

# European Chafer Beetle

## WHAT IS THE EUROPEAN CHAFER BEETLE?



**The European chafer, *Rhizotrogus majalis*, is an introduced insect that has become a serious pest of turf in many areas of the Lower Mainland of British Columbia.**

This handy guide will help you counter-act the effects of the pest and minimize damage to your garden.

### DESCRIPTION

The adult European Chafer Beetle is a brilliant copper colour (similar to a new penny.) These small beetles measure only about 1.5cm in length. Adult beetles are seen swarming in the month of June. This is not the Chafer Beetle's destructive stage. Instead, the grubs, which measure between 2 to 2.5 cm, are ferocious eaters and are the cause of dead patches and spongy soil conditions in lawns. The grubs are soft, white and C-shaped with tan-coloured heads and six prominent legs.



### BIOLOGY - LIFE CYCLE

Chafers complete their life cycle in one year which can lead to rapid population increases. In B.C., the adult beetles emerge from the soil in early to late June and mate in swarms at dusk. In June and early July, females lay up to 300 eggs in the soil. The eggs hatch in about 2 weeks and the small grubs begin to feed on the roots of turf grass only. Heavy infestations may lead to the turf feeling "spongy" due to grub tunneling. Infested turf will commonly be wilted or dead and easily pulled back, revealing the feeding larvae. Damage is seen in the fall and early spring when the grubs are full-grown. The grubs feed until they pupate in May, which means they burrow down into the soil out of reach of their predators and turn into beetles.

### CROWS, RACCOONS AND SKUNKS

Do not panic if you see crows, raccoons and skunks digging up the lawn. These critters are actually doing a very good job of pest control. They are eating the grubs and so breaking the lifecycle. Less grubs means less adults to swarm in June and lay eggs... thus lessening the infestation.

## CULTURAL CONTROL MAINTAINING A HEALTHY LAWN

Growing a healthy lawn is not really a tough job, just time consuming. Take these simple steps now and prepare your lawn for a great future.

**LIMING LAWNS:** In our region, the soil is more acidic than grass prefers. In order to combat this, spread dolomite or granular lime or use prilled lime, such as Dolopril on the lawn. This application will take effect in about 3 to 6 months. Lime is alkaline, so it neutralizes excess acidity, sweetening the soil. Never fertilize and lime a lawn at the same time; it is best to leave 10 days between each application.

**FERTILIZING AND FEEDING:** Maintain a good fertilizing and watering routine. For the first feeding in spring, a well-balanced lawn food, such as GARDENWORKS 14-4-8, is best applied in late March or early April (depending on weather conditions). Later, in the summer, a higher-nitrogen fertilizer, such as GARDENWORKS 23-3-23, can be applied to stimulate green growth. Keep in mind that while fertilizing is important, do not over fertilize. During dry periods, less frequent but longer periods of watering will produce deeper, healthier roots.



Chafer Beetle Images Courtesy of David Cappaert  
Michigan State University

**AERATING:** This allows oxygen to penetrate into the root zone thus giving good growth. If you didn't aerate in spring and your lawn needs it, you can aerate in the autumn. To help your lawn thrive, add some coarse washed sand into the holes to preserve these new air channels.

**MOWING:** For a healthy lawn, keep the grass long, (aprox. 7.5 cm) rather than clipping it short. Good green growth provides food to the roots, thus helping the grass to thrive and become less attractive to chafer beetles laying their eggs.

**OVERSEED YOUR LAWN:** Most Pacific Northwest lawns will have cool-season grasses. In most cases use a "Shady Lawn blend" to minimize any patchy colour effects. This blend is the best for sun-shade, wet-dry and hot-cold areas. Note: **GARDENWORKS™** now carries a few new blends of turf grass that are more resistant to European Chafer Beetle damage due to their more aggressive root system. **GARDENWORKS™** Duralawn and Chafer Resistant Lawn Mix. Ask one of our experts

### **BIOLOGICAL CONTROL**

Nematodes, Heterorhabditis bacteriophora, are microscopic worms that swim through the soil and attack the grubs. These biological predators are specific to the chafer & will not harm plants, people or pets. They are safe to use. One pack has enough nematodes to cover 750 square feet.

### **TIMING AND CONDITIONS:**

- One application will provide control for chafer grubs already present in the soil.
- Use from mid-July to early August when young (1st instar) grubs are in the soil.
- Ground must be moist before application and for at least two weeks after application.
- It is important to water treated areas extensively immediately after application and for at least one week after.
- Avoid applications in bright sunlight. Apply during early evenings/mornings or dull conditions.
- Use entire packet at one time and use immediately once mixed with water.

\*Chafer grubs are killed within two to three weeks.

Generally, well-maintained lawns -- ones that are routinely aerated, fertilized, dethatched and watered -- are less vulnerable to chafer infestations than neglected lawns. Another option is to replace infested lawns with low-maintenance ground-cover plants such as salal, thyme, heathers, ornamental grasses, sedum, and Dutch white clover. Please speak to one of our experts about suitable alternatives to a lawn.

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