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Chaetanaphothrips signipennis (Bagnall) in Florida

(THYSANOPTERA: THRIPIDAE)[1]

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INTRODUCTION: A thrips, Chaetanaphothrips signipennis (Bagnall, 1914, Mitri & Stannard 1962) recently was found in the Apopka area ("Foliage Capital of the World") feeding on foliage plants. Thousands of plants are shipped from Central America into Florida each year, providing a means of introducing thrips and other plant pests into Florida and other parts of the United States. This represents a new distribution record for the continental United States.

DISTRIBUTION: Chaetanaphothrips signipennis is known to occur in Australia, Brazil, Sri Lanka (Ceylon), Fiji, Hawaii, Honduras, India, New Guinea, Trinidad, and the continental United States (Florida).

HOSTS: This is a foliage-feeding thrips. In Florida, the known hosts are Cordyline terminalis, Dracaena sp., Maranta leuconeura, and Strelitzia reginae. It probably will feed on a wide range of foliage plants.

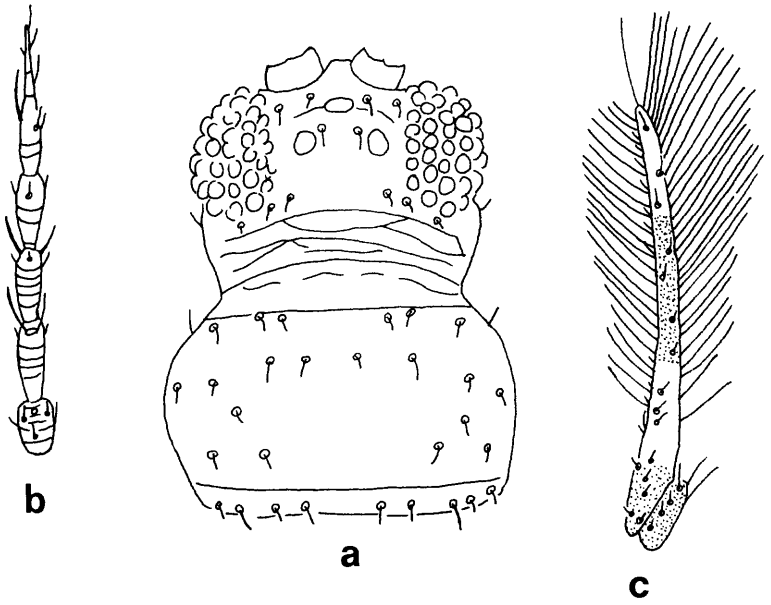

Fig. 1. Chaetanaphothrips signipennis (Bagnall). a. head and prothorax; b. right antenna; c. right forewing.

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ECONOMIC IMPORTANCE: C. signipennis is a banana pest in Central America, where it causes "banana rust". It causes leaf-roll and malformed leaves in plant hosts in Florida reducing their commercial value.

DESCRIPTION: Female - Body length, distended, about 1.2 mm. Color nearly uniform lemon-yellow, except antenna I (Fig. 1b) almost white, V distally light grey, VI distal 2/3, VII and VIII grey-brown. Forewing (Fig. 1c) with basal and mid-band grey-brown. Head with mouth cone short and broadly rounded. Head about 0.8 as long as broad (Fig. 1a). Eyes large, coarsely faceted, pigment dark maroon; ocelli with crimson crescentric margins.

Average length of antennal segments in microns

I	II	III	IV	V	VI	VII	VIII
18.6	32	45.2	43	52	47	12	20

I and II broader than other segments. Double trichomes on III and IV long and slender. Maxillary palpi 3-jointed with 2 and 3 subequal in length. Prothorax (Fig. 1a) about 1.5 as broad as long, and having irregularly set of minute setae. One postero-marginal short spine near each hind angle. Legs stout, hind tibia with a series of moderately fine spines on distal half.

SURVEY AND DETECTION: Look for light yellow to straw-colored thrips on the plant. Leaf-roll is caused by the feeding of these thrips; however, leaf-roll also may be caused by some mites.

CONTROL: At the present time there are no specific recommendations for the control of this thrips species. However, there are a number of insecticides that are registered for ornamentals that effectively control other species of thrips. The current University of Florida management guide (Short et al. 1984) lists Orthene SP and Vydate L for the control of thrips in greenhouses. The application rates in the university guide are in accordance with the respective labels. The potential for causing phytotoxicity with pesticides will complicate thrips control. The safety of a given chemical should be tested on a small number of plants prior to treating the entire crop (Chase et al. 1981, Short et al. 1983, 1984).

LITERATURE CITED:

Bagnall, R. S. 1914. Brief descriptions of new Thysanoptera. II. Ann. Mag. Nat. Hist. 8:22-31.

Chase, A. R., T. J. Armstrong, and L. S. Osborne. 1981. Why should you test pesticides on your plants? ARC - Apopka Research Report, RH-81-6.

Mitri, T. K., and L. J. Stannard. 1962. Chaetanaphothrips clarus (Moulton), new combination, with notes on its genus (Thysanoptera: Thripidae) Ann. Ent. Soc. America. 55:383-386.

Short, D. E., L. S. Osborne, and R. Whiteney. 1983. Phytotoxicity of insecticides and mitecides to foliage and woody ornamental plants. University of Florida, IFAS, Extentsion Entomology Report #57.

Short, D. E., L.S. Osborne, and R. W. Henley. 1984. 1984 Insect and Related arthropod management guide for commercial foliage and woody plants in Florida. University of Florida, IFAS, Extension Entomology Report #52.