

Registration of KS96WGRC35 and KS96WGRC36 Leaf Rust-Resistant Hard Red Winter Wheat Germplasms

KS96WGRC35 (Reg. no. GP-554, PI 604220) and KS96WGRC36 (Reg. no. GP-555, PI 604221) are leaf rust resistant hard red winter wheat (*Triticum aestivum* L.) germplasms developed cooperatively by the USDA-ARS, the Kansas Agricultural Experiment Station, and the Wheat Genetics Resource Center. They were released as germplasms in August 1996.

In replicated tests, seedlings of KS96WGRC35 and KS96WGRC36 exhibited low infection types (; to 2 on a scale of 0 to 4) when inoculated with leaf rust (caused by *Puccinia recondita* Roberge ex Desmaz.) races CDB-10,15, MCD-10, MFB-10, MGM-10, and TFG-10 (1). High infection types (3 to 4) were observed on both germplasms when inoculated with leaf rust races MBR-10, PNM-10, and PNM-10,18 (1). The check cultivars TAM 107 and Wrangler exhibited high infection types with all races of leaf rust tested. Adult plants of KS96WGRC35 and KS96WGRC36 displayed low infection types (;) under heavy leaf rust infections in the field at Manhattan and Hutchinson, KS, in 1995 and 1997.

KS96WGRC35 is a BC₂F₃-derived line with the pedigree Wrangler*3/TA 28. KS96WGRC36 is a bulk of several BC₃F₃-derived lines with the pedigree TAM 107*4/TA 870. TA 28 and TA 870 are leaf rust-resistant accessions of *Triticum timopheevii* (Zhuk.) Zhuk. subsp. *armeniicum* (Jakubz.) van Slageren (syn. *T. araraticum*) from northern Iraq. Leaf rust resistance in each germplasm is conditioned by a single, partially dominant gene from the *T. timopheevii* parent, and the two genes segregate independently of each other (2). KS96WGRC35 and KS96WGRC36 are

phenotypically similar to their respective recurrent parents.

Small quantities (2 g) of seed of KS96WGRC35 and KS96WGRC36 are available upon written request. Appropriate recognition of source should be given when this germplasm contributes to research or development of a new breeding line or cultivar. Seed stocks are maintained by the Wheat Genetics Resource Center, Dep. of Plant Pathology, Throckmorton Plant Sciences Center, Kansas State University, Manhattan, KS 66506-5502.

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References and Notes

1. Long, D.L., and J.A. Kolmer. 1989. A North American system of nomenclature for *Puccinia recondita* f. sp. *tritici*. *Phytopathology* 79:525-529.
2. Brown-Guedira, G.L., B.S. Gill, T.S. Cox, and S. Leath. 1997. Transfer of disease resistance genes from *Triticum araraticum* to common wheat. *Plant Breed.* 116:105-112.
3. G.L. Brown-Guedira, USDA-ARS and Dep. of Agronomy, and R.G. Sears, Dep. of Agronomy, Kansas State Univ., Manhattan, KS 66506-5501; T.S. Cox, ICRISAT, Patancheru PO, AP 502 324, India (formerly USDA-ARS and KSU); B.S. Gill, Dep. of Plant Pathology, Kansas State Univ., Manhattan, KS 66506-5502. Cooperative investigations of the USDA-ARS and the Kansas Agric. Exp. Stn.. Contribution no. 98-396-J, Kansas Agric. Exp. Stn., Kansas State Univ., Manhattan, KS 66506-4008. Registration by CSSA. Accepted 31 Oct. 1998. *Corresponding author (gbg@ksu.edu).

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