REGISTRATION OF 'VIRDEN' BARLEY

'VIRDEN' barley (Hordeum vulgare L.) (Reg. no. 209) (PI 512037) (Canadian Reg. no. 2834) was developed by the Agriculture Canada Research Station, Brandon, Manitoba, Canada, and released 1 May 1987. It was tested as BT 363 for 3 yr prior to registration in the Canadian Western Cooperative Six Row Barley Test. Virden originated as a single F₂ plant from the cross WA6415-66/'Bonanza'/NDB136//UW67-739R/Bonanza/'Dickson'. WA6415 originated from Washington State University, NDB136 originated from North Dakota State University, and UW67-739R originated from the University of Manitoba. Virden was selected, using the pedigree method, through the F₄ generation, and tested in replicated trials from the F₁ to F₄ generation.

Virden is a six-rowed spring feed barley with smooth awns. The covered kernels have white (yellow) aleurone and short to midlong rachillas with long hairs. Glumes show long awns and few hairs. The spike is midlong to long, semierect, and semilax. Virden is late-maturing with strong straw of medium height. It is resistant to Cochliobolus sativus (Ito & Kurib. in Kurib.) Drechs ex Dast. (common root rot) and to Puccinia graminis f. sp. tritici Eriks. & E. Henn. (stem rust), and moderately resistant to Pyrenophora teres Drechs. (net blotch), Ustilago nuda Topke (false loose smut), and U. hordeii (Pers) Lagerh. (covered smut). Virden is moderately susceptible to U. nuda (L.) Rostr. (loose smut). It does not meet quality standards for Canada Select malting grades, but is eligible for all other Western Canadian barley grades. On average, Virden yielded 12 and 6% more than 'Bedford' and 'Heartland', respectively, when tested in the Canadian Western Cooperative Six Row Barley Test (WCOOP) from 1984 to 1986, inclusive (72 site-yr). Test weight is 4% less and the 1000-kernel weight is 20% greater than Bonanza, in 3 yr of testing in the WCOOP. Also, straw strength of Virden is equal to or better than that of Bedford or Heartland, and straw length is equal to that of Bonanza. Virden matures 4 d later than Bonanza.

This cultivar is named for the city of Virden, Manitoba, which borders with eastern Saskatchewan and is central to its area of adaptation. Seed of Virden will be distributed by SeCan (Canada) Association, Ottawa, Ontario.

M. C. Therrien,* R. B. Irvine, K. W. Campbell, and R. I. Wolfe (1)

References and Notes


REGISTRATION OF 'MONIDA' OAT

'MONIDA' spring oat (Avena sativa L.) (Reg. no. 319) (PI 512038) was developed by the Iowa Agriculture and Home Economics Experiment Station in cooperation with USDA-ARS and released in 1984. This cultivar is a composite of isolines (2) that differ in genes for resistances to the crown rust fungus (Puccinia coronata Cda.). Such multinl composites are believed to provide effective, long-lasting resistance to crown rust (1). The isolines composited to form breeder seed of Webster were developed through backcrossing with 'Lang' (CI 9257) as the recurrent parent. Crossing and backcrossing to develop the isolines were completed in 1978. The pedigrees for the Webster isolines are shown in Table 1.

After completion of backcrossing in each mating, ca. 2000 BC:F₂ plants per mating were space-sown in the field and selected for resistance to crown rust, tolerance to barley yellow dwarf virus (BYDV), and appearance. Surviving BC:F₂-derived lines that were homogeneous for resistance were sown in agronomic-crown rust nurseries as F₃ and F₄ progenies. Further selection was practiced in these nurseries for reaction to crown rust, BYDV tolerance, intraline uniformity, and 1976 and entered in the Uniform Northwestern States Oat Nursery in 1979.

Monida is a midseason, relatively tall spring oat with blue-green foliage and equilateral panicles. Juvenile plant growth is erect. Leaf sheath, leaf margins, and culm internodes are glabrous. Monida is typically plump, creamy-white in color, and similar in appearance to those of Otana. Monida is taller than Cayuse but shorter than Otana. It is similar to Cayuse and Otana in lodging resistance. Monida averaged 1 d later than Cayuse and Otana in heading date in regional trials.

Monida averaged 107% of Cayuse and 114% of Otana in yield in 70 station-yr of testing (1978-1984) in irrigated trials in the Uniform Northwestern States Oat Nursery. In similar regional dryland trials in 70 station-yr of testing, Monida averaged 102% of Cayuse and 108% of Otana in yield. Except for Otana, Monida exceeded Cayuse and other commonly grown western oat cultivars in test weight in these trials. Test weight of Monida ranged from 95% of Otana on dryland to 98% of Otana under irrigation. Monida is similar to Otana in great content but averaged 71.9% in regional irrigated trials vs. 70.0% for Cayuse. It has averaged 17.0% protein in limited comparisons in regional trials or about one percentage point lower than Cayuse and Otana.

Breeder and foundation seed will be maintained by the University of Idaho Tetonia Research and Extension Center, P.O. Box 1231, Star Route, Newdale, ID 83436.

D. M. Wesenberg,* V. R. Stewart, and J. C. Whitmore (1)

References and Notes


We gratefully acknowledge the assistance of D.E. Burtin, USDA-ARS, Aberdeen, ID and the Uniform Northwestern States Oat Nursery cooperators, in the development and evaluation of Monida.

Published in Crop Sci. 28:374 (1988).

REGISTRATION OF 'WEBSTER' OAT

'WEBSTER' oat (Avena sativa L.) (Reg. no. 319) (PI 512038)