeding Rate: Overplanted and thinned to a target of 15,000 plants/acre
 Harvest Date: 10/6/2010
 Previous Crop: Corn
 Fertilizer: N-P-K (100-30-0) lbs/ac
 Herbicide: Round-Up, Spartan, and Advance

2010 Irrigated Oil Sunflower Variety Performance Trial at Stratton

Source	Hybrid ^a	Yield	Moisture	Test		Oil
				Weight	Population	
		lb/ac	percent	lb/bu	plants/ac	percent
Seeds 2000	Blazer CL	3519	9.6	30.2	19,650	39.1
Seeds 2000	Firebird Express	3496	6.1	30.2	19,166	39.3
Mycogen Seeds	8N453DM	3404	6.6	33.5	19,457	43.6
Triumph Seed	s673	3362	6.4	30.5	18,586	42.1
Triumph Seed	TRX 8341	3317	9.2	30.2	19,650	42.1
Syngenta	4651 NS/DM	3243	11.9	29.5	19,263	39.8
Mycogen Seeds	8N433DM	3187	6.6	30.5	19,554	43.8
Syngenta	3980 NS/CL	3147	7.4	29.4	19,360	38.4
Triumph Seed	s668	3136	7.9	31.5	20,038	43.0
Mycogen Seeds	8N358CLDM	3036	5.5	31.3	20,071	41.1
Mycogen Seeds	8N510	2998	5.9	31.5	19,941	40.8
Seeds 2000	Sierra	2987	9.8	27.8	19,181	37.4
Triumph Seed	s678	2975	8.7	32.5	19,081	41.8
Triumph Seed	s878H	2955	9.0	31.3	17,134	40.4
Croplan Genetics	460 E NS	2886	8.2	30.9	19,988	43.2
Triumph Seed	664	2845	11.1	31.4	16,448	43.3
Seeds 2000	X9866-CL DMR	2810	10.3	28.5	20,094	35.1
Syngenta	3732 NS	2773	5.7	30.3	15,854	41.4
Croplan Genetics	559 CL DMR NS	2746	5.6	31.1	19,951	39.6
Croplan Genetics	356A NS	2717	6.4	30.8	18,779	41.1
Seeds 2000	X9464-CL	2623	8.7	29.8	19,278	36.7
Syngenta	3845 HO	2593	6.9	31.1	15,664	43.2
Mycogen Seeds	8H449DM	2556	6.7	32.8	16,266	44.5
Triumph Seed	657	2537	9.3	27.9	14,506	42.3
Croplan Genetics	555 CL DMR NS	2379	6.5	30.0	15,692	38.4
Syngenta	3433 NS/DM	2121	6.9	32.2	15,605	42.4
Average		2936	7.8	30.6	18,394	40.9
^b LSD _{0.30}		354				
LSD _{0.05}		680				

^aYields corrected to 10% moisture

^bLSD_{0.30} is most useful for producers using these results to select a variety but some collaborators find LSD_{0.05} useful

Experimental Design: randomized complete block design with three replications

Plot size: 5' x 30'

Site Information

Collaborator: Galen Travis
 Planting Date: 6/9/2010
 Seeding Rate: Overplanted and thinned to a target of 18,000 plants/acre
 Harvest Date: 10/19/2010
 Previous Crop: Corn
 Fertilizer: 50 lbs/ac N
 Herbicide: Spartan
 Insecticide: Warrior
 Irrigation: Sprinkler
 Soil Type: Kuma-Kieth Silt Loam

