



2007 Colorado Spring Crop Variety Performance Trials



Colorado
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2007 Colorado Spring Crop Variety Performance Trial Results

Colorado State University Crop Testing: Jerry J. Johnson, Jim Hain, and Alicia Davisson
Introduction

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 and to determine which experimental lines to promote toward official release. 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. 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 first time CSU spring crop performance trial results have been published by the High Plains Journal and we are thankful for their collaboration. Selected dry bean, corn (irrigated, dryland, and silage), sunflower, soybean, oilseed-for-biofuel, and proso millet 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 2007 crop performance trial results for each crop are available on the Crops Testing website: www.csucrops.com. Variety descriptions for some crops and 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 to CSU to provide these results to Colorado crop producers. These trials are made possible with funding from seed company entry fees, funding from the Colorado Dry Bean Administrative Committee and the Colorado Sunflower Administrative Committee, grants from Anheuser Busch, the Colorado Department of Agriculture, and the Colorado Water Resource Research Institute.

2007 Eastern Colorado Crop Variety Performance Trial Locations

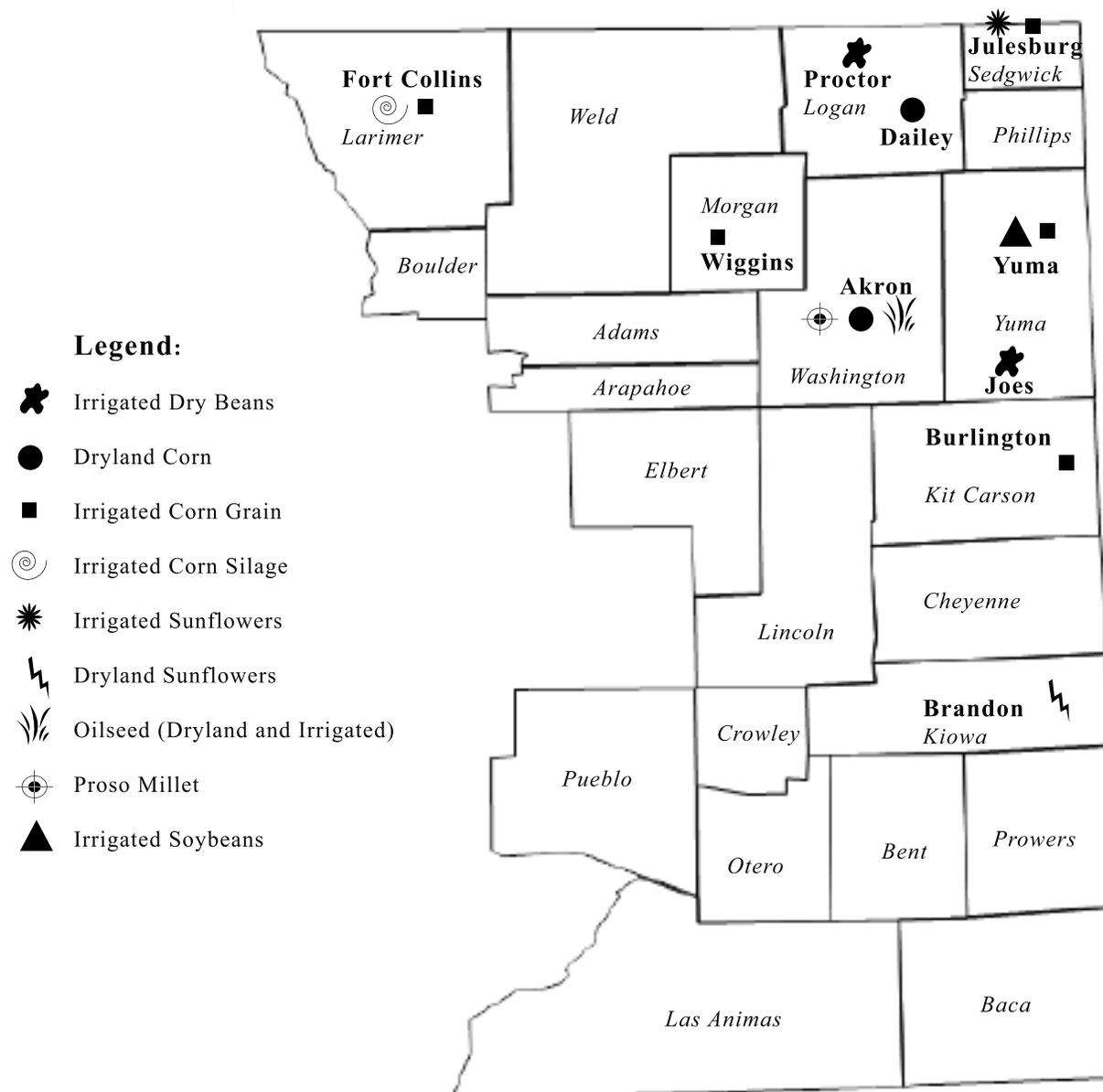


Table 1. 2007 Pinto Bean Variety Performance Trial at Joes¹.

Variety	Source	Yield	Moisture	Test Weight	Seed/lb	Disease Observation ²
		lb/ac	%	lb/bu	No.	
Poncho	ProVita, Inc.	3128	10.9	60.1	1302	Mod BBS
GTS-904	Gentec, Inc.	2972	11.2	58.8	1412	Lt-Mod BBS
Montrose	Colorado State University	2552	10.1	59.7	1447	Lt-Mod BBS
Bill Z	Colorado State University	2522	10.4	58.8	1515	Lt-Mod BBS
05200	ProVita, Inc.	2457	11.1	60.1	1612	Mod-Sev BBS
Buckskin	ProVita, Inc.	2439	10.2	58.4	1464	Mod BBS
CO54150	Colorado State University	2374	11.7	58.5	1435	Lt BBS
Grand Mesa	Colorado State University	2373	10.4	59.2	1620	Lt BBS
06185	ProVita, Inc.	2329	11.1	61.0	1508	Lt BBS
06206	ProVita, Inc.	2312	10.7	60.9	1440	Mod BBS
Lariat	North Dakota State University	2296	11.1	58.1	1604	Lt BBS
CO23428	Colorado State University	2293	10.4	58.4	1596	Lt BBS
La Paz	ProVita, Inc.	2289	10.9	60.8	1494	Lt-Mod BBS
01223	ProVita, Inc.	2276	10.8	60.2	1796	Mod BBS
CO23704	Colorado State University	2205	10.4	60.5	1435	Lt BBS
P131423	ADM Seedwest	2204	11.0	59.1	1489	Lt BBS
99217	ProVita, Inc.	2200	10.6	60.6	1462	Lt-Mod BBS
Sonora	ProVita, Inc.	2188	10.4	59.8	1706	Mod BBS
CO34142	Colorado State University	2187	11.6	60.0	1456	Lt BBS
P251215	ADM Seedwest	2124	11.3	60.3	1456	Lt BBS
CO33309	Colorado State University	2117	10.9	59.1	1429	Lt-Mod BBS
GTS-905	Gentec, Inc.	2115	11.4	60.0	1552	Lt BBS
99195 MR	ProVita, Inc.	2081	10.8	60.8	1725	Mod BBS
Durango	ProVita, Inc.	2038	10.5	60.6	1480	Mod BBS
Stampede	North Dakota State University	2023	10.4	58.4	1437	Lt BBS
Baja	ProVita, Inc.	1977	10.6	60.7	1525	Mod BBS
GTS-906	Gentec, Inc.	1962	11.2	59.3	1779	Lt-Mod BBS
P250215	ADM Seedwest	1930	10.6	58.5	1405	Lt BBS
CO33887	Colorado State University	1924	11.7	58.6	1470	Lt BBS
P223217	ADM Seedwest	1869	10.7	57.4	1577	Lt BBS
CO24601	Colorado State University	1858	10.5	58.0	1495	Lt BBS
CO33911	Colorado State University	1807	10.9	57.8	1655	Lt-Mod BBS
03261	ProVita, Inc.	1799	11.3	59.7	1505	Lt-Mod BBS
	Average	2219	10.8	59.5	1524	
	LSD _(0.30)	340				

¹Trial conducted on the Richard Wacker farm; seeded 6/4 and harvested 9/12.

²Disease Notes: The following diseases were present in the variety plots at that site, and were indicative of a susceptible-type reaction. BBS = Bacterial Brown Spot, CBB = Common Bacterial Blight, MBB = Mexican Bean Beetle evaluation on August 21, 2007; trace to light infection observed two weeks earlier from BBS and/or CBB. Notes taken by Dr. H. F. Schwartz, Colorado State University.

Table 2. 2007 Pinto Bean Variety Performance Trial at Proctor¹.

