Title: Barley Off Station – 2016

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

Results:

Twenty-four barley varieties were evaluated for yield and agronomic performance using a randomized complete block design with three replications. Significant differences were observed for heading, height, test weight, and percent plump, but no significant differences were observed for yield and protein (Table 2). Heading date averaged 176 Julian days (June 24) and ranged from 169 days for Conlon to 179 days for Merit, MT100126, and Moravian115. Heights averaged 27.8 inches and ranged from 19.4 inches for Stockford to 31.2 inches for Stepford. Yields averaged 86.6 bushels per acre. Protein averaged 9.57 percent. Average test weight was 52.6 lb/bu and ranged from 47.4 lb/bu for Stepford to 54.4 lb/bu for Champion. Percent plump averaged 96.9 %, and ranged from 89.0 % for Lavina to 99.2 % for Conlon.

Summary:

The highest yielding commercially available cultivars in this study were Hockett, Merit, and Synergy; however, their differences were not statistically significant.

Table 1. Materials and Methods.

Seeding Date:	4/21/2016	Harvest Date:	8/17/2016
Julian Date:	112	Julian Date:	230
Seeding Rate:	80lb/A	Soil Type:	Creston SiL
Previous Crop:	WW	Soil Test:	96-8-200
Tillage:	Conventional	Fertilizer:	50-25-60
Herbicide: Post	Huskie 11oz/A + Axial 16.4 oz/A + NIS 1qt/100gal + UAN		
Herbicide: Late Post - Stinger 1/3 pt/A			

Table 2. Barley off station, Kalispell, MT- 2016.

Culitivar	HD Julian	HT in	YLD[1] bu/A	PRO[2] %	TWT[1] lb/bu	PLMP %
Hockett	176	30.2	111.0	9.93	54.3	98.6
MT090190	178	29.9	107.3	9.53	54.2	97.7
Merit	179	30.5	105.7	9.30	53.1	97.1
Synergy	177	29.2	102.4	9.83	51.9	98.3
Haxby	171	30.2	100.9	9.73	54.1	98.2
Stepford	172	31.2	90.3	10.43	47.4	96.4
Moravian115	179	21.6	89.9	9.33	51.8	98.6
Copeland	177	29.6	89.7	9.60	52.9	98.1
Eslick	178	25.1	89.4	8.83	52.3	97.1
MT100126	179	27.3	88.9	9.20	54.2	97.9
Craft	173	30.6	87.1	9.50	53.1	98.4
MT090182	177	30.6	87.1	8.93	52.8	97.9
MT124555	175	25.5	85.3	9.07	53.4	98.6
Hays	178	26.2	83.6	9.93	50.4	90.8
Metcalfe	176	29.4	83.5	9.80	53.4	96.6
Harrington	177	28.9	81.8	9.53	53.7	97.9
Lavina	175	28.3	80.6	10.17	51.0	89.0
MT100120	178	27.3	80.5	8.43	53.1	98.3
Pinnacle	175	27.8	79.5	9.20	53.8	98.7
Champion	176	27.6	79.2	9.67	54.4	98.1
Conrad	177	26.9	76.6	9.47	52.6	98.2
Conlon	169	26.3	72.7	10.20	51.0	99.2
Stockford	176	19.4	69.1	10.07	50.8	95.7
Haybet	175	28.6	56.0	9.90	51.7	91.1
Mean	176	27.8	86.6	9.57	52.6	96.9
CV	0.8	13.2	24.7	7.30	1.6	1.0
LSD	2.2	6.0	ns	ns	1.4	1.6
Pr>F	0.0001	0.0408	0.4436	0.1702	0.0001	0.0001

HD: heading, HT: height, YLD: yield, PRO: protein, TWT: test weight, PLMP: percent plump, ns: nonsignificant.

[1] adjusted to 13% moisture.

[2] reported on a dry matter basis.