

NEMATODES - A natural control for lawn grubs



Grub/beetle larva



Skunk/*Mephitis mephitis*



Lawn damage



insect parasitic nematode



Popillia japonica/Japanese beetle



Phyllophaga spp./June bug

Lawn damage from grubs occurs in two ways: 1) grubs eat the roots of the grass, often displaying as a patch of brown/yellow dying grass, and 2) predators (skunk, birds) rip up the lawn looking for grubs to eat.

The only natural solution to get rid of grubs is with insect parasitic nematodes. Beneficial nematodes are entomogenous, which means that they enter and grow in the larval stage/grub of Japanese beetle, June bugs and chafer beetles as their method of reproduction.

To determine whether nematodes are necessary, dig a 1' square patch of uprooted lawn and lift/roll back the patch to count the grubs. The grubs may be visible at surface or a few cm down – loosen and examine the soil to check. The larvae can be less than .05-2 cm long. Five or more grubs indicates a need for nematodes.

The soil in the uprooted patches requires a squeeze test to ensure that watering is adequate before the nematode application. Squeeze some soil from the patch, and if the plug stays together, then there is adequate moisture in the soil. If not, water the soil until the plug stays together.

Nematodes may be purchased through garden centres and must be stored in the 'fridge until use. Nematodes cannot be seen with the naked eye. Follow the directions on the label and ensure that there is adequate water before and after watering in the nematodes so that the nematodes will reach the grubs. Watering in occurs with a hose end and is done, ideally, at dusk.

Treatment is most effective in early September, as soil temperature must be 10C or higher and the adults will have laid their eggs, and the larvae will be developing. An application can be done in early June if the soil is 10C. However, there is some risk that some of the larvae will have pupated and emerged as adults, and thereby will evade the nematodes.

<https://extension.psu.edu/insect-parasitic-nematodes-for-the-management-of-soil-dwelling-insects>