

THE PURDUE LANDSCAPE REPORT

In This Issue

- [Ascochyta blight: Conspicuous but Usually Cosmetic](#)
- [Three Tree Pest Insects That Will Start Hatching Soon](#)
- [Cool and wet conditions now predicted over next few months.](#)
- [Rows and Rows of Holes](#)

Ascochyta blight: Conspicuous but Usually Cosmetic

(Lee Miller, turfpath@purdue.edu)



Figure 1. Ascochyta blight damage occurs more heavily in mower tracks.

Ascochyta blight is a sporadic disease that can infect Kentucky bluegrass, tall fescue and perennial ryegrass. Outbreaks are closely tied to high rainfall or irrigation events in mid to late spring, and drainage patterns. If the lawn is irrigated, Ascochyta can be a sign of too much irrigation. Current rainfall events are providing a prime environment for this disease.

To reduce spread, do not mow turfgrass when wet or immediately after an excessive rainfall event. Also make sure the mower blades are sharp, the turfgrass is mowed to the appropriate height (3 - 3.5" or higher), and is mowed frequently enough to avoid scalping. Over the next few weeks, consider a slow release nitrogen fertilizer application of not more than 0.5 lb N/1000 sq ft.

Ascochyta blight is solely a foliar disease and the turfgrass should recover in a few weeks. Because of this and the sporadic occurrence of the disease, fungicide applications are usually not recommended.

Conditions

Ascochyta spp. can be found on senescing or dead leaves of several turfgrass species; however, the disease appears to be most serious on Kentucky bluegrass.



Figure 2. Areas that don't drain well also result in increased Ascochyta.

Ascochyta spp. survive as conidia in pycnidia on dead leaves or clippings remaining in the thatch. The pycnidia are highly resistant to breakdown by drought or extreme temperatures. Thousands of conidia ooze from a single pycnidium during wet weather and are dispersed by splashing rain, irrigation, mowing or other management activities.

Conditions that favor Ascochyta blight development are poorly understood. The disease can occur in late spring or summer on drought-stressed turf resulting from water restrictions or poor irrigation system coverage. However, the disease may also develop during periods of warmer weather preceded by unusually wet soil conditions induced by excessive rain or overirrigation. Frequent mowing and dull mower blades contribute to disease severity by creating more wounds that serve as infection sites.

Management

Ascochyta leaf blight can be managed by using good cultural practices that minimize turfgrass stress. Reduce thatch and promote water infiltration through the soil with regular core cultivation. Maintain height of cut at 3 inches or higher. Minimize wounding of the leaf blades by maintaining sharp mower blades. Avoid mowing during wet weather, especially when *Ascochyta* spp. are active. Ruts caused by mower weight in wet conditions compact soil. This reduces water infiltration, increases leaf wetness duration and results in increased disease occurrence. Reduce mowing frequency and increase mowing height during *Ascochyta* leaf blight outbreaks. The fungus may be spread from one location to another on grass clippings, but this presumably contributes little to spread compared to the mower itself. Thoroughly mulching rather collecting or discharging clippings is advised.

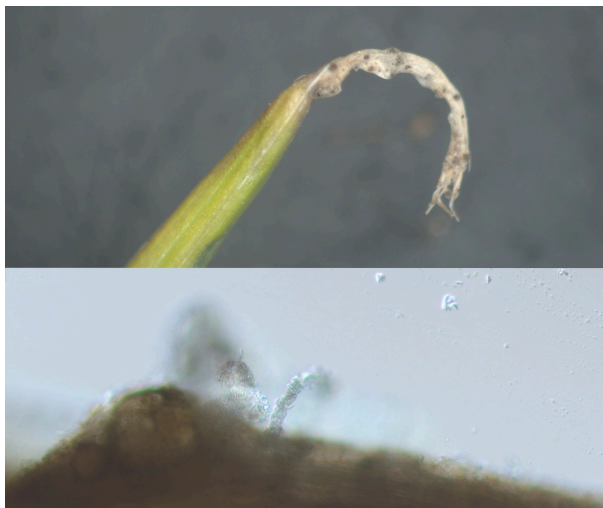


Figure 3. Pycnida embedded in leaf blade (top). Numerous *Ascochyta* spores erupting from pycnidia (bottom)

Maintain balanced fertility. Avoid excessive applications of nitrogen fertilizer, especially in the spring. Too much nitrogen promotes rapid, succulent leaf growth that requires more frequent mowing and causes more wounding of the turfgrass.

