Registration of Parental Lines

Registration of Parental Lines

rot and dry more uniformly and quickly for seed harvest. Lines 792022 (Reg. No. GP21) and 792024 (Reg. No. GP22) have consistently outyielded the susceptible cultivar 'Dark Skin Perfection' in the greenhouse and field when grown in soil infested with root rot fungi.

The parentage of both lines is PH-114-119 (a line released by Kraft et al. which is resistant to Fusarium wilt Races 1 and 2 and tolerant to root rot) × Afila (the original af/af mutant supplied by INTA, Instituto de Fitotechnia, Castelar, Republica Argentina). Line 792022 is a wrinkle-seeded canner with white flowers and green cotyledons, is double podded, blooms in the 14th to 15th node, and has acceptable canning quality. Line 792024 is a dimple seeded canner with white flowers, yellow cotyledons, blooms in the 14th to 15th node, and is double podded.

Small amounts of seed of these selections can be obtained from J. M. Kraft, AR-SEA-USDA, Vegetable Crops Production Investigations, Irrigated Agriculture Research and Extension Center, Prosser, WA 99350.

REGISTRATION OF A GERMPLASM LINE OF SOYBEAN, A3

(Reg. No. GP34)

H. Tachibana, L. Card, R. C. Clark, and W. R. Fehr

The soybean [Glycine max (L.) Merr.] line A3 was selected cooperatively by AR-SEA-USDA, 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 Philaphora gregata Chamberlin.] W. Gams.] and desirable agronomic characteristics.

A3 is an F1 plant selection from the cross C1253 × 'Kent.' C1253 was selected from the cross C1253 × 'Kent.' C1426 was developed by AR-SEA-USDA and the Purdue Univ. Agric. Exp. Stn. from the cross C1253 × 'Kent.' C1426 is an F1 plant selection from the cross 'Blackhawk' × 'Harosoy.' A3 was developed at the Iowa Agriculture and Home Economics Experiment Station through backcrossing 'Clark' to PI 84.946-64-1. A3 has moderate resistance to brown stem rot.

A3 was evaluated in Iowa for brown stem rot during 1971 to 1977 and for agronomic performance during 1973 to 1977. It was evaluated in the Uniform Soybean Tests in the United States during 1975 to 1977 under the designation A74-101035.

A3 has purple flowers, grey pubescence, maturity, and shiny yellow seeds with yellow hilum, maturity, averaging about 2 days earlier than comparison with Coles. A3 averages about 2% less yield than Coles and has moderate resistance to brown stem rot. A3 is of Group I and mature plant height, lower in seed quality, heavier in seed weight, and 0.5% lower in seed per bushel, higher in seed oil.

A3 is moderately resistant to pod and stem blight [caused by Diaporthe phaseolorum (Cke. & Ell.) var. sojae], moderately susceptible to bacterial blight [caused by Pseudomonas glycinea Coe], and susceptible to bacterial brown spot [caused by Cercospora kikuchii (T. Matsuda & Chupp.)], phytophthora rots [caused by Phytophthora megasperma (Drechs.) var. sojae A. A. Hildebrand], and bean mosaic virus.

Seed of A3 will be distributed by the Committee for Agricultural Development, Iowa State Univ., Ames, IA 50011, and will be maintained by the Iowa Agriculture and Home Economics Experiment Station.

Registration of Parental Lines

REGISTRATION OF Mp496 INBRED OF MAIZE

(Reg. No. PL 56)

Gene E. Scott and Frank M. Davis

brown stem rot [caused by Philaphora gregata Chamberlin.] W. Gams.] and desirable agronomic characteristics. It was released as a parent stock for soybean breeding.

Mp496 has an intermediate level of resistance to southwestern corn borer (on a 1 to 9 rating scale it rates near 6 compared to 8 or 9 for susceptible checks). Additionally, Mp496 has good resistance to maize dwarf mosaic and southern corn rust caused by Sphaerotheca maizae and Puccinia sorghi, respectively, and has moderate resistance to maize chlorotic dwarf and yellow spot.

Mp496 has an intermediate level of resistance to southwestern corn borer (on a 1 to 9 rating scale it rates near 6 compared to 8 or 9 for susceptible checks). Additionally, Mp496 has good resistance to maize dwarf mosaic and southern corn rust caused by Sphaerotheca maizae and Puccinia sorghi, respectively, and has moderate resistance to maize chlorotic dwarf and yellow spot.