

THE KANSAS AGRICULTURAL EXPERIMENT STATION
MANHATTAN, KANSAS

NOTICE OF RELEASE OF KS17WGRC62 WHEAT STREAK MOSAIC VIRUS- AND
TRITICUM MOSAIC VIRUS-RESISTANT WHEAT GERM PLASM

The Kansas Agricultural Experiment Station announces the release of KS17WGRC62 (TA5095) hard red winter wheat (*Triticum aestivum* L.) germ plasm with resistance to wheat streak mosaic virus and *Triticum* mosaic virus 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, T.V. Danilova¹, G. Zhang², D.L. Wilson¹, W.J. Raupp¹; J. Poland¹, A.K. Fritz³, and B.S. Gill¹.

KS1WGRC62 is derived from the cross KS12WGRC59/TA3809*2//Everest F₂, where K12WGRC59 is wheat-*Th. intermedium* (Host) Barkworth & D. R. Dewey introgression line having the *Th. intermedium* 7S#3L arm translocated to the short arm of wheat chromosome 7B in the form of a Robertsonian T7BS·7S#3L translocation, TA3809 is a Chinese Spring stock homozygous for the *ph1b* mutant allele, and Everest is a hard red winter wheat cultivar. The 7S#3L arm has a gene conferring resistance to wheat streak mosaic virus (WSMV) and *Triticum* mosaic virus (TriMV) designated as *Wsm3*. KS17WGRC62 is homozygous for *Wsm3* present on the wheat-*Th. intermedium* recombinant chromosome T7BS·7BL-7S#3L. The 7S#3L segment in T7BS·7BL-7S#3L is shorter than the one in T7BS·7S#3L but still retains the *Wsm3* gene conferring resistance to WSMV at 18°C and 24° and also confers resistance to TriMV at 18°C but is not effective against this virus above 24°C. The T7BS·7BL-7S#3L recombinant stock is cytogenetically stable and may be useful in wheat improvement.

Small quantities (3 grams) of seed of KS17WGRC62 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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Date

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