Variety	Source	Yield	Moisture	Test		Disease Observation ²
				Weight	Seed/lb	
		lb/ac	%	lb/bu	No.	
P223217	ADM Seedwest	3286	11.1	57.7	1349	Mod-Sev BBS
GTS-904	Gentec, Inc.	3264	11.7	58.5	1259	Mod BBS
Poncho	ProVita, Inc.	3230	11.0	59.8	1327	Mod BBS
GTS-906	Gentec, Inc.	3178	11.5	60.3	1337	Lt-Mod BBS
Bill Z	Colorado State University	3070	10.7	58.5	1539	Mod BBS
Buckskin	ProVita, Inc.	3068	10.2	58.8	1336	Mod-Sev BBS
03261	ProVita, Inc.	3056	12.2	59.5	1372	Mod BBS
GTS-905	Gentec, Inc.	3037	11.8	60.6	1362	Mod-Sev BBS
P131423	ADM Seedwest	3010	11.0	59.7	1440	Lt-Mod BBS
P250215	ADM Seedwest	3000	11.4	58.9	1140	Lt-Mod BBS
Stampede	North Dakota State University	2981	10.7	57.6	1339	Lt-Mod BBS
P251215	ADM Seedwest	2975	11.4	59.3	1295	Lt-Mod BBS
99195 MR	ProVita, Inc.	2935	11.5	60.4	1549	Mod BBS
CO24601	Colorado State University	2924	10.8	57.6	1233	Lt-Mod BBS
06206	ProVita, Inc.	2889	11.2	59.6	1297	Sev BBS
La Paz	ProVita, Inc.	2883	10.9	59.6	1417	Sev BBS
CO23704	Colorado State University	2869	10.9	60.0	1382	Lt BBS
05200	ProVita, Inc.	2869	11.5	59.0	1348	Mod BBS
06185	ProVita, Inc.	2793	11.3	59.8	1472	Sev BBS
Lariat	North Dakota State University	2760	11.5	59.7	1253	Lt BBS
01223	ProVita, Inc.	2751	11.2	59.1	1572	Sev BBS
Durango	ProVita, Inc.	2741	10.6	59.8	1292	Mod BBS, Mod MBB
Baja	ProVita, Inc.	2679	10.7	59.2	1331	Mod BBS
Sonora	ProVita, Inc.	2653	10.8	59.4	1592	Mod BBS
Montrose	Colorado State University	2622	10.6	59.1	1359	Lt BBS
99217	ProVita, Inc.	2611	10.7	60.1	1279	Mod BBS
CO33309	Colorado State University	2572	11.0	59.3	1275	Mod BBS
CO54150	Colorado State University	2534	13.4	58.5	1449	Lt-Mod BBS
CO23428	Colorado State University	2502	11.1	58.9	1537	Lt-Mod BBS
Grand Mesa	Colorado State University	2486	10.5	58.6	1524	Mod BBS
CO33887	Colorado State University	2285	14.8	60.3	1547	Lt-Mod BBS
CO33911	Colorado State University	2173	12.3	58.9	1503	Lt BBS
CO34142	Colorado State University	1890	14.7	59.6	1681	Tr BBS
	Average	2805	11.4	59.3	1394	
	LSD _(0.30)	301				

¹Trial conducted on the Bob Duncan farm; seeded 5/28 and harvested 9/20.

²Disease Notes: The following diseases were present in the variety plots at that site, and were indicative of a susceptible-type reaction. BBS = Bacterial Brown Spot, CBB = Common Bacterial Blight, MBB = Mexican Bean Beetle evaluation on August 21, 2007; trace to light infection observed two weeks earlier from BBS and/or CBB. Notes taken by Dr. H. F. Schwartz, Colorado State University.

Table 3. Irrigated Corn Variety Performance Trial at Burlington¹ in 2007.

Hybrid	Yield ²	Grain Moisture	Test Weight	Plant Height	Density	Lodging
	bu/ac	%	lb/bu	inches	plants/ac	%
Fontanelle 8K389	272.3	16.7	58.0	92	29874	14.8
Mycogen 2C727 (HXI)	262.7	16.9	56.6	95	31155	8.7
NK Brand N72-Q6	252.3	17.9	57.0	91	30157	5.5
Dyna-Gro 57P93 (RR2/YGCB)	250.0	18.8	57.6	92	30162	4.6
DEKALB DKC60-18 (RR2/YGPL)	249.4	16.8	58.2	91	30452	6.3
DEKALB DKC62-33 (RR2/YGCB)	248.1	18.2	59.2	89	31969	1.9
NK Brand N68-B8	247.3	17.5	56.5	88	30265	1.5
LG Seeds LG 2614 (BT/RR)	244.3	18.1	58.6	91	28593	8.1
NK Brand N70-C7	242.9	19.2	56.8	90	30389	5.7
Producers Hybrids 7134VT3	242.7	16.3	55.4	96	29811	16.5
Producers Hybrids 7329HX	241.1	18.5	57.6	91	30755	56.3
DEKALB DKC52-63(RR2/YGCB)	239.7	15.6	58.4	89	31057	5.6
Dyna-Gro 56B56 (RR2/YGPL)	238.7	15.6	58.4	92	29696	10.4
Dyna-Gro 57P69 (RR2/YGCB)	238.3	19.3	57.1	92	30975	14.3
Triumph 1109PL	238.0	16.4	58.1	87	32319	13.5
Dyna-Gro 55P79 (RR2/YGCB)	236.6	16.0	58.3	91	30330	20.6
Dyna-Gro 57F20 (YGCB)	235.5	16.9	56.8	91	28874	13.6
DEKALB DKC61-73 (RR2/YGCB)	234.2	16.7	58.1	91	29652	7.6
Check ³	232.8	17.0	58.1	95	29637	4.0
Dyna-Gro 57V05 (YGVT Triple)	231.9	20.2	56.1	95	30446	19.5
LG Seeds LG 2552BTRW	231.8	17.7	56.5	92	29696	9.6
Mycogen 2K718 (HXI/RR)	231.0	16.9	57.4	90	30568	38.2
Dyna-Gro 57F37 (YGCB)	227.7	17.2	58.7	91	30720	14.3
Dyna-Gro 57F06 (YGCB)	226.8	16.6	57.8	94	28945	29.1
DEKALB DKC64-76 (RR2/YGPL)	226.1	18.3	59.6	89	29980	1.5
NK Brand N76-D3	226.0	17.5	54.8	85	32412	12.7
DEKALB DKC54-46 (RR2/YGPL)	223.9	15.2	59.2	96	31655	14.2
Triumph 8607CbRR	222.5	16.9	58.7	91	30258	20.6
Producers Hybrids 7484VT3	222.5	17.7	59.1	89	30621	23.5
Fontanelle 8B595	222.4	18.5	57.7	97	31067	11.4
Dyna-Gro 55P86 (RR2/YGCB)	222.1	15.7	58.2	95	30783	8.0
Mycogen 2C597 (HXI/RR)	216.7	17.6	57.1	88	30368	13.2
Triumph 6512PLRR	216.6	16.2	59.6	95	30322	6.2
Mycogen 2T787 (HX XTRA)	215.7	17.6	57.6	88	28759	48.5
Mycogen 2D675 (HXI/RR)	212.8	14.9	56.0	91	29242	9.6
Dyna-Gro 57V44 (YGVT Triple)	205.9	15.8	58.1	95	29285	49.3
Dyna-Gro 56B83 (RR2/YGPL)	205.3	15.9	58.5	92	32131	2.0
LG Seeds LG 2590BTRWRR	204.0	16.2	58.1	91	30164	67.9
Dyna-Gro 57X97 (HXI)	202.3	16.4	57.2	88	28540	56.8
Dyna-Gro 55B65 (RR2/YGPL)	192.9	16.0	59.8	91	29994	4.0
Average	230.9	17.1	57.8	91	30302	17.0
LSD _(0.30)	18.8	1.0	0.8	5	1800	

¹Trial conducted on the Don Sircy farm; seeded 05/07 and harvested 10/16.

²Yields corrected to 15.5% grain moisture.

³The Check is NC+49-46RB.

*Ear drop insignificant.

Site Information

Plot Size: 5' x 31' with 30" row spacing

Experimental Design: randomized complete block, 3 replications

Seeding Rate: approximately 34,000 seeds/acre

Previous Crop: pinto beans

Irrigation: sprinkler

Growing Degree Days: 2783 (2007 GDD); 2673 (Long Term Ave GDD)

Soil Type: Rago silt loam

Fertilization: 190 lbs N acre⁻¹

Herbicide: Lumax

Insecticide: none

Table 4. Irrigated Corn Variety Performance Trial at Fort Collins¹ in 2007.

