

Safe Methods for Grub Control



Grubs are the larvae of Japanese beetles, chafers, June beetles, scarab beetles, etc. They can be destructive to lawns by chewing off roots close to the soil's surface. Be sure to **identify grubs** as the source of your lawn problem before treatment, as other factors such as drought, disease, excessive fertilizer, poor soil or even another pest may be the cause of your lawn's brown spots. Beetles/grubs prefer wet weather and therefore are less of a problem during hot, dry summers.

As always, the best cure is preventing the problem by creating a habitat not amenable to grubs/beetles.

- Mowing your **lawn at least 2 inches in height** discourages egg laying.
- **Aeration of your lawn** encourages deep root growth, thereby decreasing grub damage.
- Do not water frequently and/or lightly during the summer months as this will actually attract beetles. **Less watering** also encourages roots to grow deeper into the soil, another benefit.

However, if you do have significant lawn damage caused by grubs you have several organic options.

- 1) **Milky spore** is a host specific (for **Japanese beetle grubs** only) bacterium that kills grubs within 7-21 days. It can have multi-year effects in warm climates but in New England the process is slowed down by cold winters. Best time to apply is mid-August to September.
- 2) **Nematodes** are microscopic worms that live and breed in the soil and kill feeding grubs. The strain *Heterohabdis spp* seems to be the most effective against grubs. It is important to irrigate before and after application. Nematodes are **effective against all types of grubs**. Late summer or early fall is the best time to apply nematodes.

- 3) A parasitic wasp called **Spring Tiphia**, present in every county in the state, has been reported by the University of Connecticut to be very effective at **control of Japanese beetle grubs**. These wasps feed on aphids and can often be found in maple, cherry and Tulip trees. They are frequently found on the nectar secreted by unopened **peony** flower buds.
- 4) A new bio-insecticides called **GrubGONE** (*Btg* or *Bacillus thuringiensis gallerias*) will be available in 2018. This product is effective for **all types of grubs**. Best time to apply is in the fall. If you cannot find it in local outlets, check with the manufacturer, Phyllom BioProducts, or with the supplier, www.GreenEarthAgAndTurf.com.

NOTE: Do not confuse GrubGONE with Grub-Ex, a Scott's product. Grub-Ex is a chemical, chlorantraniliprole, which is listed by Beyond Pesticides* as causing chronic health issues as well as posing risks to wildlife.

Products NOT recommended:

1. **Do not use neonicotinoids:** clothianidin, imidacloprid and thiamethoxam. These chemicals pose risks to bees and other pollinators as well as having other negative side effects.
2. **Others chemicals to avoid:** Bifenthrin, permethrin, carbaryl, cyfluthrin, chlorantraniliprole, isofenphos, deltamethrin, lambda-cyhalothrin, trichlorfon. Beyond Pesticides lists all of these as posing human, wildlife, or environmental risks.

*Source: www.beyondpesticides.org/resources/managesafe/choose-a-pest?pestid=17

Other sources for more information:

- NOFA Organic Lawn & Turf Handbook (<http://www.organiclandcare.net/store/nofa-organic-lawn-and-turf-handbook>)
- Green Earth Ag & Turf (www.greenearthagandturf.com)
- Phyllom BioProducts (www.phyllombiopproducts.com/turf.html)

