

Dryland spring wheat variety performance trial summary at Akron 1996-98¹

Variety	1996		1997		1998		Average	
	Yield	Test Weight	Yield	Test Weight	Yield	Test Weight	Yield	Test Weight
	bu/ac	lb/bu	bu/ac	lb/bu	bu/ac	lb/bu	bu/ac	lb/bu
Oxen	28.4	59.9	25.4	50.4	19.0	52.6	24.3	54.3
ID488*	36.1	59.7	20.8	53.9	15.7	44.0	24.2	52.5
Russ	29.7	59.7	23.1	57.5	17.3	51.8	23.4	56.3
Butte 86	29.2	60.6	22.8	51.9	17.4	50.7	23.1	54.4
2375	29.1	59.9	22.4	53.8	17.7	54.8	23.1	56.2
Grandin	34.9	60.0	17.8	50.6	15.9	51.1	22.9	53.9
ID377S*	31.9	60.4	21.0	52.6	15.2	50.0	22.7	54.3
N93-0119	33.4	59.9	18.3	50.5	14.2	52.4	22.0	54.3
Trenton	29.9	60.8	20.7	51.7	14.7	51.5	21.8	54.7
Norlander	27.5	60.0	19.6	53.1	17.3	52.2	21.5	55.1
Sharp	25.6	61.5	24.0	56.1	14.5	50.3	21.4	56.0
Forge	22.8	61.0	24.3	53.6	16.5	50.7	21.2	55.1
MT RWA116	30.1	59.1	19.1	51.9	14.3	48.0	21.2	53.0
AC Teal	27.7	58.8	19.6	52.2	15.2	50.2	20.8	53.7
N93-0211	27.6	60.0	18.4	52.5	14.9	50.2	20.3	54.2
Oslo	24.7	57.9	18.3	50.9	17.6	50.0	20.2	52.9
Hamer	26.3	60.5	19.7	51.5	13.5	52.2	19.8	54.7

¹Trial conducted on the Central Great Plains Research Station; seeded 3/10 and harvested 7/27.

*White grain

Site Information:

Previous Crop: Proso millet

Comments: Growing conditions were extremely dry.

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Dryland spring wheat variety, fertilizer, and Agro performance trial at Hayden in 1998¹

Variety	Yield	Test Weight	Grain Moisture	Plant Height
	bu/ac	lb/bu	%	inches
2375	23.3	62.4	11.28	22.2
Grandin	21.5	61.7	11.22	22.8
Butte 86	21.1	62.8	11.10	24.2
Sharp	20.9	62.6	11.42	26.2
Forge	20.8	63.2	11.70	22.5
Oxen	18.7	62.3	11.20	20.3
Average	21.0	62.5	11.32	23.0
CV%	21.6			
LSD _(0.05)	NS			

Fertilizer

34-0-0 + Agro	40.2	58.6	12.05	24.4
18-46-0 + Agro	39.0	59.4	11.30	25.1
34-0-0	36.5	58.8	11.75	23.6
11-52-0	36.3	58.8	11.88	24.4
18-46-0	34.4	59.0	11.95	24.0
11-52-0 + Agro	32.6	58.8	12.32	22.6
Check	28.3	59.4	11.80	22.8
Agro only	24.3	58.4	12.10	22.1
Average	34.0	58.9	11.89	23.6
CV%	10.7			
LSD _(0.05)	5.3			

¹Trial conducted on the Dutch and Mike Williams farm; seeded 5/8 and harvested 9/9.

Site Information:

Variety used in fertilizer and Agro experiment was Blanca.

Fertilizer: Nitrogen @ 30 lbs acre⁻¹ + Phosphorus varied

Agro is a formulation of polyacrylamide (super absorbent polymer) and was applied with the seed at planting at a rate of 4 lbs acre⁻¹. Fertilizer was not applied to the variety trial.

Comments: Growing conditions during 1998 were favorable. Soil conditions at planting in the plot area had varying amounts of soil clods and wheat residue clumps. No lodging occurred in any plot.