Hybrid	Yield ²	Grain Moisture	Test Weight	Plant Height	Density	Lodging
	bu/ac	%	lb/bu	inches	plants/ac	%
Mycogen 2J527 (HXI)	241.2	16.7	57.6	98	33818	2.2
Garst 8792 (CB/LL)	230.5	18.8	56.8	93	34661	0.6
DEKALB DKC52-63 (RR2/YGCB)	227.7	17.0	56.2	94	32767	0.0
Mycogen 2C597 (HXI/RR)	222.3	19.1	55.3	104	33724	0.3
Dyna-Gro 53P87 (RR2/YGCB)	222.1	15.8	58.7	96	31666	2.1
Dyna-Gro 56B83 (RR2/YGPL)	217.2	22.5	54.0	98	32592	0.6
Dyna-Gro 55B65 (RR2/YGPL)	217.1	18.2	56.1	102	31960	0.3
Check One ³	214.9	15.2	58.7	94	33537	2.8
Triumph 9958VT3	214.2	16.1	59.5	94	31766	0.6
Dyna-Gro 55P79 (RR2/YGCB)	213.6	19.5	55.9	102	32350	0.0
Check Two ⁴	213.2	16.1	58.3	93	32514	0.3
Mycogen 2C727 (HXI)	211.6	21.1	51.8	95	31713	2.5
Dyna-Gro 54T42 (RR2/HXI)	210.3	17.3	56.8	102	31725	0.6
Dyna-Gro 55B02 (RR2/YGPL)	207.2	17.0	57.0	95	34286	2.5
DEKALB DKC43-31 (RR2/YGCB)	203.8	16.1	57.9	91	32038	1.6
Mycogen 2D675 (HXI/RR)	202.9	18.1	54.0	102	31181	0.3
DEKALB DKC49-35 (RR2)	200.0	17.6	55.9	90	30704	0.0
Mycogen 2T787 (HX XTRA)	194.7	24.4	51.8	103	32600	1.4
Garst 8688 (GT)	193.5	17.9	55.6	101	30511	0.3
Mycogen 2K718 (HXI/RR)	186.1	25.2	51.2	107	31987	3.0
Average	212.2	18.5	56.0	98	32405	1.1
LSD _(0.30)	13.1	0.9	0.6	4	1139	

¹Trial conducted at the Agricultural Research, Development and Education Center; seeded 05/11 and harvested 11/8.

²Yields corrected to 15.5% grain moisture.

³Check One is Cropland 421 RR2.

⁴Check Two is DEKALB DKC 4628.

Site Information

Plot Size: 5' x 31' with 30" row spacing

Experimental Design: randomized complete block, 3 replications

Seeding Rate: approximately 34,000 seeds/acre

Previous Crop: wheat

Irrigation: sprinkler

Growing Degree Days: 2703 (2007 GDD); 2316 (Long Term Ave GDD)

Soil Type: Fort Collins clay loam

Fertilization: 85 lbs N acre⁻¹; 40 lbs P₂O₅ acre⁻¹

Herbicide: Lasso, Marksman

Insecticide: none

Table 5. Irrigated Corn Variety Performance Trial at Julesburg¹ in 2007.

Hybrid	Yield ²	Grain Moisture	Test Weight	Plant Height	Density	Lodging
	bu/ac	%	lb/bu	inches	plants/ac	%
LG Seeds LG 2552BTRW	263.8	14.6	57.8	92	32881	4.8
Fontanelle 8B140	259.6	15.4	60.0	93	32506	3.1
DEKALB DKC62-33 (RR2/YGCB)	259.1	15.6	60.5	94	32452	6.5
Dyna-Gro 57F37 (YGCB)	258.8	15.3	58.7	98	32881	11.4
Dyna-Gro 57P93 (RR2/YGCB)	258.0	14.7	58.4	102	32438	4.3
Dyna-Gro 57F20 (YGCB)	255.2	13.4	57.7	98	32038	8.2
DEKALB DKC60-18 (RR2/YGPL)	252.2	13.9	59.4	90	33249	3.4
Mycogen 2C727 (HXI)	251.6	13.9	57.5	98	32250	7.1
Trisler T6N52 CB	249.6	15.9	59.4	94	31429	13.5
Trisler T6A02 RRCB	249.0	14.0	58.2	96	30947	12.6
Producers Hybrids 6944VT3	244.9	14.2	57.9	94	33630	4.0
DEKALB DKC61-73 (RR2/YGCB)	244.0	14.3	59.6	95	32319	20.9
Producers Hybrids 7134VT3	244.0	15.2	56.9	87	31023	13.0
Trisler T-1J31 VT3	242.4	12.1	58.1	85	33716	2.8
Trisler T5N51 VT3	236.5	15.1	60.3	90	32578	20.9
Trisler T-5257 PLRR	234.8	15.2	58.4	96	33324	6.6
DEKALB DKC52-63 (RR2/YGCB)	234.7	12.0	58.7	87	32545	3.8
DEKALB DKC64-76 (RR2/YGPL)	234.5	16.1	61.0	93	31663	23.0
Mycogen 2J527 (HXI)	231.1	12.6	59.6	92	31660	5.7
DEKALB DKC54-46 (RR2/YGPL)	230.1	13.0	60.5	94	31421	12.4
Mycogen 2D675 (HXI/RR)	229.8	13.6	57.8	98	32848	18.2
Dyna-Gro 57B10 (RR2/YGPL)	228.9	15.4	58.8	99	32881	6.6
Dyna-Gro 54T42 (RR2/HXI)	226.7	12.3	59.2	98	32600	18.5
Dyna-Gro 56B56 (RR2/YGPL)	226.4	12.9	59.8	94	32550	13.4
Dyna-Gro 55P86 (RR2/YGCB)	224.9	13.3	59.1	94	31325	5.6
Dyna-Gro 57P69 (RR2/YGCB)	223.6	13.3	58.7	96	30867	17.3
Dyna-Gro 57V44 (YGVT Triple)	216.9	13.3	58.8	98	30874	22.3
Mycogen 2C597 (HXI/RR)	216.3	11.9	57.9	90	32600	7.1
Trisler T-2S61 PLRR	214.9	12.1	60.1	92	32412	9.9
Mycogen 2K718 (HXI/RR)	214.8	14.8	58.2	102	30795	29.1
Dyna-Gro 57F06 (YGCB)	213.7	12.5	57.5	97	31306	15.3
Dyna-Gro 55P79 (RR2/YGCB)	213.2	12.8	59.2	99	32131	10.2
Fontanelle 7S233	207.5	13.7	57.9	96	32038	25.4
Dyna-Gro 55B65 (RR2/YGPL)	205.2	11.6	58.9	93	31409	4.1
Dyna-Gro 56B83 (RR2/YGPL)	201.8	12.4	58.8	99	31321	3.1
Trisler T-4J31 PLRR	200.8	12.5	58.4	97	32106	21.8
Dyna-Gro 53V13 YGVT Triple	199.3	12.1	59.3	88	31663	10.2
Producers Hybrids 6463 YGCBRR2	196.9	12.6	59.3	100	32038	26.9
Dyna-Gro 55B02 (RR2/YGPL)	193.6	11.8	58.3	93	33317	14.7
Triumph 6512PLRR	192.8	14.1	61.0	91	31907	18.9
Average	229.6	13.6	58.9	95	32148	12.2
LSD _(0.30)	14.3	0.5	0.4	4	950	

¹Trial conducted on the Gene Bauerle farm; seeded 5/11 and harvested 10/31.

²Yields corrected to 15.5% grain moisture.

*Ear drop insignificant.

Site Information

Plot Size: 5' x 31' with 30" row spacing

Experimental Design: randomized complete block, 3 replications

Seeding Rate: approximately 34,000 seeds/acre

Previous Crop: corn

Irrigation: sprinkler

Growing Degree Days: 2993 (2007 GDD); 2752 (Long Term Ave GDD)

Soil Type: Richfield loam

Fertilization: 200 lbs N acre⁻¹; 26 lbs P₂O₅ acre⁻¹; 0.2 lbs Zn acre⁻¹; 3 lbs S acre⁻¹

Herbicide: Lumax

Insecticide: Invite, Pencap

Table 6. Irrigated Corn Variety Performance Trial at Wiggins¹ in 2007.

