

**PROJECT TITLE:** Early Yield Spring Barley Evaluation - Screening of early generation spring barely selections.

**PROJECT LEADERS:** Bob Stougaard and Todd Keener, NWARC, Kalispell, MT  
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**OBJECTIVE:** To evaluate spring barley varieties for yield, quality and improved resistance to foliar diseases in consideration for future release to Montana grain growers.

**RESULTS:** Yields were high and ranged from 77.2 to 145.4 bu/A with all but two of the sixty-four entries yielding above 100 bu/A. Steptoe had the highest yield (145.4 bu/A) with the average yield for the nursery being 113.7 bu/A.

**SUMMARY:** Lodging was moderate in approximately half of the plots and there was a general absence of any disease pressure this year. Yields were excellent and percent plump values ranged from 98 to 100% for most entries.

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

Table 1. Agronomic data from the Early Yield Spring Barley Nursery grown on the Northwestern Agricultural Research Center in Kalsipell, MT.  
Planted: April 23, 1994 Harvested: August 18, 1994

VARIETY	YIELD BU/A	TEST WT LB/BU	% PLUMP	HEIGHT (IN)	HEADING DATE	LODGING INDEX 1/
CI 15229 Steptoe	145.4	50.2	96	37.4	172.3	.0
MT930204 MT851195/Bowman	128.8	54.2	99	38.1	172.0	4.6
MT930016 Blenheim/Clark	128.6	52.6	84	27.6	175.3	.0
MT930038 Blenheim/MT 81616	128.4	52.9	97	28.9	177.3	.0
SK 76333 Harrington	127.2	54.5	97	36.8	174.7	.0
MT930169 MT851012/Bowman	124.9	53.9	97	37.4	175.0	.0
MT930218 MT851195/MT851031	124.2	53.6	98	36.8	174.0	.0
MT930192 MT851032/Lewis	122.3	55.2	97	36.8	173.3	13.0
MT930025 Blenheim/Harrington	122.1	54.3	96	38.1	175.3	.0
MT930037 Blenheim/MT 81616	122.1	52.5	90	27.6	178.7	8.3
MT930072 Clark/Bowman	121.7	54.1	98	39.4	170.0	3.7
MT930189 MT851012/MT 81616	120.9	54.3	97	37.4	172.7	4.4
MT930048 Bowman/MT 81616	120.8	55.1	98	39.4	174.3	5.6
MT930097 Gallatin/Bowman	120.8	54.7	97	32.2	168.3	3.7
MT930013 Berolina/Gallatin	119.9	54.7	99	39.4	173.0	.0
MT930040 Blenheim/MT 81616	119.2	50.6	82	26.9	179.7	.0
MT930047 Bowman/MT 81616	118.6	54.2	100	38.7	171.3	.0
MT930096 Gallatin/Bowman	118.6	54.0	98	35.4	169.0	18.9
MT930121 Gimpel/Harrington	118.0	53.4	94	37.4	175.0	.0
MT930203 MT851195/Bowman	117.8	53.8	97	35.4	173.7	7.4
MT930132 MT 81143/Bowman	117.7	54.3	100	38.1	172.7	8.9
MT930010 Berolina/Gallatin	117.3	53.9	98	40.0	173.7	.0
MT930067 Bowman/MT851032	116.1	54.6	99	39.4	169.3	5.6
MT930021 Blenheim/Clark	115.8	52.6	92	30.2	178.0	.0
MT930117 Gimpel/Clark	115.4	54.2	98	35.4	173.7	.0
MT930056 Bowman/MT851005	114.5	52.4	97	38.7	171.3	7.4
PI491534 Gallatin	114.3	54.7	99	38.1	174.0	.0
MT930052 Bowman/MT851005	114.3	53.6	99	40.0	172.7	.0
MT920147 MT 83424/Elrose	114.2	53.5	98	34.8	174.3	.0
MT930029 Blenheim/Harrington	113.5	53.6	98	40.7	174.7	.0
MT930039 Blenheim/MT 81616	113.4	51.6	96	38.1	175.7	.0
MT920180 MT 83424/ND 7691	113.1	54.0	98	34.8	172.7	.0
MT930135 MT 81143/Bowman	113.0	54.2	98	36.1	173.0	.0
MT930177 MT851012/MT 81616	112.9	53.9	98	36.1	169.7	.0
MT930004 Berolina/Gallatin	112.7	53.9	98	39.4	175.0	5.6
MT920179 MT 83424/ND 7691	112.7	52.8	98	34.8	172.3	.0
MT930069 Bowman/MT851032	112.0	54.1	97	38.1	170.0	5.6
MT930190 MT851012/MT 81616	111.7	52.6	97	36.8	169.7	.0
MT930194 MT851032/Lewis	111.3	54.6	98	38.1	174.0	.0
MT930076 Clark/Bowman	111.3	54.7	98	36.1	171.7	8.9
MT930091 Gallatin/Bowman	110.6	54.6	96	38.1	169.3	.0
MT930070 Bowman/MT851032	110.0	54.2	99	38.7	169.3	1.9
MT930063 Bowman/MT851031	109.7	53.6	100	38.7	172.7	.0
MT930136 MT 81143/Bowman	109.3	54.9	100	36.1	171.0	.0
MT930181 MT851012/MT 81616	109.3	52.7	99	34.1	171.3	.0
MT920018 Harrington/MT 83518	109.2	53.9	98	36.8	174.3	.0
MT930155 MT 83435/Bowman	108.9	54.5	98	39.4	173.0	.0
MT930059 Bowman/MT851031	108.4	55.5	100	38.1	171.0	.0
MT930050 Bowman/MT851005	107.0	54.7	99	36.8	170.3	3.3
MT930041 Blenheim/MT 81616	107.0	53.2	95	38.7	175.3	.0
MT930092 Gallatin/Bowman	106.7	54.2	98	38.1	171.7	.0
MT930133 MT 81143/Bowman	106.6	55.1	97	36.8	172.7	.0
MT930051 Bowman/MT851005	106.3	54.2	98	38.1	171.7	.0
MT930187 MT851012/MT 81616	106.3	53.3	99	36.1	171.0	.0
MT930027 Blenheim/Harrington	105.3	52.6	100	36.8	175.0	2.8

(Cont'd)

Table 1 (Cont'd). Agronomic data from the Early Yield Spring Barley Nursery

VARIETY	YIELD BU/A	TEST WT LB/BU	% PLUMP	HEIGHT (IN)	HEADING DATE	LODGING INDEX 1/
MT930065 Bowman/MT851032	105.0	53.6	100	38.1	170.0	5.6
MT930049 Bowman/MT 81616	104.9	54.6	99	36.8	170.0	.0
MT930071 Bowman/MT851032	104.8	54.4	100	34.8	170.3	.0
MT920205 MT 83435/MT 81161	104.3	52.7	98	38.1	174.0	.0
MT930095 Gallatin/Bowman	103.9	54.2	99	36.8	171.3	3.8
MT930066 Bowman/MT851032	103.4	54.4	99	38.1	170.0	2.8
MT930068 Bowman/MT851032	102.7	54.0	99	37.4	169.7	.0
MT930156 MT 83435/Bowman	99.8	54.3	100	34.1	172.3	.0
MT920123 MT 83422/MT 81143	77.2	53.3	98	37.4	174.0	.0
	MEAN	113.7		36.6	172.7	2.1
	LSD (0.05)	21.19		2.70	1.52	9.4

1/ Lodging Index = Prevalence X Severity divided by 9.