Try to maintain uniform soil moisture. Check the irrigation system to make sure that all irrigation heads are working properly and that water is being distributed uniformly to avoid drought stress. On the other hand, excessive irrigation and poorly drained soils can also promote disease development.

Ascochyta leaf blight is primarily a leaf disease and not a root or crown disease, so it rarely causes plant mortality. Turfgrass usually recovers completely after a couple of weeks. Although several fungicides will inhibit *Ascochyta* spp., they can be expensive and difficult to apply. Furthermore *Ascochyta* leaf blight development is sporadic and rapid, making timing of preventive and curative fungicide applications difficult.

Symptoms can be confused with those of

- [Dollar Spot](#)
- [Heat Stress](#)
- [Moisture stress](#)
- [Mower injury](#)
- [White grub damage](#)

To make sure you are treating your lawn properly, send in a sample to the [Plant & Pest Diagnostic Lab](#).

Three Tree Pest Insects That Will Start Hatching Soon

(Elizabeth Barnes, barne175@purdue.edu)

The bursting of buds on the trees signals the arrival of spring, but warm weather also portends the hatching of pest insects. Three that feed on trees and shrubs to watch out for are spotted lanternfly, eastern tent caterpillar, and spongy moth.

Spotted lanternfly



Figure 1. Spotted lanternfly eggs can be very difficult to detect as they easily blend in with their environment. The photo on the left shows three spotted lanternfly egg masses on bark. Note that they all have a putty or mud-like texture and color. The photo on the right shows an early instar spotted lanternfly nymph. Note that it holds itself at about a 45 degree angle. Images by Luke Hearon, flickr and Eric R. Day, Virginia Polytechnic Institute and State University.

Spotted lanternfly is an invasive insect that can be found on the East Coast and was discovered in Indiana last summer. It has been found in the southeastern part of the state, but there may be other populations that have not yet been reported. Depending on temperatures, spotted lanternfly egg hatch can begin anywhere from late April to May. Now is the time to scout for these insects. Stay vigilant for this insect and report any sightings.

Host plants

Spotted lanternfly nymphs (juvenile life stage) prefer plants with thin bark like roses, grapes, tree of heaven, and perennials. They may also be found on saplings and new shoots of their other host plants like birch, black walnut, fruit trees, and maple.

Damage

Spotted lanternfly feeding can kill grape vines within a single summer. Intense feeding can cause dieback of small branches of other host plants. Additionally, early study results suggest that heavy spotted lanternfly feeding can weaken trees and plants sometimes making them more susceptible to other stresses like drought and disease. Researchers are still learning about the long-term impacts of this insect so we strongly recommend staying up-to-date with the current research regarding its impact and management.

Identification

Early instars of spotted lanternfly are black with white spots (figure 1). They can sometimes be confused with ticks but can be distinguished by their behavior. Ticks hold themselves flat to a surface and will crawl away when disturbed whereas spotted lanternfly hold themselves at a 45 degree angle and will jump away when disturbed. Fourth instar spotted lanternfly have red patches on their bodies and adult lanternflies have brightly colored wings with bold red patches and a white stripe (figure 2).

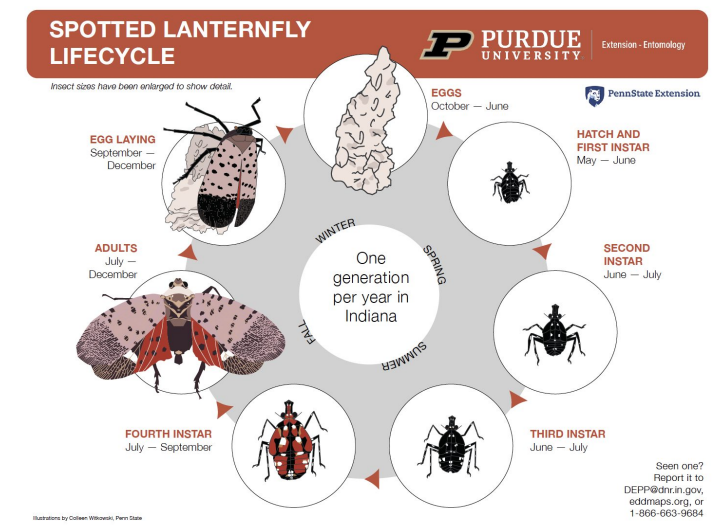


Figure 2. Spotted lanternfly can be found in their nymphal and adult stages from about May to December and as eggs overwinter. The timing listed is approximate and dependent on temperature.

