



Insect Answers:

Lecanium Scale

WASHINGTON STATE UNIVERSITY EXTENSION FACT SHEET • FS009E

European fruit lecanium, *Parthenolecanium corni*, is a widespread scale pest throughout Washington, although it seldom reaches economic levels in western Washington. Scales are sucking pests that feed on a wide variety of hosts which include fruit trees, small fruits, dogwood, maple, roses, and cherry laurel hedges. Nearly every broadleaf plant is a possible host, and even some evergreens have been infested.

Damage from this sucking pest is indicated by stunting and/or wilting. Such plant disorders are apparent only when the scale is extremely abundant on the plant. The most frequent problem is one of unsightliness which results from the sticky, sweet honeydew that the scale excretes.

Accumulations of the material on underlying foliage provide an excellent site for the prolific growth of black sooty mold. This in turn can retard growth by blocking photosynthesis (the photochemical food-making process that takes place in leaf tissue). The honeydew drippings from trees also leave an unsightly residue on cars parked beneath such trees.

Description and Biology

Lecanium scale becomes noticeable when the insect approaches maturity in the spring. At this time they appear on the twigs and branches as hemispheres about 1/8 to 1/4 inch in diameter. They are usually chestnut brown, but color can vary with the host of the scale. Some appear brown with white markings, while others are brown with black markings. A powdery, purplish white wax is often present on the scale.

Lecanium scale overwinters as an immature scale on the branches and twigs of the host plant and matures in early spring. In early to mid-May, the female lays a large number of white to pale yellow eggs beneath her

body. The eggs hatch into tiny tannish crawlers from mid-May to early June. Egg hatch can last several days in duration, depending on temperature fluctuations. The crawlers migrate to the undersides of the leaves and feed there until late summer (usually August). Then the tiny insects move back onto the twigs and complete their development the following spring. There is one generation per year.

Scales move from host to host in a variety of ways. Dispersal is probably most often accomplished on wind currents or by crawlers hitchhiking on other insects, birds' feet, or even on a coat sleeve.

Biological Control

The list of predators and parasites that attack lecanium scale is extensive. Ladybird beetles, green lacewings, and several other predaceous insects often decimate the crawler stage. There are often successions of seasons without economic levels of this scale pest, simply because this complex of biological agents keeps them under control. However, during some years this biological balance is tipped and outbreaks occur.



Mature lecanium scales on a twig.

Chemical Control

In general, scale control is accomplished with chemical treatments for the naked, vulnerable crawler stage. The shell-like cover of the mature scale operates as an effective barrier to contact pesticides.

To determine when the crawlers have hatched out, in May select a branch that has mature scales present and begin flipping the scales over at weekly intervals to determine when and if hatch has occurred. A small hand lens will be useful as the crawlers are extremely small (1 mm) at this point.

The presence of eggs is not an indication that applications should commence, since the egg stage may last a week or more if temperatures suddenly cool for a time. Wait until all or at least most of the eggs have hatched and the crawlers have left the protection of the mother's scale covering, then make the application. Repeating the application 10 days later may be necessary depending on choice of pesticide or thoroughness of coverage.

Current conventional pesticide recommendations can be found in the PNW Insect Management Handbook or at HortSense (<http://pep.wsu.edu/hortsense/>).

Dormant oils can be used as an alternative to other pesticides. Dormant oils can be used against the immature overwintering stage. Apply oils when temperatures are above freezing and before buds begin to swell in the spring. Read the labels for plants (such as maple) which may be damaged by dormant oils. Dormant oils are preventive medicine by nature and are recommended only in those areas where the scale is a definite threat.

Be sure that the plant you wish to treat is on the label, and that the product is intended for scales. If you intend to spray ornamentals and there is a chance of the spray drifting to nearby edible plants, it would be wise to select a product that can be used on the edible plants.

Bee Caution

Do not apply conventional pesticides to blossoms on the host or on underlying flowering plants. Mow flowering weeds in lawns near target plant and cover underlying or nearby flowering ornamentals with plastic before applying pesticides to prevent contamination which can kill bees.



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Use pesticides with care. Apply them only to plants, animals, or sites as listed on the label. When mixing and applying pesticides, follow all label precautions to protect yourself and others around you. It is a violation of the law to disregard label directions. If pesticides are spilled on skin or clothing, remove clothing and wash skin thoroughly. Store pesticides in their original containers and keep them out of the reach of children, pets, and livestock.

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