PROJECT TITLE: Evaluation of agronomic performance of spring wheat on fallow near Winifred.

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OBJECTIVES:

Evaluate the agronomic performance of popular and new varieties of spring wheat in the Winifred area which receives an average of 12 inches precipitation.

RESULTS:

The wet April conditions delayed the spring seeding to the point that the cooperating farmer chose not to seed his spring wheat and instead seeded hay barley because it requires less nitrogen fertilizer. The decision was made not to seed the spring wheat nursery. An alternative spring wheat nursery, established on a recrop site near Moore with the potential for sawfly infestation, will be reported on here.

The Moore spring wheat nursery did not have a high incidence of sawfly. However, some sawfly was present and provided some differentiation between varieties for sawfly stem cutting (see Table 1). The higher incidence of stem cutting was not always reflected in the yield ranking. Spring wheat yields were depressed by low precipitation at this site. Plus there may have been some yield depression due to several consecutive crops of wheat (winter and spring). Agawan had the highest yield, but was similar to in yield to Fortuna.

SUMMARY:

This nursery shows that even with a moderate sawfly infestation, hollow stem spring wheat varieties can produce yield equal to or greater than the solid stem varieties.

FUTURE PLANS:

It is doubtful that a spring wheat nursery will be established in the Winifred area. In general, spring wheat is quite inferior in yield when compared to winter wheat in the Winifred area.

Table 1 2006 No-till continuous crop spring wheat variety perfomance evaluation on sawfly site near Moore.

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Variety	Entry	Plant Height	Grain Yield	Test Weight	Sawfly Cut stems	Grain Protein
	#	cm	bu/a	lbs/bu	%	%
Agawam	17	68	**17.3**	**55.2**	2.3	16.1
MTHW0202	16	73	**17.1**	52.5	3.3	17.2
MT 0564	20	73	**16.4**	52.5	0.0	17.1
Outlook	8	71	**16.1**	53.7	1.5	16.4
Vida	18	64	**15.6**	52.3	0.3	**18.1**
MT 0515	19	68	**15.4**	54.5	0.0	17.1
Freyr	13	69	**15.2**	53.4	6.7	17.9
Conan	5	65	**15.2**	52.9	1.5	17.3
Fortuna	1	**79**	**14.6**	54.1	0.3	16.2
Choteau	9	67	14.4	54.1	0.0	17.1
Glenn	14	74	14.4	54.4	**7.0**	16.7
Explorer	15	72	14.1	52.7	2.5	17.5
McNeal	2	62	13.6	53.1	6.7	17.1
Knudson	12	65	13.4	54.7	5.0	17.5
Reeder	7	64	13.2	52.4	3.3	17.4
Scholar	6	77	13.0	54.6	1.5	17.3
WestBred 926	4	59	12.6	51.8	5.8	17.5
Hank	10	64	12.4	51.3	6.7	18.0
Ernest	3	78	12.1	53.4	1.2	17.1
NorPro	11	63	11.6	50.8	6.7	17.9
Mean			14.39	53.19	3.12	17.2
C.V. 1			11.47	2.01	56.96	
LSD (0.0			2.73	2.24	2.94	

Seeded: 12-Apr-06 No-till recrop after winter wheat.

Fertilizer: 10+10+10+5 w/seed Top dress urea: 90 lbs N

Herbicide: 1.5 pints (bromoxynil+ MCPA) /ac applied 23-May-05.

Harvest: 11-Aug-06

1/ : Stem cutting is a visual estimate rather than actual stem count.