What to do now

- Scout for egg masses-Spotted lanternfly egg masses resemble splotches of mud or putty and can be found on just about any surface outside (cars, garden equipment, houses, lightbulbs, etc.; figure 2).
- Scout for nymphs-Nymphs move from tree to tree early in the season (figure 2). Look for them on their favored host plants like grape and tree of heaven.
- Make plans to remove tree of heaven. Spotted lanternfly can survive without tree of heaven, but it is one of their strongly preferred host plants and it is invasive itself. Removing tree of heaven may help slow down spotted lanternfly. [Learn how to remove it here.](#)

Resources

- [Indiana Spotted Lanternfly Information](#)
- [Tree of Heaven Management Video](#)
- [Penn State Management Guide](#)
- Report them if you see them ([EDDMaps Website](#), Email: DEPP@dnr.in.gov, or 1-866 NO EXOTIC (1-866-663-9684)).

Eastern Tent caterpillars

Eastern tent caterpillars begin to emerge around budbreak and construct silk tents on trees. Though these caterpillars rarely cause serious damage to trees, they are considered unsightly by

some.

Identification



Figure 3. Tent caterpillars build silk tents that they rest on and hide in throughout the day. They often venture out to surrounding branches to feed during the day. Caterpillars are hairy and typically have a white to cream colored stripe down their backs and blue spots on their sides. Photos by Laura Gasaway, flickr and Ashley Waldron, flickr.

Eastern tent caterpillars have blue-black bodies with white and gold stripes down their backs, blueish spots, and golden hair (figure 3). They are typically found in large groups until their last instar when they disperse. These caterpillars build messy silk webs that are called tents on tree branches (figure 3). They retreat to these tents throughout the day and at night. Caterpillars sometimes form lines from their tent to feeding sites.

Host plants

Eastern tent caterpillars can eat a wide range of plants but tend to prefer plants in the Rosaceae family like cherry, apple, and chokecherry. They can also sometimes be found on maple and hawthorn.

Damage

Eastern tent caterpillars typically cause more cosmetic damage than severe injury to trees and bushes. Caterpillars defoliate sections of trees or fully defoliate small bushes. Healthy trees may reflush later in the summer and typically show no signs of long-term impact. Tent caterpillars very rarely cause serious injury. In extreme cases, stressed trees may be more severely damaged.

What to do now

- Scout for caterpillars-At this time of year, tent caterpillars are still typically small and haven't had time to do much damage.
- If you're not concerned about damage, you can leave them be. Tent caterpillars cause minor damage and are a great food source for wildlife.
- If you're concerned about damage, but don't want to kill them you can snip the twigs with the tent caterpillars or

gently pull the tents off at night. Place them on another tree or shrub in a well-lit area like a forest edge where you are less concerned about leaf damage. Wear gloves if you use this method as some people are allergic to the hairs on the caterpillars.

- If you're concerned about damage and need to kill them you can use the same [control methods as for fall webworms](#).

Resources

- [Fall webworm management](#)
- [PLR Tent Caterpillar Article](#)

Spongy moth (formerly gypsy moth)

Spongy moth (formally known as gypsy moth) is an invasive insect typically found in [northern Indiana as well as much of the East Coast, Michigan, and Wisconsin](#) but it can also appear in isolated populations in other areas. A good rule of thumb is that generally a wet spring means low levels of spongy moth and a dry spring can mean high levels of spongy moth, though there are, of course, exceptions.

Identification



Figure 4. Spongy moth caterpillars lay brown egg masses covered in hair. They can be found on just about any surface outside and in outbreak years may be clumped together. Their caterpillars have blue-black bodies with blue and red bumps on their backs in two rows. Photos by Sandra Richard, flickr and Elizabeth Barnes, Purdue University.

Spongy moth egg masses are light brown, oval, and furry (figure 4). The caterpillars are extremely small when they hatch in April and May, but can grow up to 2 inches later in the summer. They have blue-black, hairy bodies with rows of paired blue and red spots down their backs (figure 4).

Host plants

Spongy moth caterpillars strongly prefer oak trees but will also eat willow, sweetgum, poplar, apple, pine, and over 500 other species of plants. They generally start with oaks and move to these other plants if they run out of leaves.

