

Scale Insects

by Carol Ann Harlos (based on information from Raymond A. Cloyd, Kansas State University)

Many gardeners bring potted plants or cuttings indoors in late autumn. Frequently they notice “bumps” on stems and/or leaves. Scales can be “host-specific” meaning they specialize on one plant family OR they may be non-specific meaning they can feed on many species. They are spread as instars (crawlers) by insects, birds, wind, or plants touching each other.

Some scales can reproduce by parthenogenesis (no mating). The life stages that move are the nymph (crawler) and adult males. Older nymphs and adult females don't move. The females have no legs or wings but do have piercing and sucking mouthparts. The males grow wings and legs but they don't feed (no mouth parts!)

It is difficult to see the early infestations. Dusty leaves seem to get more infestations (a great reason to wash your plants!)

Soft or bark scales:

- Usually have one generation per year
- Produce honeydew (clear sticky liquid)
- Usually overwinter as a fertilized female
- Have a convex shape
- Females lay over 1000 eggs in their lifetime
- Are moved around by ants to protect them from predators. (Ants like the honeydew.)
- Can move around a bit when they feed.
- Examples of soft scale include: Cottony maple scale, magnolia scale, tulip tree scale, Lecanium (feed on shade trees and woody ornamentals.)

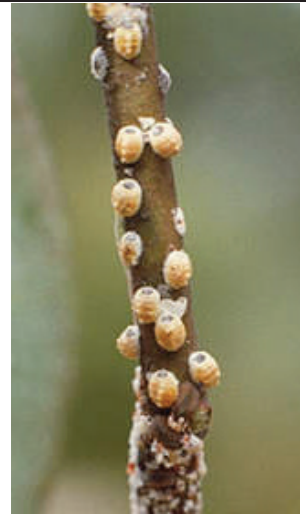
There are two groups of scale insects: soft (also called bark) scales and hard (also called armored scales).

Some signs of scale damage to plants include: yellowing, wilting, stunting, die back. Scale insects are difficult to control. There are several well-known remedies that can be tried in an attempt to eliminate scales from houseplants. However, there is no easy, simple cure for a scale infestation. One possibility is to pick off individual scales or gently scrub (or rub) the scales loose from the leaves and stems. This is a laborious task that works only on small, large-leaved plants. Dabbing each scale with an alcohol-soaked cotton swab is another possibility on lightly infested plants.

Success will depend upon thoroughness and persistence. You can use a mild dish washing detergent in place of commercial insecticide soaps. Soap sprays can be applied with a sprayer or used with a soft cloth while washing infested leaves

Hard or armored scales:


- Usually two or more generations per year
- Don't produce honeydew as they don't ingest much plant fluid.
- Produce a waxy covering (“test”) that protect adult females, crawlers, or eggs from predators and environmental changes (ex. Heat)
- Appear rounded in shape
- Females lay fewer than 100 eggs in their lifetime.
- Feed on leaves, stems, branches.
- Cannot move around when they feed.
- Examples of hard scale include: Euonymus scale, white peach scale, juniper scale.

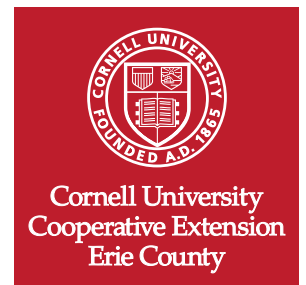


and stems. Do this thoroughly, repeatedly and persistently (weekly for a month or more) to get good control.

Outdoor treatment of scale depends on timing. Interestingly, applying insecticides often kills the natural enemies of scales leading to even more scale insects!

Note: Look up Coccoidea which are a type of scale insect. You may have a surprise in store.

Above is a picture of a twig which is infested by scale. 



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