

**2007 WSU EXTENSION HARD WINTER WHEAT NURSERY AT PULLMAN, WA.**

Variety Name <i>*HDWH Italized</i>	5 YEAR AVERAGE (BU/A)	3 YEAR AVERAGE (BU/A)	2 YEAR AVERAGE (BU/A)	2007					
				YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)	LODGING (%)	PLANT HT	HEAD DATE
BAUERMEISTER	117.0	109.3	124.8	136.6	59.7	12.5	35.0	45.0	159.5
WA008023				134.3	59.8	12.5	0.0	44.8	157.3
ACS 52025				133.9	60.7	12.4	0.0	39.3	150.9
ORN00B553			138.0	132.6	60.7	12.8	0.0	32.5	154.6
ELTAN	128.6	122.0	133.2	131.6	60.7	11.6	2.5	41.3	160.3
ACS 52035				131.1	62.0	13.8	0.0	47.5	156.5
TX97F4-33-1B				128.0	60.0	12.4	0.0	35.5	148.6
MDM	126.9	123.4	132.0	127.4	60.5	12.2	5.0	41.0	160.3
WA008003			131.6	123.9	61.8	13.0	20.0	51.0	158.8
WA007976		130.2	142.2	122.8	62.0	11.9	12.5	44.0	157.6
UI DARWIN			122.3	121.2	63.2	12.5	15.0	45.5	156.9
BOUNDARY	128.5	130.7	128.7	118.1	60.7	12.7	0.0	36.8	158.0
BZ9W02-2032				117.9	60.4	12.6	0.0	36.5	148.6
EDDY		120.3	124.9	116.8	62.1	13.0	0.0	36.0	153.5
OR2052046H				116.7	61.3	11.8	0.0	35.5	156.5
AGRIPRO PALADIN	121.4	121.1	123.8	116.3	61.6	13.2	0.0	35.0	152.8
JUNIPER			121.7	114.4	62.2	13.3	20.0	54.0	156.5
PALOMINO	109.7		118.0	112.3	60.3	13.7	0.0	33.3	150.1
IDO621			127.0	112.2	60.9	12.7	0.0	35.5	157.6
W98-344		124.7	119.2	108.4	59.9	13.4	0.0	35.8	149.8
WA008022				107.1	60.1	12.7	87.5	50.5	158.0
FINLEY	110.4		105.3	104.2	62.7	12.1	62.5	49.8	155.0
DECLO				103.3	60.4	13.8	0.0	33.0	157.6
WA008019			98.9	101.4	63.0	12.8	42.5	49.8	154.3
WA008024				96.1	60.4	12.8	0.0	44.5	159.1
FINEWAY				89.8	61.8	12.6	53.8	51.0	156.5
HATTON	64.5	71.8	97.1	87.3	61.9	12.0	8.8	49.0	156.9
WA008025				83.8	61.1	12.2	0.0	34.5	159.9
WA007975		90.2	102.3	68.5	60.3	13.8	70.0	49.5	161.0
C.V. %	11.0	12.8	12.2	10.9	1.2	3.3	--	--	--
LSD '@ .10'	6.7	10.0	12.1	14.6	0.8	0.5	--	--	--
Average	113.4	114.4	121.7	113.7	61.1	12.7	15.0	42.0	156.0
Highest	128.6	130.7	142.2	136.6	63.2	13.8	87.5	54.0	161.0
Lowest	64.5	71.8	97.1	68.5	59.7	11.6	0.0	32.5	148.6

## PULLMAN HARD WINTER WHEAT – 2007 WSU VARIETY TESTING DATA

1. 2007 Hard Winter Wheat **YIELD DATA** from the WSU Variety Testing nursery at the Pullman location averaged 113.7 bu/ac that is nearly equal to a previous historical 3-yr average yield. *NOTE: The Pullman nursery was located 8 miles southeast of Pullman, WA on Sand Rd (N. Druffel & Sons farm – adjacent the landing strip). The Soft White Winter and Hard Winter nurseries were co-located.*
2. This nursery was **seeded** on 25 September 2006 on re-crop ground following a 2006 dry spring pea crop using a plot drill with double disc openers, 6-inch spacing, into good soil moisture that was about 1-inch below the surface at a seeding rate of 85#/acre. The base fertilizer rate was 110#N and 30#S with starter fertilizer rate of 16#N, 20#P and 12#S. An additional 98#N and 15#S was applied as a top dress in March 2007 (using an estimate of 3 pounds of nitrogen/bushel expected yield to attain a minimum 11.5% grain protein). The soil profile showed 10.04 inches of moisture in the top 4-feet in from a March 2007 soil test which contributed significantly to the yields at this location in spite of below normal precipitation during spring 2007.
3. In general, the cold snap at the end of October 2006 and the 10-day cold-snap in mid-January (11-21 Jan 2007) had minimal winter injury impact. In fact, this nursery had excellent emergence and had good recovery from early spring (March 2007) field evaluations.
4. **Stripe rust** was fairly prevalent on susceptible varieties during a 3 July 2007 field evaluation. Varieties such as Hatton and Finley had 90%-100% infection with infection types (IT) that ranged from IT4 to IT6. (*Note: Stripe rust notes provided by Dr. X. Chen, Plant Pathologist, USDA/ARS, Pullman, WA are listed for all entries in the 2007 WSU Variety Testing nurseries on the Variety Testing Program web site under the Agronomy Updates section (<http://variety.wsu.edu>).*)
5. **Average yield** range was 68.5 bu/ac to 136.6 bu/ac and yield rankings seemed to bounce around a little at this location compared to the historical 3-yr average yields. As with a lot of other nurseries this year, Eltan or entries with Eltan as part of the pedigree had some of the highest yields with three of the top five highest yielding varieties having Eltan as part of a pedigree. It still appears that the 3-month dry period (March-May 2007) probably favored varieties/lines that were able to idle along in the spring and then took advantage of the late May/early June precipitation and 2-week cool period in mid-June. This also seemed to favor test weight. There also appears to be a fairly strong correlation to lower yields with **high percent of lodging**. However, In fairness to most of the varieties that exhibited high lodging, most are not adapted to the higher rainfall production regions of the state (such as Finley).
6. Wheat quality in terms of **test weight** was high at this location with an average test weight value of 61.1 lbs/bu. As mentioned earlier, cool conditions during the middle part of June coincided well with kernel fill and probably minimized the impact of the heat stress periods at the end of June and into July.
7. **Percent grain protein** had a range of 11.6% to 13.8% with an average of 12.7%. All of the entries exceeded the 11.5% minimum protein level for the HRW market class indicating that nitrogen mobilization into the developing kernels was favored by favorable growth conditions prior to the onset of moisture and heat stress during late June and into July.