Karl, whereas at Manhattan, where the leaf rust epidemic occurred later in the growing season, KS92WGRC15 and Karl had equal grain yields. KS92WGRC15, released in 1992, should prove to be a more useful source of leaf rust resistance for wheat breeding programs than was KS86WGRC2.

KS92WGRC23 seedlings exhibited a very low infection type (0IC) when inoculated with cultures PRTUS19, PRTUS24, and PRTUS25 of *P. recondita*. Adult plants displayed an immune reaction under heavy leaf rust infection at Manhattan and Hutchinson, KS, in 1991, 1992, and 1993. KS92WGRC23 is a BC$_2$F$_4$-derived line with the pedigree Karl*3//PI 266844/PI 355520. Karl was pollinated with an F$_1$ plant of *T. monococcum* (PI 266844/PI 355520), and the three-way hybrid was backcrossed twice to Karl. Leaf rust-resistant F$_3$ progeny of one F$_2$ plant were selected in the field in 1991, and resistant BC$_2$F$_4$ derived F$_4$ progeny were produced in 1992. KS92WGRC23 is similar to Karl in height and overall phenotype but contains plants that range in heading date from the same day as Karl to 6 d later. Karl seedlings exhibit intermediate infection types (56X to 78X) with cultures that elicit a 0IC infection type with KS92WGRC23. Late in the 1992 growing season, KS92WGRC23 remained free of leaf rust, whereas Karl was heavily rusted. KS92WGRC23 was released as germplasm in 1992.

A *T. monococcum* F$_1$ plant was used to transfer resistance to KS92WGRC23, because one of the parents, PI 266844, produces only female-sterile hybrids with hard red winter wheat. PI 355520 carries genes that allow production of female-fertile hybrids (1). The leaf rust resistance of KS92WGRC23 is conditioned by a dominant gene derived from one of the *T. monococcum* parents, probably PI 266844; genetic studies to determine the gene’s location have not been completed.

KS92WGRC23 has 20 normal chromosomes of telocentric 6BL chromosomes, and one pair of chromosomes containing the entire short arm of one proximal portion of 6BL. There is no noticeable abnormal chromosome 6B on fertility or morphology, but the leaf rust-resistance gene is on another chromosome.

Small quantities (3 g) of seed of KS91WGRC11 and KS92WGRC23 are available upon written request. Appropriate recognition of source should be given when these germplasms contribute to research or development of new cultivars. Seed stocks are maintained by the Wheat Genetics Resource Center, Dep. of Agronomy, Throckmorton Hall, University, Manhattan, KS 66506.

T. S. Cox,* R. G. Sears, B. S. Gill, and E. N. Jellen (2)

References and Notes

2. T.S. Cox and E.N. Jellen, USDA-ARS and Dep. of Agronomy; B.S. Gill, Dep. of Plant Pathology, University, Manhattan, KS 66506. Cooperative investigations with the USDA-ARS and the Kansas Agric. Exp. no. 92-325-J. Research supported in part by the Kansas Crop Improvement Assoc. Registration 295A, 30 Sept. 1993. *Corresponding author.

Published in Crop Sci. 34:546–547 (1994).

---

Registration of Tift SPM92 Sexual Guineagrass Germplasm

Homoygous sexual guineagrass (*Panicum maximum* Jacq.) germplasm, Tift SPM92 (Reg. no. GP-66, PI 570664), was developed cooperatively by the USDA-ARS and the University of Georgia Coastal Plain Experiment Station at Tifton, GA. It was released by the two agencies on 16 Apr. 1993.

A sexual tetraploid (2n=4x=32) plant (PI 277946), homozygous for method of reproduction, was crossed as female with a homozygous true-breeding sexual tetraploid plant induced by treating diploid (2n=2x=16) guineagrass GR297 from Japan with colchicine. Twelve F$_1$ hybrids were identified from this cross for further study. Each hybrid had exclusively sexual reproduction based on embryo sac analyses. The F$_2$ progeny of all 12 hybrids segregated for sexual and/or facultative apomictic reproducing plants. Two hundred seventy-seven sexual plants from 9 of the original 12 hybrids were selfed to produce Tift SPM92 (2n=4x=32). Observations on 25 ovules from each of 70 random plants from Tift SPM92 showed only sexual embryo sac development. Tift SPM92 is morphologically diverse and shows variation for such plant characters as inflorescence length, plant height, flag leaf length and width, peduncle exsertion and tillers per plant.

Three grams of seed of Tift SPM92 may be obtained from the corresponding author. Recipients of seed are asked to make appropriate recognition of the source of the germplasm if it should contribute to the development of a new germplasm line or cultivar.

W. W. Hanna* and H. Nakagawa

References and Notes