REGISTRATION OF CULTIVARS

REGISTRATION OF LADAK 65 ALFALFA
(Reg. No. 35)
R. F. Eslick, J. L. Krall, and A. E. Carleton

'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 of all clones, further elimination based on crown rot susceptibility and final polycross 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 these tests. After 5 or 6 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 1965.

1 Registered by the Crop Science Society of America. Received April 15, 1968.
2 Professor, Superintendent of Huntley Branch Station, and Assistant Professor, Plant and Soil Science Department, Montana State University, Bozeman, Montana.

REGISTRATION OF McNAIR 601 BARLEY
(Reg. No. 97)
G. K. Middleton and J. R. Bennett

'MCNAIR 601' barley (Hordeum vulgare L. emend. Lam.), CI 13644, is a pure line selection from a cross of 'Harbine' (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 Colonial 2 in leaf rust resistance but is inferior to Davie, and has scald resistance equal to both. McNair 601 is one of 3934 kilograms per hectare (73.2 bu/a) for Colonial 2 and 3.715 kg. (69.5 bu/a) for Davie. Test weight for these three McNaIR Seed Company tests conducted during as the above, McNair 601 averaged 3,392 kilogram (63.1 bu/a) compared to 2,817 kg. (52.7 bu/a) for Davie.

Pure seed will be maintained by McNair Seed Company.

REGISTRATION OF MILLER BARLEY
(Reg. No. 98)
U. R. Gore, D. A. Reid, and J. G. Mozingo

'MILLER' barley (Hordeum vulgare L. emend. Lam.) was developed cooperatively by the Crops Research Division, U. S. Department of Agriculture and the Georgia Experiment Station. Breeder seed was released to growers for certification in the fall of 1967.

Miller was developed specifically to provide powdery mildew resistant winter barley for Georgia. 'Ricard' (CI 6306), a leaf rust-, mildew-resistant winter barley from the World Collection was backcrossed three times (CI 10528), a stiff-strawed, high-yielding barley under Georgia conditions. Leaf rust-, mildew-resistant plants were selected in the F2 of each backcross generation; crosses to Y635. Crosses and inoculations were made at Beltsville, Md.

Breeder seed will be maintained by the Crops Research Division, U. S. Department of Agriculture and the Georgia Experiment Station.

1 Registered by the Crop Science Society of America. Received March 20, 1968.
2 Agronomist, Georgia Experiment Station, and Research Agronomist and Research Plant Pathologist, respectively, Crops Research Division, ARS, USDA, Beltsville, Md.

REGISTRATION OF ARIMAR BARLEY
(Reg. No. 99)