Home, Yard, and Garden Pest Newsletter

Issue 6 • July 1, 2021

In This Issue

Sod webworm. 1

Pellitory – A Newer Weed to Scout For. . . . 2

Iron Chlorosis and Manganese Chlorosis of Shade Trees. 3

Sod webworm

Sod webworm is a common pest of turfgrass in Illinois. They are typically seen in mid-summer and cause brown patches in the turf. In favorable conditions, large sections of a lawn could become brown. In hot, dry conditions, like those we have seen in northern Illinois, sod webworm larvae thrive and have the potential to cause more damage.

There are a few distinct characteristics that can be used to identify sod webworm injury:

- Turfgrass that appears brown and drought-stressed but does not recover with watering.
- Many birds visiting the turfgrass to feed on larvae.
- Holes in the turfgrass caused by birds feeding on the larvae.
- Finding sod webworm larvae or small silk tubes in areas with injury.

Left: Silk tube remnant of silk-lined larval burrow from burrowing sod webworm, Phil Nixon, University of Illinois
Right : Sod webworm larva, Phil Nixon, University of Illinois

If you suspect sod webworms, scout in areas with injury to determine if enough larvae are present to warrant treatment. There are two ways to scout for sod webworm larvae:

The first method is to scout injured areas by parting the grass with your hands and looking for the larvae or small green pellets of frass (insect droppings). The larvae can be tan, white, grey or green, and grow up to 1 inch long. They create silk-lined burrows in the thatch, where they reside during the day, then emerge at night to feed. In some cases, the lining of the burrows can be found. These look like small silk tubes.

The second method is to flush the larvae out of the turf. Mix a bucket of soapy water (1 tbsp dish soap and 1 gal water) and apply it evenly across 1 sq ft of turf. The soap will irritate the larvae and they will move to the surface where they can be identified (this may take 10 – 15 min).

If you find 2 – 3 larvae per sq ft of turfgrass, you can treat the area for these insects.

Sod Webworm control

Both chemical and biological treatments are effective in controlling sod webworm larvae. Effective organic biological controls include spinosad (Conserve), a bacterial control agent, or *Steinernema carpocapsae* (Biosafe), an entomopathogenic nematode. Biological control may also occur naturally. The rainy conditions in central Illinois are favorable to beneficial pathogens like microsporidia, which may control sod webworm populations without additional action from gardeners or landscape managers.

Effective chemical controls include bifenthrin (Onyx, Talstar), carbaryl (Sevin), chlorantraniliprole (Acelepryn), clothianidin (Arena), deltamethrin (Delta Gard), indoxacarb (Provaunt), lambda-cyhalothrin (Scimitar) and trichlorfon (Dylox). Some of these products are available in granular formulations which eliminates the risk of drift on to nearby flowering plants. It is important to avoid applying insecticides to clover or flowering weeds to protect the bees and other pollinators that visit the flowers.

Sarah Hughson – hughson2@illinois.edu

Pellitory – A Newer Weed to Scout For

You've heard of purgatory. This is pellitory. It was nowhere and suddenly it is everywhere – including MY property, so now it's personal. Perhaps you've noticed it too. In 2016, this largely unfamiliar weed was newly noticed to be growing rampantly all over campus in various landscape beds. Five short years later, it has made its way 15 miles south of town. I found it growing a few weeks ago for the first time all over a local, small town, community garden I assist with. Last week, I found a few plants growing deep within my windbreak. My guess is that birds have spread it there as this isn't an easily accessible area and a bear to handweed so I trust my shoes didn't spread the seed there. Regardless, if I'm seeing it in new places others likely are as well.

Pellitory (Parietaria pensylvanica), or Pennsylvania Pellitory as it is also known, is typically thought of as being a woodland plant that forms colonies. Another name for this plant is Up Against the Wall Weed because it is known to grow in the cracks of walls. I've seen it growing happily out and up the sides of a straw bale garden. The hint of cucumber smell has resulted in some calling it Cucumber Weed. Some describe this weed as being sticky or adherent to the skin, thus the nickname "Stickyweed". There are a few species of Parietaria, however, which are similar in appearance.

Pellitory up close. Richard Hentschel, University of Illinois.

Pellitory is in the nettle family, Urticaceae, but lacks stinging hairs (thank goodness). It grows 6 to 18 inches tall with a central, unbranched, 4-angled stem. Leaves are alternate and lanceolate. Both leaves and stems are pubescent. Flowers occur on the stem, are green with no petals, are seen in the summer, and last 2 to 3 months.

Pennsylvania Pellitory is native and prefers light shade but will tolerate full sun. It is found in both natural and disturbed sites. Reproduction is by seed, which can be rampant. Therefore, in a landscape bed situation, preventing seed production is important for control. This annual weed can be pulled or

hoed out easily. Preemergent herbicides such as trifluralin could be effective on this weed. This species is not listed on the label, however its cousin Stinging Nettle (Urtica dioica) is. More research is needed for determining effective herbicides from controlling Pennsylvania Pellitory.

Pellitory growing in straw out the side of a raised bed. Michelle Wiesbrook, University of Illinois.

