

Title: Off-Station **Winter Wheat** variety evaluations in the Western Triangle Area.

Year: 2006

Location: Western Triangle Research Center, Conrad, MT.

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An off-station winter wheat variety trial was grown at the Knees east of Brady, an area where wheat-stem sawfly pressure is high. The trial was no-till planted on chemical fallow.

Results: Data for 2006 and five-year averages are presented in Tables 1 and 2, respectively. The chemical fallow system at the Knees allowed conservation of adequate soil moisture for good fall stand establishment and winter survival. Favorable moisture throughout the growing season contributed to high yields and test weights. Harvest was delayed one week due to combine repairs, resulting in shatter losses for some varieties as noted in Table 1.

'Paul' and 'Yellowstone' were among the high yield-ranking varieties, but both were below average for test weight.

'Genou', a new sawfly resistant variety, averaged over 6 bu/acre higher than the other three sawfly-resistant varieties in the test. Genou had good stem solidness, although slightly less than 'Rampart'. Winterhardiness of Genou has been slightly higher than 'Vanguard' and Rampart, and similar to 'Rocky'. Test weight and protein of Genou were above average. 'Bynum' (MTCL0318), a sawfly resistant Clearfield System variety, averaged 8 bu lower than Genou, but was among the highest for test weight and protein. Bynum is a special-use variety that allows use of 'Beyond' herbicide for grassy weed management.

Future Plans: Continue winter wheat variety tests at the Knees area in efforts to identify other sawfly resistant varieties that are superior to Vanguard, Rampart and Genou.

Table 1. 2006 Off-station **Winter Wheat** Variety Test, Knees Area.

Variety			Yield bu/ac	Test Wt lb/bu	Height in.	Protein %
Paul	MSU		84.3	63.2	35	10.4
Pryor	WestBred		83.5	63.4	33	11.4
Neeley	Idaho		76.2	63.1	38	11.1
Wahoo	Nebr.		71.6	63.0	34	12.0
BigSky	MSU		70.8	63.3	41	11.7
Falcon	WestBred		70.6	63.0	33	12.7
MT01148			69.7	62.7	40	11.7
Genou	MSU	++	69.4	63.2	39	13.7
NuSky	MSU	HW	69.2	61.6	38	12.1
Tiber	MSU		67.7	63.2	42	12.6
Ledger	WestBred		67.4	64.3	34	11.8
Jagalene	AgriPro		66.3	64.5	35	13.6
Norris (0316)	WestBred	CL	66.2	63.3	37	13.1
Promontory	Utah		64.9	63.8	39	11.7
Yellowstone (shatter)	MSU		63.8	61.8	39	11.2
Rampart	MSU	++	61.4	62.7	37	12.9
Rocky (shatter)	AgriPro		60.6	63.5	38	11.5
Morgan	WestBred		59.4	62.1	38	10.8
Bynum (0318)	WestBred	++ CL	55.4	62.8	36	13.6
MT02113 (shatter)			54.7	62.3	39	10.7
Hyalite (0306) (shatter)	WestBred	HW CL	54.6	63.0	37	12.0
Vanguard	MSU	++	52.8	63.0	40	12.7
Millenium	Nebr.		51.5	63.0	35	12.3
Jerry (severe shatter)	N.Dak.		35.9	61.8	41	12.2

Average 64.5 63.0 37.4 12.06

LSD (0.05) = 14.5 C.V.= 13.7, P-value (var) <.0001

++ = Sawfly resistant (stem-solid rating of 19 or higher).

HW = Hard white. CL = Clearfield system.

Planted Sept 8, 2005, no-till chem-fallow. Fertilizer, actual: 71-52-0.

Harvested July 27, 2006: 1-week late, shatter loss for entries marked '**shatter**'

Cooperator & Location: Dan Picard, Knees Area east of Brady, MT.

Conducted by Western Triangle Ag Research Center.

Table 2. Five-year averages, **Winter Wheat** varieties, Knees area, Chouteau Co. 2002 - 06.

Variety	5-Year Average				Winter survival class *	
	Yield bu/a	Test wt.	Height in.	Protein %		
Paul	63.3	57.8	34	12.8	4	
Pryor	62.8	59.2	35	12.3	3	
Wahoo	61.1	58.8	33	12.8	3	
Falcon	61.0	59.8	33	12.9	4	
Rocky	60.8	61.0	39	12.5	2	
Yellowstone	60.6	57.8	38	12.2	4	
Jagalene	60.3	61.7	35	13.5	2	
Norris CL0316	CL	59.1	59.8	37	13.0	3
Genou	++	58.3	60.1	38	13.4	2
BigSky		57.7	60.2	39	13.5	4
Promontory		57.7	60.7	36	12.4	2-
Neeley		56.8	58.0	37	13.0	3
Millenium		56.8	60.4	36	12.9	2
Tiber		56.4	60.0	41	13.5	3
NuSky	HW	55.6	58.6	37	12.8	4
MT01148		55.1	58.8	38	13.1	
Morgan		54.7	58.9	37	12.2	5
Hyalite CL0306	HW, CL	52.8	59.6	36	12.3	3
Jerry		52.5	59.7	41	12.9	5
Vanguard	++	52.3	59.9	38	13.7	2-
Rampart	++	51.5	59.9	37	13.5	2-
Bynum CL0318	++, CL	50.4	60.2	36	14.0	2
nursery mean		57.4	59.5	36.6	12.9	

++ = Sawfly resistant (stem-solid rating of 19 or higher).

HW = hard white. CL = Clearfield herbicide system.

* Winterhardiness: 5 = high, 1 = low.

Location: Dan Picard farm, east of Brady (Chouteau County).

Conducted by Western Triangle Ag Research Center, Conrad, MT.