

Plant Health Care Report

Scouting Report of The Morton Arboretum



THE
CHAMPION
of TREES

July 25, 2025

Issue 2025.9

For comments regarding PHCR, or to subscribe to email alerts regarding posting of new issues, contact me at syiesla@mortonarb.org.

Our report includes up-to-date disease and insect pest reports for northeastern Illinois. For disease and insect problems, contact the Plant Clinic via email at plantclinic@mortonarb.org or by phone 630-719-2424 (Monday through Friday, noon to 4 pm)

Quick View

What indicator plant is in bloom at the Arboretum?

Panicked hydrangea (*Hydrangea paniculata*) (fig. 1) is in flower.

Accumulated Growing Degree Days (Base 50) at The Morton Arboretum: 1643 (as of July 24)

Insects/other pests

- Twig girdlers and twig pruners
- Head clipping weevil
- Zimmerman pine moth
- Annual cicadas
- Magnolia scale, some important details

Diseases

- Septoria on dogwood

Miscellaneous

- Blossom end rot
- Remontant flowers



Figure 1 Panicked hydrangea (Photo: John Hagstrom)

Soil temperatures around Illinois (from Illinois State Water Survey)

This information will be provided all season. For data from other reporting stations, go to <https://warm.isws.illinois.edu/warm/soil/> (you will need to set up an account to access data.)

Max. Soil temps For 7/24/2025*	St. Charles reporting station (north)	Champaign reporting station (central)	Carbondale reporting station (south)
2-inch, bare soil	83.2	107.4	89.3
4-inch, bare soil	80.7	95.4	94.3
4-inch, under sod	82.3	89.9	87.1
8-inch, under sod	78	84.4	84.5

* This is the maximum soil temperature recorded the day prior to publication of PHCR.

Seasonal precipitation

Seasonal precipitation (rain and melted snow) in inches.			
	2025	2024	Historical average (1937-2024)
Jan	.97	3.42	1.96
Feb	1.3	.56	1.8
Mar	4.59	3.68	2.55
April	3.32 (this value has been corrected)	4.44	3.66
May	1.86	3.73	4.16
June	4.78	5.29	4.18
July	4.15 (thru 7/24)	4.79 (whole month)	3.96 (whole month)
Aug			
Sept			
Year to date	20.96 (thru 7/24)	25.91 (thru July)	22.26 (thru July)

Degree Days (current and compared to past years) and rainfall

The historical average (1937-2024) for this date at The Morton Arboretum is 1547 GDD₅₀. The table below shows a comparison of GDD in different years. We are comparing the GDD₅₀ reported in this issue with the GDD reported in the first issue of last year, 2019 and 2014. These years were selected since publication dates of the first issue were within a day or two of each other. Glencoe, and Waukegan (60085) were not used in 2019 and 2014, so there is 'no report' from those stations. Lisle was not used in 2014, so there is 'no report'.

Location	GDD as of 7/24/2025	GDD as of 7/25/2024	GDD as of 7/25/2019	GDD as of 7/24/2014
Carbondale, IL*	2554	2663	2331	2194
Champaign, IL*	2127	2171	1984	1883
Chicago Botanic Garden**	No report	1710	No report	1294.5 (7/23)
Glencoe*	1186	1361	1053	No report
Chicago O'Hare*	1830	2036	1638	1672
Kankakee, IL*	1833	1953	1742	1680
Lisle, IL*	1878	2059	1684	No report
The Morton Arboretum	1643	1780	1512.5	1432
Quincy, IL*	2169	2314	2050	1998
Rockford, IL*	1706	1829	1541	1432
Springfield, IL*	2166	2294	2040	1947
Waukegan, IL* (60087)	1499	1719	1342	1433
Waukegan, IL* (60085)	1615	1839	1429	No report

*We obtain most of our degree day information from the GDD Tracker from Michigan State University web site. For additional locations and daily degree days, go to <https://gddtracker.msu.edu/>

**Thank you to Elizabeth Cullison, Chicago Botanic Garden, for supplying us with this information.

How serious is it?

Problems that can definitely compromise the health of the plant will be marked "serious". Problems that have the potential to be serious and which may warrant chemical control measures will be marked "potentially serious". Problems that are seldom serious enough for pesticide treatment will be marked "minor". "Aggressive" will be used for weeds that spread quickly and become a problem and "dangerous" for weeds that might pose a risk to humans.

