PROJECT TITLE: Evaluation of spring wheat and barley variety performance in off-station trials near Broadview.

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OBJECTIVES:
To evaluate the performance of spring wheat and barley varieties in environments and cropping methods different from those at the Southern Agricultural Research Center.

RESULTS:
The Broadview spring cereal trials suffered extensive hail damage. The surrounding field was appraised at a 30% hail loss. Inspite of the hail, the spring wheat nursery provided some assessment of differential sawfly tolerance/resistance. Solid stem varieties Lew and Ernest were the high yielders, followed by other solid stem varieties. Baronesse was the high yielding barley. Spring wheat and barley test weights were down and proteins up from average, reflecting the below average precipitation in the latter part of the growing season. Data are presented in Tables 1 and 2.

SUMMARY:
Caution must be used in basing decisions on the yield results, due to hail damage.

FUTURE PLANS:
Off-station winter wheat, spring wheat, and barley trials are to be continued at Broadview.

Table 1 1996 Broadview Spring Wheat Variety Performance Trial
Exp. 9980 Southern Agricultural Research Center, Huntley, MT.

ID#	Variety	Sawfly Damage	Grain Yield	Test Wt.	Protein Content
		%	bu/a	lbs/bu	%
CI 17429	LEW	1	15.6	55.8	16.7
ND 677	ERNEST	2	15.3	56.4	17.1
ND 606	AMIDON	5	14.9	56.2	16.3
CI 17790	LEN	3	14.8	55.2	16.7
CI 13596	FORTUNA	2	14.5	59.2	16.3
C982-324	RAMBO	2	14.3	57.6	15.4
MT 9433	MT8808/MARBERG	3	14.0	59.8	18.2
MT 9410	MT8808/MARBERG	3	13.7	57.4	17.6
PI574642	MCNEAL	15	13.0	59.4	17.6
BZ684-23	VANNA	15	13.0	56.8	15.4
CI 17430	NEWANA	5	12.8	58.2	17.7
MT 9311	MT7819/(OLAF/LEW)	1	12.2	57.2	16.9
MT 9565	HI-LINE/PI372129//HI-LINE	5	12.1	57.0	17.6
MTHW9420	MT8182/MT8289	5	11.3	57.8	17.9
ND 582	STOA	10	11.1	58.0	17.0
MTHW9503	MT8182/MT8289	5	11.1	59.0	17.0
ND 626	GRANDIN	10	11.0	56.0	16.5
PI483235	GLENMAN	1	10.8	58.0	16.1
PI549275	HI-LINE	10	10.7	57.2	18.7
PNR 2375	PIONEER 2375	25	10.6	57.2	17.0
ND 673	TRENTON	15	10.2	56.2	16.6
WB 926	WESTBRED 926	30	9.9	57.6	16.8
TR983239	FERGUS	2	9.2	58.6	18.1
WBEXPRES	WESTBRED EXPRESS	10	7.5	54.6	16.7
WB 936	WESTBRED 936	40	6.2	57.8	17.4
EXPERIMENTAL MEANS			12.00		17.01
F TEST FOR VAR. df=48			4.09		2.84
C.V. 1: (S/MEAN)*100			17.20		4.87
LSD (0.05)			3.39		1.36

Planted: 4-23-96
Fertilizer: 60 units N as anhydrous ammonia applied fall 1995.
50# 11-52-0 w/seed.
Producer: Tony & Gail Erickson, Broadview.

The surrounding field suffered 30% hail damage.

Table 2 1996 Broadview Barley Variety Performance Trial
Exp. 3680 Southern Agricultural Research Center, Huntley, MT.

ID#	Variety	Grain Yield	Test Wt.	Protein Content
		bu/a	lbs/bu	%
NS 78054	Baronesse	28.9	45.9	17.5
PI591823	Chinook	27.9	48.1	17.3
SK 76333	Harrington	26.8	47.2	17.5
N1123111	Logan	26.5	49.4	17.1
CI 9558	Piroline	25.2	46.8	18.5
H1851195	H1851195	25.0	45.7	18.5
ND 9866	Stark	24.9	49.5	17.1
PI491534	Gallatin	23.7	47.4	18.1
CI 15229	Steptoe	22.9	43.9	15.3
MT886610	MT886610	22.5	47.1	19.2
H3860224	H3860224	21.0	47.3	20.3
CI 15514	Hector	21.0	46.3	19.1
PI483237	Bowman	20.7	48.8	17.5
CI 15856	Lewis	20.4	48.1	19.5
PI537438	Targhee	19.5	46.2	19.1
MN 56	Stander	12.3	41.7	18.1
EXPERIMENTAL MEANS		23.07	46.85	18.11
F TEST FOR VAR. df=30		3.79	3.27	3.69
C.V. 1: (S/MEAN)*100		15.67	4.07	5.98
LSD (0.05)		6.03	3.18	1.81

Planted: 4-23-96.
Fertilizer: 60 units N as Anhydrous Ammonia applied fall 1995.
50# 11-52-0 w/seed.
Harvested: 7-30-96
Producer: Tony & Gail Erickson, Broadview.