

Wahla IH and Kirkham MB. 2008. Heavy metal displacement in salt-water-irrigated soil during phytoremediation. *Env Pollution* 155:271-283.

THE WHEAT GENETIC & GENOMIC RESOURCES CENTER

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Notice of release of KS09WGGRC51-J and KS09WGGRC51-C Hessian fly-resistant hard red winter wheat and KS09WGGRC51-P Hessian fly-resistant spring wheat germ plasm.

The Agricultural Research Service, U.S. Department of Agriculture and the Kansas Agricultural Experiment Station announce the release of KS09WGGRC51-J and KS09WGGRC51-C hard red winter wheat (*Triticum aestivum* L.) and KS09WGGRC51-P spring wheat germ plasm with resistance to Hessian fly for breeding and experimental purposes. Scientists participating in this development were B.S. Gill, B. Friebe, J.C. Cainong, D.L. Wilson, and W.J. Raupp, Department of Plant Pathology, Kansas State University, Manhattan, KS 66506; A.K. Fritz, Department of Agronomy, Kansas State University, Manhattan, KS 66506; M.S. Chen and M.O. Pumphrey, USDA-ARS Plant Science and Entomology Research Unit, Department of Agronomy, Kansas State University, Manhattan, KS 66506; J. Johnson, Griffin Campus, University of Georgia, Griffin, GA 30223; and L.E. Zavatsky and A.J. Lukaszewski, Department of Botany and Plant Sciences, Batchelor Hall, University of California, Riverside, CA 92507.

KS09WGGRC51-J, KS09WGGRC51-J, and KS09WGGRC51-P are improved derivatives of Hamlet (KS89WGRC08, PI 549276) with the resistance gene *H21* in the form of a wheat-rye (*Secale cereale*) recombinant chromosome T2BS2BL-2R#2L. The recombinant chromosome consists of the short arm of wheat chromosome 2B, most of the long arm of 2B, and a shortened distal segment derived from the long arm of the *S. cereale* chromosome 2R#2 harboring *H21*. KS09WGGRC51-J is derived from the cross Hamlet (T2BS2R#2L)/2B(L)+20 (T2BS2BL-2R#5L)/2*Jagger. KS09WGGRC51-C is derived from the cross Hamlet (T2BS2R#2L)/2B(L)+20 (T2BS2BL-2R#5L)/2*Culver. KS09WGGRC51-P is derived from the cross Hamlet (T2BS2R#2L)/2B(L)+20 (T2BS2BL-2R#5L)/2*Pavon. The F₄-derived families are homozygous for *H21* but are segregating for other traits.

Small quantities (3 grams) of seed of KS09WGGRC51 are available upon written request. We request that the appropriate source be given when this germ plasm contributes to research or development of new cultivars. Seed stocks are maintained by the Wheat Genetic and Genomic Resources Center, Throckmorton Plant Sciences Center, Kansas State University, Manhattan, KS 66506. Genetic material of this release will be deposited in the National Plant Germplasm System where it will be available for research purposes, including the development of new cultivars.

Development and characterization of wheat-Leymus racemosus translocation lines with resistance to Fusarium head blight.

Lili Qi, Mike Pumphrey, Bernd Freibe, Bikram Gill, and P.D. Chen.

Fusarium head blight can be a significant disease in Kansas in a year with a wet spring. Working with scientists at Nanjing Agricultural University in China, we have identified a new source of resistance from a perennial grass relative *L. racemosus* (Lr). A chromosome segment (called 7Lr#1S) from this grass specifying resistance to FHB has been transferred to a chromosome arm of wheat (called 7AL) in the form of a translocation T7AL·7Lr#1S. Using *ph1*-induced homoeologous method, we identified three putative recombinants. Putative recombinants were confirmed by genomic in situ hybridization (GISH), and we identified one proximal recombinant (rec124) with the proximal 80% derived from 7Lr#1S and the distal 20% derived from 7AL, and two distal recombinants (rec679 and rec989) with the proximal 80% derived from 7AL and the distal 20% of the arm derived from 7Lr#1. We presently are backcrossing these recombinants with adapted Kansas winter wheats and selecting homozygous recombinant stocks. Once these have been obtained, they will be evaluated for their resistance to FHB.