2010 Irrigated Confection Sunflower Variety Performance Trial at Stratton

Source	Hybrid ^a	Yield lb/ac	Moisture percent	Test Weight lb/bu	Population plants/ac	Seed Size				
						Above 24/64	23/64 to 22/64	21/64 to 20/64	19/64 to 16/64	16/64 and below
Red River Commodities	2215 CL	3142	9.4	19.0	17,280	12.8	35.2	36.4	13.8	1.8
Triumph Seed	770CL	2973	16.1	18.0	16,555	44.4	33.2	12.4	7.2	2.8
Mycogen Seeds	8C451	2965	9.0	19.2	16,636	11.4	36.6	34.8	13.2	4.0
Red River Commodities	8015	2858	11.0	18.5	16,548	16.4	28.2	35.2	17.8	2.4
Seeds 2000	Jaguar	2647	8.9	21.1	16,829	6.4	19.6	35.6	35.4	3.0
Croplan Genetics	179	2601	10.1	20.4	16,480	4.2	12.8	24.8	54.2	4.0
Red River Commodities	2215	2367	11.3	20.4	16,737	22.2	37.4	25.8	13.2	1.4
Triumph Seed	747C	2321	11.8	20.0	16,950	5.2	12.4	35.2	45.0	2.2
Triumph Seed	777C	2189	12.7	18.9	15,935	23.8	33.2	28.2	13.2	1.6
Red River Commodities	2217	2187	8.7	19.2	15,947	22.8	36.2	24.2	15.0	1.8
Triumph Seed	768C	2171	16.3	18.3	16,841	9.6	18.2	34.6	34.8	2.8
Triumph Seed	TRX10454C	1984	9.6	20.4	16,546	11.0	36.4	36.8	15.0	0.8
Seeds 2000	Panther II	1979	11.3	19.8	12,537	27.2	25.6	24.2	20.8	2.2
Average		2491	11.3	19.5	16,294	16.7	28.1	29.9	23.0	2.4

^bLSD_{0.30}

287

LSD_{0.05}

558

^aYields corrected to 10% moisture

^bLSD_{0.30} is most useful for producers using these results to select a variety but some collaborators find LSD_{0.05} useful

Experimental Design: randomized complete block design with three replications

Plot size: 5' x 30'

Site Information

Collaborator: Galen Travis
 Planting Date: 6/9/2010
 Seeding Rate: Overplanted and thinned to a target of 17,000 plants/acre
 Harvest Date: 10/19/2010
 Previous Crop: Corn
 Fertilizer: 50 lbs/ac N
 Herbicide: Spartan
 Insecticide: Warrior
 Irrigation: Sprinkler
 Soil Type: Kuma-Kieth Silt Loam

2010 Dryland Oil Sunflower Variety Performance Trial at Brandon

Source	Hybrid ^a	Yield lb/ac	Moisture percent	Test Weight lb/bu	Plant Height in	Population plants/ac	Oil Content percent
Mycogen Seeds	8N510	2132	7.9	27.2	50	12,850	40.6
Seeds 2000	Blazer CL	2106	9.3	26.9	54	12,269	39.1
Seeds 2000	X9866-CL DMR	2038	9.9	26.6	58	13,391	37.3
Triumph Seed	s668	2026	7.7	27.5	47	13,939	40.8
Seeds 2000	Firebird Express	1999	8.2	25.1	54	12,575	38.1
Syngenta	4651 NS/DM	1982	11.5	26.0	61	12,052	40.2
Seeds 2000	Sierra	1965	9.2	25.2	56	12,165	37.6
Mycogen Seeds	8H449DM	1950	8.8	29.1	55	11,689	40.5
Triumph Seed	859HCL	1941	9.2	26.6	58	12,632	38.2
Triumph Seed	s673	1925	8.2	27.2	46	13,867	41.5
Mycogen Seeds	8N453DM	1907	8.3	29.6	49	11,761	40.2
Syngenta	3980 NS/CL	1888	10.0	26.3	57	11,600	36.9
Syngenta	3845 HO	1865	7.5	27.5	52	11,561	43.4
Triumph Seed	s878H	1856	9.7	27.9	52	13,504	40.7
Mycogen Seeds	8N358CLDM	1841	7.6	28.2	50	11,883	40.9
Triumph Seed	664	1829	8.4	27.1	59	11,150	38.8
Triumph Seed	s678	1826	9.1	28.3	53	14,157	41.7
Mycogen Seeds	8N433DM	1803	8.4	26.1	51	12,516	39.7
Syngenta	3732 NS	1773	8.1	26.9	49	11,709	39.1
Syngenta	3433 NS/DM	1768	8.6	28.6	53	11,639	40.1
Triumph Seed	s870HCL	1706	7.6	27.5	44	12,923	41.2
Seeds 2000	X9464-CL	1659	8.0	25.7	58	12,538	36.2
Triumph Seed	845H	1642	9.5	25.1	61	11,883	42.1
Triumph Seed	s655	1609	8.8	27.0	36	13,116	39.1
Triumph Seed	TRX9331HCL	1345	8.4	26.0	52	13,721	39.7
Average		1855	8.7	27.0	52	12,524	39.8

