CROP REGISTRATIONS

Intriguingly susceptible, and is now susceptible to biotypes of crown rust identified as Canadian races 13, 20, 36, 50, 152, and 169 and to U.S. races 264B, Pc58, Pc59, and Pc62. Dal has the AB genes for stem rust resistance. Using nomenclature of the 1950s and 1960s, gene A, often referred to as the 'Richland' gene, governed resistance to then prevalent races 7 and 7A. Gene B, tracing to 'Hajira', governed resistance to race 8. Using current nomenclature, Dal has an avirulence/virulence genotype of 2,4/1,3,8,9. Thus, Dal is resistant to stem rust races NA 8 and NA 16 but is susceptible to races NA 25, NA 26, NA 27, and NA 28. Dal is also resistant to loose smut [Ustilago avenae (Pers.) Rostr.].

Dal was the leading oat cultivar in Wisconsin for more than 10 yr, and more than 12,000 ha per year are still being grown in Wisconsin. Designated classes of certified seed are breeder, foundation, registered, and certified. Breeder seed has been maintained by the Department of Agronomy, University of Wisconsin-Madison. Plant Variety Protection Certificate No. 7200136, with the Wisconsin Agricultural Experiment Station as owner, was issued in October 1976. Dal was one of the first oat cultivars protected under the U.S. Plant Variety Protection Act of 1970. Dal is protected under the certification option which specifies that the cultivar name, in this case Dal, can only be used when sold as a class of certified seed.

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References and Notes

5. H. L. Shands, R. A. Forsberg, and R. D. Duerst, Dep. of Agronomy, Univ. of Wisconsin-Madison, 1575 Linden Dr., Madison, WI 53706; and D. M. Wesenberg, USDA-ARS, Univ. of Idaho Aberdeen Res. and Ext. Ctr., P.O. Box 307, Aberdeen, ID 83210. Registration by CSSA. Accepted 30 Nov. 1990. *Corresponding author.


REGISTRATION OF ‘GOODLAND’ OAT

‘Goodland’ spring oat (Avena sativa L.) (Reg. no. CV-327, CI 9202, PI 544347) was developed by workers in the Department of Agronomy, College of Agricultural and Life Sciences, University of Wisconsin-Madison, and was released in January 1974. The parentage of Goodland is ‘Trispermia’/‘Belar’/2/‘Goodfield’/3/Goodfield/4/‘Garland’. The

and to the drill plot test at Arlington, WI, it tested in the USDA Uniform Midseason Oat Nursery from 1971 to 1973. Major reasons for releasing Goodland included good resistance to crown rust (Puccinia graminis Pers.:Pers., f. sp. avenae [Ustilago avenae (Pers.) Rostr.]), stiff straw, and high groat protein concentration. Goodland is intermediate in maturity, heading later than ‘Otee’ (1) and 2 to 3 d earlier than ‘Dal’ (4). Plant height is shorter than intermediate, 4 cm taller than Stout (2), 2 to 3 cm shorter than Dal, and 19 cm shorter than Lodi. Goodland has very stiff straw, reminiscent of its Goodfield (5) progenitor. Typical of many stiff-strawed genotypes, Goodland has been lower than yields of most cultivars but is well adapted to highly fertile soils. Goodland has the highest groat protein concentration of U.S. cultivars being grown at the time of its release, exceeding those of Otee. Groat protein yields were comparable to other cultivars. Goodland has yellow kernels that have high weight and groat percentage. Approximately 99.5% of the kernels are nonfluorescent under ultraviolet light.

Juvenile plants of Goodland are erect. Leaves are medium size, with ligules present. Culms are midsized and glabrous. Panicles are equilateral and midlong, with ascending branches during kernel filling but less erect at maturity. The rachis is straight. Spikelets separate from their pedicels by rupture rather than fracture, and florets separate by disarticulation of the inferior segments, which are hairless. Glumes are narrow, and awns are infrequent.

Goodland is resistant to crown rust races intermediate in response to races 263, 290, and susceptible to races 264 and 264B. It possesses genes for stem rust resistance. Using nomenclature of the 1950s and 1960s, gene A, often referred to as the 'Richland' gene, governed resistance to then prevalent races 7 and 7A. Gene B, tracing to ‘Hajira’, governed resistance to race 8. Using current nomenclature, Goodland has an avirulence/virulence genotype of 2,4/1,3,8,9. Thus, Goodland is resistant to stem rust races NA 8 and NA 16 but is susceptible to races NA 25, NA 26, NA 27, and NA 28. Goodland is resistant to races of loose smut [Ustilago avenae (Pers.) Rostr.] in Wisconsin at the time of release.

Designated classes of certified seed of Goodland are breeder, foundation, registered, and certified. Breeder seed was maintained by the Department of Agronomy, University of Wisconsin-Madison. Plant Variety Protection Certificate No. 7500004, with the Wisconsin Agricultural Experiment Station as owner, was issued in