borer and stalk rot was in separate experiments, with 10 plants per plot and three replications in each experiment. We used artificial infestations of the corn borer in the leaf-whorl stage of plant development and stalk inoculation with a spore suspension of *D. maydis* a few days after pollen shed. The number of *S* lines evaluated was 160, 168, 164, and 200 in the successive cycles, and the number of *S* lines selected for recombination was 20 in cycles 1, 3, and 4 and 18 in cycle 2. Selection in each cycle was on the basis of resistance to pith rot development and resistance to feeding by corn borer larvae in the leaf whorls. Also, we selected the *S* lines so that the average date for pollen shed was not later than the average for all lines evaluated in the same cycle. In the last cycle of evaluations (1980), the mean rating of all *S* lines for first-generation corn borer resistance was 2.66 (1 = highly resistant and 9 = highly susceptible), and 75% of the lines rated 3.0 or better. For the 20 *S* lines selected for recombination to give BSBB(SRCB)C4, the mean rating was 2.03, and all selected lines rated 2.5 or better. The mean rating of all *S* lines for stalk rot was 2.03 (0.5 = highly resistant and 6.0 = highly susceptible), and 75% of the lines rated 2.4 or better. The 20 selected *S* lines had a mean rating of 1.48, and all selected lines rated 2.0 or better. The original BSBB had a corn borer rating of 4.9, and the C3 was 2.6; likewise, stalk rot ratings were 3.1 and 2.1, respectively. The C3 population shed pollen 0.5 days earlier than the original BSBB. Some further improvement should be expected in the C4 for resistance to corn borer and stalk rot. The maturity classification for BSBB(SRCB)C4 is early AES800.

**BSBB** (*SRCB*) C4. The original BSBB synthetic was described by Russell et al. (1971) (2). It was developed by recombining 44 north-central Corn Belt inbred lines to provide a broad genetic base of improved germplasm for use in quantitative genetic studies. The performance of BSBB per se and in a nine-synthetic diallel was reported by Hallauer and Sears (1968) (1).

Recurrent selection procedures similar to those of the previous description for BSAA were used for four cycles to improve BSBB for resistance to stalk rot and first generation of the European corn borer. The number of *S* lines evaluated was 169, 148, 134, and 191 in the successive cycles, and the number of *S* lines selected for recombination was 20 in cycles 1, 3, and 4 and 16 in cycle 2. In the last cycle of evaluation (1981), the mean rating of all *S* lines for resistance to first-generation corn borer damage was 2.78, and about 75% of the lines rated 3.0 or better. For the 20 *S* lines selected for recombination to give BSBB(SRCB)C4, the mean rating was 2.2, and all selected lines rated 2.7 or better. The mean rating of all *S* lines for stalk rot was 2.08, and 80% of the lines rated 2.5 or better. The 20 selected lines had a mean rating of 1.65, and all selected lines rated 2.0 or better. The original BSBB had a corn borer rating of 5.2, and the C3 rated 3.6; also, stalk rot ratings were 3.1 and 2.0, respectively. Pollen shed was 0.6 days later for the C3 than the original BSBB. Some further improvement should be expected in the C4 for resistance to stalk rot and corn borer. The maturity classification for BSBB(SRCB)C4 is early AES800.

**WHEAT CURL MITE RESISTANT WHEAT GERMPLASM**

KS80H4200 (PI 475772) is a hard red winter wheat (*Triticum aestivum* L.) (Reg. No. GP218). It was developed as germplasm by the Kansas Agricultural Experiment Station in cooperation with USDA-ARS on 10, Aug. 1982. It is an increase of an *F*5 plant selected from the cross ‘Salmon’/'Sage'//'Eagle'///Sage.

KS80H4200 was released because it is resistant to wheat curl mite (*Acridium tullipe* Keiffer, vector of wheat soilborne mosaic (WSM) virus. In naturally infested replicated field trials in 1979, 1981, and 1982 the WCM resistance derived from Salmon (2), reduced the incidence of WSM by 62, 57, and 56%, respectively, when compared to WCM susceptible check. The 1981 field trials were conducted at one location (1) of the 1982 trial was planted at 26 locations in the north-central Corn Belt. Salmon is a soft red winter wheat with a translocation of the 1R chromosome (3) of rye (*Secale cereale* L.) that confers the WCM resistance (1).

Most agronomic characteristics of KS80H4200, except KS80H4200 has a lower grain yield (4). KS80H4200 is awned, moderately early in maturity, intermediate height and straw strength. Spikes are compact and erect to inclined. Glumes are white, glabrous, and narrow. The narrow shoulders are usually wanting. The glumes and range from oblique to square at the spikelet base. The kernels are red, hard, long, and angular. KS80H4200 leaves are distinctly pubescent on adaxial surfaces. Hairs are rather sparse and short, up to 0.5 mm long. KS80H4200 is also resistant to leaf rust (*Puccinia recondita* f. sp. tritici Eriks and Hessian fly (*H. Say)*). It is susceptible to wheat curl mite, *Acridium tullipe* virus, and to mechanical inoculation with WSM virus.

Germlast amounts of seed are available from the Fort Hays Branch Kansas Agric. Exp. Stn. Hays, KS 67601 or the Small Grains Collection, USDA-ARS, Beltsville Agric. Res. Ctr., Beltsville, MD 20705.


**References and Notes**

4. Wheat breeding, corn breeder, plant pathologists, Fort Hays State University.