grown in the field. Five plants were pulled from each selected line and advanced to the next generation. F1 lines were evaluated for seed yield. Breeder seed was developed by bulking 150 uniform F1 lines from a single advanced F1 line. McNair 700 was designated as McNair 3182 prior to its release. It is classified as Maturity Group VII, maturing 3 days earlier than Bragg.

McNair 700 has purple flowers, brown pubescence and tan pod walls at maturity. Seed coats are dull yellow with black hilar. Seed size is almost similar to that of Bragg. It is resistant to bacterial pustule [caused by Xanthomonas phaseli (E. F. Smith) Dows]. It is susceptible to phytophthora root rot [caused by Phytophthora megasperma (Drechs.) var. sojae Hilde].

McNair 700 may be sold for planting seed only as a class of certified seed. Breeder seed will be maintained by Northrup King Co., Laurinburg, NC.

REGISTRATION OF BSR 201 SOYBEAN

H. Tachibana, J. B. Bahreufus, and W. R. Fehr

"BSR 201" soybean [Glycine max (L.) Merr.] was developed cooperatively by the USDA-ARS, the Iowa Agriculture and Home Economics Experiment Station, and the Puerto Rico Agricultural Experiment Station. It has moderate resistance to brown stem rot [caused by Phytophthora gregata (Allington and Chamberl.) W. Gams] that is superior to that of other cultivars of similar maturity. The cultivar yields about 10% more than 'Corsoy 79' on fields infested with brown stem rot and about 2% more on uninfested fields.

BSR 201 is an F2 plant selection from the cross 'B216' X AX901-40-2. B216 was selected by Pride Company, Inc. from the cross 'Corsoy' X 'Wayne.' The ancestry of AX901-40-2 includes 'Beeson', 'Clark', and PI 84.946-2.

The cross from which BSR 201 originated was made at the Isabela Substation of the University of Puerto Rico, and the population was advanced by single-seed descent in Puerto Rico and Iowa. The F2 population was grown in Iowa on land infested with P. gregata, and the most disease-free plants were selected. The F2-derived lines were tested for yield and brown stem rot resistance in Iowa on land infested with brown stem rot during 1977 to 1981. They also were evaluated for yield on uninfested land in Iowa from 1978 to 1981. BSR 201 was evaluated in the Uniform Tests, Northern States, from 1979 to 1981 under the designation A78-227013.

BSR 201 has white flowers, gray pubescence, brown pods at maturity, and dull yellow seeds with buff hilar. It is of Group II maturity and best adapted to approximately 42° to 44°N Lat. In comparison with Corsoy 79, BSR 201 is similar in maturity, more resistant to lodging, 10 cm shorter, and similar in seed quality, 100-seed weight, and seed protein and oil percentage.

BSR 201 has resistance to races 1 and 4 of phytophthora rot [caused by Phytophthora megasperma (Drechs.) var. glycine A. A. Hildebrand] and moderate general resistance to the disease. It is resistant to bacterial pustule [caused by Xanthomonas phaseli (E. F. Smith) Dowson var. sojensis (Hedges) Starr and Burkholder], moderately resistant to pod and stem blight [caused by Diaporthe phaseolorum (Cke. & Ell.) var. sojae Wehm.], moderately susceptible to downy mildew [caused by Peronospora manshurica (Naon. Syd. ex Gaum.)], and soybean mosaic virus, and susceptible to purple stain [caused by Cercospora kikuchii (T. Matsu. & Tomoyasu) Chupp]. It is susceptible to iron deficiency chlorosis on calcareous soils.

Breeder seed of BSR 201 was distributed by the Committee for Agricultural Development, Ames, Iowa 50011, to foundation seed organizations in Illinois, Indiana, Iowa, Minnesota, South Dakota, and Wisconsin. Breeder seed will be maintained by the Iowa Agriculture and Home Economic Experiment Station.

REGISTRATION OF BSR 302 SOYBEAN

H. Tachibana, J. B. Bahreufus, and W. R. Fehr

'BSR 302' is a soybean [Glycine max (L.) Merr.] cultivar with resistance to brown stem rot [caused by Phytophthora gregata (Allington and Chamber1.) W. Gams] that is superior to 'BSR 301,' the public cultivar that previously had the highest level of resistance to the disease. BSR 302 was developed cooperatively by the USDA-ARS, the Iowa Agriculture and Home Economics Experiment Station, and the Puerto Rico Agricultural Experiment Station. It is best suited for fields in which 75% or more of plants in the previous soybean crop showed symptoms of the disease. Under such conditions, BSR 302 has about a 5% yield advantage over BSR 301 and a 13% yield advantage over 'Cumberland.' It yields 7% less than Cumberland in fields where brown stem rot is not a serious problem.

BSR 302 is an F2 plant selection from the double cross population (Beeson × AP68-1016) X (L15 × Calland). L15 was developed from the backcross 'Wayne' × 'Clark 63.' AP68-1016 was selected from a line moderately resistant to brown stem rot from the backcross 'Clark' X PI 84.946-2. PI 84.946-2 is the original source of moderate resistance to brown stem rot. F1 and F2 seeds of the population were obtained in Iowa. Single-seed descent was used to advance the population two generations in Puerto Rico. The F2 population was grown in Iowa on land infested with P. gregata, and the most disease-free plants were selected. The F2-derived lines were tested for yield in Iowa from 1975 to 1979 in fields that were not highly infested with brown stem rot and from 1977 to 1979 in fields with a high level of the disease. BSR 302 was evaluated in the Northern Regional Soybean Trials from 1977 to 1979 under the designation A76-304019.

BSR 302 has purple flowers, tawny pubescence, brown pods at maturity, and dull yellow seeds with black hilar. It is of Group III maturity and best adapted to approximately 40° to 42°N Lat. In comparison with BSR 301, BSR 302 is similar for time of maturity, seed quality, and seed weight. It is more susceptible to lodging, 10 cm taller, 0.6% higher in protein, and 0.6% lower in oil than BSR 301.

BSR 302 has specific resistance to races 1 and 2 of phytophthora rot [caused by Phytophthora megasperma (Drechs.) var. glycinie A. A. Hildebrand], moderate general resistance to phytophthora rot, resistance to bacterial pustule [caused by Xanthomonas phaseli (E. F. Smith) Dowson var. sojensis (Hedges) Starr and Burkholder], moderately resistant to pod and stem blight [caused by Diaporthe phaseolorum (Cke. & Ell.) var. sojae Wehm.], moderately susceptible to downy mildew [caused by Peronospora manshurica (Naon. Syd. ex Gaum.)], and soybean mosaic virus, and susceptible to purple stain [caused by Cercospora kikuchii (T. Matsu. & Tomoyasu) Chupp]. It is susceptible to iron deficiency chlorosis on calcareous soils.

Breeder seed of BSR 302 was distributed by the Committee for Agricultural Development, Ames, Iowa 50011, to foundation seed organizations in Illinois, Indiana, Iowa, Minnesota, South Dakota, and Wisconsin. Breeder seed will be maintained by the Iowa Agriculture and Home Economic Experiment Station.


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