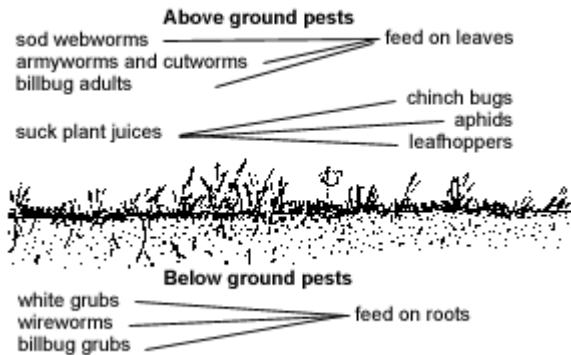


## Lawn Insects and Their Control



Many insects live in lawns and turf. Under normal conditions, only a few can be considered pests that need attention or control. To discuss damage and control, it is convenient to divide lawn pests into those above and below ground.

### Above Ground

Several insects feed on grass by sucking the juices from growing plants. Fortunately, grass grows very rapidly, and most insects that feed on grasses in this manner cause no

economic damage. When lawns are under stress, however, or when newly seeded, insect damage may be more severe.

Insects that damage grass are leafhoppers, mites, spittlebugs, and chinch bugs. Usually only the chinch bug is severe enough to require control measures.

**Leafhoppers** are long, wedge-shaped insects that hop or fly short distances. They are often brightly colored and have stripes. The basic color may be green, yellow, or brown. Leafhoppers suck plant juices from many plants including grasses. The damage they cause is chlorosis, a disease marked by white or yellow patches on green blades.

**Mites** also suck plant juices. The damage they cause is a blotching or stippling of grass blades. Sometimes, under heavy infestations, a silk-like webbing is visible. One mite pest, the clover mite, leaves grasses and enters homes in spring or fall. Clover mites may need control inside, but control outside on grass seldom is needed.

**Spittle bugs** are a type of leafhopper. They produce a mass of spittle, and then hide inside. They rarely need to be controlled. Some people consider their spittle unsightly, though it does not harm people.

### Chinch Bug

The chinch bug is the most serious grass-blade-feeding insect pest to control. Adults are about 1/8 inch long, black in color and exhibit distinctive white wing markings. Young chinch bugs are bright red with a white stripe across their bodies.

Chinch bugs overwinter in tall grass and weeds, migrating to lawns in May to lay eggs near the grass roots. As the grass dies, the bugs move to living grass. Damage may spread rapidly and often involves large areas. Injury is most serious in hot, dry weather where grass is subjected to full sun. Chinch bugs prefer bent grasses but will feed on other grasses.

The following method should be used to determine if chinch bugs are present. Get a metal can, such as a large coffee can, and cut out both ends. Place one end of the can on the grass in an area where the lawn is yellowing or in decline. Twist and push the bottom end of the can an inch or two into the soil. Fill the can with warm water.

If chinch bugs are present, they will float to the surface within five minutes (it may be necessary to add more water to keep the water level above the grass). Repeat this procedure in other areas of the lawn where chinch bug infestation is suspected. Don't confuse chinch bugs with big-eyed bugs, which are a beneficial insect.

To control chinch bugs, use *Beauveria bassiana* (a fungus), carbaryl, permethrin or imidacloprid. For best results, force the spray into the turf under high pressure to get the insecticide into the roots.

At various times during the year additional insect pests may be present in the thatch layer. Armyworms and cutworms are caterpillars that feed on grass blades in this layer. Billbugs are weevils with characteristic long snouts. These insects can be controlled in the same way as the most serious thatch lawn pest--the sod webworm (below).

## Sod Webworms

When full-grown, sod webworm larvae are about 3/4 inch long and cream or light brown in color with dark spots on their backs. They live in silken tubes attached to the base of the plants. The first sign of webworm damage is areas of unevenly cropped grass. Large areas may turn brown and die. Sod webworms produce two to three generations each year. For this reason, damage is likely to increase in late summer.

Adult webworms are small, brownish or gray moths (millers). They have a noticeable snout projecting in front of the head, and they fold their wings tightly against the body when resting. They hide in the shrubbery or other sheltered spots during the day. In early evening, fly above the grass. Females scatter eggs over the lawn as they fly.

To check for serious infestation of sod webworms, pour a gallon of water containing 1/4 cup of household detergent on a square yard of lawn. Webworm larvae will come to the surface where they can be seen. Large numbers of birds feeding on the lawn often indicate the presence of webworm larvae.

Chemical control is most effective in June, since early-season applications prevent a buildup later on. For best results, applications should be made in the late afternoon or early evening. Carbaryl, halofenozid, spinosad, neem oil, pyrethrins, cyfluthrin or Bt *Bacillus thuringiensis* var, *kurstaki* can be applied. Entomopathogenic nematodes products can also be effective. Do not water the treated area for 1 to 2 days or mow the grass for 3 days after applying the chemical.

## Below Ground

Some insects nest in the ground, which results in lawn damage to lawns. Ants are familiar turf-nesting insects. Some ants form hills around their external openings. Ants may smother grass or ruin grass roots. They also may eat grass seeds or bite people and animals. Still, with their soil aeration activities and recycling of nutrients, ants are one of the beneficial soil insects.

Several types of wasps or bees nest in the ground. Some familiar ground nesters are cicada-killers, yellow jackets, scold wasps, and digger bees. Control for these is seldom necessary. They are more a cosmetic problem, although most wasps, particularly social species like yellow jackets, may sting if disturbed.

## White Grubs

Grubs, the larvae of several species of beetles, are the most serious soil-inhabiting lawn pest. They have whitish bodies and brownish heads, and three pairs of prominent legs just behind the head. Their most distinctive feature is the C-shape or curled position they assume.

Beetles whose grubs may be in your lawn include the May beetle, green June beetle, Japanese beetle, Asiatic garden beetle, oriental beetle or various chafers.

Grubs spend their entire larval life in the soil. This may be for a single season (Japanese beetle) or up to 3 years as in other beetle grubs. During mild weather, they live at the grass-root level feeding on the roots and killing the grass. In winter, they burrow deep into the soil.

To sample for grubs, look for lawn areas with brown or wilted grass to inspect. Cut 3 sides of a strip with a shovel or spade about 1 foot square and 2 to 3 inches deep. Using the uncut side as a hinge, roll the soil backward and count the grubs on the exposed soil. Do this in several sites. If there are more than 3 grubs/square foot sample area, consider an insecticide for control. Halofenozide, imidacloprid, and diazinon (can still used this year) are chemical options. *Bacillus popilliae* (milky spore disease for Japanese beetles only), *Beauveria bassiana* (a fungus), and entomopathogenic nematodes ( *Steinenema riobrave* or *Heterothabditis* sp) are biological agents but favorable results have been mixed with such materials.

Pesticides mentioned in this publication are generally listed as the active ingredient or common chemical name. The active ingredient is the chemical in the formulation that is active against the pest. Read the pesticide label to determine if the correct active ingredient is present. Regardless of the product you choose, be sure the plant and/or the pest you want to control is on the label.

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