

Project Title: Off Station Barley Evaluation

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Objectives: To evaluate barley varieties for agronomic performance in environments and cropping systems representative of northwestern Montana.

Results:

The 2008 planting season was wetter and cooler than normal. This not only delayed seeding, but plant development as well. The average heading date for the nursery was 181 (June 30), with MT020155 having the earliest heading date (177) and Geraldine being the latest (186). The cool conditions also appeared to have extended the grain filling period, benefiting yields in the process. Haxby, Merit and Boulder each produced greater than 100 bu/A. Yields averaged 83 bu/A, ranging from a high of 104 bu/A for MT010158 to a low of 53 bu/A for Geraldine. Test weights were higher than normal. Test weights averaged 51 lb/bu, with Xena having the highest test weight of 53.3 lb/bu. Likewise, percent plumps also were high, averaging 95 percent. Plant height averaged 26 inches and no lodging was detected.

Summary:

Below normal temperatures delayed plant development and prolonged the grain filling period which enhanced yields and test weights.

Future Plans:

Continue off station barley evaluations for the purpose of identifying varieties that are best suited for District 1.

Table 1. Agronomic data from the off station barley nursery grown at Kalispell, MT.

Planted: April 28, 2008		Field R4			Harvested: August 25, 2008.		
ENTRY	Cultivar	Yield	Test weight	Grain moist.	Heading	Plant height	Plump
		bu/ac	lb/bu	%	Julian	in	%
17	MT010158	104.4	51.4	11.6	180.7	26.1	95.5
1	Haxby	102.1	51.2	12.5	180.3	25.7	93.8
7	Merit	100.4	51.0	12.5	185.0	30.3	96.7
2	Boulder	100.1	53.1	11.8	182.0	24.8	94.8
4	WPB Xena	95.7	53.3	12.7	182.3	28.0	95.7
18	Challenger	93.4	52.9	12.5	180.0	27.2	97.3
19	MT020155	91.2	50.2	11.6	177.3	26.1	93.0
6	Conrad	90.8	51.2	12.1	182.0	24.9	97.0
16	Baronesse	90.0	51.8	11.6	182.7	25.9	95.8
9	Hockett	86.4	52.7	12.7	181.3	25.1	93.0
13	Legacy	85.6	48.6	11.2	182.7	26.9	94.0
15	Stellar-ND	80.2	48.8	10.8	181.7	26.0	93.7
12	Drummond	78.8	49.2	11.2	179.0	25.9	96.3
3	Eslick	76.2	53.2	12.0	184.7	22.8	93.7
14	Tradition	73.2	50.9	11.4	180.0	24.8	95.3
11	Craft	72.8	51.5	12.6	180.3	28.5	95.8
20	MT020204	67.3	52.8	12.1	180.3	23.0	97.2
5	Harrington	64.5	52.4	12.7	181.7	25.7	95.2
8	Metcalfe	64.3	51.5	14.1	182.7	26.2	94.5
10	Geraldine	53.1	52.6	11.7	186.0	21.8	95.3
Mean		83.5	51.5	12.1	181.6	25.8	95.2
C.V. (%)		31.17	3.94	5.70	0.94	11.68	1.43
LSD (0.05)		NS	NS	1.14	2.82	NS	2.25