

Spider Mites

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Spider mites are arachnids, a group including spiders, ticks, and scorpions. The family of spider mites, Tetranychidae, is large with more than 1,200 species. Commonly observed spider mite species include spruce spider mites (*Oligonychus ununguis*), boxwood spider mites (*Eurytetranychus buxi*) and two-spotted spider mites (*Tetranychus urticae*). These species are pests in the landscape and can cause considerable damage to host plants.

Description and Life Cycle

Mites active in the cooler spring and fall seasons are generally referred to as “cool season” mites while “warm season” mites are active during the heat of summer. Feeding damage is most often noticed in the season following mite activity, which can result in improperly timed and, therefore, ineffective management interventions.

Eggs persist during periods when conditions are unfavorable for mites to remain active. Most species have multiple, overlapping generations per year and populations can build rapidly on infested plants.

Damage

Some mite species are specialists on a narrow range of plants while others are generalists that affect many diverse plants. Generalists spread more readily among different hosts in the landscape.

Spider mites feed with needle-like mouthparts that pierce the leaves to suck out nutrients. Damage to these cells results in a stippled, bronzed, or flecked appearance on leaves. Some plants exhibit marginal scorching or curling in response to severe mite feeding. Feeding can rapidly decrease plant health by impeding the host's ability to effectively photosynthesize.

True to their name, some spider mites produce webbing for protection. These webs often collect dirt and debris, shielding them and resulting in a more favorable temperature and humidity profile within the webbing.

Management

Effective therapeutic options are available for the control of these pests; however, proper timing for treatments is imperative. Some products are effective against pest mite species while having minimal impact to beneficial, predatory mite species. If multiple treatments are made within a season, it is important to alternate products to reduce the likelihood of resistance development.

Some commonly used products for insects can result in sub-lethal stress to mites and lead to their increased reproduction and feeding. These mite flare ups will often result in significant host injury if unmanaged.

Nitrogen fertilization should be avoided until control has been achieved. The tender new growth serves as an ideal food source and may lead to larger populations.

Please contact your Bartlett Arborist Representative to learn more about spider mite management strategies.

Spruce Spider Mites

Spruce spider mites (SSM) are specialist pests of many conifer species. Eggs of this cool season species begin to hatch in early spring. Feeding on conifer hosts results in stippling injury which often presents as drab or bronzed foliage (Figure 1).

Figure 1: Stippling damage on various conifers, (top) arborvitae, cryptomeria; (bottom) hemlock, spruce



Boxwood Spider Mites

Boxwood spider mites are specialist pests of *Buxus* species. This is a cool season mite with eggs that begins to hatch in the early spring. This species is quite large compared to other spider mites and has elongated legs. Spider mite damage on boxwood appears as white streaks and stippling along the foliage (Figure 2).

Boxwoods are host to a variety of insect and fungal pests that can greatly reduce plant vigor. Treatments commonly applied to control some of these pests can result in outbreaks of boxwood spider mites, so understanding the complex of pests or diseases is important when developing a comprehensive management strategy.

Figure 2: Boxwood spider mite adult female next to an egg

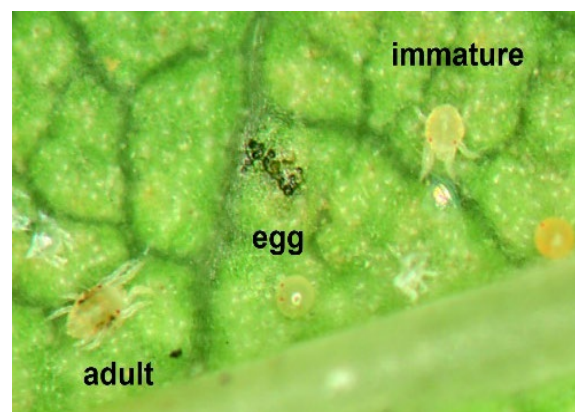


Two-Spotted Spider Mites

Two-spotted spider mites are generalist pests of over 200 agricultural and ornamental plant species. Adults can be identified by the two characteristic spots on the sides of their bodies (Figure 3). In contrast to the other species listed here, this species is a warm season mite with egg hatch taking place in the late spring and summer.

Symptoms of this pest include stippling and leaf curling. This species produces copious amounts of fine webbing which can cover large sections of the plant.

Figure 3: Life stages of two-spotted spider mites



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