COOPERATIVE EXTENSION SERVICE
HOME, YARD & GARDEN PEST NEWSLETTER
College of Agricultural, Consumer and Environmental Sciences, University of Illinois at Urbana - Champaign
Illinois Natural History Survey, Champaign

Number 10 - July 2, 2018

Last Weekly Issue

This is the last weekly issue of the Home, Yard, and Garden Pest Newsletter for this year. We will publish every other week through July, August, and September with a final issue in October. Insect, weed, and disease problems arise in rapid succession during the first half of the growing season, making weekly issues necessary.

Although there are important pest problems in the second half of the growing season, they develop slower and are less frequent than in the first half. Also, by the second half of the growing season, leaves have produced most of the sugars for the plant for the growing season so their loss is less harmful to plant health. Leaves have also hardened and become tougher for insects and diseases to damage. For these reasons, we can keep you up-to-date with less often issues.

Degree day timing also becomes less critical in the second half of the growing season. Degree day and phenology timing is critical early in the growing season because early and late springs cause pest susceptibility timing to vary considerably. By July, these variations have evened out through spring cool and hot spells to where calendar timing becomes much more accurate. Degree day information can still be accessed through the rest of the growing season at the web site listed in each degree day article, but we will not be carrying that information in the newsletter. (*Travis Cleveland*)

Sod Webworm

Sod webworms are a group of grass-feeding larvae that can cause brown patches in the turf which could eventually cover large sections of a lawn. Brown patches in the turf develop as larvae chew grass blades off near the crown of individual grass plants. The larvae can also attract insect-feeding birds like brown-headed cowbirds, red-winged blackbirds, robins and starlings that can cause additional damage as they probe the thatch for larvae.

Hot, dry weather typically allows sod webworm larvae to thrive and cause more damage. In contrast, the wet conditions we have been experiencing throughout Illinois may encourage biological control agents, like microsporidia, that control this pest naturally and limit their impact. With the presence of these natural controls, some areas may not require any treatment.

Scout for sod webworms in locations where brown patches do not recover with watering or locations that more insect-feeding birds are visiting.

There are two ways to scout for sod webworm larvae. The first is to search

for the larvae in the turf. The larvae are drab, they can be tan, white, grey or green, and grow about 1 inch in length. They create silk-lined burrows in the thatch, where they reside during the day, then emerge at night to feed. Scout injured areas by parting the grass with your hands and looking for the larvae or small green pellets of frass (insect droppings).

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 turf, you can treat for these insects.

When treatment is warranted, chemical and biological treatments can be effective in controlling larval populations. Effective organic biological controls include spinosad (Conserve), a bacterial control agent, or *Steinernema carpocapsae* (Biosafe), an entomopathogenic nematode.

Effective chemical controls include bifenthrin (Onyx, Talstar), carbaryl (Sevin), chlorantroniliprole (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 neonicotinoid insecticides to lawns that have a mix of turfgrass and clover, to protect the bees and other pollinators that visit the flowers. (*Sarah Hughson*)

Lesser Known Weeds: White Avens

White Avens (*Geum canadense*) is a perennial plant of woodland and other shady areas. Some would argue this plant is not a weed at all. However, in the perfect growing conditions, this plant can take over the area somewhat quickly. I have personal experience with and others have shared similar experiences over the years. With that said, White Avens is often a desirable plant. In fact, it is not included in any of my basic weed ID books, but it is included rather in a few of my wildflower guides. It can occasionally be found in lawns (including my own). Every year I get asked about this lesser known plant.

Mature plants can reach a height of 12-36 inches. Growth begins as a rosette in the spring for this member of the rose family. Basal leaves are long-stalked and compound. They have 1 or 3 large, terminal leaflets with several small leaflets along the stalk. The leaves are typically lobed with rounded teeth at the margins. The leaves along the upright stems are mostly palmately compound in 3's, somewhat resembling the leaves of strawberry. The stems are smooth to slightly hairy. The leaf veins are distinctly white towards the center (almost frosted in appearance) while the underside of the leaf is purple. The flowers have 5 bright white petals which are interspersed with green sepals. The flowers are small at only about ½ inch wide. They typically occur during the summer. Seed heads are bur-like with hooked tips, which can attach easily to animal fur or clothing. The underground portion of White Avens consists of a taproot and rhizomes, which help to develop colonies of this plant.

A few similar species exist in Illinois including Rough Avens, which has less showy flowers with much shorter petals than sepals. It also has hairy stems. Pale Avens has cream colored flowers, rather than white. Ornamental Geums can be found in garden centers with showy, bright orange flowers. Ironically, I purchased one but could not keep it alive. I can grow White Avens a little too easily however.

White Avens can be a nice addition in a shady spot. But sometimes you can have too much of a good thing and control is then necessary. Unwanted plants can be dug out. Hand pulling can be used, but mature plant stems can easily break off at the soil so have a shovel ready or be prepared to revisit the site another day. A postemergent herbicide such as glyphosate or triclopyr could be tried on young actively growing plants. Keep in mind that glyphosate is nonselective and should be used as a spot treatment. Be sure to carefully read and follow all label directions. For landscapes, planting a more desirable species to provide competition with White Avens may be useful.

