## 2010 WSU EXTENSION HARD WINTER WHEAT NURSERY AT REARDAN, WA.

Variety Name **HOWH Hallicized (BUIA)     AVERAGE (BUIA)     AVERAGE (BUIA)     VIELD (BUIA)     TEST WT (LBS/BU)     PROTEIN (%)     PLANT DATE       WA008120      156     60.6     10.1     0     42     169       WA008129      108     118     149     61.4     9.7     2     40     177       MDM      109     120     149     61.4     9.7     2     40     177       ACCIPITER      96     106     139     63.2     10.5     0     40     170       DECLO      101     109     138     60.9     10.5     0     40     170       DECLO      101     109     138     60.9     10.5     0     43     170       USLIVER      106     137     62.7     10.9     7     40     166       PEREGRINE      96     105     134     62.7     10.9     7     49     159  <	Variety Name A	5 YEAR AVERAGE (BU/A)	_		2010					
WA008119      108     1154     60.2     10.5     0     41     169       BOUNDARY      108     118     149     61.9     11.5     0     37     167       MDM      109     120     149     61.4     9.7     2     40     171       ACCIPITER      106     139     63.2     10.5     0     40     166       ELTANISWW check)      96     106     138     60.9     10.5     0     40     170       DECLO      101     109     138     62.6     11.3     0     35     165       WA008096      106     137     62.7     10.9     7     40     166       WA008097      106     137     62.7     10.9     7     49     159       BAU-RTI      96     105     134     62.7     10.9     7     49     159       BAU-RTI						_				
BOUNDARY     108	WA008120				156	60.6	10.1	0	42	169
MDM      109     120     149     61.4     9.7     2     40     171       ACCIPITER      106     139     63.2     10.5     0     40     166       ELTAN(SWW check)      96     106     138     60.9     10.5     0     40     170       DECLO      101     109     138     62.6     11.3     0     35     165       WA098096      108     138     59.9     10.7     0     43     170       UTSIL/VER      106     137     62.7     10.9     7     40     168       WA098097      96     105     134     62.7     10.9     7     49     159       BAU-RTI      96     106     133     61.0     10.8     20     41     170       OR200229H      91     102     126     63.5     11.9     0     36     161 <th< td=""><td>WA008119</td><td></td><td></td><td></td><td>154</td><td>60.2</td><td>10.5</td><td>0</td><td>41</td><td>169</td></th<>	WA008119				154	60.2	10.5	0	41	169
ACCIPITER      106     139     63.2     10.5     0     40     166       ELTAN/SWW check)      96     106     138     60.9     10.5     0     40     170       DECLO      101     109     138     62.6     11.3     0     35     165       WA008096      101     109     138     62.6     11.3     0     35     165       WA008097      106     137     62.7     10.9     7     40     166       WA008097      96     105     134     60.6     10.0     3     40     169       PEREGRINE      96     105     134     60.9     11.3     3     43     170       BAU-RT1      96     106     133     61.0     10.8     20     41     170       BAUERMEISTER      96     106     133     61.0     10.8     20     41     170	BOUNDARY		108	118	149	61.9	11.5	0	37	167
ELTAN(SWW check)	MDM		109	120	149	61.4	9.7	2	40	171
DECLO      101     109     138     62.6     11.3     0     35     165       WA008096      108     138     59.9     10.7     0     43     170       UTSILVER      106     137     62.7     10.9     7     40     166       WA008097      111     136     60.6     10.0     3     40     189       PEREGRINE      96     105     134     62.7     10.9     7     49     159       BAU-RT1      96     106     133     60.9     11.3     3     43     170       BAUERMEISTER      96     106     133     61.0     10.8     20     41     170       CR20020201      91     102     126     63.5     11.9     0     36     161       WA008070      91     102     122     62.5     11.9     0     35     161 <t< td=""><td>ACCIPITER</td><td></td><td></td><td>106</td><td>139</td><td>63.2</td><td>10.5</td><td>0</td><td>40</td><td>166</td></t<>	ACCIPITER			106	139	63.2	10.5	0	40	166
