



For more detailed information on grubs and control visit: <http://msue.anr.msu.edu>

Terry Davis and Dave Smitley with MSU's Entomology Department offer informative discussions on effective grub control treatments as well as a list of products that may be labeled for grubs, but will not work.

SOIL TESTING

McGough's offers soil testing services. With this comprehensive analysis of the soil profile, we can recommend amendments to correct nutrient deficiencies, adjust pH problems and help you gear your fertilization program to your personal lawn, job site, crops and gardens. Healthy plants start with healthy soil, and healthy plants are less likely to be plagued by insects, diseases, and other pests.

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Knowing the Difference between Curative and Preventative Treatments



Curative Treatments: Spring and Fall

Grubs that over-winter below the frost line emerge into the topsoil and resume active feeding on turf roots in April and May. At this stage of the grub's development, only **Curative** grub treatments containing **Dylox** (trichlorfon) or **Sevin** (carbaryl) are effective. Thorough watering (1/2") after application is necessary for successful control. Be sure to apply these products at the rate recommended specifically for grubs as they are marketed for a host of other turf insects that may require much lighter application rates. Also, be aware that high pH soils negatively affect the effectiveness of Sevin and also Dylox, to a lesser degree. Having your soil analyzed before deciding on a product may be to your advantage. It is important to remember that these products do not kill grubs immediately—10-14 days is the norm, and it may even be several weeks before it takes effect.

Toward the end of May, grubs will stop feeding, pupate and emerge from the ground as beetles to mate and lay eggs for the next generation that will hatch in early summer. At this point, a preventative treatment is advised.

Preventative Treatments: Summer

Preventative treatments are more effective than curative in controlling future grub populations. Applied correctly, they can provide between 75-100% control. However, products such as **Bayer Season-Long Grub Control** and **GrubEx** will not work in the spring or fall during active feeding cycles. They contain **imidacloprid** (MERIT), **chlorantraniliprole**, **thiamethoxam**, or **clothianidin** which are growth inhibitors designed to target newly hatched grubs in the first instar (life-stage) *before* they can cause damage. **Preventative** controls such as these need to be applied between the end of June and early August. The first week of July is often an ideal time for application. The exception would be chlorantraniliprole, which because it takes longer to break down, can be applied earlier in the season.



Keeping your lawn healthy is the best defense against grub damage. Feed your turf with the right nutrient balance to promote growth and a strong root system and make sure it's receiving enough water during dry spells. Mowing at a height of 3.5-4" as well as mulching grass clippings can absolutely help the lawn's overall health, making it less desirable for grubs and the pests that feed on them.



European chafer larvae are the most likely culprit for damage in the home lawn, although Japanese beetles have been reported in increasing numbers in our area.

A note on Milky Spore....

Milky Spore is a natural bacteria that stays dormant in the soil until Japanese beetle grubs begin feeding. Once ingested, the spores multiply inside the host grub and are released back into the soil after the grub dies and begins to decompose. A chemical-free way to control Japanese beetles, Milky Spore must be applied 2-3 times each year for two consecutive years in order to build an effective level of bacteria in the soil. Once established, Milky Spore's effects can provide 10 years of control—but only on Japanese beetles.

Protect the bees!



Before you apply any insecticide to your lawn, remember to mow first, removing all flowers from any weeds that may be present.