Registration of Crop Cultivars

REGISTRATION OF UC CIBOLA ALFALFA

'UC Cibola' alfalfa (Medicago sativa L.) (Reg. no. 138) was developed by the University of California Agricultural Experiment Station and USDA-ARS. It was tested experimentally as UC 127 and released 9 Dec. 1982.

The 100 parent plants of UC Cibola were selected from a 3-year-old alfalfa stand growing in a sandy soil infested with the following root nematodes: root-knot (Meloidogyne spp., primarily M. Arenaria Neal), stubby root (Trichodorus spp.), lesion (Pratylenchus spp.), and stunt (Tylenchorhynchus spp.). The field had been infested with blue alfalfa aphid (Acrystosiphon kondoi Shinji) prior to selection. Germplasm in UC Cibola traces to 'UC Salton' (46%), UC 76 (26%), and UCPX 1971 (28%). This parentage can be further traced to 9 basic germplasm sources (1) in approximately the following percentages: M. falcata 1, Ladak 1, M. varia 3, Turkistan 11, Chilean 14, Peruvian 2, Indian 21, African 46, and Flemish 1.

UC Cibola is an upright, purple-flowered, nondormant variety with winter growth similar to 'UC Cargo' and 'Mesa Sirsa'. It is adapted to areas of the Palo Verde Valley of California (a low desert valley area near Blythe) which are infested with root nematodes. Forage production has been similar to other adapted varieties such as 'CUF 101', Mesa Sirsa, UC Cargo, and Moapa 69 when tested in areas outside of the Palo Verde Valley and where root nematodes were not a problem. It is superior in production to all other varieties like CUF 101, UC Cargo, and Mesa Sirsa in areas out-side of the Palo Verde Valley. It is adapted to areas of the upper midwest.

UC Cibola has the following resistance levels to alfalfa pests: high resistance to the spotted alfalfa aphid (Theroaphis maculata (Buckton)) with 79.4% resistant plants compared to 85.8% for the highly resistant check germplasm, MSTT; high resistance to Fusarium wilt caused by Fusarium oxyporum Schlecht f. sp. Medicaginis (Weimer) Synd. & Hans. with 87.6% resistant plants and 86.8% for Moapa 69; resistance to pea aphid (Acrystosiphon pisum (Harris)) with 38.5% resistant plants and 67.5% for CUF 101; resistance to the root knot nematode Meloidogyne hapla Chitwood with 42.0 to 42.6% resistant plants and 19 to 25.7% for CUF 101; moderate resistance to Phytophthora root rot caused by Phytophthora megasperma Drechs. f. sp. Medicaginis Kuan and Erwin with 17.6% resistant plants and 40.9 and 0.7% for Agate and Saranac, respectively; and low resistance to blue alfalfa aphid with 9.5% resistant plants and 55.6% for CUF 101. It is susceptible to bacterial wilt caused by Corynebacterium insidiosum (McCull.) H. L. Jens. and survives up to 70% incidence of bacterial wilt in the field.

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REGISTRATION OF ROBUST BARLEY

'Robust' barley (Hordeum vulgare L.) (Reg. no. 476976), was developed by the Minnesota Agricultural Experiment Station and released 15 Feb. 1983. It is an inbred line, designated from a single F5 plant selected from a 'Manker' cross made in 1973, and was tested in regional trials. Robust is a six-rowed, smooth-awned spring barley. The kernels are covered and medium-large, with long rachilla and white aleurone. The spike is medium-long, and semierect. Robust is medium-tall and has moderately strong straw. Although it is not highly adapted, it is probably best suited for the area of the upper midwest.

Robust is superior to Morex, the most widely grown cultivar in Minnesota(1), in grain yield, kernel lodging resistance. Robust has exceeded or equalled Morex in yield by 7% in 28 trials in Minnesota and by 10% in 47 trials in the regional trials. It is to 2 days later in maturity than Morex(5). Robust has high levels of resistance to stem rust, incited by Puccinia graminis Pers. f. sp. tritici Pers. incited by Bipolaris sorokiniana (Sacc. in Sorok.) Shoemaker, but is susceptible to loose smut, caused (Jens.) Rostr.

Robust is intended to be grown as a malting variety. It is susceptible to loose smut, caused by Puccinia graminis Pers. f. sp. tritici Pers. incited by Bipolaris sorokiniana (Sacc. in Sorok.) Shoemaker, but is susceptible to loose smut, caused (Jens.) Rostr.

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