

# ***Myoporum Thrips: Two Invasive Species on Myoporum or Naio***

CPS Seminar  
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- \* Galling on naio papa or *Myoporum sandwicense* first submitted to UH/HDOA in March 2009 from Waikoloa Village (Nakashima CPS) .
- \* First observed in Fall/Winter of 2008 by various landscapers.
- \* Infestations also found in Kona Village, Kona Palisades, Maunalani Resort, Hapuna Beach Resort (Conant HDOA).



04/16/09

- \* Thrips tentatively identified as myoporum thrips, *Klambothrips myopori*
- \* First described in CA in 2007
- \* Originated from Australia or New Zealand
- \* Specific to *Myoporum* spp. or naio, false sandalwood



Dead *Myoporum laetum* plants killed by  
Myoporum Thrips in San Diego



# Control of Myoporum Thrips, *Klambothrips myopori*

*Based on trials in California*  
*Bethke and Shaw (UC CES)*

- \* The minute pirate bug, *Orius* sp., a thrips predator, has controlled the myporum thrips in CA and will also impact thrips in HI.
- \* Avoid broad-spectrum insecticides that will impact these predators.
- \* Conserve reduced thrips numbers and damage in California.
- \* Avid did not reduce thrips numbers as much as Conserve or Merit.
- \* The neonicotinoids, Merit and Safari has shown to be effective.
- \* Merit results has not been consistent and negatively impacted the pirate bugs in CA.
- \* Talstar works well as a preventative treatment according to landscapers, but will negatively impact the pirate bugs.
- \* Suggested treatments are Safari drench and Conserve foliar application.

Myoporum Thrips Infestation  
at Maunalani "Kamilo"

← Before Talstar application



ca. 3 weeks after  
Talstar application →



## *Scirtothrips* sp., another thrips attacking Naio Papa

- \* High population of *Scirtothrips* sp. observed on naio papa, Maunalani Point causing bronzing, stunting, thickening, and deformed, curled leaves, but minimal galling (04/16/09).
- \* Previously, plants were infested with galling myoporum thrips.
- \* Sprayed with Talstar for myoporum thrips in March 09.



Probably, chilli thrips, *Scirtothrips dorsalis*, on naio papa (Tsuda UH-CTAHR)

\* Infestation first noted on naio papa, previously infested by the galling myoporum thrips, *Klambothrips myopori*



