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) \times 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, A31

(Reg. No. GP54)

H. Tachibana4, L. Card4, R. C. Clark4, and W. R. Fehr3

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 (Chamberl.) W. Gams.] and desirable agronomic characteristics.

A3 is an F1 progeny selection from the cross C1426 × AP68-315. The F1 seed was obtained from Improved Seeds Inc. which made the cross and advanced it through single-seed descent in Iowa, Hawaii, and Puerto Rico. A3 was developed by AR-SEA-USDA and the Puerto Rico Exp. Stn. from the cross C1253 × 'Kent.' C1253 was obtained from the cross 'Blackhawk' × 'Harosoy.' AP68 was obtained at the Iowa Agriculture and Home Economics Experiment Station and was developed as a cross of the backcross 'Clark' × PI 84.946-238-120 AR-SEA-USDA and the Illinois Agric. Exp. Stn. 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 in 1973 and 1977. It was evaluated in the Uniform Soybean Trials in the United States during 1975 to 1977 under the designation A74-101035.

A3 has purple flowers, grey pubescence, medium height and maturity, and shiny yellow seeds with yellow hilum. It matures about 2 days earlier than Coles. A3 averages about 2% higher in seed weight, 0.5% lower in seed protein, and 1.0% lower in seed oil content, and is higher in seed yield in comparison with Coles. A3 has acceptable canning quality, averaged about 2% lower in seed weight, 0.5% lower in seed protein, and 1.0% lower in seed oil content, and is higher in seed yield in comparison with Coles. A3 has acceptable canning quality.

A3 was released as a parent stock for soybean breeding programs. It has moderate resistance to brown stem rot, moderately susceptible to bacterial blight (caused by Pseudomonas glycinea Drechs.), and susceptible to bacterial leaf blight (caused by P. gregata Drechs.) and susceptible to purple stain (caused by Coerper), and soybean mosaic virus (caused by Cercospora kikuchii T. Mats. & Chupp.), phytophthora rot (caused by Phytophthora megasperma Drechs.) var. sojae A. A. Hilder, and soybean mosaic virus.

Seed of A3 will be distributed by the Committee for Agricultural Development, Iowa State Univ., Ames, Iowa. It should be maintained by the Iowa Agriculture and Home Economics Exp. Stn.

Registration of Parental Lines

REGISTRATION OF Mp496 INBRED OF MAIZE1

(Reg. No. PL 56)

Gene E. Scott and Frank M. Davis4

2Research plant pathologist, agricultural research technician, and agronomist, AR-SEA-USDA, Iowa State Univ., Ames, IA 50011.
3Professor, Dep. of Agronomy, Iowa State Univ., Ames, IA 50011.
4Mention of a trademark, proprietary product, or vendor does not constitute a guarantee or warranty of the product by the USDA and does not imply its approval to the exclusion of other products of vendors that may also be suitable.

Mp496 was developed because it resisted leaf feeding by the 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 high resistance to maize chlorotic dwarf (caused by Pseudovirus yellow stunt, var. sojae A. A. Hilder, and soybean mosaic virus.

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 high resistance to maize chlorotic dwarf (caused by Pseudovirus yellow stunt, var. sojae A. A. Hilder, and soybean mosaic virus.

The grain quality is excellent but root and stalk strength is poor. 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 high resistance to maize chlorotic dwarf (caused by Pseudovirus yellow stunt, var. sojae A. A. Hilder, and soybean mosaic virus.

The leaves, especially the lower ones, are often small inbred. The leaves, especially the lower ones, are often small inbred. The leaves, especially the lower ones, are often small inbred. The leaves, especially the lower ones, are often small inbred. The leaves, especially the lower ones, are often small inbred. The leaves, especially the lower ones, are often small inbred. The leaves, especially the lower ones, are often small inbred.