Hybrid	Yield ²	Grain Moisture	Test Weight	Plant Height	Density	Lodging
	bu/ac	%	lb/bu	inches	plants/ac	%
DEKALB DKC52-63 (RR2/YGCB)	261.7	12.6	59.7	91	34557	0.5
Dyna-Gro 56B56 (RR2/YGPL)	242.4	13.2	59.0	92	33204	2.1
Triumph 3203RR	239.9	12.3	58.0	92	32375	0.4
LG Seeds LG 2514 (BT/RR)	238.5	15.2	59.3	91	33167	0.9
DEKALB DKC60-18 (RR2/YGPL)	236.7	13.1	58.6	89	33461	0.0
DEKALB DKC61-73 (RR2/YGCB)	236.2	16.0	58.6	93	31523	0.3
Dyna-Gro 55P86 (RR2/YGCB)	234.1	14.0	58.3	90	32567	0.5
Fontanelle 5N751	227.6	12.3	60.3	96	31996	1.0
Mycogen 2C727 (HXI)	227.3	15.5	56.8	92	30507	1.0
Dyna-Gro 57F20 (YGCB)	226.2	15.1	57.2	92	34273	1.1
DEKALB DKC54-46 (RR2/YGPL)	224.8	12.7	61.0	91	34635	1.7
DEKALB DKC62-33 (RR2/YGCB)	224.5	15.9	59.7	95	34102	0.6
Mycogen 2J527 (HXI)	223.5	12.7	60.1	92	33443	2.3
Triumph 6512PLRR	221.7	12.4	60.9	88	33365	1.8
Dyna-Gro 57P93 (RR2/YGCB)	221.1	14.1	58.0	95	32905	1.8
LG Seeds LG 2524 (HX/LL)	221.0	13.3	59.4	93	31823	4.2
Mycogen 2D675 (HXI/RR)	219.2	15.3	56.9	93	34342	1.4
Dyna-Gro 55B65 (RR2/YGPL)	216.4	13.0	59.7	92	29567	1.3
Fontanelle 5N515	212.2	12.3	61.8	93	32589	0.5
Mycogen 2T787 (HX XTRA)	211.3	16.1	57.6	95	30018	4.3
Dyna-Gro 57P69 (RR2/YGCB)	207.6	13.7	58.3	88	31030	0.9
Dyna-Gro 54T42 (RR2/HXI)	207.1	12.4	59.5	91	30533	3.5
Dyna-Gro 53P87 (RR2/YGCB)	206.8	11.2	59.1	85	32495	0.0
Dyna-Gro 55P79 (RR2/YGCB)	200.9	13.9	59.2	95	32425	0.3
DEKALB DKC64-76 (RR2/YGPL)	196.7	15.5	60.5	86	33175	1.2
Mycogen 2K718 (HXI/RR)	190.1	16.4	57.2	94	32707	2.3
Mycogen 2C597 (HXI/RR)	189.1	13.4	58.3	97	32028	9.3
Dyna-Gro 56B83 (RR2/YGPL)	172.5	13.6	59.4	91	32480	1.1
Average	219.2	13.8	59.0	92	32546	1.7
LSD _(0.30)	15.5	0.9	0.6	5	2033	

¹Trial conducted on the Rod Graves farm, farm manager Ralph Beauprez; seeded 5/2 and harvested 10/7.

²Yields corrected to 15.5% grain moisture.

*Ear drop insignificant.

Site Information

Plot Size: 5' x 31' with 30" row spacing

Experimental Design: randomized complete block, 3 replications

Seeding Rate: approximately 34,000 seeds/acre

Previous Crop: corn

Irrigation: sprinkler

Growing Degree Days: 2778 (2007 GDD); 2667 (Long Term Ave GDD)

Soil Type: Bijou loamy sand

Fertilization: 240 lbs N acre⁻¹; 25 lbs P₂O₅ acre⁻¹; 40 lbs K₂O acre⁻¹

Herbicide: Lumax

Insecticide: none

Table 7. Irrigated Corn Variety Performance Trial at Yuma¹ in 2007.

Hybrid	Yield ²	Grain Moisture	Test Weight	Plant Height	Density	Lodging ³
	bu/ac	%	lb/bu	inches	plants/ac	%
LG Seeds LG 2619 (BT/RR)	273.3	15.6	59.9	98	32416	19.2
NK Brand N72-Q6	272.3	14.7	58.4	91	32248	5.7
Trisler T-7N57 CB	271.9	15.1	60.3	100	32506	7.5
Dyna-Gro 57P93 (RR2/YGCB)	271.4	15.5	60.0	101	32748	8.0
Trisler 4S61 VT3	266.5	14.7	60.3	99	30802	8.6
Trisler T5N52 PLRR	266.2	13.2	59.2	96	31586	4.4
DEKALB DKC52-63 (RR2/YGCB)	266.1	12.3	59.4	96	32400	4.4
NK Brand N70-C7	265.9	15.0	59.8	100	32506	14.5
DEKALB DKC61-73 (RR2/YGCB)	265.0	14.2	59.6	99	32974	20.2
Mycogen 2D675 (HXI/RR)	264.6	14.0	57.5	104	33068	2.9
Producers Hybrids 7329HX	264.6	15.9	59.0	105	32196	30.7
Mycogen 2C727 (HXI)	262.3	14.3	58.5	97	31476	19.0
LG Seeds LG 2552BTRW	262.0	14.7	58.7	100	32180	4.8
Dyna-Gro 57B94 (RR2/YGPL)	261.2	15.2	60.3	95	30960	15.5
Mycogen 2K718 (HXI/RR)	259.9	14.2	58.8	104	31899	9.1
DEKALB DKC54-46 (RR2/YGPL)	257.5	12.1	60.4	96	32589	0.6
Producers Hybrids 7484VT3	257.4	15.1	59.2	98	31330	10.5
Dyna-Gro 57F37 (YGCB)	255.9	14.9	58.8	100	31096	11.8
NK Brand N76-D3	254.0	15.7	59.9	98	32319	17.4
DEKALB DKC64-76 (RR2/YGPL)	253.6	16.3	61.5	103	32000	23.8
DEKALB DKC60-18 (RR2/YGPL)	252.5	14.2	59.7	99	32473	4.7
Producers Hybrids 7134VT3	251.5	14.4	57.9	94	32187	18.0
Mycogen 2J527 (HXI)	250.2	12.1	60.1	95	32600	5.2
Dyna-Gro 57V05 (YGV Triple)	249.1	16.7	58.9	101	31476	11.3
Mycogen 2T787 (HX XTRA)	249.1	16.1	58.6	99	31992	22.6
Fontanelle 8B595	249.1	15.0	59.5	96	33162	10.0
Fontanelle 8K389	248.0	15.1	59.0	94	32819	31.7
Trisler T-7A01 VT3	247.9	15.8	60.9	98	32693	11.5
Dyna-Gro 57P69 (RR2/YGCB)	246.7	14.5	59.8	96	32180	25.0
Mycogen 2C597 (HXI/RR)	245.9	12.0	58.8	105	33357	8.4
Dyna-Gro 57B10 (RR2/YGPL)	245.4	15.3	59.9	101	33162	22.8
Trisler T-5257 PLRR	244.4	14.9	59.3	93	31850	11.1
LG Seeds LG 2614 (BT/RR)	243.7	15.1	60.6	100	30931	20.1
DEKALB DKC62-33 (RR2/YGCB)	242.9	15.1	61.0	98	33068	18.7
Dyna-Gro 57F20 (YGCB)	240.4	14.6	58.1	101	32254	11.3
Trisler T-7N54 RRCB	237.7	15.7	62.1	98	32506	28.2
Dyna-Gro 54T42 (RR2/HXI)	237.1	12.9	60.0	101	30745	11.6
Dyna-Gro 55P86 (RR2/YGCB)	236.6	13.9	59.4	98	30578	13.9
Triumph 8607CbRR	235.4	15.1	59.9	101	31743	15.5
Triumph 1109PL	235.4	14.6	60.1	95	31609	25.6

Table 7 Continued.

Dyna-Gro 55P79 (RR2/YGCB)	235.0	13.4	59.3	96	32019	13.4
Dyna-Gro 57F06 (YGCB)	234.6	12.7	59.2	100	30636	25.6
Check ⁴	231.9	15.5	60.6	98	31195	6.5
Dyna-Gro 55B65 (RR2/YGPL)	231.1	11.9	59.7	104	32739	3.2
Trisler T-8A02 CB	229.0	14.9	60.2	96	31757	54.7
Dyna-Gro 57X97 (HXI)	228.3	15.7	59.4	96	32348	45.3
Dyna-Gro 57T61 (RR2/HXI)	225.9	15.7	60.1	102	32225	33.8
Dyna-Gro 56B83 (RR2/YGPL)	214.7	12.2	59.3	97	32412	18.1
Dyna-Gro 57V44 (YGVV Triple)	208.3	13.9	59.5	97	31569	31.7
Dyna-Gro 56B56 (RR2/YGPL)	196.1	13.7	59.7	95	32550	43.8
Average	247.9	14.5	59.6	99	32083	16.8
LSD _(0.30)	13.9	0.5	0.4	4	923	

¹Trial conducted on the Larry Gardner farm; seeded 5/12 and harvested 11/1.

