

B. Origin and Breeding History of 95WV10616 Hard Red Spring Wheat.

Experimental wheat 95WV10616 results from the cross of the Express red wheat variety with a breeding line obtained from the now non-existent Northup King Co. wheat breeding program. The genealogy for the breeding line is Probrand 2437/3/Cleo/Inia//Klasic/4/UC Tadorna/5/Azteca and is composed of the variety Northup King varieties Probrand 2437 and Klasic along with some University of California at Davis experimental lines and the variety Azteca developed at the International Maize and Wheat Improvement Center (CIMMYT) in Mexico.

The cross with Express was made in 1995 at Woodland, Ca. Using the pedigree method and individual plant selection an F3 derived plant selection was advanced to an F4 progeny row and subsequently bulked for yield trial testing as a F5 generation population in year 1998. During the selection phase, particular emphasis was placed on advancing plants exhibiting good standability, disease resistance and attractive kernel characteristics. Since being selected based on yield trial performance data in 1998, this line has been subsequently tested for seven additional years. During reproduction and testing in replicated trials in California, Idaho and Washington, 95WV10616 has been stable and uniform for plant type.

A seed purification process was begun in 2001 using head to row selections, allowing for Breeder seed production in 2005 and Foundation seed production in 2006.

C. Description of 95WV10616 Wheat.

See exhibit C.

Exhibit D. Additional Description of 95WV10616.

This hard red spring wheat is adapted to the Columbia Basin of Washington. It exhibits erect juvenile plant growth. The plant color at boot is green and the flag leaf is recurved, twisted and waxy. Its heading date and plant height are very similar to the variety Express (see table 1 and 2). It has yellow anthers, green heads at flowering and tan chaffed heads at maturity. Seed of 95WV10616 is ovate, hard, red, with rounded cheeks and medium uncollared brush. It appears to have some stripe rust tolerance to races present in the Columbia Basin in 2005 (see table 3). It can be noted that up to 35 white kernels can be found in the 95WV10616 seed stock.