

Project Title: Off-Station Barley Variety Performance in Northwestern Montana.

Project Leader: Bob Stougaard

Project Personnel: Brooke Bohannon and Tom Blake

Objective: To evaluate the agronomic performance of barley varieties grown in environments representative of northwestern Montana.

Results:

Yields ranged from 112.5 bu/A for Conrad, to 17.9 bu/A for Haxby. Low yield for Haxby were attributed to great susceptibility to hail damage caused by a storm on July 17. Test weights ranged from 52.7 lb/bu for Hockett and 49.3 lb/bu for Tradition. Conrad had the highest protein at 15.4% and MT09018 had the lowest protein at 12.9%. Significant differences also were observed for each of the other agronomic traits including lodging, which ranged from zero to as high as 56.7% for Cowboy. Cowboy had a height of 48.3 inches compared to MT070159, which was the shortest variety at 37.8 inches. Julian heading dates ranged from 184 to 189 (Table2).

Summary:

Most barley varieties performed well despite the hail damage.

Funding Summary: Budget information to be provided by OSP. No other grant support for this project.

MWBC FY 2014 Grant Submission Plans: Resubmittal is planned.

Table 1. Materials and Methods -Barley off station - 2013

Seeding Date:	5/6/13	Fertilizer:	150-40-110-20
Julian Date:	126	Herbicide:	5/31/13
Seeding Rate:	48 lb/A		Affinity TankMix 0.6 OZ/A, MCPE
Previous Crop:	Barley		0.5 PT/A, Axial 16.4 FL OZ/A
Tillage:	Conventional		
Irrigation:	None	Harvest Date:	9/16/13
Soil Type:	Creston Sil	Julian Date:	9/15/00
Soil Test:	162-14-142		

Table 2. Barley off station

Treatment	HD Julian	HT in	LOD %	YLD bu/A	PRO %	PLMP %	TWT lb/bu
Conrad	186	40.6	13.3	112.5	15.4	98.6	52.0
Geraldine	189	41.2	10.0	106.6	14.2	98.1	51.2
MT070158	185	40.0	0.0	106.0	14.6	99.1	51.9
Harrington	186	41.9	16.7	105.8	14.3	98.4	51.3
MT090180	187	41.6	0.0	105.0	12.9	97.4	51.1
Eslick	188	38.7	10.0	102.2	14.4	97.0	51.2
Metcalfe	187	42.3	16.7	101.9	14.6	98.3	51.6
MT090190	186	40.8	0.0	100.3	12.9	97.7	50.6
MT070159	184	37.8	0.0	98.2	13.8	99.1	51.2
Champion	185	41.6	0.0	97.6	14.4	97.7	52.3
MT080279	184	38.2	0.0	95.2	14.2	98.6	51.3
Hockett	184	40.6	3.3	92.9	14.4	98.3	52.7
Gallatin	184	41.6	1.7	87.3	14.9	96.0	52.0
Tradition	184	45.4	0.0	85.4	13.8	94.2	49.3
Cowboy	186	48.3	56.7	80.6	15.2	97.7	50.5
Haxby	184	40.4	0.0	17.9	15.0	95.5	51.2
Mean	185.5	41.3	8.0	93.5	14.3	97.6	51.4
CV	0.4	3.3	114.4	10.9	3.5	0.9	0.8
LSD	1.3	2.3	15.3	17.1	0.8	1.5	0.7
Pr>F	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Footnotes: HD: heading, HT: height, LOD: lodging, YLD: Yield, PRO: protein, PLMP: percent plumps, TWT: test weight