MAKING BETTER DECISIONS

2000 Colorado Spring Wheat, Barley, and Oats Performance Trials



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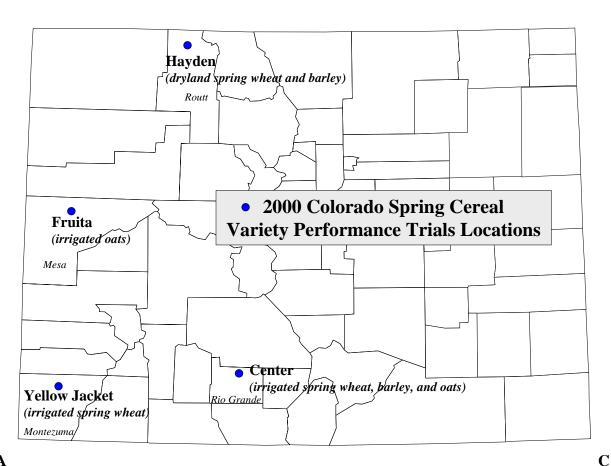
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2000 COLORADO SPRING CEREAL VARIETY PERFORMANCE TRIALS

Introduction

Making Better Decisions is a publication intended for use by farmers, seedsmen, consultants, agribusiness, and others. We at Colorado State University are committed to providing the best information, in an appealing form, and in a timely manner to Colorado cereal producers. Reliable and unbiased performance trial results can lead to better variety selection and faster adoption of higher yielding varieties.

CSU's Crops Testing program publishes current trial results on the Crops Testing Internet page: www.colostate.edu/Depts/SoilCrop/ extension/CropVar/index.html

Description of spring barley varieties in western trials.

Variety Name	Origin
Ab1368	USDA-ARS-Aberdeen
Ab15156	USDA-ARS-Aberdeen
Ab2323	USDA-ID
Ab241	USDA-ARS-Aberdeen
Ab688	USDA-ARS-Aberdeen
Ab8333	USDA-ARS-Aberdeen
Ajay (oat)	AES, USDA-ARS-ID
Alexis	Rio Grande Commodities
Aspen	Rio Grande Commodities
Bancroft	USDA-ARS-Aberdeen/Idaho Exp Stn
C22	Coors Brewing Company
C37	Coors Brewing Company
C40	Coors Brewing Company
C47	Coors Brewing Company
Camas	USDA-ARS/Idaho AES
Chinook	Montana State University
Colter	USDA-ARS-Aberdeen
Crystal	USDA-ARS-Aberdeen/Idaho Ag Exp Stn
Foster	North Dakota State University
Galena	Coors Brewing Company
Garnet	USDA-ARS-Aberdeen
Harrington	University of Saskatoon
Klages	USDA-ARS Aberdeen/Idaho Ag Exp Stn
Maranna	Oregon AES
Moravian 14	Coors Brewing Company
Morex	University of Minnesota
Orca	Oregon State University
Variety Name	Origin

Payette	Idaho AES/USDA-ARS
Russell	University of Idaho
Scarlet	Rio Grande Commodities
Stander	University of Minnesota
Steptoe	CSU
Tango	Oregon AES/USDA-ARS
Targhee	USDA-ARS/Idaho
WA11801-95	Washington
WA9504-95	Washington

Small Grain Variety Performance Trials at Hayden, Colorado 2000

Dr. Calvin Pearson and Dr. James Quick

Summary and Recommendations

Each year small grain variety performance trials are conducted at Hayden, Colorado to identify varieties that are productive and suitable for commercial production in northwest Colorado. Two small grain variety performance trials (spring wheat and barley) were conducted at Hayden in 2000. Grain yields in the spring wheat variety performance trial averaged 16.0 bu/acre. Grain yields in the spring barley variety performance test averaged 17.0 bu/acre. Twelve of the nineteen barley varieties were high yielding compared to other varieties.

