

Small quantities (3 grams) of seed of KS12WGGRC58 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.

### ***Notice of release of KS12WGGRC59 wheat streak mosaic virus- and Triticum mosaic virus-resistant wheat germ plasm.***

B. Friebe, W. Liu (Laboratory of Cell and Chromosome Engineering, College of Life Sciences, Henan Agricultural University, Zhengzhou, Henan 450002, PR China), L.L. Qi (USDA-ARS, Northern Crop Science Laboratory, Fargo, ND 58102-2765, USA), D.L. Wilson, W.J. Raupp, J. Poland and R.L. Bowden (USDA-ARS Hard Winter Wheat Genetic Research Unit); A.K. Fritz (Department of Agronomy), D.L. Seifers (Kansas State University, Agricultural Research Center, Hays, KS), and B.S. Gill.

The Agricultural Research Service, U.S. Department of Agriculture and the Kansas Agricultural Experiment Station announce the release of KS12WGGRC59 hard red winter wheat germ plasm with resistance to wheat streak mosaic virus and *Triticum* mosaic virus for breeding and experimental purposes. KS12WGGRC59 is derived from the cross 'TA3061/TA7700//TA3809 F<sub>4</sub>', where TA3061 is a Chinese Spring wheat stock monosomic for chromosome 7D (CSM7D), TA7700 is a ditelosomic wheat-*Thinopyrum intermedium* addition line having the long *Th. intermedium* chromosome arm 7S#3L added to the wheat genome, and TA3809 is a Chinese Spring stock homozygous for the *ph1b* mutant allele. KS08WGGRC59 has the 7S#3L translocated to the short arm of wheat chromosome 7B in form of the Robertsonian translocation T7BS·7S#3L. The 7S#3L arm has a gene conferring resistance to Wheat streak mosaic virus (WSMV) and *Triticum* mosaic virus (TriMV) designated as *Wsm3*. *Wsm3* confers 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·7S#3L stock is a new source of resistance to WSMV and TriMV, is cytogenetically stable, and may be useful in wheat improvement.

Small quantities (3 grams) of seed of KS12WGGRC59 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.

### **Publications.**

- Akhunov E, Sehgal S, Akhunova A, Liang G, Catana V, Kaur G, Luo MC, Simkova H, Dolezel J, and Gill BS. 2011. Sequencing and analysis of the wheat chromosome 3A gene space. PAG XVIII Abstract W352.
- Bi C, Chen F, Jackson L, Gill BS and Li WL. 2011. Expression of lignin biosynthetic genes in wheat during development and upon infection by fungal pathogens. *Plant Mol Biol Rep* 29:149-161.
- Choulet F, Wincker P, Quesneville H, Brunel D, Gill BS, Appels R, Keller B, and Feuillet C. 2011. Sequencing and analyses of the hexaploid wheat chromosome 3B. PAG XVIII Abstract W220.
- Friebe B, Qi LL, Liu C, and Gill BS. 2011. Genetic compensation abilities of *Aegilops speltoides* chromosomes for homeologous B-genome chromosomes of polyploid wheat in disomic S(B) chromosome substitution lines. *Cytogenet Genome Res* 134:144-150.
- Gill BS, Friebe BR, and White F. 2011. Alien introgressions represent a rich source of genes for crop improvement. *Proc Natl Acad Sci USA* 108(19):7657-7658.
- Gore MA, Coyle G, Friebe B, Coffelt TA, and Slavucci ME. 2011. Complex ploidy level variation in guayule breeding programs. *Crop Sci* 51:210-216.
- Liu WX, Jin Y, Rouse M, Friebe B, Gill BS, and Pumphrey MO. 2011. Development and characterization of wheat-*Ae. searsii* Robertsonian translocations and a recombinant chromosome conferring resistance to stem rust. *Theor Appl Genet* 122:1537-1545.
- Olson E, Poland J, Bowden R, Rouse M, Jin Y, Friebe B, Gill BS, and Pumphrey M. 2011. Characterization of a stem rust resistance gene from *Aegilops tauschii* effective against stem rust race Ug99. PAG XVIII Abstract P310.
- Qi LL, Pumphrey MO, Friebe B, Zhang P, Qian C, Bowden RL, Rouse MN, Jin Y, and Gill BS. 2011. A novel Robertsonian translocation event leads to transfer of a stem rust resistance gene (*Sr52*) effective against race Ug99 from *Dasyphyrum villosum* into bread wheat. *Theor Appl Genet* 123:159-167.