THE KANSAS AGRICULTURAL EXPERIMENT STATION
MANHATTAN, KANSAS

NOTICE OF RELEASE OF KS18WGRC64 POWDERY MILDEW-RESISTANT WHEAT GERM PLASM

The Kansas Agricultural Experiment Station announces the release of KS18WGRC64 (TA5109) spring wheat (*Triticum aestivum* L.) germplasm 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. Friebe[1], W. Liu[2], D.H. Koo[1], D.L. Wilson[1], W.J. Raupp[1]; J. Poland[1], A.K. Fritz[3], and B.S. Gill[1].

KS18WGRC64 is derived from the cross TA3581/TA3809*2 F_3, 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 T2BS·2BL-$2S^s$#1L with a distal $2S^s$#1L segment of 33%. The T2BS·2BL-$2S^s$#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 germ plasm 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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Director, Kansas Agricultural Experiment Station Date

Scientists Affiliations: [1]Department of Plant Pathology, Kansas State University, Manhattan, KS 66506–5502, U.S.A; [2]College of Life Sciences, Henan Agricultural University, Zhengzhou 450002, People's Republic of China; [3]Department of Agronomy, Kansas State University, Manhattan, KS 66506-5502, U.S.A.