Title: Evaluation of solid- and hollow-stem spring wheat variety blends for controlling sawfly-induced stem lodging (4W2760).

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Objective: To evaluate seed blending of sawfly resistant and susceptible spring wheat varieties for agronomic performance and effectiveness in controlling sawfly damage.

Results:

Results are shown in Table 1. Stem lodging was non-existent for Choteau, McNeal, and the blends, although infestation rates were over 80% for both pure stands and blends. Grain yield and test weight were not significantly different among treatments; however, McNeal and the blend containing 75% McNeal had significantly less protein than Choteau and the blend with 50% Choteau.

Summary:

The effectiveness of blending solid and hollow stem varieties for controlling lodging could not be determined because of the lack of lodging even though all treatments were more than 80% infected with sawfly larvae.

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.

Table 1. Effect of seed-blending of solid and hollow stem spring wheat varieties on agronomic performance. Western Triangle Ag. Research Center. 2009.

Variety and Blend	Yield bu/a	Test Wt lb/bu	Protein %	% Stem lodging	% Infestation
50% Choteau+50% McNeal	77.4 a	63.3 ab	13.4 a	0.0	86.0
100% Choteau	75.9 a	63.6 a	13.5 a	0.0	83.3
100% McNeal	71.4 a	63 b	12.8 b	0.0	78.7
25% Choteau + 75% McNeal	70.8 a	63 b	12.9 b	0.0	78.2
mean	73.9	63.2	13.1		81.6
LSD (p=0.05)	10.0	0.4	0.5		15.7
CV (%)	6.8	0.3	1.8		12.1

Planted April 13, 2009. Harvested August 30, 2009.
Fertilizer, actual: 86-20-20
Sprayed with Huskie @ 11oz/a and Axial @ 8.2oz/a on 5/29/09.