

## Research Note

### LIRIOMYZA MUNDA FRICK (DIPTERA: AGROMYZIDAE) ATTACKING BEANS AND CUCUMBERS IN PUERTO RICO<sup>1</sup>

Beans (*Phaseolus vulgaris* L.) and cucumbers (*Cucumis sativus* L.) are two of the vegetables grown on a commercial scale in Puerto Rico. Both are commonly infested by serpentine leafminers, the larval stage of a small agromyzid fly. The maggot stage of these flies live in and obtain their food between the upper and lower surface of the leaves. Among the 18 species of leafminers belonging to the family Agromyzidae reported by Wolcott<sup>2</sup> he referred the species attacking beans, from material reared from leaves of *Vigna repens* at Río Piedras, to *Agromyza inaequalis* Malloch.

While conducting some experiments on beans and cucumbers at the Fortuna Substation in Juana Díaz, the author collected plant material infested with leafminers to obtain adults for proper identification of the pest. Infested material of both bean and cucumber plants was placed separately in glass vials and inspected regularly under a dissecting microscope for adult emergence. Adults emerging were collected and preserved in alcohol.

These were identified as *Liriomyza munda* Frick. This is the first record of the species infecting beans and cucumbers in Puerto Rico. One previous record exists for *Liriomyza munda* in Puerto Rico: It was collected in chrysanthemum leaves from Florida Acres, Inc., Florida, intercepted February 12, 1965 at San Juan, P.R. by J. Lojo of the Plant Quarantine Division.

Two hymenopterous parasites of the family Eulophidae, *Diglyphus begini* (Ashm.) and *Achrysocharella* sp., were found parasitizing this leafminer. Neither have been reported previously from Puerto Rico. Of 82 maggots of *Liriomyza munda*, 25 were parasitized with *D. begini* and three with *Achrysocharella* sp.

The insect material was identified by specialists of The Insect Identification and Parasite Introduction Division, ARS, USDA, Washington, D.C.

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<sup>1</sup> Manuscript submitted to Editorial Board February 15, 1973.

<sup>2</sup> Wolcott, George N., 1948, The insects of Puerto Rico, J. Agr. Univ., P.R. 32 (1-4): 1, 1938.