

Project Title: Evaluation of Winter Wheat Experimental Lines - 2014

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

Results:

The 2014 growing season experienced very little stripe rust and the average level of infection was 6.6 percent. Septoria was present with an average rate of infection at 15.7% and ranging from 0 – 38% infection. Average days to heading was 159 (June 9) and average height was 38.5 inches. Lodging average 3% throughout the nursery, but ranged from 0 to 63 percent. The average yield was 136.2 bu/A with Colter yielding the highest at 153.3 bu/A and WB4059CLP yielding the lowest at 86.9 bu/A. Percent protein averaged 12.3 and test weights averaged 62 lb/bu.

Summary:

The 2014 growing conditions provided low disease pressure with adequate and timely moisture, resulting in high yields.

Table 1. Materials and Methods - Winter Wheat Intrastate, Kalispell - 2014

Seeding Date:	10/7/2013	Harvest Date:	8/8/2014
Julian Date:	280	Julian Date:	220
Seeding Rate:	80 lb/A	Soil Type:	Creston SiL
Previous Crop:	Peas	Soil Test:	259-16-172
Tillage:	Conventional	Fertilizer:	9-40-10 / TD 130-0-0
Irrigation:	None	Herbicide:	Rimfire Max 85 g/A, Huskie 11 floz/A and Preference 25%v/v

Table 2. Agronomic data from the intrastate winter wheat nursery, Kalispell 2014

Cultivar	SR %	SEP %	HD Julian	HT in	LOD %	YLD bu/A	PRO %	TWT lb/bu
Colter	0.0	34.0	161	39.4	0.7	153.3	12.8	61.7
MTCL1131	0.0	6.7	161	42.2	0.3	153.0	11.9	62.7
LCS Mint	0.0	15.0	154	37.6	0.3	151.1	12.7	60.3
WB3768	0.0	35.7	163	42.3	8.3	150.7	11.7	62.8
MT0978	0.0	5.3	161	40.9	7.0	150.4	12.4	63.0
MT1138	0.0	8.0	160	40.2	0.3	150.3	12.0	62.2
MT1262	0.0	19.0	160	39.9	63.3	149.0	13.0	62.0
MT1265	0.0	45	161	41.2	3.7	148.7	12.0	61.4
MTS1024	0.0	18	160	35.5	1.7	147.4	12.1	61.1
Freeman	0.0	6	152	36.7	2.7	146.8	12.3	61.0
MT1286	5.0	5	159	43.8	4.7	146.8	11.5	62.7
SY Clearstone 2CL	0.0	22	160	39.8	0.3	146.6	11.8	62.1
MT1117	0.0	9	161	41.0	0.7	146.3	12.1	63.0
MT1246	1.3	6	161	40.2	26.0	146.3	12.6	62.9
MT1257	0.0	12.0	161	38.1	0.0	145.8	12.1	62.3
MT1113	0.0	11.3	161	40.8	0.7	144.4	11.7	62.8
Keldin	0.0	10.3	159	36.6	0.3	144.2	12.6	61.9
MT1078	0.0	23.7	160	37.7	0.7	143.8	11.9	61.3
Cowboy	10.0	15.0	158	39.4	2.3	142.8	10.8	61.9
Promontory	0.0	13.7	158	36.5	0.0	142.6	11.6	64.0
Jagalene	8.3	9.3	157	35.9	0.0	141.9	12.5	63.7
MTF1232	8.3	26	163	51.1	0.0	141.9	13.1	62.7
MT1090	1.7	11	161	39.4	0.3	141.5	11.9	61.6
Yellowstone	2.3	24	162	38.3	0.0	140.2	11.9	62.0
Emerson	1.7	10	160	42.2	7.3	140.0	13.1	62.7
WB4535	2.3	28	159	35.9	0.3	139.5	12.3	62.5
MTS1224	1.7	23	162	34.8	7.7	139.0	12.6	62.2
LCS Colonia	5.0	39	163	33.4	0.0	138.7	12.1	57.7
MTCS1204	1.7	11.7	160	38.8	0.0	137.8	13.2	62.2
SY Wolf	0.0	15.0	157	36.7	0.3	137.7	12.7	61.8
Judee	0.0	12.3	159	36.9	1.0	137.0	12.4	62.6
Radiant	0.0	8.0	162	40.6	0.0	133.1	11.9	62.7
MTS1228	0.0	4.7	161	36.6	0.0	129.9	12.2	64.2
Broadview	7.0	7.7	160	37.6	0.3	129.4	11.9	61.9
Warhorse	0.0	9.3	160	36.6	2.0	128.9	13.3	61.6

SR: Stripe Rust, SEP: Septoria Leaf Spot, HD: heading, HT: height, LOD: lodging, YLD: yield, PRO: protein, TWT: test weight

Table 2 continued.

Cultivar	SR %	SEP %	HD Julian	HT in	LOD %	YLD bu/A	PRO %	TWT lb/bu
MTS0826-63	0.0	0	164	40.5	0.7	128.5	12.9	62.3
Ledger	2.7	8	158	35.5	0.3	127.2	12.1	62.3
McGill	12.3	5	156	38.1	1.3	126.9	12.0	61.5
Rampart	4.0	3	161	41.3	1.0	126.3	13.3	62.3
CDC Falcon	3.3	15	159	35.0	0.0	125.4	11.9	61.6
WB-Quake	2.5	14	161	37.7	1.0	122.5	12.5	62.6
Jerry	52.5	22	161	46.2	3.0	120.7	11.6	61.0
T158	0.0	17.3	153	31.4	0.0	120.1	12.6	62.5
Genou	35.0	4.7	161	40.0	1.3	118.9	12.1	62.1
Bearpaw	18.0	33.3	159	36.7	1.3	118.5	12.3	61.9
LCS Wizard	24.3	8.0	157	33.3	0.0	117.6	12.4	63.1
Decade	31.7	22.0	158	37.0	0.0	113.2	12.2	60.1
Carter	16.7	38.0	158	33.7	0.0	112.7	11.8	59.7
WB4059CLP	61.7	20.7	153	28.9	0.0	86.9	12.9	59.1
Mean	6.6	15.7	160	38.4	3.1	136.2	12.3	62.0
CV	124.3	61.7	0.6	4.7	259.8	5.2	—	—
LSD	13.2	15.7	1.6	2.9	13.1	11.5	—	—
Pr>F	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	1.0000	0.0001

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