Cooperative Extension
Colorado State University

MAKING BETTER DECISIONS

2000 Dry Bean Variety Performance Trials

Agricultural Experiment Station

Colorado State University

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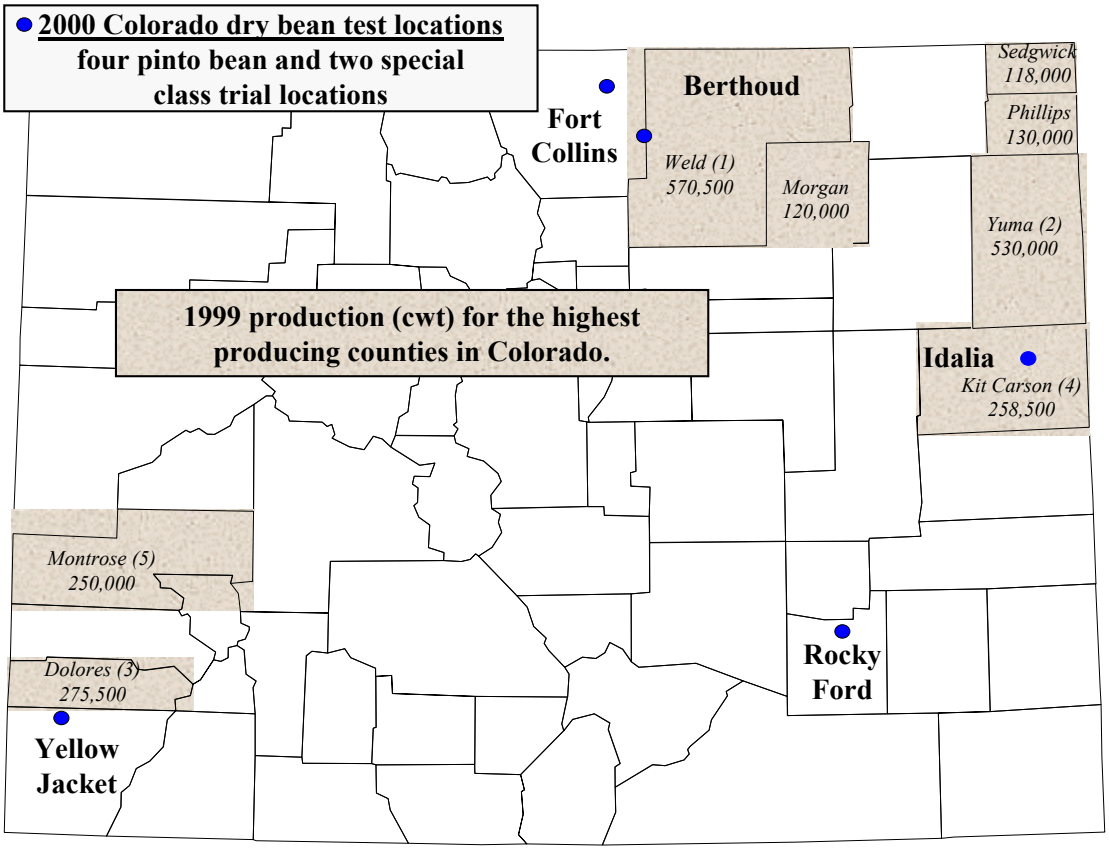

ACKNOWLEDGMENTS

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Technical Report TR 00-9

Agricultural Experiment Station	Department of Soil and Crop Sciences	Cooperative Extension	November 2000

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2000 COLORADO DRY BEAN PERFORMANCE TRIALS

Introduction

Colorado bean producers harvested over 145,000 acres of dry beans in 1999 with average yields of 1900 lbs/acre. The 1999 dry bean crop in Colorado was valued at $43 million. Bean producers spend over $5 million on pinto bean seed every year, which means that the bean variety decision is extremely important.

2000 was the second year that the uniform variety trial was planted at six locations (Berthoud, Julesburg, Yuma, Idalia, Rocky Ford and Yellow Jacket). The average yield performance over multiple locations is a powerful tool and unbiased, reliable performance results from this uniform variety trial help Colorado dry bean producers make better variety decisions. The uniform variety trial serves a dual purpose of screening new CO lines emerging from CSU's pinto bean breeding program, allowing fast and reliable selection of promising new, high yielding and disease resistant lines. Colorado State University's Crop Testing and Agricultural Experiment Station personnel evaluate dry bean varieties at multiple locations in eastern Colorado. The uniform variety trial is made possible by funding received in part from Colorado bean producers through the bean program administered by the Colorado Dry Bean Administrative Committee. Other market classes were tested at Fort Collins and Idalia.

