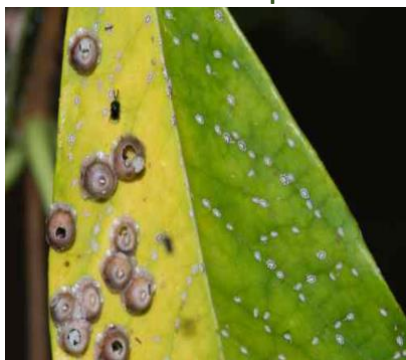


## Pest & Disease Tip - Scale



Scale are a common insect pest of many ornamental plants, fruit trees and indoor plants. Scales are sap-sucking insects that insert their tiny, straw-like mouth parts into bark, fruit, or leaves. Some scales can seriously damage their host, while other species are more of an unsightly annoyance - particularly if the sooty mould fungus is present too. The presence of scales can be easily overlooked, mostly because they do not resemble most other insects. They are non-mobile as adults, and appear as small lumps - often found along the stem and trunk, and underside of leaves along the central veins in particular. They can be tiny or up to a few millimetres across. Some are brown, some are white and waxy looking, and others are black or red. Scale spreads from plant to plant as newly hatched crawlers, which are very tiny, have legs and can move around. Once the crawlers have settled down to feed, they create their protective 'scale' covering and are immobile. Scale insects, when abundant, can weaken a plant and cause it to grow slowly. Infested plants appear stressed, with leaves turning yellow (and they may drop prematurely), and plant parts that remain heavily infested may die.

Organic control of Scale is achieved by thorough spraying of horticultural oil over the insects; effectively smothering them. Eco oil and Neem oil are considered appropriate treatments. The oil coats the scale insects and clogs their breathing pores. The insects are suffocated rather than being killed by a toxic material. For proper control, it is critical to apply the oil spray over every surface of the plant where scale are present. If the insects are on the underside of the leaves and the oil is only applied to the upper surface, it will have no effect on them. Often, the female will have eggs protected under her body. Although the oil may be effective on her, the eggs may still hatch out underneath - so a second, and even a third, application should be made 10-14 days apart (do follow label directions) to deal with successive generations as they hatch. Be careful when using any oil-based spray in warm weather (anything over about 30 degrees) to avoid 'cooking' the leaves.

Certain scale problems on large plants or those especially sensitive to scale damage may warrant the application of a systemic insecticide (not considered an organic approach). To keep your plants scale free, provide plants with good growing conditions so they are more resistant to scale damage. You can prune off heavily infested leaves and branches if they are limited to a few parts of small plants. Pruning shrubs and trees to open up canopies can reduce populations of scale by making conditions less ideal. Any plants that are repeatedly and constantly affected should probably be replaced with something less susceptible. Scale do have natural predators - wasps in particular, but also ladybirds and mites. If your infestation isn't too severe - perhaps keep it under observation and wait for the predators to arrive. Using sprays will have a detrimental effect on them - so any 'icide' treatment should be a last resort.

Scale insects are farmed by ants, who feed on the secreted 'honey dew' put out by scale. Ants play a role in the spread of scale insects, so keep your eyes open for increased ant activity. This sticky 'honey dew' secretion often grows a fine black mould (hence the name 'Sooty Mould'). While this isn't a disease as such, and won't actually harm your plants - it is unsightly, and does reduce the plant's ability to photosynthesise. By treating the scale, you can eliminate the sooty mould.