CROP REGISTRATIONS

Registration of ‘Chairman’ Oat

‘Chairman’ spring oat (Avena sativa L.) (Reg. no. CV-345, PI 596411) was developed by the Ohio Agricultural Research and Development Center (OARDC) of The Ohio State University, and was released in 1995.

Chairman was developed from the cross ‘Larry’/Mo O6235; Mo O6235 has the pedigree ‘Indio’/‘Nodaway’/Abil77/‘Curt’. It originated in 1984 as a single panicle selection from a bulk F4 population acquired from the University of Missouri oat breeding and research program at Columbia, MO. Chairman resulted from 35 uniform panicles reselected from the F10 generation in 1990. Seed from progeny rows selected for uniformity of plant type in 1991 and 1992, bulked following the 1992 harvest, comprised breeder seed. Chairman was released because of its high grain yield and earlier maturity relative to ‘Ogle’ and ‘Armor’, two popular oat cultivars in Ohio.

Chairman was evaluated under the designation OH 1039 in statewide yield trials in Ohio from 1992 through 1994 and was evaluated in the Uniform Early Oat Performance Nursery in 1992, 1993, and 1994. In 17 yield trials throughout Ohio, the yield of Chairman averaged 10.4% less than Armor and 4.9% higher than Ogle. Chairman is midseason in maturity. In Ohio, Chairman averaged 2 d earlier than Ogle, 3 d earlier than Armor, and 2 d later than ‘Dane’. It is similar to Ogle and Armor in plant height, averaging 82 cm in Ohio tests. Chairman is similar to Ogle and Armor in grain volume weight. Straw strength (as measured by percent lodging) is good, with an average lodging score from 17 tests in Ohio of 6.7%, somewhat higher than either Ogle (6.3%) or Armor (3.0%). Based on barley yellow dwarf virus (BYDV) tolerance evaluations from 1992 through 1994 at Urbana, IL, Wooster, OH, West Lafayette, IN, and Columbia, MO, Chairman appears to be more tolerant to BYDV than Dane, less tolerant than Ogle or Armor, and similar to ‘Noble’. Chairman has less resistance to loose smut [caused by Ustilago avenae (Pers.) Rostr.] than Dane, but is similar in this regard to Ogle. Chairman is susceptible to prevalent races of crown rust (caused by Puccinia coronata Corda var. avenae W.P. Fraser & Ledingham) showing reactions similar to Ogle for this disease. Chairman was evaluated for adaptation to the north-central region of the USA, but will perform best in areas with reduced crown rust incidence.

Chairman’s juvenile growth habit is erect. Culms are medium in diameter, and culm and leaf margins are glabrous. Ligules are present. Panicles are equilateral, with ascending branches. Spikelet separation is by fracture, and floret separation is by disarticulation. Lemmas are yellow and glabrous. Basal hairs are absent. Secondary floret rachilla segments are glabrous and midlong. The seed is nonfluorescent under ultraviolet light, with fluorescent variants occurring at less than 0.1%. Awns are infrequent; when present, they are nontwisted, and average 15 mm in length. Kernels are bright yellow, medium sized, plump, and finely tapered at the tips.

Title V protection under the provisions of the U.S. Plant Variety Protection Act will not be sought for Chairman. Limited quantities of original breeder seed are available from the OARDC, Ohio State University, OARDC, in Wooster, OH.

Registration of ‘Arlington’ Blue Wildrye

‘Arlington’ blue wildrye (Elymus glaucus Buckl. subsp. glaucus) (Reg. no. CV-187, PI 527333) was collected from the Placer foothills (48°14’ N, 122°5’ W; 61 m elevation) 3.2 km north of the city of Auburn, CA in 1982. It was collected in the Auburn Experimental Designation NRCS 9019633.

‘Arlington’ blue wildrye was evaluated from 1984 to 1994 in state-wide yield trials in Oregon and Washington. ‘Arlington’ blue wildrye will be maintained at the USDA-NRCS, Plant Materials Center, Corvallis, OR.

‘Arlington’ blue wildrye was developed from the cross 'Larry'/Mo O6235; Mo O6235 has the pedigree ‘Indio’/‘Nodaway’/Abil77/‘Curt’. It originated in 1984 as a single panicle selection from a bulk F4 population acquired from the University of Missouri oat breeding and research program at Columbia, MO. Chairman resulted from 35 uniform panicles reselected from the F10 generation in 1990. Seed from progeny rows selected for uniformity of plant type in 1991 and 1992, bulked following the 1992 harvest, comprised breeder seed. Chairman was released because of its high grain yield and earlier maturity relative to ‘Ogle’ and ‘Armor’, two popular oat cultivars in Ohio.

Chairman was evaluated under the designation OH 1039 in statewide yield trials in Ohio from 1992 through 1994 and was evaluated in the Uniform Early Oat Performance Nursery in 1992, 1993, and 1994. In 17 yield trials throughout Ohio, the yield of Chairman averaged 10.4% less than Armor and 4.9% higher than Ogle. Chairman is midseason in maturity. In Ohio, Chairman averaged 2 d earlier than Ogle, 3 d earlier than Armor, and 2 d later than ‘Dane’. It is similar to Ogle and Armor in plant height, averaging 82 cm in Ohio tests. Chairman is similar to Ogle and Armor in grain volume weight. Straw strength (as measured by percent lodging) is good, with an average lodging score from 17 tests in Ohio of 6.7%, somewhat higher than either Ogle (6.3%) or Armor (3.0%). Based on barley yellow dwarf virus (BYDV) tolerance evaluations from 1992 through 1994 at Urbana, IL, Wooster, OH, West Lafayette, IN, and Columbia, MO, Chairman appears to be more tolerant to BYDV than Dane, less tolerant than Ogle or Armor, and similar to ‘Noble’. Chairman has less resistance to loose smut [caused by Ustilago avenae (Pers.) Rostr.] than Dane, but is similar in this regard to Ogle. Chairman is susceptible to prevalent races of crown rust (caused by Puccinia coronata Corda var. avenae W.P. Fraser & Ledingham) showing reactions similar to Ogle for this disease. Chairman was evaluated for adaptation to the north-central region of the USA, but will perform best in areas with reduced crown rust incidence.

Chairman’s juvenile growth habit is erect. Culms are medium in diameter, and culm and leaf margins are glabrous. Ligules are present. Panicles are equilateral, with ascending branches. Spikelet separation is by fracture, and floret separation is by disarticulation. Lemmas are yellow and glabrous. Basal hairs are absent. Secondary floret rachilla segments are glabrous and midlong. The seed is nonfluorescent under ultraviolet light, with fluorescent variants occurring at less than 0.1%. Awns are infrequent; when present, they are nontwisted, and average 15 mm in length. Kernels are bright yellow, medium sized, plump, and finely tapered at the tips.

Title V protection under the provisions of the U.S. Plant Variety Protection Act will not be sought for Chairman. Limited quantities of original breeder seed are available from the OARDC, Ohio State University, OARDC, in Wooster, OH.

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