



# Turf Tips

## For Commercial Sod Production

### White Grubs in New Sod: What do I do?

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**W**hen new sod is put on a lawn, it is not unusual to find some white grubs in loose soil on the flat bed of the truck or in the sod as it is put down.

White grubs are the C-shaped larval stage of Japanese beetle, European chafer, June beetle and other beetles in the same family (Scarabaeidae). These larvae feed on turf, tree and shrub roots in the fall and spring, sometimes causing turf injury. June beetles are native to Michigan and can be found throughout the state. Natural enemies (predators, pathogens and parasites) are so effective against June beetles that damage to home lawns is unusual.

The Japanese beetle and European chafer are exotic insects (native to Europe and Asia) that can now be found throughout most of Michigan south of a line from Bay City to Muskegon. Natural enemies also help keep these exotic beetles under control, but not as effectively as they control June beetles because we do not have all the right natural enemies. Therefore, outbreaks of Japanese beetle and European chafer are more likely. In an outbreak, populations build to high levels — five to 30 grubs per square foot can be found under infested turf. This does not mean that your lawn will be damaged. Daily irrigated turf can tolerate 30 grubs per square foot without any turf being killed. Ten grubs per square foot may damage drought-stressed turf, however. Homeowners with more than five grubs per square foot may want to apply Bayer Season Long Grub Control (imidacloprid) or GrubEx (halofenazide) in early July to prevent grub injury the following fall and spring. Frequent irrigation will also help prevent grub injury.

#### *Frequently asked questions:*

**Should I be worried about introducing grubs into our neighborhood if I see some in the new sod?** No. European chafer and Japanese beetle have been found in every county south of a line from Bay City to Muskegon and in quite a few north of there as well. June beetle grubs are found everywhere in Michigan.

**If I see grubs, will they harm the new sod?** It is very unlikely that the grubs seen in the new sod will cause any problems. To make sure, take some samples from the new sod. Use a shovel with a 6-inch-wide blade to cut a square that is 6 inches on each side. Count the number of grubs found in roots and soil within this square by carefully pulling it apart. Repeat this four times. Add up the total number of grubs you found in the four samples. This will give you an average number of grubs per square foot. The most common grubs, Japanese beetle and European chafer, will not damage turf unless more than five per square foot are found. Large June beetle grubs (greater than 1.25 inches long) may cause injury if three or more per square foot are found. If more than five grubs per square foot are found, it is reasonable to ask your sod supplier to apply an insecticide to the new sod. This should reduce the grub density enough to prevent turf injury.

Irrigated or frequently watered lawns are less likely to be injured by grubs. In the future, if you find a few grubs (fewer than five per square foot), moderate irrigation will prevent grub injury. Higher numbers of grubs are unlikely, but if it happens, apply Bayer Season Long Grub control or GrubEx as instructed above. For more information, contact your local MSU Extension office.

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