

THE PURDUE LANDSCAPE REPORT

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Distinguishing Between Norway, Sugar, and Black Maples

(John Woodmansee, jwoodman@purdue.edu)

These three maples have somewhat similar-looking leaves. On the surface, you may think this is simply an academic exercise. But if you care about invasive plants and local ecology, this distinction is an important one.



Figure 1. Norway maple is an invasive species that can resemble black and sugar maple. Photo by Purdue Arboretum.

Norway maple is an invasive tree species, while sugar and black maples are native tree species (sometimes called hard maples). Sugar and black maples are even more beloved for their gift of delicious sugary sap that can be made into maple syrup and similar products. They also make great shade trees. Note that there are other native and non-native maple species.



Figure 2a. Norway maple leaf. Photo by Purdue Arboretum.



Figure 2b. Sugar maple leaf. Photo by Purdue Arboretum.



Figure 2c. Black maple leaf. Photo by Purdue Arboretum.

One way to distinguish between Norway (*Acer platanoides*), sugar (*Acer saccharum*), and black (*Acer nigrum*) maples is to count the number of lobes on the leaves. Lobes are large areas of the leaf that stick out, like an ear lobe, although that is not the clearest analogy. Norway maples typically have 5-7 lobes (commonly 7), sugar maples typically have 5, and black maples typically have 3-5. Black maple's bottom two lobes are so much less prominent than sugar maple that it often looks like 3 main lobes. Additionally, black maple leaves droop on the sides, almost like they are starting to wilt from lack of water.

Another way to distinguish Norway maples from native maples (sugar and black) is to look at the winged seeds, called samaras. Children may call these "helicopters," as they twirl on their way to the ground. The Norway maple has paired samaras arranged like a handlebar mustache. Sugar and black maple samara pairs look more like a Fu Manchu mustache, pointing downward rather than the near horizontal arrangement of Norway maple samaras.

A third way to distinguish Norway maples from native maples is to snap off the long leaf stem (petiole). Norway maples have a milky latex sap that exudes if you squeeze or pinch a petiole, while native maples have clear sap.

There are a few other identification nuances between these species. For example, black maples have stipules (leaf-like growths) at the base of their petioles (absent on sugar maple). They also have pubescence or hairiness on the underside of the leaves. Norway maple has hairs in the axils of leaf veins. Norway maple's leaves are generally broader than long. Other differences may be seen in the bark, twigs, buds, and fall coloring.

Although Norway maple is an invasive species, it has been a long-time landscaping favorite of homeowners, especially cultivars like 'Crimson King' that retain their deep red color all year. This attribute has made Norway maple a popular choice because few other options exist to offer that color feature for the landscape. Other varieties or cultivars exhibit the normal green leaf color. Native to northern Europe, the tree was introduced in America in

the late 1700s. George Washington reportedly purchased two trees in 1792 to plant at Mount Vernon.

Purdue Extension's "Invasive Species" website (<https://ag.purdue.edu/reportinvasive/>) says that Norway maple outcompetes many trees, including the ecologically and economically important sugar maple. It forms a thick canopy that shades out the understory. Additionally, native trees like the sugar maple support many more native insects, which in turn feed native bird populations.

Michael A. Dirr noted of Norway maple in *Manual of Woody Landscape Plants*: "Over-used and probably over-rated tree; the species and several of the cultivars, especially 'Crimson King', are overplanted; has been used as lawn, street and park tree...species has escaped and in pockets is out-competing the native flora."

According to the assessment of Norway maple by the Indiana Invasive Species Council (IISC), it serves as a preferential host of the invasive Asian long-horned beetle and other pest insect species, which then can lead to infestations on less preferred native tree species. Although the Asian long-horned beetle is not known to exist in Indiana, according to EDDMapS¹, it is in Illinois and Ohio, near Northwest and Southeast Indiana. Have we set the stage for the support of this destructive pest?

IISC also notes that Norway maple is significantly more shade-tolerant than sugar maple, allowing it to out-compete the native maple for light. The milky latex sap may account for inhibited local herbivory (animals/insects that feed on plants).

As homeowners, we ask you to consider planting native trees in your landscape rather than invasive trees. Do your homework before installing such a long-term asset to the landscape. Also, consider a diversity of native species.

¹EDDMapS. 2025. Early Detection & Distribution Mapping System. The University of Georgia - Center for Invasive Species and Ecosystem Health. Available online at <http://www.eddmaps.org/>; last accessed April 30, 2025.

Sawflies: the caterpillar pests that are not caterpillars

(Alicia Kelley, ajkelley@purdue.edu)

Sawflies are frequent pests in the landscape that attack a wide variety of plants, from ornamental flowers to large trees. You might start to see them damaging plants around this time of year as the first generations hatch and begin to feed on foliage. They are often mistaken for caterpillars, which are the larval stages of butterflies and moths (Order Lepidoptera). However, sawflies are actually wasp-like insects (Order Hymenoptera).

