REGISTRATION OF 'COLLIN' WHEAT

'COLLIN' hard red winter wheat (*Triticum aestivum* L.) (Reg. no. 735) PI 511849 was developed by the Texas Agricultural Experiment Station, Texas A&M University in cooperation with USDA-ARS and released in 1986. Collin, whose experimental designation was TX71D4876-V5, has the parentage of 'Agent'/‘Tascosa’/‘Sturdy’. It is named for Collin County, where its superior adaptability to the Texas Blacklands was demonstrated.

An individual F₃ plant was selected at Denton, TX in 1971 and the resulting line was entered into statewide yield trials as TX71D4876. In 1975 an F₇ selection, TX71D4876-V5, was made at Vernon, TX. It subsequently exhibited excellent yields and leaf rust (incited by *Puccinia recondita* Rob ex Desm. f. sp. *tritici*) resistance in yield trials at Dallas, Temple, McGregor, Beeville, and Uvalde, TX. Single plant progeny rows in the F₇ with a resistant reaction to leaf rust and uniform in plant type, were composited for breeder seed.

Collin was tested for performance in advanced nursery trials in Texas from 1982 to 1985. Collin was consistently among the top yielding cultivars, with ‘Mit’, ‘Probrand 812’, ‘Payne’, and Sturdy. It has been tested for hard red winter wheat milling and baking qualities since 1982. Quality evaluations have indicated that Collin has satisfactory quality properties of a hard red winter wheat, similar to those of ‘TAM W-101’.

Collin has the same heading date as Probrand 812 and is 1 d later in heading than Mit at Dallas, McGregor, and Temple. It is 6 d earlier than Sturdy and 2 wk earlier than ‘TAM 105’ at those locations. In south Texas at Beeville and Uvalde, Collin is 2 d earlier in heading than Probrand 812, 2 wk earlier than Sturdy and 1 d later than Mit.

Collin is an awned, semidwarf, brown-chaff wheat. The height of Collin is the same as Payne, Sturdy, and TAM 105. The plant color of Collin at boot stage is green. The heads are fusiform and the central florets frequently set seed. The outer glumes are mid-long and mid-wide, the inner glumes, a sharp keel, and medium size; lower, medium sized, taper very little, and have a fairly narrow appearance. Collin exhibits semi-erect growth habit throughout its life stage of growth.

Collin has resistance to leaf rust derived from Agent (Lr 24) as well as adult-plant resistance factors from ‘Probrand 812’, ‘Sturdy’. It has been resistant to races UN2, UN9, UN11, UN12, UN13, UN14, and UN17 of the leaf rust fungus in field trials in the Blacklands and south Texas. Collin is resistant to *Mycosphaerella graminicola* (E. Marchal), which causes septoria tritici blotch and moderately resistant to *M. graminicola* (Fuckel) Schroeter, which causes powdery mildew.

Breeder seed is maintained by the Foundation Seed Service of the Texas Agricultural Experiment Station, College Station, TX 77843.


References and Notes

1. D. Marshall and J.H. Gardenhire, The Texas Agric. Exp. Sta., College Station, TX 75222; E.C. Gilmore, The Texas Agric. Exp. Sta., Waco; M. E. McDaniel and C.A. Erickson, Dep. of Soil and Crop Sci., Exp. Sta., College Station, TX. Approved for publication as article no. TA23144 by the director of the Texas Agricultural Experiment Station, 77843. Registration by CSSA. Accepted for publication by the corresponding author.

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