National Pest Alert

Scirtothrips dorsalis Hood

chilli thrips, castor thrips, assam thrips, yellow tea thrips, strawberry thrips

Origin and Distribution

Scirtothrips dorsalis was first detected in Highlands County, Florida, in 1991. Sampling indicated *S. dorsalis* had not established a population. Subsequently, *S. dorsalis* was detected on roses from Palm Beach County, Florida in 2005. As of January 2007, *S. dorsalis* have been detected in Florida from Alachua County to Monroe County and South Texas. In the Western Hemisphere, *S. dorsalis* have also been detected in Hawaii and the following locations in the Caribbean: Barbados, Jamaica, St. Lucia, St. Vincent, Tobago and Trinidad.

Host Plants

Scirtothrips dorsalis is a polyphagous species and has been documented to attack more than 100 recorded hosts from about 40 different families. As this pest expands its geographical range additional plants are added to its host range. A summary, by crop type, of some North American hosts is available (Table 1).

Description of *Scirtothrips dorsalis*

Field identification of *S. dorsalis* is extremely difficult and often times impossible to differentiate from other thrips in the field. Adults have a pale body with dark wings and are less than 2 mm in length. Immature *S. dorsalis* thrips are pale in color as are the immatures of many other thrips species. Some of the distinguishing characteristics of *S. dorsalis* are as follows: antennae are 8-segmented with segments I–II pale, III–VIII dark; head is pale in color with three pairs of ocellar setae; one pair of ocellar setae occurring between the hind ocelli; one pair of long postocular setae behind the hind ocelli; brown antecostal line and brown area behind line in median ⅓ of abdominal tergites; abdominal sternites with brown antecostal line near anterior margin; forewings brown, paler distally; abdomen with numerous fine microtrichia.

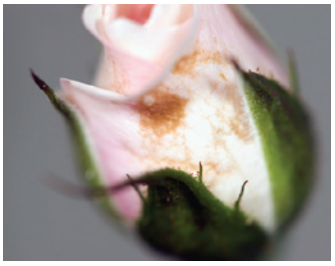
Life Cycle

The life cycle for *S. dorsalis* is similar to that of western flower thrips. Female *S. dorsalis* insert their eggs inside plant tissue. The eggs hatch in 6–8 days. They pass through two larval stages (1st and

Table 1: Host List by Crop Type

Ornamentals	Orchard Crops	Field Crops
Castor Bean	Banana	Asparagus
Celosia	Cashew	Bean
Chrysanthemum	Cherry	Buckwheat
Coleus	Citrus	Cotton
Crape myrtle	Cocoa	Grape
Dahlia	Edible fig	Habanero or scotch bonnet pepper
Euonymus	Ginkgo	Japanese pepper
Geranium	Japanese apricot	Levant cotton
Gerber daisy	Japanese persimmon	Peanut
Camellia	Japanese plum	Soybean
Japanese holly	Mango	Strawberry
Ligustrum	Rubber	Tomato
Lisianthus		
Maple		
Mexican heather		
Petunia		
Pittosporum		
Poinsettia		
Rhododendron		
Rose		
Snapdragon		
Sweet Basil		
Verbena		
Viburnum		
Zinnia		

Thrips damage on basil, ivy, and rose.



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2nd instars) that last for 6–7 days. During this time they actively feed on the host plant. They then pass through a prepupal (~24 h) and pupal stages (2–3 days) during which time they do not feed. They can complete their life cycle in 14–20 days. The thrips female oviposit 60 to 200 eggs in her lifetime.

Plant Symptom and Monitoring

Foliage comparison.

Scirtothrips dorsalis is mainly a foliage feeder and unlike western flower thrips does not feed on flower pollen. Young leaves, buds and fruits are preferred, but all above ground parts of its host plants may be attacked. Feeding damage turns tender leaves, buds, and fruits bronze in color. Damaged leaves curl upward and appear distorted. Infested plants become stunted or dwarfed, and leaves with petioles detach from the stem, causing defoliation in some plants. Feeding on buds may cause them to become brittle and drop.

Although not yet identified in U.S. peanut fields *S. dorsalis* is know to attack peanuts in other regions of the world. Feeding on peanuts has been reported to cause dull yellowish-green patches on the upper surface and brown necrotic areas and a silvery sheen forms on the lower surface of the leaf. The leaves become thickened and some curling occurs; in severe infestations, plants are stunted and leaves are blighted.

Damage from *S. dorsalis* has been observed on Sea Island cotton (*Gossypium barbadense* L) in Barbados. Mature cotton leaves showed a distinct bronze appearance on both the top and bottom surfaces. Mature leaves showed slight drying at the margins, while some leaves were completely dried prior to detaching at the petiole from the plant. Young tender foliage on the apical branches was attacked heavily by *S. dorsalis*, causing reduction in size and slight deformation. Young apical leaves were often yellow in coloration, slightly cupped upwards, and in some cases drying along the edges or entirely dry prior to defoliation. It is important to note that these symptoms were described from *G. barbadense* and may not be indicative of damage on Upland Cotton (G. *hirsutum*).

Scirtothrips dorsalis have been reported to potentially vector a number of important plant viruses. These include peanut necrosis virus (PBNV), peanut chlorotic fan virus (PCFV), and tobacco streak virus (TSV).

Plants with the symptoms described above should be examined for the presence of thrips. Leaves or buds from symptomatic plants should be collected and placed into a Ziploc bag to prevent the thrips from escaping. Label the bag with collection locality information, host plant, date collected and name of collector. Samples should be sent next-day delivery to an expert for identification

Indian hawthorne landscape damage.

Control Recommendations

Not enough is know about this pest to provide control recommendations. Our best recommendation is to use products registered for your crop and known to be effective against thrips.

For more information on *Scirtothrips dorsalis*, please visit

http://www.sepdn.org/chillithrips.htm

http://ncipmc.org/alerts/chilithrips.cfm

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