

Busch Agricultural Resources, Inc. Malting Barley Variety Evaluation in Large Plots 2006

Mike Killen, UW Powell Research and Extension Center;
Richard Redd, Busch Agricultural Resources; Brad May, UW Powell Research and Extension Center

The University of Wyoming, Powell Research and Extension Center in cooperation with Busch Agricultural Resources conducted a study designed to evaluate the grain yield and quality characteristics of five malting barley varieties. The varieties were planted in 0.7 acre strips and managed using the best management practices for the soil and growing conditions at the University of Wyoming Research and Extension Center in Powell, Wyoming during 2006.

Materials and Methods

The soil, a Garland clay loam (fine, mixed, mesic; Typic Haplargid); had a cropping history of: 2005, beets; 2004, barley; and 2003, barley. The soil was fertilized for a yield goal of 100 bushels of grain per acre. Fertilizer was applied on 22 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 spring disking and roller harrowing. On 4 April, five barley varieties were established in plots 44 feet by 700 feet using a Case IH drill with double disk openers set at a row spacing of 6 inches. 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) and tralkoxydim (Achieve) broadcast at 0.50, 0.50, and 0.18 pounds active ingredient per acre on 25 May. Furrow irrigations were 24 April, 31 May, 19 June, 2 July and 17 July. Plots were harvested using an IH 1440 Axial flow combine on 14 August. 150 lbs of each variety was sub-sampled and sent to Busch Agricultural Resources for quality evaluation. The results are as follows:

Variety	Grain Yield	Height	Lodge 1=upright 9=flat	Test	Moisture	Splits & Broken	Thin	Plump	Protein
	bu/a	in	1-9	lb/bu	%	%	%	%	%
Merit	113	30.7	2	45.7	10.4	0.5	1.7	94.9	9.6
2316	110	27.2	1	46.6	10.6	0.4	1.2	96.6	9.3
2657	108	29.9	1	47.7	10.6	1.4	1.2	96.5	9.3
Metcalf	99	31.1	2	49.8	10.1	1.0	0.7	98.2	10.3
Conrad*	96	28.3	1	49.5	10.3	0.4	1.0	98.0	9.5

* Yield was adversely affected due to a fertilizer skip on the field border where this variety was planted.