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Irrigated hard red spring and durum wheat variety performance trial at Center in 1998¹

Variety	Yield*	Test Weight	Heading Date	Plant Height	Grain Protein	Grain Hardness
	bu/ac	lb/bu	**	inches	%	***
ID523	139.9	61.2	42.0	36.3	10.6	64.7
Lloyd	136.1	62.4	38.2	36.0	10.4	90.7
ID377S	136.0	62.7	35.5	40.2	12.2	66.3
ID502	136.0	61.0	37.0	38.4	11.8	73.3
Klasic	135.6	61.3	29.0	28.2	11.6	50.7
Centennial	133.1	62.3	35.2	37.2	11.6	5.7
Cortez	129.8	61.6	33.5	32.1	12.0	103.3
Yecora Rojo	129.5	61.2	31.0	28.2	12.4	52.3
Oslo	129.4	59.9	34.2	37.8	12.8	53.9
Blanca	128.0	59.9	37.0	39.5	10.9	18.5
Owens	126.6	61.2	38.0	38.7	11.5	11.7
OR492092	120.9	60.1	36.8	37.5	11.3	60.7
WB 881	118.7	61.4	35.2	35.4	12.3	79.3
ID476	118.6	60.8	33.0	36.3	13.1	61.3
SDM 50032	118.6	62.0	34.5	36.6	12.5	59.0
Saxon	115.4	60.1	36.0	40.8	12.6	75.3
Nora	113.0	61.8	36.0	33.6	14.0	67.3
UT2868	108.4	61.0	34.2	45.6	12.2	76.7
Average	133.2	61.2	35.4	36.6	12.0	59.0
LSD _(0.05)	9.7					

¹Trial conducted on the San Luis Valley Research Center; seeded 4/21 and harvested 9/9.

*Bushel yield based on 60 lbs/bushel and 12% moisture.

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

***Grain hardness > 40 = hard wheat; < 40 = soft wheat.

Site Information:

Fertilizer: Nitrogen @ variable lbs. acre⁻¹ was precision applied to all parts of the field and exact amounts are not known.

Herbicide: Bronate

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Irrigated soft white spring wheat performance trial at Center in 1998¹

Cultivar	Yield*	Test Weight	Heading Date	Plant Height	Grain Protein	Grain Hardness
	bu/ac	lb/bu	**	inches	%	***
ID505	141.4	62.1	40.7	41.0	10.6	11.8
ID474	139.2	61.8	36.2	40.0	11.4	17.5
Centennial	136.7	61.6	33.3	36.4	11.7	15.2
ID524	135.8	60.9	38.3	37.8	11.8	7.5
Blanca	134.8	59.3	34.8	38.4	11.6	12.0
Whitebird	132.6	62.0	40.0	40.0	10.9	22.0
Owens	128.2	60.5	37.2	38.2	11.9	8.3
ID469	116.9	59.3	30.3	33.4	11.6	21.2
Average	133.2	60.9	36.4	38.1	11.5	14.4
CV%	3.7					
LSD _(0.05)	5.8					

¹Trial conducted on the San Luis Valley Research Center; seeded 4/21 and harvested 9/9.

*Bushel yield based on 60 lbs/bushel and 12% moisture.

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

***Grain Hardness: soft wheats should be below 50.

Site Information:

Fertilizer: variable; precision applied to all parts of the field and exact amounts are not known.

Herbicide: Bronate

Previous Crop: potatoes

Soil Type: sandy loam

Irrigation: center pivot as needed

Note: Lodging is usually a problem in this soft white wheat trial. Cerone was applied to 5 reps to prevent lodging; however, there was almost no lodging in the other replication. Harvest was unusually early this year.

Comments: Several experimental lines performed very well this year. However, none of the potential new varieties out yielded Centennial. Also, none seemed to offer other advantages such as shorter height, earlier maturity, lower protein, etc. Centennial is still the best soft white spring variety for this area.

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Irrigated spring wheat variety performance trial at Fruita in 1998¹

<u>Variety</u>	<u>Yield</u>	<u>Test Weight</u>	<u>Grain Moisture</u>
	bu/ac	lb/bu	%
2375	44.3	57.0	9.52
Lloyd	41.0	52.6	9.32
Klasic	40.5	55.9	9.48
ID377S	39.6	56.4	9.52
Blanca	37.4	53.3	9.28
Sylvan	25.9	52.2	9.68
Average	38.1	54.6	9.47
CV%	12.2		
LSD _(0.05)	7.0		

¹Trial conducted on the Fruita Research Center; seeded 4/22 and harvested 8/10.