Introduction and Objectives

The few number of crops that are grown in northwest Colorado are limited by environmental constraints created by dryland production conditions, a short growing season, and sporadic and limited precipitation. Farmers are also isolated from major markets for their crops. Growers in northwest Colorado are very supportive of agronomic research that will increase crop yield and grower profits. They are also interested in alternative crops that have potential in northwest Colorado. The principle cash crop grown in northwest Colorado is wheat. Alternative small grains, such as malting barley, triticale, and specialty wheats (i.e., hard white wheats) are of interest to growers because these crops often go into specialty markets that

command a premium price. During 2000 we conducted winter and spring small grain tests that included not only traditional small grains but also some of these specialty small grains.

Results and Discussion

Precipitation was lower than normal during the critical months of June and July 2000 (Fig.1).

Environmental conditions were not favorable for wheat production in the Hayden area in 2000. The low precipitation during the 2000 growing season resulted in low grain yields. Precipitation in the Craig/Hayden area varies greatly from month to month (Fig. 2) and is the most limiting factor to dryland grain yields in the area.

Table 1. Dryland spring barley variety performance trial at Hayden¹ in 2000.

•		Grain	Test	Plant
Variety	Yield	Moist	Wt	Ht
	bu/ac	%	lb/bu	in
Orca	23	10.3	46.8	16
Harrington	21	10.2	45.2	14
Steptoe	21	10.3	44.6	14
Chinook	20	10.2	46.3	15
Morex	20	10.2	46.2	17
Russell	20	10.0	47.1	15
Camas	20	10.1	47.0	13
C22	19	10.6	46.8	14
Klages	18	10.4	46.6	16
Ajay (oat)	18	10.3	36.4	13
90Ab241	18	10.4	44.1	14
Colter	18	10.2	45.3	15
Crystal	18	10.3	45.9	15
M14	18	10.3	48.7	13
Targhee	18	10.3	45.5	15
Tango	17	10.2	43.7	14
97Ab8333	17	10.0	47.3	13
C37	17	10.3	47.2	13
Maranna	17	10.6	42.5	12
92Ab1368	16	10.3	44.9	13
Payette	16	10.3	45.2	13
93Ab688	16	10.5	45.0	14
C40	15	10.3	45.7	13
85Ab2323	14	10.1	47.6	15
Foster	14	9.8	44.7	15
C47	13	10.4	43.9	13
Stander	13	10.0	45.6	14
Bancroft	13	10.8	44.2	14
Garnet	13	10.6	43.7	13
95Ab15156	12	10.2	43.7	14
Average	17	10.3	45.2	14
CV%	30	3.1	3.0	8
LSD _(0.05)	NS	0.5	1.9	2

¹Trial conducted on Dutch and Mike Williams Farm; seeded 4/28 and harvested 9/6.

Site Information:

Seeding Rate: 56 lbs/acre

<u>Comments</u>: Plant stands were sparse and irregular because of crusting that occurred during seedling emergence. Differences among grain yields for the 30 varieties were not statistically significant. As would be expected, Ajay, an oat variety, had the lowest test weight. This oat variety was included in the test to determine how oats might perform under the dryland conditions of northwest Colorado. There was no lodging in the trial.

<u>Contact</u>: Dr. Calvin Pearson, Professor/Research Western Colorado Research Center

Table 2. Irrigated spring malting barley variety performance trial at Center¹ in 2000.

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		Test	Plant	Heading	Grain	Grain
Variety	Yield ²	Wt	Ht	Date ³	Screening	Protein
	bu/ac	lb/bu	in	(June)	%	%
Colter	139	49.6	37	20	4.4	9.0
WA9504-95	138	51.9	30	30	7.0	9.8
Alexis	133	52.2	29	30	4.9	9.3
Garnet	127	51.8	34	29	2.5	9.3
Ab688	126	50.2	37	18	5.3	9.4
WA11801-95	124	52.4	34	26	4.1	10.0
Galena	123	51.1	29	29	6.9	9.5
C37	123	53.4	26	29	3.5	9.4
Ab8333	122	50.1	35	17	4.1	9.9
Aspen	122	52.1	28	30	6.2	9.4
Ab1368	120	49.9	37	18	1.5	9.8
Scarlet	119	52.7	30	30	1.7	9.4
Ab241	116	51.3	35	28	4.5	10.2
Moravian 14	113	52.9	28	19	4.2	10.5
Ab15156	110	50.3	34	22	3.5	9.5
Average	124	51.4	32	25	4.4	9.6
LSD _(0.05)	NS	1.0	3	2	2.2	0.6

¹Trial conducted on the San Luis Valley Research Center, seeded 4/21 and harvested 8/15.