WA008096      108     138     59.9     10.7     0     43     170       UTSILVER      106     137     62.7     10.9     7     40     166       WA008097      111     136     60.6     10.0     3     40     169       PEREGRINE      96     105     134     60.9     11.3     3     43     170       BAU-RT1      96     106     133     61.0     10.8     20     41     170       BAUERBISTER      96     106     133     61.0     10.8     20     41     170       OR280829H      91     102     126     63.5     11.9     0     36     161       WB-RIMROCK      91     102     122     62.5     10.9     0     35     161       WB-RIMROCK      94     102     122     62.5     10.9     0     35     161	ELTAN(SWW check)	)	96	106	138	60.9	10.5	0	40	170
UT SILVER      106     137     62.7     10.9     7     40     166       WA008097      111     136     60.6     10.0     3     40     189       PEREGRINE      96     105     134     60.9     11.3     3     43     170       BAU-RT1      96     106     133     61.0     10.8     20     41     170       BAUERMEISTER      96     106     133     61.0     10.8     20     41     170       OR2080229H      91     102     126     63.5     11.9     0     37     169       EDDY      91     102     126     63.5     11.9     0     36     161       WA008055      94     102     122     62.5     10.9     0     35     167       WB-RIMROCK      94     102     122     62.5     10.9     0     36     164 <td>DECLO</td> <td></td> <td>101</td> <td>109</td> <td>138</td> <td>62.6</td> <td>11.3</td> <td>0</td> <td>35</td> <td>165</td>	DECLO		101	109	138	62.6	11.3	0	35	165
WA008007      1111     136     60.6     10.0     3     40     169       PEREGRINE      96     105     134     62.7     10.9     7     49     159       BAU-RT1      134     60.9     11.3     3     43     170       BAUERMEISTER      96     106     133     61.0     10.8     20     41     170       OR2080229H      91     102     126     63.5     11.9     0     36     161       WA008095      91     102     122     60.6     11.8     10     50     167       WB-RIMROCK      94     102     122     62.5     10.9     0     35     161       AGRIPRO PALADIN      88     96     121     63.1     12.2     0     36     164       FINLEY      88     96     121     63.1     12.2     0     36     160	WA008096			108	138	59.9	10.7	0	43	170
PEREGRINE     96	UI SILVER			106	137	62.7	10.9	7	40	166
BAU-RT1      96     106     133     60.9     11.3     3     43     170       BAUERMEISTER      96     106     133     61.0     10.8     20     41     170       OR2080229H      91     102     129     63.1     10.9     0     37     169       EDDY      91     102     126     63.5     11.9     0     36     161       WA008095      94     102     122     60.6     11.8     10     50     167       WB-RIMROCK      94     102     122     62.5     10.9     0     35     161       AGRIPRO PALADIN      88     96     121     63.1     12.2     0     36     164       FINLEY      88     96     120     62.8     11.8     47     50     160       WA008156H      91     98     117     63.0     12.1     0	WA008097			111	136	60.6	10.0	3	40	169
BAUERMEISTER      96     106     133     61.0     10.8     20     41     170       CR2080229H      129     63.1     10.9     0     37     169       EDDY      91     102     126     63.5     11.9     0     36     161       WA008095      94     102     122     62.5     10.9     0     35     161       AGRIPRO PALADIN      94     102     122     62.5     10.9     0     35     161       AGRIPRO PALADIN      88     96     121     63.1     12.2     0     36     164       FINLEY      88     96     120     62.8     11.8     47     50     160       WA008070      90     99     118     61.7     10.6     0     50     170       OR2080156H      91     98     117     63.0     12.3     0     31     166	PEREGRINE		96	105	134	62.7	10.9	7	49	159
OR2080229H      91     102     129     63.1     10.9     0     37     169       EDDY      91     102     126     63.5     11.9     0     36     161       WA008095      100     123     60.6     11.8     10     50     167       WB-RIMROCK      94     102     122     62.5     10.9     0     35     161       AGRIPRO PALADIN      88     96     121     63.1     12.2     0     36     164       FINLEY      88     96     120     62.8     11.8     47     50     160       WA008070      90     99     118     61.6     12.1     0     37     168       NORWEST 553      91     98     117     63.0     12.3     0     31     166       HATTON      86     94     114     63.1     11.3     7     48	BAU-RT1				134	60.9	11.3	3	43	170
