

Two-spotted Spider Mites

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Common Name

Two-spotted Spider Mite; (TSSM)

Scientific Name

Tetranychus urticae

Host Plants

- 200+ recorded host plants
- Fruits: Blackberries, raspberries, strawberries
- Vegetables: Corn, soybeans, peas
- Annuals and Perennials: Roses, marigolds, salvia
- Many more



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(Figure 2) Photo Credit: Gerald Holmes, Strawberry Center, Cal Poly San Luis Obispo, Bugwood.org licensed under a C.C.A. 3.0 License



(Figure 3) Photo Credit: Emma Giancola, Ornamentals IPM Intern, University of Delaware

Symptoms

- Two-spotted spider mite damage normally presents as brown, yellow, or white stippling (Figure 2 on page 1)
- Advanced infestations can cause bronzing, bleaching, and leaf drop; the damage be mistaken for drought stress, especially because TSSM proliferates in drought conditions.
- Symptoms will be noticeable at the base of the plant foliage first and then progress upward.

Signs

- High populations of TSSM are almost always accompanied by webbing, hence the name "spider mites" (Figure 3 on page 1)
- Webs hold many discarded skins from previous generations (Figure 7, on the right), giving them a powdery appearance to the naked eye
- Hot, dry conditions are ideal for TSSM development (Figure 3 on page 1)

Management

Cultural controls

Water plants regularly and soak any plants with TSSMs present. Avoid planting in areas that could be subjected to significant heat, such as the south side of buildings or close to foundations.

For homeowners

Insecticidal soap and horticultural oils have shown some efficacy.

For green-industry professionals

Several miticides have shown good efficacy.

For specific recommendations on products and application timing, contact your local Cooperative Extension office.



Figure 4



Figure 5



Figure 6



Figure 7

(Figures 4, 5, 6, 7) Photo Credit: Tommy Kramer, Ornamentals IPM Intern, University of Delaware

Biology and Life Cycle

- Two-spotted Spider Mites lay their eggs in webs and on the underside of leaf surfaces (Figure 4 on page 2).
- Life stages include: 6-legged translucent larvae (Figure 5 on page 2), two nymphal stages, and adults.
- Adult males are slender and more yellow, with a faded black spot on either side (Figure 6 on page 2); adult females are larger, with a dark black spot on each side (Figure 1 on page 1 and Figure 7 on page 2)
- Multiple generations per year
- Development is faster the hotter it is; complete in 5 days when temperatures are over 90 degrees Fahrenheit.

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