Plant Health Care Report

Scouting Report of The Morton Arboretum

May 16, 2025

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?

Bridalwreath spirea (Spiraea x vanhouttei) (fig. 1) is in flower.

Accumulated Growing Degree Days (Base 50) at The Morton Arboretum: (unavailable at this time)

Insects/other pests

- Euonymus scale
- Oystershell scale •
- Black aphids on viburnums and other aphids
- Four-lined plantbug
- Elm flea weevil
- Galls part 1 •

Diseases

- Update on vinca •
- Peach leaf curl

Weeds

Bishop's weed •

Native Corner

No-mow May •

Miscellaneous

Problem Plants (new on The Morton Arboretum website) •



Figure 1 Bridalwreath spirea

Issue 2025.4

THE





Soil temperatures around Illinois (from Illinois State Water Survey)

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

Max. Soil temps	St. Charles	Champaign	Carbondale
For 5/15/2025*	reporting station	reporting station	reporting station
	(north)	(central)	(south)
2-inch, bare soil	85.7	101.3	83.8
4-inch, bare soil	81.1	89.7	79.6
4-inch, under sod	72.3	81.8	75.2
8-inch, under sod	66.2	73	71.5

* 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	3.34	4.44	3.66
May	.81 (thru 5/15)	3.73 (whole	4.16 (whole
		month)	month)
June			
July			
Aug			
Sept			
Year to date	11.01 (thru 5/15)	15.8 (thru May)	14.13 (thru May)

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

The historical average (1937-2024) for this date at The Morton Arboretum is 160 GDD_{50.} 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 5/15/2025	GDD as of 5/16/2024	GDD as of 5/16/2019	GDD as of 5/15/2014
Carbondale, IL*	730	882	527	524
Champaign, IL*	500	550	315	374
Chicago Botanic Garden**	231	314	99 (5/15)	162
Glencoe*	79	143	No report	No report
Chicago O'Hare*	342	444	191	220
Kankakee, IL*	360	420	221	273
Lisle, IL*	361	447	203	No report
The Morton Arboretum	No report	263	134.5	175.5
Quincy, IL*	558	617	368	400
Rockford, IL*	317	366	150	163
Springfield, IL*	541	622	350	403
Waukegan, IL* (60087)	203	316	120	160
Waukegan, IL* (60085)	250	367	No report	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 <u>https://gddtracker.msu.edu/</u>

**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	
300-700	Oystershell	Crawlers emerging	Feeding on sap	
	scale			
400-600	Bronze birch	Larvae hatching out and	Tunneling under bark	
	borer	beginning to enter bark		
400-500	Pine needle	Crawlers emerging	Feeding on sap	
	scale			
450	Boxwood	Adults emerging	Laying eggs	
	leafminer			
500-700	Euonymus scale	Crawlers emerging	Feeding on sap	
500-600	Viburnum	Caterpillars hatching and entering	Tunnel under bark	
	crown borer	bark		
700-800	<u>Bagworm</u>	Caterpillars emerging	Chewing foliage	

Euonymus scale... (potentially serious)

Euonymus scale (Unaspis euonymi) is one of those insects that we can find all year round. Right

now, we are seeing the overwintering adults. Even though we see the adults all season, the young crawlers are out and active for only a short time (and it will soon be time to look for them). Many insecticide treatments are targeted at the crawlers when they emerge, which is generally around the early part of June (GDD 500-700). The crawlers are a pale, yellow-orange. Male adult scales are white, and the females are brown (fig. 2) and oystershellshaped. Euonymus scale overwinters as fertilized females on plant stems. Euonymus scale does not produce honeydew.



Figure 2 Euonymus scale adults, male (white) and female (brown)

Management: On smaller plants, like groundcover euonymus and pachysandra, heavily infested branches may be pruned out to reduce the population. Sprays of insecticide are commonly targeted at the young (crawler stage) of the scale. Not all systemic products are affective against armored scale species. Armored scale do not feed in the vascular system where some systemic insecticides end up. Systemic insecticides are most useful and effective on armored scale species that feed on the foliage because they burst plant cells and extract their content. In contrast, armored scale species that feed only on branches, twigs, and trunks of woody plants avoid direct exposure to systemic insecticides. (Sadof and Neal 1993).

Good website:

https://mortonarb.org/plant-and-protect/tree-plant-care/plant-care-resources/scale-insects/#overview

... and oystershell scale (potentially serious)

Speaking of scale insects that are shaped like oyster shells, that brings us to, you guessed it,

oystershell scale (*Lepidosaphes ulmi*). On plants like pachysandra, it may be possible to have both oystershell and euonymus scale at the same time. They can be hard to tell apart. Both scales do have the overall shape of an oyster shell, but the female euonymus scale often tends to be more pear-shaped and a bit flattened. The male euonymus scale is white and elongated. The oystershell scale is closer to really looking like an oyster shell and is



Figure 3 Large population of oystershell scale

usually more convex. There may be some banding on oystershell scale, but it is not always obvious. Like euonymus scale, oystershell scale does not produce honeydew.