Pest Updates: Insects

Examples of insects that may emerge soon in northern Illinois (based on growing degree days)			
GDD (base 50)	insect	Life stage present at this GDD	Type of damage
1950	Magnolia scale	Crawlers begin to emerge	Feeding on sap

Twig girdlers and twig pruners (minor)

We have many reports of small clumps of leaves falling off of oaks. There are multiple answers to this question. Sometimes the culprit is squirrels chewing off branches and dropping them. In that case, the cut end of the branch will have a ragged, chewed look.

There are a couple of insects that may be the cause. At this time of year, we may see this damage from twig pruners (*Elaphidionoides villosus*). Twig pruner larvae will cut the twig from the inside, leaving a smooth circle inside (fig. 2). In spring, as leaves are beginning to form, adult twig pruners deposit eggs near the tips of twigs. Larvae move to the center of the branch and begin to feed, tunneling down to the base of the twig. In late summer, they move to the sapwood, making circular cuts, weakening the stems. The weakened stems may hang on the tree and eventually fall to the ground on windy days or during storms. Larvae remain in the fallen branches, spend the winter as pupae, and emerge as adults the following spring.



Figure 2 Twig pruner damage

The adult is a gray-brown beetle 1/2 to 3/4 inches long. Larvae are creamy white, legless, segmented, and reach 3/4 of an inch at maturity. Oak twig pruner larvae feed on many tree species, including maple, oak, hickory, elm, walnut, and a number of fruit trees.

Another insect, the twig girdler (*Oncideres cingulata*), does similar damage, but the damage is caused by the adult, not the larva. In late summer, in order to lay eggs, the adult beetle will chew a groove around the twig. The eggs are laid in the part of the branch that will fall off the tree. The larva will develop in the fallen twig where it will spend the winter and then pupate inside the twig in spring. Adults will emerge in late summer. The damage on the twig is rough in the center and smooth on the outside, opposite of the damage done by the twig pruner.

Management: Looking at the cut end of the stem can help us sort out squirrel damage from that caused by twig pruners and twig girdlers. There is not much we can do to deter squirrels. The twig girdlers and pruners will not kill or severely damage trees. To reduce populations, collect and destroy fallen branches and prune out wilted and damaged branches.

Good websites:

University of Missouri extension has a great website on this topic. Search in your browser for “twig pruner Missouri” to find it.

<https://hyg.ipm.illinois.edu/article.php?id=324>

www.pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/2911/2911-1423/ENTO-374.pdf

<https://extension.okstate.edu/programs/digital-diagnostics/insects-and-arthropods/twig-girdler-ondideres-cingulata/>

Head-clipping weevils (minor)

While you are out in your favorite native area, look for head-clipping weevils (*Haplorhynchites aeneus*). They are often found cutting the flower heads off of *Silphium* species (cup plant, rosinweed, compass plant and prairie dock). But this pest is not limited to species of *Silphium*. In past years, we have seen them on other members of the Aster family, including *Echinacea* (coneflowers) and *Helianthus* (sunflowers). A couple of years ago, our scouts captured an adult insect! So now we have a decent picture of this pest (fig. 3). The adult is a dark-colored weevil, a beetle with a snout. The insect is about ¼ inch long, and the snout is long and curved. The female uses her mouthparts, located at the end of the snout, to cut the flower stalk about 1 inch to 1 ½ inches below the flower head. The flower stalk is not cut all the way through, so the flower head dangles on a thin piece of stem tissue (fig. 4). The dangling flower head is used by the adults for mating and egg-laying.

Once the flower head finally breaks off and falls to the ground, the larvae hatch and use the flower head for food. Mature larvae will move into the soil to overwinter, with pupation occurring in late spring.

Management: Good sanitation is the key in managing this pest. Timely removal of hanging flower heads and recently fallen flower heads will reduce the population for next year. While the insect does not do much long-term damage to the plant, it will spoil your enjoyment of the flowers.



