Registration of Crop Cultivars

REGISTRATION OF AMERICA KENTUCKY BLUEGRASS¹
(Reg. No. 23)

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'America' Kentucky bluegrass (Poa pratensis L.) was developed in Oregon by International Seeds, Inc., using germplasm obtained from the New Jersey Ag ric. Exp. Stn. It was released by International Seeds, Inc. and Pickseed West, Inc., with the first certified seed produced in Oregon in 1980. America had the experimental designation IS-154.

America originated as a single, highly apomictic plant. A highly sexual hybrid was selected from the F₁ progeny of the cross 'Bellevue' × 'Beltvue'. America was selected from the open-pollinated progeny of this highly sexual parent. The degree of apomictic reproduction in America was determined by examination of field-grown spaced-plant progenies.

America is a leafy, low-growing, turf-type bluegrass capable of producing an attractive, compact, fine-textured turf of high density and a bright, dark green color. America shows promise of good performance in both light to moderate shade and full sun in Southern Canada and regions of the United States where dense, compact, turf-type Kentucky bluegrasses are well adapted. It turns green in early spring, stays green into late fall, and has the ability to maintain good winter color in protected locations. America is compatible in blends with most other Kentucky bluegrass cultivars and in mixtures with fine fescues and improved turf-type ryegrasses. The cultivar has exhibited good resistance to the leaf spot and crown rot disease incited by Drechslera poae (Baudys) Shoem., and stem rust caused by Puccinia graminis Pers. It shows less damage from stripe rust caused by Puccinia striiformis West. than most available Kentucky bluegrass cultivars.

Breeder seed is maintained by International Seeds, Inc., P.O. Box 168, Halsey, OR 97348. Two generations of increase beyond breeder seed are authorized: foundation and certified. United States Plant Variety Protection Certificate No. 8100011 has been issued for America.

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REGISTRATION OF PORTER SPRING OAT¹
(Reg. No. 299)

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'Porter', C19412, spring oat (Avena sativa L.) was developed at the Purdue Univ. Agric. Exp. Stn. in cooperation with USDA-ARS. It was released in 1981. Porter was tested in Indiana and regionally as Purdue 70408E1-3-25-2. Porter is a selection from the cross: Purdue 623A1-1-9-1/Stout. P623A1-1-9-1 has resistance to barley yellow dwarf, derived from a combination of resistances from CI 7884, 'Putnam', and 'Albion'. Stout has adult plant resistance to crown rust caused by Puccinia coronata Cda. f. sp. avena Ericks. & E. Benn. derived from PI 174544.

The pedigree of Porter is: CI 7884 selection/3/Putnam*5/Minn. 313*2/Albion/4/Stout.

Porter was developed by using a modified pedigree method of breeding with single plant selection of the F₄, F₅, and F₆ generations. Off-type plants were rogued in F₄ and F₅. Breeder seed from production at Lafayette, Ind., in 1980 was F₆ seed; that from a 1980–1981 Florida increase was F₅ seed.

Porter was tested in nursery trials at Lafayette from 1977 to 1980, in Indiana intra-state drill trial field trials in 1979 and 1980, and in cooperative Uniform Midsow Oat Performance Nursery trials in 1979 and 1980. It also has been tested in greenhouse and field disease nurseries at Lafayette.

It ranked first for yield over 39 year location tests in the Uniform Midsow Oat Performance Nursery in 1979 and 1980. The grain test weight of Porter is generally superior or equal to that of Stout, 'Lancaster', 'Otee', and 'Noble'. The gross protein percentage of Porter averaged 17.3% at nine locations in 1979, and is similar is that to Lang and Noble but lower than that of 'Otee' and 'Dal'. The gross oil percentage of Porter is 7.2%. Plant height of Porter averages 1 cm taller than that of 'Clinton 64'. Porter flowers about 7 days later than Clinton 64 and 1 day later than Dal.

Porter has a novel combination of effective resistance (or tolerance) to the barley yellow dwarf virus, with a moderate resistance to crown rust, and late maturity.

Porter's resistance to barley yellow dwarf has been generally superior to that in other varieties, including Lang, Otee, Noble, and Albion. The crown rust resistance of Porter also is superior to that of these cultivars. Porter has moderate adult plant resistance to crown rust similar to that of Stout, the resistant parent. Crown rust ratings generally were intermediate under natural epidemics. Porter is several days later in heading than Lang, Otee, and Noble.

In rust nurseries at Lafayette, where races 216, 264, and 326 of P. coronata were used as inoculum, reactions were of the moderately resistant to moderately susceptible types on adult plants. Porter is susceptible to Puccinia graminis Pers. sp. avenae Ericks. and E. Benn. races now naturally occurring in Indiana. It appears to have genes Pg 1, Pg 2, and Pg 4 for resistance to P. graminis sp. avenae.

Porter is resistant to the Indiana collection of Ustilago avenae (Pers.) Rostr. which is maintained on the susceptible variety 'Anthony'.

Porter is moderately resistant to Pseudomonas coronafaciens (Elliott) F. L. Stevens, which causes halo blight.

Stem diameter is medium, similar to that of 'Clinton 64'. Upper culm nodes are hairless. Mature stem color is reddish. Leaves are erect and dark green. Leaf margins are glabrous, and ligules are present. The penultimate leaf averages 12 mm wide. Panicle shape is intermediate. The lower whorl of branches is attached at the first node. Panicle size is medium and narrow. Branches are ascending. Average panicle length is 18 cm. Average number of branches per

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