REGISTRATION OF BAY SOYBEAN
(Reg. No. 126)

G. R. Buss, T. J. Smith, and H. M. Camper, Jr.

'BAY' soybean [Glycine max (L.) Merr.] originated as an F₁ line selected from the cross of 'York' × R62-550. R62-550 was evaluated in Uniform Group V regional nurseries in 1965. Bay was developed by the Virginia Agric. Exp. Stn. and released on 1 Sept. 1978. All breeding work was conducted at the Warsaw field station. Agencies cooperating in the release include the AR-SEA-USDA and the agricultural experiment stations of Delaware, Maryland, Tennessee, and Virginia. Bay was evaluated as V72-580 in the USDA Group V Uniform Soybean Tests from 1975 through 1978. It was released to provide a better variety for areas or planting conditions where 'Essex' does not make adequate growth.

Bay is similar to Essex in yield and seed quality and matures about 2 days later than Essex. Mature plant height is about 90 cm which is 15 to 18 cm taller than Essex, making it better suited for planting late as in double-cropping. Plants are determinate with several short to medium length upright branches, similar to York. Flowers are purple; pubescence is gray, and pod walls are tan.

Bay is resistant to some strains of soybean mosaic virus and to bacterial pustule caused by Xanthomonas phaseoli (Smith) Dowson var. sojensis (Hedges). It is susceptible to phytophthora rot [caused by Phytophthora megasperma Drechs var. sojae Hildebrand], root-knot nematodes [Meloidogyne incognita (Kofold and White) and M. arenaria] and the cyst nematode (Heterodera glycines Ichinohe).

Seeds of Bay have yellow seedcoats. Hilum color varies from gray to buff with intensity varying from nearly colorless to dark, depending on growing conditions. They are larger than Essex and slightly smaller than York. Protein and oil content have averaged about 39% and 22%, respectively.

Seed was distributed for increase in 1978 in states participating in the release. The Virginia Agric. Exp. Stn., Blacksburg, VA 24061, will maintain breeder seed.


Registration of Red Clover
INTRODUCTION BULK GERMPLASM
(Reg. No. GP 16 to GP 24)

Norman L. Taylor

Nine generations of red clover (Trifolium pratense L.) introduction-bulk germplasm were released by the Kentucky Agricultural Experiment Station in 1979. They were developed without intentional selection for any character from 44 introductions which were obtained from AR-SEA-USDA. Thirty-five of the introductions were from the USSR (PI 313968; 314338-41; 314555-56; 314584-87; 314760; 315504-11; 315517-19,20,22-27; 315531-33,35,37,40), seven from Turkey (PI 296687; 296960; 302576; 302584-6,8), one from Norway (PI 314840), and one from Germany (PI 314780).

In 1977-78, a space-plant and a broadcast-crossing experiment was conducted to evaluate the germplasm pool. Ten of the 44 introductions were crossed with 'Hill' and seed from generations 2, 4, 6, 8, and 10 were bulked and sown in a greenhouse for the next generation. Selection was made on these seed after all plants in the nurseries had been harvested. The following year, production fields were spacially isolated from each other and volunteer red clover plants were rogued to eliminate out-crossing.

Seed was placed in cold storage (~5°C) for the next season. In 1977-78, a space-plant and a broadcast-crossing experiment was conducted to evaluate the germplasm pool. Ten of the 44 introductions were crossed with 'Hill' and seed from generations 2, 4, 6, 8, and 10 were bulked and sown in a greenhouse for the next generation. Selection was made on these seed after all plants in the nurseries had been harvested. The following year, production fields were spacially isolated from each other and volunteer red clover plants were rogued to eliminate out-crossing.

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