It is important of course to identify this weed early and to control it before it produces seed – which will provide more work for you in the coming years. Historically, this plant is not considered to be a commonly found weed in landscape settings. To my knowledge, many aren't familiar with it. When it was first found on campus, INHS botanists were called upon to identify it. Only one of my typical go to weed ID reference books include this weed, Weeds of the Nebraska and the Great Plains, yet this plant can be found across the country. According to the Illinois Wildflowers website, it can be found widely across the state. Incidentally, there are currently two different species of pellitory becoming new, widespread problems in Florida.

For more information:

http://www.illinoiswildflowers.info/woodland/plants/pn_pellitory.htm

https://www.minnesotawildflowers.info/flower/pennsylvania-pellitory

https://plants.usda.gov/core/profile?symbol=pape5

Michelle Wiesbrook – buesinge@illinois.edu

Iron Chlorosis and Manganese Chlorosis of Shade Trees

Severe Iron Chlorosis on River Birch

Are the leaves on your tree a little more yellow than you remember them being in previous years? You are not alone. I've received numerous reports of chlorotic trees from around the state. Chlorosis is a condition in which leaves turn yellow due to the destruction of chlorophyll or lack of chlorophyll production. In most cases, chlorosis results from a nutrient deficiency, either a lack of nutrients or the inability of the plant to uptake the nutrients. Iron (Fe) and manganese (Mn) deficiencies are two of the most common nutrient deficiencies seen in woody landscape plants. Pin oaks are especially prone, though we often see chlorosis affecting sweetgum, maple (especially red, silver and hybrid), and birch.

Maple with manganese chlorosis

Iron and manganese chlorosis produce similar symptoms. From a distance, affected trees appear a light green to bright yellow. Up-close inspection reveals yellow-green leaves with dark green veins. Generally, an iron deficiency causes the most intense symptoms on the newest leaves, while manganese deficiencies affect the older leaves. As the chlorosis severity intensifies, leaves develop a brown speckling and larger necrotic (dead) areas. If uncorrected, the tree may progressively decline and dieback over several years and eventually die.

Iron Chlorosis Pin Oak. Note the green leaf veins

What causes chlorosis?

In Illinois, high soil pH is the primary cause of iron and manganese chlorosis. In most cases, the soil contains plenty of macro- and micronutrients for tree growth. However, as soil pH rises above 6.5, the iron and manganese present in the soil increasingly convert to forms unavailable to plant roots. While each plant species has its preferred range of soil pH, most of our woody trees like a pH a little below neutral, often in the 6.3 to 6.7 range.

Poor growing conditions can also influence and exacerbate nutrient deficiency and chlorosis. Affected trees are commonly found growing in close proximity to sidewalks, driveways, gravel parking lots, and foundations constructed with limestone bases that raise soil pH. Compacted soils, poor drainage, root injury, drought and flooding all create an environment unfavorable for root growth and nutrient uptake.

Options for treating chlorosis

Management for chlorosis involves determining what element is limiting, then trying to alleviate the cause of the deficiency. A soil test can be helpful, both to identify if any major macro- and micronutrients that may be missing, and to check the pH. Several control options are available. Each method has its pros and cons.

1. The best long-term solution is to avoid planting tree species susceptible to iron and manganese deficiencies on sites with elevated soil pH. A soil test can verify whether or not the pH is correct and if adequate nutrients are present. This, however, won't help an existing chlorotic tree.

2. Adjust cultural practices to promote steady root growth. Correct poor soil drainage and compaction. Avoid saturating soils with excessive irrigation.

3. Fertilize with an available form of iron or manganese, using one several techniques.

    - Foliar fertilization is best used for small trees and shrubs. This method involves spraying the micronutrients directly onto the foliage. It offers quick but temporary results, and will need to be reapplied on an annual basis.

    - Chelated iron fertilizers can be worked into the soil surrounding the tree using a variety of techniques. The fertilizer can be incorporated into the top few inches of soil, applied to evenly spaced, 12-15" deep holes, or the chelated iron can be dissolved in water and the injected under pressure into the soil.

    - A variety of trunk injection technologies are available to treat deficiencies. All require small holes at the base the tree. Results may not be observed until the following growing season. Treatments generally last 2 or more years. While effective, some fear repeated applications may injure the tree.

4. Acidifying high pH soils addresses the true cause of the problem. Soil acidification is a challenging task that offers temporary results. Additionally, acidification may not be feasible for larger, established trees. Soils can be acidified using elemental sulfur or iron sulfate. Elemental sulfur is economical, but takes several months to lower the pH. Iron sulfate is more expensive, but will lower the pH in a few weeks.

Travis Cleveland – tclevela@illinois.edu

Illinois Extension
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

College of Agricultural, Consumer and Environmental Sciences
University of Illinois, U.S. Department of Agriculture, Local Extension Councils Cooperating.
University of Illinois Extension provides equal opportunities in programs and employment.
©2021 University of Illinois Board of Trustees. For permission to reprint, revise, or otherwise use, contact hygnewsletter@illinois.edu