PROJECT TITLE: 2004 Evaluation of spring wheat variety performance on fallow at Geraldine and Winifred.

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

RESULTS:
The Geraldine site was abandoned due variable wild oat infestation. This site was actually established recrop after winter wheat as the intended site was seeded prior to plot establishment. The Winifred site was seed in to dry powdery surface soil which did not receive a rain for sometime after seeding. When rain was received it was in sufficient quantity to cause puddling in furrow. Stand establishment was erratic. The plants appeared yellow in mid-May from apparent water logged surface soil. By August the plants look good so the nursery was harvested. However, the data is considered weak so not extensive conclusions or inferences will be drawn from it (See Table 1). Multiple yield results are presented in table 2 where variety mean yields are compared to McNeal mean yields for the same years (see Table 2)

SUMMARY:
New spring wheat varieties, such as Outlook and Reeder, are displacing McNeal as the top yielding spring wheat variety in central Montana trials and elsewhere in Montana.

FUTURE PLANS:
CARC will continue to evaluate spring wheat varieties under fallow environments in dryer central Montana sites with deeper soil such as Winifred and /or Geraldine.

Table 1 2004 Winifred fallow spring wheat variety performance trial.
Exp 997004 Central Agricultural Research Center. Moccasin, Montana.

ID	Variety	Trt	Grain Yield	Test Weight	Protein Content
		#	bu/a	lbs/bu	%
PI615543	Alsen	20	38.4	55.6	18.6
PI527682	Amidon	4	35.4	56.0	18.2
MT 9929	Choteau	12	36.1	56.1	17.9
BZ992588	Conan	8	41.3	57.3	17.6
PI592761	Ernest	6	35.2	57.0	18.9
PI619086	Explorer	15	40.3	56.4	17.2
CI 13596	Fortuna	1	37.7	56.6	16.4
BZ992322	Hank	13	35.5	52.2	18.8
PI549275	Hi-Line	2	42.4	54.5	17.9
MTHW0202	ID377S/MTHW9701	16	36.8	58.4	17.0
PI574642	McNeal	3	39.1	55.2	18.2
MTHW9420	MT8182/MT8289	14	35.7	54.5	17.1
MT 0245	MT9433/ND695	17	38.7	55.7	17.6
MT 0249	ND695/MT9433	18	37.0	56.7	18.3
MT 0266	ND695/MT9755	19	37.3	52.8	17.2
CI 17430	Newana	21	33.1	57.0	15.8
PI632252	Outlook	11	38.8	55.9	16.7
C982-324	Rambo	5	40.1	55.7	17.6
ND 695	Reeder	10	38.5	55.4	18.5
PI607557	Scholar	9	33.6	57.9	18.8
WB 926	Westbred 926	7	40.3	54.9	18.6
WB 936	Westbred 936	22	37.4	54.3	18.7
Mean			37.7	55.7	17.8
CV 1			9.292	1.543	
LSD			5.779	1.424	

Table 2 Winifred multi-year yields of selected spring wheat varieties, 1998-2004
Exp. 9973 Central Agricultural Research Center, Moccasin, MT

Variety	Test ID	1998	1999	2000	2001	2002	2003	2004 [1]	Ave.	McNeal
					bu/a					Same Yrs
McNeal		47	37	31	24	42	19	39	34	
Fortuna		39	36	29	24	38	20	38	32	34
Rambo		43	35	23	25	36	18	40	31	34
Lew		34	31	28	27	36	17		29	33
Hi-Line		46	35	27	26	42	17	42	34	34
Ernest		41	32	28	24	34	19	35	30	34
WB Express		48	43	30	29	42	19		**35**	33
WestBred 936		53	38	27	26	41	19	37	34	34
Scholar		38	37	27	29	41	19	34	32	34
MTHW 9420		44	37	28	25	42	18	36	33	34
Conan	(BZ 992588)	--	37	22	29	40	19	41	31	31
Reeder	(ND 695)	--	40	30	30	44	19	39	**34**	31
Explorer	(MTHW9710)			27	25	39	20	40	**30**	29
Outlook	(MT 9874)	--	--	--	28	40	20	39	**32**	28
Choteau	MT 9929				24	38	16	36	**29**	28
Nursery Mean		43	36	28	26	40	18	38		

[1] The 2004 Winifred spring wheat crop had water puddle in the furrow early on which caused irratic emergence. Therefore, this data is weak.