A randomized complete block field design with three replicates was used in all trials. The seeding rate was approximately 87,120 seeds per acre with plots consisting of four 30-inch wide rows by 33 feet in length. All trials were situated in CSU or commercial bean fields. Seed yields, in pounds per acre, are adjusted to 14% moisture content. Disease pressure was low at all test sites during 2000 except for high root rot pressure and light to moderate common bacterial blight pressure at Idalia. Many entries at different eastern Colorado locations were adversely affected by abnormally high temperatures during the July 15-August 15 flowering and pod-filling periods.

Table 1. Dry bean trial cultural conditions in 2000.

	Berthoud	Fort Collins	Idalia	Rocky Ford	Yellow Jacket
Soil Type	Weld Silt Loam	Fort Collins Clay Loam	Kieth Silt Loam	Silty Clay Loam	Silty Clay Loam
Previous Crop	Barley	Beans	Corn	Fallow	Alfalfa
Fertilization					
N acre^{-1}	50	150	25	10	0
P_2O_5 acre^{-1}	25	40	75	50	0
Zn acre^{-1}	2	0	0	0	0
Herbicide	Frontier Sonalan	Aim 2,4-D	Treflan	Treflan Eptam	Frontier 6.0
Insecticide	None	Counter	Dimethoate	None	None
Irrigation	Flood	Furrow	Sprinkler	Furrow	Sprinkler

Pinto bean varietal descriptions:

93:219P An experimental line from University of Idaho.

94:1023P An experimental line from University of Idaho.

97:197P An experimental line from University of Idaho.

97:395P An experimental line from University of Idaho.

Bill Z A variety release by Colorado State University in 1985. It has a vine Type III growth habit with resistance to bean common mosaic virus and moderate tolerance to bacterial brown spot. It is a productive variety when growing conditions are good, susceptible to white mold and rust, and medium maturity.

Buckskin A Type III variety from Novartis Seeds, Inc.

Burke A medium season variety (USWA-19) released by Washington State in 1996. It has resistance to rust, but is susceptible to white mold and common bacterial blight.

Buster A new variety from Asgrow Seed Co. (5051) released in 1999, reported to be resistant to rust.

Chase A variety released by the University of Nebraska. It is resistant to rust and white mold, moderately resistant to bacterial brown spot, but moderately susceptible to Fusarium wilt.

Cisco A variety from Novartis Seeds Inc. (RNK 354).

CO64155 An experimental line from Colorado State University with resistance to rust.

CO64342 An experimental line from Colorado State University.

CO64589 An experimental line from Colorado State University.

CO64599 An experimental line from Colorado State University.

CO74518 An experimental line from Colorado State University.

CO74526 An experimental line from Colorado State University.

CO74527 An experimental line from Colorado State University.

CO74630 An experimental line from Colorado State University with resistance to rust.

CO74905 An experimental line from Colorado State University with resistance to rust.

CO75511 An experimental line from Colorado State University with resistance to rust.

CO75714 An experimental line from Colorado State University with resistance to rust.

CO75944 An experimental line from Colorado State University.

CO83778 An experimental line from Colorado State University.

Elizabeth A variety from Fox Bean Co. (FX930101) with rust resistance.

Gts-Cob502-94 An experimental line from Gentec.

Kodiak A variety from Michigan (P94207) with rust resistance.

Montrose A variety released from Colorado State University in 1999 (CO51715) with resistance to rust and excellent seed quality, susceptible to white mold.

Othello A variety released by the USDA with a semi-upright growth habit. It is highly susceptible to rust and bacterial diseases, moderately susceptible to white mold.

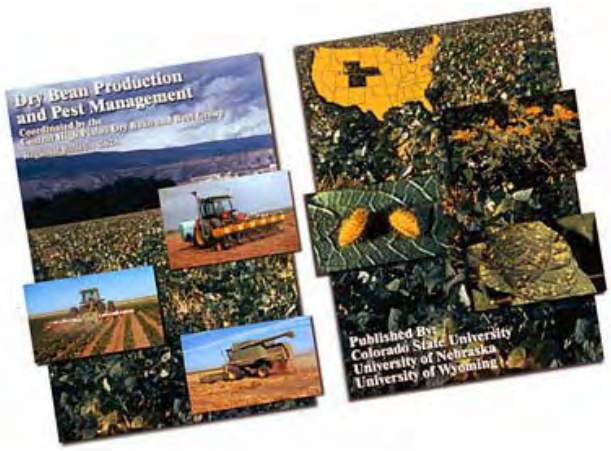
Poncho A variety from Novartis Seeds, Inc. (ROG 179) susceptible to rust, but moderately resistant to some bacterial diseases.

USPT-73 An experimental line from USDA-ARS, Prosser, WA.

Table 2. Average pinto bean performance over four Colorado sites in 2000.

