

**PROJECT TITLE:** Early Yield Spring Barley Evaluations - Screening of early generation spring barley selections in cooperation with Dr. Tom Blake.

**PROJECT LEADERS:** Bob Stougaard and Todd Keener, NWARC, Kalispell  
Tom Blake and Pat Hensleigh, MSU, P&SS, Bozeman

**OBJECTIVE:** Evaluation of spring barley varieties for yield, quality and improved resistance to foliar diseases in consideration for future release to Montana grain growers.

**RESULTS:**

Yields averaged 100 bu/a. The same varieties ( Steptoe, Morex, Klages, and Hector ) grown in both 1991 and 1992 had yields that were 15 to 20 bu/A greater in 1991. Test weights were normal and averaged 50.2 lb/bu. Percent plump was higher than previous years. Heading dates were slightly earlier as a result of favorable spring temperatures and moisture. Lodging was moderate in approximately one-third of the entries. No diseases were observed in the 1992 Early Yield spring barley nursery.

**SUMMARY:**

Yields ranged from 76 to 126 bu/A in the Early Yield spring barley nursery where two and six row varieties averaged 100 bu/A. Lodging was recorded in two-thirds of the entries in this trial.

**FUTURE PLANS:** Disease resistant varieties will continue to be evaluated at Kalispell through cooperative regional variety trials.

Table 1. Agronomic data from the Early Yield Spring Barley Nursery grown on the Northwestern Agricultural Research Center in Kalispell, MT.  
Planted: April 7, 1992  
Harvested: August 17, 1992

CI Number	VARIETY	YIELD BU/A	TEST WT LB/BU	% PLUMP	HEIGHT INCHES	HEADING DATE	LODGING INDEX 1/
CI 15229	Step toe	126.0	46.3	97.0	31.5	163.7	.0
H5870120	Lindy/Martin (MT870120HR5	124.7	45.6	95.5	31.5	163.3	1.1
CI 15478	Klages	114.8	50.7	94.0	34.1	171.0	3.0
MT910150	MT 81143/MT 83444	114.1	51.2	95.0	31.4	166.7	.0
MT910153	MT 81143/Norbert	113.9	52.1	95.5	35.6	169.3	.0
H6860326	Lewis/TR533(MT860326 HR#6	112.4	51.7	97.0	32.1	165.7	5.6
MT910079	Columbia/MT 81616	109.0	51.0	91.0	27.6	169.0	.0
MT910032	Bowman/MT 81619	108.8	50.0	85.0	28.5	163.3	6.7
MT910183	MT138575/Lewis	108.2	51.4	94.5	33.5	166.0	.0
H2860224	Lewis/Apex (MT860224 HR#2	107.9	51.7	96.5	32.4	168.0	3.7
MT910096	Fleet/MT 81616	107.7	50.7	90.0	25.3	170.7	.0
MT910024	Bowman/MT 81143	107.7	50.3	99.0	34.4	170.0	7.3
MT910187	MT140523/Menuet	107.7	50.8	95.0	32.9	168.7	.0
MT910011	Bellona/Harrington	107.3	51.7	96.0	32.4	170.0	.0
MT910197	Norbert/MT138575	107.0	50.8	95.5	35.4	170.0	7.4
MT910001	Bedford/ID 910719	106.9	49.0	93.0	32.7	165.3	.0
MT910135	Lewis/Menuet	106.8	50.8	93.0	33.6	167.0	.0
MT910101	Fleet/MT 83424	105.5	51.6	92.5	26.0	168.0	.0
H3860224	Lewis/Apex (MT860224 HR#3	105.3	51.0	93.5	31.6	168.3	5.9
MT910171	MT 83424/MT 83444	104.6	50.5	95.0	33.7	167.7	.0
MT910173	MT 83424/MT 81616	104.5	49.5	96.5	33.6	169.7	3.9
H1860224	Lewis/Apex (MT860224 HR#1	104.3	51.3	96.5	33.7	169.0	6.5
MT910013	Bellona/Lewis	103.4	50.9	96.5	33.9	171.0	11.1
MT910176	MT 83491/Bowman	103.0	51.6	95.5	32.8	167.3	18.3
MT910170	MT 83424/MT138575	102.1	50.3	92.0	31.9	167.3	26.1
MT910167	MT 83424/Fleet	102.0	50.7	84.5	26.3	170.0	.0
MT910009	Bellona/Bowman	101.9	50.9	94.0	31.0	171.0	17.4
MT910117	Gallatin/Piston	101.7	50.8	93.0	34.0	166.3	26.3
MT910046	Bowman/MT 83592	101.4	50.5	94.5	29.9	164.0	26.6
MT910034	Bowman/MT 83422	101.1	50.9	95.5	34.9	166.7	3.7
MT910160	MT 811619/Bowman	100.1	52.3	96.5	34.8	170.0	.0
MT910121	Hector/MT138575	99.6	50.2	94.0	34.5	167.0	22.2
MT910050	Bowman/MT140523	99.2	50.4	95.0	34.0	166.3	13.9
MT910177	MT 83491/Bowman	98.5	51.6	96.5	33.6	167.0	25.7
MT910175	MT 83491/Bowman	98.1	51.4	96.0	33.9	168.3	33.1
H5860224	Lewis/Apex (MT860224 HR#5	98.0	51.0	96.5	33.2	169.3	.0
MT910020	Bowman/Bedford	97.8	44.6	65.0	31.1	164.7	10.0
MT910016	Bellona/Lewis	97.8	50.6	96.0	32.6	170.0	.0
MT910189	ND 7293/MT 81616	97.5	50.9	97.0	31.9	167.0	.0
MT910033	Bowman/MT 81619	97.5	51.1	96.5	31.1	164.0	16.7
MT910154	MT 81502/MT 81143	97.0	49.8	92.5	30.7	166.3	30.3
MT910071	Columbia/Bellona	96.6	45.5	86.5	33.9	169.0	.0
MT910029	Bowman/MT 81502	96.5	50.7	95.0	31.6	165.7	11.0
MT910099	Fleet/MT 83424	96.4	50.8	92.5	34.9	168.3	34.1

