

Title: Barley Off Station - 2014

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

Results:

Yields averaged 128.3 lb/A and ranged from 94.6 bu/A for Cowboy to 171.8 bu/A for MT100120. Tradition, the highest yielding commercially available cultivar, produced 145.3 bu/A. Heading dates averaged 182 Julian days (July 1) and ranged from 178 to 185 Julian days. Protein averaged 14.7% and ranged from 12.9% for MT100120 to 16.3% for Conrad. Test weight averaged 50.0 lb/bu and ranged from 47.5 for Tradition to 52.8 lb/bu for MT100126. Heights averaged 39.0 inches and ranged from 35.3 for Eslick to 43.0 inches for Metcalfe. Lodging averaged 33.7% and ranged from 2.0% for MT100120 to 87.3% for Cowboy. All 16 cultivars experienced lodging, 6 of these were over 50%, while 4 of them were under 5%.

Summary:

This year's high yield average of 128.3 bu/A compared to 93.5 lb/A in 2013, can be attributed favorable growing conditions.

Table 1. Materials and Methods - Barley Off Station - 2014

Seeding Date: 4/30/2014	Harvest Date: 8/29/2014
Julian Date: 120	Julian Date: 241
Seeding Rate: 80 lb/A	Soil Type: Creston Sil
Previous Crop: Alfalfa	Soil Test: 163-14-138
Tillage: Conventional	Fertilizer: 200-30-100
Irrigation: None	Herbicide: Huskie 11 floz/A and Axial XL 16.4 floz/A

Table 2. Barley off station - 2014

Treatment	HD Julian	HT in	LOD %	YLD bu/A	PRO %	TWT lb/bu	PLMP %
MT100120	182	42.0	2.0	171.8	12.9	52.0	95.9
MT100126	183	40.7	9.0	157.4	13.2	52.8	95.8
MT090180	183	38.7	5.0	153.8	13.2	52.0	95.5
Tradition	178	41.0	5.0	145.3	14.4	47.5	83.2
Conrad	185	38.0	2.3	141.2	16.3	49.9	93.0
Craft	179	39.7	13.3	140.3	14.7	52.2	88.8
Geraldine	179	38.7	27.7	129.0	15.1	48.8	81.7
MT090190	184	39.3	18.0	125.6	15.8	51.0	96.4
Haxby	180	39.3	18.3	124.7	15.6	49.3	88.2
Eslick	184	35.3	26.7	121.7	15.1	48.5	79.4
Hockett	180	36.0	58.0	112.2	14.4	50.1	86.8
Metcalfe	184	43.0	56.7	111.8	15.0	47.6	88.3
Gallatin	178	36.3	53.3	109.9	14.7	49.1	80.3
Champion	180	38.0	82.0	109.6	14.6	50.3	82.7
Harrington	182	40.3	75.0	103.6	14.5	48.7	89.2
Cowboy	184	37.7	87.3	94.6	15.4	50.5	93.1
Mean	182	39.0	33.7	128.3	14.7	50.0	88.7
CV	0.8	6.5	70.0	12.5	3.2	2.7	5.8
LSD	2.4	4.3	39.3	26.7	0.8	2.3	8.6
Pr>F	0.0001	0.0418	0.0001	0.0001	0.0001	0.0003	0.0007

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