Graded visually on a scale of 1 (no fuzz) to 8 (very dense fuzz), seed-coat grades in E790, F962, and H314 were 5.2, 5.6, and 5.4, respectively, compared with 4.0 for BPA75. Micronaire units were 4.9, 5.5, and 5.7 in E790, F962, and H314, respectively, compared with 4.4 in BPA75. These germplasms have leaf and stem pubescence similar to BPA75. Such high pubescence is associated with resistance to jassid (Empoasca spp.) (2). Breeder seed will be maintained by the National Fibre Research Centre, KARI, Kibos, Kenya. Small quantities of seed (25 g) of these lines are available for distribution upon written request to the corresponding author.

R. M. ONPOndo,* G. A. OMBAKHO, R. S. PATHAK, AND T. O. OKiYO (4)

References and Notes


Registration of P799, R64, and S212 Cotton Germplasm

Cotton (Gossypium hirsutum L.) germplasms P799 (Reg. no. GP-702, PI 604663), R64 (Reg. no. GP-703, PI 604664), and S212 (Reg. no. GP-704, PI 604665) were bred by hybridization and selection at the National Fibre Research Centre, KARI, Kibos, Kenya, in 1980 through 1987. They were released officially in October 1995. The parents were 'BPA75', a cultivar grown in Kenya and 'REBA B50'. BPA75 is a seed released in 1975 from 'Albar' lines selected from 'Nigerian Allen' at Namulonge, Uganda. Albar lines are resistant to Xanthomonas campestris pv. malvacearum (Smith) Dye (1). REBA B50 is derived from Stoneville (cultivar not specified) X Allen-50T. It was developed and released by the Department of Plant Sciences, University of Saskatchewan, Saskatoon, Canada, using the backcross breeding method. This germplasm has good agronomic and grain quality characteristics compared with 'Chinese Spring' but, unlike Chinese Spring, is highly crossable as a female parent with rye (Secale cereale L.) (>85% seed set vs. 0% for Columbus) and some other species. It was developed as part of a study to investigate the biochemical basis of crossability, but also provides wheat workers with a highly crossable genotype in a desirable genetic background. Based on its crossability with rye, it is assumed to carry the recessive crossability alleles kr1 and kr2 (1,3,4).

The initial cross was made between Columbus (2) and a line designated JBT-3 (Chinese Spring/Agropyron elongatum//Tobari) developed by J.B. Thomas (Winnipeg Research Centre, Agriculture and Agri-Food Canada), to carry the recessive crossability alleles kr1 and kr2. Single spikes of each plant of the F2 population from this cross were pollinated with 'Gazelle' spring rye, and the four crossability classes segregated as would be expected for a trait controlled by two genes. Using a late tiller, a single plant of the high-crossability class (double recessive genotype) was backcrossed to Columbus and the BC1F2 developed. Each plant of the BC1F2 was crossed with rye to identify the crossability classes. Six back-crosses and selection for high crossability were performed and a single highly crossable BC1F2 plant was selfed to produce the line Crocus.

Crocus is morphologically identical to the recurrent parent Columbus (2). It is resistant to stem rust (caused by Puccinia graminis Pers.:Pers) and common bunt (caused by Tilletia caries (DC.) Tul. & C. Tul.) (5). The seed prolamin profile of Crocus is similar to that of Columbus, as determined by polyacrylamide gel electrophoresis (5). Comparisons of unpollinated carpel-specific polypeptides using nonequilibrium two-dimensional gel-electrophoresis revealed that Crocus is deficient in a number of basic polypeptides. Similarly, Crocus is deficient in a number of carpel-specific ribonucleases (5).

Crocus is useful for alien gene introgression into wheat because of its high interspecific and intergeneric crossability with some similar to BPA75. Such high pubescence is associated with resistance to jassid (Empoasca spp.) (2). Breeder seed will be maintained by the National Fibre Research Centre, KARI, Kibos, Kenya. Small quantities of seed (25 g) of these lines are available for distribution upon written request to the corresponding author.

R. M. ONPOndo,* G. A. OMBAKHO, R. S. PATHAK, AND T. O. OKiYO (4)

References and Notes


Registration of Crocus Hexaploid Wheat Germplasm

Crocus, a hard red spring wheat (Triticum aestivum L.) germplasm (Reg. no., GP-560, PI 606243) near-isogenic to the cultivar Columbus (PI 496258), was developed and released by the Department of Plant Sciences, University of Saskatchewan, Saskatoon, Canada, using the backcross breeding method. This germplasm has good agronomic and grain quality characteristics compared with 'Chinese Spring' but, unlike Chinese Spring, is highly crossable as a female parent with rye (Secale cereale L.) (>85% seed set vs. 0% for Columbus) and some other species. It was developed as part of a study to investigate the biochemical basis of crossability, but also provides wheat workers with a highly crossable genotype in a desirable genetic background. Based on its crossability with rye, it is assumed to carry the recessive crossability alleles kr1 and kr2 (1,3,4).

The initial cross was made between Columbus (2) and a line designated JBT-3 (Chinese Spring/Agropyron elongatum//Tobari) developed by J.B. Thomas (Winnipeg Research Centre, Agriculture and Agri-Food Canada), to carry the recessive crossability alleles kr1 and kr2. Single spikes of each plant of the F2 population from this cross were pollinated with 'Gazelle' spring rye, and the four crossability classes segregated as would be expected for a trait controlled by two genes. Using a late tiller, a single plant of the high-crossability class (double recessive genotype) was backcrossed to Columbus and the BC1F2 developed. Each plant of the BC1F2 was crossed with rye to identify the crossability classes. Six back-crosses and selection for high crossability were performed and a single highly crossable BC1F2 plant was selfed to produce the line Crocus.

Crocus is morphologically identical to the recurrent parent Columbus (2). It is resistant to stem rust (caused by Puccinia graminis Pers.:Pers) and common bunt (caused by Tilletia caries (DC.) Tul. & C. Tul.) (5). The seed prolamin profile of Crocus is similar to that of Columbus, as determined by polyacrylamide gel electrophoresis (5). Comparisons of unpollinated carpel-specific polypeptides using nonequilibrium two-dimensional gel-electrophoresis revealed that Crocus is deficient in a number of basic polypeptides. Similarly, Crocus is deficient in a number of carpel-specific ribonucleases (5).

Crocus is useful for alien gene introgression into wheat because of its high interspecific and intergeneric crossability with some...