

Black Vine Weevils (*Otiorhynchus sulcatus*)

Where you'll find them:

The black vine weevil (a.k.a. taxus weevil) is known to feed on hundreds of different woody and herbaceous plants, including:

- azaleas and rhododendrons
- laurels
- hemlocks and yews
- sometimes blueberries, strawberries and grapes

Introduced to North America as early as the 1900s in potted plants from Europe, today weevils may infest soil root balls and containerized perennials in nurseries, greenhouses or poly houses as well as fields and gardens. Check your new plants carefully before purchase!

How and when you'll recognize them:

Stage of Life	Time of Year	Damage to Plants
Egg		
Weevil eggs are laid in the soil around plants, and hatch within 10 days. Only one generation hatches per year. Eggs are very tiny, less than 1mm. When first laid the eggs are whitish, but viable eggs change to a brownish colour within 3 days, so they are well camouflaged by soil and bark.	June to July	<ul style="list-style-type: none">• Plant damage is caused by feeding adults or larvae rather than presence of eggs
Larva		
Plump, curved white larvae (grubs) are legless, with yellowish tan-coloured heads, and measure 3 to 10 mm long. They burrow into plant roots or crowns to feed and will remain in the soil throughout the winter then resume feeding the next spring. Larvae do most damage to plants during May, as they feast before pupation.	Larvae hatch late June into July, and remain in this form to the following May	<ul style="list-style-type: none">• Stunted growth• Wilting plant• Decreased fruit yield• Holes or tracks in roots or tubers• Root rot and other diseases may get into damaged roots

Stage of Life	Time of Year	Damage to Plants
 <p><i>Photo: BC Ministry of Agriculture</i></p>		 <p><i>Photos: BC Ministry of Agriculture</i></p>
Pupa		
<p>Measure 8 to 10 mm long.</p>  <p><i>Photo: BC Ministry of Agriculture</i></p>	<p>Larvae pupate from May to early June</p>	<ul style="list-style-type: none"> • None, pupae remain immobile in the soil
Adult		
<p>Adult black vine weevils are nocturnal feeders and all females, measuring about 1.25 cm long. These dark gray to black-coloured beetles have the long snouts characteristic of weevils. Although they do not fly, their permanently fused wing cases carry faint gold markings. They are quick runners.</p>	<p>Adults emerge during June into July; they may overwinter in plant debris if conditions are mild, and live longer than a year</p>	<ul style="list-style-type: none"> • Leaf edges show small round or semi-circular notches cut out; usually cosmetic rather than life-threatening • Many notches may indicate the presence of larvae below ground ... check! • New growth such as buds or twigs may also be damaged

Stage of Life	Time of Year	Damage to Plants
 <p data-bbox="203 745 376 770">Photo: E. Cronin</p>		 <p data-bbox="974 583 1234 609">Photo: Linda A. Gilkeson</p>

Prevention:

As Integrated Pest Management (IPM) teaches, prevention is the first line of defence against insect pests. Check root balls and pots for larvae before purchasing plants. Ensure plants are well adapted for the conditions in which you're planting them to help keep them healthy and stress-free; this optimizes their natural defences against pest attacks.

Rhodo gardeners may also wish to consult the Washington State University Cooperative Extension's published findings on the [weevil-resistance of rhododendron varieties](#).

Diagnosis:

IPM also stresses the importance of identifying a pest problem correctly, as many remedies are pest specific. You can excavate the soil around plant roots to check for **weevil larvae**; feeding damage may be difficult to detect unless you can pull up a weak plant and wash off the roots to inspect them. Because **adult weevils** hide themselves by day, you may need to confirm their presence after dark. Place a drop sheet under any plants with suspicious feeding notches and give a few taps or shakes to dislodge weevils from the leaves. Within a larger garden or field, you may need to sample multiple locations as weevil distribution can be uneven; the worst infestations tend to be around the edges.

Controls:

Natural predators of black vine weevils include birds, frogs, toads, lizards, shrews and other beetles. Keep them in mind if you decide to treat for weevils, and choose a non-toxic, or the least toxic, treatment option available. Following are some effective controls:

1. **Remove adult weevils from affected plants.** To be effective you want to do this before the adults begin laying eggs, beginning late in May. As noted previously in the “Diagnosis” section, weevils are most likely to be found feeding on affected plants **at night**. Set a large tray or drop sheet below to catch weevils as you tap or shake them off the plant, and quickly tip them into soapy water to exterminate them.

Hunting adult weevils **by day** is trickier. You can try luring them into daytime hiding places you conveniently manufacture for them from: 1) 20 cm wide strips of corrugated cardboard wound around stakes set into the ground around affected plants, or 2) strips of burlap draped around the base of affected plants, or 3) overturned pots filled with crumpled paper set out nearby. Set multiple traps and check them every morning between late May and mid-July. Drop any weevils you find into soapy water.

You can also try setting **sticky traps** but be advised this method is only likely to succeed if the number of routes a weevil can take from the ground up the plant are limited. That is, the affected plant has only a few main trunks, and there are no other handy supports like fences or taller plants nearby. Be sure to protect the trunk(s) of the plant first, by wrapping in plastic. Then spread Vaseline, or insect glue (e.g. Tanglefoot[®], available at garden centres) onto the plastic. Check daily for trapped weevils and finish them off in soapy water. Remember to remove all plastic wrappings in mid-July.

2. **Pyrethrin or Spinosad sprays** may control weevils if applied at the end of May, as soon as you notice notching damage on plant leaves, and before the adults begin laying eggs.
3. **Nematodes**, tiny predatory worms sold by garden centres or biocontrol suppliers, may control weevil larvae in the soil, but have no effect on pupae or adults. Follow the package directions carefully and water in well to ensure they reach down to the root zone of the affected plants. Timing can be tricky. You want to apply the nematodes early in the spring, before weevil larvae are pupating, but the soil temperature must be warm enough (13°C or higher) for the treatment to be effective.

Sources:

Linda A. Gilkeson, Ph.D., 2023, [West Coast Gardening: Natural Insect, Weed & Disease Control](#), Salt Spring Island.

Capital Regional District Roundtable on the Environment, March 2007, [Playing It Safe Info Sheet: Root Weevils](#), District of Saanich.

British Columbia Ministry of Agriculture, December 2015, [Weevil Identification & Management in Blueberry](#).

R. Chris Williamson, Extension Turf and Ornamental Specialist, (August 2012), [Black Vine Weevil](#) (Item number: XHT1065), University of Wisconsin-Madison.