REGISTRATION OF CROP CULTIVARS

and downy mildew [caused by *Peronospora manshurica* (Naoum.) Syd. ex Gaum.]. It is moderately susceptible to purple stain [caused by *Cercospora kikuchii* (T. Matsu. & Tomoyasu) Chupp.] and phytophthora rot [caused by *Phytophthora megasperma* (Drechs.) var. *sojae* A. A. Hildebrand]. It is susceptible to bacterial blight (caused by *Pseudomonas glycinea* Coerper), brown stem rot [caused by *Phialophora gregata* (Allington and Chamberl.) W. Gams.], and soybean mosaic virus.

Breeder seed of *Oakland* was distributed to foundation seed organizations in Iowa, Illinois, Indiana, Kansas, Nebraska, and Ohio. Breeder seed will be maintained by the Iowa Agric. and Home Economics Exp. Stn.

REGISTRATION OF OAKLAND SOYBEAN1
(Reg. No. 140)

J. B. Bahrenfus and W. R. Fehr2

'Oakland' soybean [*Glycine max* (L.) Merr.] was developed by the Iowa Agriculture and Home Economics Exp. Stn. and the Puerto Rico Agric. Exp. Stn. It was released in 1977 because of its superiority in yield to 'Calland,' a public cultivar of similar maturity. Both *Oakland* and *Calland* have specific resistance to races 1 and 2 of *Phytophthora megasperma* (Drechs.) var. *sojae* A. A. Hildebrand that causes phytophthora rot. *Oakland* has moderate general resistance to phytophthora rot that is superior to that of *Calland*.

'Oakland' is a F4 plant selection from the cross L66L-137 × 'Calland.' L66L-137 is a line developed by AR-SEA-USD by Illinois Agric. Exp. Stn. from the cross 'Wayne' × L57-0034. L57-0034 was selected from the cross 'Clark' × 'Adams.' The cross from which *Oakland* was selected originated in Iowa, and generations were advanced by single-seed descent to the F4 in Puerto Rico and Iowa. The line was tested for yield in Iowa from 1973 to 1977 and in the Uniform Soybean Tests, Northern States from 1975 to 1977 under the designation A74-303013.

*Oakland* has purple flowers, tawny pubescence, brown pods at maturity, and dull yellow seeds with black hila. It is of Group III maturity and best adapted to approximately 40° to 42° N Lat. In comparison with *Calland*, *Oakland* averages about 8% higher in yield, has similar maturity, better lodging resistance, 5 cm shorter in mature plant height, improved seed quality, 0.9 g/100 seeds heavier in seed weight, 0.6% lower in protein, and 0.9% higher in oil.

*Oakland* is moderately resistant to downy mildew [caused by *Peronospora manshurica* (Naoum.) Syd. ex Gaum.], purple stain [caused by *Cercospora kikuchii* (T. Matsu. & Tomoyasu) Chupp.], and pod and stem blight [caused by *Diaporthe phaseolorum* (Cke. & Ell.) var. *sojae* Wehm.]. It is moderately susceptible to bacterial pustule [caused by *Xanthomonas phaseoli* (E. F. Smith) Dowson var. *sojensis* (Hedges) Starr and Burkholder] and susceptible to brown stem rot [caused by *Phialophora gregata* (Allington and Chamberl.) W. Gams.] and soybean mosaic virus.

Breeder seed of *Oakland* was distributed to foundation seed organizations in Iowa, Illinois, Indiana, Kansas, Nebraska, and Ohio in 1977. Breeder seed will be maintained by the Iowa Agric. and Home Economics Exp. Stn.

Sloan is an F3 plant selection from the cross Ex4731. M59-120 is a line developed by the Iowa Agric. Exp. Stn. from the cross II-54-240 × II-54-139, which was selected from the cross ('Lincoln' × 'Richland') × 'Renville'. Ex4731 is an F4-derived line selected by Imperial Research, Inc., from the cross 'Amsoy' × 'Wayne'.

The cross from which *Sloan* was selected and generations were advanced by single-seed descent to the F4 in Puerto Rico and Iowa. The line was tested for yield in Iowa from 1973 to 1977 and in the Uniform Soybean Tests, Northern States from 1974 to 1977 under the designation A74-25050.

*Sloan* has white flowers, tawny pubescence, brown pods at maturity, and shiny yellow seeds with brown hila. It is of Group II maturity and best adapted to approximately 40° to 42° N Lat. In comparison with 'Beeson', *Sloan* is 1.0% higher in seed oil, has similar in maturity, is moderately susceptible to brown stem rot [caused by *Diaporthe phaseolorum* (Cke. & Ell.) var. *sojae* Wehm.], and soybean mosaic virus.

Breeder seed of *Sloan* was distributed to foundation seed organizations in Iowa, South Dakota, and Ohio in 1977. Breeder seed will be maintained by the Iowa Agric. and Home Economics Exp. Stn.

REGISTRATION OF VINTON SOYBEAN
(Reg. No. 142)

J. B. Bahrenfus and W. R. Fehr2

'Vinton' soybean [*Glycine max* (L.) Merr.] was developed by the Iowa Agriculture and Home Economics Exp. Stn. and the Puerto Rico Agric. Exp. Stn. It was selected as a large-seeded specialty soybean because of the percentage of seed protein compared with commercial cultivars of similar maturity.

*Vinton* is an F3 plant selection from the cross Ex4731 × ('Pass' × 'Magnia'). F1 plants of *Vinton × Disoy* × 'Magnia' were crossed to Provar, and F2 plants from the four-way cross were advanced individually.