^bLSD_{0.30}

126

LSD_{0.05}

241

^aYields corrected to 10% moisture

^bLSD_{0.30} is most useful for producers using these results to select a variety but some collaborators find LSD_{0.05} useful

Experimental Design: randomized complete block design with four replications

Plot size: 5' x 30'

Site Information

Collaborator: Burl Scherler

Planting Date: 6/8/2010

Seeding Rate: Overplanted and thinned to a target of 14,000 plants/acre

Harvest Date: 10/4/2010

Previous Crop: Wheat

Fertilizer: N-P-K-S (90-11-0-5) lbs/ac

Herbicide: Spartan Charge and 2,4-D preplant. Round-Up & 2,4-D in spring and twice more in the fall.

Insecticide: Mustang Max 4 oz. plus Methyl Parathion at full bloom

Soil Type: Fort Collins Sandy Loam

2010 Limited Irrigation Camelina Variety Performance Trial at Iliff

Company/Source	Variety	Yield ^a lb/ac	Oil				
			content	Oleic	Linoleic percent	Linolenic	Erucic
Univ. Giessen ^b	SSD138*	1628	33.0	19.0	21.0	26.0	3.9
Univ. Giessen	Lindo	1417	32.5	20.6	23.2	24.4	3.0
Univ. Giessen	SSD186*	1367	31.7	18.7	22.4	25.9	3.2
Univ. Giessen	SSD177*	1274	32.5	24.4	17.2	25.0	3.5
Great Plain Oil Europe	Bear Paw Ligena	1267 1241	31.9 33.0	17.7 17.8	21.0 24.0	26.7 25.2	4.0 3.4
MSU	Blaine Creek	1239	32.8	19.6	20.5	26.8	3.2
Europe	Celine	1232	32.6	17.1	20.8	27.4	4.1
Univ. Giessen	SSD87*	1229	31.3	20.1	20.2	26.5	3.5
IPK	IPK739	1217	32.9	19.2	22.2	25.0	3.3
Blue Sun Biodiesel	BSX G72	1211	32.8	19.3	21.4	26.6	3.2
Blue Sun Biodiesel	BSX G22	1208	33.3	17.9	23.0	24.6	3.7
Blue Sun Biodiesel	BSX G37	1194	32.1	19.8	21.4	26.7	3.1
Univ. Giessen	Licalla	1171	31.9	20.0	20.3	25.7	3.8
Blue Sun Biodiesel	Cheyenne	1144	32.2	19.1	20.1	26.5	3.9
Blue Sun Biodiesel	BSX G21	1124	32.5	19.5	20.1	27.2	3.5
Blue Sun Biodiesel	BSX G51	1087	31.8	20.7	20.1	25.2	3.8
MSU	Suneson	1050	32.0	19.8	20.8	25.8	3.5
Blue Sun Biodiesel	BSX G74	1016	31.0	18.9	21.2	27.8	3.2
Great Plain Oil	Yellow Stone	1006	32.6	17.6	21.0	28.8	3.5
Average		1216	32.3	19.3	21.1	26.2	3.5
CV		15					
LSD _{0.05}		307					

