Registration of Crop Cultivars

REGISTRATION OF AMERICA KENTUCKY BLUEGRASS
(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 Agric. 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’ × ‘Belturf’. 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.

ACKNOWLEDGMENTS

Some of this work was performed as part of NJAES Project 15166, supported by New Jersey Agric. Exp. Stn. funds and other grants and gifts. Additional support was received from the U.S. Golf Association Green Section Research and Education Fund, Inc.

Porter is a selection from the cross: Purdue 623A1-1-9-1 has resistance to barley yellow dwarf and a combination of resistances from CI 7684, ‘Putnam’, and ‘Albion’. Porter has adult plant resistance to crown rust of Cda. f. sp. avenae Ericks. & E. Henn. races 174544.

The parentage of Porter is: CI 7684 selection/313*2/Albion/4/Stout.

Porter was developed by using a modified pedigree method of breeding with single plant selection in the F2, F3, and F4 generations. Off-type plants were rogued in F10 and F12. Breeding was conducted at Lafayette, Ind., in 1980 as F13 seed; in 1981 Florida increase was F14 seed.

Porter was tested in nursery trials at Lafayette and was evaluated as a possible cultivar in Indiana intra-state drill plot trials in 1979 and 1980. Cooperate Uniform Midseason Oat Performance Tests in 1979 and 1980. It also has been tested in greenhouse nurseries at Lafayette.

It ranked first for yield over 39 year location tests in the International Oat Seed Testing Program from 1941 to 1965. The weight of Porter is generally superior or equal to that of ‘Lang’, ‘Otee’, and ‘Noble’. The groat protein percentage of Porter is 17.3% at nine locations in 1979, and is generally higher than that of Lang and Noble but lower than that of Otee and ‘Dal’. The groat weight of Porter is 7.2%.

Porter has a novel combination of effective resistance to the barley dwarf, which is generally superior to that of other varieties, including ‘Lang’, ‘Otee’, and ‘Noble’. The crown rust resistance of Porter is also superior to that of these cultivars. Porter has moderate adult plant resistance to crown rust similar to that of Stout, the resistant parent. The rust generally were intermediate under natural epiphytotic conditions. The rust resistance was determined from 1977 to 1980, by the N.J. Oats Breeding and Ext. Foundation.

Porter is susceptible to Puccinia graminis Pers. f. sp. avenae Ericks. & E. Henn. races now naturally occurring in Indiana. Porter has the gene Pg 1,

Porter is resistant to the Indiana collection of races of Puccinia coronariae (Pers.) Rostr. which is maintained on the stand, ‘Anthony’.

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

Stem diameter is medium, similar to that of ‘Clintland 64’. Culm nodes are hairless. Mature stem color is reddish. Leaf margins are glabrous, and ligules are medium length and intermediate. The lower whorl of branches is always at the second node. Panicle size is narrow and narrow. Branches are smooth and fascicular. Branching is dense, and internodes are medium length. 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.

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