

THE KANSAS AGRICULTURAL EXPERIMENT STATION
MANHATTAN, KANSAS

NOTICE OF RELEASE OF KS18WGRC64 POWDERY MILDEW-RESISTANT WHEAT
GENETIC STOCK

The Kansas Agricultural Experiment Station announces the release of KS18WGRC64 (TA5109) spring wheat (*Triticum aestivum* L.) genetic stock with resistance to powdery mildew for breeding and experimental purposes in accordance with agreements related to WGRC I/UCRC National Science Foundation contract 1338897. Scientists participating in this development were B. Friebe¹, W. Liu², D.H. Koo¹, D.L. Wilson¹, W.J. Raupp¹; J. Poland¹, A.K. Fritz³, and B.S. Gill¹.

KS18WGRC64 is derived from the cross TA3581/TA3809*2 F₃, where TA3581 is a disomic wheat-*Aegilops searsii* Feldman & Kislev ex K. Hammer chromosome addition line having the *Ae. searsii* chromosome 2S^s#1 added to the hexaploid wheat cultivar Chinese Spring and TA3809 is a Chinese Spring stock homozygous for the *ph1b* mutant allele. The long arm of chromosome 2S^s#1 has a gene conferring resistance to powdery mildew caused by *Blumeria graminis* f. sp. *tritici* designated as *Pm57*.

KS18WGRC64 (TA5108) is homozygous for *Pm57* present on the wheat-*Ae. searsii* recombinant chromosome T2BS2BL-2S^s#1L with a distal 2S^s#1L segment of 33%. The T2BS2BL-2S^s#1L recombinant stock is cytogenetically stable and may be useful in wheat improvement.

Small quantities (3 grams) of seed of KS18WGRC64 are available upon written request. We request that the appropriate source be given when this genetic stock contributes to research or development of new cultivars. Seed stocks are maintained by the Wheat Genetics Resource Center, Throckmorton Plant Sciences Center, Kansas State University, Manhattan, KS 66506.


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7/31/2007
Date

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