## Scale Insects

Scale insects are sap feeding insects that get their name from the shell-like waxy covering that conceals their bodies. Depending on the species or the sex, they may be found on the stems, twigs, trunks, leaves or fruit of a plant. They are generally divided into two groups, soft scales or armored scales.

Soft scales (see images) create a soft, thin, cottony, powdery or waxy layer over themselves that cannot be separated from the insects body. These scale often produce large amounts of honey -dew that may make the plant appear shiny and can encourage a fungus on the leaves and stems called Sooty Mold. (see image →) These generally have only one generation per year.

Armored scales have a hard, shield like cover composed of shed skins and wax that conceals the body but is not attached to the body of the insect, these do not produce honeydew. These may have several generations per year.

Eggs are laid underneath the scale covering of the female. The eggs hatch under the covering, then emerge as a nymph, this is called a "crawler", this is the only stage that crawls around on the plant. It seeks a suitable location and begins feeding, the covering then develops around the nymph. The males are tiny flying, gnat-like insects that fly to new females for mating.

## Control

There are three ways to control scale, which I will address below. One other thing to remember, old and dead scale insect coverings will remain on the plant, rub with your thumb to see if they are dead.

Dormant control, spray during dormancy with HY Dormant Oil or NG Horticultural Oil before buds break. This will not be effective on oystershell, olive scale and a few others.

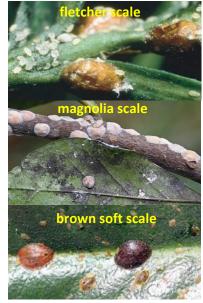
Systemic control, this is only effective on soft scale, producing honeydew. HY Systemic Insect Spray is **not** effective, only FL *Tree & Shrub Drench.* Apply yearly until desired control is reached.

Crawler control, is the most effective time to apply chemicals. First wrap tape, sticky side out on various branches and monitor until crawlers are observed. (see inset →) Then apply a spray.

Oils like FL Horticultural Oil or Triple Action (Neem Oil) and NG Spinosad Soap or NG Insecticidal Soap are very good contact controls. For a control that leaves a residue, HY Bug Blaster Bifenthrin 2.4 is the most recommended product.



## **Soft Scale**



**Armored Scale** 



