

Project Title: 2005 Evaluation of no-till re-crop spring wheat variety performance at Moccasin, Denton, and Geraldine Mt.

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#### OBJECTIVES:

Evaluate the agronomic performance of spring wheat varieties in re-crop or continuous crop environments in central Montana.

#### RESULTS:

2005 Spring wheat re-crop variety trial followed lentils at the Central Ag Research Center and was established on land in its tenth year of continuous no-till annual cropping. The continuous no-till site at Denton was also established after lentils. The Geraldine location was established on winter wheat stubble. Conditions were generally good for spring cereal grain establishment at Moccasin and Denton locations and moist soil depth exceeded 20 inches.. The Geraldine location seeded well but was already experience significant moisture deficit at seeding with only 15.1 inches of moist soil. However, growing season precipitation conditions were marginal at Moccasin and Denton and poor at Geraldine. Yields at all three locations were expected yields with mean yields of 25.9 and 28.1bu/a (Tables 1 and 2). WB 926 was in the top three producers at Moccasin and Denton locations as might be expected in years with low rainfall in June and July. Knudson had poor yield performance at all three locations. Test weights were low at all three locations.

#### SUMMARY:

The 2005 spring wheat re-crop variety trials in central Montana generally re-affirmed weak dryland yield performance potential of varieties like Knudson while do little to reveal the yield potential of high yield varieties.

#### FUTURE PLANS:

The spring wheat re-crop variety performance evaluations will continue at Moccasin and Denton. Geraldine may be dropped due to higher fuel prices and overall operation costs.

Table 1 2005 Moccasin no-till recrop spring wheat variety performance following lentils.  
Exp 9970 Central Agricultural Research Center. Moccasin, Montana.

ID	pedigree	Entry	Head Date d of y	Plant Height in	Grain Yield bu/a	Test Weight lbs/bu	Protein %
ALSEN	ALSEN	13	186	29.3	31.2	56.2	15.6
MT 0245	MT9433/ND695	17	188	28.7	30.8	55.4	16.2
WB 926	WESTBRED 926	4	185	29.7	30.7	54.9	16.2
MT 0336	MT9609/MT9806	20	187	27	30.4	56.6	14.9
MTHW0202	ID377S/MTHW9701	15	184	29.5	30.3	56.5	15.2
BZ992588	Conan	5	186	26.9	29.6	57.4	16.0
PI607557	SCHOLAR	6	188	33.5	29.0	56.9	16.0
PI574642	MCNEAL	2	188	28.6	28.2	54.4	16.4
PI592761	ERNEST	3	187	31.9	27.9	56.9	16.6
BZ992322	HANK	10	186	26.9	27.8	52.9	16.4
BZ996472	AGAWAM	16	184	28.3	27.7	57.8	14.5
MT 0260	MT9653/ND695	18	189	28.5	27.6	54.9	15.9
AGRIPRO1	NORPRO	11	187	26.9	27.2	55.3	16.0
MT 0266	ND695/MT9755	19	185	29.1	27.0	52.9	15.7
PI619086	EXPLORER	14	185	28.3	26.8	55.2	15.6
ND 695	Reeder	7	186	27.9	26.0	54.8	16.5
PI632252	OUTLOOK	8	185	26.2	25.5	54.2	15.9
CI 13596	FORTUNA	1	188	31.5	24.0	55.95	15.3
AGRIPRO2	KNUDSON	12	186	25.3	22.8	55.35	16.6
PI633974	CHOTEAU	9	187	25.1	22.1	54.3	16.5
	Mean		186.6	27.6	27.6	55.45	15.9
	CV 1		0.53	4.69	10.4	2.06	
	LSD (0.05)		1.62	2.21	4.76	2.39	

Seeded 12-Apr-05 No-till recrop following lentils  
harvested: 24-Aug-05  
Fertilizer: 10-10-10-5 w/seed 60 N as urea topdressed.

Table 2 2005 Denton no-till recrop spring wheat variety performance following lentils.  
 Exp 9971 Central Agricultural Research Center. Moccasin, Montana.

ID	pedigree	Entry	Head Date d of y	Plant Height in	Grain Yield bu/a	Test Weight lbs/bu	Protein %
MT 0266	ND695/MT9755	19		29.9	29.3	58.7	12.5
WB 926	WESTBRED 926	4		27.6	29.3	57.6	13.6
BZ996472	AGAWAM	16		27.2	28.9	62.4	12.6
MT 0245	MT9433/ND695	17		29.1	28.7	59.8	12.7
MT 0260	MT9653/ND695	18		26.0	28.3	60.8	12.2
BZ992322	HANK	10		25.2	28.0	57.5	13.0
PI632252	OUTLOOK	8		27.2	26.9	58.3	13.4
ND 695	Reeder	7		29.1	26.4	59.9	14.1
AGRIPRO1	NORPRO	11		23.6	26.4	59.9	12.6
CI 13596	FORTUNA	1		31.9	25.7	59.7	13.4
PI574642	MCNEAL	2		27.9	25.5	59.0	15.1
MT 0336	MT9609/MT9806	20		29.9	25.3	60.3	11.6
BZ992588	Conan	5		26.0	25.1	60.0	14.0
ALSEN	ALSEN	13		31.9	25.0	61.3	13.1
MTHW0202	ID377S/MTHW9701	15		27.9	24.0	60.6	12.9
PI619086	EXPLORER	14		29.9	23.9	59.6	13.5
PI633974	CHOTEAU	9		23.6	23.5	59.7	13.6
PI607557	SCHOLAR	6		30.7	23.1	60.2	13.8
PI592761	ERNEST	3		34.2	23.1	59.6	14.3
AGRIPRO2	KNUDSON	12		26.4	22.3	60.2	14.8
	Mean			28.3	25.9	59.8	13.3
	CV 1				11.3	1.4	
	LSD (0.05)				4.85	1.8	
Seeded	15-Apr-05		No-till continuous crop following lentils				
harvested:	10-Aug-05						
Fertilizer:	10-10-10-5 w/seed	60 N as urea topdressed.					