Site Information:

Previous Crop: potatoes Seeding Rate: 100 lbs/acre

Herbicide: Bronate

Fertilizer: Variable rate + 50 lbs/ac

Irrigation: center pivot

Comments: Malt barley yields were fairly low this year; averaging 124 bu/acre. The highest yielding variety was Colter at 139 bu/acre. Nitrogen was applied variable rate after sampling one acre grids. Nitrogen shortage was visual; 30 lbs/acre was applied at heading. This timing may have benefitted late maturing varieties more since they were not quite as mature. Moravian 14 yielded only 113 bu/acre (17 bu/acre less than average), apparently because of the N shortage.

<u>Contact</u>: Merlin Dillon, Area Extension Agent, Agronomy San Luis Valley Research Center

²Grain yield based on 48 lbs/bu and 12% moisture.

³Date 50% of the plants headed; days after June 1.

Description of spring oat varieties in western trials.

Variety Name	Origin
Ab1322	USDA-ID
Ab1633	USDA-ID
Ab322	USDA-ID
Ab406	USDA-ID
Ab406	USDA-ID
Ab8902	USDA-ID
Absp19-9	USDA-ID
Absp9-2	USDA-ID
Ajay	AES, USDA-ARS-ID
Cayuse	Washington State University
Colorado 37	Colorado
Hytest	South Dakota
Jerry	North Dakota
Lamont	AES, USDA-ARS-ID
Monida	AES, USDA-ARS-ID-MT-OR-WA
Ogle	Illinois
Otana	AES, ARS-USDA-MT
Powell	AES, USDA-ARS-ID
Provena	AES, USDA-ARS-ID
Rio Grande	AES USDA-ARS-ID-CO
Russell	Canada

Oat Variety Performance Trial at Fruita, Colorado 2000

Dr. Calvin Pearson

Summary and Recommendation

Each year small grain variety performance tests are conducted at the Western Colorado Research Center at Fruita to identify varieties that are productive and adapted for commercial production in western Colorado. Grain yields in the oat variety performance trial averaged 147.7 bu/acre and six oat entries (Powell, 91Ab406, Absp19-9, 90Ab322, Cayuse, Monida) were high yielding.

Table 3. Irrigated spring oat variety performance trial at Fruita¹ in 2000.

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		Grain	Test	Plant		Days to
Variety	Yield ²	Moist	Wt	Ht	Lodging ³	Head ⁴
	bu/ac	%	lb/bu	in	0.2-9.0	days
Powell	194	8.8	39.0	43	0	65
91Ab406	193	8.8	38.7	43	0	61
Absp19-9	188	9.1	40.8	48	0	62
90Ab322	184	8.9	39.8	43	0	63
Cayuse	184	9.2	38.7	49	0	61
Monida	179	8.8	38.7	50	1	63
Rio Grande	173	9.0	39.5	47	0	60
Ajay	166	8.8	38.2	40	0	65
Ogle	158	9.1	38.3	42	0	57
Otana	140	9.2	40.3	52	0	62
Russell	133	9.1	39.2	49	0	60
Jerry	122	9.5	41.1	44	0	58
Lamont	121	11.9	45.8	46	0	64
95Ab1633	121	10.2	42.3	44	0	62
Provena	117	11.0	48.5	44	0	65
Hytest	116	10.4	42.2	48	0	57
Colorado 37	89	9.4	37.3	59	2	61
96Ab8902	1	10.2	44.6	35	0	70
Average	148	9.5	40.7	46	0	62
CV%	9	6.9	2.0	6		1
$LSD_{(0.05)}$	18	0.9	1.1	0		1

¹Trial conducted at the Western Colorado Research Center; seeded 4/7 and harvested 8/14.

