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THE PURDUE LANDSCAPE REPORT

In This Issue

Feeling Hot, Hot, Hot

(Austin Pearson, pearsona@purdue.edu)

I couldn't think of a better title this week, thanks to the hot weather we've been experiencing and the song by Arrow. While some people enjoy the heat and humidity, I must admit that I don't find it overly pleasant. Over the past few days, average temperatures have ranged from 6 to 13°F above normal, accompanied by increased air moisture. This combination of heat and humidity has triggered summer pop-up showers across the state, resulting in localized heavier rainfall. GRANGER 1.8 ENE, located in St. Joseph County, measured 7.03 inches of rain from June 18-25. The next closest was PLYMOUTH 2.5 WSW in Marshall County with 3.98 inches (Figure 1).

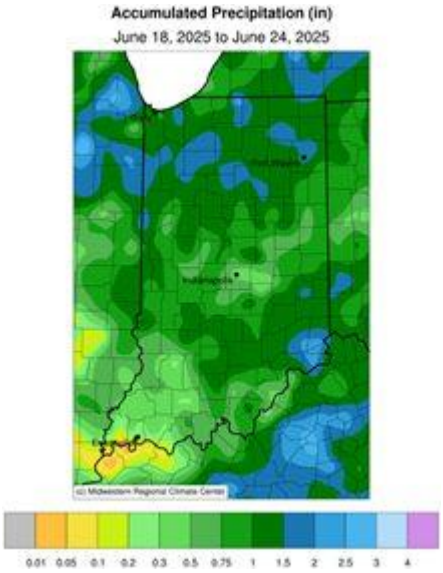

Figure 1. Accumulated precipitation June 18-24, 2025.

Growing degree days (GDD) have trended upward due to the warmer weather. This is visible in the Corn GDD tool on the MRCC website (Figure 2). In recent days, our GDD accumulations (green line) have caught up to the 1991-2020 climatological normal (purple line). However, crops have been slightly stressed due to the recent heat. Vegetable gardens, flower beds, and other perennial crops have had to be watered more frequently.

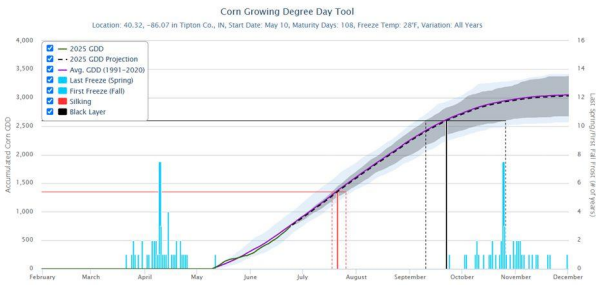

Figure 2. Growing Degree Day Tool from the Midwest Regional Climate Center.

So, we're hot and humid. Is this going to last? Forecast highs are expected to dip into the mid to upper 80s, extending into the first week of July. This offers a slight relief and more closely aligns with normal temperatures, similar to what we've experienced over the past few days. As for precipitation, elevated chances for above-normal precipitation are expected according to the Climate Prediction Center. As for the rest of summer? Let me toss this over to our National Weather Service Northern Indiana friend, Kyle Brown.

Looking Ahead: July, August, September

Kyle Brown, NWS Northern Indiana

On the heels of meteorological Spring that could be described as mild and wet, the three-month outlook from the Climate

Prediction Center (CPC) indicates above-normal temperatures are favored, paired with a slight lean to above-normal precipitation along the Ohio River (Figure 3). Equal chances for above- or below-normal precipitation are noted elsewhere in the state.

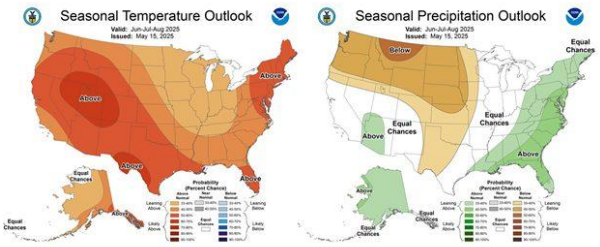

Figure 3. Temperature and precipitation outlook through August 2025.

Since January 1, precipitation at Evansville is already over nine inches above normal as of mid-June. Evansville is on the western edge of the aforementioned above-normal precipitation outlook. According to the CPC, when compared to previous long-term model runs, the latest guidance was beginning to highlight the Ohio Valley for increased precipitation.

For the rest of the state, there is no clear signal for above-or-below normal precipitation. The short-term forecast favors dry conditions with a strong ridge developing, bringing a stretch of hot, dry weather. For the remaining summer months, an active thunderstorm pattern or remnants of a tropical system could easily tip the scales to above-normal precipitation.

Based on consistent model guidance, there is a lean toward above-normal temperatures. One caveat noted in CPC's discussion is that high soil moisture in parts of the Tennessee Valley raises uncertainty about the magnitude of the above-normal temperatures. With this in mind, moist soils in southern Indiana could be a factor in the extended temperature forecast.

Asian Jumping Worms: How to ID this soil pest

(Bob Bruner, rfbruner@purdue.edu)

It's that time again! With the arrival of warm temperatures and increased rainfall, many of us are getting to work on our lawns, gardens, and landscaping. Unfortunately, this often comes with discovering what new (or old) invasive species are here to haunt us. So far this year, the invasive I've gotten the most questions on is the Asian jumping worm. This earthworm's life cycle tends to experience 'boom & bust' years due to their feeding habits, and, anecdotally speaking, we appear to be experiencing an increase in their populations throughout the state this season. Now is a great time to brush up on our understanding of this organism, and the revisit how it impacts our environment.

