Registration of Crop Cultivars

REGISTRATION OF MILTON BARLEY
(Reg. No. 177)
C. F. Murphy

'MILTON' barley (Hordeum vulgare L.), C. I. 15732, is a winter type barley developed by the North Carolina Agricultural Research Service. It is a pure line selection from the cross 'Keowee' × 'Volbar.' The cross was made in 1969 with the final selection (F₃) having been made in 1975.

Milton was evaluated in 44 North Carolina yield tests during the period 1977-1980, and in the Uniform Winter Barley Nursery of Semihardy Cultivars from 1978-1980. It is especially well adapted to the piedmont region of North Carolina, which is the primary barley production area in the state. Milton yielded 2% more than 'Boone' and 18% more than 'Clayton' in the North Carolina piedmont. Boone appears to yield more consistently than Milton over a broader range of environments but yields of Milton exceed those of Clayton by 13% in all North Carolina tests. Test weight of Milton exceeds that of Boone by 2% and that of Clayton by 8% when averaged over all North Carolina environments. Milton has excellent straw strength (exceeding Boone by 50%), and winter hardiness at least comparable to Boone.

The most serious disease affecting barley in North Carolina is barley yellow dwarf virus. None of the cultivars grown in North Carolina are resistant to this disease; but all, including Milton, do show some tolerance. The only disease to which Milton has shown particular susceptibility is scald, caused by Rhynchosporium secalis (Oud.) J. J. Davis. Milton is resistant to some cultures of this pathogen but is quite susceptible to others.

Milton should be adapted throughout the southeastern winter barley production areas. It is expected that it will play a particularly important role in the North Carolina piedmont, where it should be an alternative to the widely grown cv. Boone. Like Boone, Milton offers easy threshability.

Milton has a semi-prostrate growth habit and is characterized by a leaf sheath without hairs, a closed collar, and non-overlapping lateral kernels. The spike is erect, the rachis edge is glabrous, and the rachis internode is short and curved. The glumes are glabrous, and the rough glume awn is shorter than the glume. Awns are short and rough. The stigma is hairy and the short kernels have few lemma teeth, a depression in the lemma base, slightly wrinkled bulbs, and a short-haired rachilla.

The name Milton was selected to draw attention to a noted nineteenth century Black craftsman, Thomas Day, and his interesting life in Milton, N.C. Breeder seed of Milton will be maintained by the North Carolina Agricultural Research Service, North Carolina State Univ., Raleigh, NC 27605.

REGISTRATION OF MARSHALL
(Reg. No. 72)

B. L. Arnold, C. E. Watson, Jr., and N. C. Edwards, Jr.

'MARSHALL' annual ryegrass (Lolium multiflorum L.) was released by the Mississippi Agricultural and Home- 


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To 'Serala' in stem type and height, but unlike 'Serala', Milton is in stem type and height, but unlike 'Serala', Milton is genetically low in tannin, but low in vigor, stem length, seed in color, and generally undesirable otherwise. Other objectives were low-tannin content, high digestibility, high forage and seed yields, and resistance to the root-knot nematode, M. incognita acrita. AU Lotan contains approximately one-half the tannin found in normal, high-tannin sericea, averages 27% higher in digestible dry matter, and 7.0% higher in crude protein at the hay stage. It has shown good resistance to Rhynchosporium secalis, the root-knot nematode, M. incognita acrita. AU Lotan forage yield is approximately 85% that of Serala, but it is recommended for grazing and hay due to its low tannin content.