NOTICE OF RELEASE OF KS18WGRC65 HESSIAN FLY RESISTANT HARD RED WINTER WHEAT GERMPLASM

The Kansas Agricultural Experiment Station announces the release of KS18WGRC65 (TA5110) hard red winter wheat (*Triticum aestivum* L.) germplasm with resistance to Hessian fly (*Mayetiola destructor*) for breeding and experimental purposes in accordance with agreements related to Wheat Genetics Resource Center. Scientists participating in this development were Narinder Singh^{1,2}, Ryan Steeves², Ming-Shun Chen³ and Mustapha El-Bouhssini⁴, Michael Pumphrey⁵, and Jesse Poland².

KS18WGRC65 is a BC₃F_{3:5} line derived from the cross Overley/KU2147//3*Overley, where 'Overley' is a hard red winter wheat cultivar and KU2147 is *Aegilops tauschii* accession that was collected from Azerbaijan. KS18WGRC65 cytoplasm comes from 'Overley'. BC₃F_{2:3} lines were screened for Hessian fly resistance in the greenhouse and resistant lines were selected and grown in the field. A single spike was selected from a resistant line with overall 'Overley'-type plant morphology. The resistance was confirmed in the greenhouse using 20 seeds from the selected spike. Remaining seeds from the selected spike were planted in the greenhouse for seed increase and harvested in bulk. KS18WGRC65 is cytogenetically stable and homozygous for the Hessian fly resistance gene.

The seed stock is maintained by Wheat Genetics Resource Center, Throckmorton Plant Science Center, Kansas State University, Manhattan, KS 66506. A small amount of seed is available upon written request. We request that the appropriate source is cited when this germplasm is used in research and the development of new cultivar or germplasm.

Scientists Affiliations: ¹Interdepartmental Genetics Program, Kansas State University,
Manhattan, KS 66506, USA; ²Wheat Genetics Resource Center, Department of Plant Pathology,
Kansas State University, Manhattan, KS 66506, USA; ³USDA-ARS and Department of
Entomology, Kansas State University, Manhattan, KS 66506, USA; ⁴Entomology Research Unit,
The International Center for Agricultural Research in the Dry Area, Rabat 10106, Morocco;
⁵Department of Crop and Soil Sciences, Washington State University, Pullman, WA 99164,
USA.