Site Information:

Fertilizer: (1-52-0 disced in) Phosphate @ 104 lbs. acre⁻¹ + Nitrogen @ 22 lbs. acre⁻¹ + (top-dressed) Ammonium nitrate @ 100 lbs. acre⁻¹

Herbicide: Harmony Extra + 2,4-D + Weedone 638

Insecticide: Lorsban

Previous Crop: sweet corn

Irrigation: Five applications

Comments: No lodging occurred in any plot.

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Irrigated hard red spring wheat variety performance trial at Yellow Jacket in 1998¹

Variety	Yield*	Test Weight	Plant Height	Heading Date
	bu/ac	lb/bu	inches	**
Pomerelle	104.5	59.5	29	Jun 29
Sylvan	103.2	63.0	32	Jul 1
Blanca	101.2	59.0	31	Jun 29
ID474	98.0	63.0	30	Jul 1
ID377S	97.6	63.0	31	Jun 29
ID506	93.5	61.5	32	Jun 29
UT3172	91.0	60.0	32	Jun 29
Spillman	90.7	60.0	30	Jun 29
SDM 50031	88.2	64.0	31	Jun 29
CA876	86.4	62.0	28	Jun 29
ID462	86.1	63.0	28	Jun 29
SDM 50032	85.8	63.5	31	Jun 29
Oslo	78.1	61.5	29	Jul 1
MT RWA116	71.0	62.0	28	Jun 29
Average	91.1			
CV%	5.0			
LSD _(0.05)	6.5			

¹Trial conducted on the Southwestern Colorado Research Center; seeded 4/23 and harvested 9/1.

*Grain yield based on 60 lbs/bushel and not adjusted for moisture. Grain was air-dried to below 12% moisture prior to weighing and calculating yields.

**50% of the plants headed.

Site Information:

Fertilizer: Nitrogen @ 120 lbs. acre⁻¹ + Phosphorus @ 40 lbs. acre⁻¹ (urea and 11-52-0)

Herbicide: Harmony Extra + 2,4-D amine

Insecticide: Lorsban

Previous crop: Dry beans (fall chisel plowed)

Soil Type: Wetherill silty clay loam

Irrigation: 6 sprinkler applications

Comments: The 1998 growing season was drier than normal, however, temperatures were not unusually hot (highest recorded temperature was 95 F with only six days above 90 F). The trial was sprayed for Russian Wheat Aphid on June 18. Spillman had 5% off-type plants while UT3172 had 1% red-chaffed heads. Pomerelle, SDM50031, and SDM50032 still had some green heads at harvest. Lodging was noted in Pomerelle (20% in one plot), MT RWA116 (10 to 50%), ID377S (50% in one plot), and ID474 (5% in one plot). The lodging was confined to areas in proximity to the sprinkler wheel line during the last irrigation set. At harvest, Pomerelle and Blanca were the only entries with grain moisture above 12% (15 and 14% respectively) at harvest.

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Dryland winter wheat variety performance trial at Hayden in 1997-98¹

Variety	Yield	Test Weight	Grain Moisture	Plant Height	Lodging
	bu/ac	lb/bu	%	inches	0.2-9.0
UT203032	54.0	59.0	11.75	28.2	0.9
UT199847	52.6	60.4	11.73	31.8	3.0
OR889128	50.5	57.7	11.58	28.2	0.9
UT201971	50.2	60.4	11.70	29.6	1.4
ID511	49.2	59.6	11.73	26.8	0.9
UT182064	47.6	57.4	11.82	27.9	0.9
UT944151	46.9	59.0	11.45	29.1	1.4
ID498	46.8	58.7	11.65	27.2	2.4
Fairview	46.8	59.8	11.40	28.0	0.8
ID512	46.5	58.9	11.63	28.2	0.8
95CAM012	44.9	59.7	11.70	26.2	1.0
Manning	43.1	58.9	11.73	25.8	2.0
ID479	43.0	59.7	11.43	26.2	1.2
Prowers	42.9	60.8	11.50	29.7	2.4
UT944157	42.5	59.0	11.68	26.7	0.9
82CAM097	42.0	56.7	12.90	26.4	0.6
Jeff	37.8	59.0	12.18	29.1	3.4
ID514	37.7	58.1	11.98	28.2	1.2
ID355	34.9	60.8	12.77	25.0	0.8
Presto	33.4	54.1	12.68	28.0	0.8
Average	44.7	58.9	11.85	27.8	1.4
CV%	16.2				
LSD _(0.05)	10.3				
Blizzard	48.7	59.2	11.73	30.2	1.0
UT944158	48.1	57.2	11.68	27.5	1.1
Survivor	47.9	58.9	11.60	27.9	1.0
UT150	47.6	58.0	11.23	28.8	0.6
ID465	44.1	58.5	11.18	29.4	0.5
Average	47.3	58.4	11.48	28.8	0.8
CV%	8.5				
LSD _(0.05)	NS				

¹Trial conducted on the Dutch and Mike Williams farm; seeded 10/20/97 and harvested 8/9/98.

