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## **Emerging May and June Beetles**

During late April and in May, we begin to see the adult May and June beetles (*Phyllophaga* spp.) flying around lights or onto window screens usually at night. The female May beetle will deposit eggs into the turf in April-May; where as the June beetle will deposit eggs in May-June. The eggs will hatch into grub worms that are creamy white in color with brown heads and are "c-shaped." The grubs feed on dead organic matter and then move to the roots of plants. Since the grubs feed on roots, they can injure roots of grasses and other plants. This causes infested turf to brown and easy to remove in large clumps.

Before treating for grub worms, lawns should be inspected to determine the presence of an infestation. In order to inspect an area, soil sections 3 to 4 inches deep should be taken randomly to total one square foot for every 1000 square feet of infested area. One square foot of turf can be sampled by removing four, 6 inch square pieces of turf or ten, 4 inch cup cutter core samples. If more than 5 white grubs are found within this square foot, then treatment should be applied. The optimal time for inspection and treatment should be 5 to 6 weeks after the most beetles are seen. This will ensure that smaller grub worms (less than ½ inches) will be found in the turf.

Insecticides should only be applied if a grub worm infestation exists in your lawn, since unnecessary use of insecticides can cause insect resistance and harm to beneficial organisms.

## **Some Control Options:**

## **Non-chemical control options:**

Maintain healthy turf by fertilizing and watering properly.

Try not to plant preferred trees in the landscape, such as oak or pecan trees, in order to prevent possible defoliation of these trees.

Parasitic nematodes in the genera *Steinernema* and *Heterorhabtitis* have been shown to be effective against white grubs. They can be purchased and applied to infested areas.

## **Chemical Control Options:**

Imidacloprid, halofenozide, and clothianidin are some chemical options that are often applied before extensive grub worm damage is seen, since they are effective on smaller grub worms. Lambda-cyhalothrin and trichlorfon are some examples of chemicals used after grub worms are present as a curative control. Also there are combinations of chemicals such as imidacloprid and bifenthrin that can be used for a preventative and curative control option.

Irrigating the soil with ¼ to ½ inches of water prior to treatment can improve the effectiveness of the insecticides, since the grubs will move closer to the soil surface.



**Grub worm from** *Phyllophaga* **spp.** Photo by: Texas A&M Cooperative Extension.

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