Let's review how to tell them apart. Products that are labelled for caterpillars do not always work on sawflies, so proper identification is important.

- The most reliable characteristic are the prolegs. Sawflies

have 6+ pairs of prolegs, or false legs, while caterpillars have < 6 pairs of prolegs. (Fig. 1)

- When disturbed, sawflies will lift their posterior into an “S” shape. Caterpillars don’t display this behavior. (Fig. 2)



Figure 1. Left: Sawfly larvae. Image: John Obermeyer, Purdue University. Right: Tomato hornworm. Image: Gerald Holmes, Strawberry Center, Cal Poly San Luis Obispo.



Figure 2. Sawflies displaying characteristic “S” shape. Image: Gyorgy Csoka, Hungary Forest Research Institute.

Integrated management recommendations

Early in the year, before hatching starts, look for sawfly oviposition on your plants. This will vary depending on the species of sawfly. For example, the European Pine sawfly eggs look like yellow-orange spots evenly spaced on the needles (Fig. 3). The Bristly Roseslug sawfly uses her ovipositor to cut a slit into the leaf petiole where she inserts eggs. The gooseberry sawfly lays eggs on a leaf vein (Fig. 4).



Figure 3. European pine sawfly eggs. Image: A. Steven Munson, USDA Forest Service.



Figure 4. Gooseberry sawfly eggs. Image: Whitney Cranshaw, Colorado State University.

If the eggs are readily visible, manual removal will help reduce the populations. This is best accomplished in early spring before the eggs hatch. Use a tool to smash the eggs, or prune of the affected plant material.

You may not notice any problem on the plant until you start to see holes appearing in the foliage. Monitor regularly in the spring for holes and “window pane” damage (Fig. 5). This is the time of year when sawflies are hatching, so don’t wait any longer to check your plants. Sawfly management is best accomplished when the larvae are still small. Prune or shake off the larvae from the plant, or spray with a biorational material so as not to disturb natural enemies and cause a secondary pest outbreak later in the summer.



Figure 5. Bristly roseslug feeding damage. Brian Kunkel, University of Delaware.

For more information on sawfly biology, check out this five-minute video: [Slaying Sawflies with Purdue Plant Doctor](#).

Specific management recommendations can be found on the [Purdue Plant Doctor](#) website. Type “sawfly” into the search and click on the species you would like to read more about!

A Bit of Rain Coming Our Way

(Beth Hall, hall556@purdue.edu)

The last few weeks have been on the drier side, particularly for northwestern and west-central Indiana (Figure 1). While temperatures have been seasonal, they are still gradually increasing as we approach summer. Therefore,

evapotranspiration rates are starting to increase. This has resulted in the U.S. Drought Monitor classifying much of northern Indiana as Abnormally Dry (D0) (Figure 2). Technically, this is not drought, but more a cautionary tale that conditions are drying. The National Weather Service is predicting around two inches of rain to fall across the western and southern parts of the state over the next seven days (Figure 3). A little over half of this will likely come at the end of this week, followed by a break for early next week, closing with another round of decent precipitation next Tuesday-Thursday. It is too early to know if this will be enough to eliminate the Abnormally Dry (D0) areas in our state, but it should not degrade things into official drought status.

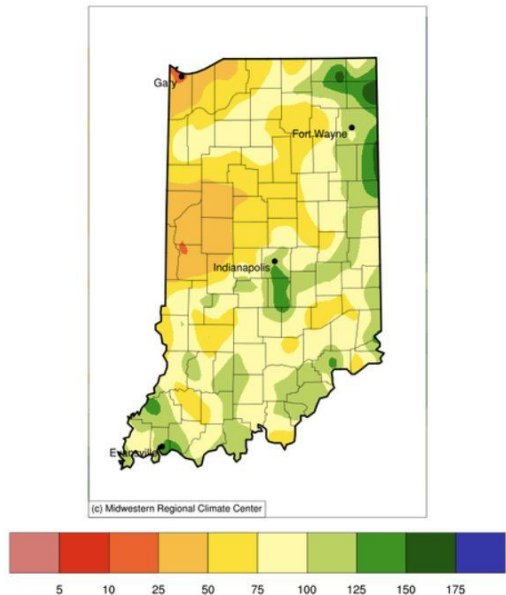


Figure 1. Precipitation from May 1 – 14, 2025 represented as a percentage of the 1991-2020 normal amounts for that period.