Variety*	Location				
	Berthoud	Idalia	Rocky Ford	Yellow Jacket	Average
	----------Yield (lb/ac)----------				
CO64342	3071	3438	3986	2887	3346
Poncho	3503	3357	3739	2730	3332
CO74905	3062	3543	3994	2721	3330
Cisco	3355	3316	4015	2435	3280
USPT-73	3458	3331	3678	2451	3230
Montrose	3329	3130	3747	2649	3213
Bill Z	3208	3227	4240	2173	3212
CO74630	3198	2960	3929	2644	3183
GTS Cob 502-94	3079	3061	4024	2391	3139
Buster	2635	3331	3659	2721	3087
CO75714	2993	2972	3733	2638	3084
CO83778	2657	3061	4023	2561	3075
Chase	2692	3159	3838	2506	3049
Othello	3067	3205	3730	2173	3044
CO64599	2570	2981	3846	2732	3032
97:395P	2923	3107	3925	2174	3032
CO64155	2956	2747	3942	2432	3019
CO64589	3104	2640	3508	2772	3006
93:219P	2807	3142	3578	2252	2945
CO75511	2826	2561	3402	2819	2902
97:197P	2731	2735	3971	1780	2804
CO74518	2680	2918	3305	2250	2788
Elizabeth	2438	2633	3762	2286	2780
Buckskin	3066	2418	3258	2334	2769
Kodiak	2717	2998	3162	2121	2749
Burke	2867	2440	3558	1986	2713
94:1023P	3232	2677	3303	1580	2698
CO75944	2293	2286	3546	1998	2531
Average	**2947**	**2978**	**3729**	**2400**	**3013**

*Varieties ranked by the average yield over four locations in 2000.



http://www.csuag.com/

Table 3. Pinto bean performance at Berthoud[1] in 2000.

Variety	Yield	Moisture	Seed/lb
	lb/ac	%	No.
Poncho	3503	10.6	1177
USPT-73	3458	10.3	1159
Cisco	3355	11.5	1173
Montrose	3329	10.1	1273
94:1023P	3232	10.0	1273
Bill Z	3208	9.6	1354
CO74630	3198	9.9	1251
CO64589	3104	9.5	1460
GTS Cob 502-94	3079	11.3	1249
CO64342	3071	10.0	1244
Othello	3067	10.0	1273
Buckskin	3066	9.5	1324
CO74905	3062	9.9	1298
CO75714	2993	9.8	1295
CO64155	2956	9.6	1289
97:395P	2923	10.2	1258
Burke	2867	9.8	1255
CO75511	2826	9.6	1414
93:219P	2807	10.4	1179
97:197P	2731	10.2	1341
Kodiak	2717	9.9	1259
Chase	2692	9.5	1397
CO74518	2680	9.6	1427
CO83778	2657	10.6	1262
Buster	2635	10.2	1412
CO64599	2570	9.7	1368
Elizabeth	2438	9.9	1317
CO75944	2293	10.8	1265
Average	**2947**	**10.1**	**1295**
CV%	8.4		
$LSD_{(0.30)}$	213		

[1]Trial conducted on the Brent Adler farm; seeded 6/1 and harvested 9/18.

Table 4. Pinto bean performance at Idalia[1] in 2000.

Variety	Yield	Moisture	Seed/lb
	lb/ac	%	No.
CO74905	3543	8.5	1232
CO64342	3438	8.9	1165
Poncho	3357	8.9	1224
Buster	3331	8.4	1196
USPT-73	3331	8.6	1116
Cisco	3316	9.2	1150
Bill Z	3227	8.5	1295
Othello	3205	9.0	1133
Chase	3159	8.6	1230
93:219P	3142	9.0	1168
Montrose	3130	8.6	1217
97:395P	3107	8.5	1188
GTS Cob 502-94	3061	8.4	1127
CO83778	3061	8.7	1076
Kodiak	2998	7.8	1132
CO64599	2981	8.4	1132
CO75714	2972	8.8	1232
CO74630	2960	8.6	1212
CO74518	2918	8.7	1282
CO64155	2747	8.5	1286
97:197P	2735	8.7	1274
94:1023P	2677	8.3	1324
CO64589	2640	8.3	1338
Elizabeth	2633	9.0	1244
CO75511	2561	8.3	1406
Burke	2440	7.8	1244
Buckskin	2418	8.1	1288
CO75944	2286	8.7	1203
Average	**2978**	**8.6**	**1218**
CV%	17.2		
$LSD_{(0.30)}$	437		

[1]Trial conducted on the Dennis Towns farm; seeded 5/25 and harvested 9/19.

Table 5. Pinto bean performance at Rocky Ford[1] in 2000.

