MT 8849 was also grown in the Uniform Regional Hard Red Spring Wheat Nursery in 1992 and 1993. McNeal is hollow-stemmed; it is awned, and has brown chaff and tan straw. Glumes are brown, with some white on the outer edges of the lemma and palea. Kernels are red, ovate with a short brush, and of medium length. The kernel cheeks are slightly rounded, with a medium crease. The spike is mid-dense, with spreading florets. McNeal is moderately resistant to lodging under Montana conditions, and is moderately resistant to prevalent races of stem rust (caused by Puccinia graminis Pers.:Pers.) and wheat streak mosaic virus. It is moderately susceptible to leaf rust caused by P. recondita Roberge ex Desmaz. and stripe rust caused by P. striiformis Westend. McNeal is susceptible to the Russian wheat aphid [Diuraphis noxia (Mordvilko)] and the wheat stem sawfly (Cephus cinctus Norton).

McNeal matures in midseason, with average heading date being 1 to 2 d earlier than 'Newana'. It contains the Rht2 gene for semidwarf habit, but is intermediate in height between semidwarf cultivars such as Newana and normal height cultivars such as 'Lew' and 'Fortuna'. Approximately 0.1% off-types (6 to 10 cm taller than the general canopy) may occur in certain years. McNeal has yielded ≈6% more than Newana, 'Hi-Line', and 'Amidon' under dryland conditions in Montana from 1989 to 1992. It performed well under dryland conditions at the Eastern Agricultural Research Center near Sidney, MT, averaging 3% more than Newana and 6% more than Amidon. Kernel protein percentage has been approximately equal to Hi-Line and Fortuna, and ≈1% greater than that of Newana. Flour yield, averaged over 3 yr and 9 locations, has averaged ≈2% higher than Newana and Hi-Line, but lower than Amidon, Lew, and Fortuna. Farinograph absorption and loaf volume are as high or higher than other spring wheat cultivars recommended in the state.

Superior yield potential, desirable plant height, acceptable protein levels, and good baking quality provided justification for the release of McNeal. Breeder and foundation seed of McNeal will be maintained by the Foundation Seed Stock Program, Plant and Soil Science Department, Montana Agricultural Experiment Station, Montana State University, Bozeman, MT 59717.


References and Notes

February 1993 by the Oregon Agricultural Experiment Station under the auspices of the Oregon Foundation Seed Stock Advisory Committee, Oregon Agricultural Experiment Association, and Oregon State University, Corvallis, OR 97331.

Rohde, also known as OR855, was selected from the cross 'Paha'/Selection 72//'Daws', made in 1978. Rohde was developed using a pedigree system and is an increase of an F1 line. It is a semidwarf with strong straw and lodging. The spike is awned, clavate, short, compact, and laterally compressed. The spike measures 4 to 5 cm in length, and the awns measure 2 to 6 cm. The glumes are glabrous and white. The kernels are small, white, soft, and laterally compressed. The outer edges of the lemma and palea are a short brush, and of medium length. The kernel cheeks are slightly rounded, with a medium crease. The spike is mid-dense, with spreading florets. Rohde is moderately resistant to lodging under Montana conditions, and is moderately resistant to prevalent races of stem rust (caused by Puccinia striiformis Westend). Rohde is susceptible to the Russian wheat aphid [Diuraphis noxia (Mordvilko)] and the wheat stem sawfly (Cephus cinctus Norton).

Rohde has adult plant resistance to stripe rust, caused by Puccinia striiformis Westend. Currently, its level of stripe resistance is greater than Tres and Hyak. Rohde is resistant to cephalosporium stripe (caused by Cephalosporium gramineum (Ellis & Everh.; syn. Cephalosporium gramineum (Mordvilko)] and the wheat stem sawfly (Cephus cinctus Norton).

Rohde has adult plant resistance to leaf rust (caused by P. recondita Roberge ex Desmaz.), powdery mildew (caused by Erysiphe graminis DC. f. sp. Triticum laevis (DC.) Tul. & C. Tul. and Erysiphe graminis DC. f. sp. tritici Em. Marchal.), common bunt (caused by Tilletia caries (DC.) Tul. & C. Tul. and T. laevis (Fron) Deighton.), leaf blotch (caused by Septoria tritici Roberge ex Desmaz.), and septoria stripe rust (caused by Septoria tritici Roberge ex Desmaz.). Powdery mildew is currently grown club wheat cultivars. Rohde has slightly less flour yield than Tres and Hyak; however, milling scores are similar, due to lower flour ash of Rohde. Cookie diameters were similar for Rohde and Tres and larger than those of Hyak. Sponge cake volume was slightly lower in Rohde than Hyak and 4 d earlier than Tres. Cold hardness is similar in height to Hyak and Tres. Rohde has adult plant resistance to stripe rust, caused by Puccinia striiformis Westend. Currently, its level of stripe resistance is greater than Tres and Hyak. Rohde is resistant to cephalosporium stripe (caused by Cephalosporium gramineum (Ellis & Everh.; syn. Cephalosporium gramineum (Mordvilko)] and the wheat stem sawfly (Cephus cinctus Norton).

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The USDA-ARS Western Wheat Quality Laboratory conducted milling and baking evaluations from flour protein percent and grain hardness is currently grown club wheat cultivars. Rohde has slightly less flour yield than Tres and Hyak; however, milling scores are similar, due to lower flour ash of Rohde. Cookie diameters were similar for Rohde and Tres and larger than those of Hyak. Sponge cake volume was slightly lower in Rohde and Tres than Hyak. Rohde has adult plant resistance to stripe rust, caused by Puccinia striiformis Westend. Currently, its level of stripe resistance is greater than Tres and Hyak. Rohde is resistant to cephalosporium stripe (caused by Cephalosporium gramineum (Ellis & Everh.; syn. Cephalosporium gramineum (Mordvilko)] and the wheat stem sawfly (Cephus cinctus Norton).

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