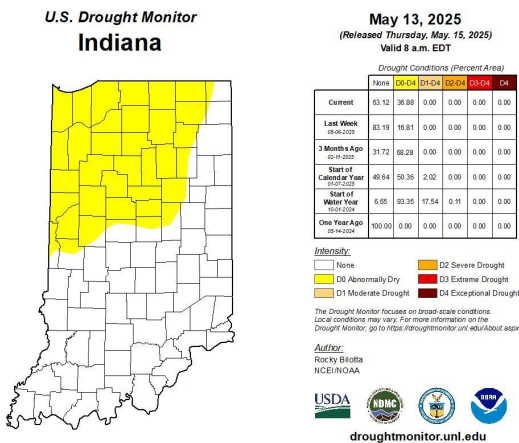


Figure 2. U.S. Drought Monitor status for conditions as of Tuesday, May 13, 2025.



Figure 3. 7-day precipitation total forecasted for May X-Y, 2025.

Another thing that will help stave off drought is the national Climate Prediction Center is favoring below-normal temperatures for the last few weeks of May. There is no concern at this time for freezing temperatures, but it should keep temperatures pleasant with lower evapotranspiration rates. Climate outlooks for June are slightly favoring above-normal temperatures across Indiana with

above-normal precipitation possible for our eastern counties. The 3-month (June-July-August) outlook is slightly favoring above-normal temperatures with no statistically significant guidance about precipitation.

Accumulated modified growing degree days (50°F/86°F) (MGDD) since April 15th (Figure 4) are running around 10-50 units above normal (Figures 5). With the cooler climate outlooks for the rest of this month, expect that pattern of near-normal MGDD accumulations to continue.

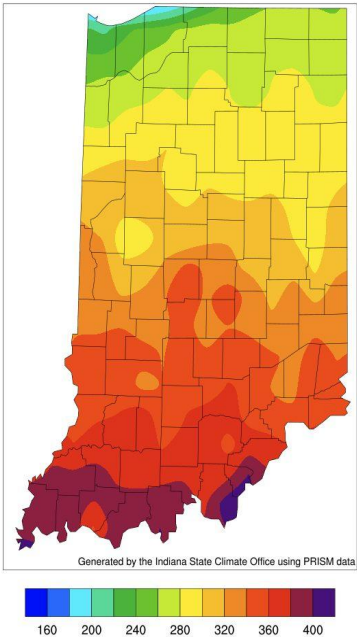


Figure 4. Modified growing degree day (50°F / 86°F) accumulation from April 15 – May 14, 2025.

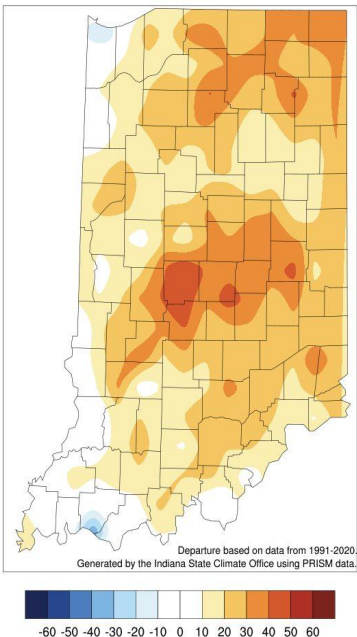


Figure 5. Modified growing degree day (50°F / 86°F) accumulation from April 15-May 8, 2025, represented as the departure from the 1991-2020 climatological average.

Purdue Turf and Landscape Field Day- July 8, 2025

(Kyle Daniel, daniel38@purdue.edu)

Don't miss the 2025 Purdue Turf and Landscape Field Day on Tuesday, July 8, at the William H. Daniel Turfgrass Research and Diagnostic Center in West Lafayette, Indiana. This annual event offers turf and landscape professionals an opportunity to engage with the latest research, technologies, and best practices in the industry.

[Click here to see more information and to register.](#)

The Field Day features research tours, presentations on current topics, and a tradeshow with over 40 exhibitors showcasing equipment and products related to turf and landscape management. Attendees can also earn Continuing Certification Hours (CCHs) approved by the Office of Indiana State Chemist (OISC).

The morning sessions include landscape, lawn care, golf, and sports turf tracks. The afternoon workshops include a landscape

diagnostic tour, weed identification tour, sports turf, and golf options. Breakfast and lunch are included in the registration fee.

Following the workshops, the Women of the Green Industry will hold a free tour of the Meigs Horticultural Research facility, followed by a networking event.

Registration

In addition to attending the field day, your company can exhibit at the trade show. There are also still opportunities to become a sponsor of the field day.

To register as an attendee, exhibitor, or sponsor, [please click here.](#)

Additional Information

This event is organized by Purdue University's Turfgrass Science Program and Green Industry Team in collaboration with the Midwest Regional Turf Foundation. It serves as a valuable platform for professionals to stay informed about advancements in turf and landscape management.

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