Site Information:

Previous Crop: dry beans Seeding Rate: 88 lbs/acre

Herbicides: 0.5 oz/acre Harmony Extra; 8 oz/acre 2,4- D Fertilizer: 11-52-0 disced in at 104 lbs P_2O_5 and 22 lbs N/acre; top-dressed as ammonium nitrate at 72 lbs N/acre; an aerial

application of Malathion at a rate of 26 oz/acre.

Irrigation: Seven irrigations were applied.

Comments: Provena and Lamont had the highest grain moisture contents. Both of these oat varieties are naked-seeded oats. Naked-seeded oats do not retain the lemma and palea (chaff) during harvest. Naked-seeded oats as a harvested grain are more similar in appearance to wheat kernels than they are to barley kernels. Oat yields in this study were excellent and show the yielding potential of these varieties. Provena, a naked-seeded oat, had the highest test weight. Colorado 37 was the tallest variety and was the only variety to have a significant amount of lodging.

<u>Contact</u>: Dr. Calvin Pearson, Professor/Research Western Colorado Research Center

²Grain yield based on 38 lbs/bu and 12% moisture.

 $^{^{3}0.2 = \}text{no lodging}, 9.0 = \text{totally area lodged flat}.$

⁴From planting.

Table 4. Irrigated spring oat variety performance trial at Center¹ in 2000.

periorin	performance trial at Center in 2000.						
		Test	Plant	Heading	Forage		
Variety	Yield ²	Wt	Ht	Date ³	Yield		
	bu/ac	lb/bu	in	(June)	t/ac		
Absp19-9	219	41.2	43	28	5.1		
Monida	207	40.6	41	29	4.6		
Ab406	206	40.2	38	25	4.5		
Powell	196	39.4	37	27	4.2		
Ab1322	193	41.2	38	26	4.5		
Absp9-2	191	41.1	41	25	4.4		
Rio Grande	181	40.4	37	23	3.9		
Ajay	177	39.9	32	26	4.2		
Lamont	155	45.4	43	30			
Ab11633	143	40.0	37	27			
Provena	127	46.4	37	29			
Ab8902	103	46.8	28	34			
Average	164	39.4	38	27	4.4		
$LSD_{(0.05)}$	18	1.9	3	1	NS		

¹Trial conducted on the Tom Meyers Farm.

Site Information:

Previous Crop: potatoes

Planted: April 17; wetted 4/20, 2000 Harvested: Grain: August 31; Hay: July 30

Seeding Rate: 100 lbs/acre

Fertilizer: 36 lbs N; 52 lbs Phos/acre

Soil Type: Sandy Loam Irrigation: center pivot

Comments: Six replications were planted again this year; two reps were harvested in late July for hay. Four reps were harvested with a Hege combine for grain yields. Lodging is usually a problem in oat trials; however, lack of lodging this year may have helped produce high yields. Heading date and harvest was somewhat early this year. Several experimental lines from USDA-ARS, Aberdeen, Idaho, look promising. Absp 19-9, Ab406, Ab1322, and Absp 9-2 have all been tested three years and have performed well at this location. Absp 19-9 topped the trial at 219 bu/acre. Monida is a popular variety; it produced 207 bu/acre this year when lodging was lacking. Powell, a new release from ARS-Aberdeen, performs well here. Three hulless varieties yielded less but test weights were above 45 lbs/bu. The highest forage yields were not always from the tallest varieties.

Contact: Merlin Dillon, Area Extension Agent,

Agronomy San Luis Valley Research Center

²Grain yield based on 38 lbs/bu and 12% moisture.

³Date 50% of the plants headed; days after June 1.

Table 5. Summary of irrigated spring oat variety

performance trial at Center¹.

