

Title: Off-Station Spring Wheat evaluations in the Western Triangle Area (4W2760).

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Objectives: Evaluate spring wheat varieties and promising new lines in the Western Triangle area.

Results:

Results are tabulated in Tables 1 and 2 for the Cut Bank location, and Table 3 for the Knees location. The Choteau location was lost due to poor stands probably caused by wire worms. Grain yields were higher than expected at both locations with yields averaging 82 and 40 bu/acre. Grain protein contents averaged about 13%. Top yielding varieties at Cut Bank were Oneal and Choteau. Vida, Corbin, and Oneal were the high yielding varieties at the Knees.

Summary: Due to the cool weather and significant precipitation in July and August, spring grain yields were higher than average. Yields ranged from 64 to 100 bu/acre at Cut Bank and 33 to 54 bu/acre at the Knees. The Choteau area location was lost due to differential wire worm damage.

Funding Summary: Office of Special Projects will provide expenditure information. No other grants support this project.

MWBC FY2011 Grant Submission Plans: A similar project will be proposed for FY 2011 with the addition of another location and winter wheat varieties.

Table 1. Off-station spring wheat variety trial located near Cut Bank.
 Glacier County. Western Triangle Ag. Research Center. 2009.

Variety	Class	Yield bu/a	Test Wt lb/bu	Sawfly % cut	Protein %
Oneal		99.9	60.3	1.7	12.7
Choteau	++	92.8	62.3	0.1	13.7
Choteau + Vida		90.5	62.4	1.7	12.5
Outlook		86.8	60.6	3.4	12.8
Corbin	+	86.4	63.6	0.1	12.8
Vida	+	86.2	61.7	0.1	13.4
Hank		84.5	61.4	5	12.8
Choteau + Brennan		82.2	63.8	0.1	13.1
Jedd	CL	81.5	63.2	0.1	12.0
Choteau + Conan		81.1	61.7	0.1	13.4
McNeal		81.0	62.1	6.7	12.3
Kuntz		80.8	62.9	5	12.4
Reeder		79.1	61.1	8.3	13.1
Freyr		78.4	62.7	5	12.9
Volt		77.9	64.0	10	12.4
Conan	+	76.8	58.9	0.1	13.4
Choteau + Reeder		75.2	61.4	5	13.8
AP 604 CL	CL	74.9	64.8	6.7	13.9
Kelby		74.1	63.7	1.7	14.1
Fortuna	++	63.7	63.9	0.1	12.9
Mean		81.7	62.4	3.0	13.0
LSD (p=0.05)		7.3	1.1	3	0.8
CV (%)		5.40	1.1	56.1	3.8

Planted: April 22, 2009 in chemical fallow

Harvested: September 18, 2009

Fertilizer: 84-20-20, P and K placed with seed, N broadcast

CL = Clearfield herbicide system

+ = Partial sawfly tolerance

++ = Sawfly tolerant (solid stem score of 19 or higher)

Cooperator: Keven Bradley

Table 2. Five year spring wheat summary, Cut Bank area, Western Triangle Ag. Research Center. 2005 – 2009.

Variety	Source	Class	Yield bu/a	Test weight	Height in.	Protein %
Vida	MSU	+	57.6	57.1		13.4
Choteau	MSU	++	58.5	59.3		13.7
Corbin	WestBred	+	56.2	59.8		13.3
Freyr	AgriPro		56.2	58.2		13.4
Hank	WestBred		55.1	57.3		13.3
Outlook	MSU		52.8	56.7		13.1
Fortuna	USDA	++	52.5	60.5		13.5
Reeder	N. Dak		52.2	57.8		13.5
Conan	WestBred	+	49.3	60.5		14.0
McNeal	MSU		49.1	57.8		13.3
Overall Mean			54.0	58.5		13.5

+ = Partial sawfly tolerance

++ = Sawfly tolerant (solid stem score of 19 or higher)

Table 3. Off-station spring wheat variety trial located in the Knees area.
Chouteau County. Western Triangle Ag. Research Center. 2009.

Variety	Class	Yield bu/a	Test Wt lb/bu	Height in.	Protein %	Sawfly cutting %
Choteau + Vida		54.1	61.8	27	12.6	2.0
Vida	+	47.3	61.5	26	13.0	2.0
Corbin	+	47.2	61.9	26	12.7	2.0
Oneal		47.0	63.3	26	13.6	2.5
Choteau	++	44.1	61.6	25	13.5	0.0
Choteau + Brennan		43.4	62.1	25	13.5	12.5
McNeal		42.1	60.3	28	12.9	10.0
Volt		41.0	63.5	25	12.6	20.0
Reeder		39.6	61.8	26	14.0	25.0
Hank		39.5	60.6	25	13.9	12.5
Jedd	CL	39.2	62.9	21	12.6	7.5
Conan	+	39.0	62.2	24	14.3	0.0
Choteau + Reeder		38.7	62.2	25	13.6	7.5
Choteau + Conan		38.6	62.1	24	14.0	0.0
Fortuna	++	35.6	61.7	31	13.8	0.0
Outlook		35.5	60.5	25	14.2	4.5
Freyr		35.2	61.3	28	13.8	45.0
Kelby		34.6	62.0	22	14.6	25.0
AP 604 CL	CL	33.9	62.8	25	13.1	45.0
Kuntz		32.7	61.1	24	13.2	35.0
mean		40.4	61.9	25.0	13.4	12.9
LSD (p=0.05)		7.06	1.3	2.7	0.9	13.2
CV (%)		8.4	1.0	5.2	3.1	49.1

Planted: April 22, 2009 in chemical fallow

Harvested: August 31, 2009

Fertilizer: 84-20-20, P and K placed with seed, N broadcast

CL = Clearfield herbicide system

+ = Partial sawfly tolerance

++ = Sawfly tolerant (solid stem score of 19 or higher)

Cooperator: Aaron Killion