This scale has a wide host range, and we did see it on some trees and shrubs last year, as well as on pachysandra. Populations can get very dense, sometimes to the point where the bark of a tree branch cannot be seen (fig. 3).

Oystershell scale overwinters as eggs under the female's protective cover. The crawlers emerge just slightly earlier (GDD 300) than those of euonymus scale (GDD 500). Be looking now and if using sprays for crawlers, the time to apply is at hand.

Management: With the emergence of both crawlers so close to one another, it may not matter if you are sure which scale you have on pachysandra, or if you have both. When you spray for one, you may catch both, if you time it right. Careful scouting of plants will be important. Start looking for crawlers around that GDD 300 mark. Like euonymus scale, oystershell scale is also one of the armored scales and not all systemics are effective (see above).

Good website:

https://mortonarb.org/plant-and-protect/tree-plant-care/plant-care-resources/scale-insects/#overview

Black aphids on viburnum and other aphids (minor)

Last year we saw a lot of aphids in the landscape. We have already had reports of black aphids

on viburnum. This is only one of a number of different species of aphids that vary in color (yellow, green, pink, black), as well as host species. They are all tear-drop shaped (fig. 4) and have two structures called cornicles on the back end (they look like twin tail-pipes). Aphids are small, about 1/16 inch.

These insects suck out sap from the leaves. The feeding often leads to curled or distorted leaves. Uncurling the leaves exposes the insects. Aphids produce honeydew, which is a sticky substance. Sticky leaves are often noticed before the insects themselves. Aphid damage is



Figure 4 Aphid (arrows mark cornicles)

generally fairly minor, but they can be vectors for spreading viruses.

Management: Aphids are relatively easy to manage. Some species do not stay with a particular plant for the whole season. By the time the damage is noticed, the insects may have moved on. Aphids tend to feed in groups at the ends of branches. Clipping off those branch ends can get rid of the whole population quickly. Spraying the plant with a strong stream of water from the garden hose may also dislodge much of the population. There are also natural predators, like lady bugs, that will feed on aphids, so avoid insecticides and let the good insects do their job.

Good websites: <u>https://mortonarb.org/plant-and-protect/tree-plant-care/plant-care-resources/aphids/</u>

Four-lined plantbug (minor)

Be looking for the four-lined plantbug (Poecilocapsus lineatus). One of our scouts has found the

nymph stage feeding on a variety of plants. This insect feeds on 250 species, including many kinds of perennials, vegetables, and shrubs such as bluebeard, forsythia, and sumac. Feeding injury (fig. 5) is frequently mistaken for a fungal leaf spot disease. Four-lined plantbugs have piercing, sucking mouthparts which they use to break plant cells and then flush the feeding wound with digestive juices. Damage appears as dark leaf spots which subsequently turn translucent. Both nymphs and adults



Figure 5 Four-lined plantbug damage

Nymphs are red (fig. 6) and will develop dark wing pads as they mature. The adult stage is 1/4" to 1/3" long and has four longitudinal black lines on its yellow or green back (fig. 7), thus the name. It's quite a shy insect that scurries away when you try to find it. The insect overwinters as eggs laid in slits cut into plant shoots. There is one generation per year.

Management: Some people try to hand-pick these insects, but their timidity makes them difficult to catch. Small populations

don't generally need to be controlled. Cutting down infested stems of the host plant at the end of the season may reduce the number of eggs that overwinter and thus reduce the population that can attack plants next spring.

Good website: <u>https://extension.umn.edu/yard-and-garden-insects/four-lined-plant-bugs</u>



Figure 6 four-lined plantbug nymph



Figure 7 Four-lined plantbug adult

Elm flea weevil (minor)

We have not actually seen this pest yet, but our scouts have found feeding damage from elm flea weevil (*Orchestes steppensis*) elm leaves. The weevils overwinter as adults and have now

come out to feed and lay eggs. Adult-feeding results in tiny shot holes in the leaves (fig. 8), and heavy feeding can cause newly expanding leaves to wither and turn brown. After feeding, the female weevil cuts a cavity into the leaf mid-vein and inserts an egg. The hatching larvae create blotch-shaped mines (fig. 8) at the leaf tips. Larvae feed for about 2-3 weeks, and then pupate within the mined leaf. Very heavy feeding can reduce photosynthetic capacity of the tree, thereby impacting overall tree vitality.



Figure 8 Adult elm flea weevil damage (holes) and larval damage (blotch mine)

Management: Insecticides are effective in controlling

adults when they are present. Depending on the insecticide used, more than one application may be needed. Spraying a large elm may not be practical, especially for a pest whose damage is relatively minor. There are systemic products available, if management is needed.