			Те	est	Pla	ant	Hea	ding		
	Yie	eld^2	We	ight	Hei	ight	Da	ite ³	Lod	ging
Variety	3 yr	9 yr	3 yr	9 yr	3 yr	9 yr	3yr	9 yr	3 yr	8 yr
	bu	/ac	lb/	bu	i	n	(Ju	ne)	9	6
Absp19-9	203		40.8		43		32		0	
Ab1322	193		41.7		39		31		0	
Ab406	191		39.9		36		29		0	
Absp9-2	182		41.2		42		29		0	
Powell	192	177	39.2	37.8	38	43	31	34	0	17
Monida	188	170	39.6	38.2	47	52	33	35	0	30
Rio Grande	174	152	40.4	38.7	37	43	26	30	0	23
Ajay	168	158	39.8	38.2	32	39	30	33	0	0
Average	172	155	40.1	38.7	39	44	31	34	0	17

¹Trial conducted on the Tom Meyers Farm.

<u>Comments</u>: Four experimental lines from Aberdeen, Idaho, USDA-ARS, have been tested three years now. All four have performed very well. Lodging resistance has not been tested in any of the last three years; there was no lodging pressure. **Ab406** is the shortest height; **Ab406** and **Absp9-2** are the earliest heading; **Ab1322** seems to have the best test weight; **Absp19-9** had the best yield.

Powell is a recent release from Idaho and USDA-ARS. It is fairly short height, yields better than **Monida** by 7 bu/acre, and is more resistant to lodging (17% vs 30%). It is an exceptional variety that needs to be tried more by San Luis Valley growers. **Rio Grande** is exceptionally early maturing whereas **Ajay** is extremely short height with no lodging in 8 years of trials.

<u>Contact</u>: Merlin Dillon, Area Extension Agent, Agronomy

San Luis Valley Research Center

Description of spring wheat varieties in trials.

Variety Name	Class	Origin
2375	Hard Red	North Dakota
Alpowa	Soft White	Washington
Blanca	Soft White	Colorado
Butte 86	Hard Red	North Dakota
Dirkwin	Hard Red	Idaho
Edwall	Hard Red	Washington
Fieldwin	Hard Red	Idaho

Forge	Hard Red	South Dakota
GM 40001	Hard White	General Mills
GM 40002	Hard White	General Mills
GM 40003	Hard White	General Mills
GM 50002	Hard Red	General Mills
GM 50004	Hard Red	General Mills
GM 50018	Hard Red	General Mills
GM 90000	Durum	General Mills
GM 90002	Durum	General Mills
GM 90004	Durum	General Mills

²Grain yield based on 38 lbs/bu and 12% moisture.

³Date 50% of the plants headed; days after June 1.

Variety Name	Class	Origin
Grandin	Hard Red	North Dakota
ID377S	Hard White	Idaho
Iona	Hard Red	Idaho
Jefferson	Hard Red	Idaho
Kronos	Durum	Arizona Plant Breeders
Nora	Hard Red	Agripro Biosciences, Inc
Norpro	Hard Red	Agripro Biosciences, Inc
Oslo	Hard Red	Agripro Biosciences, Inc
Pomerelle	Soft White	Idaho
Pristine	Hard White	Western Plant Breeders
Scarlet	Hard Red	Washington
Spillman	Hard Red	Washington
Sylvan	Hard Red	Colorado
Treasure	Soft White	Idaho
Wawawai	Soft White	Washington
WB 881	Durum	Western Plant Breeders
Whitebird	Soft White	Idaho
Winsome	Hard White	Oregon
Yecora Rojo	Hard White	California
Zak	Soft White	Washington

Table 6. Irrigated durum wheat variety performance trial at Center¹ in 2000.

		Test	Head	Plant		Grain	
Variety	Yield ²	Wt	Date	Ht	Lodging	Protein	HVAC ³
	bu/ac	lb/bu	(June)	in	%	%	%
GM 90004	152	59.5	20	35	16	12.2	98
Kronos	152	59.1	17	35	55	12.3	78
GM 90000	142	58.9	16	34	50	11.6	75
GM 90002	137	60.9	18	37	19	11.0	83
WB 881	132	58.9	19	36	20	12.4	96
Average	143	59.5	18	35	32	11.9	86
LSD _(0.05)	15	1.5	3	2	23		

¹Trial conducted on the San Luis Valley Research Center.

