

PROJECT TITLE: Western Regional Hard Red Winter Wheat Evaluation

PROJECT LEADERS: Bob Stougaard and Doug Holen, Kalispell, MT
Phil Bruckner and Jim Berg, PS&ES, Bozeman, MT

OBJECTIVE: To evaluate hard red winter wheat lines for adaptability, yield, quality, and disease resistance in northwestern Montana.

RESULTS: The mean yield for 1997 was 95.2 bu/A, which is average for this location but generous in a year which saw only 56% stand survival due to severe snow mold infection. Washington line 007818 had the highest yield at 117 bu/A, with the lowest being the long time check Kharkof at 57 bu/A. Utah lines produced three of the top four yielding cultivars. Overall nursery test weights were slightly below average at 59.7 lbs./bu, with six entries above 62 and five below 58. Severe lodging was documented with only WA007816, Utah 100, 82Cam097, OR889176, and OR908482 displaying mentionable resistance. 82Cam097 is a very late cultivar.

SUMMARY: 130 days of continuous deep snow cover led to conditions ideal for snow mold infection and spread, and for a full blown TCK outbreak. While winterkill and disease pressures were significant, yields were average in this nursery. Test weights were lower due to severe lodging and TCK bunted kernels.

FUTURE PLANS: 1997 concludes the inclusion of this nursery in the cultivar evaluation tests in an attempt to centralize efforts on the remaining nurseries and best serve the research needs of northwestern Montana in relation to variety performances.

Table 1. Agronomic data from the Western Regional Hard Red Winter Wheat Nursery grown at the Northwestern Agricultural Research Center in Kalispell, MT.

Planted: September 25, 1996

Harvested: August 21,
1997

VARIETY	W SURV %	HD DATE JULIAN	HEIGHT INCH	LDG 0-9	YIELD BU/A	TWT LB/BU
WA007818	53.33	167.00	48.53	5.00	116.83	59.10
UT201971	66.67	165.33	45.77	7.00	112.43	62.50
UT203032	53.33	164.00	39.10	4.00	112.10	62.00
UT199847	50.00	163.33	42.77	6.33	111.17	62.50
ID000498	63.33	162.33	37.80	7.00	109.83	57.90
WA007815	56.67	166.67	42.10	5.00	108.87	63.00
ID000511	50.00	163.33	39.13	5.67	106.47	62.00
ID000512	53.33	164.00	38.87	6.33	105.97	59.00
WA007816	60.00	166.00	43.33	2.33	103.00	60.80
UT199838	56.67	163.67	43.57	6.67	101.37	62.30
ID000479	60.00	165.33	39.87	5.33	99.93	59.10
95CAM012	48.33	165.67	44.60	4.67	99.33	61.00
UTAH 100	60.00	166.00	38.60	2.33	98.43	56.20
ID000510	53.33	164.00	39.77	4.00	98.27	58.40
ID000509	60.00	163.00	38.07	7.33	97.73	56.40
ID000513	53.33	164.00	35.27	3.33	97.63	58.10
82CAM097	48.33	170.00	40.07	2.00	94.73	58.40
WA007814	56.67	163.33	42.37	5.67	94.67	60.30
ID000497	56.67	163.33	44.23	5.67	94.27	61.60
OR889176	63.33	166.00	32.53	1.00	91.03	57.00
UT944158	61.67	166.67	41.60	7.00	89.97	54.80
ID000501	30.00	162.33	29.13	3.00	88.47	60.60
WA007773	70.00	164.67	45.70	7.33	87.37	61.10
WA007817	70.00	164.33	49.23	7.00	86.73	60.30
ID000514	50.00	164.67	43.57	6.67	85.17	59.60
WANSER	56.67	164.33	45.93	6.00	83.63	60.30
ID000477	63.33	164.33	44.47	6.00	76.47	61.70
WA007819	53.33	163.67	38.57	5.33	74.37	59.20
OR908482	35.00	163.33	32.17	2.00	73.03	58.00
KHARKOF	56.67	165.67	40.53	8.33	57.43	58.60
MEAN	55.7	164.7	40.9	5.2	95.2	59.7
C.V.	19.4	0.3	6.9	21.3	10.7	NA
LSD (.05)	17.7	0.8	4.6	1.8	16.7	NA