

Root weevils are slow-moving, flightless beetles with snouts. There are several species; the most common ones in the Northwest are strawberry root weevil and black vine root weevil. Most species have adults that are abundant from May through September, though there are weevils that feed in winter.

The Damage

Adults cause the most visual damage. They notch leaves (it looks like a bite was taken out of the edge of the leaves) on rhododendrons, salal, rockrose, yew, juniper, and many other plants. Adults can also 'girdle' a stem (eating the bark and cambium tissue off around the entire circumference of the stem, thus killing it). This can happen with yews, junipers, azaleas and other plants. If a branch is dead, check for girdling toward the bottom.

The weevils are nocturnal, so you may never actually see them, just their damage.

The larvae, on the other hand, are C-shaped, legless, and either white or slightly reddish, with tan heads. They feed on the roots and crown, which results in plants with poor vigor.

Life Cycle

Females lay most of their eggs in cracks in the soil in late spring and early summer. A few days afterwards, eggs hatch, and the larvae move to the roots and start feeding. The larva then pupates into a beetle and emerges to crawl up plant trunks or branches touching the ground. The weevils come out at night to eat and return to the soil during the day.

Management of Root Weevils

Trim the infested plants' branches off the ground, and redirect or prune back any other plants that touch it. Apply a collar of tree crepe paper banding wrap or cardboard tightly around the trunk, then paint the collar with a non-drying sticky compound such as Gonzo Goop to catch the weevils. Replace the collar when full.

When it gets dark, go outside with a flashlight to pick off the weevils and destroy them.

Just before dusk, spray insecticide around the lower branches. For infestations when notching is heavy (more than 25% of the plant's leaves), you might spray the entire plant. It will probably require three applications spaced out every 7-10 days. Monitor for any new notching. Please be sure to always follow the insecticide label: it's the law.

Beneficial nematodes are microscopic worms that prey on the larvae in the soil when applied around infested plants. Timing and soil temperature is important, so be sure to read the label included with the nematodes. You may need to repeat applications to establish a reproducing population. Nematodes are sensitive to temperature, so be sure to test the soil around the plant with a soil thermometer. For your application to be successful, both the air temperature and the soil temperature (at 2" depth) should be above 40° F and below 85° F.

Or, lightly till the soil around the base of the plant to expose the larvae to predators like birds and predatory ground beetles. Rhododendrons and azaleas are shallow rooted, so be sure not to till too deeply around them.

Products and pesticides for management

Organic options:

Conzo® Goop™- non-drying, sticky compound to trap insects

Conzo® Goop™ Banding Wrap - Crepe Paper Tree Wrap

Soil Thermometer- use to measure soil temperature before applying nematodes

Predatory nematodes are kept in a refrigerator at the front of the store; ask a cashier

Bonide® Pyrethrin- Pyrethrin naturally occurs in chrysanthemum flowers and is one of the best biodegradable insecticides. It kills insects by targeting their nervous systems. Be sure to reapply after it rains.

Chemical Options:

Bonide® Eight (Permethrin) Chemically produced to mimic Pyrethrin, so not organic. Reapply after rain.

Bonide® Systemic Insect Control (Acephate) Do not use when a plant is blooming or will be blooming in 1-2 months. Reserve for the last option or for heavy infestations (25 % of plant shows notching). Plant absorbs into leaf and roots (when applied granularly). Rainproof once dried.

Conclusion

Managing root weevils is possible, but it requires multiple strategies practiced consistently. At best, these efforts will reduce the amount of root weevils, but unfortunately never eliminate them entirely. Some years will be better than others.