REGISTRATION OF CROP CULTIVARS

Burkholder, wildfire \textit{[Pseudomonas tabaci (Wolf & Foster)]} F. L. Stevens, and target spot \textit{[Corynespora cassicola (Berk. & Curtl.)]} Wei. Seed holding is excellent.

Govan was screened for resistance to phytophthora rot in the greenhouse at Stoneville and in the field at Stoneville where it was grown on Sharkey clay heavily infested with phytophthora rot in a continuous soybean cropping system. Early screening against the root-knot nematode \textit{(M. incognita)} was done in the greenhouse at Gainesville, Florida. Field screening against \textit{M. arenaria} was conducted near Blackville, South Carolina. Govan was evaluated in regional trials in 1968-1970. It was further evaluated in 1976-1977 after \textit{M. arenaria} was identified as a problem in the Coastal Plain region of South Carolina. In the absence of \textit{M. arenaria}, Govan averages slightly lower in yield than Bragg. In the presence of \textit{M. arenaria}, Govan will produce a successful crop where Bragg is a complete failure.

Seed was distributed for increase in South Carolina, North Carolina, and Alabama in 1977. The South Carolina Agric. Exp. Stn. will be responsible for maintaining breeder seed.

REGISTRATION OF BEDFORD SOYBEANS\textsuperscript{1}
\textbf{(Reg. No. 118)}

E. E. Hartwig and J. M. Epps\textsuperscript{2}

'Bedford' soybean \textit{[Glycine max (L.) Merr.]} originated as an \textit{F}_1 line selected from the crosses 'Forrest' (2) \times (D68-18 \times PI 88788). Bedford was developed in a cooperative program of FR-SEA-USDA, and the Mississippi and Tennessee Agric. Exp. Stns. Bedford was identified as J74-46 before release. It is classified as "late Group V" maturity.

Bedford has white flowers, tawny pubescence, tan pods, yellow seedcoats, and black hila. It is highly resistant to Races 1, 3, and 4 of the soybean cyst nematode \textit{(Heterodera glycines Ichinohe)}, and moderately resistant to the root-knot nematode \textit{[Meloidogyne incognita (Kofoid & White)]}, and has excellent field resistance to phytophthora rot \textit{(Phytophthora megasperma Drechs var. sojae Hildebrand)}. It is resistant to the foliar diseases bacterial pustule \textit{[Xanthomonas phaseoli (Smith) Downson var. sojensis (Hedges)]} and \textit{[Pseudomonas tabaci (Wolf & Foster)]} F. L. Stevens, and target spot \textit{[Corynespora cassicola (Berk. & Curtl.)]} Wei. Shatter resistance is excellent.

A modified backcrossing program was used in the development of Bedford. D68-18, a line resistant to cyst nematode Races 1 and 3, was crossed with PI 88788, the source of resistance to Race 4. The \textit{F}_2 population was screened in the greenhouse at Jackson, Tennessee, and plants free of cysts were transplanted to a field infested with Race 4 nematodes. Forty vigorous \textit{F}_2 plants were used as males for crossing on to D68-128, later released as Forrest. The plants used as males were progeny tested and \textit{F}_3 plants were grown during the winter months from the most resistant males. The \textit{F}_2 population was screened in the greenhouse and plants free of cysts were transplanted to the field. The \textit{F}_2 plants were harvested individually and progeny tested for reaction to the cyst nematode Race 4 in the greenhouse at Jackson, Tennessee. Third generation plants where Race 4 was a problem. As a mean of 15 comparisons where Race 4 was not a problem, Bedford produced yield and has produced yields that for Forrest where Race 4 was a problem.

Seed was distributed in 1976 for increase in Missouri, Arkansas, Mississippi, and Kentucky. Agric. Forestry Exp. Stn. will be responsible for maintaining breeder seed. Other information on Bedford in Mississippi Information Sheet 1280, January, 1978.

\textsuperscript{1}Registered by the Crop Sci. Soc. of Am. Accepted 25 Apr. 1978.

\textsuperscript{2}Respectively, research agronomist, AR-SEA-USDA working in cooperation with the Delta Branch, Mississippi Agric. Exp. Stn., Stoneville, MS; and nematologist, Western Tennessee Agric. Exp. Stn., Jackson, TN.

REGISTRATION OF HARCOR SOYBEANS\textsuperscript{3}
\textbf{(Reg. No. 119)}

R. I. Buzzell\textsuperscript{4}

'Harcor' soybean \textit{[Glycine max (L.) Merr.]} was developed in the Agriculture Canada Research Station, Harrow, Ontario, Canada. It originated as an \textit{F}_2 plant selection of 'Corsoy' by OX383 which is a selection from 'Harosoy 63'. Prior to release in 1975, Harcor was designated as 'DB565'. It is similar to Corsoy in plant type and yield but matures about 2 days later. Regional and provincial tests indicate that Harcor is similar in maturity but is higher yielding than Corsoy. Harcor is adapted to the Maturity Group II area and to the 3,100 to 3,500 -- heat-unit area in Ontario. Harcor is resistant \textit{(Rps)_5} to races 1 and 2 of \textit{Phytophthora megasperma Drechs var. sojae Hildebrand} (Pms) but to other races. Harcor has better field tolerance than Harosoy 63; averaged over three tests (1974-76) in a race-6-infested field at Woodlawn, Ontario, Harcor showed 0% loss from phytophthora rot during the period of maturity compared with 39% for Harosoy 63.

Distinguishing characteristics are purple flower essence, brown pods, and shiny, yellow seedwax. In addition it has high peroxidase activity \textit{(E)}, susceptible to powdery mildew caused by \textit{Microsphaera diffusa} Cke & Pk., is in leaf-flavonol class 2t \textit{(伴有t)} and gives an insensitive response \textit{(es)} to fluorescent-daylength conditions. Other information on Harcor has been published in 1975.

The Harrow Research Station will maintain breeder seed of Harcor. Seed was distributed to Illinois, Iowa, North Dakota, Ohio, and South Dakota for increase under the regulations of the respective state seed-certification agencies.

\textsuperscript{3}Registered by the Crop Sci. Soc. Am. Accepted 25 Apr. 1978.

\textsuperscript{4}Soybean breeder, Harrow, Ontario, NOR 1G.


REGISTRATION OF SAWTELL WHEAT\textsuperscript{3}
\textbf{(Reg. No. 603)}

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