

Research Note

THRIPS PALMI (THYSANOPTERA:THRIPIDAE): A NEW INSECT PEST FOR PUERTO RICO¹

In November 1986 severe thrips infestations were detected on cucurbits and solanaceae in commercial plantings at Santa Isabel, Puerto Rico. Peppers in all stages of development were severely attacked by adults and immature thrips feeding gregariously on leaves, stems, flowers, and developing fruits.

Samples were collected and sent to the USDA Systematic Entomology Laboratory at Beltsville, Maryland. Determinations were made by S. Nakahara. The insects were identified as *Thrips palmi* Kerny. Voucher specimens were deposited in the Entomology Museum of the Crop Protection Department, Puerto Rico Agricultural Experiment Station, Río Piedras, P. R. The specimens were identified as P. R. Acc. No. 1-87 to 6-87, and 497-86.

The first recorded specimens for Puerto Rico were collected 2 December 1987 in Ponce, from tomato plants (Nakahara, personal communication). Since then *T. palmi* has been recovered from onions, bell pepper, eggplant, watermelon and pumpkin.

T. palmi was first described on tobacco plants from Sumatra². Subsequently, it has been reported from watermelon, cucumbers, cantaloup, eggplant, spinach, beans, lettuce, cheese weed, hairy gourd, cherry,

muskmelon, pumpkin, witch clover, chrysanthemum, dahlia, sesame, morning glory, sweet potato, cotton, cyclamen^{2,3}, avocado, citrus, cowpeas, and carnation (Bhatti 1980 and Bournier 1983 as cited by Johnson 1986)³. Puerto Rico climatic conditions are favorable for the early development of high *T. palmi* infestations on commercial crops as well as weeds.

Symptoms of *T. palmi* infestations are stunted plants with a bronzed appearance (fig. 1), premature fall of developing fruits and buds, and deformed fruits (fig. 2). Preliminary notes indicate that this pest is resistant to many of the insecticides commonly used for its control. According to Johnson,³ oxamyl applications reduce immature populations but do not affect adults; thus frequent insecticide applications will be necessary to control this pest. This economic loss attributable to this thrips to the Puerto Rico vegetable industry has not been established yet; however, because of its large host range it is expected to become an economically important pest on the island.

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²Sakumura, K., L. M. Nakahara, and H. A. Denmark, 1986. A Thrips, *Thrips palmi* Kerny. Fla. Dep. Agric. & Consumer Serv. Entomol. Circ. 280, January 1986.

³Johnson, M. W., 1986. Population trends of a newly introduced species, *Thrips palmi* (Thysanoptera: Thripidae), on commercial watermelon plantings in Hawaii. *J. Econ. Entomol.* 79: 718-20.



FIG. 1.—Bronzing on pepper plants caused by *T. palmi*.



FIG. 2.—Deformed eggplant as a result of *T. palmi* infestation.