Variety	Yield	Moisture	Seed/lb
	lb/ac	%	No.
Bill Z	4240	11.3	1079
GTS Cob 502-94	4024	10.9	970
CO83778	4023	11.4	944
Cisco	4015	15.0	982
CO74905	3994	13.2	1029
CO64342	3986	11.6	1037
97:197P	3971	13.9	1049
CO64155	3942	13.4	1030
CO74630	3929	11.3	1062
97:395P	3925	14.5	1000
CO64599	3846	12.8	1075
Chase	3838	12.0	1090
Elizabeth	3762	12.1	1035
Montrose	3747	11.9	1020
Poncho	3739	11.5	1058
CO75714	3733	11.4	1186
Othello	3730	12.6	1047
USPT-73	3678	11.5	962
Buster	3659	13.4	1015
93:219P	3578	11.5	1062
Burke	3558	11.0	1000
CO75944	3546	12.6	980
CO64589	3508	11.1	1150
CO75511	3402	10.6	1191
CO74518	3305	11.5	1130
94:1023P	3303	18.8	1123
Buckskin	3258	14.1	1143
CO74527	3246	10.5	1171
Kodiak	3162	12.5	1005
CO74526	2836	11.0	1073
Average	**3664**	**12.4**	**1057**
CV%	10.0		
$LSD_{(0.30)}$	315		

[1]Trial conducted on the Arkansas Valley Research Center; seeded 6/5 and harvested 9/14.

Table 6. Pinto bean performance at Yellow Jacket[1] in 2000.

Variety	Yield	Seed/lb
	lb/ac	No.
CO64342	2887	1164
CO75511	2819	1272
CO64589	2772	1198
CO64599	2732	1138
Poncho	2730	1254
CO74905	2721	1152
Buster	2721	1204
Montrose	2649	1161
CO74630	2644	1071
CO75714	2638	1146
CO83778	2561	1164
Chase	2506	1290
USPT-73	2451	1018
Cisco	2435	1141
CO64155	2432	1094
GTS Cob 502-94	2391	1201
Buckskin	2334	1204
Elizabeth	2286	1188
93:219P	2252	998
CO74518	2250	1297
97:395P	2174	1135
Othello	2173	1107
Bill Z	2173	1164
Kodiak	2120	1086
CO75944	1998	1158
Burke	1986	968
97:197P	1780	1224
94:1023P	1580	1217
Average	**2400**	**1158**
CV%	9.8	
$LSD_{(0.30)}$	202	

[1]Trial conducted on the Southwestern Colorado Research Center; seeded 6/13 and harvested 10/18.

Other special market class bean varietal descriptions:

Enola A yellow seeded variety from Red Beard Bean Co., Delta, CO.

Foxfire A light red kidney line from Novartis Seeds, Inc.

I9606-6 An experimental black seeded line from the USDA-ARS Prosser, WA.

H9666-1 An experimental light red kidney line from the USDA-ARS Prosser, WA.

H9666-9 An experimental light red kidney line from the USDA-ARS Prosser, WA.

H9673-87 An experimental black seeded line from the USDA-ARS Prosser, WA.

ICB10-5-14 A black seeded line from the USDA-ARS Prosser, WA.

L42-77 A light red kidney line from Agri Sales, Inc.

L44R A light red kidney line from Agri Sales, Inc.

Matterhorn A great northern variety released by Michigan State University (G93414) in 1998.

ROG 728 A light red kidney line from Novartis Seeds, Inc.

ROG 773 A light red kidney line from Novartis Seeds, Inc.

ROG 776 A light red kidney line from Novartis Seeds, Inc.

Sacramento A light red kidney variety from Agri Sales, Inc.

Shiny Crow A shiny black seeded line from Colorado State University (CO96902), scheduled for release in 2000 for seed and in 2001-2002 for commercial production.

USLK-2 A light red kidney line from Washington State University.

Table 7. Average black bean performance over two eastern Colorado sites in 2000.

Variety*	Location		
	Fort Collins	Idalia	Average
	Yield (lb/ac)		
Shiny Crow	1191	3668	2430
ICB-10-5-14	896	3281	2088
I9606-6	932	2976	1954
H9673-87	1057	2801	1929
Average	**1019**	**3181**	**2100**

*Varieties ranked by the average yield over two locations in 2000.

Table 8. Black bean performance at Fort Collins[1] in 2000.

Variety	Yield	Moisture	Seed/lb
	lb/ac	%	No.
Shiny Crow	1191	7.4	2217
H9673-87	1057	7.3	2184
I9606-6	932	7.0	2016
ICB-10-5-14	896	7.7	1923
Average	**1019**	**7.4**	**2085**
CV%	12.0		
$LSD_{(0.30)}$	113		

[1]Trial conducted on the Agricultural Research Development and Education Center; seeded 6/1 and harvested 9/15.

Table 9. Black bean performance at Idalia[1] in 2000.

Variety	Yield	Moisture	Seed/lb
	lb/ac	%	No.
Shiny Crow	3668	8.7	1908
ICB-10-5-14	3281	8.7	1812
I9606-6	2976	8.7	1893
H9673-87	2801	8.9	2046
Average	**3181**	**8.7**	**1915**
CV%	9.9		
$LSD_{(0.30)}$	292		

[1]Trial conducted on the Dennis Towns farm; seeded 5/25 and harvested 9/19.