EDDY      91     102     126     63.5     11.9     0     36     161       WA008095      100     123     60.6     11.8     10     50     167       WB-RIMROCK      94     102     122     62.5     10.9     0     35     161       AGRIPRO PALADIN      88     96     121     63.1     12.2     0     36     164       FINLEY      88     96     120     62.8     11.8     47     50     160       WA008070      90     99     118     61.7     10.6     0     50     170       OR2080156H      91     98     117     63.0     12.1     0     37     168       NORWEST 553      91     98     117     63.0     12.3     0     31     166       HATTON      86     94     114     58.7     12.1     3     53     17	BAUERMEISTER		96	106	133	61.0	10.8	20	41	170
WA008095      100     123     60.6     11.8     10     50     167       WB-RIMROCK      94     102     122     62.5     10.9     0     35     161       AGRIPRO PALADIN      88     96     121     63.1     12.2     0     36     164       FINLEY      88     96     120     62.8     11.8     47     50     160       WA008070      90     99     118     61.7     10.6     0     50     170       OR2080156H      90     99     118     61.7     10.6     0     50     170       OR2080156H      91     98     117     63.0     12.1     0     37     168       NORWEST 553      91     98     117     63.0     12.3     0     31     166       FARNUM      86     94     114     63.1     11.3     7     48     <	OR2080229H				129	63.1	10.9	0	37	169
WB-RIMROCK      94     102     122     62.5     10.9     0     35     161       AGRIPRO PALADIN      88     96     121     63.1     12.2     0     36     164       FINLEY      88     96     120     62.8     11.8     47     50     160       WA008070      90     99     118     61.7     10.6     0     50     170       OR2080156H      91     98     117     63.0     12.1     0     37     168       NORWEST 553      91     98     117     63.0     12.3     0     31     166       HATTON      86     94     114     63.1     11.3     7     48     166       FARNUM      89     93     114     58.7     12.1     3     53     171       UTCF GRACE      90     109     61.6     11.4     17     48	EDDY		91	102	126	63.5	11.9	0	36	161
AGRIPRO PALADIN      88     96     121     63.1     12.2     0     36     164       FINLEY      88     96     120     62.8     11.8     47     50     160       WA008070      90     99     118     61.7     10.6     0     50     170       OR2080156H      91     98     117     63.0     12.1     0     37     168       NORWEST 553      91     98     117     63.0     12.3     0     31     166       HATTON      86     94     114     63.1     11.3     7     48     166       FARNUM      89     93     114     58.7     12.1     3     53     171       UICF GRACE      90     109     61.6     11.4     17     48     162       WHA008118      83     92     102     63.4     13.0     0     34     15	WA008095			100	123	60.6	11.8	10	50	167
FINLEY      88     96     120     62.8     11.8     47     50     160       WA008070      90     99     118     61.7     10.6     0     50     170       OR2080156H      91     98     117     63.0     12.1     0     37     168       NORWEST 553      91     98     117     63.0     12.3     0     31     166       HATTON      86     94     114     63.1     11.3     7     48     166       FARNUM      89     93     114     58.7     12.1     3     53     171       UICCF GRACE      90     109     61.6     11.4     17     48     162       WA008118      83     92     102     63.4     13.0     0     34     159       WA008121      83     92     102     63.4     13.0     0     31     159	WB-RIMROCK		94	102	122	62.5	10.9	0	35	161
WA008070      90     99     118     61.7     10.6     0     50     170       OR20801.56H      118     61.6     12.1     0     37     168       NORWEST 553      91     98     117     63.0     12.3     0     31     166       HATTON      86     94     114     63.1     11.3     7     48     166       FARNUM      89     93     114     58.7     12.1     3     53     171       UICF GRACE      90     109     61.6     11.4     17     48     162       WA008118      90     109     61.6     11.4     17     48     162       WHETSTONE      83     92     102     63.4     13.0     0     34     159       WA008121      86     96     61.9     12.8     0     31     159       IDO683      77<	AGRIPRO PALAD	IN	88	96	121	63.1	12.2	0	36	164