Damage

Spongy moths can completely defoliate trees in one year and seem to disappear the next. They generally only cause serious problems for tree health during outbreak years which are more likely to occur following a dry spring. The seriousness of the damage to trees depends on the species of tree and the number of other stresses it experiences before and after the defoliation. You can learn more about [spongy moth damage here](#). Arborists and other green industry professionals can be consulted if you have concerns about the health of a specific tree.

What to do now

- Scout for egg masses—There's still time in most areas to look for and scrape egg masses. Check on sheltered areas like house siding, tree trunks, on rocks, and car tires. Gently scrape the eggs off with a paint scraper or other hard piece of plastic and dump them in soapy water. Leave them in the water for about two days before disposing of them.
- If you live in an area with an established population of spongy moth, familiarize yourself with [management options](#) so that you can quickly respond should there be an outbreak later in the summer.
- Report them if you see them ([EDDMapS Website](#), Email: DEPP@dnr.in.gov, or 1-866 NO EXOTIC (1-866-663-9684)).

Resources

- [Spongy Moth In Indiana](#)
- [Spongy Moth Q&A's for Christmas Tree Growers & Nursery Producers](#)
- [Q&A's About Using BTK to Control Spongy Moth](#)
- [Q&A's About Pheromones & Controlling Spongy Moth](#)
- [Indiana DNR's Spongy Moth Page](#)
- [Spongy Moth Distribution](#)
- [Everything you need to know about spongy moth in a half an hour](#)

Cool and wet conditions now predicted over next few months.

(Beth Hall, hall556@purdue.edu)

On the third Thursday of every month, the national Climate Prediction Center releases their 3-month climate outlook for temperature and precipitation. These outlooks are presented as the level of confidence (i.e., probability of occurrence) for conditions to be above or below normal. Since last fall, these outlooks have been consistently favoring above-normal temperatures and precipitation for Indiana. This suggested significant influence from the La Niña phase of oceanic temperatures over the tropical Pacific Ocean that has global impacts. Earlier models assumed that this La Niña event would weaken, transitioning to a more neutral phase by late spring.

However, it has not shown much weakening, suggesting significant confidence that La Niña will continue into late summer. While this has happened in the past, the few cases coupled with the significant changes in global climates have made it difficult to draw strong comparisons for what to expect over the next few months. Regardless, the variety of climate models that contribute to the final climate outlooks have provided some guidance. For May, the climate outlooks are favoring cooler-than-normal temperatures and above-normal precipitation. Now that the temperature outlook has flipped from favoring above-normal temperatures to below-normal temperatures, there is increased concern that the number of favorable field days will be reduced. Lower temperatures will reduce evapotranspiration rates causing soil conditions to remain wetter for longer. The May-June-July climate outlook for temperature is indicating that the various climate models were inconsistent on whether temperatures would be above, near, or below normal (Figure 1). However, the 3-month climate outlook for precipitation is still favoring above-normal amounts (Figure 2). It is important to note, however, that if that outlook is correct, it only means that the 3-month total amount of precipitation is likely to be above normal with little-to-no guidance on its timing.

The recent cooler temperatures across Indiana has led to a slow start for accumulated modified growing degree days (MGDD) with a start date of April 1. Figure 3 shows accumulated MGDDs ranging from the upper 30s in the northern counties to the lower 100s in southern Indiana. This is anywhere from 30 to 90 units below normal with the greatest differences occurring in southern Indiana (Figure 4).



Figure 1. Temperature outlook for the May-June-July 2022 period. These are produced by the national Climate Prediction Center and illustrate confidence of favoring above- or below-normal conditions.



Figure 2. Precipitation outlook for the May-June-July 2022 period. These are produced by the national Climate Prediction Center and illustrate confidence of favoring above- or below-normal conditions.

Growing Degree Day (50 F / 86 F) Accumulation

April 1 - April 20, 2022

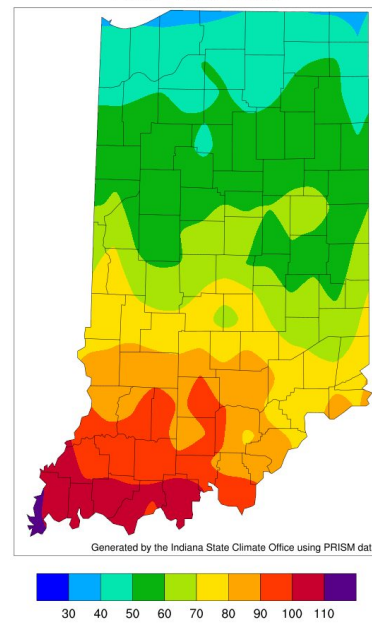


Figure 3. Modified growing degree day (50°F / 86°F) accumulation from April 1-20, 2022.