*0.2 = no lodging, 9.0 = totally area lodged flat.

Site Information:

Herbicides : Ally + 2,4-D

Comments: Climatic conditions were favorable for wheat production in 1998.

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Dryland hard red winter wheat variety performance trial at Yellow Jacket 1997-98¹

Variety	Yield*	Test Weight	Plant Height	Heading Date
	bu/ac	lb/bu	inches	**
Presto (Triticale)	33.2	54.0	31	6/05
ID479	32.2	56.0	25	6/12
UT201971	31.4	58.0	28	6/16
UT203032	31.1	55.0	27	6/12
TAM 107	31.1	56.5	24	6/05
UT944151	30.9	54.0	27	6/17
ID511	30.5	56.0	24	6/16
Fairview	30.0	57.0	27	6/12
UT944157 (Hard White)	29.9	60.0	28	6/12
UT199847	28.9	58.5	27	6/16
ID498	28.4	55.0	26	6/10
ID512	28.3	58.5	25	6/17
Prowers	28.1	56.5	26	6/12
OR88912 (Hard White)	27.9	58.0	27	6/16
Manning	27.6	58.5	25	6/12
ID514 (Hard White)	27.4	59.0	26	6/17
Jeff	27.4	59.0	28	6/12
ID355 (Hard White)	26.6	58.0	24	6/17
82CAM097 (Hard White)	26.4	52.5	25	6/17
95CAM012	25.8	60.0	24	6/17
UT182064	25.4	54.0	25	6/17
Average	29.0			
CV%	11.1			
LSD _(0.05)	4.8			

¹Trial conducted on the Southwestern Colorado Research Center; seeded 10/10/97 and harvested 8/5/98.

*Bushel yield based on 60 lb/bu and was not adjusted for moisture

**Heading date: 50% of the plants headed

Site Information:

Fertilizer: Nitrogen @ 50 lbs. acre⁻¹ (NH₄NO₃)

Herbicide: Harmony Extra + 2,4-D Amine

Previous Crop: fallow

Soil Type: Wetherill silty clay loam

Comments: Grain yields (29.0 bu/acre average) were higher than expected. Precipitation in 1998 was below normal although planting on fallow ground that received above normal precipitation in 1997 probably played a significant role in the 29.0 bu/acre average yields. Russian Wheat Aphid (RWA) was not a problem for winter wheat in 1997-98. Prowers, a RWA resistant variety, did not show any yield advantage. Dwarf bunt was not observed to any extent in any of the varieties. No other disease or insect problems were noted.

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Irrigated winter wheat variety performance trial at Fruita in 1997-98¹

Variety	Yield	Test Weight	Grain Moisture	Heading Date
	bu/ac	lb/bu	%	*
Malcolm	151.3	57.5	10.27	140
ID501	150.3	61.8	10.10	137
Stephens	144.7	56.5	9.60	142
OR850513H	141.9	60.4	9.72	140
2137	134.0	59.2	9.75	138
ID468	132.3	57.7	9.52	142
TAM 107	125.8	60.7	9.87	136
ID455	120.8	54.9	9.10	142
Halt	116.2	59.0	10.02	136
ID510	106.3	58.1	9.45	142
UT944157	96.5	59.2	8.92	142
ID509	94.7	57.3	9.12	142
Average	126.2	58.5	9.62	140
CV%	14.1			
LSD _(0.05)	25.5			

¹Trial conducted on the Fruita Research Center; seeded 10/22/97 and harvested 8/6/98.

*From Jan 1 to heading.

Site Information:

Fertilizer: (11-52-0 disced in) Phosphorus @ 91 lbs. acre⁻¹ + Nitrogen @ 19 lbs. acre⁻¹ + (top-dressed) Ammonium nitrate @ 100 lbs. acre⁻¹

Herbicide: Harmony Extra

Previous Crop: sweet corn

Irrigation: Five applications

Comments: Production year was excellent for winter wheat. Lodging was not evaluated.

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