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 F2 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 phaseoli (E. F. Smith) Dows]. It is susceptible to phytophthora root rot [caused by Phytophthora megasperma (Drecks) var. sojae Hilde] and soybean cyst nematodes (Heterodera glycines Ichinohe). McNair 700 has determinate growth habit and averages 6–9 cm shorter than Bragg. Its leaf shape and color are more like that of Bragg, whereas the plant shape is like Ransom.

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 302 SOYBEAN
(Reg. No. 164)

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

‘BSR 302’ 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 high 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 302 is an F4 plant selection from the double cross population (Beeson × AP68-1016) × (L15 × AP68-1016) × ‘BSR 301’ × ‘AP68-1016’ × ‘BSR 301’ × ‘AP68-1016’. The original source of intermediate disease resistance was ‘AP68-1016’. The original source of moderate resistance to brown stem rot was ‘BSR 301’ × ‘AP68-1016’ × ‘BSR 301’ × ‘AP68-1016’ × ‘BSR 301’ × ‘AP68-1016’. The original source of resistance to bacterial pustule was ‘BSR 302’ × ‘BSR 302’ × ‘BSR 302’ × ‘BSR 302’ × ‘BSR 302’ × ‘BSR 302’.

The cross from which BSR 302 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 F4 population was grown in Iowa on land infested with P. gregata, and the most disease-free plants were selected. The F4-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 black 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 brown stem rot, and yields 7% less than Cumberland in fields where brown stem rot is not a problem.


The cross from which BSR 302 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 F4 population was grown in Iowa on land infested with P. gregata, and the most disease-free plants were selected. The F4-derived lines were tested for yield and brown stem rot resistance during 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 Tests from 1977 to 1979 under the designation A78-227013.

BSR 302 has purple flowers, tawny pubescence, brown pods at maturity, and dull yellow seeds with black hilar. It is of Group II maturity and best adapted to approximately 42° to 44° N Lat. In comparison with BSR 301, BSR 302 is superior in yield, resistance to brown stem rot, and yield advantage over BSR 301 and BSR 302 is a class of certified seed. Breeder seed will be distributed by the Committee for Agricultural Development, Ames, Iowa 50011, and the Puerto Rico Agricultural Experiment Station. It is best suited for fields in which 75% or more of plants are infested, and is well adapted to soils with a 3% slope or more.

BSR 302 has purple flowers, tawny pubescence, brown pods at maturity, and dull yellow seeds with black hilar. It is of Group II maturity and best adapted to approximately 42° to 44° N Lat. In comparison with BSR 301, BSR 302 is superior in yield, resistance to brown stem rot, and yield advantage over BSR 301 and a 13% yield advantage over ‘Cumberland.’ It is best suited for fields in which 75% or more of plants are infested, and is well adapted to soils with a 3% slope or more.