

Scirtothrips dorsalis

Introduction

Scirtothrips dorsalis Hood is a major pest of various crops – vegetable, fruit and ornamental in eastern Asia, Africa, Oceania and more recently the Caribbean. It occurs on all above –the – ground parts of its hosts and according to Chang et al (1995) causes scarring damages due to its feeding. This pest is considered to be of phytosanitary significance to the Caribbean sub- region as it is a major pest of *Capsicum* spp.- an export crop of the sub- region.

Identity

Authority	:Hood
Classification	
Kingdom	:Animalia
Phylum	:Arthropoda
Class	:Insecta
Order	:Thysanoptera
Family	:Thripidae
Genus	: <i>Scirtothrips</i>
Species	: <i>dorsalis</i>
Synonyms	: <i>Anaphothrips dorsalis</i> , <i>Caliothrips minutissimus</i> , <i>Scirtothrips andraeae</i> , <i>S. padmae</i> .
Common names	:yellow tea thrips, chilli thrips, strawberry thrips; asian thrips
Role	:Pest

Signs & Symptoms

On leaves of infested plants areas near the mid- vein are brown and dried up. The major damage occurs on the underside of new or old leaves. Leaves tend to curl upward like the shell of a boat and appear distorted or mis-shapen.

Adult is small pale yellow to white. Abdomen with dark tergal and sternal antecostal ridges, tergites with a median dark patch. Antennae eight segmented, a forked sense cone on each of segments III and IV head and pronotum with closely striate sculpture; three pairs of ocellar setae present; longest setae on posterior margin of pronotum 25 to 30 um long; forewings with few small setae on the veins, hind vein with only two setae; tergites with numerous rows of microtrichia laterally and with three pairs of discal setae; tergite VIII with a complete comb of long fine microtrichia on posterior margin; abdominal sterites covered with numerous rows of microtrichia.



Leaf curling



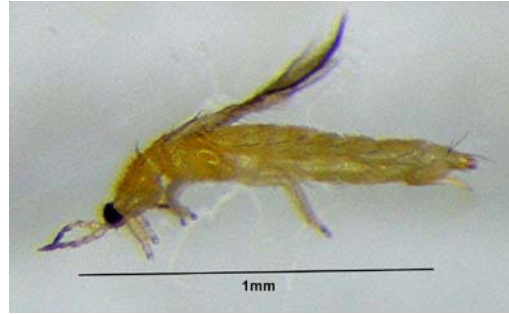
Scarred fruits

Morphology

P. W. Amin and J. M. Palmer 1985

Incubation period completed in 6 – 8 days. Average no. of eggs per female – 17. Nymphal development completed in 6-7 days and pupal period in 2- 3 days Maximum length of life cycle observed was 22 days with an average of 11 days.

Eggs are kidney-shaped 0.075 mm long and 0.070 mm wide and are embedded in the leaf tissue.



Scirtothrips dorsalis Hood
Photo- Deoraj Lalchan-Vine
CARINET/CariPestNet

Biology and Ecology

Reproduction sexual as well as arrhentokous modes .In field populations, the number of females is usually more than males but the ratio is variable.

Dispersal/Vector

S. dorsalis is dispersed via infested plant material – cut flowers, fruits and vegetables. Wind currents may also contribute in the dispersal of adult thrips. According to Reddy et al (1991) *S. dorsalis* is a suspected vector of tomato spotted wilt virus (TSWV) which causes bud necrosis in peanuts in India.

Management

Biological Control

The slow moving, soft-bodied thrips larvae are easy prey for many predators including antocorid bugs e.g. *Orius spp.*, wasps, ladybirds, spiders, syrphids and predatory thrips. *S. dorsalis* are parasitized by *Eulophid* wasps.

Cultural Control

The use of resistant varieties and plant extracts is recommended.

Chemical Control

The use of systemic insecticides with low mammalian toxicity is recommended.

Pest significance and Phytosanitary risk

S. dorsalis is a major pest of various vegetable, fruit and ornamental crops in eastern Asia, Africa, Oceania , USA (Florida) and the Caribbean where it has recently invaded (2003) – St Lucia, St Vincent and Trinidad (2004). Given the mass migration of thrips by wind currents, this pest could soon spread throughout the Caribbean. The Florida Nurserymen and Growers Association considers his pest as one of the thirteen most dangerous exotic pest threats to the industry (FNGA 2003).

Host Notes

This pest is found on Solanaceous crops- pepper, tomato, eggplant; cucurbits – pumpkin, watermelon, cantaloupe; cotton, okra, bean ground nut; fruit crops – citrus, and ornamental crops.

Distribution

S. dorsalis is native of Asia and is also found in Japan, Oceania, Africa. Caribbean – St Lucia, St Vincent, Puerto Rico.

Bibliography

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Fact Sheet

Last updated: 2001.

Information from: Field Guide: Insect Pests of Selected Vegetables in Tropical and Subtropical Asia. 1995. B.L. Parker, N.S. Talekar and M. Skinner. Publication 94-427. Pest control recommendations added.