

Managing Sycamore Scale [*Stomacoccus platani* Ferris]

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Description

Sycamore scale, *Stomacoccus platani* Ferris, causes leaves to become pock-marked with numerous brown, small, necrotic (dead) spots that may be confused with leaf spot fungi. However, sycamore scales frequently align themselves along the major veins of the leaf, a characteristic uncommon of fungi (fig. 1). The scale insect may be too tiny to see with the naked eye, another feature that causes confusion in identification.

Distribution

This insect is known from California, Arizona, and New Mexico. It has only recently been found causing serious damage to sycamores in New Mexico.

Life Cycle

Sycamore scales overwinter in bark crevices. By late winter, females lay their eggs in cottony masses (fig. 2). Newly hatched scale crawlers migrate from the bark to the expanding foliage to establish feeding sites. As the scales mature, they migrate back to the bark to lay more egg masses. Scales may produce up to five generations per

year. Unlike most adult scales, which lose their legs, adult sycamore scales are mobile throughout their lives. Adult males are winged and fly about during their brief two- to three-day life.

Hosts

The sycamore scale is a serious pest of London plane and other sycamore trees. In California and Arizona, sycamore scale is currently a very serious pest of native and introduced sycamores and is beginning to limit their usefulness as landscape ornamentals.

Damage

These scales feed on the undersides of leaves, on leaf buds, and on the tender bark of twigs and branches. The feeding causes leaf drop, leading to increased tree stress. Infested leaves are usually small and somewhat distorted. Sycamore scales can cause twig dieback by feeding on the bark of small branches.



Fig. 1. Sycamore scale damage showing pockmarks on sycamore leaves.

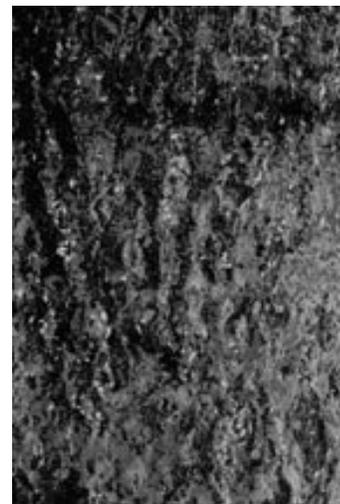


Fig. 2. Sycamore bark showing cottony masses that cover the scales.



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Action Threshold

No specific threshold has been developed, but control should be initiated to prevent more than 20% defoliation in the spring and 40% in the fall.

Inspection and Control

Integrated pest management techniques for managing sycamore scale include applying horticultural oils and insecticidal soaps to foliage, trunks, and larger branches. The insect growth regulator kinoprene is also a good choice for scale control. Make applications when the eggs hatch and the first or second instars (called "crawlers") are active. At this stage the insects are most susceptible to insecticides. First-generation egg hatching coincides with leaf bud break and continues until the leaves are fully expanded. Keeping trees vigorous and free from drought or other stresses is

important in managing sycamore scale. Avoid high nitrogen fertilizer rates.

Chemical insecticides labeled for scale control include acephate, bendiocarb, bifenthrin, carbaryl, cyfluthrin, chlorphrifos, and diazinon. Check with your local county Extension agent for a current list of insecticides labeled for sycamore scale control. All should be applied to the crawler stage of the insect. Be sure to read and follow all label instructions.

Additional Reading

- Furniss, R. L. and V. M. Carolin. 1980. *Western Forest Insects*. USDA FS. Publication No. 1339. U.S. Government Printing Office. Washington, D.C. 20402.
- Johnson, W.T. and H.H. Lyon. 1988. *Insects that Feed on Trees and Shrubs*. 2nd Edition. Cornell University Press, P.O. Box 6525, Cascadilla St., Ithaca, NY 14851-6525. pp. 334–335.