OR2080156H      118     61.6     12.1     0     37     168       NORWEST 553      91     98     117     63.0     12.3     0     31     166       HATTON      86     94     114     63.1     11.3     7     48     166       FARNUM      89     93     114     58.7     12.1     3     53     171       UICF GRACE      90     109     61.6     11.4     17     48     162       WA008118      107     62.2     12.6     5     43     161       WHETSTONE      83     92     102     63.4     13.0     0     34     159       WA008121      86     96     61.9     12.8     0     31     159       IDO683      77     89     62.1     13.6     37     49     161       C.V. %      9     8     6	FINLEY		88	96	120	62.8	11.8	47	50	160
NORWEST 553      91     98     117     63.0     12.3     0     31     166       HATTON      86     94     114     63.1     11.3     7     48     166       FARNUM      89     93     114     58.7     12.1     3     53     171       UICF GRACE      90     109     61.6     11.4     17     48     162       WA008118      83     92     102     63.4     13.0     0     34     159       WHETSTONE      83     92     102     63.4     13.0     0     34     159       WA008121      86     96     61.9     12.8     0     31     159       IDO683      77     89     62.1     13.6     37     49     161       C.V. %      9     8     6     1.0     4.1     171     4     1       LSD '@.10'	WA008070		90	99	118	61.7	10.6	0	50	170
HATTON      86     94     114     63.1     11.3     7     48     166       FARNUM      89     93     114     58.7     12.1     3     53     171       UICF GRACE      90     109     61.6     11.4     17     48     162       WA008118      83     92     102     63.4     13.0     0     34     159       WA008121      83     92     102     63.4     13.0     0     34     159       WA008121      86     96     61.9     12.8     0     31     159       IDO683      77     89     62.1     13.6     37     49     161       C.V. %      9     8     6     1.0     4.1     171     4     1       LSD '@.10'      6     8     11     0.8     0.6     16     2     1       Average <td>OR2080156H</td> <td></td> <td></td> <td></td> <td>118</td> <td>61.6</td> <td>12.1</td> <td>0</td> <td>37</td> <td>168</td>	OR2080156H				118	61.6	12.1	0	37	168
FARNUM      89     93     114     58.7     12.1     3     53     171       UICF GRACE      90     109     61.6     11.4     17     48     162       WA008118      83     92     102     63.4     13.0     0     34     159       WA008121      83     92     102     63.4     13.0     0     34     159       WA008121      86     96     61.6     13.1     33     48     161       ESPERIA      86     96     61.9     12.8     0     31     159       IDO683      77     89     62.1     13.6     37     49     161       C.V. %      9     8     6     1.0     4.1     171     4     1       LSD '@.10'      6     8     11     0.8     0.6     16     2     1       Average      109 </td <td>NORWEST 553</td> <td></td> <td>91</td> <td>98</td> <td>117</td> <td>63.0</td> <td>12.3</td> <td>0</td> <td>31</td> <td>166</td>	NORWEST 553		91	98	117	63.0	12.3	0	31	166
UICF GRACE      90     109     61.6     11.4     17     48     162       WA008118      83     92     107     62.2     12.6     5     43     161       WHETSTONE      83     92     102     63.4     13.0     0     34     159       WA008121      9     61.6     13.1     33     48     161       ESPERIA      86     96     61.9     12.8     0     31     159       IDO683      77     89     62.1     13.6     37     49     161       C.V. %      9     8     6     1.0     4.1     171     4     1       LSD '@.10'      6     8     11     0.8     0.6     16     2     1       Average      94     101     125     61.8     11.4     7     42     166       Highest      109     12	HATTON		86	94	114	63.1	11.3	7	48	166
WA008118      83     92     102     63.4     13.0     0     34     159       WA008121      83     92     102     63.4     13.0     0     34     159       WA008121      99     61.6     13.1     33     48     161       ESPERIA      86     96     61.9     12.8     0     31     159       IDO683      77     89     62.1     13.6     37     49     161       C.V. %      9     8     6     1.0     4.1     171     4     1       LSD '@.10'      6     8     11     0.8     0.6     16     2     1       Average      94     101     125     61.8     11.4     7     42     166       Highest      109     120     156     63.5     13.6     47     53     171	FARNUM		89	93	114	58.7	12.1	3	53	171