Good website: <u>https://mortonarb.org/plant-and-protect/tree-plant-care/plant-care-resources/european-elm-flea-weevil/#overview</u>

Galls, part 1

Galls are starting to show up on some of our favorite plants. The vast majority of galls are harmless, but they are included here so you can learn to recognize them in the landscape. No control measures are needed.



Our first contestant of the year is one of the interesting looking ones. Elms are showing off the <u>elm sack gall</u>. The elm sack gall sticks up from the upper leaf surface like a little pouch

(fig. 9). The sample we saw was red in color. Sack galls are caused by different species of aphid.

Pest Updates: Diseases

Update on Vinca

In our last full issue, we reported on phoma blight causing a lot of damage of vinca groundcover. Since then, we have received a report from the diagnostic lab of Bartlett Tree Experts. They indicate that they are also finding Phytophthora blight in vinca. The two diseases can have similar symptoms and can occur together in the same planting bed. It would be worthwhile to have samples tested in a lab for a confirmed diagnosis as the treatment for these two diseases are different.

Peach leaf curl (potentially serious)

Peach leaf curl is caused by the fungus *Taphrina deformans*. It is related to the fungus that

causes oak leaf blister. Common hosts are peach and nectarine (*Prunus* spp.). This fungal disease is most severe when cool, wet weather is prevalent at the same time new leaves are emerging. Our weather has been a bit up and down this year, but we have had enough cool, wet periods. Just last weeks, the Plant Clinic at The Morton Arboretum received the first report of a peach tree infected with this disease. Young, succulent leaves become puckered and deformed as they develop. The puckered areas turn yellow, pink and red (fig. 10). Later, as spores are produced, the leaf surfaces will turn gray or have a powdery



Figure 10 Peach leaf curl

appearance. Eventually, the leaves turn yellow and fall off. Diseased fruits can become

distorted and swollen with discolored areas on the skin. Peach leaf curl generally does not kill the tree, but annual infections may weaken a tree and predispose it to other problems.

Management: The fungus overwinters in buds. Fungicides are only effective when applied in fall after leaf drop or in spring before bud swell. Once the leaves have emerged, fungicides are no longer effective.

Good websites:

http://www.mortonarb.org/trees-plants/tree-and-plant-advice/help-diseases/peach-leaf-curl https://extension.psu.edu/peach-disease-peach-leaf-curl

Pest Updates: Weeds

Bishop's weed (aggressive)

For many years, Bishop's weed (*Aegopodium podagraria*) was sold as a ground cover. It was also sold under the name goutweed and ground elder. The variegated cultivar was especially popular (fig. 11). But times change, and the biggest question that the Plant Clinic gets regarding this plant is "How do I get rid of this?"



Figure 11 Variegated Bishop's weed

Why the change? Bishop's weed is a strong

grower and is very aggressive, often covering a lot more territory than is desirable. This plant

spreads easily underground and can be difficult to control. At this time, Wisconsin is the only Midwestern state that legislates against this plant. That does not mean it is a problem only in that state. It may not fall into the invasive category, but it certainly is aggressive in many gardens.

The leaves of Bishop's weed are compound with up to nine leaflets. The arrangement of the leaves often leads people to mistake it for poison ivy. Leaves of the species are green (fig. 12), but the variegated cultivar has green leaves with creamy margins. The plants will produce clusters of white flowers that resemble Queen Anne's lace, followed by lots of seeds!



Figure 12 Bishop's weed with green leaves

Management: Bishop's weed can be difficult to control. Remove flowers before they go to seed to minimize spread. Control of existing plants is difficult without herbicides because digging the plant seldom removes all the underground stolons. Systemic herbicides like glyphosate or triclopyr can be used to control this plant, but multiple applications may be needed. It is best to treat the plant when it is small, either at the time it is emerging from the soil or resprouting after being cut down. The weed killer will be absorbed by the young leaves and transported down to the root system to kill out the entire plant. These are non-selective herbicides and can kill or damage desirable plants.

Native corner

No-mow May

No-mow May is an idea that has become popular in the last few years. The general concept is to stop mowing the lawn in May to allow flowering plants like dandelions, violets and white clover to actually flower and provide nectar and pollen for pollinating insects. That sounds like a good concept, and to a certain point, it is. There is certainly an upside to having more flowers for the pollinators in early to mid-spring.

There can, however, also be some less than positive consequences. Leaving a lawn unmown for a month can lead to problems. Once you have allowed these plants (many considered to be weeds) to flower, will you be able to regain control of your lawn? A lawn overrun with weeds, can lead homeowners to turn to pesticides to control those weeds. We have to consider how that may impact the environment and out pollinators. Also, just trying to get a home lawnmower through 4 weeks of lawn growth may be a bit challenging.

