

Project Title: Evaluation of Winter Wheat Cultivars for Agronomic Performance.

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

Results:

The average Julian heading date for the nursery was 156 (June 15). Hawken and Neeley had the earliest and latest heading dates, respectively. Yields averaged 86 bu/A as compared to 127 bu/A during the previous year. Yields ranged from a high of 101 bu/A for UT9325-55 to a low of 71 bu/A for Bynum. Test weights were normal, averaging 62.2 lb/bu and ranging from a high of 63.7 for MT0861 to a low of 59.8 for Wahoo. Plant heights were shorter than normal, and averaged 29.8 inches. Lodging was not detected. Protein content was normal and averaged 12.7 percent for the nursery. Protein levels were highest for MT0754 (14.3) while NI04421 had the lowest concentration (10.0).

Summary:

The 2008-2009 growing season was characterized as cold and dry. The environmental stress reduced tillering, plant height, and resulted in low yields. Yellowstone and Jagalene continue to be top performers.

Future Plans:

Continue to evaluate winter wheat for the purpose of identifying varieties that are best suited for District 1.

Table 1. Agronomic data from the intrastate winter wheat nursery grown at Kalispell, MT.

Planted: September 19, 2008		Field D1		Harvested: August 5, 2009			
Entry	Cultivar/Line	Yield	Test	Heading	Plant	Grain	Protein
		bu/ac	weight lb/bu	date Julian	height in	moisture %	
39	UT9325-55	101.1	63.0	156.7	31.6	11.2	12.0
3	Yellowstone	99.5	62.6	158.3	29.8	11.3	12.7
6	Jagalene	96.6	63.3	154.7	29.1	11.1	12.3
8	Neeley	93.9	61.8	160.0	33.9	11.4	11.5
26	Darrell	93.2	62.5	154.3	29.6	11.6	12.2
20	MT0495	93.1	62.0	156.7	29.0	11.0	12.0
29	Peregrine	92.1	63.6	159.3	34.8	11.4	11.5
30	Accipiter	91.1	61.5	159.3	29.9	11.0	11.4
9	Pryor	91.1	62.7	157.3	27.5	11.1	11.2
2	CDC Falcon	91.0	60.7	156.0	27.0	10.9	12.5
27	Hawken	89.9	62.4	153.7	26.8	11.0	12.1
32	MT06103	89.8	62.2	154.3	31.8	11.0	14.1
49	MT0861	89.8	63.7	157.0	30.6	11.4	13.2
25	Alice (HWW)	89.5	61.1	154.0	26.4	11.2	12.4
11	Rocky	89.3	63.6	156.4	32.2	11.9	12.0
14	NuSky (HWW)	89.0	62.9	157.7	31.8	11.1	13.2
45	MT0766	88.9	63.4	155.7	30.1	11.3	13.8
41	MT0738	88.6	62.1	158.3	30.8	10.9	13.5
42	MT0742	88.2	63.0	156.3	32.1	11.2	11.9
5	Ledger	88.1	61.5	154.3	28.8	11.2	11.9
23	MT0552	87.9	60.6	156.0	29.0	10.9	13.4
38	NI04421	87.5	62.3	154.0	29.9	11.8	10.0
13	Norris (CL)	87.4	63.3	154.7	31.5	10.9	12.4
15	Wahoo	87.0	59.8	154.0	27.9	11.6	12.3
44	MTW0759	86.8	63.2	156.7	30.6	11.0	14.3
37	Settler CL	86.7	61.8	155.7	28.0	11.1	12.6
24	Ripper	86.5	62.0	154.0	27.6	11.0	11.7
18	Hyalite (CL, HWW)	86.4	63.2	155.7	31.0	11.3	12.6
36	Overland	86.3	62.0	154.7	29.7	11.4	12.3
10	Jerry	85.6	61.9	156.0	32.8	11.6	11.6
22	MTS0532 (HWW)	84.6	61.6	156.3	27.8	11.1	12.5
34	MTS0713	84.1	63.1	156.3	27.4	11.1	13.2
7	Tiber	84.1	61.7	159.7	36.6	10.9	14.2
28	BZ9W02-2051	83.9	61.9	157.0	28.4	11.0	12.9
33	MTS0705	83.3	62.3	159.0	32.9	11.2	14.1
17	Carter	83.0	60.7	155.7	25.3	11.3	12.7
47	MTW0782	82.4	62.5	156.0	29.8	11.3	13.3
12	Promontory	82.2	63.5	156.7	28.8	11.3	11.4
31	AP 503 CL2	80.8	62.5	156.0	27.4	11.0	12.8
1	Genou	79.6	61.8	156.0	31.7	11.4	13.1
48	MTW0785	79.5	62.7	157.0	28.9	11.7	12.5
35	Radiant	79.4	61.5	158.3	29.6	10.5	13.4
19	Wendy (HWW)	79.2	62.0	154.0	26.2	11.0	13.4
43	MT0754	79.2	62.3	157.7	28.3	10.9	14.3

Table 1. Continued.

Planted: September 19, 2008		Field D1		Harvested: August 5, 2009			
Entry	Cultivar/Line	Yield	Test	Heading	Plant	Grain	Protein
		bu/ac	weight	date	height	moisture	
			lb/bu	Julian	in	%	%
21	MTS0531 (HWW)	78.5	61.9	156.3	27.2	11.3	12.2
4	Rampart	77.3	61.6	156.0	32.6	10.9	13.6
40	MTS0721	77.2	62.0	155.0	27.5	11.1	13.8
46	MT0771	75.7	62.8	156.0	30.4	11.6	14.2
16	Bynum (CL)	71.0	61.4	154.3	31.6	11.3	13.4
Average		86.3	62.2	156.2	29.8	11.2	12.7
LSD (0.05)		9.0		1.3	2.6		
C. V. (%)		5.9		0.5	5.0		
P-value (Varieties)		<.0001		<.0001	<.0001		