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THE PURDUE LANDSCAPE REPORT

In This Issue

Invasive Thrips to Watch for in the Nursery and Landscape

(Alicia Kelley, ajkelley@purdue.edu)

Nursery growers and landscapers should stay vigilant for an invasive thrips that is moving across the USA. *Thrips parvispinus* was first detected in Florida in 2020. It has since spread through Georgia and the Carolinas, and has been detected in Colorado, Ohio, Pennsylvania, and Delaware. It is not known to occur in Indiana, but growers who receive nursery stock from these states should be aware of this invasive insect.

Thrips parvispinus has been reported on dozens of host plants, including numerous ornamentals, vegetables, fruits, and legumes. Their feeding injury causes stippling and bronzing on leaves, and they also distort the developing buds and cause severe deformation of leaves and fruits.

Figure 1. T. parvispinus damage to gardenia terminal. Image credit: Lyle Buss, University of Florida. Source article.

Figure 2. Chili peppers infested with T. parvispinus. Source publication: Payán-Arzapalo, María et al. 2025. Florida Entomologist, 108:1.

Figure 1. Source article.
Figure 2. Source article

Prevention and early detection are crucial to stop this insect from spreading. Sticky cards are great for passive sampling, or you can scout by tapping plants over a white sheet of paper to dislodge thrips and other pests. *Thrips parvispinus* are extremely small – only 1 mm long – so make sure you have a hand lens. The adult females have a brown/yellow head and thorax, and a dark black abdomen. The males are lighter in color and only have black coloration on the dorsal side of the abdomen.

If you are concerned that you found this species, you can reach out to the Invasive Species Hotline at 866-NO-EXOTIC [866-663-9684], or send suspect samples to the Purdue Plant & Pest Diagnostic Lab for diagnosis.

Shot hole leaf spot of Prunus.

(John Bonkowski, jbonkows@purdue.edu)

Cherry, plum, almond, peach and cherry laurel all get a common issue called shot hole leaf spot. At first, a chlorotic or necrotic spot develops on the foliage (Figure 1). When a tree has severe symptoms, the leaves may drop prematurely from the tree. If the leaves remain on the tree, the leaves produce a cork layer around the leaf lesion, sometimes a few millimeters beyond the edge of the necrotic tissue. This layer causes the inner tissue to separate and fall out, leaving round to irregular holes in the leaf. The name of the disease, shot hole leaf spot, refers to the holes in the foliage as if the leaves were shot with a gun.

Determining a shot hole problem is present is fairly easy, however, there are multiple things that can cause these symptoms in *Prunus*, including fungi (*Stigmina carpophila* and *Blumeriella jaapii*), bacteria (*Xanthomonas arboricola* pv. *pruni*), viruses (Prunus necrotic ringspot virus and Cherry necrotic rusty mottle virus), and injury (chemical damage, including contact burn from fungicides and herbicides). In most cases, no management is necessary since the damage is usually minor or doesn't cause severe defoliation. However, in cases where significant leaf drop is observed, having the cause identified is important to apply the appropriate management strategy when it comes to pathogens.

On samples that come to the lab, the most common cause of shot hole leaf spot is the fungus *Blumeriella jaapii*. The necrotic leafspots that the fungus causes are fairly small, but they can create larger areas of necrotic tissue as they coalesce, making the leaf look like Swiss cheese (Figure 2, 3). Under humid and warm conditions, the fungus will produce asexual spores from fruiting structures on the leaf undersides. These are usually at the dead center of the individual round leaf spots. Spores that have a white appearance will ooze out of the leaf where it can be spread by water splash (Figure 4, 5).

It is good practice to remove affected leaves, whether they fell during the season or in the Fall, to reduce the amount of inoculum next spring. If you know that particular trees may have more severe leaf spot issues, fungicide applications can be made to protect expanding foliage from infection. For fungicides that are labeled for *Blumeriella*, please see the Purdue Plant Doctor Link Below.