²Yields corrected to 15.5% grain moisture.

³Severe winds prior to harvest led to significant lodging for many entries.

⁴The Check is Pioneer 34A15.

*Ear drop insignificant.

Site Information

Plot Size: 5' x 31' with 30" row spacing

Experimental Design: randomized complete block, 3 replications

Seeding Rate: approximately 34,000 seeds/acre

Previous Crop: kidney beans

Irrigation: sprinkler

Growing Degree Days: 3031 (2007 GDD); 2615 (Long Term Ave GDD)

Soil Type: Julesburg loamy sand

Fertilization: 267 lbs N acre⁻¹; 67 lbs P₂O₅ acre⁻¹; 37 lbs K₂O acre⁻¹; 2.2 lbs Zn acre⁻¹; 37 lbs S acre⁻¹; 1.1 lbs Fe acre⁻¹; 1.1 lbs Mn acre⁻¹

Herbicide: Outlook

Insecticide: Asana

2007 Colorado and Nebraska Skip Row vs. Full Row Dryland Corn Variety Trial

CSU Crop Testing, Alex Pavlista, Glen Frickel, Robert Klein, and Jeffrey Golus

All dryland variety trials are more variable than irrigated trials and dryland corn variety trials are more variable than most dryland crop trials. Skip row yield trends indicate that at Akron and Dailey (lower yield environments in 2007), the plant-2-skip-2 configuration increased yields on the average by 16%. At Sidney and North Platte (higher yield locations), conventional full row configuration plots out-yielded the skip row configuration by 17%. Skip row planting appears to be advantageous in lower-yielding environments and disadvantageous in high yielding environments.

At Akron, where the skip row yield advantage was most remarkable, all varieties yielded higher under skip row than under full row, with increases varying from 5% to 60%. At North Platte, where full row yield advantage was most remarkable, all varieties yielded higher under full row, with specific variety yield increases varying from 8% to 27%.

Hybrid (alphabetical)	Akron, CO ¹		Dailey, CO ²		North Platte, NE ³		Sidney, NE ⁴	
	Skip Row Yield ⁵	Full Row Yield ⁵	Skip Row Yield ⁵	Full Row Yield ⁵	Skip Row Yield ⁵	Full Row Yield ⁵	Skip Row Yield ⁵	Full Row Yield ⁵
	bu/ac	bu/ac	bu/ac	bu/ac	bu/ac	bu/ac	bu/ac	bu/ac
DEKALB DKC52-63 (RR2/YGCB)	53.1	50.5	83.0	83.8	115.6	145.6	100.6	106.7
DEKALB DKC58-16 (VT3)	43.8	35.9	75.5	65.9	108.5	133.9	101.6	121.0
DEKALB DKC58-16 (VT3)+Micro-AZ ⁶	48.4	38.3	85.1	67.5	123.4	141.2	115.1	128.9
DEKALB DKC58-16 (VT3)+Myconate ⁷	62.3	46.9	74.0	75.2	120.6	138.2	114.6	115.8
Dyna-Gro 53P87 (RR2/YGCB)	33.1	29.9	83.3	68.0	97.6	133.5	90.6	119.3
Dyna-Gro 54T42 (RR2/HXI)	37.6	23.5	77.9	69.1	122.0	147.4	103.5	104.1
Dyna-Gro 55B65 (RR2/YGPL)	57.5	45.0	74.2	71.6	98.7	115.2	100.8	114.1
Dyna-Gro 55P79 (RR2/YGCB)	49.4	32.0	77.5	72.4	115.0	125.6	98.2	111.1
Dyna-Gro 57P69 (RR2/YGCB)	47.1	43.4	86.7	78.2	119.2	130.8	102.8	118.6
Dyna-Gro 57P93 (RR2/YGCB)	47.9	30.4	73.3	63.5	123.1	145.7	108.4	115.3
LG Seeds LG 2475 (BT/RR)	47.6	37.5	75.5	75.1	103.0	121.8	95.2	108.9
LG Seeds LG 2514 (BT/RR)	48.2	36.9	78.8	71.2	95.5	126.6	87.9	109.6
Average	48.0	37.5	78.7	71.8	111.9	133.8	101.6	114.4
LSD _(0.30)	11.4	14.1	7.1	9.5	5.3	9.8	8.2	11.4

¹Trial conducted at the Central Great Plains Research Station.

²Trial conducted on the Mark and Neil Lambert farm.

³Trial conducted at the University of Nebraska West Central Research and Extension Center.

⁴Trial conducted at the University of Nebraska High Plains Ag Lab.

⁵Yields corrected to 15.5% grain moisture.

⁶Micro-AZ: TerraMax's Micro-AZ is a stabilized formulation of two beneficial micro-organisms, Azospirillum brasilense and lipoferum, in a nutrient blend that increases shelf life and bacteria survivability. This product, available in both liquid and dry formulations, is intended to stimulate root growth and enhance the germination process in grasses, for increased root mass, stand and yield. The organisms in Micro-AZ are naturally occurring and will not harm the environment. TerraMax can be reached at 651-458-4401, or www.terramaxag.com.

⁷Myconate® is a signal compound put out by plant roots in times of stress that is intended to encourage beneficial fungi (mycorrhizae) to colonize them. This simple compound is non-toxic, is quickly broken down in the soil, and is effective in very small quantities. It is available in several formulations some of which are water soluble and is easy to apply to seeds or to soil. Myconate® is a trademark product of Plant Health Care, Inc., 440 William Pitt Way, Pittsburgh, PA 15238, telephone 412-826-5488 x152.

<u>Site Information</u>	<u>Akron, CO</u>	<u>Dailey, CO</u>	<u>North Platte, NE</u>	<u>Sidney, NE</u>
Skip row configuration:	Plant 2 skip 2	Plant 2 skip 2	Plant 2 skip 2	Plant 2 skip 2
Full row configuration:	Plant all 4 rows	Plant all 4 rows	Plant all 4 rows	Plant all 4 rows
Date of Planting:	5/17/07	5/19/07	5/9/07	5/14/07
Date of Harvest:	10/29/07	10/17/07	10/11/07	10/12/07
Plot Size:	Skip Row = 10' x 31' Full Row = 5' x 31'	Skip Row = 10' x 31' Full Row = 5' x 31'	Skip Row = 15' x 30' Full Row = 10' x 30'	Skip Row = 10' x 24' Full Row = 5' x 24'
Experimental Design:	4 replications	4 replications	4 replications	4 replications
Seeding Rate:	Skip Row=15,000 seeds/ac Full Row=15,500 seeds/ac	Skip Row=15,000 seeds/ac Full Row=15,500 seeds/ac	Skip Row=15,000 seeds/ac Full Row=15,500 seeds/ac	Skip Row=15,000 seeds/ac Full Row=15,500 seeds/ac
Previous Crop:	wheat	wheat	wheat	wheat
Soil Type:	Rago silt loam	Haxtun sandy loam	Holdrege silt loam	Kuma loam
Fertilization:	None	86 lbs N acre ⁻¹ ; 45 lbs P ₂ O ₅ acre ⁻¹	80 lb N preplant as 32-0	60 lbs N acre ⁻¹
Herbicide:	Round-up	Round-up; Atrazine	Glyphos Xtra; Lumax; Atrazine; Round-up	Atrazine; Dual II; 2,4-D Amine; Round-up
Insecticide:	None	None	Lorsban at planting 8 oz/1000' row	None

Skip Row, Plant Population, and Ear-flex Corn Comparisons

Justin Herman, Neil Hansen, and Dwayne Westfall

A dryland corn study of different ear flex traits, plant populations, and row configurations was conducted in 2006 and 2007 at Sterling and Stratton, Colorado. The study was conducted in a no-till management system at both locations. Drought conditions resulted in very low 2006 yields, but trends were similar to those reported below for 2007. Precipitation for the 2007 corn growing season was 13” at Sterling and 11” at Stratton. Skip-row planting increased yields from 18% to 60%, with the greatest benefit from skip row planting observed for the flex hybrid. In dryland environments, with relatively low yield potential, skip row planting provides a yield advantage over conventional row spacing and is especially valuable for flex ear corn hybrids.