Experimental Design: randomized complete block design with three replications

Plot size: 5' by 15'

^aYields corrected to 8.5% moisture

^bUniversity of Giessen (Germany)

*Experimental line

Site information

Collaborator: Trial conducted at the Lower South Platte Irrigation Research and Demonstration Project

Planting Date: 4/9/2010

Harvest Date: 7/14/2010

Seeding rate: 7 lbs/acre

Previous crop: Sugar beet

Fertilization: N-P-K (60-0-0) lbs/acre

Herbicide: Sonalan (2 pints/ac)

Soil Type: Weld silt loam

Total precipitation: 8.26 inches

Irrigation: 2 inches

2010 Dryland Camelina Variety Performance Trial at Iliff

Company/Source	Variety	Yield ^a lb/ac	Oil				
			content	Oleic	Linoleic percent	Linolenic	Erucic
Univ. Giessen ^b	SSD87*	1137	30.7	21.0	22.1	26.9	2.8
Univ. Giessen	SSD177*	1132	31.8	26.8	18.0	24.9	2.7
Univ. Giessen	SSD138*	1125	32.2	22.1	21.5	25.8	3.1
Univ. Giessen	Lindo	1112	32.7	22.1	24.8	24.2	2.4
Univ. Giessen	SSD186*	1108	31.3	20.4	23.6	26.4	2.5
Blue Sun Biodiesel	BSX G22	1106	32.4	19.2	24.4	25.0	3.3
Europe	Ligena	1080	31.7	19.8	26.1	24.3	2.5
IPK	IPK739	1059	31.7	20.1	24.0	24.9	2.8
Univ. Giessen	Licalla	1046	31.3	21.8	21.3	26.1	3.0
Blue Sun Biodiesel	BSX G37	1021	31.4	21.3	22.1	26.4	2.8
MSU	Suneson	996	31.1	21.6	22.2	25.6	2.8
Blue Sun Biodiesel	BSX G21	984	31.7	21.5	20.2	27.6	2.8
Great Plain Oil	Bear Paw	983	31.5	19.4	21.8	27.3	3.4
Europe	Celine	980	30.0	19.1	22.4	26.7	3.5
Blue Sun Biodiesel	BSX G72	978	30.7	21.4	22.4	26.2	2.6
MSU	Blaine Creek	966	31.8	21.4	21.6	26.6	2.6
Blue Sun Biodiesel	Cheyenne	953	31.0	21.4	21.7	26.7	2.9
Great Plain Oil	Yellow Stone	907	32.1	19.1	22.2	30.1	2.6
Blue Sun Biodiesel	BSX G74	904	29.6	20.2	22.8	27.2	2.7
Blue Sun Biodiesel	BSX G51	832	30.9	23.2	21.5	24.6	2.9
Average		1021	31.4	21.2	22.3	26.2	2.8
CV		11					
LSD _{0.05}		179					

Experimental Design: randomized complete block design with three replications

Plot size: 5' by 15'

^aYields corrected to 8.5% moisture

^bUniversity of Giessen (Germany)

*Experimental line

Site information

Collaborator: Trial conducted at the Lower South Platte Irrigation Research and Demonstration Project

Planting Date: 4/9/2010

Harvest Date: 7/14/2010

Seeding rate: 7 lbs/acre

Previous crop: Sugar beet

Fertilization: N-P-K (60-0-0) lbs/acre

Herbicide: Sonalan (2 pints/ac)

