

Objective:

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

Results:

High temperatures and low rainfall reduced crop height, which averaged only 21.5 inches. Height ranged from 24.3 inches for Copeland and MT124113 to a low of 18.3 inches for Genie. Heading spanned 9.7 days with an average of 178 days (June 27). MT090025 and MT090236 were the earliest at 174 days and Genie was the latest at 183.7 days. High temperatures and low rainfall also depressed yields, which only averaged 79 bu/A. Yields range from a high of 96.4 bu/A for MT124118 to a low of 66bu/A for MT090025. At the same time, protein was high and averaged 14.05 %, ranging from a high of 15.85 % for Harrington to a low of 12.23 % for MT090025. Test weights averaged 48.2 lb/bu, with MT124134 having the heaviest grain at 51.8 lb/bu and Grower the lightest at 43.7 lb/bu.

Summary:

MT124118 was the top performer this year producing 96.4 bu/A, 13.89 % protein and a test weight of 50.2 lb/bu.

Table 1. Materials and Methods.

Seeding Date:	5/3/2017	Harvest Date:	8/17/2017
Julian Date:	123	Julian Date:	229
Seeding Rate:	80 lb/A	Soil Type:	Creston SiL
Previous Crop:	peas	Soil Test:	29-16-156
Tillage:	Conventional	Fertilizer:	150-30-30

Table 2. Intrastate Barley Nursery, Kalispell MT - 2017

Variety	HT inches	HD Julian	YLD bu/A	PRO %	TWT lb/bu
MT124118	24.0	176.3	96.4	13.89	50.2
MT124555	21.7	178.7	89.8	13.54	50.1
MT124688	22.3	179.0	88.6	13.31	50.9
Hockett	21.0	177.0	88.2	13.99	49.2
MT124243	23.0	179.0	88.2	12.77	49.0
Craft	24.0	178.7	87.1	14.38	51.0
MT090169	21.0	175.0	85.1	12.35	50.3
10WA-106.18	22.7	178.7	84.5	14.43	47.5
MT124601	21.3	178.7	84.4	14.07	48.9
11WA-107.58	22.7	179.7	84.0	14.83	50.4
MT124645	21.7	176.3	84.0	14.62	47.3
Copeland	24.3	180.3	83.5	15.28	46.2
10ARS191-3	22.7	180.3	83.5	14.82	47.0
MT124093	24.0	178.7	82.3	14.95	49.1
MT090182	22.3	181.3	81.8	13.79	48.7
MT124716	20.0	181.7	81.5	15.10	47.7
MT090236	20.0	174.0	81.2	12.70	49.1
MT124071	23.3	177.7	80.8	13.75	49.4
MT124663	20.0	175.7	80.7	13.01	51.4
Balster	20.7	180.3	80.5	14.91	46.9
MT124112	19.0	174.3	80.4	13.07	49.1
MT124127	20.3	179.3	80.4	14.59	50.0
MT124113	24.3	174.3	80.0	13.10	51.1
MT124069	21.0	180.7	79.9	14.56	47.2
MT090184	23.3	180.3	79.6	13.83	48.8
MT124673	19.7	176.3	79.6	13.01	51.7
Synergy	24.0	180.3	79.3	14.83	47.6
MT124007	21.7	179.3	78.9	14.94	47.6
MT124073	24.0	182.0	78.7	14.72	48.1
MT124128	20.7	174.3	78.6	13.00	51.8
Odyssey	19.3	180.7	78.3	13.45	31.9
MT124677	19.7	175.7	77.7	13.12	51.2
MT100120	22.7	180.3	77.3	13.76	48.8
MT124134	23.3	174.3	76.8	12.63	51.8
MT124018	22.0	180.0	76.5	14.69	48.4

Table 2. continued

Variety	HT inches	HD Julian	YLD bu/A	PRO %	TWT lb/bu
MT090193	23.7	181.0	75.8	13.97	47.5
Metcalfe	20.7	179.7	75.7	15.76	47.2
MT124370	20.3	181.0	75.7	13.21	48.6
Harrington	21.7	179.7	75.2	15.85	47.8
Growler	21.0	180.0	74.0	15.69	43.7
2Ab08-X05M010-65	20.7	180.7	73.6	14.81	44.0
Genie	18.3	183.7	73.4	15.66	45.4
MT124164	19.7	176.0	73.4	13.80	46.1
MT124016	21.0	182.0	73.3	14.70	44.8
MT124380	19.0	181.3	71.4	14.18	47.5
MT124659	19.3	174.0	70.2	13.07	50.9
MT124664	20.3	175.7	69.8	13.39	51.2
Genesis	22.3	174.3	67.8	14.10	48.6
MT090025	19.3	174.0	66.0	12.23	45.3
Mean	21.5	178.4	79.5	14.05	48.2
LSD P=.05	2.226	3.229	11.76	0.72	5.26
CV	6.38	1.12	9.13	3.16	6.73
Pr>F	0.0001	0.0001	0.0019	0.0001	0.0001

HT: height, HD: heading, YLD: yield, PRO: protein, TWT: test weight