2007 Corn Yields from

Location 1: Sterling, CO		
Conventional Rows (30")	Non-flex Hybrid DKC 38-33RR	Flexing Hybrid DKC 44-46RR
Seeding Rate (1000 seeds/acre)	Yield (bu/ac)	
10	28 b	34 ab
14	17 bc	26 b
18	8.5 c	---
Conventional Row Average	18	30
Skip-Row (Plant 2-Skip 1)		
10	25 b	40 a
14	20 b	44 a
18	28 b	---
Skip Row Average	24	42
Location 2: Stratton, CO		
Conventional (30")		
12.5	16 d	29 abcd
17.5	27 bcd	16 d
22.5	17 cd	26 bcd
Conventional Row Average	20	24
Skip-Row (Plant 2-Skip 1)		
12.5	28 abcd	38 ab
17.5	26 bcd	35 abc
22.5	17 cd	46 a
Skip Row Average	24	40

Table 8. Irrigated Corn Silage Variety Performance Trial at Fort Collins¹ in 2007.

Hybrid	Yield ²	Moisture	Plant Height	Density
	t/ac	%	inches	plants/ac
Dyna-Gro 57X97 (HXI)	38.6	68.3	101	31170
Triumph 1866 (RR)	36.6	71.8	107	35106
Dyna-Gro 57P93 (RR2/YGCB)	34.9	69.7	104	30847
Mycogen (TMF) 2L844 (RR)	34.8	72.7	100	27603
Mycogen (TMF) 2Q716 (HX XT/RR)	34.1	66.9	106	30653
Fontanelle 5N503	33.1	60.4	99	33295
Garst 8579 (GT)	32.6	64.6	104	31541
Dyna-Gro 57P12 (RR2/YGCB)	32.5	69.8	93	23819
Mycogen (TMF) 2N804 (HXI/RR)	32.5	72.3	101	30589
Garst 8688 (GT)	32.3	63.8	102	27707
Fontanelle 7K133	31.6	68.8	110	31828
Mycogen (BMR) F2F797	31.3	73.8	109	32654
Garst 8302 (CRW/RR)	31.1	69.1	104	31492
Average	33.5	68.6	103	30639
LSD _(0.30)	3.9	1.6	6	3144

¹Trial conducted at the Agricultural Research, Development and Education Center; seeded 05/11 and harvested 10/01.

²Silage yield correct to 70% moisture content.

Site Information

Plot Size: 5' x 45'

Experimental Design: randomized complete block, 3 replications

Seeding Rate: approximately 34,000 seeds/acre

Previous Crop: wheat

Irrigation: sprinkler

Growing Degree Days: 2703 (2007 GDD); 2316 (Long Term Ave GDD)

Soil Type: Fort Collins clay loam

Fertilization: 85 lbs N acre⁻¹; 40 lbs P₂O₅ acre⁻¹

Herbicide: Lasso, Marksman

Insecticide: none

Table 9. 2007 Irrigated Oil Sunflower Variety Performance Trial at Julesburg¹.

Hybrid	Yield ²	Moisture	Test Weight	Plant Height	Density	Lodging	Oil Content
	lb/ac	%	lb/bu	inches	plants/ac	%	%
Triumph R657	3474	7.0	27.8	67	14397	3.6	42.80
DEKALB DKF34-80CL	3332	6.8	29.2	65	15356	3.5	42.04
DEKALB DKF38-45	3241	6.4	30.7	68	12176	3.8	41.28
Fontanelle 902 NS	3106	7.2	28.3	69	15561	8.0	42.56
Fontanelle IS 4668	3092	7.4	27.7	74	19013	4.0	37.98
Garst 4420NS	3091	8.3	29.4	70	13470	2.7	39.12
Monsanto MH6641	3034	8.0	29.8	65	16430	2.3	38.03
Monsanto MH6638	3001	8.9	29.9	66	20480	2.7	42.26
Mycogen 8H419CL	2890	6.6	29.0	67	16175	5.0	42.34
Monsanto MH6639	2873	6.1	30.1	65	19175	3.9	43.78
Seeds 2000 Blazer-NS	2857	7.0	29.9	68	16202	1.1	42.22
Triumph s678	2854	7.2	31.7	65	16474	2.5	42.82
Mycogen 8N386CL	2835	8.5	26.4	68	15041	2.6	37.16
DEKALB DKF37-31	2806	6.5	29.3	67	15241	2.0	41.72
Garst XF06NS16	2782	7.4	30.7	65	20244	1.5	39.55
Dyna-Gro FX07419	2735	8.2	27.4	67	15250	1.9	40.36
Mycogen 8N510	2732	6.6	29.5	61	16191	1.0	40.00
Triumph TRX7449	2726	7.0	30.7	64	19807	4.3	41.98
Dyna-Gro 94N82	2691	6.6	29.1	57	19239	2.4	41.01
Pioneer M91	2674	7.3	30.9	71	18077	3.1	41.37
Mycogen 8N358CL	2626	6.1	30.3	61	17841	1.7	41.56
Advanta Pacific AP534 NS/CL	2605	7.0	28.2	71	18871	3.9	39.17
Garst 4651NS	2604	6.4	30.2	70	19164	4.3	42.57
Triumph R664	2514	6.5	30.8	64	18629	2.0	43.05
Monsanto MH6640	2508	6.2	30.6	66	18172	8.0	44.68
Mycogen 8N453DM	2480	6.6	32.5	64	18903	4.0	43.79
Dyna-Gro FX07519DM	2472	6.4	29.0	64	15738	1.8	39.11
DEKALB DKF34-33	2456	6.5	30.5	64	18517	4.7	43.01
Dyna-Gro 94C38	2436	7.2	28.2	67	17851	3.7	37.85
Fontanelle IS 5880	2413	6.6	28.9	69	18255	2.5	38.71
Triumph TRX7442	2352	7.5	26.9	66	14916	4.8	40.63
Mycogen 8N337DM	2278	6.2	31.1	58	15941	2.0	42.32
Average	2768	7.0	29.5	66	17087	3.3	41.15
LSD _(0.30)	388	0.9	1.0	4	2355		

¹Trial conducted on the BLM, LLC farm; seeded 6/5 and harvested 10/10.

²Yields corrected to 10% seed moisture.

Site Information

Plot Size: 5' x 32' with 30" row spacing

Experimental Design: randomized complete block, 3 replications

Seeding Rate: approximately 25,000 seeds/acre

Previous Crop: corn

Irrigation: sprinkler

Soil Type: Richfield loam

Fertilization: 40 lbs N acre⁻¹; 26 lbs P₂O₅ acre⁻¹; 0.2 lbs Zn acre⁻¹; 3 lbs S acre⁻¹

Herbicide: Round-up, Spartan, Prowl H₂O, Arrow EC

Insecticide: Methyl Parathion, Warrior T

Table 10. 2007 Irrigated Confection Sunflower Variety Performance Trial at Julesburg¹.

Hybrid	Yield ²	Moisture	Test Weight	Plant Height	Density	Lodging	Seed Size				
							Above 22/64	22/64 to 20/64	20/64 to 18/64	18/64 to 16/64	16/64 to 14/64
	lb/ac	%	lb/bu	inches	plants/ac	%	%	%	%	%	
Dahlgren 9530	3277	9.3	21.9	67	13637	4.8	42.7	29.7	22.2	4.3	1.1
Red River RRC 7015	3229	12.7	18.1	64	8423	2.2	58.8	24.5	12.7	3.2	0.8
CHS Sunflowers RH1121	3154	9.5	21.2	70	13165	0.7	73.8	17.2	6.7	2.0	0.3
Dahlgren 9531	3091	9.9	21.2	63	13230	2.8	60.2	23.3	13.9	2.6	0.0
Dahlgren 9569	2908	9.9	20.5	77	12383	1.6	37.0	32.6	20.7	7.2	2.5
CHS Sunflowers RH1122	2900	12.3	19.7	73	12848	1.3	78.6	13.0	6.3	1.9	0.2
Dahlgren 9579	2860	10.5	18.0	71	13769	0.7	60.9	21.3	12.6	4.5	0.7
Red River RRC 2216	2817	9.0	21.0	69	14054	1.1	46.6	36.5	13.3	3.2	0.4
Red River RRC 2215	2730	9.9	20.4	66	13345	3.4	55.4	25.9	16.1	2.1	0.5
CHS Sunflowers 07EXP01	2681	13.3	18.5	70	8184	0.0	64.2	18.1	14.3	3.0	0.4
CHS Sunflowers 06EXP02	2668	10.6	20.3	69	12576	0.9	83.4	10.4	4.0	1.6	0.6
Mycogen 8C482	2644	11.6	18.7	63	11103	1.5	54.8	27.6	11.7	4.2	1.7
CHS Sunflowers RH316	2605	12.4	19.0	67	12142	0.9	27.5	42.0	25.4	3.8	1.3
Seeds 2000 Panther (confection type)	2554	10.8	19.1	72	11080	12.1	57.2	24.5	13.5	3.3	1.5
Seeds 2000 Panther DMR (confection type)	2519	10.0	22.2	68	12714	1.5	38.3	31.5	23.7	5.3	1.2
Triumph 777C	2476	10.0	18.6	62	13997	1.3	67.9	18.5	9.0	3.2	1.4
Average	2819	10.7	19.9	68	12291	2.3					
³ LSD _(0.30)	257	2.2	1.4	2	1532						

¹Trial conducted on the BLM, LLC farm; seeded 6/5 and harvested 10/10.