Soil Type: Weld silt loam

Total precipitation: 8.26 in

2010 Multi-Location Oilseed Test Summary

Source	Species	Variety	Akron ^a	Fort Collins ^b	Iloff ^a
				lb/ac	
Cargill	Spring Canola	V2018	1683	2168	
Univ. Gleissen	Camelina	SSD 10	1683	1825	1117
Univ. Gleissen	Camelina	SSD44	1603	1084	1246
Cargill	Spring Canola	V1037	962	1603	
Pakistan	Brown Mustard	jp014		1273	
Univ. Gleissen	Camelina	SSD 25	1763	668	1189
China	Brown Mustard	jc011	641	1673	
Univ. Gleissen	Camelina	SSD 202	1362	1202	873
Univ. Gleissen	Camelina	SSD117		1068	1100
Univ. Gleissen	Camelina	SSD 148		1068	1006
Univ. Gleissen	Ethiopian Mustard	BRA 2463		990	
Univ. Gleissen	Camelina	SSD 244	1202	979	765
Univ. Gleissen	Ethiopian Mustard	BRA 2158		943	
Univ. Gleissen	Camelina	SSD227	1122	623	1048
Univ. of Idaho	White mustard	Idagold	930		
Univ. Gleissen	Ethiopian Mustard	BRA 2135		896	
Univ. Gleissen	Camelina	SSD214	1362	668	577
Univ. of Idaho	Ind Brown Mustard	Pacific Gold	721		
China	Ind Brown Mustard	jc002		283	
Average			1253	1118	991

^aDryland trial

^bIrrigated trial

Plot size: 12' by 180'

This project was funded by the Colorado Office of Economic Development and International Trade/Bioscience

Site Information

Akron Collaborator: Central Great Plains Research Station

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

Iloff Collaborator: Lower South Platte Irrigation Research and Demonstration Project

2010 Dryland Grain Sorghum Variety Trial at Akron

Source	Hybrid ^a	Yield	Moisture	Test Weight	Plant Height	Lodging ^b	50% Bloom
		bu/ac	percent	lb/bu	in	score (0-10)	days after planting
Sorghum Partners	KS310	53.4	12.1	51.3	36	1	74
Dekalb/Asgrow	DKS29-28	52.0	11.6	52.2	32	1	70
Dekalb/Asgrow	DKS28-05	50.8	11.1	49.1	36	2	65
Triumph Seeds	TR424	50.0	11.5	51.5	34	1	70
Pioneer Hi-Bred	88P68	44.7	12.9	55.0	35	3	69
Sorghum Partners	251	43.7	12.6	53.0	30	3	65
Dekalb/Asgrow	Pulsar	43.4	11.8	49.9	34	2	73
Dekalb/Asgrow	DKS37-07	43.3	10.8	48.8	35	1	78
Sorghum Partners	SP3303	41.9	12.2	53.5	34	1	75
AERC	CGSH-8	37.5	10.2	48.4	36	4	66
Triumph Seeds	TR420	37.4	11.5	54.4	33	3	68
Sorghum Partners	NK5418	36.1	11.5	48.2	33	1	81
Sorghum Partners	K35-Y5	34.2	10.8	48.6	33	1	76
Average		43.7	11.6	51.1	34	2	71

^cLSD_{0.30}

6.4

LSD_{0.05}

12.4

^aYields corrected to 14% moisture

^bLodging score of zero means no lodging, and ten means completely lodged

^cLSD_{0.30} is most useful for producers using these results to select a variety but some collaborators find LSD_{0.05} useful

Experimental Design: randomized complete block design with four replications

Plot size: 5' x 30'

Site Information

Collaborator: Central Great Plains Research Station

Planting Date: 5/27/2010

Harvest Date: 10/27/2010

Previous Crop: Proso Millet

Fertilizer: 40 lbs/ac of N

Herbicide: Lumax and Round-Up

Soil Type: Rago Silt Loam

Note: Some variability in the trial was due to drought and high temperatures during the flowering and grain fill stages (about 56 days in duration). During these stages, there were 18 days where the temperature was above 90 degrees and 49 days with no measurable rainfall.

