

2012 SPRING BARLEY VARIETY PERFORMANCE EVALUATION

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The variety performance evaluations conducted by the Wyoming Agricultural Experiment Station are a continuous and ongoing program. In cooperation with the Western Spring Barley Nursery and private seed companies, a wide range of germplasm is evaluated each year. Results are posted on the web at <http://www.uwyo.edu/plantsciences/uwplant/trials.html>. Contact Mike Killen (307) 754-2223 or mkillen@uwyo.edu with questions.

MATERIALS AND METHODS

The experimental design of all trials was 3 replications of a randomized complete block. Measurements included heading date, height, lodging, grain yield, test weight, and kernel plumpness. Data were analyzed using SAS procedures for analysis of variance.

UW-REC (POWELL): The experiment was located at the University of Wyoming Research and Extension Center in Powell, Wyoming during 2012. The soil was a Garland clay loam (fine, mixed, mesic; Typic Haplargid) and had a cropping history as follows: 2011, beans; 2010, sainfoin; and 2009, sainfoin. Fertilizer was applied on 27 March, at the rate of 120 pounds N and 50 pounds P₂O₅ in the form of urea (46-0-0) and diammonium phosphate (11-52-0). The soil in the study area was prepared for planting by fall plowing, roller harrowing, and leveling. On 12 April, 48 barley varieties were established in plots 7.3 by 20 feet using double disk openers set at a row spacing of 7 inches. The seeding depth was 1.5 inches, and the seeding rate was 100 pounds of seed per acre. Weeds were controlled by a post application of a tank mixture of Pyrasulfotole + Bromoxynil and Pinoxaden (Huskie 13oz+Axial XL 16.4oz) broadcast on 30 May. Furrow irrigations were 24 April, 5 June, 17 June, 29 June, 12 July and 25 July. Subplots, 5.3 by 8 feet, were harvested on 14 August using a Wintersteiger plot combine.

ACKNOWLEDGMENTS

Appreciation is extended to the Powell Research and Extension Center staff for their assistance during 2012.

Table 1. Agronomic performance of spring barley genotypes grown at University of Wyoming, Powell Research and Extension Center, Powell, WY during 2012.

Variety	Row	Grade*	Grain	Test	Plump		Plant	Heading	Lodging
	Type		Yield	Weight	6/64	5.5/64	Height	Date	
			bu/acre	lb/bu	% above screen		inches	June	1-9
Malting									
2B09-3408	2	malting	159.5	46.5	88.8	97.1	31.0	27	1.7
01Ab9663	6	malting	147.8	48.6	97.0	99.2	32.8	22	1.0
Voyager (3719)	2	malting	146.5	49.1	97.7	99.4	30.2	23	2.0
2B09-3998	2	malting	146.3	48.0	96.5	99.2	31.1	28	1.7
Harrington	2	malting	145.7	47.5	96.3	99.1	28.8	28	2.3
Merit 57	2	malting	142.8	43.2	83.3	94.9	29.9	28	1.7
Conrad	2	malting	141.0	49.4	96.0	98.9	29.4	26	1.7
2B09-3944	2	malting	140.8	46.4	92.1	97.2	29.3	23	2.3
CDC Kindersley	2	malting	139.7	48.1	88.8	96.0	30.2	27	1.7
Moravian 69	2	malting	138.0	44.6	88.2	96.2	24.0	28	1.0
2B09-4049	2	malting	136.8	49.9	96.4	99.1	29.2	28	1.3
Merit	2	malting	136.7	45.2	88.8	96.9	29.3	30	1.3
Copeland	2	malting	136.5	47.3	95.8	98.7	31.7	27	1.7
2008NZ004	6	malting	135.7	46.7	97.3	99.4	33.1	26	2.3
07WA-682.1	2	malting	135.3	47.5	95.6	98.8	30.2	28	2.0
2Ab04-X01084-27	2	malting	135.0	46.6	94.1	98.1	28.0	24	1.3
2008NZ003	6	malting	134.8	46.2	97.9	99.4	32.0	26	2.3
2Ab07-X04M219-46	2	malting	132.5	42.4	87.2	96.5	30.1	28	1.3
Meridith	2	malting	128.4	44.6	93.4	98.0	29.4	27	1.7
Hocket	2	malting	128.2	48.0	95.9	98.4	29.2	28	1.7
2Ab07-X031098-31	2	malting	127.2	44.0	90.0	96.8	30.6	24	1.3
2ND26333	2	malting	126.6	45.2	98.6	99.3	27.3	28	1.0
2008NZ013	6	malting	125.9	45.6	97.0	98.9	31.5	23	1.7
2Ab07-X04M281-32	2	malting	125.8	44.7	84.6	95.5	29.6	28	2.0
AC Metcalfe	2	malting	124.9	47.4	95.6	98.7	31.5	23	1.7
Mayfair	6	malting	123.3	45.0	96.1	99.2	30.5	21	2.3
Bentley	2	malting	122.0	45.1	96.2	98.8	27.5	28	1.3
2ND25276	2	malting	118.2	43.4	97.3	99.0	30.6	29	1.0
Feed/Food									
MT070159	2	feed	157.1	48.3	95.6	98.6	29.0	24	2.0
07WA-614.4	2	feed	146.7	45.8	90.3	97.7	29.0	28	1.3
UT04B2041-42	6	feed	145.8	45.9	88.9	97.0	27.7	21	1.3
2004NZ151	2	feed	145.4	48.3	93.3	98.1	25.6	28	1.0
2004NZ163	2	feed	144.9	49.7	92.1	98.4	23.4	30	1.0
05WA-316.K	2	feed	144.3	46.6	93.5	98.0	29.6	24	1.7
08ID2661	2	feed	143.5	48.5	93.3	98.6	29.3	27	1.0
MT070158	2	feed	143.0	49.0	97.3	99.1	28.6	27	2.0
Baronesse	2	feed	142.8	48.6	94.3	98.4	28.4	27	1.3
MT080279	2	feed	142.6	48.5	94.6	98.4	29.3	24	1.7
MT061035	2	feed	140.4	48.5	91.8	97.8	28.4	28	1.3
Steptoe	6	feed	139.8	43.4	95.8	98.6	31.1	17	1.7
05WA-316.99	2	feed	139.3	46.0	93.9	98.2	31.3	27	1.7
UT6R2120-14	6	feed	138.9	46.1	94.0	98.3	29.7	20	1.7
08ID1549	2	feed, H	127.1	49.3	85.6	97.0	28.2	28	1.0
2Ab09-X06F058HL-21	2	F,H	114.7	39.4	94.8	98.6	29.4	27	2.7
CDC Rattan	2	F,W,H	92.7	45.4	77.9	95.9	26.8	29	1.3
2Ab09-X06F058HL-195	2	F,H	92.6	40.0	94.7	98.7	32.0	25	2.7
CDC Fiber	2	F,W,H	83.9	34.6	92.4	98.3	31.8	27	3.0
2Ab09-X06F058HL-30	2	F,H	81.3	44.9	96.6	99.0	26.9	29	1.0
Mean			133.1	46.1	93.2	98.1	29.4	26	1.6
LSD_(.05)			15.5	2.9	3.2	1.7	2.4		1.0
CV%			7.2	3.8	2.1	0.8	5.1		35.9

*F=food, W=waxy, H=hulless