An unmown lawn may be a great place for woody weeds, like buckthorn and mulberry, to take up residence. It may also be a great place for all those maple seeds falling from the trees right now to start a small forest in your yard.

In many municipalities there are ordinances against unmown lawns. Your city may choose to fine you if they don't support the no-mow May agenda.

There is a simple and positive way to help pollinators in spring (and through the rest of the growing season). Plant more flowers in our gardens! Any plant that has a showy, colorful flower will serve pollinators. We may just need to put a little more effort to plant some of the plants that will flower in the early part of the season. There are actually a lot of choices. Spring wildflowers like Virginia bluebells, Dutchman's breeches, spring beauty and toothwort fill our woodlands with flowers in spring. The woods are also filled with pollinators looking for those flowers. Plant some of these wildflowers in your yard and the pollinators will find them.

Spring flowering trees, like redbud, serviceberry and crabapple are also a good choice and some of these may already be in your yard. Even non-native flowering plants like crocus, hyacinth, bleeding heart and hellebores will serve pollinators well. Remember that many non-native plants are well behaved and are not invasive.

Adding spring-flowering plants is a great way to provide food for pollinators. Don't forget to have a variety of plants flowering in your garden throughout the season to keep the food supply going for those pollinators. Every garden that includes flowering plants is a pollinator garden. As an added bonus, you will have a great looking garden all season long.

Miscellaneous

Problem Plants (new on The Morton Arboretum website)

A new section of <u>mortonarb.org</u>, was just added. It is called <u>Problem Plants</u> and it deals with a variety of plants that can be problematic in one way or another. Since The Morton Arboretum is located in Illinois, plants that have legal standing in the state of Illinois have their own sections: <u>'Exotic Weeds</u>' and <u>'Noxious Weeds</u>'.

<u>Invasive plants</u> are also addressed. Invasive plants are recognized as a serious problem for natural environments, farms, residential neighborhoods and commercial areas. The definition of the word "invasive" is often misunderstood, leading to confusion about which plants should be removed and which should be preserved. An invasive species is more than just a plant that spreads easily or rapidly. An invasive species is one that is non-native to the location being considered and whose presence negatively impacts (or is likely to impact) ecological, economic or human health.

This webpage also covers <u>plants not recommended</u> by The Morton Arboretum due to susceptibility to extremely serious disease or insect problems. A final group of plants covered here is <u>dangerous weeds</u>. These plants are weeds that may be dangerous to ingest or handle. They have been selected based on information reported to the Plant Clinic at The Morton Arboretum.

Is this webpage final and all inclusive? No, it is not. The list of plants that fall into one category or another is by no means static. But, this is a good start to understanding some of the plants that cause problems.



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 <u>Coincide, The Orton System of Pest and Disease Management</u>.

Additional information on growing degree days can be found at: <u>http://www.ipm.msu.edu/agriculture/christmas_trees/gdd_of_landscape_insects_http://extension.unh.edu/resources/files/Resource000986_Rep2328.pdf</u>

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

For pest and disease questions, please contact the Plant Clinic. You can contact the Plant Clinic via email at <u>plantclinic@mortonarb.org</u>. Emails will be answered during business hours Monday through Friday. You can call the Plant Clinic (630-719-2424) or visit in person, Monday thru Friday noon to 4 pm. Inquiries or comments about the PHCR should be directed to Sharon Yiesla at <u>syiesla@mortonarb.org</u>. Copyright © 2025 The Morton Arboretum



THE CHAMPION of TREES

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	2025.3	May 2
2025.2	April 18	2025.4	May 16

Aphids, black on viburnum	4
Bishop's weed	4
Black knot	2
Boxwood blight or something else	2
Boxwood leafminer	3
Boxwood psyllid	3
Cedar-rust diseases	3
Crabgrass preventer1,	2
Creeping bellflower	3
Eastern tent caterpillar	2
Egg masses and more	1
Elm flea weevil	4
European pine sawfly	2
Ficaria verna	1
Four-lined plantbug	4
Fungicides, timing	1
Gall, elm sack	4
Ground cover diseases	3
Hydrangea leaftier	3
Indicator plants, what they tell us	1

No-mow May	4
Peach leaf curl	4
Pestalotiopsis blight on arborvitae	2
Problem plants	4
Saving stems for native bees	3
Sawfly, elm zigzag	3
Scale, euonymus	4
Scale, magnolia	1
Scale, oystershell	4
Spongy moth	2
Spotted lanternfly	2
Tools you can use	1
Using growing degree days	1
Viburnum leaf beetle 2,	3
Vinca update	4
Volutella blight on pachysandra	2
Volutella canker on boxwood	3
Watch the weather, not the calendar	3
Weather, climate and water	1
Zimmerman pine moth	3