REGISTRATION OF CULTIVARS

Registration of ‘Brawn’ Oat

‘Brawn’ spring oat (Avena sativa L.) (Reg. no. CV-338, PI 570656) was developed at the Illinois Agricultural Experiment Station in cooperation with the USDA-ARS and was released in 1993. Prior to release, Brawn was tested as experimental line IL 85-6264-1. The performance of IL 85-6264-1 was evaluated in Illinois from 1987 to 1992 and in the Uniform Midseason Oat Performance Nursery in 1989, 1990, and 1991.

The parentage of Brawn is ‘Coker 227’//'Clintford’/‘Portal’/3/‘Ogle’/4/‘Don’. The experimental line IL 85-6264 was first selected as an F3 plant row that originated from a single panicle selected from an F2 bulk grown in the field at Urbana in 1984. The F2 and F3 generations of the bulk population were grown in the greenhouse using modified single-seed descent. The line designated IL 85-6264 was reselected in the F6 by selecting a single plant row grown from a single panicle. This reselected line, designated IL 85-6264-1, was increased to produce breeder seed of Brawn.

Brawn has been consistently high yielding in many environments. Based on data from trials in Illinois and the Uniform Midseason Oat Performance Nursery, Brawn has been equal to, or slightly better than, Ogle (1) for grain yield in most environments. In the Uniform Midseason Oat Performance Nursery, Brawn ranked fourth for grain yield in 1989 and second in 1990 and 1991. In comparison, the grain yield of Ogle ranked tenth in 1989, third in 1990, and twelfth in 1991.

Brawn is adapted to the northern Midwest region of the USA. Brawn is a midseason maturity cultivar, heading 2 d later than Ogle. Brawn is 5 cm shorter than Ogle in plant height, averaging 82 cm in the Uniform Midseason Oat Performance Nursery over 3 yr. Lodging of Brawn has been similar to or slightly higher than Ogle. Test weight of Brawn is about the same as Ogle. Brawn has yellow, midplump kernels that taper at the tips. The 1000-kernel weight for Brawn has been 9 to 30% greater than Ogle in comparisons in different environments. Groat percentage, groat protein content, and groat oil content of Brawn are similar to that of Ogle.

Brawn has been resistant to crown rust (caused by Puccinia coronata Corda f. sp. avenae Eriks. & E. Henn.) during development but may be susceptible to new races of crown rust. Brawn is resistant to loose smut [caused by Ustilago avenae (Pers.) Rostr.,] but susceptible to most races of stem rust (caused by Puccinia graminis Pers.: Pers. f. sp. avenae Eriks. & E. Henn.). Brawn is moderately tolerant to barley yellow dwarf virus, but slightly less tolerant than Ogle.

The juvenile growth habit of Brawn is erect. Culms, leaf margins, and leaf sheaths are glabrous. Ligules are present. Brawn has broad equilateral panicles with spreading branches.

by the Illinois Agricultural Experiment Station, USDA-ARS and Dep. of Plant Pathology, Univ. of Illinois, Urbana, IL 61801. The development of Brawn was supported by the Quaker Oats Co., Inc., Illinois Foundation, and Illinois Agric. Exp. Stn. Registration by CSSA. Accepted 31 May 1994. *Corresponding author.

We gratefully acknowledge the assistance of D.E. Cler, N.H. Gregerson in the development of Brawn.

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Registration of ‘Crystal’ Hop

Crystal, an aroma hop (Humulus lupulus L.) (Reg. no. CV-19; PI 573345) and a half-sister of ‘Ogle’ (3) and ‘Liberty’ (4), was released for commercial use in Oregon, Washington, and Idaho in July 1993 after 5 yr of large-scale commercial production and brewing trials. Although some major U.S. brewers abandoned Mt. Hood, indications of a potential Crystal market have been positive, particularly for smaller brewers, encouraged the release. Major advantages of Crystal include its early heading, high yield potential, and high alpha and beta traits similar to those of certain imported European hops.

Crystal originated as seedling selection No. S. 1388. it has since been tested under this number by the Illinois Agricultural Experiment Station, USDA-ARS and Dep. of Plant Pathology, Univ. of Illinois, Urbana, IL 61801. The development of Brawn was supported by the Quaker Oats Co., Inc., Illinois Foundation, and Illinois Agric. Exp. Stn. Registration by CSSA. Accepted 31 May 1994. *Corresponding author.

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References and Notes

2. F.L. Kolb and C.M. Brown, Dep. of Agronomy, and A.D. Hewings, USDA-ARS and Dep. of Plant Pathology, Univ. of Illinois, Urbana, IL 61801. The development of Brawn was supported by the Quaker Oats Co., Inc., Illinois Foundation, and Illinois Agric. Exp. Stn. Registration by CSSA. Accepted 31 May 1994. *Corresponding author.

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