

Application for Variety Certification

A. Variety Name:

BR 3666

B. Origin and Breeding History of BR 3666 hard red spring wheat:

BR 3666 was derived from a 1992 F² head selection in a World Wide Wheat, L.L.C. male sterile facilitated recurrent selection (MSFRS) quality hard red spring wheat population grown at Maricopa, Arizona in 1993. An F³ "best plant" selection was made at Moscow, Idaho under severe Hessian fly pressure that fall. Best plant selection continued through the F⁷. A breeder strip of BR 3666 was grown at Ronan, Montana in 1997. This is the basic germplasm for the initial Foundation Seed Increase.

Approximately 1 in 1,000 male sterile plants were rogued from the breeder strip. As is frequently the case with genetic recessive MSFRS breeding, genetic male steriles may occur in the Foundation seed field at the rate of 1 to 1,000 because of seed set on unidentified male sterile plants. To reduce or eliminate this problem, head rows are being grown at Maricopa Arizona in 1998.

C. Detailed Description:

Juvenile growth of BR 3666 is erect. Spikes are mid-dense, awned, tapered and white at maturity. Glumes are white & glabrous elevated to apiculate shoulders. Beaks are apiculate and 10 mm long. Seeds are dark red, ovate (3.5 mm x 6.5 mm) with a mid-size germ and collared with a brush. The crease is shallow and wide with angular cheeks. Seed weight is 40 grams per 1,000 kernels. At the flag leaf stage leaves are a dark green and not recurved. Seed head at maturity is on a long peduncle which may be 46 cm long under optimum growing conditions with the second stem internode at 24 cm length. Flour quality and protein are competitive with other commercial hard red spring wheats. A height range is 32" at Tamanny in 1996 to 50" in Maricopa in 1998 under full irrigation has been noted. Lodging has been minimal. As there is a general lack of disease in Arizona, comprehensive disease data is not available. BR 3666 is known to have a tolerance for Hessian fly and has some susceptibility to rust.