## 2010 WSU EXTENSION SPRING BARLEY NURSERY AT DAYTON, WA.

| Variety Name <br> *Hulless Italicized | 5 YEAR AVERAGE (LBS/A) | 3 YEAR AVERAGE (LBS/A) | 2 YEAR AVERAGE (LBS/A) | 2010 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{aligned} & \text { YIELD } \\ & \text { (LBS/A) } \end{aligned}$ | TEST WT <br> (LBS/BU) | PROTEIN <br> (\%) | $\begin{gathered} \text { PLANT } \\ \text { HT } \end{gathered}$ | $\begin{aligned} & \text { HEAD } \\ & \text { DATE } \end{aligned}$ |
| 2004NZ163 |  |  |  | 5940 | 50.4 | 12.5 | 30 | 172 |
| 06WA-412.4 |  |  |  | 5790 | 51.9 | 12.4 | 31 | 169 |
| 05WA-316.K |  |  | 4220 | 5510 | 48.4 | 12.4 | 32 | 170 |
| LENETAH |  | 3940 | 4330 | 5430 | 51.7 | 12.7 | 34 | 169 |
| 04WNZ-124 |  | 3520 | 4000 | 5310 | 48.5 | 13.4 | 29 | 172 |
| SPAULDING | 4250 | 3590 | 3880 | 5230 | 51.8 | 11.8 | 34 | 168 |
| 05WA-316.99 |  |  | 3820 | 5230 | 48.5 | 11.8 | 34 | 169 |
| CHAMPION | 4470 | 3820 | 4070 | 5190 | 52.0 | 12.2 | 35 | 168 |
| 2004NZ151 |  |  |  | 5180 | 46.9 | 12.5 | 27 | 172 |
| 05WA-329.49 |  |  | 4130 | 5080 | 52.6 | 12.2 | 35 | 167 |
| 04WA-113.22 |  | 3580 | 3850 | 5050 | 50.9 | 12.3 | 32 | 168 |
| WAS 2 |  |  |  | 4920 | 53.3 | 12.3 | 30 | 169 |
| WAS 1 |  |  |  | 4840 | 48.9 | 12.9 | 33 | 168 |
| 06WA-458.14 |  |  |  | 4760 | 49.1 | 12.8 | 34 | 168 |
| MERESSE | 3270 | 3010 | 3360 | 4760 | 60.9 | 12.5 | 33 | 169 |
| RADIANT | 4350 | 3710 | 3930 | 4740 | 49.8 | 12.4 | 35 | 170 |
| TETONIA |  |  | 3970 | 4690 | 50.0 | 12.1 | 33 | 170 |
| BARONESSE | 4160 | 3580 | 3860 | 4550 | 48.7 | 12.9 | 32 | 170 |
| 06WA-426.49 |  |  |  | 4550 | 47.6 | 12.6 | 32 | 168 |
| 06WA-423.21 |  |  |  | 4540 | 48.4 | 12.6 | 33 | 169 |
| PINNACLE |  |  | 3140 | 4480 | 51.6 | 11.6 | 34 | 167 |
| WAS 4 |  |  |  | 4470 | 59.3 | 11.9 | 31 | 170 |
| 06WA-426.42 |  |  |  | 4460 | 47.9 | 13.1 | 34 | 170 |
| 07MB-390 |  |  |  | 4450 | 48.7 | 12.9 | 34 | 169 |
| BOB | 4060 | 3530 | 3840 | 4350 | 51.1 | 13.1 | 34 | 168 |
| 06WA-406.28 |  |  |  | 4300 | 45.4 | 13.2 | 34 | 170 |
| CDC MEREDITH |  |  |  | 4120 | 46.2 | 12.7 | 33 | 171 |
| 06WA-421.23 |  |  |  | 4040 | 46.2 | 13.1 | 35 | 168 |
| 06WA-406.9 |  |  |  | 3940 | 45.1 | 13.4 | 34 | 169 |
| WAS 3 |  | 2780 | 3060 | 3940 | 59.7 | 12.6 | 34 | 168 |
| AC METCALFE | 3360 | 2720 | 2990 | 3860 | 48.6 | 13.0 | 34 | 168 |
| HAXBY |  | 3340 | 3330 | 3790 | 53.0 | 12.4 | 34 | 168 |
| HARRINGTON | 3570 | 2960 | 3080 | 3710 | 46.7 | 13.1 | 34 | 170 |
| BENTLEY |  |  |  | 3570 | 47.8 | 12.8 | 38 | 167 |
| CLEARWATER |  |  | 2660 | 3390 | 59.4 | 13.2 | 36 | 170 |
| CDC COPELAND |  | 2660 | 2670 | 3180 | 47.3 | 13.0 | 36 | 170 |
| C.V. \% | 9 | 8 | 8 | 8 | 1.3 | 3.2 | 4 | 1 |
| LSD '@.10' | 210 | 240 | 310 | 490 | 0.9 | 0.6 | 2 | 1 |
| Average | 3940 | 3460 | 3610 | 4590 | 50.4 | 12.6 | 33 | 169 |
| Highest | 4470 | 3940 | 4330 | 5940 | 60.9 | 13.4 | 38 | 172 |
| Lowest | 3270 | 2660 | 2660 | 3180 | 45.1 | 11.6 | 27 | 167 |

## Dayton Spring Barley - Preliminary Data

1. Grain yield in the Dayton spring barley trial averaged 4590 pounds/acre, 650 pounds/acre higher than the 5-year average for this location. The Dayton nursery was located 6 miles north of Dayton, WA (Jay Penner, cooperator).
2. This nursery was seeded on 19 March, 2010 following winter wheat. Seed was placed at a 90\#/ acre seeding rate using a double disk plot drill set on 6-inch spacing. Base applied fertilizer was $100 \# N /$ acre and a pre-fertilization soil sample showed an additional 84\#N residual. Spring seeding conditions were good, but early spring conditions were dry until unusually prolific rainfall started in May. At the field tour for this location, on June 29, many spring wheat varieties were covered with stripe rust, but we did not find inflection in the barley. Different types of stripe rust attack wheat and barley and we did not see significant barley stripe rust this year. The Alpha Lattice experimental designs improved variation allocation during statistical analysis and the CV by $19 \%$ compared to a RCBD design.
3. Yields ranged from $3180 \mathrm{lb} / \mathrm{ac}$ to $5940 \mathrm{lb} / \mathrm{ac}$. Yield values within the LSD range of the highest yield are shown in bold and 3 of the 36 entries are in this group. All entries were 2-row and hulless entries are listed in italic.
4. Test weights were good with an average of $50.4 \mathrm{lb} / \mathrm{bu}$ and ranged from 45.1 to $60.9 \mathrm{lb} / \mathrm{bu}$ with the high values produced by hulless cultivars. Grain protein averaged $12.6 \%$ and the average plant height averaged 33 inches.
