Registration of Crop Cultivars

REGISTRATION OF BAKER ALFALFA1
(Reg. No. 87)

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'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', 'Cossack', '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 (Acrystosiphon pisum Harris), spotted alfalfa aphids (Theroaphis maculata Buckton) collected in Nebraska, and bacterial wilt (Corynebacterium insidiosum (Mc Cull) H. L. Jens.); moderate resistance to downy mildew (Peronospora trifoliorum deBary) and potato leafhopper yellowing (Empoasca fabae (Colle).); low resistance to anthracnose (Colletotrichum trifolii Bain), and is susceptible to Phytophthora root rot (Phytophthora megasperma Drechs.) in comparison with check varieties in standard tests. Reaction to stem nematode (Ditylenchus dipsaci [Kuhn] 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. Anticipated usage is for short- and long-term hay production in rotationally grazed pastures. In 20 tests at 15 north central locations, forage yields of Baker were equal or superior to those of Dawson and Vernal. Seed yields were comparable to those of Ranger in California and to Vernal in Idaho. The forage quality of Baker was similar to that of Dawson and Vernal in dry matter, protein, carotene, and fiber contents.

Seed increase is on the limited generation basis with one generation each of breeder, foundation, and certified seed classes. Breeder and foundation seed are the Syn-2 and Syn-3 generations, respectively, grown in the northern region of adaptation. Certified seed may be grown only from breeder or foundation seed. The length of stand, including the year of establishment, shall not exceed the following: (a) breeder seed, 2 years; (b) foundation seed, 3 years, with a 4th year option dependent on breeder approval; (c) certified seed, 6 years.

Baker was favorably reviewed by the National Alfalfa Variety Review Board in December 1977 and provision has been made for Plant Variety Protection under the certification provision.

REGISTRATION OF KOMBYNE2
(Reg. No. 157)

R. W. Matchett and O. P. Cantu

'Kombyne' barley (Hordeum vulgare L.), developed by Northrup King Co. and tested as 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 feed barley with a maturation period about equal to '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 erect to inclined at maturity. The midlong, kernels have slightly wrinkled lemmas and long awns. Approximately 70% of the kernels possess a light blue aleurone, while the remaining 30% possess a light blue aleurone. Kombyne was moderately susceptible to the races of scalaris (Oud.) J. J. Davis prevailing in California in 1975. Resistance to the barley yellow dwarf virus appears to be equal to that of CM 67.

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