²Yields corrected to 10% seed moisture.

Site Information

Plot Size: 5' x 32' with 30" row spacing

Experimental Design: randomized complete block, 3 replications

Seeding Rate: approximately 20,000 seeds/acre

Previous Crop: corn

Irrigation: sprinkler

Soil Type: Richfield loam

Fertilization: 40 lbs N acre⁻¹; 26 lbs P₂O₅ acre⁻¹; 0.2 lbs Zn acre⁻¹; 3 lbs S acre⁻¹

Herbicide: Round-up, Spartan, Prowl H₂O, Arrow EC

Insecticide: Methyl Parathion, Warrior T

Table 11. 2007 Dryland Oil Sunflower Variety Performance Trial at Brandon¹.

Hybrid	Yield ²	Moisture	Test Weight	Plant Height	Density	Lodging	Oil Content
	lb/ac	%	lb/bu	inches	plants/ac	%	%
Dyna-Gro 94N82	2445	5.5	27.6	55	14517	11.3	39.10
Mycogen 8N453DM	2442	5.4	31.5	60	12276	9.4	42.50
Triumph TRXs7425HOCL	2318	5.3	24.9	42	14274	3.2	38.84
Triumph R657	2280	5.2	26.4	64	13721	12.8	41.09
Triumph s678	2274	5.2	30.4	54	15022	7.4	41.03
Mycogen 8N510	2267	5.4	28.3	49	13831	10.1	38.29
DEKALB DKF38-45	2234	5.2	28.3	50	13483	16.1	40.33
DEKALB DKF37-31	2215	5.5	27.8	51	11751	11.7	38.07
Fontanelle 902 NS	2190	5.5	27.6	57	11534	12.9	38.60
Seeds 2000 Blazer-NS	2138	5.3	28.6	50	13040	10.2	40.66
Triumph R664	2138	5.4	28.2	60	14019	10.6	41.73
Dyna-Gro FX07419	2131	5.4	28.5	62	15791	19.3	38.48
Triumph TRXs7426HO	2093	5.5	29.7	54	13366	6.6	38.21
Garst 4651NS	2054	5.3	28.0	60	14821	15.6	39.40
DEKALB DKF34-33	2052	5.2	29.8	48	10830	18.1	39.87
Monsanto MH6641	2005	5.5	29.1	57	14332	12.1	36.01
Seeds 2000 Sierra-HO	1993	5.5	26.7	57	15110	14.9	37.77
Pioneer M91	1969	5.2	30.1	53	10598	5.3	37.11
Seeds 2000 Barracuda-CL-NS	1963	5.3	29.4	58	14036	8.3	40.53
Triumph R859HOCL	1953	5.4	27.7	60	12873	14.3	35.94
Garst 4420NS	1943	5.5	28.7	63	14629	9.3	37.16
Fontanelle IS 4668	1936	5.4	27.0	61	13225	18.8	36.17
Mycogen 8N358CL	1932	5.1	28.3	55	13943	18.6	39.40
Dyna-Gro 94C38	1928	5.4	26.8	55	15106	19.1	35.56
Mycogen 8N337DM	1921	5.0	29.1	50	12350	13.3	40.37
Dyna-Gro FX07519DM	1918	5.5	27.3	51	13451	16.3	36.76
DEKALB DKF34-80CL	1896	5.3	27.2	46	12523	4.5	37.83
Triumph 845HO	1868	5.3	27.7	59	14674	13.5	41.35
Mycogen 8H419CL	1861	5.3	27.0	61	15086	11.1	37.92
Monsanto MH6639	1807	5.1	28.5	48	14457	19.9	40.55
Advanta Pacific AP534NS/CL	1758	5.4	26.3	54	12799	7.7	35.39
Fontanelle IS 5880	1683	5.3	25.1	57	13782	13.9	37.02
Monsanto MH6640	1671	5.2	29.0	50	14340	21.6	41.16
Garst XF06NS16	1667	5.4	28.1	53	13751	12.0	36.16
Monsanto MH6638	1639	5.2	28.6	53	16044	23.5	40.76
Mycogen 8N386CL	1611	5.4	26.6	55	12573	6.1	35.91
Average	2005	5.3	28.0	55	13665	12.8	38.70
LSD _(0.30)	225	0.4	1.7		1485		

¹Trial conducted on the Burl Scherler farm; seeded 6/18 and harvested 10/25.

²Yields corrected to 10% seed moisture.

Site Information

Plot Size: 5' x 32' with 30" spacing

Experimental Design: randomized complete block, 4 replications

Seeding Rate: approximately 18,000 seeds/acre

Previous Crop: wheat

Soil Type: Fort Collins sandy loam

Fertilization: 63 lbs N acre⁻¹; 20 lbs P₂O₅ acre⁻¹

Herbicide: Round-up, Spartan, Prowl H₂O

Insecticide: Methyl Parathion, Mustang Max

Table 12. 2007 Dryland Confection Sunflower Variety Performance Trial at Brandon¹.

Hybrid	Yield ² lb/ac	Moisture %	Test Weight lb/bu	Plant Height inches	Density plants/ac	Lodging %	Seed Size				
							Above 22/64 %	22/64 to 20/64 %	20/64 to 18/64 %	18/64 to 16/64 %	16/64 to 14/64 %
Dahlgren 9569	2420	6.9	17.9	60	9531	3.5	64.9	21.8	9.9	2.5	0.9
Red River RRC 7015	2024	7.1	16.9	59	7233	6.5	73.4	16.5	8.2	1.3	0.6
Red River RRC 2216	1992	7.3	18.8	62	9034	6.3	76.9	16.2	6.0	0.5	0.4
Dahlgren 9579	1969	7.0	16.1	58	9065	11.0	67.1	16.2	14.7	2.0	0.0
Triumph 777c w/Myconate	1952	5.9	14.1	68	10811	8.6	86.6	8.3	4.8	0.3	0.0
Dahlgren 9531	1916	7.2	18.8	59	10880	6.7	66.6	21.5	10.2	1.6	0.1
Red River RRC 2215	1907	7.2	18.5	57	8891	7.7	76.4	15.3	6.4	1.2	0.7
Dahlgren 9530	1845	7.3	19.2	56	10124	12.3	69.9	20.0	8.9	0.7	0.5
Triumph 777C	1631	7.1	17.4	63	9891	12.1	76.0	13.7	7.7	2.2	0.4
Average	1962	7.0	17.5	60	9496	8.3					
³ LSD _(0.30)	206	0.4	0.9		1051						

¹Trial conducted on the Burl Scherler farm; seeded 6/18 and harvested 10/25.

²Yields corrected to 10% seed moisture.

Site Information

Plot Size: 5' x 32' with 30" row spacing

Experimental Design: randomized complete block, 4 replications

Seeding Rate: approximately 14,000 seeds/acre

Previous Crop: wheat

Soil Type: Fort Collins sandy loam

Fertilization: 63 lbs N acre⁻¹; 20 lbs P₂O₅ acre⁻¹

Herbicide: Round-up, Spartan, Prowl H₂O

Insecticide: Methyl Parathion, Mustang Max

Table 13. 2007 Irrigated Soybean Variety Performance Trial at Yuma¹.

Hybrid	Yield ² bu/ac	Moisture %	Test Weight lb/bu	Plant Height inches
Dyna-Gro 37Y21	99.4	8.8	56.4	30
NK Brand S28-B4	88.1	8.6	56.0	34
Farmer Check ³	83.7	8.5	55.7	37
Dyna-Gro 31D20	77.4	8.3	56.4	34
NK Brand S28-G1	75.6	8.8	55.7	34
Dyna-Gro 37T26	75.2	9.0	55.1	37
Dyna-Gro 35F25	73.8	8.7	55.0	34
Dyna-Gro 36F22	70.2	8.4	55.8	26
Dyna-Gro 36C28	69.7	8.8	55.3	35
Dyna-Gro 33D27	66.9	9.2	55.9	39
Average	78.0	8.7	55.7	34
LSD _(0.30)	7.5	0.2	1.0	2

¹Trial conducted on the Bob Taylor farm; seeded 05/25 and harvested 10/02.

