## A Group of Insects That Damage Trees and Shrubs

Scales are aphid-like insects that produce a covering over themselves as protection from predators and conditions in their environment. Scales can infest a great range of deciduous and conifer species, and feed by sucking out juices from twigs, leaves or needles of the host plant.

There are two main categories of scale insects: *hard scales* and *soft scales*. Hard scales form a hard and waxy shell for protection while they are feeding and laying eggs. Soft scales form a softer covering over themselves and are known for making a sticky exudation known as honeydew.

Below are listed the most common hard and soft scales that infest trees and shrubs in our area:

Hard Scales	Soft Scales
Scury Scale	Spruce Bud Scale
Oystershell Scale	Cottony Maple Scale
Golden Pit Scale	European Elm Scale
Pine Needle Scale	Magnolia Scale
Spruce Needle Scale	Fletcher Scale
Black Pine Leaf Scale	Lacanium Scale
	Kermes Scale

### **Infested Trees Require Treatment For Control**

A variety of treatment options are available to control scale insect infestations. Systemic insecticides can be applied through the soil, topical sprays can target a life stage of the insect when it is mobile and unprotected by its covering, and horticultural oil can smother them. These treatments may be recommended individually or in combination with each other for most effectiveness. Each treatment takes place at a specific time of the season, depending on its mode of activity against the insect.

#### What To Look For

**Hard scales:** dieback of twigs and branches, along with clusters of round or oblong scale covers, with color and size varying by species.

**Soft scales:** dieback of twigs and branches, pale looking leaves or needles, along with round or oblong scale covers, with color and size varying by species. Sticky "honeydew" secretions will be found on affected branches, often with black "sooty mold" on branches and on surfaces beneath affected areas.

# Life Cycle

Depending on the species, scale insects overwinter as an egg, as an adult, or as a young insect (nymph). In spring and summer, overwintered eggs hatch or new ones are laid and hatch. The newly hatched insects are called "crawlers" as they come out from under their shell and move around to find new places to feed. When settled in a new spot, the insect forms another shell and the process begins again.

#### **Treatment and Prevention**

Use good cultural practices to support the health of trees and shrubs. Proper watering and fertilization ensure that trees will be less attractive to pests and will help in recovering from infestation. Ask your Consulting Arborist for further information on managing the health of your trees.



Cottony Maple Scale Eugene E. Nelson, Bugwood.org



Magnolia Scale photo: MSU.edu



Black Pine Leaf Scale photo: University of Minnesota















