

PB1-95-2R-A629

SPRING BARLEY

#### V. Origin and Breeding History

PB1-95-2R-A629 originated as an F5 single plant selection from the cross PB1-88-2R-801 / VD403582. PB1-88-2R-801 was selected from the PB1 cross Vanguard / Imber // Zephyr /// Heavyweight. PB1's Heavyweight is a sister line to PB1's Seven. The population from which PB1-95-2R-A629 was selected was grown in Tammany, Idaho, as an F2, F3 and F4 bulk. In F5 single head hills were selected on the basis of agronomic appearance, yield and test weight. These 1994 Tammany selections were tested in PB1's preliminary, intermediate and advanced yield trials. In small field acreages grown in Nez Perce County, Idaho, during the years 1998 and 1999, PB1-95-2R-A629 exceeded Baroness in yield. PB1-95-2R-A629 is agronomically uniform and genetically stable (see observed variants section).

#### VI. Novelty Statement

PB1-95-2R-A629 is most similar to the 2 row feed barley Seven. PB1-95-2R-A629 is distinguishable from Seven for the following traits.

PB1-95-2R-A629 is moderately resistant to barley stripe rust while Seven is susceptible to this disease.

PB1-95-2R-A629 heads on average three days earlier than does Seven.

PB1-95-2R-A629's plant height averages 7 cm shorter than Seven's.

PB1-95-2R-A629 averages 0 - 1 percent sterile florets per head while Seven averages 5 - 8 percent sterile florets per head.

PB1-95-2R-A629 has short rachilla hairs while Seven has long rachilla hairs.

#### VIII. A. Geographic areas of adaptation

Initially PB1-95-2R-A629 will be released in northern Idaho and eastern Washington. This barley is currently included in the Western Regional Spring Barley Nursery, affording the opportunity to observe PB1-95-2R-A629 under diverse environments.

#### VIII. B. Regeneration of breeders seed

About 250 heads of PB1-95-2R-A629 will be planted in hills. Off types will be discarded. The remaining hills will be bulked forming the breeders seed generation. Prior to bulking, a sample from each selected hill will be saved initiating the production cycle for the next round of breeders seed.

#### VIII. C. Generations to be recognized for certification

Breeders, foundation, registered and certified seed will be recognized. Common seed of PB1-95-2R-A629 will also be available.

#### VIII. G. Description of PB1-95-2R-A629 for AOSCA publication

PB1-95-2R-A629 is a two rowed, feed type, spring barley, *Hordeum vulgare*. Juvenile growth erect, tillering high. Leaves at booting yellow green; flag leaf semi upright, curled, waxy. First leaf below flag leaf mid-wide, long, glabrous. Auricles white, glabrous. Basal leaf sheath glabrous tending to purple, glabrous. Heading date midseason, 1 day later than Steptoe. Stem at maturity white, moderately stiff. Spike fusiform, lax, long, waxy, nodding at maturity; rachis edge hairy. Glumes  $1/3$  to  $1/2$  lemma length; glume awns rough, equal to glume length. Lemma awns long, rough; rachilla hairs short. Kernel covered, wrinkled, mid-long to long; aleurone colorless.

PB1-95-2R-A629 is adapted to the rain fed regions of northern Idaho and eastern Washington. PB1-95-2R-A629 is moderately resistant to barley stripe rust. Plant Breeders 1 will maintain breeders seed of this barley. Foundation, registered and certified seed will be produced by cooperating seed companies. The first certified seed availability will be in 2001. Plant Variety Protection will not be under the certification option.