PISUM RESEARCH IN COLOMBIA

E. Girard and M. Lobo
Instituto Colombiano Agropecuario
Centro de Investigacion La Selva
AA 100, Rionego, Antioquia, Colombia

A research project with peas is being carried out by the Colombian Institute for Agricultural Research and Development (ICA) at three of its 21 experimental stations. The project involves several objectives:

1. Improvement of traditional varieties (with a wide adaptation range) to achieve higher yield, better pod distribution, less foliage so the microclimate under the canopy will be less favorable for fungal diseases, larger pods with more seeds/pod, dry seeds of green color.
2. Precise identification of disease and insect problems in the different production areas in order to search for field resistance instead of vertical resistance.
3. Characterization and evaluation of germplasm from local and international nurseries as sources of genes to improve local varieties or to develop new varieties.
4. Use of mutants to reach the goals proposed by the Project.
5. Studies with Rhizobia (Colombian collection).

Research is already underway on the first item and work on the third and fourth objectives was started in 1986. Disease and insect identification has been done in some areas but must be extended to others to get a more complete picture. The main disease problems are Ascochyta blight, Fusarium root rot, Colletotrichum blight, and a supposed viral problem. Known insect pests are stem borers and root miners. Rhizobial studies will be initiated in 1988.

The entire project has been planned for a ten-year period and will be expanded as new problems arise and as the results suggest. Also included is a series of agronomical studies involving fertilization, plant densities, growth pattern, multi-cropping possibilities, and quality factors.

The area in Colombia in which peas are grown encompasses about 50,000 hectares along the highlands in the Andes. The crop is grown by small farmers, a high percentage being a part of multi< ropping systems (growing peas with corn, fababeans, and potatoes). Production is insufficient to meet the demand, so Colombia imports from 10,000 to 25,000 tons per year depending on the economy of the country at the time. But peas could be grown from 1,800 to 2,500 meters above sea level and the available land suitable tor agricultural use within these limits is well over 5,000,000 hectares.

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