resistant to crown rust (7), this being one of the reasons for its distribution. In the North Central reports (2,5) Dodge showed resistance to crown rust races 203, 216, 290, and 294 and had low coefficients of infection. The stem rust genotype is AbD. Dodge has an intermediate to resistant response to smut and is susceptible to red leaf. Stem Septoria response is intermediate.

Dodge increased in acreage after its distribution and was grown on 5% of the oat acres in Wisconsin in 1964 according to the Wisconsin Statistical Reporting Service. It is not as popular as Garland which was released later.

Literature Cited

7. CHAPMAN, W. H. Personal communication.

Registration of Garland Oats<sup>1</sup> (Reg. No. 201)

H. L. Shands, R. A. Forsberg, and Z. M. Arawinko

"Garland," Avena sativa L. C.I. 7458, is from the same series of crosses as ‘Goodfield’ and ‘Dodge.’ The parents were ‘Cintland’ (‘Garry’ × ‘Hawkeye-Victoria’). Garland appears to have wider adaptation and more yield potential than its sister varieties. It was first distributed in 1962 (1). The breeding and selection history of Garland differs from that of Goodfield and Dodge in that the F<sub>3</sub> plants were rigorously selected in the field in 1954. Seeds of some F<sub>3</sub> plants were increased in Mexico by courtesy of D. G. Fletcher of the Crop Quality Council. The F<sub>2</sub> generation was selected in Madison in 1955. The F<sub>2</sub> was the last generation of selection (in 1956). Yield testing began in 1957 at which time Garland’s yield exceeded that of ‘Sauk’ by 19.8 bushels per acre at Madison, Wis., showing the advantage of excellent crown rust resistance under natural epiphytotic conditions of race 216. Lodging was much less than in Sauk. The following year Sauk had 5.6 bushels greater yield under noncrown rust and nonlodging conditions.

Yield testing has continued through 1965 in Wisconsin at several locations with results published through 1965 (10). Yields and bushel weights of ‘Beedee,’ the most widely grown variety in Wisconsin, and Garland are essentially the same for 1959-62. In the North Central nursery 1959-61 (2,3,4) Garland yields were just below the upper quartile. The final increase prior to distribution produced more than 120 bushels per acre.

Garland has yellow hulls with kernels that are moderately short and well filled, giving high bushel weights. Plant height is intermediate to short and rather uniform. Panicles are moderately compact with probably more kernels per panicle than Dodge. Garland resists lodging, but not as well as Goodfield. Headling and ripening are earlier than Dodge.

During the early testing period Garland was highly resistant to naturally-occurring crown rust races. Since then it has become more susceptible, probably because of a change in races of the pathogen; it is generally more susceptible than Dodge but less so than Goodfield. The three varieties have shown more resistance than ‘Cinthland 60,’ giving evidence of ‘Victoria’ or ‘Hawkeye’ resistance in addition to that from ‘Landhafer.’ Garland has the ABd genotype for stem rust reaction; but this may not be adequate if certain “A” stem rust races including 6AF and 6AFH become damaging. Murphy (7) referred to the oat stem rust situation in the North Central states as “complicated and ominous.” Garland is intermediate in stem Septoria response, and is resistant to smut; but is susceptible to red leaf.

Garland resembles the “Bond” variety phenotype but appears better adapted in northerly parts of the Corn Belt. If rusts and red leaf do not develop epiphytotically, Garland is expected to yield well in Wisconsin and other North Central states (5,6,8,9,11).

Literature Cited


Registration of Lodii Oats<sup>1</sup> (Reg. No. 202)

H. L. Shands and R. A. Forsberg

‘Lodi’, Avena sativa L. C.I. 7561, is a tall, stiff-strawed, late oat that was distributed in Wisconsin in 1963 (3). Lodi was selected from a series of crosses, the first pair being made in 1935: ‘Richland’ × ‘Bond’ and ‘Hawkeye’ × ‘Victoria.’ The third was ‘Garry’ (C.I. 4801), susceptible to Helminthosporium victoriae M and H crossed with a Hawkeye × Victoria selection in 1947. This G-H-V line, X421-5-2, is also a parent of ‘Goodfield,’ ‘Dodge,’ and ‘Garland.’ The fourth and final cross, (Richland × Bond) × (Garry-Hawkeye-Victoria) was made in 1953. The richland × Bond selected with high resistance to H. victoriae, thus indicating natural hybridization with a Victoria-Richland derivative since the crown rust response was

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