²Yields corrected to 13% seed moisture.

³The Check is Asgrow SN79553.

Site Information

Plot Size: 7.5' x 31' with 30" row spacing

Experimental Design: randomized complete block; 3 replications

Seeding Rate: approximately 165,000 seeds/acre

Previous Crop: corn

Irrigation: sprinkler

Soil Type: Rago Silt Loam

Herbicide: Round-up

Table 14. 2007 Blue Sun Camelina Variety Trial at Akron¹.

Limited Irrigation ²				Dryland ³			
Variety	Yield	Test Weight	Plant Height	Variety	Yield	Test Weight	Plant Height
	lb/ac	lb/bu	inches		lb/ac	lb/bu	inches
BSX-G72	1725	48.0	27.7	Calena	1138	49.9	26.3
Cheyenne XT	1641	47.6	26.3	BSX-G21	1022	49.4	23.3
BSX-G76	1632	47.8	27.3	BSX-G73	1009	48.4	29.3
BSX-G51	1571	47.5	25.0	BSX-G44	995	49.8	23.3
BSX-G36	1545	46.3	27.3	BSX-G43	976	49.2	26.3
BSX-G54	1539	49.3	30.0	Cheyenne XT	974	48.2	25.3
BSX-G53	1481	46.2	24.0	BSX-G54	929	50.3	27.0
BSX-G21	1469	50.5	28.0	Cheyenne	925	48.7	25.0
BSX-G73	1435	48.2	30.0	BSX-G53	922	49.3	23.3
Cheyenne	1406	50.4	24.3	BSX-G65	918	50.0	27.7
BSX-G74	1368	48.7	26.7	BSX-G72	900	49.7	26.7
BSX-G75	1356	49.3	29.0	Calena XT	892	50.1	26.0
BSX-G37	1345	49.5	27.0	BSX-G33	862	48.6	22.3
BSX-G42	1336	47.7	25.3	BSX-G31	860	51.2	24.3
BSX-G24	1316	48.4	26.0	BSX-G77	813	48.5	23.7
BSX-G44	1301	48.3	26.3	BSX-G34	802	50.8	24.3
BSX-G63	1301	50.8	31.0	BSX-G51	786	48.2	22.0
BSX-G31	1202	49.9	27.7	BSX-G37	780	50.4	26.0
Calena XT	1179	48.7	24.3	BSX-G23	774	50.9	26.0
BSX-G32	1176	48.7	27.7	BSX-G24	757	51.2	23.3
BSX-G71	1173	50.5	30.7	BSX-G76	736	51.0	26.0
Calena	1159	47.2	27.3	Celine	726	49.3	25.0
BSX-G65	1141	48.0	25.0	BSX-G71	724	51.1	24.3
BSX-G33	1121	49.0	25.7	BSX-G66	712	50.4	22.7
BSX-G43	1095	48.2	24.0	BSX-G42	712	48.7	25.3
BSX-G38	1048	48.6	28.3	BSX-G63	701	50.0	28.0
BSX-G23	1034	46.1	25.3	BSX-G36	697	50.5	22.7
BSX-G61	1031	47.4	27.7	BSX-G78	678	49.4	25.0
BSX-G34	1025	48.3	26.0	BSX-G61	674	48.8	21.7
BSX-G79	1002	46.0	29.7	BSX-G79	674	48.7	26.0
BSX-G66	973	49.9	26.7	BSX-G75	633	50.8	25.3
BSX-G62	973	49.2	23.3	BSX-G32	631	49.5	22.3
Celine XT	961	48.8	26.3	Celine XT	631	49.8	26.3
Celine	926	47.3	27.3	BSX-G74	620	50.1	25.7
BSX-G78	900	47.0	26.7	BSX-G38	529	48.0	22.7
BSX-G77	871	47.8	26.0	BSX-G62	281	41.8	21.7
Average	1243	48.2	26.9	Average	789	49.5	24.8
LSD _(0.30)	317			LSD _(0.30)	141		

¹Trial conducted at the Central Great Plains Research Station; limited irrigated seeded 5/12 and harvested 7/24; dryland seeded 5/10 and harvested 7/10.

²Limited irrigation total water received (precipitation plus irrigation) = 10.08 inches

³Total precipitation = 7.58 inches

Site Information

Plot Size: 5' x 15'

Seeding Rate: 6 lbs/ac

Previous Crop: wheat

Fertilizer: 50-0-0

Herbicide: Sonalan (2 pints/ac)

Insecticide: 2xMustang (2 pints/ac)

Table 15. 2007 Regional Commercial Canola Variety Trial at Akron¹.

Limited Irrigation ²				Full Irrigation ³			
Variety	Yield	Test Weight	Plant Height	Variety	Yield	Test Weight	Plant Height
	lb/ac	lb/bu	inches		lb/ac	lb/bu	inches
V1035	2465	48.4	42.3	Hyola 357 Magnum	2451	48.6	39.0
Hyola 357 Magnum	2397	50.0	38.7	V1035	2368	48.9	42.0
IS7145RR	2271	50.1	47.0	DKL38-25	2157	48.1	47.3
V2010	2070	49.3	50.0	712 Hyclass	2155	48.0	50.7
DKL38-25	2041	48.1	46.3	IS7145RR	2135	51.0	46.0
431 Hyclass	2033	47.9	43.7	SW Patriot	1979	48.4	44.3
924 Hyclass	2029	48.9	46.7	DKL52-10	1948	49.4	45.7
905 Hyclass	2013	49.2	48.7	924 Hyclass	1853	47.4	46.3
DKL52-10	1979	48.2	45.3	Hyola 401	1851	49.7	34.7
V1031	1959	50.9	47.7	5550 Invigor	1816	50.0	47.3
V2015	1940	48.2	44.0	V1031	1799	50.0	48.7
Hyola 401	1934	48.5	34.7	V2015	1787	47.8	43.3
V1030	1878	49.3	47.3	45J10	1729	47.1	48.7
5550 Invigor	1876	49.6	44.7	V2010	1704	49.6	44.7
Python CL	1754	48.6	46.7	431 Hyclass	1675	47.1	44.7
BSX 42016	1640	48.0	38.7	905 Hyclass	1661	47.6	50.0
SW Patriot	1634	46.6	41.0	SW Marksman	1557	45.7	43.3
BSX 42078	1620	47.2	42.3	BSX 42016	1497	46.8	40.7
712 Hyclass	1593	47.6	43.3	V1030	1487	49.2	44.0
SW Marksman	1570	47.7	41.3	BSX 42078	1407	48.3	40.7
Hilite 618CL	1458	47.3	41.7	Python CL	1276	46.6	43.3
45J10	1440	46.6	48.0	Hilite 618CL	953	47.8	41.3
Average	1891	48.5	50.7	Average	1784	48.3	44.4
LSD _(0.30)	230	1.3	2.2	LSD _(0.30)	232	1.6	2.4

¹Trial conducted at the Central Great Plains Research Station; seeded 5/12 and harvested 7/24.

²Limited irrigation total water received (precipitation plus irrigation) = 10.08 inches

³Full irrigation total water received (precipitation plus irrigation) = 11.08 inches

Site Information

Plot Size: 5' x 15'

Seeding Rate: 6 lbs/ac

Previous Crop: wheat

Fertilizer: 50-0-0

Herbicide: Sonalan (2 pints/ac)

Insecticide: 2xMustang (2 pints/ac)

Table 16. Proso Millet Trial at Akron¹ in 2007.

Entry	Yield	Test Weight	Height	Seed Weight
	lbs/ac	lbs/bu	Inches	milligrams
Huntsman	2110	56.0	24	6.5
Sunup	1810	55.5	23	6.2
Plateau	1720	51.8	21	5.6
177-9-13	1690	53.0	27	6.1
Earlybird	1680	53.7	20	6.7
Horizon	1590	54.1	19	6.4
Sunrise	1460	55.6	21	6.6
174-7-13	1390	53.4	23	5.9
172-2-B	1370	53.4	25	5.6
177-3-13	1300	54.5	23	5.5
182-5-18	1160	53.5	22	6.0
182-4-24	1120	53.4	18	5.6
177-8	800	53.1	18	5.4
Dawn	600	53.7	19	6.3
10107	200	44.3	12	5.2
Average	1334	53.7	21	6.0
LSD _(0.05)	323	2.8	3	0.2

¹Trial conducted at the Central Great Plains Field Station; seeded 6/15 and harvested 10/29.

Site Information

Plot Size: 4' x 20'

Experimental Design: 4 replications

Seeding Rate: 15 lbs/acre

Previous Crop: grain sorghum

Soil Type: Rago silt loam