Please remember that fungicides will have no effect on bacteria (or viruses, or abiotic issues for that matter). Having the correct cause identified is important for management. If you send a sample to our lab for diagnosis, we will need leaves with intact leaf spots in order to attempt an identification.

Cherry Leaf Spot: *Blumeriella jaapii*
https://www.purdueplantdoctor.com/factsheet/tree-578

Shot hole disease (particularly *Xanthomonas*)*
https://fff.hort.purdue.edu/article/shot-hole-disease/

*Please note that any pesticides mentioned are for orchard use. Always read and follow the label for any pesticides to ensure that they are being applied safely and in the conditions outlined by the label. Remember, the label is the law.

Symptoms and Signs for Plant Problem Diagnosis – An Illustrated Glossary
Shot Hole symptom description: Page 52
https://www.extension.purdue.edu/extmedia/BP/BP-164-W.pdf

Figure 1 Symptoms of shothole leaf spot. No pathogen was found

Figure 2 Shot hole leaf spot caused by Blumeriella jaapii, creating numerous leaf spots.

Figure 3 Caption: Close-up image of multiple lesions coalescing and creating larger areas of dead tissue on the leaf.

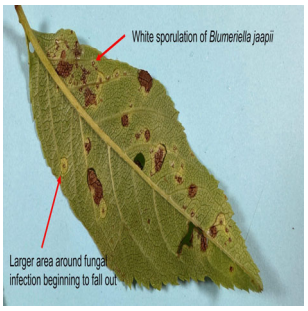

Figure 4 Caption: Leaf underside showing sporulation of Blumeriella jaapii. Spores are white in color and can be found near the center of the leaf lesions.

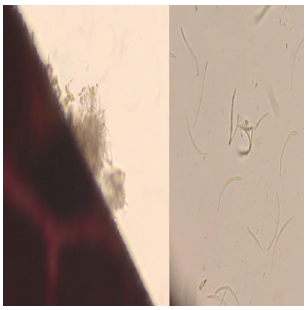

Figure 5 Microscopic images of Blumeriella jaapii spores: Lefthand side shows clumps of spores exuded from the cut leaf tissue; right hand shows individual spores, which are long and thin.

More heat on the way

(Beth Hall, hall556@purdue.edu)

One heat wave down, more to come. It is summer, though, so aside from expecting plenty of hot days, the things to be more concerned about is reference (or potential) evapotranspiration (ET) significantly exceeding precipitation that would ultimately cause drought-related impacts. The National Weather Service provides a 7-day forecasted reference ET product as well as a 7-day forecast for total precipitation amounts. From these resources, it looks like across Indiana, approximately 1.5" of water is expected to be lost over the next 7 days and anywhere from 0.10" to up to 1.5" of precipitation will be received (Figure 1). This implies a water deficit for most areas – which is not unusual throughout Indiana summers. The concern comes when that deficit becomes much greater than normal.

Concerning drought, the U.S. Drought Monitor continues to place northwestern Indiana in the Abnormally Dry (D0) category with two isolated areas within that zone in Moderate Drought (D1) (Figure 2). There are two other areas in Indiana that we are keeping an eye on for potential drought development: eastern Indiana around the Adams County area and southern Indiana along the Ohio River near the greater Louisville region. If the 7-day precipitation forecast verifies, then those two areas along with northern Indiana may degrade further regarding abnormal dryness and drought.

The 3-7-day hazard risk report released by the National Weather Service is indicating the risk for hazardous heat across most all of Indiana this holiday weekend (Figure 3). Keep an eye on other people and animals around you since heat distress often creeps up undetected until it is too late. Be sure to hydrate often and seek shady environments when possible.

The 6-to-14-day climate outlooks are indicating temperatures should be near normal with a slight probability of warmer than normal conditions near the end of that period. Climate models are slightly favoring above-normal precipitation throughout the period. Climate outlooks for July (released on June 30th) are strongly favoring above-normal temperatures for the month with very little guidance regarding precipitation.