Table 7. Irrigated hard red spring and durum wheat variety performance trial at Center¹ in 2000.

2000.		Test	Head	Plant		Grain	Grain
Variety	$Yield^2$	Wt	Date	Ht	Lodging	Protein	Hardness ³
	bu/ac	lb/bu	(June)	in	%	%	rating
Pristine	155	61.2	15	38	8	14	57
GM 90004	152	59.5	20	35	16	12	114
Kronos	152	59.1	17	35	55	14	77
Oslo	149	58.4	17	38	9	13	31
GM 90000	142	58.9	16	34	50	12	104
GM 40003	142	60.5	14	37	33	13	40
Y. Rojo	142	60.2	15	27	0	14	41
GM 90002	137	60.9	18	37	19	12	109
GM 50018	136	59.3	18	30	5	14	46
Nora	136	61.1	23	35	43	16	53
GM 40001	134	59.6	21	38	66	13	66
WB 881	132	58.9	19	36	20	13	84
Norpro	130	58.5	23	37	59	14	72
GM 50004	128	58.2	21	41	56	14	71
GM 40002	124	58.6	14	35	50	14	33
Blanca	122	55.6	28	42	63	13	3
GM 50002	115	59.1	28	39	80	13	66
ID377S	108	57.4	20	39	84	14	55
Average	134	59.1	19	36	40	13	66
$LSD_{(0.05)}$	15	1.5	3	2	23	NS	NS

¹Trial conducted on the San Luis Valley Research Center.

²Yield based on 60 lbs/bu and 12% moisture.

³HVAC is hard vitreous amber color, important in durum quality.

²Yield based on 60 lbs/bu and 12% moisture.

³Grain hardness reading of <40 indicates soft wheat and >40 indicates hard wheat.

Table 8. Irrigated soft white spring wheat variety performance trial at Center¹ in 2000.

·		Test	Head	Plant	Grain	Grain	3-Yr
Variety	$Yield^2$	Wt	Date	Ht	Protein	Hard ³	Avg Yld
	bu/ac	lb/bu	(June)	in	%	rating	bu/ac
Blanca	161	54.4	29	41	13	-6	133
Whitebird	161	56.3	29	41	13	-12	130
Centennial	160	56.5	25	41	13	-12	135
Id 523	151	55.8	24	41	13	-8	
Id 505	147	57.1	35	40	13	7	131
Id 506	146	57.3	29	41	12	1	
Pomerelle	143	52.3	29	41	13	-12	
Treasure	143	55.8	29	41	13	1	
Id 524	141	55.4	30	40	13	-8	128
Id 525	131	55.8	33	41	13	-9	
Id 526	129	53.6	30	40	13	-4	
Average	143	55.5	29	41	13	-6	126
LSD _(0.05)	NS	NS	3	NS	NS	NS	

¹Trial conducted on the San Luis Valley Research Center.

²Yield based on 60 lbs/bu and 12% moisture.

Table 9. Irrigated spring wheat variety performance trial at Yellow Jacket¹ in 2000.

periori	Hance	una	l al I	CHOW J	ackei	III ∠ 000.
		Test	Plant	Heading	Grain	Grain
Variety	Yield ²	Wt	Ht	Date ³	Protein	Hardness ⁴
	bu/ac	lb/bu	in	date	%	rating
GM 50002	97	57.2	28	30-Jun	14	25
ID377S	95	58.4	29	21-Jun	15	36
GM 40001	93	56.4	29	26-Jun	15	38
GM 90002	88	57.8	25	23-Jun	16	78
Blanca	86	55.3	30	01-Jul	16	0
GM 90000	85	56.8	21	21-Jun	16	104
Sylvan	85	57.0	33	01-Jul	14	51
WB 881	85	57.2	25	24-Jun	16	77
GM 50004	84	57.9	28	23-Jun	15	43
Spillman	83	52.5	29	01-Jul	16	39
GM 90004	79	54.4	23	26-Jun	17	76
GM 40003	76	59.9	28	19-Jun	15	16
GM 50018	73	56.6	22	20-Jun	16	47
GM 40002	67	57.8	24	16-Jun	16	41
Average	84					
CV%	6					
LSD _(0.05)	8					
Trial aand	ratad of	+ + ha C	anth.	actom Co	امامصماما	Dagaamah

¹Trial conducted at the Southwestern Colorado Research Center; seeded 4/26 and harvested 9/14.

