

## Cottony Maple Scale Identification & Management

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ENTFACT-427

### Cottony Maple Scale Fast Facts

- Cottony maple scale are soft scales, a type of sap sucking pests. Their true body is about 1/8 inch long, flat, and brown but the females are most noticeable when they produce the white cottony egg sacs which give them their name.
- This pest prefers to feed on silver maples but can be found on other maple species, boxelder, basswood, birch, elm, and linden.
- The most common symptom is the appearance of large quantities of honeydew, a sticky fecal material that will accumulate on the plant and attract sooty mold.
- Management can depend on crawler control with contact insecticides, horticultural oil, or insecticidal soap or on systemic treatments of imidacloprid or dinotefuran in the fall.



Cottony maple scale females produce large, cottony white egg sacs that are noticeable from a distance.  
(Photo by Jim Kalisch, University of Nebraska-Lincoln)

### Potential hosts

Cottony maple scales commonly infest silver maple but can feed on several species including other maples, boxelder, basswood, birch, elm, and linden.

### Symptoms and pest description

Scale insects are “sucking pests”, meaning they use a needle like mouth to siphon fluids from plants. Cottony maple scales are part of the “soft scale” group, meaning that they do not produce a waxy shield that covers their body. Soft scales are known for their ability to produce large amounts of honeydew. Since these insects are

processing/feeding from sugary sap all day, they also defecate out this sugary water-like substance. Accumulations of honeydew are shiny and sticky and may also recruit black sooty mold fungus which feeds on honeydew and may cover branches and the

trunk. A mature female cottony maple scale is 1/8" long, and has a brown, flat, oval body. Infestations are most easily noticed during the summer when females produce white, cottony egg sacs that resemble pieces of popcorn on the twigs.



A side profile view of a female cottony maple scale and her popcorn-like egg sac.  
(Photo by Jim Kalisch, University of Nebraska-Lincoln)

### **Life Cycle in Kentucky**

Cottony maple scales spend the winter in an immature stage on twigs or branches. Females complete their development in June and will start to produce egg sacs at that time as well. Eggs hatch during June and July and crawlers move to the lower surface of leaves where they settle feed on sap for the rest of the summer. Males will complete their development by the end of the summer and mate with females before dying. Just before leaf drop, the small fertilized females will move back to twigs and branches to spend the winter. There is one generation each year.

### **Management**

Scales tend to thrive on stressed plants. Following a recommended fertility program and watering regime will promote plant health. However, over-fertilization favors scale buildup. If practical, improve plant

sites to reduce stress and promote growth. You can prune out small infestations to try and eliminate the issue or prune out sections of a large scale problem in order to make chemical control more feasible.

There are two insecticide options when considering management of scales, doing a systemic treatment or treating the crawlers directly. Whichever you choose, management may take repeated applications over a couple of growing seasons.

### **Treating with Systemic Insecticides**

When dealing with soft scale species such as the cottony maple scale, you can use a systemic treatment of imidacloprid (Bayer Tree & Shrub is one possible trade name) or dinotefuran (Orthro Tree & Shrub is one possible trade name). A systemic insecticide helps to give you control without reliance

on broadcast sprays on the plant. This helps keep insecticide residues contained within the plant you wish to protect and helps to ensure the product will affect the pests you are targeting. Timing is important when choosing to use a systemic product though. For cottony maple scale management, applications made in the spring (April-May) or fall will provide 12 months of management.

**Treating Crawlers Directly**

Crawlers are the most susceptible to control stage of a scale insect’s life. In order to treat the crawlers, you should be monitoring for their emergence. You can visually check in June or July and again in August for cottony maple scale crawlers. Alternatively, you can place pieces of black electrical tape (sticky side out) or double-sided tape near scale populations and monitor the tape for the crawlers and treat following the initial find.

Horticultural oils kill by suffocation or after penetrating over-wintering stages of the insect. Consequently, they may not be effective where several layers of scale coverings have accumulated. Insecticidal soaps are long chain fatty acids that kill susceptible insects through direct contact. Like horticultural oils, they require thorough

coverage. Soaps leave no residue so repeated applications may be needed for some pests. These products may burn the foliage of sensitive plants, such as Japanese maple, so check the label for information about the plant species that you intend to treat.

A variety of natural and synthetic insecticides are labeled for use as sprays to control scale crawlers on landscape trees and shrubs. While the residual life of these products is generally longer than oils and soaps, timing, coverage, and precautions on damage to some plant species are very similar to those for oils and soaps.

Listed at the bottom of this page are some options for scale insect crawler control.

*Revised: 1/2021*

**CAUTION!** Pesticide recommendations in this publication are registered for use in Kentucky, USA ONLY! The use of some products may not be legal in your state or country. Please check with your local county agent or regulatory official before using any pesticide mentioned in this publication.

Of course, **ALWAYS READ AND FOLLOW LABEL DIRECTIONS FOR SAFE USE OF ANY PESTICIDE!**

Images: University of Kentucky Entomology and Jim Kalisch, University of Nebraska-Lincoln

Representative products for scale crawler control.	
Insecticide common name*	Representative brand names
Acephate	Orthene Turf, Tree & Ornamental Spray Ortho Systemic Insect Killer
Azadiractin	Bon-Neem Gordon's Garden Guard Liquid Insecticide
Carbaryl	Sevin
Cyfluthrin	Bayer Advanced Garden Multi-Insect Killer Concentrate
Lambda-cyhalothrin	Spectracide® Triazicide® Soil & Turf Insect Killer
Dimethoate	Dragon Cygon 2E Systemic Insecticide
Esfenvalerate	Ortho Bug-B-Gon Garden & Landscape Insect Killer Concentrate
Malathion	Ortho Mosquito-B-Gon Tree & Shrub Spray Bonide Malathion Insect Control
Permethrin	Ortho Mosquito-B-Gon Tree, Shrub & Lawn Spray Spectracide® Bug Stop® Multi-Purpose Insect Control Concentrate Bonide Borer-Miner Killer

\*All insecticides have unique common names that can be found just below the brand name on the product label. You may be able to find other brand name products for scale control that contain these active ingredients. **Be sure that the product you select is labeled for the plants that you intend to spray.**