

June 23, 2017

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Controlling European Chafer in the Summer Months



European chafer adults are beginning to emerge

The lawn grubs that caused extensive damage to grass this spring are pupating (transforming) and the adult beetles are beginning to emerge. Once the adults have crawled out of the soil, they will mate and the females will begin laying eggs in the soil. The eggs hatch approximately two weeks after they have been laid. Even though you won't see grubs right now, the timeframe from egg laying to egg hatch is the ideal time to apply a preventative insecticide. Insecticides are more effective against tiny grubs, so if the product is present right when the egg hatches, the grub will be killed. Not all the adult beetles will emerge at the same time, so there will be a window of time where the females are laying eggs. Therefore, often the preventative products will need to be followed up with a curative product to kill the larvae that escape the first treatment. Even with these treatments, this pest is very difficult to control and there may still be turf damage.

How do I treat for them?

Insecticides are the main way to deal with the grubs. These products should be applied to the grass mid-summer. Not all insecticides will work, and even effective insecticides will not work well when used at the wrong time. There are two categories of insecticides: preventative ("pre-emergent") insecticides and curative ("post-emergent") insecticides. The active ingredients in these products are listed in the table below. To be most effective, in 2017, preventative products should be applied in July and curative products should be applied in August - September while the grubs are still small. Often a treatment with a preventative product will need to be followed up with a curative product for better control.

PREVENTATIVE PRODUCTS	CURATIVE PRODUCTS
Chlorantraniliprole	Carbaryl
Clothianidin	Clothianidin
Dinotefuran	Trichlorfon
Imidacloprid	
Thiamethoxam	

Insecticides containing only the active ingredient gamma-cyhalothrin will not be effective because it binds to the organic material in the grass and will not reach the level where the grubs are feeding. Additionally, alternative-type products including nematodes have not been shown to be reliable. Milky spore only attacks Japanese beetle grubs, so it will not work against European chafer. Over applying insecticides or using home-made concoctions may have detrimental effects to the grass or other organisms in/around the yard, so be careful and make sure to follow all label instructions whenever using any insecticide or related product. Any insecticide application must be watered in with at least 1/5" water to move the product through the grass root zone to where the grubs are feeding. Insecticide applications targeting the pupae, adult beetles, eggs, or overwintering grubs will not be effective.

UW-Extension is performing an insecticide trial in Sturgeon Bay in 2017 to determine if alternative-type products can have adequate control of European chafer. The preventative products are scheduled to be applied the week of June 26, with the curative products to follow later in the summer.

What can I expect this fall?

European chafer grubs feed on grass roots which results in dead patches of grass. This spring, the areas of turf that were torn up were due to birds, skunks, or other animals searching for and feeding on the grubs. This insect could be present in varying numbers in grass all throughout Sturgeon Bay and the surrounding regions.

Fully mature European chafer grubs will cause the most damage to turf because they are larger and will eat more. The mature grubs are present in the spring and fall and are the least susceptible to insecticides during that time. Once they pupate, they are done feeding on grass roots. Feeding damage will resume when the next generation of eggs hatch. At first it will be minimal, but it will increase as the grubs grow.

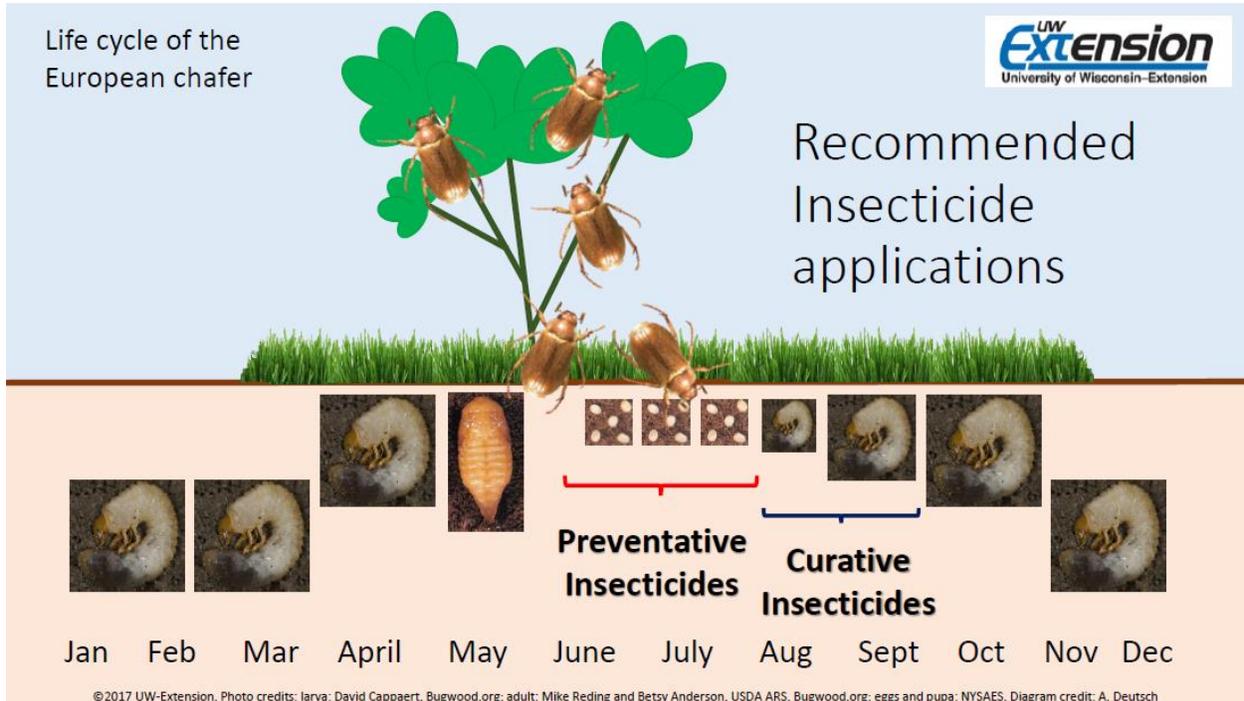
Currently we are between the two generations of European chafer. The older generation is emerging as adult beetles and the younger generation has not hatched. This has allowed much of the turf to recover and for reseeded areas to fill in.

Good lawn care from now on throughout the rest of the summer can help the grass grow well and tolerate more damage this fall and into next spring. Watering the grass, applying fertilizer, and cutting it at a longer height can all help. Beware that too much fertilizer may cause the grass to grow more leaves but less roots, meaning that grub feeding will kill the grass more quickly. Therefore, make sure to follow all label recommendations for fertilizer use and remember that more is not necessarily better.

Life cycle of the European chafer



Recommended Insecticide applications



If you would like more information,
visit our website
<http://door.uwex.edu/horticulture> or
call the Door County UW-Extension
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