Growing Degree Day (50 F / 86 F) Departure From Average

April 1 - April 20, 2022

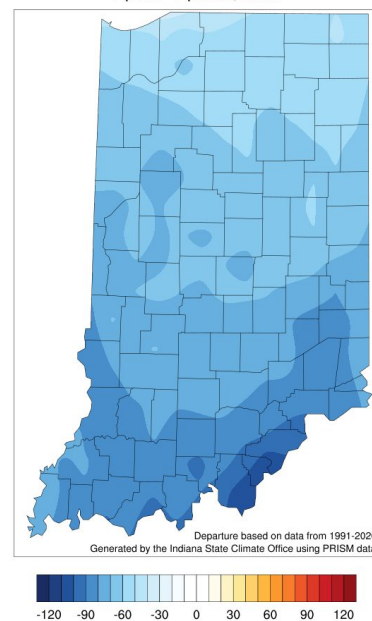


Figure 4. Modified growing degree day (50°F / 86°F) accumulation from April 1-20, 2022, represented as the departure from the 1991-2020 climatological average

Rows and Rows of Holes

(John Bonkowski, jbonkows@purdue.edu) & (Tom Creswell, creswell@purdue.edu)

When we see round holes in the bark of a tree we often think the cause might be due to wood boring insects or bark beetles. However, that is not always the case. Small holes arranged in neat, uniform rows and columns on the trunks of trees or woody

shrubs are usually caused by sapsuckers, a type of wood pecker, instead of insects. Sapsuckers (*Sphyrapicus* spp.), as the name implies, feed on the sap of living trees by drilling a row of shallow holes in the bark to genera “sap wells” that fill with sap and attract insects. While sapsuckers feed on the insects that get trapped, they feed primarily on the sap that is exuded by the tree. They often have preferred host species and you will often find them returning to the same tree that they have already drilled holes from a previous season to increase their size and generate fresh sap. Overtime, as the number and size of holes increase, the damage caused can lead to girdling of branch limbs or even the trunk of the tree. Thinner barked trees, like birch and maple, may be more susceptible to girdling and dieback due to sapsucker damage. Typically, if the damage is limited and minor, the tree will recover and vigor is not significantly affected, but repeat injury to a specific location on a given tree can predispose the tree to infestation by insects or infection by decay fungi.



Fig. 1: Spruce sample with symptoms of sapsucker damage and extensive resin flow.



Fig 2: Sapsucker injury on trunk of a Callery pear tree. This invasive species would be a good candidate tree to sacrifice to the sapsuckers.



Fig 3: Sapsucker injury on trunk of a crabapple tree.

Since woodpeckers are classified as migratory, non-game birds and are protected by the [Federal Migratory Bird Treaty Act](#), it is illegal to kill wood-peckers (i.e., sapsuckers) without a permit issued by the Law Enforcement Division of the US Fish and Wildlife Service. Management recommendations are typically designed to inconvenience or scare the birds from trees, including using sticky repellants, mylar flashing tape, aluminum foil strips, and predatory bird-mimics. Use of a barrier, like plastic netting, hardware cloth or burlap, around injured areas can help discourage further feeding in that location, but sapsuckers may simply move to another part of the tree or to trees in the nearby area. That being said, if trees are already severely damaged and a sapsucker is happy coming back to that one tree and few others, it might best to let them have it as a bribe to not attack your other trees.

It is the policy of the Purdue University that all persons have equal opportunity and access to its educational programs, services, activities, and facilities without regard to race, religion, color, sex, age, national origin or ancestry, marital status, parental status, sexual orientation, disability or status as a veteran. Purdue is an Affirmative Action Institution. This material may be available in alternative formats. 1-888-EXT-INFO Disclaimer: Reference to products in this publication is not intended to be an endorsement to the exclusion of others which may have similar uses. Any person using products listed in this publication assumes full responsibility for their use in accordance with current directions of the manufacturer.

Purdue Landscape Report © Purdue University - www.purduelandscape.org

Editor: Kyle Daniel | Department of Horticulture and Landscape Architecture, 625 Agriculture Mall Dr., West Lafayette, IN 47907