

Cottony Maple Scale

Pulvinaria innumerabilis



Description

Cottony maple scale is a soft scale insect that attacks many common ornamental nursery crops. Cottony maple scale is most recognizable when the female produces an egg sac made of strands of wax that resembles cotton in color and texture. The egg sac is about 1 centimeter long. The mature female scale are 2 to 5 millimeters long and are light to dark brown.



Life Cycle

Mated, immature female scale overwinter on stems. As temperatures increase in the spring, the female starts to grow again. By late spring, the telltale white egg sack has formed. Each female can produce more than 1,000 eggs. Crawlers hatch between mid-June and July and can continue even into August. Crawlers move from branches to feed on leaves. They return to twigs and small branches during autumn before leaf fall. There is one generation per year.

Monitoring

Overwintering females are flat and small, making them very difficult to detect. Swelling females are very conspicuous in the spring. During the growing season, cottony maple scale is most likely to be found on leaf undersides next to leaf veins. An inexpensive 10x hand lens will aid in scouting.

Host Plants

- Alder
- Beech
- Black locust
- Crabapple
- Dogwood
- Elm
- Euonymus
- Hackberry
- Hawthorn
- Lilac
- Linden
- Maple
- Mulberry
- Oak
- Peach
- Plum
- Poplar
- Rose
- Sumac
- Sycamore
- Willow
- Many others

Damage Symptoms

A plant infested with cottony maple scale may have branch dieback, but tree death also can occur. Feeding scales remove carbohydrate-rich sap, which weakens the plant. Cottony maple scale can excrete copious amounts of honeydew, which in turn supports growth of black sooty mold. Plants that are under additional stress are most likely to exhibit branch dieback; thus, providing proper cultural requirements for plants can minimize damage from cottony maple scale.



Integrated Pest Management

BIOLOGICAL CONTROL

Natural enemies usually keep this pest at low and manageable levels. Many ladybird beetles and several wasp and fly parasites provide substantial scale control.

CULTURAL CONTROL

Scale should be managed as soon as detected to avoid a population explosion. Scale thrive on stressed plants. Proper fertilization and irrigation will promote a healthy plant. Do not over fertilize, though, because excessive fertilizer can increase scale populations, injure foliage and roots, and cause other problems.

CHEMICAL CONTROL

Please refer to http://eppserver.ag.utk.edu/redbook/sections/trees_flowers.htm for the most up-to-date recommendations.

Resources

Photo credits: A. Steven Munson, USDA Forest Service, Bugwood.org
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