Table 10. Average light red kidney bean performance over two eastern Colorado sites in 2000.

Variety*	Location		
	Fort Collins	Idalia	Average
	----------Yield (lb/ac)----------		
ROG 728	1578	2493	2035
ROG 776	1783	2271	2027
ROG 773	1393	2622	2008
Foxfire	1661	2310	1985
H9666-9	1456	2502	1979
L44 R	1608	2159	1884
L42-77	1457	2207	1832
H9666-1	1398	2079	1739
USLK-2	1324	1980	1652
Sacramento	1315	1825	1570
Average	**1497**	**2245**	**1871**

*Varieties ranked by the average yield over two locations in 2000.

Table 11. Light red kidney bean performance at Fort Collins[1] in 2000.

Variety	Yield	Moisture	Seed/lb
	lb/ac	%	No.
ROG 776	1783	7.4	919
Foxfire	1661	7.2	1032
L44 R	1608	7.1	956
ROG 728	1578	7.1	941
L42-77	1457	7.0	978
H9666-9	1456	7.7	1002
H9666-1	1398	7.0	938
ROG 773	1393	7.0	934
USLK-2	1324	6.7	1049
Sacramento	1315	7.4	979
Average	**1497**	**7.2**	**973**
CV%	14.7		
$LSD_{(0.30)}$	193		

[1]Trial conducted on the Agricultural Research Development and Education Center; seeded 6/1 and harvested 9/15.

Table 12. Light red kidney bean performance at Idalia[1] in 2000.

Variety	Yield	Moisture	Seed/lb
	lb/ac	%	No.
ROG 773	2622	7.7	847
H9666-9	2502	8.0	987
ROG 728	2493	7.3	934
Foxfire	2310	7.7	1008
ROG 776	2271	7.6	914
L42-77	2207	8.4	940
L44 R	2159	8.2	931
H9666-1	2079	7.5	965
USLK-2	1980	7.1	991
Sacramento	1825	9.9	926
Average	**2245**	**7.9**	**940**
CV%	15.8		
$LSD_{(0.30)}$	310		

[1]Trial conducted on the Dennis Towns farm; seeded 5/25 and harvested 9/19.

Table 13. Average special market class bean performance over two eastern Colorado sites in 2000.

Variety*	Location		
	Fort Collins	Idalia	Average
	----------Yield (lb/ac)----------		
Matterhorn	1898	3024	2461
Bill Z	1706	2653	2180
Enola	1766	2540	2153
Average	**1790**	**2739**	**2265**

*Varieties ranked by the average yield over two locations in 2000.

Table 14. Special market class bean performance at Fort Collins[1] in 2000.

Variety	Yield	Moisture	Seed/lb
	lb/ac	%	No.
Matterhorn	1898	9.1	1392
Enola	1766	9.8	1150
Bill Z	1706	9.7	1442
Average	**1790**	**9.5**	**1328**

[1]Trial conducted on the Agricultural Research Development and Education Center; seeded 6/1 and harvested 9/18.

Table 15. Special market class bean performance at Idalia[1] in 2000.

Variety	Yield	Moisture	Seed/lb
	lb/ac	%	No.
Matterhorn	3024	8.9	1312
Bill Z	2653	8.8	1332
Enola	2540	9.5	1203
Average	**2739**	**9.1**	**1282**

[1]Trial conducted on the Dennis Towns farm; seeded 5/25 and harvested 9/19.

2000 VegNet Summary - Ault, CO

Cumulative Rainfall:

May 1 - 31 2.12" (vs 1.49" in 1999)

June 1 - 30 0.71" (vs 0.93" in 1999)

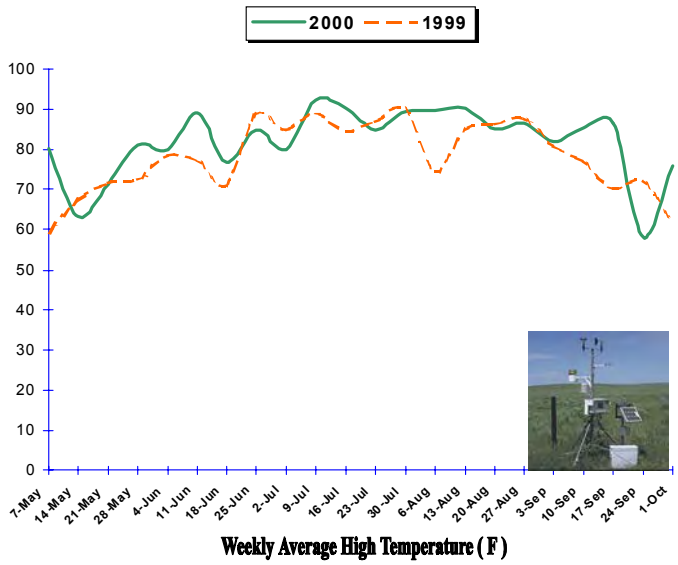
July 1 - 31 0.51 (vs 0.84" in 1999)

