



Home, Yard, and Garden Pest Newsletter

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White grubs

White grub is a common name for the larvae of June beetles, chafers and Japanese beetles. They are white, C-shaped larvae, about 1 inch long and have 6 jointed legs attached close to their small brown head capsule. The grubs can be found in the first 8 inches of soil beneath turfgrass where they feed on grass roots. Excessive root feeding by white grubs can leave turfgrass poorly anchored to the soil and can result in brown patches in a lawn that can be pulled back like a rug. This can impact the aesthetics of a lawn and, in some cases, can make sports fields less safe for children and athletes.

Scouting is the most important step in determining whether a treatment is necessary or economical.

August is the best time to scout for grubs because young grubs are hatching and beginning to feed on grass roots. To scout for grubs, choose a location in the turfgrass that is near pavement and away from trees. Cut a 1 sq.ft. patch of turfgrass and roll it back to expose the grubs below. If you find 10 – 12 grubs or more in those patches, you have enough insects to cause significant injury and can apply a treatment to the turfgrass.

Chemical Controls:

Neonicotinoids (Merit, Arena, Meridian) are systemic insecticides, meaning they are taken up by and transported within the grass plants. When grubs feed on grass roots they take in the insecticide and are killed. These systemic insecticides can remain active within the turfgrass for up to 3 months. Because these products are transported within the plant, they have the potential to harm pollinators visiting treated plants. It is important to avoid applying neonicotinoids to flowering plants (including clover and weeds) to prevent pollinator exposure.

Trichlorfon (Dylox) is an effective and short acting treatment for white grubs. It can be purchased as a granular formulation that must be incorporated, watered-in to the turfgrass.



White grub, Alton N. Sparks, Jr., University of Georgia, Bugwood.org.



White grub scouting, Phil Nixon, University of Illinois at Urbana-Champaign

Chlorantraniliprole (Acelepryn) is a more selective insecticide that can provide control for white grubs and some caterpillars that feed on turfgrass but has a lower risk of harming pollinators like bees. It can be applied as either a spray or granular formulation.

If a treatment without synthetic active ingredients is preferred, biological or cultural controls can be used.

Biological Controls:

GrubGone!® is a microbial product that can be an effective option in controlling white grubs. The active ingredient, Bt galleriae (*Bacillus thuringiensis galleriae*), is a soil microbe that damages the gut of beetle larvae when it is consumed.

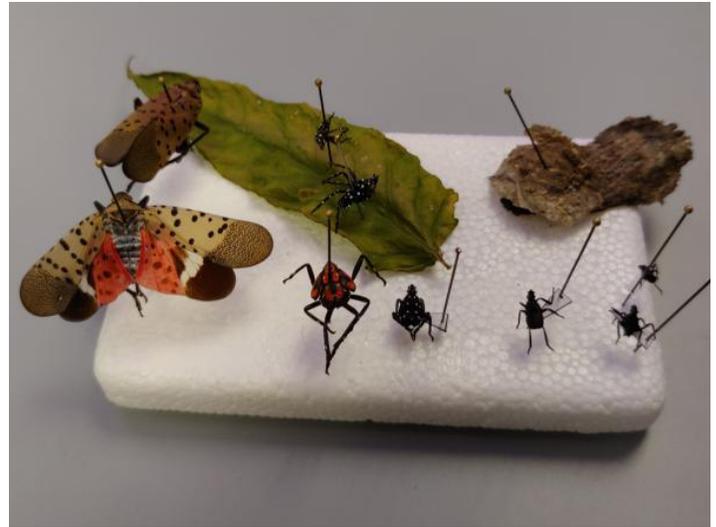
Cultural Controls:

Another strategy is to make turfgrass less attractive by reducing irrigation during late July and early August. At this time, adult beetles are actively mating and depositing eggs and well-irrigated turfgrass is the most attractive location for egg-laying. This is the safest and cheapest option but may result in some browning from lack of water during the hottest part of the summer. This option may not be possible in locations like golf courses, where green grass is required.

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See If You Can Spot the Spotted Lanternfly

As with all insects, spotted lanternfly has a life cycle that contains various stages of development. The adults can be found from July through December. While fall clean up preparations and tasks will soon be here, attention to detail will be important. The spotted lanternfly could go undetected easily unless awareness is raised. It's red coloration in the fall may allow for easier detection. Although when the adults are at rest, the red color of the hind wings are hidden under the speckled grey-brown forewings. They are easy to recognize as adults because of their size, and coloration, but the nymphs have a black and white appearance. Early detection is so important, so becoming familiar with the life cycle can assist in identification.



All the stages of spotted lanternfly (*Lycorma delicatula*) represented in this pinned display. Photo courtesy Amy Stone

Spotted lanternfly is an invasive pest that is a planthopper that can easily hop a ride on human transport items; cars, campers, trucks, and trailers are just to name a few. First discovered in Pennsylvania in 2014, the pest has spread in July 2021, to Switzerland County, Indiana near the Ohio River. Invasive pests can be spread long distances by people who move infested material. Firewood can be a carrier of invasive pests and caution should be noted with the movement of firewood. There hasn't been a reported arrival in Illinois yet. It's so important to take caution as if it has because of the devastating effect that can follow.

