

# 2011 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://uwadmnweb.uwyo.edu/UWPLANT/key.htm>. Contact Mike Killen (307) 754-2223 or [mkillen@uwyo.edu](mailto: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 2011. The soil was a Garland clay loam (fine, mixed, mesic; Typic Haplargid) and had a cropping history of: 2010, beans; 2009, barley; and 2008, beets. Fertilizer was applied for a yield goal of 100 bushels of grain per acre. Fertilizer was applied on 28 March, at the rate of 120 pounds N and 50 pounds P<sub>2</sub>O<sub>5</sub> 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 5 April, 42 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 bromoxynil and MCPA (Bronate Advanced- 1 pt) and pinoxaden (Axial XL- 16.4 oz) broadcast at 0.50, 0.50, and 0.05 pounds active ingredient per acre on 4 June. Furrow irrigations were 25 April, 9 June, 25 June, 7 July, and 20 July. Subplots, 5.3 by 8 feet, were harvested on 10 August, using a Wintersteiger plot combine.

## ACKNOWLEDGMENTS

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**Table 1. Agronomic performance of spring barley genotypes grown at University of Wyoming, Powell Research and Extension Center, Powell, WY during 2011.**

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		1-9
<b>Malting</b>									
Merit	2	malting	151.8	47.5	86.1	94.9	38.1	3-Jul	2.3
2B04-0175	2	malting	149.9	50.5	95.0	98.2	41.1	30-Jun	1.3
ND22421	6	malting	149.9	49.2	97.1	99.1	38.2	26-Jun	1.3
2B06-0929	2	malting	149.1	49.1	95.5	98.3	37.6	29-Jun	1.3
2ND26333	2	malting	145.5	50.4	97.9	99.1	36.8	27-Jun	1.0
Merit 57	2	malting	143.7	46.7	84.6	95.3	38.6	1-Jul	1.7
Conrad	2	malting	139.5	51.7	94.4	96.3	39.5	1-Jul	1.0
Moravian 69	2	malting	138.0	48.7	92.1	97.6	28.6	3-Jul	1.0
2B07-1590	2	malting	135.4	49.0	96.6	99.1	39.5	28-Jun	2.3
2B07-1516	2	malting	135.3	47.6	91.2	96.8	41.1	2-Jul	2.3
2ND25272	2	malting	133.8	50.9	98.9	99.7	37.1	27-Jun	1.0
01Ab9663	6	malting	129.8	51.1	97.5	99.3	42.2	29-Jun	1.0
02Ab17271	2	malting	129.7	48.3	89.1	95.9	41.5	2-Jul	1.3
AC Metcalfe	2	malting	129.3	49.7	96.0	98.6	39.4	28-Jun	1.7
2B05-0811	2	malting	128.6	48.7	92.7	97.8	41.4	1-Jul	3.0
Harrington	2	malting	127.1	48.4	95.1	98.3	39.9	30-Jun	2.3
Hocket	2	malting	124.6	52.8	96.2	98.0	38.9	27-Jun	2.3
CDC Kindersley	2	malting	123.4	50.5	93.5	97.8	40.6	30-Jun	2.3
2B06-0933	2	malting	122.9	45.4	92.3	98.0	35.9	30-Jun	1.3
Mayfair	6	malting	118.3	47.1	96.2	98.4	43.3	28-Jun	1.0
2ND24388	2	malting	117.3	50.6	98.2	98.9	38.7	27-Jun	2.0
Bentley	2	malting	104.5	45.6	91.3	97.7	40.5	30-Jun	1.3
2ND25276	2	malting	104.2	48.4	97.3	99.1	39.3	30-Jun	1.7
ND23898	6	malting	98.5	49.4	90.9	97.5	46.8	27-Jun	1.0
<b>Feed/Food</b>									
2004NZ151	2	feed	169.6	51.3	93.0	98.0	32.8	1-Jul	1.7
06WA-412.4	2	feed	163.4	53.3	97.0	99.1	37.2	30-Jun	1.0
2004NZ163	2	feed	157.8	53.7	95.6	98.8	30.6	1-Jul	1.0
MT061169	2	feed	150.5	51.3	94.1	96.6	38.5	28-Jun	2.0
UT6R2120-14	6	feed	149.9	50.3	92.5	97.4	41.2	25-Jun	1.7
05WA-316.K	2	feed	148.9	49.4	94.4	98.4	39.1	28-Jun	1.0
Steptoe	6	feed	147.6	47.9	96.5	98.8	42.6	26-Jun	2.3
Baronesse	2	feed	146.8	50.6	94.5	98.7	39.3	30-Jun	1.0
UT04B2041-42	6	feed	141.0	50.6	94.2	98.0	43.5	27-Jun	1.0
MT020162	2	feed	138.9	52.7	95.8	98.7	40.7	29-Jun	1.3
05WA-316.99	2	feed	132.6	48.9	97.0	98.9	40.8	28-Jun	1.0
Champion	2	feed	131.2	51.8	96.3	98.9	38.1	27-Jun	1.3
Gallatin	2	feed	131.0	51.3	94.5	97.7	42.0	27-Jun	2.7
MT070111	2	feed	129.3	50.5	95.5	98.7	38.6	1-Jul	1.0
Haxby	2	feed	128.4	53.4	96.2	98.9	37.7	30-Jun	1.0
WAS 2	2	f/waxy	136.6	51.8	98.4	99.3	34.5	27-Jun	1.0
CDC Rattan	2	F,W,H*	107.3	43.1	53.1	90.4	39.5	2-Jul	2.0
CDC Fiber	2	F,W,H*	81.1	35.3	85.8	97.7	42.3	3-Jul	3.3
Mean			133.9	49.4	93.3	97.9	39.1	29-Jun	1.6
LSD <sub>(.05)</sub>			24.1	2.8	4.5	2.4	4.5		1.0
CV%			11.1	3.5	2.9	1.5	7.1		41.0

\*F=Food, W=waxy, H=hulless