Aug. 1 - 31 0.21 (vs 2.06" in 1999)

Sept. 1 - 30 1.11 (vs 1.69" in 1999)

Totals: **4.66"** 7.00"

[Updated: 10-02-00]



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2000 VegNet Summary - Burlington, CO

Cumulative Rainfall:

May 1 - 31 0.50" (vs 2.24" in 1999)

June 1 - 30 1.25" (vs 4.15" in 1999)

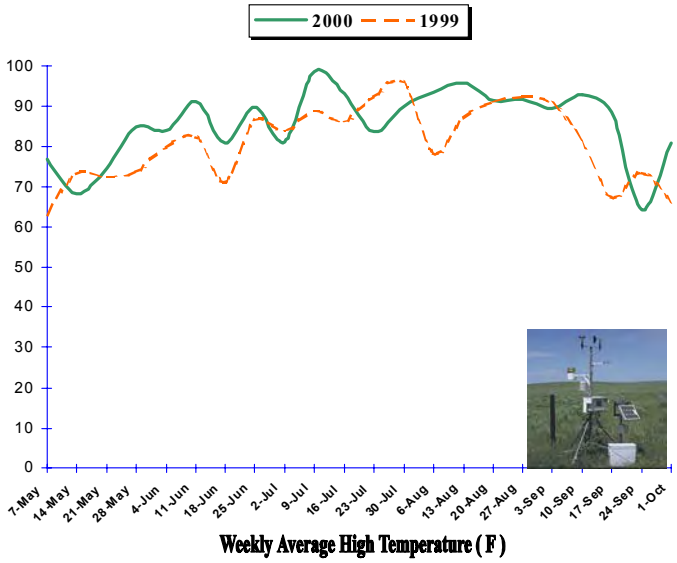
July 1 - 31 2.99 (vs 1.86" in 1999)

Aug. 1 - 31 1.41 (vs 2.87" in 1999)

Sept. 1 - 30 0.58 (vs 0.98" in 1999)

Totals: **6.73"** 12.10"

[Updated: 10-02-00]



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2000 VegNet Summary - Dove Creek, CO

(represents Yellow Jacket)

Cumulative Rainfall:

May 1 - 31 0.37" (vs 1.09" in 1999)

June 1 - 30 0.12" (vs 1.13" in 1999)

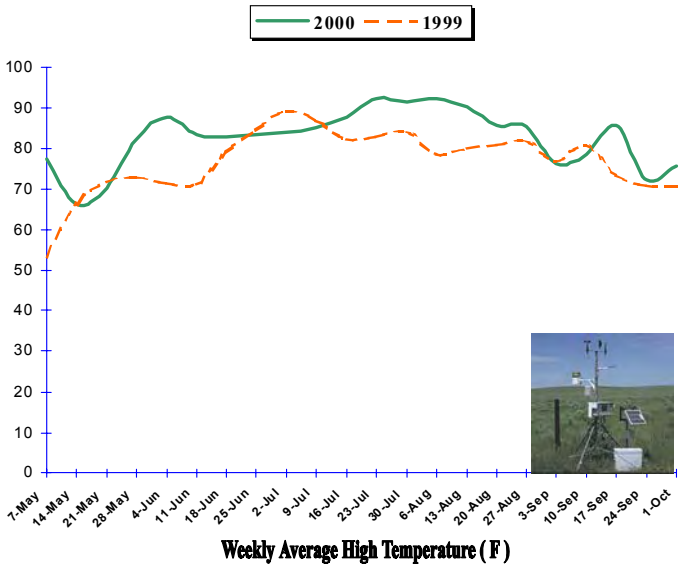
July 1 - 31 0.35 (vs 1.29" in 1999)

Aug. 1 - 31 1.60 (vs 2.46" in 1999)

Sept. 1 - 30 0.40 (vs 0.54" in 1999)

Totals: **2.84"** 6.51"

[Updated: 10-02-00]



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2000 VegNet Summary - Rocky Ford, CO

Cumulative Rainfall:

May 1 - 31 0.57" (vs 1.79" in 1999)

June 1 - 30 0.58" (vs 0.85" in 1999)

