

Wallsend Nurseries

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Scale Insects

Scales are troublesome pests of many plant species and hybrids. They are small insects that secrete a hard or soft shell over themselves for protection. This shell makes them difficult to control as most pesticides cannot come into direct contact with the insect. Scales live by sucking the sap stream of their host plant.

The damage they cause can be extreme at times, even leading to the loss of the plant or twig and branch die-back if the insects are present in large numbers as is often the case.

Symptoms include yellowing foliage, stem and twig die-back, dropping foliage and often a black sooty mould will be seen as well as the presence of ants. The ants are attracted to the scales because as they feed on the plant sap the scales excrete a sugary liquid known as “honeydew”. Ants like to feed on this material as it has a high sugar content and they will often protect or “farm” the scales in order to collect it for themselves.

The black sooty mould is a fungus which also feeds on the honeydew. It looks unattractive but really causes little damage apart from making the plant appear “dirty” or “sooty”. Even after the scales have been controlled the fungus will remain for quite some time (even as much as 12 months is not uncommon) but will eventually die and wash off. It can be removed by scrubbing with a soft cloth and some mild soap if really necessary.

Scales appear in many different types and colours but they are all constructed in the same manner, a soft bodied insect surrounded by a hard or sometimes waxy shell.

They attach themselves to the undersides of foliage or along stems and twigs in some cases. Some types, eg Camellia Scale will also attach themselves to the midrib and along the veins on the top of the foliage.

All adult scales are permanently attached to the plant they live on and can't move from that position. Juvenile scales can however move about and this is how they spread from plant to plant and leaf to leaf. The female scales lay eggs which hatch out and then the juveniles move around till they find a suitable position to take up residence. They will then attach themselves to the host plant and secrete their shell for protection.

Adults' colours vary widely. They may be any colour from black, brown, white, greenish or even pink.

Control of scales can be difficult because their shell stops direct contact of the insect with the chemical material.

White oil can be applied to most scale types. This is not poisonous to the scale but affects control by cutting off the oxygen supply to the insect suffocating it.

Stubborn scales can be scrubbed off or hosed off manually to remove as many of the adults as possible. Once the majority have been removed a spray with white oil should kill the remainder. A systemic insecticide such as Rogor® or Folimat® can be added to the oil spray as well. This then works in two ways. The oil will suffocate the scales externally and the insecticide will be absorbed by the plant and when the scale feeds it will be poisoned by the chemical in the plant's sap stream.

Other controls include Antiscale® and Malascale®. These are both oil based with the addition of Maldison® as well.

ALWAYS mix oil based sprays, (as with *ALL* sprays really), according to the directions on the container as massive burning of soft plant tissue *WILL* result from incorrect mixtures particularly if applied in the heat of the day.

Once the scales are dead they often remain on the plant. They can be hosed off after a couple of weeks following treatment if required. The mould may also remain for some time.