Figure 3 Adult head-clipping weevil



Figure 4 Flower clipped by head-clipping weevil

Good websites: <https://bygl.osu.edu/node/1087>

<http://entomology.k-state.edu/extension/insect-information/crop-pests/sunflowers/sunflower-headclipping-weevil.html>

Zimmerman pine moth (serious)

It is also time to start thinking about Zimmerman pine moth (*Dioryctria zimmermani*). Mid-August is the time we usually treat for this pest, but the GDD are moving along briskly and we may want to be prepared early this year. Larvae damage trees by tunneling just beneath the bark of the trunk and branches. The tunnels can girdle and weaken the trunk or branches so they are easily broken by wind or snow. Heavily infested trees are often deformed and are sometimes killed. Common hosts include Austrian, Scots, and ponderosa pines.



Figure 5 Pitch masses caused by Zimmerman pine moth larvae

Larvae overwinter in cocoon-like structures under bark scales. They become active in the spring and tunnel into the bark and sometimes the terminals. In late spring, they migrate to the base of branches, tunneling into the whorl area where pitch masses (fig. 5) exude from the wound site. The larvae continue to feed, pupate within the pitch mass, and emerge as adults in August. After mating, female moths lay eggs, often near wounds or previous pitch masses. Eggs hatch in about a week, and the larvae feed for only a brief time before preparing to overwinter.

Management: Damaged wood should be pruned out as soon as dieback and pitch masses are seen. Larvae can be controlled by spraying bark of the trunk and main branches with insecticides around GDD 1900-2150 (this GDD derived from several universities, not “Coincide”). Michigan State indicates that adult flight may occur as early as 1700 GDD.

Annual cicada (minor)

Have you noticed cicadas singing? No, you are not hearing things. It is time for the annual, or dog-day cicadas (*Neotibicen* species) to show up. These are the insects that make a noise high in trees during the warm, dog-days of summer. This is the mating call of the male. The insect is about 1 $\frac{3}{4}$ inches long and green to brown with black markings (fig. 6). A distinguishing feature between the annual and periodic cicada is the eye color.



Figure 6 Annual cicada

The periodic cicada has red eyes and the annual has black. Periodical cicadas have orange veins in their wings, the annual does not. Another

important difference is that the annual or dog-day cicadas emerge in much smaller numbers than the 17-year type. Many years, people don't even notice that the annual ones have emerged.

Like the periodical cicadas, females of the annual species lay eggs by sawing a slit in the bark of twigs and placing the eggs in the twig. Egg-laying injury can cause some minor twig dieback. After the eggs hatch, the young nymphs drop down into the ground to feed on plant roots. They have large front legs used for digging in the soil. They live on tree roots as nymphs for two to five years with some adults emerging in late summer every year. The feeding on the roots doesn't cause much damage.

Management: Control is not necessary since they cause minimal damage to trees. The population of the annual cicada is much smaller than what we experienced last year with periodical or 17-year cicadas. Put the netting away and relax.

Magnolia scale, some important details

The battle against magnolia scale has been a fierce one for the last few years. Now, we are coming to that time of year when the crawlers, the youngsters, are born. This is the time when we can turn the tide and win the battle. Sometimes, we miss this opportunity because we don't have a good handle on the life cycle of this pest. Let's clear up some of the confusion and win the battle this year.

This insect has an odd life cycle and we need to understand it. As fall and winter approach, many insects go into a very protected overwintering stage like an egg or a pupa. Not so with the magnolia scale. She gives birth to her babies in late summer and they will overwinter on the stems as half-grown nymphs. She is literally turning her children out into the cold.

How does this information help us? Right now, most people with a magnolia tree are focused on the adults because they are so visible. These adults will give birth to their babies and will be dead by the end of the season. They may hang on to the tree for some time after they die, but they will be dead. So, we can stop thinking about them. At this time of year, let's focus on the newborn crawlers; the defenseless newborn crawlers.

The crawlers should start emerging around GDD 1950. Then they are going to be moving around and growing for the next couple of months (maybe longer, depending on how the weather goes). That gives us time to kill them before winter. After winter, any of the crawlers that did not killed by us, or the winter, will become active again and will still be moving around in spring, giving us another chance to kill the ones we missed in fall. This is where we can win

the battle!! Remember that the babies being born very soon will be the adults you see next summer. If we can kill them now, there will be few to no adults next summer.

Because the crawlers are exposed in late summer and fall, we can spray them with insecticidal soap, with a horticultural oil or with an insecticide. Insecticidal soap and horticultural oil both must come in direct contact with the crawlers to kill them. Horticultural oil is also sold as summer oil and multi-season oil.

