



Cottony Maple Scale

Many Tree Species



Photo, top right: Cottony maple scale infestations can cause branches to become thin and eventually die back. (Eugene E. Nelson, Bugwood.org) **Above:** Adults lay eggs on branches, covering the egg masses with a white cottony coating to protect them. (Brian Kunkel, University of Delaware, Bugwood.org) **Below:** The honeydew excreted from feeding cottony maple scale sticks to leaves and branches, often attracting sooty mold fungi which coat branches in a powdery black residue. (Florida Division of Plant Industry Archive, Florida Department of Agriculture and Consumer Services, Bugwood.org)

What is Cottony Maple Scale?

Cottony maple scale, *Pulvinaria innumerabilis*, is a soft scale insect that attacks a large variety of woody plants. Its favored hosts are maple trees, although it has been found on a number of other species as well. Heavy infestations may kill weakened trees and cause branch dieback in healthy trees. Large amounts of honeydew are produced which eventually cause the leaves to be covered with grayish/black colored sooty mold. The sooty mold reduces the aesthetic features of maples and honeydew can become a nuisance as it coats patios, decks, and vehicles.



Biology

Cottony maple scale has one generation per year. Emerging in the early spring, adults mate and then lay eggs. In early summer, eggs hatch and young scales migrate towards the leaves for feeding. Attached to the leaf and immobile, crawlers mature by the end of summer.

Susceptible Trees

Silver maple, red maple, boxelder, alder, hackberry, dogwood, hawthorn, beech, osage orange, apple, mulberry, sycamore, poplar, peach, plum, pear, oak, black locust, willow, linden, and elm.

Signs and Symptoms

- Small, white cottony looking balls attached to branches about 1/4 - 1/2 of an inch diameter.
- Looks like popcorn strung along the twigs.
- Stunted, yellowing leaves leading to premature leaf drop and dieback.

Cottony Maple Scale Treatment Strategies



Cottony maple scale will not harm the tree in small numbers; however, in large numbers, large amounts of sap will be sucked from the tree. This will weaken the tree and cause dieback of branches, making it more susceptible to additional insect or disease issues.

Cottony maple scale is easily treated with soil applied products, such as **Xytect™** and **Transtect™**. These are systemic products that are applied to the soil at the base of the tree and are taken up by the root system, to work from the inside of the plant. A contact insecticide, such as **Up-Star® Gold** can be sprayed on the scales, but this is rarely used as the timing must coincide with egg hatch and crawler emergence to be effective. Improperly timed applications will come into contact with only the waxy shell created by maturing scales and will provide little control.

Treatment Strategies

Using Transtect™

Transtect™ is applied to the soil in the late spring or early summer and will provide a quick knockdown (within 2 weeks). It has a residual of at least 90 days, so one application will control scale feeding for the season.

Using Xytect

Xytect™ is applied to the soil and has a long residual (1 year); however, it usually will take 30 – 60 days for the product to reach the leaves. Professional arborists will often apply Xytect™ in the fall of the year for control the whole next season. An early spring application is also very effective.

Using Up-Star® Gold

Foliar spray products, such as Up-Star® Gold, are not used very often anymore for larger trees, as there are issues with drift and contact with beneficial insects. They are however still used on smaller plants that are easily treated with a hand sprayer. These products typically have a residual of 10 – 14 days so applications should be done in the early summer, and again if necessary.

DIY Shopping List

Option 1:

Application Type – Soil drench, Soil injection

DIY Product/Equipment Needed

- Transtect™ or Xytect™**
- Measuring or diameter tape
- Gloves
- Soil Drench:* Bucket or watering can
- Soil Injection:* HTI Soil Injection Kit



Option 2:

Application Type – Foliar spray

DIY Product/Equipment Needed

- Up-Star® Gold**
- Hand pump sprayer with wand

