REGISTRATION OF 'FRANKENMUTH' WHEAT

'FRANKENMUTH' (CI17830) a soft white winter wheat (Tri.ticum aestivum L.) (Reg. no. 709) was developed at Michigan State University Agricultural Experiment Station in cooperation with USDA-ARS, and was released in 1979. It was tested in Michigan and regionally as Michigan-B2218 and M0290. It is named for Frankenmuth, MI, the site of one of the early grist mills established in 1871. Frankenmuth was released because of its good pest resistance, broad adaptation, excellent agronomic performance, and milling and baking quality. Frankenmuth was a F4 selection of a 1967 cross of 'Norin 10'/'Brevor' 14//'Yorkwin'/3/'Genesee'. It has averaged 1.04 m in height. The soft white cultivars most similar in appearance are Yorkstar and Frankenmuth, however, both have brown glumes compared to white for Augusta. It is also similar in plant height and glume color to 'Fredrick', but is susceptible to all known races of Hessian fly [Mayetiola destructor (Say)], whereas Fredrick is resistant to races A and C.

Augusta has good field resistance to the biotypes of leaf rust and powdery mildew, occurring naturally in Michigan. It has no genes for Hessian fly resistance, but its exceptional straw strength provides resistance against straw breakage with spring fly infestations.

Variety protection (Certificate no. 8000164) has been granted under the Plant Variety Protection Act, Public Law 91–977, in accordance with the certified seed option, and specifies that it may be sold only by cultivar name, as a class of certified seed. Only two generations from Breeder seed are permitted. Breeder seed is maintained by the Michigan State University Agricultural Experiment Station, East Lansing, MI 48824. The authors gratefully acknowledge the expert assistance of the technical staff of the Soft Wheat Quality Laboratory, USDA-ARS, OARDC, Wooster, OH.

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References and Notes


Augusta was evaluated in Michigan in advanced nurseries from 1973 to 1978 and in the Eastern Uniform Soft White Winter Wheat Trials from 1976 to 1978. In 42 nurseries at eight locations in Michigan, its yield surpassed Genesee by 14% and 'Arthur' by 16%. Milling and baking qualities were evaluated from 1971 through 1979 at the USDA Soft Wheat Quality Laboratory, OARDC, Wooster, OH. Augusta has medium kernel size with more stable, higher test weight than Yorkstar. It has excellent soft wheat milling and baking qualities.

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OARDC, Wooster, OH. Frankenmuth has kernel size and test weight equal to Genesee. It has excellent soft wheat milling and baking qualities.

Frankenmuth is an awnless soft white winter wheat with a slight tendency to have awnlets on the apical spikelets. It has brown glumes at maturity and a rather large head, tapering slightly toward the apex. Frankenmuth heads at the same time as 'Augusta' and 6 days later than Arthur. It has resistance to leaf rust and powdery mildew, occurring naturally in Michigan. It has resistance to races A and C of Hessian fly conferred by the H3 gene.

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