

**2005 VARIETY TESTING
WASHINGTON STATE UNIVERSITY
WALLA WALLA HARD WINTER WHEAT NURSERY**

VARIETY NAME	5 YEAR AVERAGE (BU/A)	3 YEAR AVERAGE (BU/A)	2 YEAR AVERAGE (BU/A)	2005 YIELD (BU/A)	2005 TEST WT. (LBS/BU)	2005 PROTEIN (%)
RESIDENCE	---	---	128.4 (1)	100.0 (4)	58.9	9.1
BZ9W96-788-E	---	---	127.4 (2)	103.4 (1)	60.7	8.7
BOUNDARY	---	---	125.7 (3)	100.1 (3)	59.4	9.0
ELTAN	---	---	121.7 (4)	77.1 (16)	56.7	8.7
PALADIN	---	---	119.3 (5)	100.5 (2)	60.6	9.1
BAUERMEISTER	---	---	114.4 (6)	82.4 (12)	56.9	9.0
MORELAND	---	---	113.4 (7)	68.7 (19)	56.6	7.9
CDC FALCON	---	---	113.0 (8)	88.9 (10)	59.3	8.5
DW	---	---	112.2 (9)	92.1 (7)	61.0	8.6
Q. HYB 542	---	---	107.8 (10)	66.2 (21)	58.9	9.6
MDM	---	---	106.9 (11)	73.8 (17)	57.2	8.3
WESTON	---	---	97.0 (12)	65.2 (22)	59.9	9.8
BUCHANAN	---	---	87.4 (13)	69.7 (18)	57.9	8.2
WANSER	---	---	75.1 (14)	51.1 (23)	56.4	8.7
HATTON	---	---	67.2 (15)	38.3 (24)	57.2	8.1
WA7980	---	---	---	97.8 (5)	58.4	9.2
WA7977	---	---	---	93.0 (6)	59.6	8.6
W98-157	---	---	---	91.3 (8)	58.8	8.6
W98-263	---	---	---	90.6 (9)	59.3	8.7
W98-344	---	---	---	84.1 (11)	59.1	8.4
WA7978	---	---	---	81.8 (13)	58.9	10.0
WA7979	---	---	---	79.6 (14)	58.5	9.1
WA7976	---	---	---	77.3 (15)	58.5	9.2
WA7975	---	---	---	68.5 (20)	58.1	9.8
NURSERY MEAN	---	---	107.7	80.9	58.6	8.9
CV %	---	---	8.2	9.0	1.6	4.1
LSD @ .10	---	---	7.3	8.5	1.1	0.4

WALLA WALLA HARD WINTER WHEAT – 2005 WSU VARIETY TESTING DATA

2005 Hard Winter Wheat data from the WSU Variety Testing nursery at the Walla Walla location averaged 80.9 bu/ac. This is about 20 bu/ac less than the average of the soft white winter wheat nursery at this location.

Lodging and stripe rust infections had dominant roles in yield differences among many varieties. (*NOTE: the nursery was approx. 10 miles SW of Waitsburg on Lower Waitsburg Rd- T & J Beechinor farm.*)

1. LODGING was severe for many varieties in this nursery. (*It is worth noting that lodging in some varieties is enhanced in plots when a variety severely prone to lodging, such as Edwin, that fall into the adjacent variety.*) Average lodging for the entire nursery exceeded 60%. It appears that lodging was the major contributor to reduced yields and generally had the greatest impact on difference between varieties.
2. Plant height in the Walla Walla hard winter wheat nursery averaged 44.8 inches compared to 42.4 inches in 2004 for all varieties. In general, it appeared that all varieties were 2-3 inches taller in 2005 – a similar trend observed in the soft white winter wheat nursery at this location.
3. Stripe rust: Stripe rust was fairly severe on susceptible varieties and also contributed to substantial yield reductions in some varieties. Sifting out the impact of lodging vs. stripe rust is difficult. Probably one of the better indicators of stripe rust having a significant role is found in test weight values. Susceptible varieties such as Hatton, Wanser and Moreland had test weight values at 57#/bu or less (note that Moreland did not lodge).
4. Protein values averaged 8.9% for this nursery which is obviously low for HRW. It is speculated that lodging also influenced nitrogen assimilation in kernels during grain fill and limited protein development. Total nitrogen available measured in February 2005 showed 246# N for this nursery.
5. Eltan is included in the nursery as a yield check variety for yield.