

Research Note

THE BEET ARMYWORM A NEW VEGETABLE PEST IN PUERTO RICO¹

The beet armyworm, *Spodoptera exigua* (Huebner),² was reported for the first time in California in 1876. Also, it has been recorded in Europe, Asia, Africa, Australia and America. It is more common in the tropics and subtropics, and for a long time has been a pest in Florida.³ This pest, better known by the common names of lesser cotton leaf worm, beet armyworm "Zuckerrübeheule" and "gusano soldado", is mostly a pest of sugar beet in the U.S.A. and a major pest of cotton in Soviet Central Asia, Ethiopia and Central America.⁴

The main author observed this insect for the first time in April 1980 while scouting one of the vegetable farms in Juana Díaz, Puerto Rico. Attacking the new leaves of peppers the worms were causing severe damage to the whole plantation. Two months later they appeared feeding on eggplant foliage. Then in 1981 they were intercepted eating the epidermis of watermelons (Sugar Baby) in the April Agro Farm at Santa Isabel, Puerto Rico. The small larvae or caterpillars were feeding mainly on new leaves with the possibility of spreading to flowers and fruits.

Since the origin of this insect is unknown in Puerto Rico, we can consider two possibilities: the beet armyworm has been in Puerto Rico for some time escaping detection of the entomologists; or it was probably introduced on pepper transplants brought from Florida by farmers of the Vegetable Program in south Puerto Rico.

The moth, mottled gray with two yellow spots near the center of the forewings, is 10 to 14 mm long and has a 2-cm wing span⁵. The hind wings have dark brown veins and edges. The female, laying an average total of 750 eggs, lays from 50 to 75 eggs on the lower surfaces of the leaves in irregular whitish clusters covered with scales from her body. The eggs hatch in 2 to 4 days into light green larvae. The young larvae are gregarious until slightly over 6 mm long, when they begin eating.

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² Insect identification was done by the Smithsonian Museum Specialists via Dr. Arthur Muka, Entomologist of the AES of Cornell University and P.R. Agricultural Department Adviser for the Vegetable Program.

³ Hofmaster, R.N., 1978. The Beet Armyworm: Present Control Status and Possible New Insecticides. Eastern Shore Branch, Virginia Truck and Ornamental Research Station.

⁴ Hill, D.S., 1975. Agricultural Insect Pests of the Tropics and Their Control. Cambridge Univ. Press, Cambridge, London, 1st. ed.

⁵ Carr, A., 1979. Color Handbook of Garden Insects. Rodale Press, Emmaus.

They spin a protective web while consuming entire leaves. The fully grown larvae, 30 to 32 mm long, are pale olive to dark green dorsally and yellowish beneath with a pale yellow line along the sides of the body, with a pair of small black spots at each side of the prothorax. The pupa, 10 to 12 mm long, is shiny brown. Pupation occurs in the soil.⁴

The beet armyworm eats almost everything it can chew on, including potatoes, table beets, cotton, lettuce, peas, onions, sweet potatoes, soybean, cole crops, ornamental plants, tomatoes and tobacco. Also, among weeds, it has been found on species of the genera *Chenopodium*, *Portulaca*, *Convolvulus*, *Sida* and *Amaranthus*.^{5,6}

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⁶ Essig, E.O., 1958. Insects and Mites of Western North America. The McMillan Company, New York.