WHETSTONE      83     92     102     63.4     13.0     0     34     159       WA008121      99     61.6     13.1     33     48     161       ESPERIA      86     96     61.9     12.8     0     31     159       ID0683      77     89     62.1     13.6     37     49     161       C.V. %      9     8     6     1.0     4.1     171     4     1       LSD '@.10'      6     8     11     0.8     0.6     16     2     1       Average      94     101     125     61.8     11.4     7     42     166       Highest      109     120     156     63.5     13.6     47     53     171	UICF GRACE			90	109	61.6	11.4	17	48	162
WA008121      99     61.6     13.1     33     48     161       ESPERIA      86     96     61.9     12.8     0     31     159       ID0683      77     89     62.1     13.6     37     49     161       C.V. %      9     8     6     1.0     4.1     171     4     1       LSD '@.10'      6     8     11     0.8     0.6     16     2     1       Average      94     101     125     61.8     11.4     7     42     166       Highest      109     120     156     63.5     13.6     47     53     171	WA008118				107	62.2	12.6	5	43	161
ESPERIA      86     96     61.9     12.8     0     31     159       IDO683      77     89     62.1     13.6     37     49     161       C.V. %      9     8     6     1.0     4.1     171     4     1       LSD '@ .10'      6     8     11     0.8     0.6     16     2     1       Average      94     101     125     61.8     11.4     7     42     166       Highest      109     120     156     63.5     13.6     47     53     171	WHETSTONE		83	92	102	63.4	13.0	0	34	159
IDO683      77     89     62.1     13.6     37     49     161       C.V. %      9     8     6     1.0     4.1     171     4     1       LSD '@ .10'      6     8     11     0.8     0.6     16     2     1       Average      94     101     125     61.8     11.4     7     42     166       Highest      109     120     156     63.5     13.6     47     53     171	WA008121				99	61.6	13.1	33	48	161
C.V. %      9     8     6     1.0     4.1     171     4     1       LSD '@.10'      6     8     11     0.8     0.6     16     2     1       Average      94     101     125     61.8     11.4     7     42     166       Highest      109     120     156     63.5     13.6     47     53     171	ESPERIA			86	96	61.9	12.8	0	31	159
LSD '@ .10'    6   8   11   0.8   0.6   16   2   1     Average    94   101   125   61.8   11.4   7   42   166     Highest    109   120   156   63.5   13.6   47   53   171	IDO683			77	89	62.1	13.6	37	49	161
Average    94   101   125   61.8   11.4   7   42   166     Highest    109   120   156   63.5   13.6   47   53   171	C.V. %		9	8	6	1.0	4.1	171	4	1
Average    94   101   125   61.8   11.4   7   42   166     Highest    109   120   156   63.5   13.6   47   53   171			6	8	11	0.8	0.6	16	2	1
Highest 109 120 156 63.5 13.6 47 53 171	Average		94	101	125	61.8	11.4	7	42	166
			109	120	156		13.6	47	53	171
			83	77	89	58.7	9.7	0	31	159

## Reardan Hard Winter Wheat - Preliminary Data

- 1. Grain yield in the Reardan hard winter wheat trial averaged 125 bushels/acre, 31 bushels/acre higher than the 3-year average for this location. The Pullman nursery was located about seven miles west of Reardan, WA (Hal Johnson, cooperator).
- 2. This nursery was seeded on 21 September, 2009 following fallow. Seed was placed at an 85#/ acre seeding rate using a double-disc plot drill set on 6-inch spacing. Base fertilizer was 85#N/ acre and a spring soil test showed 259#N/acre available in the top 4-foot sample. Based on the soil test N levels and the projected yield and protein levels for hard winter wheat, the available nitrogen at this location should have been adequate for target hard wheat protein, but yields far exceeded projected values. Fall seeding conditions, emergence, and overwinter conditions were good.
- 3. Yields ranged from 89 bu/ac to 156 bu/acre. All yield values within the 10% LSD range of the highest yield are shown in bold and 4 of the 30 trial entries are in the top group. Boundary was the highest yielding named variety in the trial. Stripe rust was minimal at this location. The lattice RCBD experimental design improved variation allocation during statistical analysis and the CV by 69% for yield.
- 4. Test weights were good and averaged 61.8 lb/bu with a range from 58.7 to 63.5 lb/bu.
- 5. Grain protein was low due to high yields and averaged 11.4% with a range of 9.7 to 13.6%. Plant height averaged 42 inches. There was some lodging.