Registration of ‘Majestic’ Alfalfa

‘Majestic’ alfalfa (Medicago sativa L.) (Reg. no. CV-189, PI 584991) was developed by the Cornell University Agricultural Experiment Station, New York State College of Agriculture and Life Sciences, Cornell University, Ithaca, NY. This cultivar was released in 1988. The experimental designation was NY 86108.

Majestic was derived totally from ‘Oneida VR’ (1). Majestic is a synthetic cultivar developed by sequentially selecting 92 Oneida VR plants for resistance to both anthracnose (Race 1), caused by Colletotrichum trifolii (Bain & Essary), and phytophthora root rot, caused by Phytophthora medicagoe (Drechs.) E.M. Hans. & Maxwell. Seed of the Syn. 1 generation was produced by honeybee (Apis mellifera L.) pollination in indoor cages at Cornell University.

Contributions of germplasm sources to this cultivar are 50% Flemish, 40% variegated [M. sativa L. nothosubsp. varia (Martyn) Arcang.], 8% falcate [M. sativa L. subsp. falcata (L.) Arcang.], and 2% ‘Ladak’.

Majestic is similar to ‘Ranger’ in fall dormancy. It has high resistance to verticillium wilt, caused by Verticillium albo-atrum Reinke & Berthier; fusarium wilt, caused by Fusarium oxysporum Schlechtend.:Fr. f. sp. medicaginis (J.L. Weimer) W.C. Snyder & H.N. Hans.; and anthracnose (Race 1). It has resistance to bacterial wilt, caused by Clavibacter michiganense subsp. insidiosum (McCulloch) Davis et al., 1984; phytophthora root rot; and alfalfa stem nematode [Ditylenchus dipsaci (Kühn) Filipjev]. It is susceptible to spotted alfalfa aphid [Thrips maculata (Buckton)]. It has not been tested for resistances to pea aphid [Acrthosiphon pisum (Harris)] and blue alfalfa aphid (Shinji). Flower color is 72% purple and 28% trace of yellow, white, and cream.

Majestic is adapted to and intended for use in Canada for hay, greenchop, and dehydration.

Breeder seed (Syn. 2) was produced under Idaho in sufficient quantity to last the life of the cultivar. Increase is limited to Syn. 2 generation for breeder, Syn. 3 for foundation, and Syn. 3 and 4 for certified classes. Three harvest years are permitted for fields producing seed and six years for certified seed, unless approved by breeder. Foundation seed is produced by the Western Regional Winter Wheat Improvement Project in the northern area of Oregon. Majestic was reviewed favorably by the National Alfalfa Variety Review Board in 1990 and amended in 1992. Application was not submitted for U.S. plant variety protection.

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References and Notes


Published in Crop Sci. 35:1503 (1995).

Registration of ‘Kold’ Barley

‘Kold’ (Reg. no. CV-249, PI 584507) winter barley (Hordeum vulgare L.) was developed by the Oregon State University Agric. Exp. Stn. and released in 1993. The University of Idaho Agric. Exp. Stn. participated in the release.

Kold, tested as ORWM-8407, was derived from the cross of B-1285/‘Astrix’. B-1285 is a six-row winter barley germplasm line of unknown ancestry. ‘Astrix’ is a French six-row winter barley. Progeny were advanced in a modified pedigree system. Bulked seed derived from a single F4 head row was increased and evaluated at multiple testing sites in Oregon prior to submission to the Western Regional Winter Barley Nursery (WRWBN) in 1986. ORWM-8407 was tested in the WRWBN for 4 yr. Approximately 1000 head rows were grown at Corvallis, OR, in 1992 and harvested in bulk for breeder seed.

Kold is a six-row, rough-awned, white-aleurone winter feed barley. Height and maturity are comparable to other Pacific Northwest cultivars, but the lax spike is unique. The fall growth habit of Kold is very prostrate. It is an obligate winter barley and has not been observed to flower under spring-own conditions. The vernalization requirement of Kold is met by the mild winters of western Oregon. The winterhardiness of Kold is comparable to that of other Pacific Northwest winter barley cultivars.

Kold has some resistance to scald and net rust (caused by Puccinia cicadae (Oudem.) J.J. Davis) and stripe rust (caused by Puccinia striiformis West.) J. Davis and Pyrenophora teres Drechs., respectively). Over a 3-yr period, the average severity of mixed epidemics of scald and net rust in the cultivars Kold, Scio, and Hesk was 12.4, 39.0, and 36.4%, respectively. Kold is moderately resistant to the races of barley stripe rust (caused by Puccinia striiformis West.) encountered in South America, Mexico, and the southwestern USA. It is the only Pacific Northwest winter barley resistant to this disease. Stripe rust reactions of Kold, Scio, and Hesk were 5MR (moderately resistant), 40S, and 80S, respectively at Toluca, Mexico, in 1991. At Cochimamba, Bolivia, the stripe rust reactions of Kold were from TMR (trace moderately resistant) to a maximum of 5MR (moderately susceptible). In the same trials, stripe rust reactions of Scio and ‘Hundred’ ranged from 20S to 60S. In 1993, stripe rust severities at Feekes growth stage 11.2 for Kold, Scio, and ‘Hundred’ were 0, 42.5, and 70.0%, respectively.

Breeder and Foundation seed will be maintained by the Oregon State University Foundation Cereal Seeds Advisory Committee in State College, Idaho. Breeder and Foundation seed will be maintained by the Oregon State University Foundation Cereal Seeds Advisory Committee in State College, Idaho.