Site Information:

Soil Type: Wetherill silty clay loam

Seeding Rate: 90 lb/acre

Fertilizer: 112 lb N/ac broadcast on April 21, 2000

Herbicide: Buctril 1pt/ac on June 1, 2000 Insecticide: Lorsban 1pt/ac on June 1, 2000 Irrigation: 17 inches (7 sprinkler applications)

Comment: The growing season was very dry and marked by above average temperatures. Lorsban was applied to control Russian wheat aphid. No lodging was noted. The low test weights and high protein percentages indicate that moisture was a limiting factor. General Mills varieties are designated by 'GM'. GM 50002 and GM 40003 are not as hard as accepted hard varieties. Sylvan was released in 1994 by Colorado State University and is the predominant spring wheat planted in the area.

Contact: Mark Stack, Manager

Southwestern Colorado Research Center

Table 10. Dryland spring wheat variety performance trial at Hayden¹ in 2000.

•		Grain	Test	Plant
Variety	Yield	Moist	Wt	Ht
	bu/ac	%	lb/bu	in
ID377S	21	10.4	60.5	21
Whitebird	20	11.0	59.4	19
Wawawai	20	11.0	60.1	22
Treasure	19	10.7	57.5	18
Fieldwin	18	10.5	59.9	19
Pomerelle	17	11.3	58.3	21
Dirkwin	17	10.6	55.2	20
Winsome	17	10.7	55.9	19
Edwall	16	11.0	55.7	19
Jefferson	16	10.8	60.1	19
Alpowa	16	10.8	57.7	20
Spillman	15	11.1	54.8	20
Zak	14	11.0	56.6	18
Butte 86	14	10.4	59.6	23
Scarlet	13	10.8	57.1	20
Iona	13	10.7	59.9	20
Grandin	13	10.4	60.3	21
2375	12	11.0	56.7	18
Forge	12	11.1	58.1	21
Average	16	10.8	58.1	20
CV%	25	4.2	2.5	7
LSD _(0.05)	6	NS	2.1	2

¹Trial conducted on Dutch and Mike Williams Farm; seeded 4/28 and harvested 9/6.

Seeding Rate: 56 lb/acre

<u>Comments</u>: Plant stands were sparse and irregular because of crusting during seedling emergence. Yields of the twelve highest yielding varieties were not statistically different. There was no lodging in the spring wheat variety performance trial in 2000.

<u>Contact</u>: Dr. Calvin Pearson, Professor/Research Western Colorado Research Center

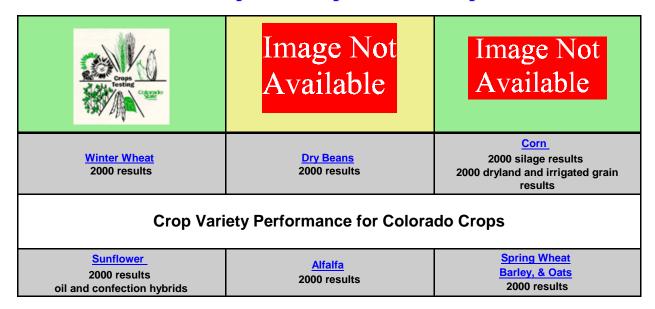
³Grain hardness reading of <40 indicates soft wheat and >40 indicates hard wheat.

²Bushel yield based on 60 lb/bu and 12% moisture.

³50% of plants headed.

⁴Grain Hardness: Hard wheats >35; Soft wheats <35.

www.colostate.edu/Depts/SoilCrop/extension/CropVar/index.html



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