Registration of Crop Cultivars

REGISTRATION OF 'SAMSON' BARLEY

'SAMSON' barley (Hordeum vulgare L.), PI 49476 (Reg. no. 201), was developed by Alberta Agriculture Crop Research, Lacombe, Alberta, Canada. It was selected from a cross of 'Olli'/M64-69/R72-181. The crosses were made by Dr. K.G. Briggs at the University of Alberta, Plant Science Department, Edmonton, Alberta, in 1969 and 1971. M64-69 was obtained from the Minnesota winter nursery in Mexico in 1969 with the pedigree of 'Jotun'/Kindred/‘Vantage’/3/‘Trophy’/4/‘Dickson’/5/M59-38. M59-38 is from Minnesota, resulting from a cross of Wisconsin X691 to ‘Swan’. R72-181 was selected in Mexico in 1972. The pedigree of this line is incomplete; however, we know the Minnesota line Jotun / Kindred // Vantage is part of its parentage. Both M64-69 and R72-181 carry the Jotun semi-dwarf gene.

'Samson' is an early maturing six-rowed cultivar, which was grown extensively in the northern areas of barley production in Alberta. In 1969, F1 seed of the cross Olli/M64-69 was grown in the growth room of the University of Alberta. The F2 seed was grown in the field in the summer of 1970. The F2 seed was grown in 1971-1972 in a winter increase nursery at the Centro de Investigaciones Agricolas del Noroeste (CIANO) Research Station, Cd. Obregon, Sonora, Mexico. An F4 selection was then crossed to R72-181 in the field at Edmonton, Alberta, in the summer of 1972. The F1 seed was increased in the growth room at the University of Alberta in 1972-1973 with the F2 population grown in the field during the summer of 1973. The F3 population was grown at the CIANO Research Station during the winter, 1973-1974. Single plant selection were made from the F3 nursery and grown in head rows in Alberta during the summer of 1974 and again in the winter nursery in Mexico. A single head selection from the F3 row fixed the type. Two hundred F4 heads were grown out for evaluation of deviant or off-type material and 117 head rows were bulked in 1983 to form breeders seed.

'Samson' is a semi-dwarf barley resistant to both scald and net blotch diseases and insects as reported for Tamcot CAMD-E (2). All plant parts are covered with a yellow aleurone and basal markings of an incomplete horseshoe depression. The rachilla is of medium length, mostly with long hairs but occasionally with short. Glumes are completely covered with short hairs. Samson has a stiff, semi-dwarf straw with an erect tillering pattern. The straw length is similar to that expected from a single gene for dwarfing.

'Samson' is adapted to the higher yielding areas of west central Alberta. It is resistant to Septoria leaf blotch (caused by Septoria sectionae race 5) and loose smut [caused by Ustilago nuda (Jens.) F. W. Schultz (Pers.) Lagerh.].

'Samson' was released by Alberta Agriculture Crop Research in 1985.

References and Notes


REGISTRATION OF (TAMCOT CAB-CS) UPLAND COTTON

TAMCOT CAB-CS cotton (Gossypium hirsutum L., Reg. no. 87) was developed in the Texas Agricultural Experiment Station multi-adversity resistance (MAR) genetics program. This program uses MAR techniques to pyramid resistance genes that condition broad spectrum resistance to multiple diseases and environmental stresses. TAMCOT CAB-CS cotton was developed from the cross CAMD-21-S-78 × BCUS-8-76 and was selected using the MAR procedure (3). TAMCOT CAB-CS was classified as a resistant cultivar and given the strain designation TX-CABCS-X. Information on this cultivar has been presented elsewhere (4). The categories used to describe levels of resistance (resistant, intermediate resistance, resistance) in MAR cottons and performance data for CAB-CS have been presented (4). TAMCOT CAB-CS is a minor-modifier and MAR genes and tester lines that give high resistance to the 19 designated races of 201), was developed by Alberta Agriculture Crop Research, Lacombe, Alberta, Canada. It was selected from a cross of Wisconsin X691 to 'Swan'. R72-181 was selected in Mexico in 1972. The pedigree of this line is incomplete; however, we know the Minnesota line Jotun / Kindred // Vantage is part of its parentage. Both M64-69 and R72-181 carry the Jotun semi-dwarf gene.

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