The Mighty Sycamore and the Mini Spider Mite

By Michelle Le Strange, Master Gardener

Sycamore trees are a common site on the valley floor and in the foothills. These majestic deciduous trees easily grow to heights of 30 to 50 feet. They have large lobed maple-like leaves that fall to the ground in late winter and fuzzy ball-like seed pods that hang from the branches throughout winter. Their smooth bark is mottled brown, gray, and white.

In nature sycamores usually grow in riparian areas where their roots have access to water in the summer months. However since they are adapted to a wide range of climate zones, tolerate many soil types, and grow well in full sun, they are a popular landscape tree on large properties and along major streets and highways.

In mid to late summer, sycamore trees that don’t get enough water become a little stressed and take on a brownish cast. Their green leaves look dirty and dusty, and people begin to wonder if something is wrong with the tree. What often affects these mighty giants are high numbers of webspinning spider mites. To the naked eye, spider mites look like tiny, moving dots.

In the world of taxonomists, mites are not insects, but a close relative to spiders and ticks, which are in the arachnid class. The names “spider mite” and “webspinning mite” come from the silk webbing most species produce on infested leaves. The presence of webbing is an easy way to distinguish them from other small insects like aphids or whiteflies.

On the underside of leaves the adult mites lay eggs that look like teeny water droplets. Eggs hatch into crawlers. A dult mites have eight legs and an oval body. They live in colonies with hundreds of individuals and cause leaf damage by sucking cell contents from leaves. At first, the damage shows up as a stippling of light dots on the leaves, but as feeding continues the leaves turn bronze and can drop off. Often, large amounts of webbing cover the leaves and twigs. Damage is worse when compounded by water stress.

Spider mites prefer hot, dusty conditions and usually are first found on trees adjacent to dusty roadways or at margins of landscapes. Trees under water stress are particularly vulnerable to
mite attack. Spider mites reproduce rapidly in hot weather becoming numerous in June through September. If the temperature and food supplies are favorable, a generation can be completed in less than a week. As foliage quality declines on heavily infested plants, female mites catch wind currents and disperse to other plants to start new colonies. It usually takes a lot of damage before people notice that tree leaves are loaded with mites.

It is easy to check the underside of leaves for mites, their eggs, and webbing. Take a sheet of white paper and shake a few leaves over the paper to dislodge the mites. Once disturbed, the mites will move around rapidly and look like yellow or orange specks of dust. A 10X magnifying glass lets you inspect them more clearly.

In the landscape you can avoid heavy mite populations by avoiding water stress in sycamore trees. Trees in lawns have fewer mite problems. Monthly deep irrigation provides great benefit to trees in bare soil. Mites are prevalent in sandy soils so cars traveling on dusty roads help spread the critters to tree leaves. Spider mites have lots of natural enemies (like lacewings, minute pirate bugs, big eye bugs, and predaceous mites, thrips, and midges) that often limit populations.

Applying insecticides for mites on sycamore trees is not recommended because they kill the beneficial insects and the mite problem usually gets worse. It is better to live with the mite damage and change the cultural practices for the tree. High populations of mites usually decline rapidly in late summer for several reasons: beneficial predators finally overtake them, the weather turns cooler and days are shorter, and a late summer rain puts sycamore trees under less water stress. If mites are prevalent on your trees this year, then next year in late spring try to avoid dusty conditions and water stress in your sycamore trees.

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