Pullman Soft White Spring Wheat – Preliminary Data

1. Grain yield in the Pullman soft white spring wheat trial averaged 51 bushels/acre and was 17 bushels/acre lower than the 5-year average for this site. The Pullman nursery was located two miles south of Pullman, WA on the WSU Spillman Experimental Farm.

2. This nursery was seeded on 15 April, 2010 following mustard. Seed was placed at an 80#/acre seeding rate using a double-disc drill set on 6-inch spacing. Base applied fertilizer was 90#N/acre and an early spring soil test showed an additional 143#N/acre in the top 4 foot profile. Spring seeding and growing conditions were good, but stripe rust was severe. Early growing conditions were favorable for plant growth but were followed by dry conditions during grain filling. The spring wheat breeding program cooperated with the variety testing program conducting this study.

3. Yields ranged widely from 31 bu/ac to 77 bu/ac. Yield values within the LSD range of the highest yield are shown in bold and 1 of the 24 entries are in this group. The club variety JD was highest yielding. The lattice RCBD experimental design improved variation allocation during statistical analysis by 35% for yield. Stripe rust was a strong factor in this trial with high infection levels for susceptible varieties before heading.

4. Test weights averaged only 55.2 lb/bu and ranged from 50.9 to 59.9 lb/bu. Grain protein averaged 14.0% with a range of 13.1 to 15.0%. The average plant height was 36 inches. Limited precipitation during grain filling and stripe rust contributed to low test weights, high protein and variable yields.