Old gall damage



Adult



Adults and nymphs

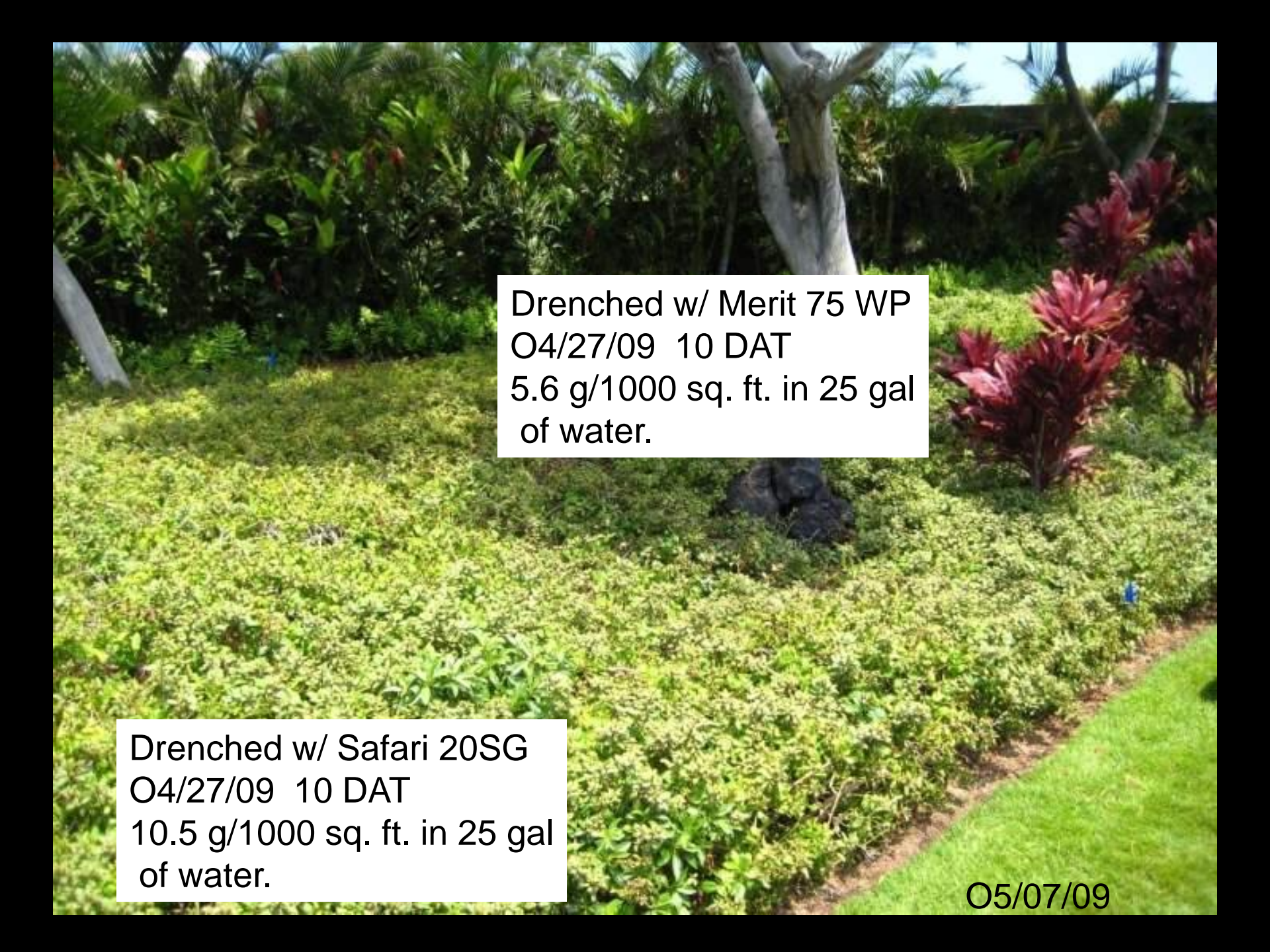


*Scirtothrips* sp. infestation on naio papa, Maunalani Point (Previously infested by the galling myoporium thrips.)



According to the landscaper, galling was first noted in this area after strong winds earlier in the year.

04/16/09



Drenched w/ Merit 75 WP  
04/27/09 10 DAT  
5.6 g/1000 sq. ft. in 25 gal  
of water.

Drenched w/ Safari 20SG  
04/27/09 10 DAT  
10.5 g/1000 sq. ft. in 25 gal  
of water.

05/07/09

Areas drenched with Safari 20SG and Merit 75 WP remained infested with lots of adult *Scirtothrips* sp. 10 DAT. Areas will be resampled at 24 DAT; plan to apply Avid and Conserve as a foliar.



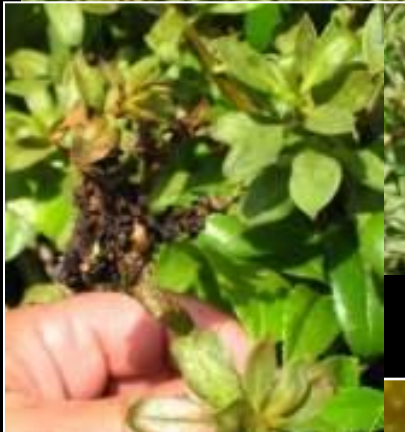


Chilli thrips, *Scirtothrips dorsalis* is a polyphagous species with more than 100 recorded hosts from about 40 different families, including peppers and roses. In Oahu since 1987, reported on African daisy, cucumber, joyweed, false heather.

Distribution: Widespread across Asia, South Africa, Pakistan, India, Bangladesh, Sri Lanka, Thailand, Malaya, Indonesia, New Guinea, Solomon Islands, Australia, Taiwan, Japan, Hawaii, Venezuela, Caribbean Islands Florida, Texas (Probably spreading in the world in the horticultural trade).

Chlorfenapyr (Pylon) was the most effective in reducing the densities of *S. dorsalis* adults and larvae followed by spinosad (Conserve) and imidacloprid (Merit). The performance of other insecticides in controlling *S. dorsalis* populations was inconsistent (Seal et al. 2006).

# Bronzing *Scirtothrips* sp. vs Galling *Myoporum* Thrips



Two new thrips will probably impact Naio

1. *Klambothrips myopori*



2. *Scirtothrips* sp. prob. *dorsalis*, chilli thrips



Mauna Lani  
Resort

Naio Tree  
*Myoporum sandwicense*  
This native Hawaiian tree was planted on April 22<sup>nd</sup> 2008 to commemorate Earth Day

# The Reality

- \* Many more new invasive species will arrive in Hawaii.
- \* Once a new species is discovered in Hawaii, eradication is almost impossible.
- \* Exclusion and very early detection is the only effective strategies to prevent the invasion of pest species.
- \* Use of pesticides will increase in Hawaii because of these newly established invasive species.