

# Identifying Thrips & Their Damage in New England Greenhouses



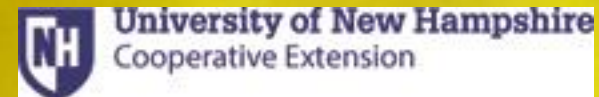
**Cheryl Frank and Alan Eaton**

**University of Vermont**

**and**

**University of New Hampshire Cooperative Extension**

**January 2016**



# Thrips (Order: Thysanoptera)

## In General:

- Long, slender
- Really tiny!
- Fringed Wings
- Dark eyes
- Short, straight antennae



**With high magnification, you may be able to see their fringe-like wings.**



Western flower Thrips  
Jack Reed, Mississippi State Univ  
[bugwood.org](http://bugwood.org)



# Where To Find Thrips

Thrips-prone Crops: A lot... New Guinea  
Impatiens, Flowers in bloom...

**Trick:** blow your hot breath onto open flower; this often gets “embedded” thrips to move around and be spotted.

Thrips are tough to control because of their ability to avoid contact with pesticides and natural enemies

# Thrips Damage

Feed by puncturing the epidermal (outer) layer of host tissue and sucking out the cell contents

Feeds on foliage & blossoms

Results in stippling, discolored flecking, or silvering of the leaf surface with black flecks of frass (excrement).

Discolor and scar leaf, flower, and fruit surfaces, and distort plant parts or vector plant pathogens.