2010 Dryland Grain Sorghum Variety Trial at Brandon

Source	Hybrid ^a	Emergence	50% Bloom	50% Mature	Maturity Group ^b	Plant Height	Population	Lodging	Test Weight	Grain Yield	Yield Percent of Average
			days after planting			in	plants/acre	percent	lb/bu	bu/ac	percent
Mycogen	1G557	13	67	111	E	40	24,700	30	57	77.6	116
Triumph Seed	TR424	10	64	108	E	39	24,100	44	58	76.3	114
Dekalb	DKS28-05	12	63	107	E	48	25,100	44	55	70.4	105
Dekalb	DKS29-28	13	66	110	E	39	28,900	38	58	68.8	103
Sorghum Partners	SP3303	13	66	109	E	40	23,700	50	58	59.8	89
Sorghum Partners	251	10	59	102	E	38	26,100	6	60	54.5	81
Sorghum Partners	KS310	13	70	112	ME	45	29,300	31	55	79.1	118
Sorghum Partners	K35-Y5	13	71	115	ME	42	22,300	43	55	72.3	108
Asgrow	Pulsar	11	69	113	ME	46	20,200	25	55	69.9	104
Triumph Seed	TR452	10	73	116	M	47	31,700	28	57	65.6	98
Dekalb	DKS37-07	13	72	117	M	46	29,600	34	57	60.6	91
Sorghum Partners	NK5418	13	73	116	M	42	31,400	61	55	60.3	90
Mycogen	M3838	10	74	120	M	42	18,100	33	58	47.8	71
Average		12	68	112		43	25,785	36	57	66.4	
LSD _{0.20}								23		15.2	

^aYields corrected to 14.0% moisture

^bMaturity Group: E, early; ME, medium early; M, medium

Site Information

Cooperator: Burl Scherler
 Planted: 6/4/2010
 Harvested: 10/28/2010
 Previous Crop: Sunflower
 Fertilizer: N-P-K-S-Zn (90-20-0-6-.5) lbs/ac
 Herbicide: Round-Up, Banvel, 2,4-D, Atrazine at .9 lbs/ac & Medal at 1.33 pints/ac
 Soil Type: Wiley-Baca Silt Loam

2010 Dryland Grain Sorghum Variety Trial at Walsh

Source	Hybrid ^a	Emergence	50% Bloom	50% Mature	Maturity Group ^b	Plant Height	Population	Test Weight	Grain Yield	Yield Percent of Average
			days after planting			in	plants/acre	lb/bu	bu/ac	percent
Dekalb	DKS28-05	8	63	109	E	41	27,900	59	86.8	97
Triumph Seed	TR424	7	62	107	E	39	30,600	61	83.1	93
Dekalb	DKS29-28	8	62	107	E	38	30,600	61	79.7	89
Sorghum Partners	SP3303	9	64	113	E	40	27,500	60	64.1	72
Sorghum Partners	251	7	58	102	E	36	27,900	60	56.6	63
Triumph Seed	TR438	7	65	111	ME	44	31,000	60	100.1	112
Mycogen	627	9	71	118	ME	44	28,700	60	96.9	109
Sorghum Partners	K35-Y5	7	66	112	ME	40	22,900	62	95.3	107
Dekalb	DKS37-07	7	70	118	ME	48	31,400	61	91.0	102
Asgrow	Pulsar	8	65	117	ME	42	22,900	60	87.7	98
Sorghum Partners	KS310	6	66	112	ME	42	29,400	61	79.3	89
Sorghum Partners	NK5418	6	72	118	M	43	29,800	61	112.3	126
Triumph Seed	TR452	8	72	119	M	46	24,400	61	108.3	121
Mycogen	1G600	7	73	123	M	45	29,400	59	95.0	106
Triumph Seed	TR448	7	72	122	M	43	29,400	61	92.6	104
Triumph Seed	TRX84732	8	72	120	M	47	19,400	61	89.1	100
Mycogen	M3838	8	72	122	M	43	24,800	60	88.2	99
Check	399 X 2737	7	83	131	ML	42	21,300	59	101.2	113
Average		7	68	116		42	27,183	60	89.3	

