REGISTRATION OF LADAK 65 ALFALFA¹
(Reg. No. 35)

R. F. Esliek, J. L. Krall, and A. E. Carleton²

'LADAK 65' is a Ladak-type alfalfa, Medicago sativa L., with additional wilt-resistance developed by the Montana Agricultural Experiment Station. It was released in 1965 for use in Montana where Ladak is currently recommended. It is a synthetic variety composed of 49 clones chosen from an initial population of 1,100 plants selected from 10 years or older irrigated commercial stands planted with certified seed of Ladak in Northern Montana. The final selection of these 49 parental clones was based on greenhouse tests for bacterial wilt resistance of all clones, further elimination based on crown rot susceptibility and final polyycross testing of 72 clones for forage and seed yield, fall dormancy, and bacterial wilt.

Ladak 65 has been tested in Montana for hay production in 1 to 4-year-old stands under irrigation (22 station-years), on dryland (7 station-years) and in grass mixtures (9 station-years). There appears to be no differences in forage yields between Ladak 65 and Ladak in the first 3 or 4 harvest years in the first three years of hay production under irrigation (3 trials), Ladak 65 produces significantly higher yields than Ladak due to its higher level of bacterial wilt resistance.

Seed of Ladak 65 is increased on a three-generation basis: breeder, foundation and certified classes. Limitations or number of harvests that may be made from a seed field have been established. Breeder seed is produced by the Montana Agricultural Experiment Station. Ladak 65 received favorable consideration for certification by the National Certified Alfalfa Variety Review Board in 1966.

¹Registered by the Crop Science Society of America. Received April 15, 1968.
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REGISTRATION OF McNAIR 601 BARLEY¹
(Reg. No. 97)

G. K. Middleton and J. R. Bennett²

'McNair 601' barley (Hordeum vulgare L. emend. L.,) CI 13644, is a pure line selection from a cross of 'Harbina' (CI 7524) x 'Marcone' (CI 8107). The cross was made by the North Carolina Agricultural Experiment Station. Bulk seed was shared with the South Carolina Agricultural Experiment Station and later a number of selections were received from South Carolina by the McNair Seed Company. McNair 601 is a composite of morphologically similar head rows from S. C. 60-2701.

McNair 601 is a six-rowed, awnleted, facultative winter, feed barley. It has shorter awns than does 'Colonial 2' (CI 8062) or 'Davie' (CI 9170), only a few lemmas showing awn points. McNair 601 has better resistance to powdery mildew than does Colonial 2 or Davie, is equal to Davie and superior to Colonial 2. McNair 601 is one to two days earlier than Colonial 2 and Davie, has better lodging resistance and is equal in winter hardiness. In 13 Official Variety Tests conducted in North Carolina in 1965-1966 and 1966-1967 McNair 601 produced an average of 3934 kilograms per hectare (73.2 bu./a) compared with 3,715 kg. (69.1 bu./a) for Colonial 2 and 5,575 kg. (105.3 bu./a) for Davie. Test weight for these three varieties averaged 46.2, 44.5 and 44.8 pounds per bushel, respectively. In four McNair Seed Company tests conducted during the same period as the above, McNair 601 averaged 3,592 kilograms per hectare (69.1 bu./a) for Colonial 2 and 2,893 kg. (52.7 bu./a) for Davie.

Pure seed will be maintained by McNair Seed Company.

¹Registered by the Crop Science Society of America. Cooperative investigations between the Georgia Agricultural Experiment Station and the Crops Research Division, Agriculture Research Service, U. S. Department of Agriculture, received March 20, 1968.
²Agronomist, Georgia Experiment Station, Experiment, Ga., and Research Agronomist and Research Plant Pathologist, respectively. Crops Research Division, ARS, USDA, Beltsville, Md.

REGISTRATION OF ARIMAR BARLEY¹
(Reg. No. 99)

A. D. Day, R. K. Thompson, and F. M. Carasso²

'ARIMAR' barley (Hordeum vulgare L. emend. L.,) CI 13-628, was released in 1968 by the Arizona Agricultural Experiment Station. Arimar is a six-rowed, rough-awned, spring barley with white aleurone that originated from the cross 'California Mariou' (CI 1455) x 'Arriva' (CI 7534) made at the Arizona Agricultural Experiment Station in 1954. The

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