Registration of 'Mulligan' Barley

Mulligan' winter barley (Hordeum vulgare L.) (Reg. no. CV 238, PI 564592) was developed cooperatively by the North Carolina Agricultural Research Service (NCARS) and the USDA-ARS. The cultivar was released in 1992 through NCARS.

Mulligan was developed by the pedigree breeding method. It is an F₁-derived line from the cross NC 63/NC 74-34. The pedigree of NC 63 is 2408/Keowee'. The pedigree of NC 74-34 is 'Bonneville'/2987. Mulligan traces to a single F₁, head-row harvested in 1983 and was designated NC 83-18 in state and regional performance evaluations. It was entered in the Uniform Winter Barley Yield Nursery in 1988 and 1989, the Uniform Barley Winterhardiness Nursery in 1990 and 1991, and the North Carolina Official Variety Testing Program annually since 1988.

Mulligan is a six-rowed, short-awned feed barley with a semiprostrate early growth habit and an upright flag leaf at boot stage. Maturity and plant height are similar to the cultivar Wysox. Spike emergence occurs approximately 6 d earlier than 'Boone'. Spikes are parallel-sided and erect, seed is midlong with a semiwrinkled hull. Mulligan is susceptible to current prevalent strains of barley leaf rust (Puccinia hordei G. Otth) and powdery mildew (Blumeria graminis DC. (EC. E.O. Speer f. sp. hordei Em. Marchal [= Erysiphe graminis DC. f. sp. hordei Em. Marchal]) in North Carolina.

Mulligan has exhibited good yield potential, test weight, kernel size, and winterhardiness when evaluated in North Carolina. In the North Carolina Variety Testing Program, its 3-yr (1990–1992) mean grain yield (3817 kg ha⁻¹) was similar to Boone (3871 kg ha⁻¹) and Wysox (3897 kg ha⁻¹). Its mean test weight (562 kg m⁻³) was similar to Boone (572 kg m⁻³) and Wysox (580 kg m⁻³) also. Spike emergence in Mulligan and Wysox occurred on the same day (13 April), 5 d earlier than Boone (18 April). Mulligan matures approximately 5 d earlier than Boone also. Mulligan, Wysox, and Boone had equivalent plant heights (99 cm). There were no differences among the three cultivars in straw strength. Over the 1990 and 1991 season, mean winter survival for Mulligan (55%) in the Uniform Barley Winterhardiness Nursery at 28 test locations was significantly greater than the check cultivar Tennessee winter (41%) and significantly less than the check cultivars Kearney (76%) and Dicktoo (82%). In North Carolina, its level of winterhardiness was similar to Boone and Wysox. The phenotype of Mulligan is similar to Boone. This phenotype is favored by growers in North Carolina. Its early maturity and yield potential should make Mulligan an attractive alternative to both Wysox and Boone in the winter barley-soybean double-crop production system. However, the early flowering characteristic makes Mulligan more susceptible to damage from late spring freezing temperatures than Boone.

Authorized seed classes of Mulligan will be limited to breeder, foundation, registered, and certified. Breeder seed of Mulligan will be maintained by NCARS. Foundation, registered, and certified classes will be maintained by the North Carolina Foundation Seed Producers, Inc., 8220 Riley Hill Road, Zebulon, NC 27597.

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References and Notes


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Registration of 'Mollybloom' Barley

Mollybloom' winter barley (Hordeum vulgare L.) (Reg. no. CV 237, PI 564593) was developed cooperatively by the North Carolina Agricultural Research Service (NCARS) and the United States Department of Agriculture-Agricultural Research Service. The cultivar was released in 1992 through NCARS.

Mollybloom was developed using the pedigree breeding method. It is an F₁-derived line from the cross 'Boone'/NC 63. The pedigree of Boone is 'Wade'/'Davie'/'Piedmont'. The pedigree of NC 63 is 2408/Keowee'. Mollybloom traces to a single F₁, head-row harvested in 1981 and given the designation NC 81–6 in state and regional performance evaluations. It was entered in the Uniform Winter Barley Yield Nursery in 1988 and 1989, the Uniform Barley Winterhardiness Nursery in 1989 and 1990, and the North Carolina Official Variety Testing Program annually since 1989.

Mollybloom is a six-rowed, short-awned feed barley with a semiprostrate early growth habit and an upright flag leaf at boot stage. Spikes are parallel-sided and seed is midlong with a semiwrinkled hull. Mollybloom is susceptible to current prevalent strains of barley leaf rust (Puccinia hordei G. Otth.) and powdery mildew [Blumeria graminis (DC.) E.O. Speer f. sp. hordei Em. Marchal [= Erysiphe graminis DC. f. sp. hordei Em. Marchal]] in North Carolina.

Mollybloom has exhibited good yield potential, test weight, kernel size, and winterhardiness when evaluated in North Carolina. In the North Carolina Variety Testing Program, its 3-yr (1990–1992) mean grain yield (3817 kg ha⁻¹) was similar to Boone (3871 kg ha⁻¹) and Wysox (3897 kg ha⁻¹). Its mean test weight (565 kg m⁻³) was similar to Boone (572 kg m⁻³) and Wysox (580 kg m⁻³) also. Spike emergence in Mollybloom and Wysox occurred on the same day (13 April), 5 d later than Boone (18 April). Mollybloom matures approximately 5 d later than Boone also. Mollybloom, Wysox, and Boone had equivalent plant heights (99 cm). There were no differences among the three cultivars in straw strength. Over the 1990 and 1991 season, mean winter survival for Mollybloom (55%) in the Uniform Barley Winterhardiness Nursery at 28 test locations was significantly greater than the check cultivar Tennessee winter (41%) and significantly less than the check cultivars Kearney (76%) and Dicktoo (82%). In North Carolina, its level of winterhardiness was similar to Boone and Wysox. The phenotype of Mollybloom is similar to Boone. This phenotype is favored by growers in North Carolina. Its early maturity and yield potential should make Mollybloom an attractive alternative to both Wysox and Boone in the winter barley-soybean double-crop production system. However, the early flowering characteristic makes Mollybloom more susceptible to damage from late spring freezing temperatures than Boone.

Authorized seed classes of Mollybloom will be limited to breeder, foundation, registered, and certified. Breeder seed of Mollybloom will be maintained by NCARS. Foundation, registered, and certified classes will be maintained by the North Carolina Foundation Seed Producers, Inc., 8220 Riley Hill Road, Zebulon, NC 27597.

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