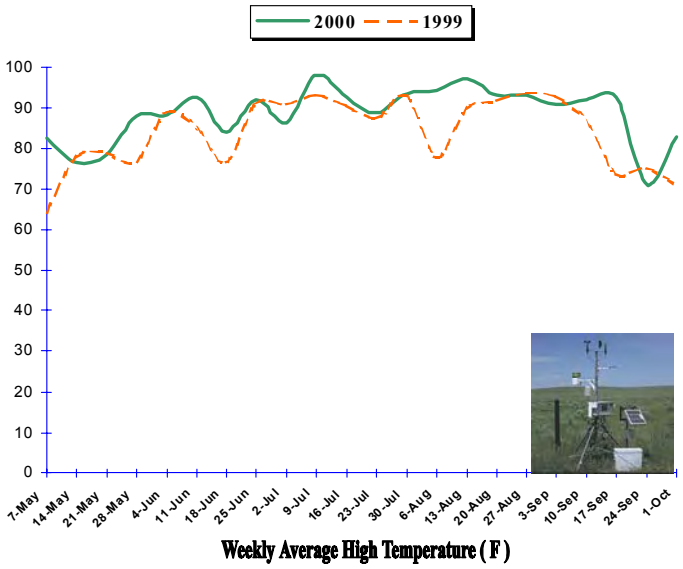
July 1 - 31 1.13 (vs 2.43" in 1999)

Aug. 1 - 31 1.17 (vs 1.01" in 1999)

Sept. 1 - 30 0.71 (vs 0.02" in 1999)

Totals: **4.16"** 5.75"

[Updated: 10-02-00]



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DRY BEAN VARIETY DISEASE DESCRIPTIONS
Eastern Colorado & Western Nebraska

Prepared by Drs. H.F. Schwartz, J.J. Johnson & M.A. Brick - Colorado State University (12/00)

Variety	Origin/Year[1]	Habit[2]	Maturity[3]	Seed Quality Observation[4]	Disease Resistance[5]
			Pinto's		
Apache	ISB-96	V	M	**	BC1 / BC2 / CT / RU
Bill Z	CSU-87	V	L	*	BC1 / BC2 / CT
Buckskin	Novartis-94	SU	L	*	BC1 / BC2 / CT / HB / BBS
Burke	USDA-98	SU/V	L		BC1/ BC2 / CT /RU / HB
Buster	Seminis-99	V	L		RU / CT
Chase	UN-93	V	L	**	RU / WM / HB / BBS
Cisco	Novartis-98	V	L	*	BC1 / BC2
Elizabeth	Fox-97	V	F	**	RU
Frontier	NDSU-97	SU	F	*	RU / WM
GTS 900	Gentec-98	V	F		BC1 / BC2 / RU / WM
Hatton	NDSU-95	V	L		BC1 / BC2
Kodiak	MSU-98	SU	L	**	BC1 / BC2 / RU
Maverick	NDSU-95	SU	F	*	RU
Montrose	CSU-98	V	M	*	BC1 / BC2 / CT / RU
Othello	USDA-86	SU	E	*	BC1 / BC2 / CT / FR
Poncho	Novartis-98	V	F	*	BC1 / BC2 / HB / BBS
UI 320	U. Idaho-98	V	L	*	BC1 / BC2 / RU
Vision	Seminis-96	SU	F	*	RU / FR
Winchester	Novartis-95	V	F	*	BC1 / BC2 / RU
			Kidney Types		
Enola (yellow)	Proctor-98	B	M		RU / WM
CE-LRK	UC-89	B	M		BC1 / BC2 / RU / WM
Foxfire	Novartis-92	B	M		BC / RU / WM / CB / HB
Sacramento	UC-75	B	M		RU / WM
			Black's		
Midnight	SUNY-80	U	F		BC1 / BC2 / FR / PY
Shadow	Novartis-95	U	F		BC1 / BC2 / RU
Shiny Crow	CSU-98	V	L		BC
UI 911	UI-93	U	L		BC1 / BC2
			Great Northern's		
Beryl	Novartis-84	V	L		BC1 / BC2 / CT / CB
Harris	UN-80	V	L		BC1 / BC2 / BY / CB / HB
Ivory	Novartis-83	V	M		BC1 / BC2 / CT / HB
Marquis	Novartis-92	V	L		BC1 / BC2 / WM / CB / HB
Matterhorn	MSU-98	U	L		BC1 / BC2 / RU
UI 425	UI-84	V	L		BC1 / BC2 / CT
Weihing	UN-98	V	F		RU / CB

Note 1: CSU = Colorado State University, Fox = Fox Bean of Idaho, Gentec = Gentec Seeds of Canada, ISB = Idaho Seed Beans, MSU = Michigan State University, NDSU = North Dakota State University, Novartis = Novartis Seeds of Idaho, Proctor = Red Beard Bean of Colorado, Seminis = Seminis Seeds of Idaho, SUNY = Cornell University of New York, UC = Univ. of California at Davis, UI = Univ. of Idaho, UN = Univ. of Nebraska, USDA = USDA of Prosser Idaho

Note 2: Growth Habit = V (vine). SU (semi-upright), U (upright), B (bush). Suggested plant populations: V = 75 – 80000, SU =

80 – 85000, U = 85 – 90000, B = 90 – 100000 / acre. Adjust fertility levels in relation to adjusted plant populations for each growth habit; for example, a common suggestion for low fertility soils for vine growth habits at 75000 plants is 75 lb N + 40 lb P / Acre.

