

PROJECT TITLE: Western Regional Hard Red Winter Wheat Evaluation

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OBJECTIVE:

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

RESULTS:

The mean yield for 1996 was 92.5 bu/A, which is average but lower than the two previous years. Idaho line 000498 had the highest yield at 108.5 bu/A. Idaho contributed four of the five top yielding lines. Test weights were good with seven cultivars reaching 63 lb/bu. All entries had significantly less lodging than the Kharkof check. With the exception of UT199838, McGuire, and Hybritech exp. 1643, most lines displayed solid resistance to stripe rust. The same cannot be said about leaf rust where only OR889176, OR889128, Hybritech exp. 1643, and Kharkof had low levels of infection.

SUMMARY:

Light mid to late season drought stress with moderate disease pressure led to average yields with good test weights.

FUTURE PLANS:

Continued evaluation of high potential hard red winter wheat cultivars for production in the Pacific Northwest.

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

Planted: September 28, 1995

Harvested: August 19, 1996

VARIETY	YIELD BU/A	TEST WT LB/BU	HEIGHT INCHES	LODGING 0-9	HEADING DATE	STRIPE RUST 1/	LEAF RUST 1/
ID000498	108.47	61.30	37.8	1.33	166.33	1.00	3.00
WA007818	105.00	60.50	49.5	.00	170.33	1.00	2.00
ID000486	104.33	59.50	28.3	.00	166.67	1.00	3.00
ID000467	104.00	60.00	34.4	.00	168.00	1.00	3.00
ID000478	103.87	62.80	43.6	.33	165.00	1.00	2.00
UT944151	103.53	61.20	40.6	.33	168.67	1.00	2.00
UT944158	100.97	59.50	41.9	.00	170.67	1.00	3.00
RAMPART	99.97	62.00	43.2	1.00	168.00	2.00	2.00
UT199838	99.23	62.80	46.1	1.67	168.67	3.00	3.00
UT201971	98.60	63.30	48.8	4.00	168.33	1.00	3.00
WA007816	97.37	62.00	45.8	.00	168.67	1.00	3.00
MCGUIRE	97.23	62.80	39.4	.00	164.00	3.00	2.00
WA007814	96.97	63.00	45.1	2.00	167.00	1.00	2.00
WA007817	94.40	62.20	49.1	2.33	167.00	1.00	2.00
WANSER	94.03	62.30	47.9	1.67	168.00	1.00	3.00
ID000477	93.23	63.60	45.7	.67	168.00	1.00	2.00
OR889176	93.00	59.00	29.9	.00	169.00	1.00	1.00
OR870944	92.07	58.60	33.9	.00	168.00	1.00	2.00
NWCPOPE1	91.57	62.20	41.7	.00	167.67	1.00	2.00
ID000479	90.47	63.00	38.8	.00	166.67	1.00	3.00
ID000497	90.20	62.50	47.1	1.00	167.00	2.00	2.00
OR880017	90.10	60.10	34.1	.00	167.33	1.00	3.00
ID000466	89.43	62.50	47.4	1.67	166.33	1.00	3.00
WA007819	88.50	61.50	45.8	1.33	168.00	1.00	3.00
ID000468	88.30	61.00	32.7	.00	163.33	1.00	3.00
ID000481	88.20	62.00	44.6	.00	169.00	1.00	3.00
OR889128	87.33	57.80	31.5	.00	167.33	1.00	1.00
UT199487	86.80	63.60	44.1	.33	168.33	1.00	3.00
WA007815	86.20	63.70	43.2	.00	169.00	1.00	3.00
WA007773	86.10	63.70	47.8	2.67	167.33	1.00	3.00
OR908482	85.80	60.80	33.3	.00	167.00	1.00	2.00
SDM00215	84.77	60.20	29.9	.00	163.67	1.00	3.00
QUANTUM EXP. 1643	83.87	58.60	38.2	.33	166.67	3.00	1.00
KHARKOF	79.00	62.00	51.4	5.33	167.33	2.00	1.00
ID000453	76.37	62.20	46.5	.67	167.33	2.00	3.00
SDM00214	69.23	60.50	33.7	.00	167.33	1.00	2.00
MEAN	92.46	61.5	41.2	.80	167.42	1.3	2.4
C.V.	11.31	NA	3.7	93.71	.55	NA	NA
LSD (.05)	17.02	NA	2.5	1.22	1.50	NA	NA

1/ DISEASE LEVELS: 1=LOW, 2=MODERATE, 3=HIGH