

**PROJECT TITLE:** Western Regional Hard Red Winter Wheat Evaluations

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**OBJECTIVE:** To evaluate hard red winter wheat varieties for adaptability, yield, quality and disease resistance.

**RESULTS:**

Even though fall precipitation was less than normal, winter wheat seedlings were in good shape prior to over-wintering in the Flathead Valley. Most plants were at, or past the 4 leaf stage so very little winter-kill was experienced. Spring rain was also less than normal, yet timely so that spring grain development was stimulated. Abundant precipitation in June and July aided in late crop development while the dry weather of August provided excellent harvest conditions. Mild winter temperatures were again experienced this year from December through February which explains the low levels of winter kill. With only 23 days of continuous snow cover (Jan. 5-27th) there was low incidence of TCK dwarf bunt. Cereal diseases were not a serious factor in winter wheat. Low levels of leaf rust were observed late in the season but were not detrimental to grain yields.

Yields were slightly above average with the mean yield being 98.5 bu/A. Most varieties that were tested last year had higher yields in 1992 of 5 to 10 bu/A. Test weights were low with only four entries having weights in excess of 60 lbs/bu. Heading dates averaged approximately five days earlier. Height in this nursery did not vary from past averages. Lodging was severe in more than half of the entries and contributed to yield loss in several cultivars. No disease were observed.

**SUMMARY:**

Moderate temperatures and timely moisture contributed to hard red winter wheat yields that were slightly above normal. Test weights were below normal and heading dates were 5 days earlier than the long term average. The moderate winter with limited snow cover may account for the absence of TCK dwarf bunt.

**FUTURE PLANS:**

Continual evaluation of new and introduced lines is planned in the future through cooperative state-wide testing.

Table 1. Agronomic data from the Western Regional Hard Red Winter Wheat Nursery grown on the Northwestern Agricultural Research Center  
Planted: September 25, 1991      Harvested: August 11, 1992

VARIETY	YIELD BU/A	TEST WT LB/BU	HEAD DATE	HEIGHT INCHES	LODGING INDEX 1/
OR870834 VS74-709/NAC	134.1	56.9	155.5	35.9	0
ID 426 ID 77281 Hard Red	126.0	59.0	153.5	35.9	21.5
OR870859 R37/GHL121/VEE.S	124.8	59.3	152.0	36.4	0
OR861555 VS 74-709/BUC	122.5	57.5	155.5	37.4	0
UT 150 ID51022/MANNING	119.9	57.3	155.3	41.3	2.8
OR860247 GNS/LP/3/5*ATR/AGA//	119.3	59.9	149.0	33.9	0
OR860455 GOV//PCI/VEE	116.6	55.8	155.8	35.9	5.0
OR841708 CER//YMH/HYS	115.5	57.2	156.8	36.4	14.5
QT 555 HYBRITECH	115.2	59.0	150.5	35.4	1.7
OR860126 ORF1158/FDL//SNB,F1/	113.6	58.1	152.5	34.5	0
OR850513 RBS/ANZA/3/KVZ/HYS//	112.6	60.3	151.0	32.8	0
OR830282 ND/P101//BUHO	111.0	59.2	150.8	34.9	0
UT 303 1257-6/MNG	108.3	56.3	151.8	39.4	40.2
OR831134 CNO/INIA/HN7/3/CC//C	107.7	60.8	154.5	34.5	0
UT 134 WESTON/SAMSON	107.4	60.3	149.8	39.4	19.9
UT182016 CI12385/UK//CLM/3/CI	105.9	55.5	154.0	41.3	38.6
WA 7718 WTN/BEZ/CI13438/BURT	105.4	58.8	154.5	45.8	38.9
OR840157 D887-74/PEW	105.0	60.7	152.3	37.9	.8
OR 8522 VORO/MNIM,85B-839	103.8	57.2	155.0	34.9	20.0
ID 423 ID0076/3 11-60-157/W	103.2	55.5	153.0	34.5	0
WA 7658 NE 77663/WA 6815	101.8	58.3	156.3	44.3	55.6
XNH 1401 HYBRITECH	97.9	58.6	151.5	44.8	54.5
WA 7679 N823105/N8106201	95.6	58.2	156.0	44.3	54.3
ID 445 ID 77294 Hard White	95.6	58.6	154.5	44.8	71.5
WA 7680 UT122275/N7800501	89.6	57.6	155.8	45.8	63.3
CI 13844 WANSER	86.9	58.0	153.3	41.3	71.4
WA 7678 CI 14484//BNK/GNS/3/	86.4	58.1	155.3	43.3	60.6
UT 190 AG POD/WHEAT	85.2	55.7	154.3	41.8	67.6
IDHW0355 2*MC/NP824/3/LMH66/5	83.6	56.4	154.8	41.3	74.8
DS 00001 BLIZZARD S	82.2	57.2	154.5	41.8	75.2
ID 444 ID 77190 Hard Red	81.3	57.6	155.3	35.0	78.0
ID 421 A74125W-16-3-1/A7470	80.9	58.9	155.3	45.3	79.8
ID 355 MC*2/NP824/3/LMH66/5	76.1	56.2	153.5	44.3	82.6
ID 434 ATL50/4/R/R//2*CNN/3	69.3	55.6	155.5	39.9	94.0
ID 433 II-60-156/CI 14106//	67.5	55.2	153.5	46.3	95.4
CI 1442 KHARKOF	66.4	57.4	154.3	47.7	96.3
OR008718 BPR 689-71/TI	65.8	54.5	153.3	43.3	86.3
ID 443 ID 77089 Hard Red	55.2	53.6	156.0	41.3	93.5
Mean	98.5	57.6	153.8	39.9	41.0
L.S.D.	19.6	2.38	1.47	5.39	27.3

1/ Lodging Index = Lodging Severity X Lodging Prevalence / 9