Act at the appropriate time and you can win the battle against magnolia scale.

Pest Updates: Diseases

***Septoria* leaf spot on dogwood (minor)**

Every year, about this time, *Septoria* leaf spot shows up on dogwood. This is not a major problem, but since dogwoods are so commonly planted, the disease often gives gardeners some concern. The spots are present only on leaves. They have purple brown margins with pale centers (fig. 7), about 1/8 of an inch in diameter, and limited by veins. The spots get larger and more numerous as the growing season progresses, but the disease is actually of little consequence to the plant.



Figure 7 *Septoria* leaf spot

Management: Sanitary measures, such as collecting and discarding infected leaves as soon as they become apparent, should help reduce spread to new leaves and plants

Miscellaneous

Blossom-end rot

You planted and tended your tomato plants. You are rewarded with flowers. The pollinators visit your flowers and before you know it there are tiny tomatoes forming. Then one day, you discover that the bottom of the tomato is turning black and sometimes almost leathery (fig. 8). This is blossom-end rot. The bottom of the tomato is called the blossom end, because that is where the flower or blossom was connected. That little dark dot on the bottom of the tomato marks the spot where the flower was.



Figure 8 Blossom end rot damage (Photo: Larry Williams, Okaloosa County Extension)

This type of 'rot' is not a disease. It is caused by a calcium deficiency. Calcium is an important building block of the cell walls within every plant. When it is deficient, the cell walls don't form properly and the cells collapse. Blossom-end rot does not always mean that there is not enough calcium in the soil. It means that the calcium is not making it all the way to the bottom of your tomato. Our soils are generally not deficient in calcium.

Improper watering or very dry weather are often the reasons we don't get the calcium out to the bottom of the tomatoes. The water carries the calcium from the soil into the plant. If water is lacking, the calcium can't be delivered. Even though we have been having some rain, we have also had extreme heat that can dry that rain up quickly. As summer progresses we may get more heat and less rain. That makes us responsible to give our plants what they need in terms of water. Often, gardeners are watering frequently, but not deeply. Watering every day is not needed for in-ground gardens. Water those plants when the top inch or so of soil is drying, and when you water be sure to water thoroughly. If you have to water every day or every other day, you are not watering thoroughly. Water long enough to get water into the soil at least five or six inches.

Container-grown tomatoes are the exception. They most likely will need to be watered every day due to the small volume of the container. Water containers enough so that some water comes out the drainage holes in the bottom of the container. Container-grown tomatoes often get blossom-end rot because it can be difficult to maintain adequate water in containers. Also, unlike our garden soils, potting mixes for containers may need to have calcium added.

Blossom-end rot is not only seen on tomatoes. It can be on other vegetables as well, such as peppers and watermelons.

Remontant flowering

Now for something pretty. This time of year, you may notice some of the magnolia trees putting out a few flowers. Since magnolias are spring-flowering trees, what's going on? Actually, it is not unusual for magnolias to do this (fig. 9). Sometimes a few flowers on magnolias get tricked into blooming at the wrong time (we call this remontant flowering). Some magnolias do it every year. Since only a few flowers on each tree are blooming, the remaining flower

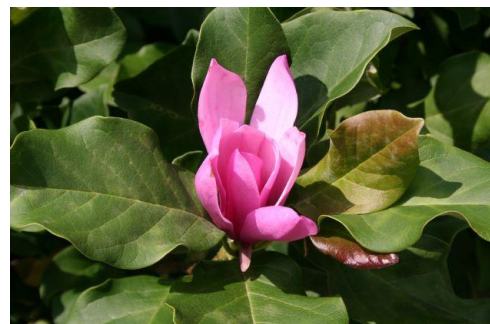


Figure 9 'Ann' magnolia flowering in August

buds will remain dormant and should bloom at the normal time next spring. While this can be common with certain magnolias, other trees and shrubs also do it from time to time. With our strange weather, we may see it more often than we have in the past.



Bartlett Tree Experts, Presenting Sponsor of the Plant Clinic.

The Plant Health Care Report is prepared by Sharon Yiesla, M.S., Plant Knowledge Specialist and edited by Fredric Miller, Ph.D., Research Entomologist at The Morton Arboretum; and Juluia Lamb, Arboretum Volunteer. The information presented is believed to be accurate, but the authors provide no guarantee and will not be held liable for consequences of actions taken based on the information.