LSD_{0.20}

6.5

^aYields corrected to 14.0% moisture

^bMaturity Group: E, early; ME, medium early; M, medium; ML, medium late

Site Information

Cooperator: Plainsman Research Center
 Planted: 6/2/2010
 Harvested: 11/1/2010
 Planting Rate: 43,600 plants/acre
 Previous Crop: Wheat
 Fertilizer: N-P-K-Zn (50-20-0-.3) lbs/ac
 Herbicide: Preemergence-24 oz/ac of glyphosate and .5 lbs/ac of 2,4-D
 Postemergence-4 oz/ac of Banvel, 1 lb/ac of Atrazine, and 32 oz/ac of COC
 Soil Type: Silty Loam

2010 Irrigated Winter Canola Variety Performance Trial at Rocky Ford

Variety	Source	Winter Survival	Plant Height	Yield	Yield	Protein	Oil Content
		percent	inches	lbs/acre	percent of mean	percent	percent
Safran	DL Seeds	72.9	43	2025	128	23.7	43.2
HPX-7228	High Plains Crop Development	83.7	41	1979	125	24.5	43.3
HPX-7019	High Plains Crop Development	78.3	42	1958	124	25.8	42.9
KS4426	K-State	73.5	41	1861	117	23.5	44.6
Baldur	DL Seeds	85.1	44	1813	114	23.9	43.0
Visby	DL Seeds	80.3	40	1723	109	24.4	42.2
Riley	K-State	69.4	40	1711	108	24.8	44.2
Kadore	Momont	71.0	36	1697	107	24.6	42.8
CHHE96	Momont	80.2	40	1683	106	24.3	43.9
Hybristar	Momont	85.4	39	1678	106	23.9	44.2
MH06E10	Momont	82.8	41	1638	103	23.2	44.6
Sitro	DL Seeds	100.0	43	1625	103	25.9	41.7
HPX-6271	High Plains Crop Development	95.3	40	1623	102	24.8	44.1
HPX-7341	High Plains Crop Development	95.3	42	1623	102	24.8	43.2
Wichita	K-State	78.6	40	1616	102	24.7	43.3
Kiowa	K-State	95.1	42	1604	101	23.0	44.4
HPX-7127	High Plains Crop Development	84.1	41	1583	100	24.4	43.9
KS3254	K-State	77.9	40	1513	96	23.4	43.8
Virginia	K-State	84.5	38	1492	94	24.0	43.7
KS4475	K-State	74.2	42	1479	93	25.0	43.7
Dynastie	DL Seeds	73.9	41	1475	93	24.2	43.6
Hybrisurf	Momont	71.6	42	1428	90	24.0	44.6
HPX-501	High Plains Crop Development	88.1	41	1425	90	26.7	42.7
Sumner	K-State	59.5	37	1419	90	24.4	44.2
HyClass154W	Croplan	74.3	43	1403	89	25.6	41.6
MH905492	Momont	54.8	42	1352	85	27.2	40.1
Dimension	DL Seeds	61.0	40	1337	84	23.1	44.7
MH06E11	Momont	54.5	42	1322	83	23.0	43.6
MH06E4	Momont	64.2	41	1223	77	22.7	44.5
Flash	DL Seeds	65.4	42	1207	76	24.4	43.2
Average		77.2	41	1584		24.4	43.4
CV		25.9	6	17		4.7	2.4
LSD _{0.05}		NS	4	448		NS	2.2

Experimental Design: randomized complete block design with three replications

Plot size: 5' x 30'

Site Information

Harvest dates: 6/30/2010 and 7/6/2010

Planting date: 8/26/2009

Cooperator: Arkansas Valley Research Center
Colorado Extension-Perry Cabot

Previous Crop: Wheat

Fertilizer: N-P (22-104) lbs/ac

Herbicides: Teflan applied late summer and incorporated prior to planting

Irrigation: Flood

Soil Type: Rocky Ford Silty Clay Loam

We thank Mike Stamm, Kansas State University, for his leadership and collaboration.

