

2006 Irrigated Spring Barley Variety Performance Trial at Center¹.

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Variety	Source	Grain Yield ²	Bushel Weight	Heading Date ³	Grain Moisture	Plant Height	Plant Lodging	Grain Protein	Grain Color	Grain ⁴ Screen
		bu/ac	lbs/bu	(June)	%	inches	%	%		
Ab 11720	ARS	167.0	52.9	27.0	12.8	33.3	0	9.1	37.8	1.3
Ab 11993	ARS	166.5	52.2	27.0	12.7	37.5	11.3	10.1	37.8	1.0
Eslick	Mont.St.	151.7	51.9	23.8	12.7	36.0	6.3	9.8	41.8	1.0
Mt 960101	Mont.St.	151.5	52.4	29.5	12.7	38.1	0	10.0	37.3	1.0
01ST-1587	ARS-Br	149.4	50.3	24.8	12.1	31.8	0	9.3	34.8	1.0
Legacy	Cargill	149.1	49.7	22.3	12.2	39.9	1.3	9.6	39.5	1.1
01ST-1758	ARS-Br	148.3	51.6	26.5	12.5	30.9	0	9.2	33.5	1.0
Ab13449	ARS	147.3	50.1	19.8	14.6	35.7	0	9.6	26.5	1.0
A15279-00	Wash.St.	144.5	52.1	27.3	12.7	30.3	0	8.9	41.8	1.1
Haxby	Mont.St.	140.3	52.7	22.8	12.4	35.7	0	10.0	34.3	0.7
Stellar	Cargill	137.8	49.0	22.5	12.2	37.5	0	9.9	35.5	2.2
WA10701-99	Wash.St.	137.4	51.0	23.5	13.1	34.2	7.5	10.1	46.5	1.0
Mt 970116	Mont.St.	137.3	52.6	25.5	13.1	37.8	0	10.1	44.3	0.8
CDC Copeland	Cargill	137.2	50.4	29.8	13.9	40.5	0	10.1	55.5	0.8
Comarque	Colo.Seed	134.3	52.8	31.3	14.0	31.2	0	9.7	41.8	0.8
Moravian 69	Coors	133.4	49.9	32.5	13.1	30.0	0	9.2	35.5	1.7
C 84	Coors	133.0	51.1	30.8	12.6	30.6	0	10.3	37.3	1.1
Farmington	Wash.St.	129.4	51.3	31.8	13.5	30.9	0	10.3	29.8	1.0
AC Metcalfe	Cargill	128.1	51.9	26.0	12.6	37.2	0	10.5	49.0	1.0
C 92	Coors	128.0	48.7	31.0	13.4	28.5	0	10.4	40.0	0.9
ID1550 LP	ARS-Br	126.1	46.7	23.8	14.0	37.2	0	9.6	37.5	2.0
Burton	ARS-Br	125.8	52.2	29.8	12.6	34.5	0	9.3	43.3	0.9
AC Newdale	Cargill	124.3	49.8	29.0	13.2	34.8	0	10.7	43.5	1.3
Robust	Cargill	123.2	50.1	22.3	12.4	40.2	0	10.3	36.3	1.7
Tradition	Cargill	121.5	49.4	23.3	12.2	38.1	0	10.5	40.0	1.3
CDC Kendall	Cargill	120.9	51.2	29.8	12.6	37.5	0	10.9	39.8	1.4
Harrington	Cargill	120.3	51.1	29.8	13.9	37.2	0	9.4	49.5	1.5
Rawson	Cargill	119.2	48.5	23.3	15.2	36.0	2.5	11.3	49.3	0.8
Trial Average		136.7	51.2	27.3	13.0	34.6	0.91	9.9	39.4	1.45
LSD _(0.10) ⁵		14.4	0.75	1.83	0.94	2.57	3.9	0.46	3.28	2.88
CV%		8.9	1.26	5.70	6.14	6.31	363	3.91	7.05	170

¹Trial conducted at the San Luis Valley Research Center, 0249 E Road 9 North, Center, CO.

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

³Days after June 1.

⁴Grain screenings: the percent that falls through 6/64 inch screen.

⁵Means must differ more than LSD or one is likely not superior.

Important Note: Crop growth was affected by a residual soil problem; this same area was affected when grain was grown here two years ago; variability was higher than last year. Seven plots in one corner of the trial were the most affected; these plots were discarded.

Site Information:

Soil Type: Norte gravelly sandy loam

Irrigation: center pivot irrigation= ET.

Previous Crop: potatoes

Herbicide: Bronate at 1.6 pt/acre mostly missed plot area

Planted: April 17

Harvest: August 24

Fertilizer: Nitrogen; 80 #/ac dry preplant + 30 #/ac fertigation

Comments:

Cargill Malt entered 6 unknown varieties in this trial; results are not shown.

Grain yields were fairly good, ranging from 101- 167 bu/acre. Yields were lower and statistical precision was not as good as last year; indicated by the CV = 8.9%. LSD at 10% was 14.4 bu/acre.

Plots were weedy as the chemigation started after passing the barley plot area.

Color readings may be skewed by maturity; early maturing varieties stayed in the field long after maturity. Data may be of some interest to you. Many rains and showers and heavy dew reduced color this year; it ranged from 26-60 and averaged only 39 compared to 68 last year. Three varieties were noted with a whiter color when working samples: Tradition, Rawson and ID1550.

Heading dates were later because planting was later this year; heading varied from June 20 - July 3.

Plant height varies from 28 - 41 inches, about the same as last year.

Lodging was low considering the height of some entries; higher nitrogen rates would have increased plant lodging and impacted yield of some taller entries.

Protein was low ranging from 9.1 - 11.3%.

Higher protein was associated with lower yielding entries. Screening % was very low this year.

Variety Comments:

Eighteen varieties made up the top yield group this year with a top yield almost as high as last year. The top yield was 167 bu/acre and the average of all varieties was 137 bu/acre. Varieties that have yielded very well in both 2005 and 2006 include: Eslick, Mt 960101 (named Craft), 01ST1758, and Ab13449. Ab11720, harvested in the greenhouse in Arizona just prior to planting, produced the top yield.