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Pest Check

Be On the Lookout for Soft Scales

Soft scales can be more than just unsightly on trees and ornamentals. These scales can cause premature leaf drop, reduction of vigor or twig death on older plants and on younger plants cause severe stunting or even death. A heavy scale infestation is usually an indicator of plant stress, often drought stress.

Soft scales have piercing-sucking mouthparts that allow them to feed on plant phloem. The plant phloem is not nutrient rich, so large amounts are ingested. This results in considerable amounts of honeydew to be excreted from the scales, which may cause sooty mold to develop on leaves.

Female scales are usually wingless and legless. Some species do not have males, so they reproduce asexually. However if males are present, they have definite body regions, wings and antennae. The males are mobile, so are usually not seen. The unmated females usually overwinter on twigs under their protective waxy caps. The males, if present, will overwinter in pupal cases.

In the spring, the males and females become functional adults. After mating, the female will lay 200-1000 eggs under its waxy protective cap. The eggs will hatch and the crawlers will emerge from the waxy cap to feed on new leaves and twigs. Then the crawlers will move to larger branches to settle and begin forming their own waxy protective cap.

Some Control Tactics

Non-Chemical Control Tactics

- 1) Keep plant properly watered and fertilized to help minimize scale populations.
- 2) Plant trees in appropriate sites and at proper soil depths.
- 3) Prune infested twigs and leaves to protect new growth from infestations, then discard plant material.
- 4) Natural enemies such as predators and parasitoid wasps will gradually reduce scale populations.

Some Chemical Control Tactics

There are many chemical control options for scales, but chemicals lower in toxicity should be applied first to avoid killing natural enemies. One option is horticulture oil or insecticidal soap that should be applied at the crawler stage. Both of these options are contact insecticides. Another approach is to apply a systemic insecticide, such as those containing imidacloprid. Generally systemic insecticides should be applied early, so plants have enough time to take up the chemical before scales begin feeding.

Eventhough the scales might not be alive, the caps will remain attached to the plant. Therefore scrubbing the plant with a soft brush or mesh sponge will remove the dead caps and increase the overall appearance of the plant.



Photo of a brown soft scale, *Coccus hesperidum* Linnaeus (Homoptera: Coccidae). Photo by Dr. Bart Drees, Professor and Extension Entomologist, Texas AgriLife Extension Service, Texas A&M University.

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