

Insect Pests of Turfgrass in Autumn and Winter

This is the last in our 3 part series focusing on the common turfgrass insect pests of New York State. The important information concerning the ecology, damage potential, and need for control of these insect pests in autumn will be discussed. Turfgrass managers interested in more detailed information are directed to the *Turfgrass Insect and Mite Manual* by Shetlar, Heller & Irish, or *Turfgrass Insects of the United States and Canada* by Haruo Tashiro.

Sod Webworm

Although the adults of most webworm species have distinct summer flights, a common New York webworm is often seen flying in September. Remember that the presence of large numbers of lawn moths (webworm adults) is not a reliable indication of subsequent damaging caterpillar populations. The use of a disclosing solution to flush caterpillars from thatch is the preferred method for determining webworm populations. Webworms overwinter in protective chambers in the soil as mature caterpillars.

Chinch Bug

July and August are the months usually associated with extensive chinch bug damage but populations unchecked by natural controls such as weather, predators or disease, or insecticides will continue to feed and multiply well into autumn. As temperatures drop in autumn, chinch bugs search for sheltered sites to pass the winter. Leaf litter, dense weeds or turf, and heavy thatch all serve as preferred overwintering sites for adult chinch bugs.

Annual Bluegrass Weevil

The second generation larvae of the annual bluegrass weevil, seen in September, is usually less distinct and often less destructive than the spring or first generation. Adult weevils overwinter in clumps of grass or leaf litter. White pine needle duff has been shown to be an exceptional weevil overwintering site, the removal of this material can cause significant winter mortality of adults and lead to a reduction of larval populations and feeding damage the following spring.

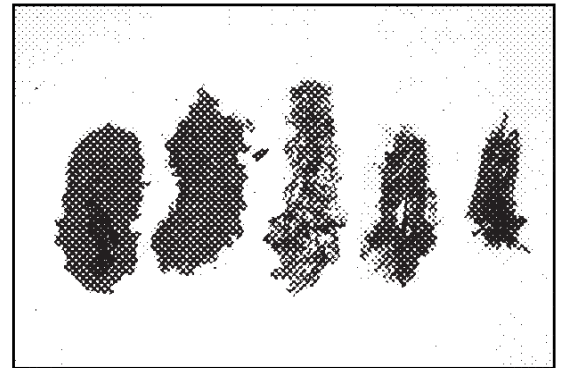
Bluegrass Billbug

Adult billbugs are commonly found walking on sidewalks and driveways during September and October. As temperatures drop, these adults will seek out protected areas to spend the winter. Removal of leaf litter and weedy or overgrown areas adjacent to driveways, sidewalks or house foundations will reduce protected sites and should help reduce billbug populations the following fall.

Annual White Grub

(*Japanese beetle*, *Oriental beetle*, *Asiatic Garden beetle*, *European chafer*, *Northern masked chafer*)

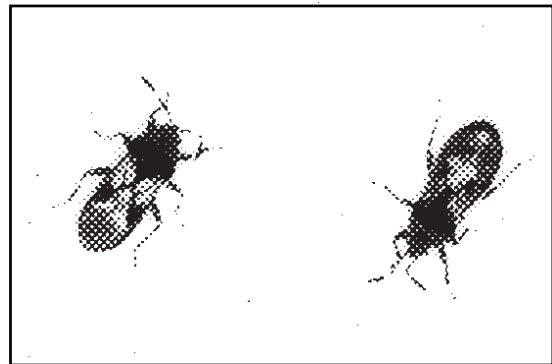
Large third instar grubs will be found feeding in the upper root zone through October. Grub feeding damage and turf damaged by searching skunks, raccoons and birds is often first evident in mid-September. As soil temperatures cool in the fall, grubs will migrate down into the soil to avoid hard frosts at the surface. European chafer grubs are more cold-tolerant than the other grub species and may be found feeding at the surface during mid-winter thaws. In general, application of insecticides for grub control should be applied before September 15 for maximal effectiveness.



Silver Sod Webworm.

Black Cutworm

Little is known about the overwintering habits of the black cutworm in the northeast. It is believed that this species can only overwinter in the extreme southern states. Annual migrations to New York and other northern states result in heavy spring populations. One or two additional generations of Black cutworms will develop in summer and early fall in most northern areas. Since there is no evidence that northern adults migrate south in the fall it is assumed the final cutworm population, unable to escape the cold, are lost every year. For this reason, heavy fall populations of black cutworms in a particular site will not translate into heavy pest pressure the following spring.



Adult Hairy Chinch Bugs, short and long winged.

Black Turfgrass Ataenius

Adult ataenius are the most often observed life stage during September and October, although larvae and pupae may be found in the soil in early autumn. Fall treatment for ataenius is not usually required unless large numbers (>100 actively feeding grubs per square foot) are found. Falling soil temperatures in autumn will reduce insecticide efficacy. Much like the annual bluegrass weevil,

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Autumn and winter control of turf pests can reduce problems next spring.

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Insect Pests

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black turfgrass ataenius overwinter as adults in leaf litter and pine duff.



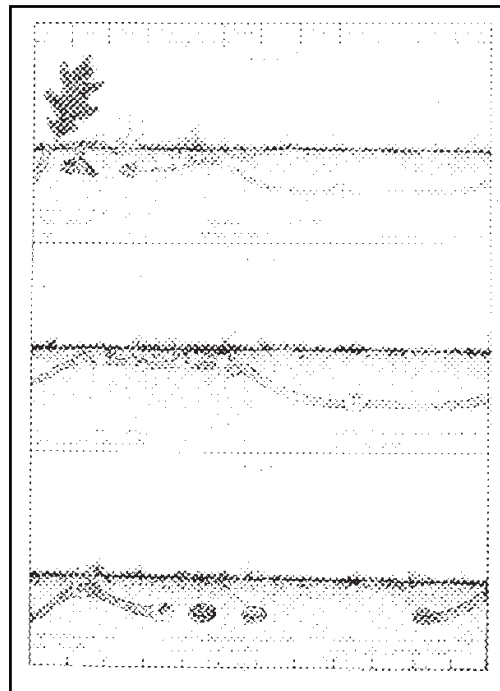
Adult Black Turfgrass Ataenius of varying ages.

May & June Beetles (*Phyllophaga spp.*)

Because May and June beetles require two or more years to develop from egg to adult, one commonly finds overwintering small and large grubs as well as adults. Eggs hatch in mid-summer and small, first instar grubs feed and overwinter. These small grubs will feed and grow in the soil for a second year and overwinter as large, third instar grubs. Third instar grubs will feed during the spring of their third year, pupate, and mature into adults. In some species of June bugs the adults will emerge in late summer or early fall and overwinter in protected areas, while in other species the adults re-

main under the turf in their pupal cell and emerge the following spring. Positive identification and management of small grubs are key to the successful control of May and June beetles.

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June Beetle life cycle



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