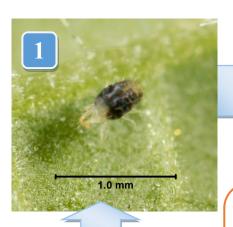
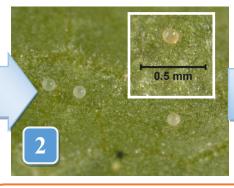
## Two-spotted Spider Mite - Life Cycle



ENY-880

Nicole Casuso and Hugh Smith<sup>1</sup>



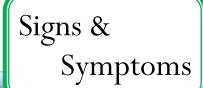


- 1. Adult
- 2. Eggs (and red eye-spotted egg)
- 3. Young (6-legged) larvae
- 4. 1st nymph stage (male protonymph)
- 5. 2nd nymph stage (female deutonymphs)

More detailed descriptions on the reverse.

















Above: Feeding damage on strawberries Top right: Infestation on mid-vein of eggplant

Bottom right: Mite damage on cotton



<sup>1</sup>Nicole Casuso, Doctor of Plant Medicine Student, University of Florida & Hugh Smith, Assistant Professor, Gulf Coast Research and Education Center, University of Florida Photo Credits: Life cycle images - Lyle Buss, University of Florida | Webbing image - Castner, University of Florida | Stippled leaves image - Whitney Cranshaw, Colorado State University (Bugwood.org) | Strawberry and eggplant images - Hugh Smith, University of Florida | Cotton image - University of Georgia Archive (Bugwood.org)

### Two-spotted Spider Mite, Tetranychus urticae Koch

#### **General Morphology:**

What does it look like?

Two-spotted spider mites are difficult to see without a hand lens to assist you. Adults are translucent green-yellow to a rusty brown or orange red and about 0.5mm long. Their oval bodies often have two distinct dark spots (one on each side). This is actually the accumulation of waste products visible through their body wall. Eggs are clear white and spherical. Newly hatched larvae have only six legs compared to the 8-legged nymphs and adults.

# **General Biology:**What is its life cycle?

The rate of development is highly variable and dependent on temperature, ranging from 5 to 20 days to complete the egg to adult cycle.

- 1. Adult females lay eggs enclosed in a fine silk webbing. (Several hundred eggs are possible during the 2-4 week lifespan of the mother.)
- 2. Eggs hatch in about 3 days.
- 3. The six-legged larva emerges and undergoes two molts to achieve the two nymph stages.
- 4. An adult emerges after the 2nd nymph stage.

### **Pest Host Range:**

Where is it found?

Originating from Europe, this pest is found predominantly in temperate areas on over 200 plant species (especially deciduous fruit trees). It has also been reported in subtropical regions as well as greenhouses in the US and Europe.

### Natural Enemies: Predators & Parasitoids

Several species of predatory mites, lady beetles (and larvae), predatory thrips, lacewing larvae, and minute pirate bugs are important enemies for two-spotted spider mite control.

### Signs & Symptoms:

What type of damage does it cause?

- □ Spider mite feeding on the undersides of leaves and stems causes an initial stippling (white spots) and eventually leads to chlorotic yellowing or graying of the leaves, and in severe cases necrosis and defoliation may occur.
- Leaf deformities, stunted growth, petal browning, wilt, and reduced fruit quantity and quality are additional symptoms.
- □ These mites produce silky webbing and leave behind skin castings and feces that reduce the plant's aesthetic value and photosynthetic abilities.