

Project Title: Intrastate Barley Evaluation

Project Leader: Bob Stougaard

Project personnel: Tom Blake, and Stan Bates

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

Results:

The average Julian heading date for the nursery was 186 (July 5), which is comparable to last year's date of 189. Yields averaged 140 bu/A which is slightly better than the previous year's average of 134 bu/A. Yields ranged from a high of 179 bu/A for Goldeneye to a low of 119 bu/A for MT02155. Overall protein concentrations were less in 2009 compared to 2008, with mean protein percentages of 12.5 and 13.7, respectively. Proteins ranged from a low of 9.9 for MT061045 to a high of 13.8 for MT061201, Metcalf, and MT061035. Test weights were good, averaging 53 lb/bu and ranging from a low of 47.8 for MT070192 to a high of 54.9 for MT050048. Plant height was less than normal and averaged 29 inches, with Tradition being the tallest entry at 33 inches. Percent plumps were good and averaged 96.9 %. MT070192 had the lowest plump value at 88.5 percent.

Summary:

A late planting and below normal rainfall in May and June reduced plant height. However yields were slightly greater than the previous year. Goldeneye continues to be the highest yielding entry in this nursery.

Future Plans:

Continue barley evaluations for the purpose of identifying cultivars which are best suited for District 1.

Table 1. Agronomic data from the intrastate barley trial. Kalispell, MT, 2009.

Planted: May 13, 2009		Harvested: August 26, 2009					
Cultivar	Entry	Yield	Test	Protein	Plump	Heading	Plant
		bu/A	weight	%	%	date	height
			lb/bu			Julian	inches
Goldeneye	1	179.6	51.2	12.9	91.0	182.9	28.5
MT070193	62	167.8	49.1	13.2	92.5	183.7	26.5
MT061035	34	156.6	53.3	13.8	97.0	188.1	27.7
MT030079	21	154.8	54.6	13.2	98.5	185.1	28.7
Craft	8	154.6	54.5	12.5	97.0	184.2	30.6
MT050030	25	153.3	53.0	11.2	97.5	188.8	30.0
MT070156	54	152.2	52.9	10.3	96.5	186.0	26.8
MT050201	29	151.2	54.1	12.9	95.0	185.4	32.8
MT070125	51	150.8	52.2	13.2	98.0	188.6	29.1
MT050062	28	150.1	54.4	11.7	98.0	185.7	32.4
MT070148	53	148.8	53.4	13.2	97.5	184.9	28.7
MT061032	33	147.6	54.1	12.0	98.0	188.7	28.5
MT070192	61	146.7	47.8	12.2	88.5	182.9	28.0
MT070158	56	145.5	54.3	13.3	98.0	186.0	26.5
MT070175	60	145.5	53.5	13.5	98.5	186.6	30.4
MT061048	38	145.3	53.4	12.5	97.0	188.3	29.2
MT050049	27	144.6	54.2	13.3	98.5	185.0	29.5
MT070063	47	144.6	54.2	11.9	98.0	184.6	30.6
MT070087	49	144.4	54.2	12.8	95.0	186.6	27.1
MT061169	41	143.8	54.4	12.6	97.5	187.6	28.6
MT030063	20	143.1	54.3	12.5	99.5	188.0	32.2
MT070159	57	142.0	52.7	12.8	96.5	186.6	26.1
Champion	10	141.8	54.6	13.1	97.5	185.2	29.8
MT070086	48	141.6	53.9	12.8	97.0	188.8	22.5
MT070174	59	141.0	53.3	12.6	98.5	183.6	28.5
MT020162	15	140.9	53.7	11.5	99.0	187.1	31.6
MT070062	46	140.8	54.3	10.7	98.5	186.0	29.0
MT040073	22	140.4	53.7	12.9	97.5	184.5	28.3
MT030042	19	140.2	53.0	12.6	96.5	187.2	26.9
MT070219	63	139.8	51.3	13.2	93.0	181.1	30.4
MT040226	24	139.2	54.7	13.6	98.5	186.3	32.2
MT061045	36	138.2	53.6	9.9	97.5	189.4	29.4
MT010158	12	138.1	52.5	12.0	98.5	186.3	30.3
MT040209	23	138.0	53.3	12.8	93.5	188.5	29.4
MT070157	55	137.5	54.0	12.2	98.0	187.2	25.6
Geraldine	6	137.1	53.2	12.9	95.5	191.8	29.5

Table 1. Continued.

Planted: May 13, 2009		Harvested: August 26, 2009					
Cultivar	Entry	Yield	Test weight	Protein	Plump	Heading date	Plant height
		bu/A	lb/bu	%	%	Julian	inches
MT050048	26	137.0	54.9	10.4	99.0	186.1	29.5
MT061036	35	136.3	52.8	13.3	96.0	190.0	28.5
MT061104	39	136.3	53.1	13.2	97.5	187.7	30.3
MT061207	43	136.3	53.4	11.8	99.0	185.4	29.2
Haxby	4	136.2	52.8	11.5	98.0	183.9	28.5
MT061047	37	136.2	54.0	12.4	98.5	187.6	28.8
MT020205	18	136.0	52.2	12.6	98.0	185.4	29.5
Conrad	7	135.9	53.5	10.3	98.5	187.3	28.9
Tradition	11	135.9	51.2	12.9	98.0	182.5	33.1
Bentley	64	135.9	53.0	13.0	99.0	186.7	31.8
MT061026	32	135.9	49.2	12.4	90.5	180.7	25.2
MT061025	31	135.3	49.9	11.0	93.5	182.4	26.5
MT061011	30	135.0	48.5	13.1	91.0	182.0	25.8
MT061248	45	134.5	54.4	12.6	99.0	185.3	28.1
MT010160	13	134.4	53.5	13.0	96.0	186.9	30.7
Harrington	2	134.0	52.8	13.3	98.5	187.7	31.3
Metcalfe	3	133.3	52.9	13.8	97.5	187.1	31.0
MT070111	50	133.1	53.9	13.3	97.5	187.3	28.8
Hockett	5	133.0	52.6	13.2	93.5	185.2	28.7
MT061225	44	132.7	54.5	10.3	98.0	184.5	29.0
Baronesse	9	132.7	54.4	12.6	98.5	189.2	27.5
MT070161	58	132.6	52.4	13.3	97.0	186.8	25.8
MT070136	52	129.5	52.3	12.0	98.5	188.9	29.4
MT061134	40	128.3	52.2	13.1	97.5	185.8	30.3
MT020167	16	126.5	53.8	12.4	98.0	187.7	28.5
MT020204	17	126.3	53.2	13.3	97.5	185.3	30.7
MT061201	42	122.6	54.3	13.8	99.5	184.5	30.0
MT020155	14	119.1	51.9	13.6	95.5	183.4	28.1
							22.5
MEAN		140.43	53.07	12.53	96.89	186.10	28.89
MAX		179.58	54.90	13.80	99.50	191.81	33.13
MIN		119.08	47.80	9.90	88.50	180.70	22.46
LSD 0.05		18.20	NA	NA	NA	1.72	2.16