REGISTRATION OF MANNING WHEAT
(Reg. No. 644)

Wade G. Dewey*

'MANNING,' CI17846, a hard red winter wheat (Triticum aestivum L. em Thell.), was developed by the Utah Agric. Exp. Stn. It originated from the cross 'Delmar'/P1178383/'Columbia'/4/Delmar/3/UT175-53/ 'Norin' 10/Brevor.' UT175-53 is a bunt (Tilletia sp.) resistant breeding line derived from the cross 'Hussar'/Turkey//'Ridit'/3/ 'Oro'/Ridit. The final cross in the sequence was made in 1967 and the single F₂ plant that became the cultivar Manning was selected in 1973. During its advanced testing period it was identified at UT89099. Foundation seed was released to seed growers in the fall of 1979.

Manning is medium-short in stature, averaging 12 to 15 cm shorter than 'Hansel' and 'Jeff' and 10 to 12 cm shorter than 'Cache' and 'Bridger' under typical dryland conditions in Utah. It is medium-early in maturity, heading about 5 days earlier than Hansel. Spikes are bronze, awned, oblong to fusiform, middense, and tend to be inclined at maturity. Awns are 5 to 7 cm long and somewhat flared. Glumes are glabrous, midlong, midwide, with generally square shoulders. Beaks are mid-short and acuminate. The kernel is hard, red, elliptical to ovalate, with a midsize germ, middeep crease, and rounded cheeks. The brush is short to medium and noncollared.

Manning has an excellent yield record in our 1977-1979 intrastate tests as well as in the 1978 and 1979 Western Regional Hard Red Winter Wheat nurseries. In 15 location-year comparisons with the standard cultivars presently being grown in Utah, Manning has averaged 10% above the best-yielding cultivars. Its yield advantage is most evident on our better drylands or under moderate levels of irrigation where lodging is often a problem with the standard tall cultivars.

Manning has about the same high level of resistance to dwarf bunt (caused by Tilletia controversa Kuhn) as Hansel. It derives this resistance primarily from its P1178383 and Ridit parentage. It also shows a moderate degree of tolerance to snowmold (caused by a number of Fusarium and Typhula species). From limited observations on its reaction to leaf rust (incited by Puccinia recondita Rob. ex Desm. f. sp. tritici), and to powdery mildew (caused by Erysiphe graminis DC. f. sp. tritici Em Marchal), Manning appears to be susceptible to these two diseases.

Milling and baking characteristics of Manning are good and similar to Hansel. It has strong dough mixing properties.

Breeder seed will be maintained by the Utah State Agric. Exp. Stn. at Logan, Utah. Utah State University does not plan to apply for a U.S. Plant Variety Protection certificate.


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