Registration of Crop Cultivars

REGISTRATION OF BAKER ALFALFA

W. R. Kehr, G. R. Manglitz, and R. L. Ogden

'Baker' alfalfa (Medicago sativa L.) was developed cooperatively by the SEA, USDA and the Nebraska Agricultural Experiment Station and jointly released October 1977 with the Kansas and South Dakota Agricultural Experiment Stations. Baker was tested under the experimental designation N.S. 68. Baker is a seven-clone synthetic cultivar. Parent clones were developed from three or four cycles of selection for pest resistance and vigor within open-pollinated progenies of Nebraska and other Conference ('C') clones, and experimental Nebraska synthetics. Parentage includes germplasm from 'Atlantic', 'Baltic', 'Cosack', 'Grimm', Kansas Common, 'Ladak', Nebraska Common, 'Ranger', 'Turkestan', and 'Vernal'; Medicago falcata L. and M. sativa var. glutinosa M.B. selections; and three Plant Introductions, P.I. 107298 (Turkey), P.I. 206278 (Turkey), and P.I. 234205 (Iran). Selection of parent clones was based on clonal and open-pollinated progeny data for the principal traits.

Baker is a winterhardy persistent cultivar. It has high resistance to pea aphids (Acyrthosiphon pisum Harris), spotted alfalfa aphids (Theriosiphis maculata Buckton) collected in Nebraska, and bacterial wilt (Corynebacterium insidiosum var. glutinosa M.Cull H.L. Jens); moderate resistance to downy mildew (Peronospora trifoliorum deBary) and potato leafhopper yellowing (Empoasca fabae Harris); low resistance to anthracnose (Colletotrichum trifolii Bain), and is susceptible to Phytophthora root rot (Phytophthora megasperma Drecz.) in comparison with check varieties in standard tests. Reaction to stem nematode (Ditylenchus dipsaci Kühn Filipjiv) is unknown. Spring and fall growth habits and rate of recovery after cutting are similar to those of Dawson and Vernal. The flowers are purple, variegated, and blue. Baker is adapted to the North Central U.S. and has been evaluated in California and Arizona yield trials since 1973. Baker was favorably reviewed by the National Certified Alfalfa Variety Review Board in December 1976. Application will be made for Plant Variety Protection under the certification provision.

Registration of Crop Cultivars

REGISTRATION OF KOMBYNE BARLEY

R. W. Matchett and O. P. Cantu

'Kombyne' barley (Hordeum vulgare L.), CI 15766, was developed by Northrup King Co. and tested as experimental 64-98-8/'Numar'//'CM 67' made at Woodland, Calif, in 1969 and has been evaluated in California and Arizona yield trials since 1973. Kombyne is a six-rowed, semi-smooth awned, midseason maturing feed barley with a maturation period about equal to that of 'Briggs'. It is of spring growth habit, exhibiting a semi-prostrate juvenile growth, and has strong short straw, approximately 6 cm shorter than CM 67. The spike is lax, midlong, and erect to inclined at maturity. The midlong, white hulled kernels have slightly wrinkled lemmas and long haired rachillas. Approximately 70% of the kernels possess a colorless aleurone while the remaining 30% possess a light blue aleurone. Kombyne was moderately susceptible to the races of scald (Rhynchosporium secalis (Oud.) J. J. Davis) prevailing in California in 1974 and 1975. Resistance to the barley yellow dwarf virus appears to be equal to that of CM 67.

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3 Contribution from cooperative investigations by the SEA, USDA, and the Nebraska Agric. Exp. Stn. Published with the approval of the Director as Paper No. 5400, Journal Series Nebraska Agric. Exp. Stn. Research reported was conducted under Project Numbers 12-005, 17-027, and 15-005. Registered by the Crop Sci. Soc. of Am. Accepted 16 Apr. 1978.
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