

Project Title: Evaluation of Winter Wheat Cultivars for Agronomic Performance - 2012.

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

Results:

Average percent stripe rust infection increased from 36% on June 7 to 71% on July 1 (Table 2). Promontory had the lowest level of stripe rust at 3% on July 1. The average days to heading was 181 (June 29) and the average height was 34 inches. Lodging averaged 2% throughout the nursery, but ranged from 0 to 86 percent. The average yield was 51 bu/A with Promontory yielding the highest at 107 bu/A and Carter and Decade yielding the lowest at 10 bu/A. Test weights averaged 58 lb/bu and thousand kernel weight averaged 25 grams.

Summary:

Stripe rust infection had a negative impact on yields and grain quality. Promontory, Radiant and Yellowstone were the top yielding commercially available varieties.

Table 1. Material and Methods - intrastate winter wheat nursery - 2012

Seeding Date: 9/24/2011	Soil Type: Creston SiL	Harvest Date: 8/14/2012
Seeding Rate: 80 lb/A	Soil Test: None	
Previous Crop: Fallow	Fertilizer: PP 10-35-90-8.5-0.85/ TD 100-0-0	
Tillage: Conventional	Herbicide: 1.7 pt/A Wolverine	
Irrigation: None	Insecticide: None	

Table 2. Agronomic data from the intrastate winter wheat nursery, Kalispell MT 2012

Cultivar	SR % 6/7	SR % 7/1	Heading Julian	Height inch	Lodging %	Yield bu/A	Protein %	TWT lb/bu	TKW g
Promontory	1	3	166	45	11	107	13.6	60	28
MTW08168	3	21	172	48	22	98	14.7	59	28
MT08172	5	17	170	44	0	95	14.4	59	33
Radiant	3	22	170	48	0	86	14.4	59	34
Yellowstone	3	41	170	44	0	86	15.1	57	30
MT1092	8	27	170	44	12	85	14.4	57	37
MT10116	4	30	171	42	0	84	14.8	57	26
MT1090	6	32	168	44	0	84	14.5	57	29
MT1088	8	28	169	41	0	79	14.8	58	31
MTS0808	1	26	168	39	53	77	16.4	59	30
MTCL1077	2	37	168	44	0	77	15.5	56	29
MT1156	11	40	170	43	33	75	15.2	56	29
MT1091	4	50	169	43	0	74	15.3	55	25
MT1105	4	55	169	42	0	73	15.1	55	26
Curlew	3	28	165	44	61	73	15.8	58	32
MTS0819-98	3	11	169	38	32	73	16.4	54	28
WB-Quake	13	67	171	41	29	70	16.0	57	21
MTS1024	2	30	169	40	0	67	16.6	57	33
Jagalene	10	72	166	42	12	64	14.8	56	29
MT1078	5	39	167	42	0	63	16.6	56	33
SY Wolf	0	37	164	43	0	60	17.2	53	26
MT0978	8	36	170	41	3	60	16.9	54	27
Judee	2	26	167	41	27	59	16.9	52	28
MTCL1067	1	50	167	46	34	55	16.2	54	30
Peregrine	5	83	171	48	0	54	13.6	59	26
MT1155	13	74	169	41	86	51	16.8	53	27
MT0871	16	40	172	43	0	50	17.3	52	26
Robidoux	27	57	164	42	38	48	15.9	49	21
Bynum (CL)	1	63	164	46	55	48	16.0	58	29
AP 503 CL2	12	48	167	40	8	48	15.8	55	30
Rampart	0	90	171	43	62	47	16.5	59	31
Art	3	83	162	41	0	46	16.3	47	19
Ledger	6	96	165	40	0	44	14.9	56	23
CDC Falcon	21	96	167	39	0	39	15.0	51	18
Pryor	43	88	172	36	0	36	15.5	57	23

Table 2. continued

Cultivar	SR % 6/7	SR % 7/1	Heading Julian	Height inch	Lodging %	Yield bu/A	Protein %	TWT lb/bu	TKW g
MTS0819	3	63	169	40	0	36	16.7	48	20
Norris (CL)	5	93	163	45	0	29	17.2	45	19
Bearpaw	16	75	168	39	26	27	19.0	51	18
Accipiter	17	97	172	40	1	24	14.7	53	20
MTS0826	3	95	169	44	0	24	17.0	51	21
MTS0832	2	95	170	41	0	21	16.4	52	23
McGill	70	90	166	40	0	20	16.0	47	21
Overland	23	98	165	44	0	16	17.5	43	17
Genou	5	95	171	42	22	16	18.3	50	18
Jerry	24	94	171	45	0	16	15.8	49	21
MT10113	13	98	164	39	0	13	18.6	48	19
Broadview	48	99	171	39	0	12	16.2	50	20
Carter	28	98	169	35	0	10	18.6	48	17
Decade	18	96	165	40	0	10	17.7	44	19
Mean	11	60	168	42	13	53	16.00	54	25
CV	61.80	23.80	0.88	3.57	146.00	16.60	NA	3.10	NA
LSD	10.9	23.1	2.4	2.4	30.3	14.3	NA	2.7	NA
Pr>F	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	NA	0.0001	NA

SR: stripe rust, TWT: test weight, TKW: thousand kernel weight