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Table 1 ( Cont'd ). Early Yield Spring Barley Nursery 1992.

CI Number	VARIETY	YIELD BU/A	TEST WT LB/BU	WT %	HEIGHT INCHES	HEADING DATE	LODGING INDEX 1/
MT910114	Gallatin/Menuet	96.2	50.6	92.5	32.8	166.3	.0
MT910174	MT 83424/MT 81616	96.1	50.5	96.5	32.8	169.3	5.2
MT910048	Bowman/MT140523	95.7	51.2	90.5	31.2	165.7	35.7
SK 76333	Harrington	95.4	50.4	95.0	33.2	169.0	12.2
MT910035	Bowman/MT 83422	95.2	50.5	89.5	34.0	167.0	16.6
MT910111	Gallatin/Fleet	94.2	50.3	87.0	28.5	167.0	.0
MT910072	Columbia/Bowman	93.4	45.4	95.0	32.4	165.0	.0
H1870105	Hazen/UT1423 (MT870105HR1	93.2	47.5	98.5	33.5	166.0	.0
MT910113	Gallatin/Heavyweight	92.8	50.6	90.0	31.0	164.7	8.3
MT910157	MT 81616/MT 81502	92.1	48.6	96.0	32.2	167.3	15.6
MT910107	Gallatin/Bowman	91.3	50.9	96.5	35.0	163.7	8.5
MT910112	Gallatin/Heavyweight	90.9	50.7	91.0	33.2	165.3	9.3
MT910118	Hazen/Karla	89.5	47.2	97.0	37.8	167.3	.0
MT910108	Gallatin/Bowman	88.7	50.1	92.0	32.3	167.0	14.8
MT910022	Bowman/Gallatin	87.5	50.7	94.0	36.5	166.7	1.5
MT910180	MT138575/Bowman	87.5	49.6	93.0	35.3	167.3	52.7
CI 15514	Hector	85.6	50.3	92.0	35.3	167.3	29.6
MT910168	MT 83424/Fleet	82.2	49.5	95.0	34.1	170.0	8.2
CI 15773	Morex	80.8	47.6	93.5	35.8	163.0	5.7
MT910084	Elrose/Gallatin	76.3	51.4	94.5	31.4	166.3	16.7
Mean		100.1	50.2	93.5	32.6	167.3	9.7
L.S.D.		18.6	1.02	3.93	2.52	1.98	18.1

1/ Lodging Index = Lodging Severity X Lodging Prevalence / 9