SCOUTING FOR TURF INSECT PESTS

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THE MOST IMPORTANT insect pests of home lawns in Michigan are bluegrass billbug, chinch bug, Japanese beetle and European chafer. If you know how to scout for these insects and manage them, most of your pest problems will be taken care of.

The bluegrass billbug is a common turf pest found throughout Michigan. The adult is a black weevil or snout beetle, 3/8 inch long. The grub or larval stage causes turf injury. It is a white, maggot-like, legless grub with a brown head capsule, 1/4 to 3/8 inch long. Check home lawns in late July for billbug injury. Look for patches of thin turf with more than half of the grass plants turning brown. Grab a handful of grass blades from the injured area and pull them out of the ground. Grass plants injured from billbug feeding will break off at the crown. The hollowed-out stem will be packed will yellow, sawdust-like frass. Lawns with an unacceptable amount of damage should scheduled for treatment with a soil insecticide the following year in late June (Table 1).

Check home lawns in early July for chinch bug activity. Scout lawns in the afternoon when the soil surface is warm and dry. If more than 15 bugs are found in 2 minutes of searching, turf injury is likely. Spot treat the infested portions of the lawn with an insecticide (Table 2).

Japanese beetle and European chafer are limited to the southern half of the lower peninsula of Michigan. However, in neighborhoods where they are active they may cause more damage than any other turf pest. European chafer is particularly damaging in years when we have a drought in September or October. Check lawns in early September for grubs by sampling with a golf course cup-cutter (Tables 1 and 2). Take 5 samples. Multiply the number of grubs per cup-cutter by 10 to determine the number of grubs per square foot. No insecticide is recommended for daily irrigated lawns unless the number of grubs per square foot is greater than 15. For non-irrigated lawns a spot treatment of insecticide applied to infested areas is recommended if there are more than 5 grubs per square foot. For lawns with 5-10 per square foot irrigation is the most valuable treatment for preventing injury (Table 4). For home lawns with more than 15 grubs per square foot an insecticide application and irrigation are recommended.

Table 1. Scouting for turf insect pests.

Insect	•Scouting and threshold
Bluegrass billbug	•Check lawns in late July for damage. •Plant treatments for the next year. •Use a soil insecticide in late June.
Chinch bug	•Check lawns in early July. •If > 15 bugs in 2 minutes of searching spot treat with an insecticide.
Japanese beetle and European chafer	•Check lawns in early September. •Irrigated lawn - if more than 15 per square foot spot treat with insecticide •Non-irrigated lawn - if more than 5 per square foot spot treat with insecticide.

Table 2. Sampling lawns for Japanese beetle and European chafer.

- Sample with a cup-cutter in early September
- Take 5 samples, if no grubs found then stop
- If grubs are found take 5 more samples
- Multiply grubs per cup-cutter by 10 for grubs per square foot

Table 3. Insecticide or irrigation treatments for Japanese beetle and European chafer.

- Irrigated Lawn: Insecticide treatment for > 15 per square foot.

- Non-irrigated lawn:

  a) for 5 to 15 grubs: Irrigation by itself.
  *** do not allow soil to become too dry, even for one day.

  b) for > 15 grubs: Irrigation + insecticide

Table 4. Irrigation may be better than an insecticide.

- Daily irrigation is more effective than an insecticide treatment for preventing grub damage
- A 1/10 inch of irrigation per day costs .95 per day for a 10,000 square foot lawn