Note 3: Maturity Classification = Days from planting to vine cutting in our region; E (Early, 85-89 days), M (Medium, 90-94 days), F (Full Season, 95-99 days), L (Late, 100 or more days)

Note 4: Seed Quality observations from dry bean industry and/or university personnel reflect the general appearance of seed of varieties that is generally light enough for most markets **(*)** or which may exhibit premature darkening and/or yellowing **(**)** during the 1st year after harvest.

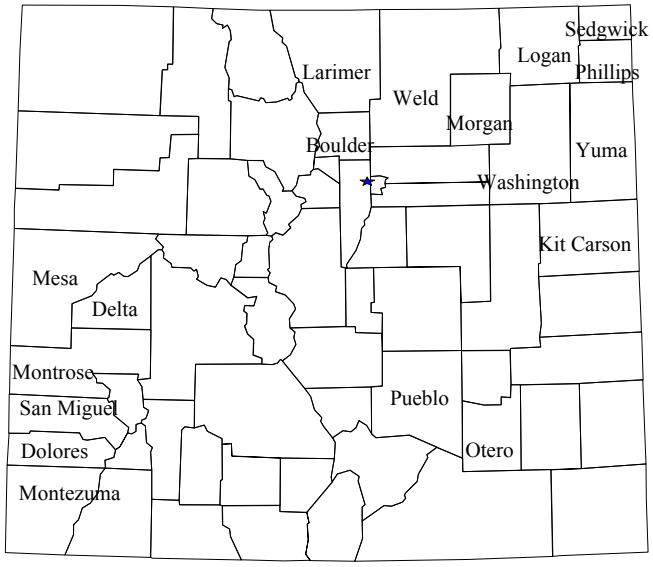
Note 5: Disease Resistance as defined by the variety release statement, and may range from immunity to tolerance to disease avoidance in our region: BBS = Bacterial Brown Spot, BC1 = Bean Common Mosaic Virus – NY Strain, BC2 = Bean Common Mosaic Virus – Type Strain, BY = Bean Yellow Mosaic Virus – Pea Strain, CB = Common Bacterial Blight, CT = Curly Top Virus, HB = Halo Blight, FR = Fusarium Root Rot, PY = Pythium, RU = Rust, WM = White Mold

Potential Risk of Bean Diseases in Colorado by Geographical Region

Howard F. Schwartz

Region/County	Rust	Bacterial* Disease	White Mold
Northeast			
Boulder	Low	Low	Moderate
Larimer	Low	Low	Moderate
Weld	Moderate	Moderate	High
Morgan	Moderate	Moderate	Moderate
Washington	High	High	Moderate
Logan	High	Moderate	Moderate
Sedgwick	High	High	High
Phillips	High	High	High
Yuma	High	High	High
Kit Carson	High	High	Moderate
Arkansas Valley			
Pueblo	Moderate	Low	Low
Otero	Moderate	Low	Low
Western Slope			
Mesa	Low	Low	Moderate
Delta	Low	Low	Moderate
Montrose	Low	Low	Moderate
San Miguel	Low	Low	Low
Dolores	Low	Low	Low
Montezuma	Low	Low	Low

*Complex of Halo Blight, Brown Spot, &/or Common Bacterial Blight



Entry Forms for 2001 Trials

Entry forms for 2001 trials may be obtained from the Department of Soil and Crop Sciences, Colorado State University, Cynthia Johnson, C-4 Plant Science Building, Fort Collins, CO 80523-1170; Telephone (970) 491-1914; Fax number (970) 491-2758; or e-mail *cjohnson@agsci.colostate.edu* or web site *http://www.colostate.edu/Depts/SoilCrop/extension/CropVar/index.html*

Additional copies of this report may be ordered from the Department of Soil and Crop Sciences, Colorado State University, Cynthia Johnson, C-4 Plant Science Building, Fort Collins, CO 80523-1170; Telephone (970) 491-1914; Fax number (970) 491-2758; or e-mail *cjohnson@agsci.colostate.edu.*

www.colostate.edu/Depts/SoilCrop/extension/CropVar/index.html
or go to csuag.com and click on Crop Variety Testing

Winter Wheat 2000 results	Dry Beans 2000 results	Corn 2000 silage results 2000 dryland and irrigated grain results
Crop Variety Performance for Colorado Crops		
Sunflower 2000 results oil and confection hybrids	Alfalfa 2000 results	Spring Wheat Barley, & Oats 2000 results

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