



Predatory Mites: Mite-ier Than Other Pest Controls!

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The Problem

- Spider mites
- Cyclamen mites
- Broad mites
- Rust & other eriophyid mites
- Bulb mites
- Thrips
- Whiteflies
- Scale insects



Figure 1 (Above): two-spotted spider mite infestation on a rose. Spider mites cause leaf damage and leave behind webbing. Photo credit: Emma Giancola.

The above species can harm or cause visible damage (Figure 1) to plants. Pest mites use piercing/sucking mouthparts to feed on plants and can spread rapidly from plant to plant. This damage can injure or kill plants.

These pests can be controlled with pesticides, or...

Solution: Predatory Mites!

Common Genera

- Phytoseiulus
- Amblyseius
- Neoseiulus

Other Genera

- Metaseiulus
- Galendromus
- Over 2,500 other species of predatory mites!

They Will Eat

- All life stages of their mite prey
- Eggs and immatures of non-mite prey



Figure 2 (Above): Predatory mite *Phytoseiulus persimilis*, used to target spider mites (*Tetranychus urticae*). Photo credit: Koppert, Spidex Vital



Figure 3 (Above): Predatory mite species *Neoseiulus californicus* feeding on immature spider mite. Photo credit: Eric Palevsky, from "Arthropod Pest Management in Organic Vegetable Greenhouses"

What Do They Look Like?

Pest mite appearance (use a hand lens):

As Eggs

- Small, on the underside of leaves
- Spherical
- Opaque or colored

As Larvae

- 6 Legs

As Nymphs

- Slightly larger than larvae, 8 legs

As Adults

- Extremely tiny, round, spotted bodies (females rounder than males), 8 legs
- Generally, green color when smashed/streaked



Figure 4 (above): Predatory mite species *Amblyseius swirskii*. Photo credit: Arbico Organics.

What Do They Look Like?

Predatory mite appearance (use a hand lens):

As Eggs

- Small, on the underside of leaves
- Oblong
- Translucent white

As Larvae

- Oval-shaped, 6 legs
- Translucent white or light brown

As Nymphs

- Slightly larger than larvae, 8 legs

As Adults (Figures 3 and 4)

- Extremely tiny, but slightly bigger than prey
- Translucent white, light brown, green, red, or orange, 8 legs (Figure 4)
- Move more quickly than pest mites
- Often orange when smashed/streaked

How Do I Use Them?

Getting Predatory Mites

- Encourage naturally by using an untouched plant reservoir
- Purchase sachets of predators
- May need to be reintroduced if they leave after decimating the prey population

Keeping Predatory Mites

- Avoid use of broad-spectrum insecticides
- This will kill the predators along with the pests!