

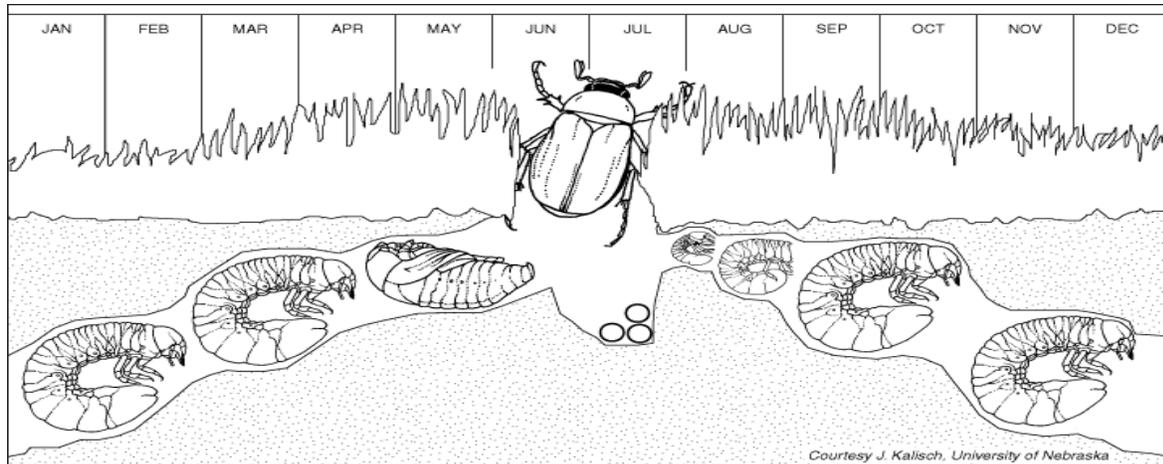
Fredericton

European Chafer Beetle



The adult beetle is tan and brown in color and resembles that of a June beetle although smaller. The adult beetle measures a length of approximately 1.5cm. The grub of the beetle measures 2-2.5cm in length and are white and C shaped. The beetle has a tan colored head and six prominent legs. Due to the exponential reproduction rate of the beetle it has become an invasive pest. The beetle feeds on the roots of many plants including grass and turf where it has become most noticeable.

Chafer Beetle Life Cycle



- They start as grubs found 2-3" below the surface of soil in their protective winter cells
- Grubs then rise to the surface and feed on grass and roots
- The Chafer beetle emerges and starts eating lawns
- The beetles then swarm and mate from mid July to early August
- The chafer beetle then lays eggs
- Eggs hatch and grubs feed on grass and roots
- Grubs are 2-3" below the surface of the soil and return back to their protective winter cells

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How do I know if I have a Chafer beetle infestation?



The most visible sign is when wildlife such as raccoons, birds etc.. Start digging up turf to feed on the grubs. The turf will also appear spongy and wilted; it will be easy to pull back.

The damp wet conditions of our spring climate will mask the appearance of disturbed areas, however once the soil dries out the damage will be more visible as the disturbed turf will turn brown and die.

To reveal if there is an infestation in your turf you can cut out a 1 by 1 ft patch of turf at a depth of approximately 3 inches. Examine the underside of the turf and soil to a depth of 3 inches.

If you find more than 5 grubs per sq ft of area another area should be tested. If this quantity is consistent and replicated 5 times chafer beetle control would be recommended

How do I control Chafer Beetle?



- The application of nematodes (*Heterorhabditis bacteriophora*) which can be purchased at local garden centers can be applied to infested areas.
- The application of the nematodes should take place late July to early August.
- Nematodes should be applied during an overcast day.
- The lawn should be moist when applying the nematodes to a consistency of a wrung out sponge.
- Nematodes are a living organism and should be kept refrigerated up until the time of use.
- The rate of recommended application is 50 million nematodes per (1500 sq ft). After the nematodes have been applied the must be watered in to push them into the soil.
- The soil must then be watered consistently for the next two to three weeks following application to ensure best results.

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Proper turf maintenance practices

A healthy lawn will help combat unwanted pests there are several ways to promote the health of your turf.

- **April / May**
 - Aeration of soil
 - Removal of dead and damaged turf
 - Application of lime and Fertilizer
 - Top dressing of dead spots and reseeded with a premium grass seed (no weed seeds in mix)
 - Keep grass mowed at a height of a minimum of 3.5 inches

- **June**
 - Keep lawn watered if dry conditions persist
 - Keep grass at a minimum height of 3.5 inches
 - Mulch clippings back into lawn as they are natural source of nitrogen

- **July**
 - Apply second application of fertilizer
 - Keep grass at a minimum height of 3.5 inches
 - Mulch clippings back into lawn
 - Apply nematodes late in July weather dependent (water in for two to three weeks)

- **August**
 - Apply nematodes early august weather dependent (water in for two to three weeks)
 - Keep grass at a minimum height of 3.5 inches
 - Mulch clippings back into lawn

- **September**
 - Aeration of soil
 - Apply fall fertilizer and lime
 - Keep grass at minimum height of 3.5 inches
 - Mulch clipping back into lawn

- **October**
 - Keep grass at a minimum height of 3.5 inches
 - Mulch clippings back into lawn
 - Remove leaves and debris to avoid dead patches in the spring
 - Minimum leaf litter can be mulched into turf
 - The combination of nematodes with proper turf maintenance will go a long way to deter invasive species in regards to weeds and insects.