

Oklahoma Pest Profile: Scale Insects

In approximately two months, spring will be here...and our insect friends (and enemies) will become active again. As common as they are, and as destructive as they can be, the many species of scale insects can be challenging to identify and control.

What is a Scale Insect?

Scale insects are small, waxy, soft or fuzzy lumps measuring $\frac{1}{4}$ inch or less. As adults are largely immobile, they can appear as leaf buds on stems, bark texture or cottony seeds. Scale insects siphon the sap from ornamental plant tissues and if unnoticed or uncontrolled by beneficial insect populations, growth problems, defoliation and branch dieback can occur.

Armored (Hard) vs. Soft Scale

As they feed, a waxy discharge forms a shield-like cover. This cover is *detached* from the soft insect body on an armored or hard scale insect, and *attached* to the body on a soft scale insect. Mealybugs are soft scaled, but have a cottony appearance, and most often attack houseplants. Soft scale insects excrete honeydew, a sweet sugary-substance, that coats plants and encourages the growth of unsightly black sooty mold which may draw ant and other insect scavenger populations.

The Life Cycle - Crawlers and Adults

Really, the cycle of scale is similar to most insects...hatch, eat, grow, pupate, mate, reproduce, die...repeat.

Although the life cycles of the many scale species may vary by length and generation, they do share two distinct stages - nymph (crawlers) and adult. It is at the nymph stage that most contact insecticides are effective as they cannot penetrate the adult's waxy cover. Consider a systemic solution when treating adult infestations.

Not all species lay eggs; some females birth live young. In spring or early summer, the first generations of these live young emerge or hatch (there may be multiple generations per year, depending on the species). The tiny crawlers set to work finding a place on the plant to settle in and feed. They may also be disbursed by wind, or by infested nursery or pruned stock. Once settled, most species remain stationary. Mealybugs are the only species that can be mobile, but do so very slowly and infrequently.

Males develop wings and fly to locate females for mating. The females remain immobile, laying their eggs underneath the protective shell. Scale insects may overwinter as eggs, young or adults.

Scale Insect Hosts

The most common hosts for scale insects in Oklahoma are euonymus (japanese and wintercreeper varieties), crapemyrtle, camilla, ivy and holly.

Prevention and Control

Knowing how to identify a scale problem and at which stage to employ control methods is key. Always inspect any nursery stock for scale before introducing it into your home landscape. Keep vigilant for new infestations and address expeditiously. Incorporating a combination of natural, mechanical and chemical methods for scale insect control is the best and most cost effective approach.

Natural Control

Scale insects also have natural enemies. Species of predatory insects (lady beetle) and parasitic wasps have been known to offer natural control to the scale population. Take steps to carefully preserve these predatory insects when employing chemical control. Monitor the degree of infestation, and if minor, consider that natural predatory control may be all that is necessary.

Mechanical

Scrubbing the bark of small ornamentals with dish soap and a soft brush will destroy the females and their eggs, as well as remove the black sooty mold. For larger infestations, if natural and mechanical controls are insufficient, chemicals may be necessary.

Chemical

Generally, three chemical methods are utilized in the control of scale insects. Dormant, contact, and systemic. Dormant oils are applied to all aboveground plant parts and surfaces prior to bud break. Contact insecticides are applied after the eggs hatch and when crawlers are present. Systemic applications involve drenching the soil surrounding the plant or injecting the insecticide into the ground beneath the plant for uptake and circulation. Special care should be taken to avoid applying systemics during flowering periods, as pollinators may also be affected. Multiple treatments may be necessary later in the summer due to multiple generations and migration of unaffected larvae from untreated areas. When applying any pesticide, please read and follow all safety precautions and labels carefully.

Find sound information on scale insects and their control from the Oklahoma Cooperative Extension Service and others through the [links at the end of this article](#).

Resources

[Texas A&M Agrilife: Scale Insects on Ornamental Plants](#)

[EPP-7306: Ornamental and Lawn Pest Control](#)

[HLA-6408: Landscape Maintenance Schedule](#)

[HLA-6434: Biological Pest Controls for the Home Landscape](#)

[Pest eAlert: Crapemyrtle Bark Scale Biology and Management](#)

[Iowa State University Extension: Scale Insects](#)