Photo: Cheryl Frank Sullivan, UVM  
Osteospermum



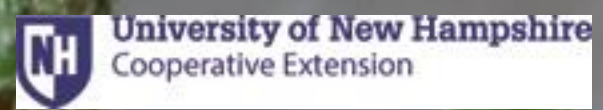
The Entomology  
Research  
Laboratory



University of New Hampshire  
Cooperative Extension



Photo: Cheryl Frank Sullivan, UVM  
**Calibrachoa**



# Thrips Damage



Photo: Cheryl Frank Sullivan, UVM

Bean



University of New Hampshire  
Cooperative Extension



# Thrips Damage



Photo: Cheryl Frank Sullivan, UVM

Petunia



University of New Hampshire  
Cooperative Extension

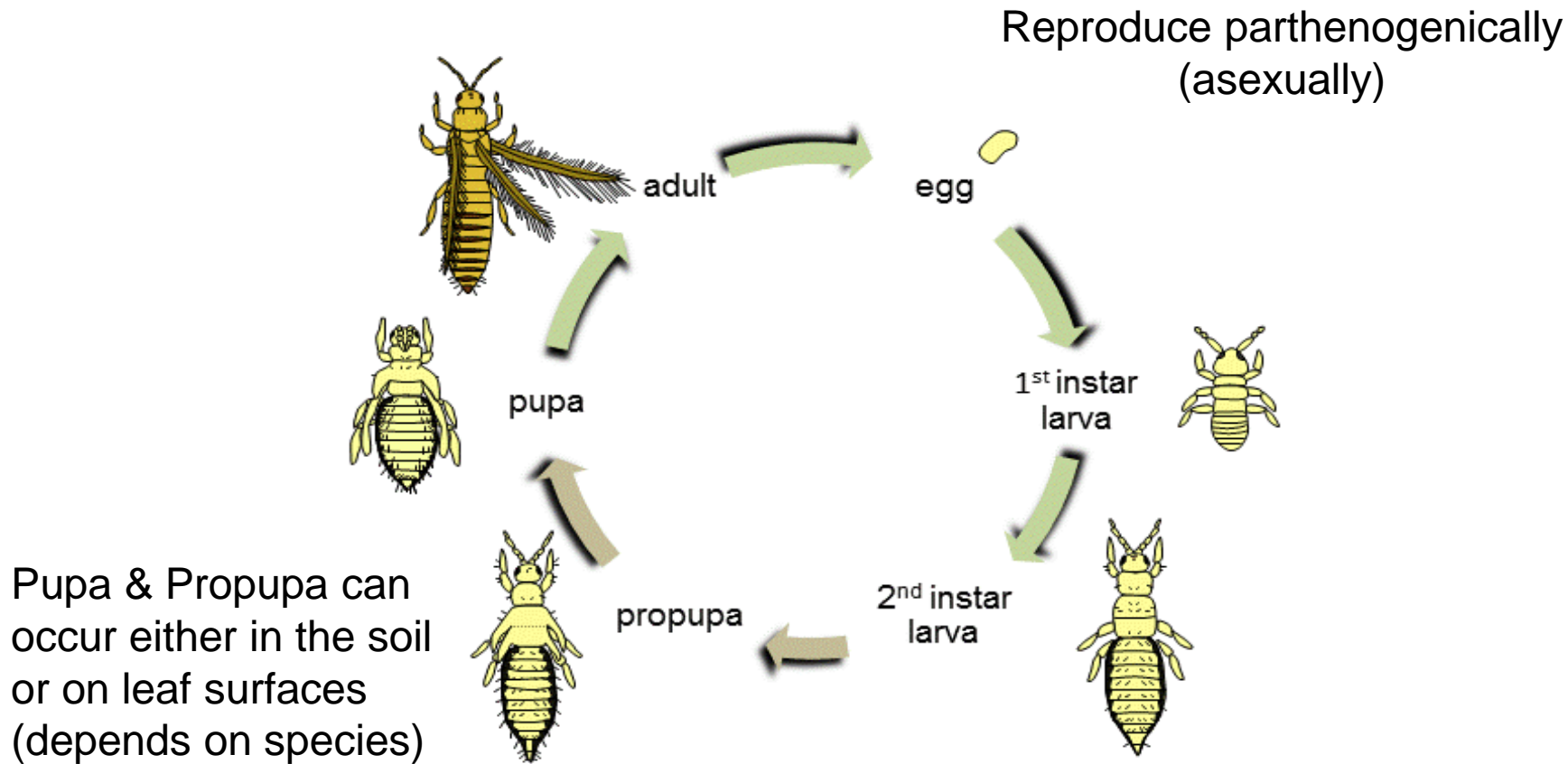
# Thrips Damage



Petunia

Photo: Cheryl Frank Sullivan, UVM

# Generalized Thrips Life Cycle



One reason why some are so difficult to manage (limited contact)



# Generalized Thrips Life Cycle



Larvae usually shades white-yellow & opaque

# Thrips Species



# Western Flower Thrips

## *Frankliniella occidentalis*

- 1.2 to 1.4 mm long
- Light yellow-dark brown
- Eggs laid within plant tissue, pupates in soil
- Found on upper parts plants, esp. in flowers with pollen
- Wide host range



# Onion Thrips

## *Thrips tabaci*

- Approx. 1.3 mm long (smaller than Western Flower Thrips)
- Light yellow-dark brown
- Eggs laid within plant tissue, pupates in soil
- Damages onions, garlic, crucifers & ornamentals



Photo: Diane Alston



# Western Flower vs Onion Thrips

Onion



Western  
Flower

Photo: Alton N Sparks, Jr.



# Chilli Thrips

## *Scirtothrips dorsalis*

- Approx. 1 mm long (smaller than Onion & Western Flower Thrips)
- Pale yellow-white, abdominal segments typically with dark bands
- Eggs laid within plant tissue, pupates on plant or soil
- Prefers new foliage and buds
- Wide host range



Photo: Lance Osborne



# Western Flower vs Chilli Thrips



Photo: Lance Osborne



# Banded Greenhouse Thrips

## *Hercinothrips femoralis*

- 1.2 to 1.4 mm long
- Brown-black body, wings with white crossbands
- Pupate on leaf (usually undersides)
- Found on upper parts of plants, esp. in flowers with pollen
- Wide host range



# Greenhouse Thrips

## *Heliothrips haemorrhoidalis*

- 1 mm long
- Black-dark brown with yellow legs
- Wings grey at top with bands
- Eggs laid in plant tissue, Pupate on leaf undersides
- Prefers feeding on foliage
- Wide host range, really enjoys croton



# *Echinothrips americanus*

- 1.5 mm long
- Dark brown body, red color between abdominal segments
- Wings grey at top with bands
- Eggs laid in plant tissue, Pupate on leaf undersides
- Prefers feeding on foliage
- Wide host range, really enjoys hibiscus, Ficus, poinsettia, impatiens



Photo: Univ. Florida



# Cuban Laurel Thrips

## *Gynaikothrips ficorum*

- Large (2.6 – 3.6 mm long)
- Dark brown to black
- Adult females have prominent tube like structure at rear (for egg laying)
- All life stages found on leaf surfaces
- Damage usually curled leaves with insects within
- Mostly on Ficus



# Not All Thrips Are Bad Thrips!!



Banded thrips or Banded-wing thrips  
*Aeolothrips fasciatus*

Not to be confused with Banded Greenhouse Thrips!!!!



*Franklinothrips vespiformis*

These are predators of aphids, mites, whiteflies & other thrips!

# Any Questions?

Want More Id Info?

Pest Thrips of the United States: Field Identification  
Guide

[https://firstdetector.org/pdf/chili\\_thrips\\_deck.pdf](https://firstdetector.org/pdf/chili_thrips_deck.pdf)