The spotted lanternfly is known to find over 100 species as host plants. The favored host is Tree of Heaven (*Ailanthus altissima*). Foliar and stem treatment of Tree of Heaven is recommended from July to mid-October for best results. Tree of Heaven is particularly hard to eradicate because of its clonal reproduction especially after the removal of a tree. The other host plants are quite concerning for a potential Illinois inhabitation of spotted lanternfly. Apple, peach, rose, walnut, sugar maple, grapes and hops are a few examples.

Adults and nymphs feed on host plants with piercing-sucking mouthparts that cause the plants to ooze or weep with extensive feeding. A fermented odor may also be noticed with the presence of spotted lanternfly. These insects excrete a sticky fluid (honeydew) on plants that may develop into sooty

mold on infested plants or objects under the canopy of infested trees.

Spotted lanternfly overwinters in egg masses that can be laid on anything outdoors with a hard surface. It's just not firewood to be on the lookout for moving this pest. The egg masses can resemble cracked mud and may be difficult to find to an untrained eye.

Get to know this pest before it gets to know you. If you suspect, or see this pest in Illinois, please email: lanternfly@illinois.edu, or contact Illinois Department of Agriculture at 815-787-5476 for phone-in reporting. Check your local Extension office for identification resources for spotted lanternfly and other invasive pests.

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Additional resources: University of Illinois Extension [Identification and Biology of Spotted Lanternfly \(Lycorma delicatula\)](#)

Noxious/Invasive Plant Species – Canada Thistle, *Cirsium arvense* in Illinois

There are many species of thistle – bull, musk, yellow, scotch, tall, yellowspine, and others – but Canada thistle stands out as one that is noxious (and obnoxious). A noxious plant is one that “harms agricultural lands, poses harm to humans, resists chemical controls, clogs waterways and ponds, displaces native plants, and alters soil composition”. Many noxious/invasive species have been introduced from other countries. Some species find conditions in a new country even more conducive for growth than the plant’s country of origin. In addition, insects, diseases, and other natural controls that helped keep plants in line in their home country were not always relocated with the plant.

Canada thistle is a cool season perennial that actively grows in the spring and fall. It produces flowers very early in summer, usually in early to mid-June. Growth slows during hot weather. By early July, seeds are fully developed. This can vary depending on the year’s growing conditions of course. Above-ground portions can be killed by frost. Brown, erect stems may persist into the winter.



Canada thistle in bloom, Michelle Wiesbrook, University of Illinois.



Canada thistle dominating a landscape bed, Michelle Wiesbrook, University of Illinois.

In some states it is actually a misdemeanor to have these plants on your property and not kill them. In 43 states (including Illinois), Canada thistle is listed in the noxious weed law, meaning that its control is required by law. So, if Canada thistle is growing on property that you own or manage, you are required

to control it. However, because this law is poorly enforced, more and more Canada thistle continues to establish in pastures, lawns, gardens, crops, meadows and along roadsides.



Canada thistle spreading from a bed to turf, Michelle Wiesbrook, University of Illinois.

Canada thistle management methods include:

- ensuring that it is mowed before it forms seed
- post-emergent applications of a systemic herbicide may be used. Fall is typically the best time for these treatments. Other good times are during the early bolting stage when plants are 6-10" tall and during the bud to flowering stage. In lawns, some herbicide options are 2,4-D, MCPP, MCPA, dicamba, triclopyr, carfentrazone, and quinclorac. Clopyralid is quite effective on thistle. Non-selective herbicides such as glyphosate may also be used.
- actively digging up the roots as deep as possible – it grows like asparagus, has a dense root system from where new shoots sprout
- if an area is densely populated with Canada thistle, plant a fast-growing tall annual like sorghum;

Canada thistle is a poor competitor for light, and gets smothered; mow the whole place down, re-plant with sorghum, and repeat the cycle again for a period of 2 to 3 years.

- lawns kept in good condition promote healthy, dense turfs that compete well with weeds.

Perhaps your site is not a lawn but instead a landscape bed. Many of these products are not labeled for this use due to the variety of species present. Be sure that the product you use is labeled for the intended area. Often times, careful spot treatments of non-selective herbicides are your only chemical option. Nearby sensitive plants may be covered with plastic prior to application. The plastic may be removed as soon as sprays dry. Applications may also be painted on using a brush or sponge. Be sure to read and follow all label directions carefully. Realize that multiple applications may be needed to eradicate this weed.

James Theuri and Michelle Wiesbrook, University of Illinois Extension

What Pests Are You Seeing in Your Part of the State?

The Home, Yard, and Garden Pest Newsletter strives to report on the landscape pests that we see and anticipate throughout the state. Unfortunately, most of the newsletter's authors can only scout a small portion of east-central Illinois. We rely on scouting reports from subscribers and green industry professionals to help us provide relevant and timely content for all of Illinois. To assist us with scouting efforts, we ask for your help by reporting pest situations as you see them throughout the year. Have you seen an alarming number of pests in your area? Do you have a topic you pest management topic that you would like us to address? Please send your pest reports or topic ideas to hygnewsletter@illinois.edu

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