

8/5/08

Landscape Management Recommendations for Controlling Chilli Thrips

This publication is being provided as a quick response to the recent find in Houston.

A more complete publication will be available by Sept 1, 2008.

For more information visit <http://chillithrips.tamu.edu>

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Origin and Distribution. Chilli thrips, *Scirtothrips dorsalis* (Hood), is an important pest of crops in tropical and subtropical regions. An established population of this pest was first detected in the United States on landscape plants in Florida in 2005. In November 2007, chilli thrips were identified on landscape plants in Houston.

Description. Chilli thrips are extremely small and difficult to distinguish from other thrips species without the aid of a compound microscope. Adults are pale with dark wings and less than 2 mm in length. Immature chilli thrips are also pale in color and resemble the immatures of many other thrips species.

Description of Feeding Damage. Infestations by chilli thrips are usually first detected in the landscape by their distinctive feeding damage. Unlike flower thrips, that feed primarily on pollen, chilli thrips feed on various plant tissues. Feeding causes leaf, bud, and fruit bronzing (tissues turn bronze in color). Damaged leaves may curl upward and appear distorted. Infested plants become stunted or dwarfed and leaves may detach from the stem at the petioles in some plant species. Feeding may also cause buds to become brittle and drop. Young leaves, buds and fruits are preferred, although all above ground parts of their host plants may be attacked.

Plant Monitoring and Identification. Plants with the symptoms described above should be examined closely for the presence of thrips. Samples of thrips from leaves or buds of symptomatic plants should be collected and properly identified. This will help us monitor the distribution of this pest. Place the sample into a Ziploc bag to prevent thrips escape, add a dry piece of paper-towel or napkin to avoid excessive moisture, and seal the bag. Label the bag with collection information including locality (city or town and county), date, species of host plant, and your name and contact information. Samples should be sent via express mail (next-day delivery) to assure good sample quality. For the remainder of 2008 please send samples to: Chilli Thrips Lab, Texas AgriLife Extension Service, P.O. Box 38, Overton, TX 75684.

Biological Control. Predators such as the minute pirate bugs, predatory mites and even predatory thrips have shown potential to control chilli thrips in greenhouse studies. We are still evaluating these organisms to understand their use in the landscape.

Chemical Control. There are a number of insecticides available to manage this pest (Table 1). It is important to remember that chilli thrips attack developing terminals and buds. If you are going to spray a plant it is important to do so when they are producing active growth. Once a plant has been damaged and stops growing the thrips will generally leave the plant. Media drenches have proven ineffective in most of the studies conducted to date. Systemic insecticides should be applied as a foliar spray.

Table 1. Suggested insecticides for control of chilli thrips.¹

IRAC MOA	Active Ingredient	Products	Application	Site uses
1B	acephate	Orthene	Foliar	N, G, L
4A	acetamiprid	Tristar	Foliar	N, G, L
4A	clothianidin	Aloft ³ , Celero	Foliar	N, G, L ²
4A	dinotefuran	Safari	Foliar	N, G, L
4A	imidacloprid	Merit, Discuss ³ , ...	Foliar	N, G, L ²
4A	thiamethoxam	Flagship 25WG	Foliar	N, G, L
5	spinosad	Conserve	Foliar	N, G, L
6	abamectin	Avid	Foliar	N, G, L
9C	flonicamid	Aria 50SG	Foliar	G
13	chlorfenapyr	Pylon	Foliar	G
unknown	pyridalyl	Overture	Foliar	G

¹Biorational products such as insect growth regulators, soaps and oils are currently being evaluated.

²Check the label for specific site uses. Although the active ingredient may be used in all three sites, individual products may have site restrictions.

³Pyrethroids such as cyfluthrin are toxic to natural enemies.

Note: Pesticides labeled for landscape plants should not generally be used on vegetables, unless specifically noted on the label. Failing to follow pesticide labels carefully is illegal and can result in unsafe applications. Under certain temperature, humidity, water and shade conditions, pesticides may cause injury to certain plants (phytotoxicity). Generally, apply pesticides during early morning to avoid dew or late afternoon to avoid the hottest part of the day. Water plants 1-2 days before applying a pesticide. Always check the product label for the list of plants that may be injured by the pesticide.

Mention of commercial products is for educational purposes only and does not represent endorsement by Texas Agrilife Extension Service or The Texas A&M University System. Insecticide label registrations are subject to change, and changes may have occurred since this publication was written. The pesticide user is always responsible for applying products in accordance with label directions. Always read and carefully follow the instructions on the container label.