

Title: Intrastate Barley Evaluation – 2014

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

Results:

Significant differences were observed for heading, height, lodging, yield, and test weight. Heading dates averaged 179 Julian days (June 28) and ranged from 173 to 183 Julian days. The average height was 33.6 inches and ranging from 27.7 to 39.0 inches. Lodging was minimal, averaging 5.4%. Yields averaged 129.7 bu/A and ranged from 71.4 bu/A for MT110109 to 176.1 bu/A for MT100128. Champion, the highest yielding commercially available cultivar, produced 141.9 bu/A. Test weights averaged 50.6 lb/bu and ranged from 44.6 lb/bu for Tradition to 58.0 lb/bu for MT110097. Protein content averaged 14.3% and ranged from 12.4% for MT100126 to 18.0% for MT110095. Percent plump averaged 83.5% ranging from 28.2% for MT110109 to 97.5% for 07034-012.

Summary:

The highest yielding commercially available cultivars were Champion and Craft.

Table 1. Materials and Methods - Intrastate Barley Evaluation - 2014

Seeding Date:	4/29/2014	Harvest Date:	8/28/2014
Julian Date:	119	Julian Date:	240
Seeding Rate:	80 lb/A	Soil Type:	Kalispell VFSL
Previous Crop:	Canola	Soil Test:	196-10-100
Tillage:	Conventional-till	Fertilizer:	200-30-100
Irrigation:	N/A	Herbicide:	Huskie 11 floz/A and Axial XL 16.4 floz/A

Table 2. Intrastate Barley Evaluation. Kalispell, 2014

Cultivar	HD Julian	HT in	LOD %	YLD bu/A	PRO %	TWT lb/bu	PLMP %
MT100128	182	33.0	5.0	176.1	12.8	52.8	93.9
MT100136	180	34.0	5.0	174.2	12.8	51.3	90.3
MT100120	181	33.3	5.0	169.4	12.7	52.6	92.5
MT100126	181	34.0	5.0	166.5	12.4	52.5	92.1
MT100132	182	35.3	5.0	165.2	12.8	51.9	90.7
MT090193	181	36.7	5.0	164.4	13.1	51.5	87.3
MT090186	182	33.7	5.0	162.3	12.9	51.7	91.2
MT090190	181	34.3	5.0	161.9	12.9	52.1	92.5
MT090184	180	33.7	5.0	159.7	13.0	51.6	91.2
MT100130	179	36.7	5.0	156.7	13.1	50.1	85.5
MT100124	181	33.0	5.0	154.8	12.8	50.5	85.4
MT090180	181	34.0	5.0	151.6	13.0	50.8	88.7
MT090182	179	34.7	5.0	151.0	12.7	50.9	90.3
MT124243	181	34.3	5.0	150.6	12.7	50.1	86.7
MT124093	177	39.0	6.7	150.2	14.2	51.6	91.4
MT124367	182	37.0	1.7	150.0	13.1	50.8	93.9
MT124688	177	33.7	6.7	147.7	12.9	51.6	89.9
MT100125	180	35.0	5.0	147.4	12.8	50.9	89.7
MT124945	179	34.3	1.7	147.4	.	50.5	.
07005-007	178	31.7	5.0	144.8	15.4	50.1	95.4
MT124411	176	34.0	6.7	144.5	13.9	51.7	91.2
MT090181	181	35.7	6.7	143.2	13.1	51.8	92.3
MT100051	176	30.7	5.0	143.1	16.5	49.9	81.2
MT124582	176	35.7	5.0	142.2	13.6	49.9	85.4
MT124025	181	34.3	3.3	142.0	12.8	49.6	87.6
Champion	179	30.8	10.0	141.9	13.7	50.4	90.9
Craft	176	38.3	5.0	140.8	13.8	50.9	84.7
MT100060	177	30.5	5.0	140.1	13.2	51.6	86.4
MT124026	179	33.7	5.0	138.3	13.5	49.3	91.9
05032-068	178	32.7	31.7	138.3	14.0	48.7	85.4
07034-012	176	34.7	36.7	136.5	14.9	51.0	97.5
MT124338	179	34.0	5.0	135.8	13.2	50.4	87.0
07030-034	180	33.7	6.7	135.6	14.3	48.8	95.7
Harrington	178	36.0	6.7	134.9	14.0	48.6	87.2
MT124027	180	32.3	3.3	133.8	13.0	48.4	86.1
Tradition	175	36.7	3.3	133.7	17.3	44.6	59.5
Hockett	178	29.7	6.7	131.3	13.5	49.5	90.1
Metcalfe	178	35.7	5.0	131.3		48.1	
MT124240	181	34.7	5.0	130.8	13.1	49.6	86.8
07034-005	176	27.7	10.0	129.5	15.1	48.5	94.8

Table 2. continued

Cultivar	HD Julian	HT in	LOD %	YLD bu/A	PRO %	TWT lb/bu	PLMP %
Pinnacle	176	35.3	5.0	129.0	13.0	49.8	94.4
Conrad	180	31.0	3.3	125.3	15.2	48.9	85.4
MT124933	176	32.3	5.0	121.8	15.2	48.3	78.9
MT110008	181	33.2	6.7	120.2	15.8	49.7	71.5
MT124728	179	32.0	5.0	118.6	15.0	49.0	88.1
Haxby	177	34.3	6.7	117.0	14.6	50.4	81.2
Eslick	183	28.7	0.0	115.3	13.8	48.8	78.8
MT110065	183	35.0	1.7	110.8	16.5	47.2	51.5
MT110066	181	33.7	0.0	108.9	16.4	52.4	53.0
MT110009	181	38.0	0.0	105.4	13.6	51.4	88.9
MT110139	173	38.0	6.7	102.9	12.8	53.1	88.3
MT110016	179	31.0	5.0	102.8	15.8	47.6	69.0
MT110092	174	30.0	0.0	98.2	14.5	56.2	92.0
MT110061	182	35.0	0.0	97.6	16.5	49.8	55.5
Hays	177	29.7	0.0	97.0	15.3	45.8	57.6
MT110097	174	33.0	0.0	95.4	14.8	58.0	91.7
MT110141	176	33.8	0.0	84.9	16.3	55.3	87.9
MT110095	174	37.7	15.0	83.4	18.0	56.7	85.0
MT110130	175	30.0	0.0	82.9	16.5	48.7	55.2
MT110043	182	33.7	13.3	82.0	16.4	48.9	72.1
MT110113	174	31.8	0.0	80.3	16.7	50.2	89.7
PI596299	177	31.7	5.0	75.6	14.5	45.6	84.9
MT110031	176	28.7	0.0	75.0	16.9	52.3	66.8
MT110109	175	33.0	0.0	71.4	16.5	55.1	28.2
Mean	179	33.6	5.4	129.7	14.3	50.6	83.5
CV	0.8	7.2	123.8	8.2	NA	2.8	NA
LSD	2.3	3.9	10.8	21.2	NA	2.3	NA
Pr>F	0.0001	0.0001	0.0001	0.0001	NA	0.0001	NA

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