susceptible to Russian wheat aphid (Diuraphis noxia Mordvilko) and wheat stem sawfly (Cephus noxia Mordvilko), based on seedling tests in the greenhouse at Manhattan, KS.

Erhardt is of medium maturity, heading about 2 d later than 'Judith' and 2 d earlier than Neeley. It is intermediate in height (84 cm), 17 cm taller than 'Norwin', and 9 cm shorter than 'Redwin'. The cultivar has strong straw and is resistant to lodging. Winterhardiness of Erhardt is good, similar to Roughrider and Norwin. From 1989 to 1995 (42 location-years), grain yield of Erhardt (4085 kg ha⁻¹) was 21, 16, and 5% higher than the winter-hardy cultivars Roughrider, 'Norstar', and Norwin, respectively. Over the same period, Erhardt yield was 9 and 6% lower than Judith and Neeley, and similar to Rocky and 'Tiber'. Grain volume weight of Erhardt (782 kg m⁻³) is similar to that of Rocky, Redwin, and Tiber and higher than volume weights of Judith and Neeley.

Based on 6 yr (30 location-years) of cereal quality evaluation at Montana State University, Erhardt meets domestic quality criteria for high-quality bread flour production. Grain protein content of Erhardt is similar to Redwin and 8 to 9 g kg⁻¹ higher than Neeley, Rocky, Judith, and Tiber. Flour yield and absorption levels are acceptable and similar to Redwin. Erhardt has moderate dough strength, with relatively short mix times and intermediate stability. Loaf volume and internal grain and texture characteristics of Erhardt are excellent and comparable to those of Judith, Redwin, and Roughrider.

Breeder and foundation seed of Erhardt will be maintained by the Foundation Seed Stock Program, Dep. of Plant, Soil and Environmental Sciences, Montana State University, Bozeman, MT 59717.


References and Notes


Registration of 'McGuire' Wheat

McGuire, a hard red winter wheat (Triticum aestivum L.) cultivar (Reg. no. CV-847, P1 593890) with high protein content and excellent milling and baking characteristics, was developed and released by the Montana Agricultural Experiment Station in 1996. McGuire is named in honor of Charles F. McGuire, a long-time Montana Agricultural Extension Agent, who retired in 1989. McGuire is early in maturity, heading similarly to 'Arapahoe' and 1 to 2 d earlier than Rocky and 'Judith'. McGuire is similar in height to Arapahoe and 41 and 89 mm shorter than Judith and Redwin, respectively. McGuire has strong straw and is resistant to lodging. Winterhardiness of McGuire is similar to 'Tiber', being adequate for most winter wheat producing areas of Montana. From 1990 to 1995 (32 location-years), grain yield of McGuire (3890 kg ha⁻¹) was similar to Redwin and 14, 12, 7, and 6% lower than the predominant cultivars Judith, Neeley, Rocky, and Tiber, respectively. Grain volume weight of McGuire (777 kg m⁻³) is similar to that of Rocky, Redwin, and Tiber and higher than volume weights of Judith and Neeley.

Over 30 environments, McGuire averaged more than 1 full percentage point higher grain protein content than the high-protein cultivar Redwin (1). Based on 4 yr (20 location-years) of cereal quality evaluation at Montana State University, McGuire meets domestic quality criteria for high-quality bread flour production. McGuire has acceptable flour yield and absorption levels, and strong dough mixing characteristics, with a relatively long mix time and good stability. Loaf volume and internal grain and texture characteristics of McGuire are superior to all winter wheat cultivars currently produced in Montana. Average loaf volume of McGuire exceeded the loaf volume of Judith (the highest-quality check cultivar) by approximately 10%.

Breeder and foundation seed of McGuire will be maintained by the Foundation Seed Stock Program, Dep. of Plant, Soil and Environmental Sciences, Montana State University, Bozeman, MT 59717.


References and Notes