PROJECT TITLE: 2005 Evaluation of spring wheat variety performance on fallow at Winifred.

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OBJECTIVES:
Evaluate agronomic performance of spring wheat varieties in crop-fallow-crop environments near Winifred, Montana.

RESULTS:
Conditions were excellent when the spring wheat was seeded at the Winifred location. However, conditions deteriorated in late spring and early summer causing spring wheat yields to average less than 30 bu/a and test weights to average only 56.4 lbs/bu (table 1). The stressful conditions resulted in sufficient variability that only the bottom two producers Knudson and Ernest were significantly lower yielding than MT0245 the top producing entry.

SUMMARY:
The 2005 spring wheat yields, at Winifred, relative to winter wheat yields illustrate why producers with deep soils would prefer winter wheat over spring wheat in crop fallow systems. The mean yield of 24 winter wheat entries was 53.9 bu/a which was more than 20 bushels higher than the highest spring yield. Winter wheat has a much greater rooting depth which enable it to reach soil water that has percolated below the shallower rooting depth of spring wheat.

FUTURE PLANS:
The increased operating costs, particularly fuel costs, may result in dropping some spring wheat trials.

Table 1 2005 Winifred spring wheat variety performance on fallow.
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ID	pedigree	Entry	Head Date	Plant Height	Grain Yield	Test Weight	Protein
			d of y	in	bu/a	lbs/bu	%
MT 0245	MT9433/ND69	17		33.9	32.9	55.1	15.4
MT 0260	MT9653/ND69	18		33.5	32.6	55.9	14.7
AGRIPRO1	NORPRO	11		28.0	31.6	53.6	15.5
PI607557	SCHOLAR	6		33.9	31.0	58.3	15.9
PI619086	EXPLORER	14		30.7	30.1	55.8	16.0
PI632252	OUTLOOK	8		29.9	29.3	24.6	15.0
MT 0266	ND695/MT975	19		31.9	29.2	53.0	15.0
BZ996472	AGAWAM	16		29.1	28.6	59.0	14.5
MTHW0202	ID377S/MTHW	15		29.1	28.1	58.8	14.9
BZ992588	Conan	5		26.4	28.0	58.1	14.8
ND 695	Reeder	7		32.7	27.5	56.5	16.2
BZ992322	HANK	10		29.5	27.2	53.4	16.1
PI574642	MCNEAL	2		29.1	27.0	56.6	14.7
PI633974	CHOTEAU	9		31.1	26.7	56.7	15.1
ALSEN	ALSEN	13		33.9	26.3	57.3	15.1
WB 926	WESTBRED 9	4		27.2	26.3	57.4	14.8
CI 13596	FORTUNA	1		32.7	26.2	59.2	14.4
MT 0336	MT9609/MT98	20		34.3	25.9	54.7	15.4
AGRIPRO2	KNUDSON	12		31.5	25.3	57.6	15.4
PI592761	ERNEST	3		31.1	22.5	57.8	15.7
	Mean			30.96	28.1	56.45	15.2
	CV 1				16.28	1.89	
	Mean				7.56	2.23	

Seeded: 26-Apr-05 Seeded on Fallow Moist soil depth: 27"
Harvested: 3-Aug-05
Fertilizer: 10-10-10-5 NPKS w.see _____ N as Urea top dress.