

PROJECT TITLE: Evaluation of agronomic performance of winter wheat near Winifred, Montana.

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OBJECTIVES:

Evaluate the relative agronomic performance of winter wheat grain varieties and development lines under fallow environments in central Montana.

RESULTS:

Winter wheat yields were above the average for recent years in 2007 averaging 61.5 bushels per acre compared to a five year average of 53.7 bu/a (Table 1 and 2). Wahoo, a Nebraska variety, has been the top producer at the location topping the nursery five year average by ten bu/a with a mean yield of 63.9 bu/a. Pryor also had a five year average slightly above the check variety Yellowstone.

SUMMARY:

Yellowstone is proving to be a worthy new yield standard for off-station winter wheat trials. At the Winifred location Wahoo and Pryor winter wheat have proven to be equal to slightly higher yielding than Yellowstone.

FUTURE PLANS:

This trial will be continued in 2008 provided funding is available.

Table 1 2007 Winifred winter wheat variety performance trial.  
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Cultivar/Line	Plant height "	Grain Yield bu/ac	Test weight lb/bu	Protein Content %
Wahoo	34.3	73.1	58.9	13.0
Yellowstone	36.2	71.1	58.1	12.7
Pryor	36.2	67.9	59.7	11.8
MTS04114 (HWW)	34.6	67.1	60.5	12.4
Neeley	42.1	65.8	60.1	11.1
MTS04120	37.8	65.2	60.0	12.8
Hyalite (CL, HWW)	38.2	64.6	60.2	13.1
MT0495	38.2	64.3	59.1	11.7
Genou	40.2	63.1	59.8	13.3
CDC Falcon	31.5	62.5	60.6	12.4
Vanguard	38.6	62.2	60.3	12.7
Promontory	33.1	61.9	61.5	12.1
NuSky (HWW)	42.1	60.8	60.6	13.0
Rampart	39.4	59.8	59.8	13.3
Morgan	39.4	59.3	59.4	12.1
Ledger	32.3	59.2	59.7	12.2
Jagalene	34.3	59.1	62.3	13.6
MTCL0477	38.6	58.7	58.7	12.9
Norris (CL)	43.7	58.6	60.6	11.6
Jerry	42.1	58.3	59.3	13.9
Rocky	40.6	57.5	60.6	13.1
Bynum (CL)	37.0	55.2	60.0	13.7
Tiber	44.1	50.7	59.4	13.3
BigSky	40.2	50.6	60.5	13.2
Average	38.1	61.5	60.0	12.7
C.V. (%)		8.2	1.1	
LSD (0.05)		8.3	1.4	

Seed Date: 26-Sep-06 no-till into 2005 hay barley stubble.  
 Soil: 2 inch temp: 10 C moist depth: > 30"  
 Fertilizer: 10-10-10-5 w/seed  
 Harvest Date: 6-Aug-07

Table 2 2007 Winifred winter wheat variety evaluations on fallow.  
 Exp. 3874 Central Agricultural Research Center. Moccasin, Montana.

Cultivar/Line	2003	2004	2005	2006	2007	Yellowstone	
						Average same Yrs.	
	bu/a	bu/a	bu/a	bu/a	bu/a	bu/a	bu/a
<b>Yellowstone</b>	<b>51</b>	<b>53</b>	<b>54</b>	<b>61</b>	<b>71</b>	<b>57.8</b>	<b>57.8</b>
BigSky	41	48	43	56	51	47.7	57.8
Bynum (CL)			46	53	55	51.5	62.0
CDC Falcon	42	57	55	52	63	53.8	57.8
Genou	42	52	49	57	63	52.7	57.8
Hyalite (CL, HWW)			56	60	65	60.0	62.0
Jagalene		62	56	55	59	57.9	59.7
Jerry	44	57	48	54	58	52.4	57.8
Ledger				59	59	59.3	65.9
Morgan	38	49	58	58	59	52.4	57.8
Neeley	42	52	50	57	66	53.3	57.8
Norris (CL)			55	58	59	57.3	62.0
NuSky (HWW)	49	56	53	55	61	54.8	57.8
Promontory	52	58	51	51	62	54.8	57.8
Pryor	48	58	58	60	68	<b>58.5</b>	<b>57.8</b>
Rampart	41	49	42	53	60	48.8	57.8
Rocky	45	57	48	60	58	53.3	57.8
Tiber	41	46	53	60	51	50.0	57.8
Vanguard	42	53	53	53	62	52.6	57.8
Wahoo		57	60	65	73	<b>63.9</b>	<b>59.7</b>
Average	43.4	54.3	52.5	56.9	61.5	53.7	