For more information, check out: http://www.illinoiswildflowers.info/savanna/plants/white_avens.htm (*Michelle Wiesbrook*)

Mushrooms Growing in Turf

Rainfall has been plentiful for much of the state. The excess moisture has created an ideal environment for mushrooms. They can form wherever sufficient moisture and organic matter is present. When found growing in turf, mushrooms tend to stand out and be unsightly to some. The fungi responsible for producing the mushrooms live off organic matter in the soil, such as decaying tree roots or buried construction debris. The fungi are not harmful to lawns, and the mushrooms will eventually disappear on their own. However, they can be picked, raked, or mowed off to speed up the process.

Mushrooms can form in distinct circles or arcs in turf with diameters ranging from a few inches to 50 feet or more in diameter. These circles can reappear from year to year as the fungi expand radially below ground. These circles are referred to as "fairy rings," a name obtained from old folklore that theorized the rings to be areas where elves, pixies, or fairies danced and played. Fairy ring fungi free nitrogen as they breakdown organic matter, essentially fertilizing the turf. This can result in distinctive circles or arcs of lush dark green growth. Fertilizing will help mask the symptoms by promoting lush green growth of the turf surrounding the ring. The fairy ring will essentially blend in with the fertilized turf.

Some fairy rings are associated with areas of brown, dead or dormant grass. The dead or dormant grass is likely caused by the dense subsurface layer of fungal growth that creates a hydrophobic soil condition and impedes water movement in to the turf. Some other theories suggest the subsurface fungal growth depletes nutrients essential for plant growth, and may even produce toxic levels of ammonia or hydrogen cyanide that kill the grass. Areas of killed turf are difficult to reestablish and are often invaded by weeds. Fungicide applications have provided mixed results in suppressing fairy ring development. The fungicides need to be

applied with a soil surfactant at a time when the fungus is actively growing. Symptoms can be "masked" by deep watering. Core aerification and the use of wetting agents will help the water move deeper into the soil. (*Travis Cleveland*)

Why Mulch?

There are numerous kinds of mulch that can be used in the landscape from lawn clippings, leaves, pine needles (can make soils more acidic), hay, coco hulls, straw, bark chips, composted bark mulch and even old newspapers. I completely understand that lawn clippings, straw, hay, leaves and newspapers aren't as attractive, but they can easily be used in a garden to keep weeds at bay. Most home or garden stores carry bark chips and composted bark mulch in a variety of colors and sizes. The mulches make for a uniform and neat attractive look to the landscape. There are hardwood mulches and softwood mulches in various sizes and this will dictate how long they will last in the landscape. Organic mulches like these will decompose at different rate and will need to be replenished every 1 to 3 years. There are inorganic mulches available, like rubber rings, pulverized rubber mulch and rocks. These do not decompose and do not need to be replenished but will not help to aid in soil fertility or soil health in the long run. They can also be hard on a window when hurled from a lawn mower.

Mulch has a lot of benefits for not only the soil but the aesthetics of the landscape. Below is a list of just some of the reasons mulch should be incorporated into a lawn landscape design.

Advantages to Mulching

- Protects the soil from erosion
- Conserves soil moisture loss through evaporation
- Suppresses weed germination and growth
- Can improve soil health, as the mulches decomposes it will turn into fertilizer as well as help with soil structure and drainage over time.
- Mulch makes for a great insulator of the soil in the winter keeping plant's roots warmer and cooler in the summer.
- With the ability to control moisture, a layer of mulch can inhibit certain plant diseases.
- Mulch is also pretty- giving landscape a uniform and manicured look.

When is enough, enough?

As beneficial as mulch is, too much can be harmful. It is recommended to mulch to a depth of 2 to 4 inches. Unfortunately the saying "more is better" does not stand true when mulching around trees as there are many trees that fall victim to volcano mulching. Having too deep of mulch can allow for other micro climates to develop that are conducive for destructive diseases and insects. Since most organic mulches decompose at different rates, it is important to check the depth of the mulch before just adding or top dressing your landscape.

Disadvantages of too much mulch

- "Volcano mulching" the trunks of young trees may create habitats for rodents that chew the bark and can girdle the trees.

- Deep mulch can lead to excess moisture in the root zone, which can stress the plant and cause root rot.
- Piling mulch against the trunk or stems of plants can stress stem tissues and may lead to insect and disease problems.
- Depending on the type of mulch (pine needles) will cause the soil pH to change
- Continued use of certain mulches over long periods can lead to micronutrient deficiencies or toxicities.
- Fine mulches could become matted and actually prevent water from leaching down to the root zone. It also can be a good environment for weed seeds to germinate.
- Anaerobic "sour" mulch may give off pungent odors, and the alcohols and organic acids that build up may be toxic to young plants.

This is a good time to be refreshing your landscape beds or creating new landscaped areas in yards. As you are putting down mulch, be sure to check the depth before adding any new and be sure to make sure you are putting mulch down into a clean bed. Listed below are great resources on mulching.

http://web.extension.illinois.edu/cfiv/homeowners/060331.html
https://www.treesaregood.org/portals/0/docs/treecare/ProperMulching.pdf
https://www.nrcs.usda.gov/wps/portal/nrcs/detail/?cid=nrcs143_023585
https://www.extension.purdue.edu/extmedia/HO/HO-236-W.pdf (*Maria Turner*)