PROJECT TITLE: Soft White Winter Wheat Evaluation

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OBJECTIVES:
To evaluate soft white winter wheat lines for adaptability, agronomic performance, yield, and quality in Central Montana.

RESULTS and SUMMARY:
The mild winter precluded the primary purpose of this nursery, providing winter hardiness information. Lambert was the high yielding soft white wheat and had a mean yield that was 0.5 bushels above the Neeley hard red check (Table 10). Multi-year yield performances are presented in Table 11. Eltan multi-year mean yield is similar to the mean yield of Neeley, the hard red winter check variety.

FUTURE PLANS:
The soft white winter wheat test will be continued for one more year (2003) at CARC.

Table 10 2002 Soft White Winter Wheat variety yield performance
Exp 5007 Central Agricultural Research Center, Moccasin, Montana.

Variety	Trt	Grain Yield	Test Weight	Heading Date	Plant Ht.	Grain Protein
	#	bu/a	lbs/bu	d of y	cm	%
LAMBERT	16	52.0	53.1	176	86.7	14.9
NEELEY	2	51.5	57.1	176	87.0	14.6
DAWS	15	51.3	54.2	178	71.3	13.6
KMOR	7	50.6	50.0	179	70.7	14.4
KW960195p 7005	1	49.8	55.3	174	76.0	15.1
ROD	5	49.8	49.8	179	70.3	14.3
MADSEN	9	49.6	53.8	178	74.7	14.8
STEPHENS	10	49.6	53.0	179	73.7	14.6
ELTAN	3	49.2	52.1	179	76.0	14.8
MACVICAR	8	48.5	53.1	177	78.3	14.0
MALCOLM	11	48.4	52.8	176	74.3	14.4
CASHUP	13	48.1	51.5	178	70.0	14.2
HILL 81	14	47.8	54.6	177	79.0	15.0
LEWJAIN	12	45.7	51.9	179	69.0	14.1
MAC-1	6	45.4	54.8	176	80.7	15.0
Bruehl	4	44.0	50.3	180	67.7	14.7
OVERALL MEAN		48.82	52.96	177.5	75.33	14.53
CV (S/MEAN) %		6.778	2.214	0.3279	5.093	
LSD(0.05 by t)		5.52 ns	1.955	0.9707	6.398	

Planting Date: September 24, 2001 Harvest Date: August 13, 2002
Soil temperature at seeding : 66.2 F Soil moisture: 17" depth
Previous crop: Untilled fallow Weed Control: Bronate applied in late May
Fertilizer: 50 lbs 20-20-20-10 w/seed; 60 lbs N in February 2002
Growing season precip.: Sept 01-July 02: 11.14" 94yr Sept-July avg.: 13.78"

Table 11 Yield summary of selected soft white winter wheat varieties, 1993-2002
Exp. 5007 Central Agricultural Research Center, Moccasin, MT

Varieties	1993[2/]	1995	1996	1997	1998	1999	2001	2002	Average
	---------- bu/a ----------								
LAMBERT			31	42	79	50	51	52.0	50.8
NEELEY (HRW) [1/]	67	49	49	67	86	58	57	51.5	60.6
DAWS	78	50	41	53	73	50	49	51.3	55.7
KMOR	77	47	27	61	74	52	50	50.6	54.8
ROD	75	--	--	52	72	54	48	49.8	58.4
MADSEN	70	39	23	47	71	55	49	49.6	50.5
STEPHENS	74	44	16	49	68	45	51	49.6	49.6
ELTAN	73	47	39	73	75	59	58	49.2	59.2
MACVICAR	76	43	18	57	70	53	47	48.5	51.6
MALCOLM	76	47	14	60	70	47	50	48.4	51.5
CASHUP		47	39	60	75	58	47	48.1	53.4
HILL 81	73	42	32	57	78	52	50	47.8	54.0
LEWJAIN	70	52	32	60	76	54	55	45.7	55.6
KW960195p 7005								49.8	49.8
MAC-1							46	45.4	45.9
Bruehl							52	44.0	47.9
W301	75	49	11	51	63	47	--	--	49.4
GENE	56	39	23	42	--	--	--	--	40.2
MCDERMID		22.4[3/]	27	64	--	--	--	--	45.3
Nursery Mean	71	45.1	28.7	55	72.8	53.6	50.4	48.8	

[1/] Neeley is used as a hard red winter wheat check.

2/ Neeley was in a different nursery in 1993.

[3/] McDermid had poor winter survival.

1994 Nursery was damaged by wind blown soil and the 2000 nursery was damaged by hail.