Identification

While Asian jumping worms share a lot of traits with other, less harmful earthworm species, they do have some features we can use to differentiate them from the rest. Jumping worms tend to be darker in color, since they live either on top of the soil or just under the first layer of plant detritus and get more exposure to sunlight. Asian jumping worms also have a significantly higher number of bristles, or setae, that they can use to move around. They can have as many as forty bristles per segment, in contrast to the eight found on other species, giving them the traction they need to wriggle and squirm as violently as they do. Perhaps the easiest feature we can use to identify them is the clitellum, the organ that contains they reproductive organs. On Asian jumping worms, the clitellum just looks like a very pale set of segments close to the anterior end of the worm, whereas on most other worms, it's about midway down the body and saddle-shaped. Finally, we can detect their presence by changes in our soil. Asian jumping will not improve soil quality for growing like other earthworms can, but rather change the soil consistency into something like coffee grounds, rendering it unsuitable for growing most crops and ornamentals.

Environmental Impact

As I alluded to above, Asian jumping worms do significant damage to soil quality when left unmanaged. These earthworms, unlike their beneficial cousins, do not provide ecosystems services like soil aeration or castings that help add nutrients to the soil. Since they live at the surface, they do not burrow, and their castings lock in nutrients and often get swept away by hydrological events. Asian jumping worms also tend to gather in large groups whenever they infest an area, resulting in most of the decaying plant material and other organic material being stripped out of the soil. Often, the only plants capable of developing in those conditions are invasive themselves!

Reporting

We are still learning about the Asian jumping worms spread in Indiana, so we are asking everyone to please report sightings. You can report them either online by going to www.eddmaps.org, www.gledn.org, or you can call 1-866-NOEXOTIC. We ask that you take a picture and tell us where you were when you saw the worms. You can also check https://ag.purdue.edu/reportinvasive for up-to-date information on all kinds of invasive species, or reach out to Bob Bruner, Purdue University Exotic Forest Pest Educator, by emailing rfbruner@purdue.edu. With your help, we can map out this worm and create effective plans to limit its presence in our state.

Figure 1. The clitellum, the set of pale, milky colored segments, is the reproductive organ of earthworms.

What's Killing My Yews? Top Problems and How to Prevent Them

(Tom Creswell, creswell@purdue.edu)

Yews are widely used as foundation plantings in many areas and are valued for their dark, evergreen foliage. The most widely used landscape yews are Japanese yew (*Taxus cuspidata*) and *Taxus* x media hybrids, such as Hicksii or Wardii Yew.

While few diseases and insects attack yew, there are a few problems to watch for. The most common problem we find on yew is root rot due to poor soil drainage. In heavy clay soils with poor internal drainage, the soil may stay saturated for long periods (Figure 1), leading to root decay and loss of root function. Soggy soils also provide the right conditions for root rot disease caused by the soil-borne water mold Phytophthora (Figure 2).

Figure 1. Heavy clay soil like this prevents drainage and promotes root rot.

Figure 2. These yew roots have root decay and few fine feeder roots as a result of poor drainage and Phytophthora root rot.

You can do a soil percolation test to check for drainage, or just observe how long soil stays wet after a rain to get an idea of whether soil drainage may be affecting your yew. To diagnose Phytophthora root rot a root sample must be submitted to a diagnostic lab, where rapid dipstick type tests and isolations to check for the pathogen can be done. Results take about 3-5 days in most cases. More information on Phytophthora disease is available in our free Extension publication: https://www.extension.purdue.edu/extmedia/BP/BP-215-W.pdf

Another soil-related problem affecting yew may be soil pH. Taxus prefers soil between pH 6.0 and 7.0 and most soils in Indiana are in that range, however, if your taxus is yellowing or showing other symptoms of nutrient imbalance, it may be worth getting the soil checked for pH and overall nutrient levels at a commercial lab.

Roots may also be damaged by the grubs of black vine weevil. Look for notched areas on the edges of needles (Figure 3), and check roots for areas that appear eroded. This Purdue Plant Doctor article has more information on identification and management: https://www.purdueplantdoctor.com/factsheet/tree-300

Figure 3. Yew needles showing notched edges caused by feeding by black vine weevil. Photo by John A Weidhass, Virginia Polytechnic Institute and State University. Bugwood.org.

Another stress factor that may affect yew is the practice of shearing into a tight hedge (Figure 4). There are many examples of healthy yew hedges kept in a formal style by shearing, but shearing does cause stress and if plants are affected by root rot, poor drainage, or root-feeding insects, the combination of problems may lead to dieback and decline. Tightly sheared hedge plants often have living green foliage only in a shallow outer layer a few inches deep, while the inner core of the hedge is typically vacant of needles due to shading out, so they have fewer nutrient reserves to draw on when stressed. Check out this site for suggestions on better pruning practices for conifers: https://www.canr.msu.edu/news/pruning_evergreen_shrubs

Figure 4. Yew hedge in decline, sheared in a tight box pattern.

If you have unexplained dieback on yew, please consider sending photos and submitting samples to the Purdue Plant and Pest Diagnostic Lab.

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