

Onion thrips vs Western flower thrips

What's the difference? Identification, monitoring & damage patterns



Ashley Summerfield¹, Sarah Jandricic², Rose Buitenhuis³ & Cynthia Scott-Dupree¹

1. University of Guelph, 2. Ontario Ministry of Food Agriculture & Rural Affairs (OMAFRA), 3. Vineland Research & Innovation Centre

Onion thrips (*Thrips tabaci*) are a well-established insect pest of outdoor crops, but in recent years they have become a notable pest of greenhouse floriculture crops. Typical biocontrol-based IPM programs don't appear to work as well for onion thrips as they do for the dominant species, Western flower thrips (*Frankliniella occidentalis*). Without a one-size-fits-all management strategy, knowing which thrips species is in your crop is the first step to keeping your thrips populations in check.

Same plant, different damage

Although they attack many of the same crops, the **damage patterns** they cause are different

Do I know you?

Species identification requires close inspection of thrips' heads & shoulders under a microscope

Onion thrips
Grey eyespots between the compound eyes
Long coarse hairs are only on the bottom of the "shoulders" (pronotum)



Western flower thrips
Three red eyespots between the compound eyes
Long coarse hairs on both the top and bottom of the "shoulders" (pronotum)

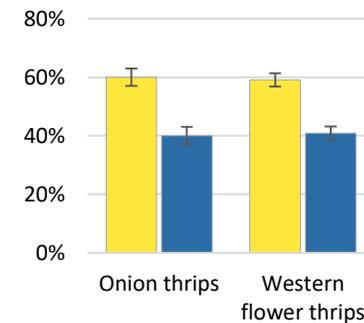


There are several other thrips species that frequent floriculture crops, so even though these are the most common species, you might encounter others. If something looks off, ask an expert!

Sticking together

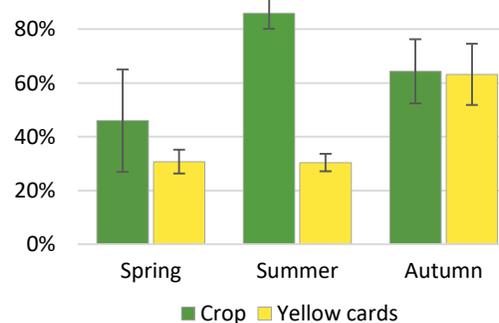
Monitoring cards are an indispensable tool for keeping an eye on pest populations, but do they work equally well for all thrips species?

Efficacy of yellow vs blue cards



Yellow cards were more effective for both thrips species inside chrysanthemum greenhouses

Onion thrips proportions on cards vs crop



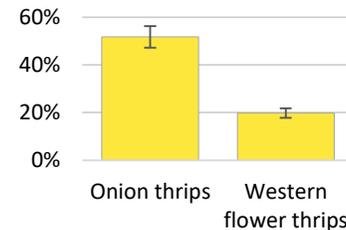
In spring & autumn proportions on monitoring cards accurately reflect onion thrips proportions in the crop, but not in the summer, so use plant taps instead!



OT
Onion thrips cause little damage to flowers, they feed mainly on foliage

WFT
Western flower thrips feed heavily on flowers

Percent of chrysanthemum leaves damaged by 20 thrips after 2 weeks



Although smaller, onion thrips can cause as much (or more!) damage to your crop than the larger western flower thrips. On chrysanthemum, onion thrips damage is spread uniformly throughout the foliage