
MEXICAN BEAN BEETLE RESISTANCE: FIELD TESTING OF BREEDING LINES

J. E. Wyatt and Augustine Day
 USDA, SEA-AR, U. S. Vegetable Laboratory
 Charleston, SC 29407

P. S. Benepal and Abdul Sheikh
 Department of Plant and Soil Science
 Virginia State University, Petersburg, VA 23803

M. J. Sullivan
 Edisto Experiment Station
 Blackville, SC 29817

We developed 70 F₅ snap bean breeding lines derived from the cross 'Bush Blue Lake Supreme' x PI169903. PI169903 has an indeterminate growth habit, short fibrous pods and white seeds. It also has an intermediate level of resistance to the Mexican bean beetle (Epilachna varivestis Mulsant) and it was our objective to incorporate this resistance into an acceptable snap bean line. Early generation (F₂ and F₃) selections were made for determinate growth habit, round, moderately long, stringless, dark green pods, and high yield. The F₃ selections were increased as F₄ progeny rows and bulked for field testing as F₅ families. Replicated plantings at 3 locations in 1979 were evaluated for adult and larval feeding damage.

Nine F₅ breeding lines had resistance to the Mexican bean beetle at a level equal to or greater than PI169903 at more than one location and evaluation date. Resistance was probably due to non-preference factors; resistant lines were consumed more slowly than susceptible lines and we have not found evidence of antibiosis in the PI or the breeding lines.

GENETIC VARIATION OF COMMON BEAN, *Phaseolus vulgaris* IN BANGLADESH

Nazmul Haq
 Department of Biology, The University
 Southampton SO9 5NH, England

The common bean, Phaseolus vulgaris, has been grown during winter in the Northeast part of Bangladesh for many years. Cultivation of this crop, as a well established kitchen garden crop in Bengal has been noted by Prain (1903). The crop is utilized in several different ways in the villages as a vegetable and also as dry beans.

In February/March 1979, a team from Bangladesh Agricultural Research Institute in association with the International Board for Plant Genetic Resources explored the Northeast region of Bangladesh and collected legume germplasm. This germplasm includes 19 samples of Ph. vulgaris and both determinate and indeterminate types have been found in the Sylhet and Chittagong districts.