PURDUE EXTENSION

Plants & Pests September2017

Editor: Nikky Witkowski
Agriculture & Natural Resources/Horticulture Educator

Lake County CES Website
www.extension.purdue.edu/counties/lake/

Upcoming Programs

"Autumn—Nature's Mosaic" MG Symposium by Lake County Master Gardeners Association
September 16 8:30 a.m.—3:00 p.m

Companion Planting with Dolly Foster, MG
http://tinyurl.com/2017CompanionPlanting
September 27 6:30 p.m.

Insect and Disease Problems of Evergreens with Gail Ruhl and Cliff Sadof, From Purdue University
http://tinyurl.com/2017evergreens
October 10 9:00 a.m.—12:00 p.m.

Hydrangeas: Care & Top Picks with Wayne Gruber, Niemeyer's Landscape
http://tinyurl.com/2017HydrangesEdProgram
November 9 1:00 p.m.

Leaf Scorch and Sunburn on Hosta

Writer: Rosie Lerner, Extension Consumer Horticulture Specialist, Department of Horticulture and Landscape Architec-

Hosta are generally considered to be shade-loving plants, though there are some cultivars that can tolerate considerable sun. But in hot dry weather in full sun, even sun tolerant hostas may show symptoms of leaf scorch (browning along the leaf edges) and sunburn, (often starts out as a "bleached" effect followed by browning.) While our season was notably wet for much of the early part of summer, most areas of the state experienced considerable dry weather more recently. The hosta pictured here were planted adjacent to a very busy sidewalk in full sun and despite being mulched and irrigated, they still ended up with scorch and sunburn as summer turned up the volume of stress.

There are other causal agents that can result in similar symptoms including disease, virus, and nematodes.

Fall: A Great Time for Lawn Aerification

Writer: Gail Ruhl, Senior Plant Disease Diagnostician, Purdue Plant and Pest Diagnostic Lab

Fall is a perfect time for homeowners to aerify their lawns. Aerification is the use of a machine to remove small cores of soil from the lawn. Aerificiaton is performed to control thatch build-up and/or soil compaction. What is thatch? Thatch is an organic layer of dead and living shoots, stems, and roots that accumulate just above the soil surface. Over-fertilizing, over-watering, and soil compaction can all cause this build-up of this organic material which impedes the movement of air, water, and nutrients to turf roots. A thatch layer of 0.5 inch thick or less is desired. But, when this layer is 0.5 inch thick or more, the use of a de-thatching machine or aerifier is necessary to decrease the amount of thatch. If the thatch layer is thicker than 1.0 inch, the sod may need to be removed and the area reseeded. Aerification makes holes through the thatch to allow air, water, and nutrients to reach turf roots. New roots can also grow inside the aerifier holes leading to a healthier lawn. When aerifying a lawn, homeowners should be sure the aerifier produces 20-40 holes per square foot, 2-3 inches deep. Performing aerification when the soil is not too wet or too dry will help produce these results. Core aerifiers can be rented at most rental centers or hardware stores. These machines may require the operator to make multiple passes over the lawn to provide effective results. If homeowners miss aerifying their lawn in the fall, spring is also a recommended time.

Close-up of a thatch layer. (Photo by Zac Reicher)

Close-up of aerifier holes in a home lawn. (Photo by Mary Welch-Keesey)

Commercial aerifier being used on a creeping bentgrass green. (Photo by John Orick)

Powder Mildews-NOT ALL THE SAME

Writer: Gail Ruhl, Senior Plant Disease Diagnostician, Purdue Plant and Pest Diagnostic Lab

Powdery mildew (PM) is the name given to a group of diseases with a grayish-white, powdery coating of spores and fungal mycelia visible on the surface of leaves, stems, flower petals and fruit. Powdery mildew is caused by several closely related fungi, each having a limited host range. In other words, observing powdery mildew on lilac leaves should not cause concern about spread to nearby zinnias.

All PM fungi are obligate parasites, meaning that they must grow and reproduce on living tissue. PM survives from one season to the next as spherical, thick-walled, fruiting bodies, called chasmothecia (previously called cleistothecia), on the bark of branches and stems of woody, perennial hosts and also on fallen, infected leaf debris beneath plantings. In spring or early summer, airborne spores from overwintering chasmothecia infect susceptible leaves to once again begin the infection cycle.

The reason we often see powdery mildew infections in the absence of rain events is that all PM species can germinate and infect susceptible tissues in the absence of free water. In fact, water on plant surfaces for extended periods of time will actually inhibit germination and can kill the spores of most PM fungi! We do not recommend this as a control measure because moisture on leaves promotes the growth of most other diseases.

The best method of control for PM is prevention. Cultural practices that will decrease the severity of PM in the landscape include avoiding planting those cultivars which are highly susceptible and alleviating high humidity by spacing plants far enough apart to allow good air movement to quickly dry the foliage. Although chemical control is seldom warranted in the home landscape for powdery mildew, preventative fungicide sprays are available for use on prized ornamentals and vegetables that require protection.

PM on soybean

PM on tomato

Bagworms Getting Bad Again

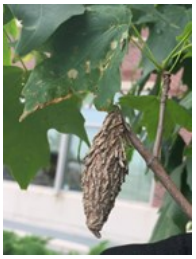
Writer: Nikky Witkowski,
Purdue University Extension Educator, Lake County

Make sure in your landscapes you are being vigilant if you have arborvitaes. I have seen a resurgence of Bagworms this year and they can be very dangerous to your trees even within one year. They are also being found in odd places like hanging around on dumpsters… Either way, now is a time to start scouting for them so that you can remove the bags if at all possible. If you do that, you at least remove all the eggs off your tree for the time being. If you do find bags, I would recommend looking into sprays mentioned in the next article. Otherwise, take care and watch for them to show up next year so you can treat them early if they come.

Evergreen Bagworm? Not Forever True.

Writer: Cliff Sadof, Department of Entomology, Purdue University

The evergreen bagworm, as its name implies, is well known for its ability to defoliate evergreen trees and shrubs like spruce, arborvitae, fir, junipers and pine. When given a chance, it will also feed on deciduous trees like maples, honeylocust, and crabapples. In late May and early June bagworms hatch from eggs that overwinter in the bag of their mother. Soon after they begin feeding, they cover themselves with leaf tissue. When young bagworms begin feeding on broadleaved plants the caterpillars are too small to feed all the way through, so they leave circular patterns of skeletonization. Bagworms can be easily controlled with a spray application of spinosad (Conserve, or Fertilome borer and bagworm killer), or Bacillus thuringiensis (Dipel). More details are available on the Purdue Tree Doctor App, or our Bulletin https://extension.entm.purdue.edu/publications/E-27.pdf



Overwintering bagworm on maple next leaf injured by young bagworms.

Circular spots of skeletonization caused by young bagworms feeding on sugar maple

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1-888-EXT-INFO · www.extension.purdue.edu

Purdue Extension—Lake County
2293 N. Main St., Crown Point, IN
Phone: 219-755-3240 E-mail: nikky@purdue.edu