Pesticides

Delta’s Pesticide Use Control Bylaw No. 6788 restricts the use of certain pesticides on private and public property within the municipality. Nematodes are exempt from the bylaw and can be used to control the larvae. Please note that the nematodes are effective only if they are applied to the lawn shortly after the eggs hatch, around mid July to early August. Follow mixing and application directions on the label. Lawns must be deeply pre-watered and stay moist for two weeks after nematodes are applied, so you need to obtain a Sprinkling Permit to be exempt from the restrictions; apply for the permit at Municipal Hall.

In instances where beetle damage is extensive and damaging to property, the use of pesticides may be permitted if the applicator is certified. Contact Delta Climate Action and Environment for questions on the use of pesticides.

Learn More

Corporation of Delta
http://www.delta.ca, search for “invasive insects”
Climate Action & Environment
604-946-3253
cae@delta.ca

BC Ministry of Agriculture
http://www.agf.gov.bc.ca/cropprot/chafer.htm

Invasive Species
European Chafer Beetle

Learn how to manage this lawn pest
What is a European Chafer Beetle?
The European Chafer beetle (*Rhizotrogus majalis*) is a lawn pest that arrived in the Lower Mainland around 2001. Since then, its population has grown dramatically and has led to serious damage to turfgrasses in many municipalities, including Delta.

What does the European Chafer Beetle look like?
The adult beetle is copper coloured and is about 1.5cm long, with tufts of fine hair coming out of its underside and wing covers. The larvae (grubs) have a white body, a blackish rear end, and copper-coloured legs and head. The larva is often curled up into a C-shape and is about 2cm long when stretched out.

What is the Beetle’s Life Cycle?
The adults emerge from the ground in June at around sunset and form mating swarms around nearby trees. The mated females then go back into the turf to lay up to 50 eggs. The adult beetles do not eat and die after reproduction. The eggs hatch after two weeks and the larvae will begin to feed on grass roots throughout the fall, winter, and spring. In late May, the larvae stop eating and form a cocoon (pupa), then emerge as adults in June to restart the cycle.

What damage is done by the European Chafer Beetle?
The larva is the destructive life stage of this pest. It is a voracious consumer of grass roots. Lawns heavily damaged by chafer beetle larvae will be spongy, brown, and loose. Peeling or digging the turf will reveal larvae feeding underneath. Finding 20 or more larvae per square foot of lawn is considered a heavy infestation.

In addition to causing direct damage, the larvae serve as a protein-rich food source for other animals such as crows, skunks, and raccoons. These animals dig up the turf to reach and eat the larvae, leaving the lawn pecked, tilled, or even bare. Despite the damage they cause, the crows, skunks and raccoons serve as natural population control for the chafer beetle; without them eating the larvae, the beetle population will be even larger.

There is also a concern that the beetle will eventually migrate towards agricultural areas of Delta, where it poses a significant threat to agricultural crops, including corn, potatoes and blueberries.

How can I protect my lawn from the beetles?
One of the best ways to limit the damage done by the beetle is to have a healthy lawn with a deep root system. Here are some tips for growing a healthy lawn:

- **Aerate and dethatch.** Supplying air to the soil improves root growth. Do this in early spring.
- **Overseed.** This helps thicken up and repair damaged lawns. Do this after aerating.
- **Lime.** Our wet climate causes calcium to leach out, so add lime to increase the soil pH. Do this in spring and fall.
- **Fertilize.** Feed your lawn the appropriate amount of fertilizer in spring and fall, two weeks after liming. Note: “Weed and Feed” fertilizer-herbicide mixtures are prohibited under the Pesticide Use Bylaw No. 6788.
- **Irrigate.** Water your lawn with appropriate amounts of water. Please be aware of summer watering restrictions. Water deeply (1 inch of water) but infrequently (1 time a week) to maximize root growth.
- **Mow high.** Do not cut your grass too short. Longer grass blades produce more energy for root growth. Keep the grass blades about 7.5cm long.
- **Lawn alternatives.** In areas where infestation is rampant, you might want to replace your turfgrass lawn with other plants that are not damaged by European Chafer. Speak with your local lawn-and-garden store for alternatives.