Thank you...I would like to thank all the staff and volunteers that report disease and pest problems when they find them. Your hard work is appreciated. Our volunteer scouts for 2025 are Deb Link, Maureen Livingston, Loraine Miranda, Molly Neustadt and Moira Silverman.

Literature/website recommendations:

Indicator plants are chosen because of work done by Donald A. Orton, which is published in the book Coincide, The Orton System of Pest and Disease Management.

Additional information on growing degree days can be found at:

http://www.ipm.msu.edu/agriculture/christmas_trees/gdd_of_landscape_insects

http://extension.unh.edu/resources/files/Resource000986_Rep2328.pdf

This report is available as a PDF at The Morton Arboretum website at <https://mortonarb.org/about-arboretum/plant-health-care-report/>

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Inquiries or comments about the PHCR should be directed to Sharon Yiesla at syiesla@mortonarb.org .

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2025 Plant Health Care Report Index



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Following is an index of the various subjects in this year's report. The number after each subject is the report number. For example, using the chart below, *Ficaria verna*..... 1 means that it was discussed in the PHCR 2025.01 or the newsletter dated April 4, 2025. The index is updated with the publication of each full issue and is included at the end of each full issue.

2025.1 April 5
2025.2 April 18
2025.3 May 2
2025.4 May 16
2025.5 May 30

2025.6 June 13
2025.7 June 27
2025.8 July 11
2025.9 July 25

Anthraxnose on shade trees 5
Aphids, black on viburnum 4
Aphids on native plants..... 7
Aphids, woolly 5
Aphids, woolly apple on elm 5
Apple scab 5
Bagworm 6
Bishop's weed 4
Black knot..... 2
Blossom end rot 9
Borer, two-lined 7
Boxwood blight or something else 2
Boxwood leafminer..... 3
Boxwood psyllid 3
Brown rot of stone fruit 8
Butterweed 5
Cedar-rust diseases..... 3
Cicadas, annual 9
Cleavers..... 5
Crabgrass preventer 1, 2
Creeping bellflower..... 3
Dieback, cankers, stress and weather..... 7
Eastern tent caterpillar 2
Egg masses and more 1
Elm flea weevil 4
Euonymus webworm 5
European pine sawfly..... 2
Fall webworm..... 8
Ficaria verna 1
Four-lined plantbug 4
Fungicides, timing 1

Gall, elm sack 4
Gall, jumping oak 6
Gall, maple bladder..... 6
Gall, oak apple 6
Gall, spindle 6
Gall, wool sower 6
Giant hogweed or cow parsnip?..... 7
Golden ragwort..... 5
Ground cover diseases..... 3
Grubs, white 7
Guignardia on ivy 6
Head clipping weevil..... 9
Helleborine 8
Hydrangea leaftier 3
Indicator plants, what they tell us 1
Japanese beetles..... 7
Milkweed beetle and milkweed bug 8
No-mow May 4
Peach leaf curl 4
Pestalotiopsis blight on arborvitae 2
Physiological yellowing of tuliptree..... 8
Poison hemlock..... 6
Powdery mildew on ninebark..... 6
Problem plants..... 4
Remontant flowers 9
Rose plume moth caterpillar 5
Rust on roses 7
Rust, other non-cedar..... 7
Saving stems for native bees 3

Sawfly, elm zigzag	3	Stink horns	8
Sawfly, oak slug	7	Tools you can use	1
Sawfly, rose slug.....	5	Twig girdlers and twig pruners	9
Scale, euonymus	4	Unsolicited seeds In the mail.....	7
Scale, European elm.....	7	Using growing degree days.....	1
Scale, magnolia	1, 9	Viburnum leaf beetle	2, 3, 6, 8
Scale, oystershell.....	4	Vinca update	4
Selecting native plants	5	<i>Volutella</i> blight on pachysandra	2
Septoria on dogwood.....	9	<i>Volutella</i> canker on boxwood	3
Slime mold	8	Watch the weather, not the calendar	3
Spittlebug.....	6	Weather, climate and water.....	1
Spongy moth	2	Yellow leaves on other trees and shrubs.....	8
Spotted lanternfly.....	2, 8	Zimmerman pine moth.....	3, 9