Figure 1. Total precipitation amounts forecasted for July 3-10, 2025.

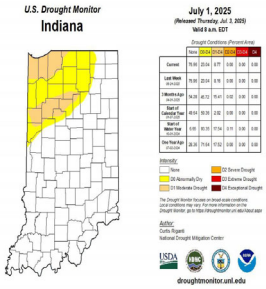

Figure 2. U.S. Drought Monitor status for conditions as of Tuesday, July 1, 2025.

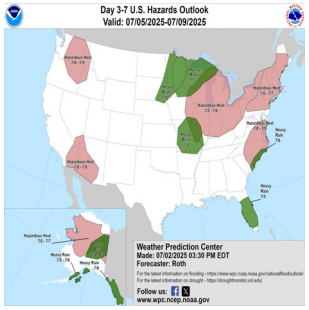

Figure 3. National maps indicating potential weather hazards for July 5-9, 2025.

Purdue Turf and Landscape Field Day Recap: Don't miss this event in 2026!

(Kyle Daniel, daniel38@purdue.edu)

The 2025 Purdue Turf and Landscape Field Day took place on July 8 at the W.H. Daniel Turfgrass Research and Diagnostic Center in West Lafayette, drawing professionals from across Indiana and the Midwest. In addition to the 350 attendees, there were 30 exhibitors featured in the trade show.

Figure 1. John Bonkowski teaching the landscape tour attendees about common canker diseases and their management at the Purdue Turf and Landscape Field Day on July 8, 2025.

The event began in the morning with a series of in-depth research tours led by Purdue faculty, staff, and graduate students. The morning sessions focused on four key areas: IPM in lawn care, lawn care management, golf, and landscape. Attendees had the opportunity to engage directly with current research, field trials, and best management practices on topics such as disease, insects, fertilization, weed control, equipment maintenance, and sustainable maintenance practices.

After a great lunch, the afternoon transitioned into workshops

designed to give participants practical experience. Highlights included a landscape diagnostic tour that walked attendees through real-world plant health issues, a weed identification and control workshop, a sports turf tour at Purdue's baseball stadium, and a tour of Purdue's new golf course facilities.

Throughout the day, attendees also had the opportunity to explore the trade show featuring 30 vendors and exhibitors. The trade show displayed the latest equipment, products, and services available to the turf and landscape industry, including cutting-edge turf machinery, soil amendments, and pest management tools. The Field Day successfully combined education, hands-on learning, and industry networking, continuing Purdue's tradition of supporting green industry professionals with research-based knowledge and practical solutions.

Don't miss the 2026 Purdue Turf and Landscape Field Day on July 21st at the W.H. Daniel Turfgrass Research and Diagnostic Center in West Lafayette.

Register now for the Indiana Invasive Species Conference

(Kyle Daniel, daniel38@purdue.edu)

Register now for the Indiana Invasive Species Conference!

September 4-5 at the South Shore Indiana Welcome Center-Hammond, IN

Early bird registration ends July 20th

Registration fees:

- Early bird registration: $80 per person (until July 20th)
- General registration: $95 per person (July 21st – August 15th)
- Student research poster presenters: $50 (**Interested in presenting a poster?** Contact iisc@purdue.edu for more information! Poster submission deadline: August 8th)

Day One – Sept 4

- **Where:** South Shore Indiana Welcome Center, 7770 Corinne Dr, Hammond, IN 46323
- **Keynote Speaker: Dr. Henry Quesada**| "Ecological, Social, and Economic Consequences of Invasive Species on Forests and Forest Products"
- Full schedule of presentations from experts – **CEUs and CCHs will be available!** Check out the agenda on the conference website.
- Pastry breakfast and a full lunch
- Need a hotel? Discounted hotels are available here.

Day Two – Sept 5

- **Where:** Beautiful parks and preserves in Northwest Indiana!

Check out our full list of field events! One event per person. Both morning and afternoon tours are available.

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