Registration of Crop Cultivars

REGISTRATION OF CLARK BARLEY

‘Clark’ barley (Hordeum vulgare L.) (Reg. no. 191), CI 15857, was developed cooperatively by USDA-ARS and the Montana Agricultural Experiment Station and released for commercial production in February 1981. It is a selection from the cross ‘Hector’/‘Klages’. The initial cross was made at Bozeman, MT in 1973. The F₂ selection MT 547234 was tested in Montana and Western Regional barley nurseries from 1976 through 1982.

Clark is a two-rowed, white-kerned, midseasoned spring barley. It has midlax, midlong spikes which are seminodding before maturity and nodding at maturity in a manner similar to Hector. The spike has rough awns; glume awns are equal to the length of the glume, which is covered with long hairs. Rachis edges have long hairs. The midsized kernels have adhering and finely wrinkled hulls without barbs on the lateral veins. Rachillas are long-haired.

Compared to Klages, Clark is 2 days earlier in heading, has 10% plumper kernels, has about the same plant height and lodging behavior, and showed more tolerance to spot blotch caused by Cochliobolus sativus (Ito & Kurib) Drechs, ex Dast, and net blotch incited by Pyrenophora teres Drechs. at three locations in both Montana and North Dakota. Clark is similar to Hector in tolerance to common root rot caused by C. sativus, but more tolerant than Klages or ‘Shabet’ (1). In 24 Montana yield trials, Clark yielded about 122% of Klages and 97% of Hector, with trial mean yields of 2.29 Mg/ha. In 40 Montana yield trials with mean yield levels of 4.30 Mg/ha, Clark yielded about 107% of Klages and 98% of Hector. In the 1979–1982 Western Regional Barley Nurseries, Clark yielded 106% of Klages and 91% of ‘Step-toe’ in 93-station comparison. However, in the 1979–1982 Western Regional Dryland Nurseries, Clark yielded 99% of Hector and 97% of Steptoe in a 62-station comparison.

On the basis of 60 Montana and Western Regional nursery samples grown in 1977–1982, Clark appears similar in malting quality to Klages. Pilot scale evaluation of malting and brewing quality of Clark in 1979 in cooperation with the Malting Barley Improvement Association indicated malting quality similar to Klages. Clark was approved as a malting barley by the American Malting Barley Association after plant scale malting and brewing tests from the 1981 and 1982 commercial crops. It is recommended for dryland and irrigated production in Montana as a feed and malting barley. It comprised 15.6% (146 780 ha) of the barley planted in Montana in 1984 and is especially adapted to dryland in the Great Plains area.


REGISTRATION OF BRISTOL KENTUCKY BLUEGRASS

‘Bristol’ Kentucky bluegrass (Poa pratensis L.) (Reg. no. 27) was developed and released by The O.M. Scott and Sons Company using germplasm obtained from the New Jersey Agricultural Experiment Station. It is a first generation hybrid developed from the cross ‘Anheuser Dwarf’ Kentucky bluegrass. Anheuser Dwarf is a facultatively apomictic hybrid resulting from crossing ‘Bellevue’ X ‘Dorothea’ in 1975. Its experimental designation was ‘Bristol 37’.

Bristol is a moderately low growing, leafy bluegrass with medium texture and a desirable brownish green color that is apparent throughout the growing season. It performs well in spring through late fall. It maintains good color throughout periods of summer stress as well as under shady conditions. This cultivar has demonstrated good resistance to powdery mildew incited by Erysiphe graminis D. Doth., crown rot disease incited by Helminthosporium sp. Drechsler., stripe smut incited by Ustilago (as U. playtonii) Niessl., Fusarium bight incited by Fusarium oxysporum f. sp. cerealis (Cke) Snyder and Hansen, and powdery mildew. It is also resistant to Hepholosporium vagans (Cke) C. Koch, crown rot disease incited by Helminthosporium sp. Drechsler., stripe smut incited by Ustilago (as U. playtonii) Niessl., Fusarium bight incited by Fusarium oxysporum f. sp. cerealis (Cke) Snyder and Hansen, and powdery mildew. It is also resistant to Hepholosporium vagans (Cke) C. Koch.

Bristol is well suited for lawns, parks, athletic fields, and golf courses in regions where Kentucky bluegrass is well adapted. It performs well in blends with Kentucky bluegrasses and in mixtures with the type perennial ryegrasses (Lolium perenne L.) and fine fescues (Festuca rubra L.).

Breeder seed of Bristol is produced in series by the O.M. Scott and Sons Company. Seed production is limited to two generations of increase from breeder seed.

United States Patent 3782 has been issued for Bristol.