

Fletcher Scale Management

By Jonathan L. Larson, Extension entomologist
and Lee Townsend, Extension specialist emeritus

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Fletcher Scale Fast Facts

- Fletcher scales are soft scale pests that are known to attack yews, arborvitae, juniper, and cypress.
- Common symptoms of a fletcher scale problem include the accumulation of honeydew and black sooty mold, leaf yellowing, and leaf drop.
- Management may rely on dormant oil applications on overwintering nymphs, contact insecticides used against new crawlers in summer, or systemic insecticide applications.



Mature, female fletcher scales are light brown, globular, and about 0.2 inches in diameter.

Photo by Lorraine Graney, Bartlett Tree Experts, Bugwood.org

Potential Hosts

Fletcher scales are primarily a pest of yews and arborvitae. However, they have been found feeding on juniper, cypress, and hemlock.

Symptoms and Pest Description

Scale insects are “sucking pests”, meaning they use a needle like mouth to siphon fluids from plants. Fletcher 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. Honeydew may also recruit other insects to visit the scales. Ants, wasps, and others will consume the sugary feces and may be more noticeable than the scale insects themselves. When fletcher scale infestations get large, there can be leaf yellowing and leaf drop as well.

Female fletcher scales will mature into globular scales that are about a 1/4th of an inch long. Their body is yellow to yellow brown. Crawlers are small but visible to the naked eye. They have flat yellow bodies.



Fletcher scale crawlers are small but can be seen by the naked eye.
Photo by Jim Kalisch, University of Nebraska-Lincoln.

Life Cycle in Kentucky

Fletcher scales overwinter as second stage immatures. In the spring they will resume feeding and will rapidly complete their development. Males have not been observed with this species, so females will complete their development and then begin laying eggs towards the end of May. By June, the new generation of immatures will have hatched and will search for a suitable site to feed and then prepare to overwinter. There is one generation per 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 fletcher 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. Spring and fall applications of systemic products will both be effective.

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 for fletcher 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 crawlers 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.

Below are some options for scale insect crawler control.

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.**

Evaluating Control

The success or failure of control efforts may not be readily apparent but here are some things to check.

- Live scales should produce a liquid when mashed, dead scales will be dry and not "bleed" when crushed.
- New foliage should have a healthier appearance once the scale burden has been removed. Buds should break a little earlier than when the plant was infested and expanded leaves should have normal color and turgor.

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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