

Vine Weevils

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The vine weevil is an insect pest attacking a wide range of woody plants such as rhododendron, euonymus, hydrangea and viburnum. Without any form of management most plants die when attacked by this particular pest.

Symptoms

Symptoms include C-shaped marginal notching of leaves and foliage wilting. Twig and stem girdling may also occur. While leaf damage can prove problematic, the major damage from weevils occurs at the root system caused by soil dwelling root eating weevil larvae during autumn and winter.

Adult vine weevil beetles are 6 – 8 mm long, shiny-black but often covered with greyish brown scales giving them a dull light and irregular pattern. This describes the most well-known species *Otiorhynchus sulcatus*, the black vine weevil. However, other weevils can also be small and brightly coloured such as the 3 – 4.5 mm long bright green coloured *Phyllobius roboretanus*.

Adult females lay eggs in the soil during summer, larvae then feed on the roots of plants from late summer onwards, pupating in early spring; adults appear shortly afterwards. By day, adults hide in soil, mulch layer, and other shelters beneath the host plant. At night they emerge to feed on the foliage.

Figure 1: Vine weevil feeding on cedar foliage



Treatments

Control of this pest is very difficult, the damage incurred to the root system can take weeks or months to manifest and may therefore take multiple seasons to repair. Control applications should be maintained even after the apparent disappearance of the insect as numbers can build-up quickly and without warning.

Biological controls such as the entomopathogenic nematodes *Steinernema kraussei* and *Heterorhabditis bacteriophora* are known to be effective in controlling weevil larvae. Care should be taken to avoid applying nematodes in weather extremes, particularly dry, hot or freezing weather, as

nematodes disperse through the soil water. Heavy or dry soils will not be ideally suited to using nematodes.

A fungal based biological control is also available (based on the fungus *Metarhizium Anisopliae* var. *anisopliae* strain F52).

Figure 2: Distinctive marginal feeding damage



Spraying with a pyrethroid insecticide to kill existing adult vine weevil populations during spring and summer will provide a degree of control. This strategy however, will not influence damage at the root system.

Fertilising and applying a phosphite soil drench or spray to improve plant vitality is also recommended.

A year-round maintenance program including pruning, mulching and watering will help keep the plants vigorous and able to withstand weevil attack.



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