

Plant Health Care Report

Scouting Report of The Morton Arboretum



THE
CHAMPION
of TREES

Aug. 18, 2023

Issue 2023.11

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. Contact us via email at plantclinic@mortonarb.org or by phone at 630-719-2424 (Monday thru Friday, 10 am to 4pm). The Plant Clinic is also open to walk-ins, but a [timed entry](#) and payment of entry fee is required for non-members.

Quick View

What indicator plant is in bloom at the Arboretum?

Seven sons flower (*Heptacodium miconioides*) is getting ready to flower (fig. 1)

Accumulated Growing Degree Days (Base 50) at The Morton Arboretum: 1967.5 (as of Aug 17).

Insects/other pests

- Galls chapter 3

Diseases

- Septoria leaf spot on dogwood
- Aster yellows or eriophyid mites??

Weeds

- Weeds, or not?

Miscellaneous

- Remontant flowering



Figure 1 Seven sons flower

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 8/17/2023*	St. Charles reporting station (north)	Champaign reporting station (central)	Carbondale reporting station (south)
2-inch, bare soil	85.6	83.3	84.8
4-inch, bare soil	80.8	78	81.8
4-inch, under sod	74.9	78.9	79.6
8-inch, under sod	72.6	76.2	76.7

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

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

As of Aug 17, we have 1967.5 base-50 growing degree days (GDD) at The Morton Arboretum. The historical average (1937-2022) for this date is 2106 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 2022, 2017 and 2016. 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 2017 and 2016, so there is 'no report' from those stations.

Location	GDD as of 8/17/2023	GDD as of 8/18/2022	No issue 8/18/2017	GDD as of 8/18/2016
Carbondale, IL*	2951	3120		3217
Champaign, IL*	2482	2601		2754
Chicago Botanic Garden**	No report	2293		2166 (8/17)
Glencoe*	1571	1815		No report
Chicago O'Hare*	2294	2428		2554
Kankakee, IL*	2205	2318		2509
Lisle, IL*	2316	2451		2572
The Morton Arboretum	1967.5	2274		2237
Quincy, IL*	2670	2740		2987
Rockford, IL*	2112	2170		2282
Springfield, IL*	2533	2685		2879
Waukegan, IL* (60087)	2031	2109		2297
Waukegan, IL (60085)	2130	2225		No report

**Thank you to Chris Henning, Chicago Botanic Garden, for supplying us with this information.

*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/>

Seasonal precipitation

Seasonal precipitation (rain and melted snow) in inches.			
	2023	2022	Historical average (1937-2022)
Jan	2.85	1	1.935
Feb	4.88	2.61	1.775
Mar	2.29	3.88	2.536
April	2.23	3.88	3.667
May	.79	6.1	4.206
June	1.23	2.51	4.2
July	8.92 (whole month)	5.7 (whole month)	3.9 (whole month)
Aug	2.54 (thru 8/17)	.01 (thru 8/3)	3.77 (whole month)
Sept			
Year to date	25.73 (thru 8/17)	28.1 (thru Aug)	25.98 (thru Aug)

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

Galls, chapter 3 (minor)

The parade of insects has slowed a bit, but the galls continue. We are still seeing some of our old favorites. We are featuring a nice selection of them for you this week. We write about these just so you know what you are looking at. Most galls are very minor and we don't need to treat for them.

Our native buttonbush (*Cephalanthus occidentalis*) is showing a weird gall that we have seen in previous years.

Buttonbush galls, caused by a mite, are small, bumpy galls (fig. 2). They sometimes show up in large numbers, giving the whole shrub an unattractive look, but doing very little real damage.



Figure 2 Buttonbush gall

Oak apple gall, true to its name, is found on oaks. This gall is caused by a cynipid wasp. The galls are globe-shaped (fig. 3), and filled with a spongy mass, and they are found on the leaves. These galls can be an inch or so in diameter when fully developed.



Figure 3 Oak apple gall

We are seeing mite galls on fragrant sumac (*Rhus aromatica* 'Grolow'). These are caused by eriophyid mites and look like small round bumps (fig. 4) in the leaves. Sometimes the population is heavy and makes the plant look odd, but they do not do any long-term harm to the shrub.



Figure 4 Galls on sumac

Pest Updates: Disease

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

Every year, about this time, *Septoria* leaf spot shows up on dogwood. The spots are present only on leaves. They have purple brown margins with pale centers (fig. 5), 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 5 *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

Aster yellows (or not?) (Potentially serious)

Do your coneflowers suddenly seem deformed into weird shapes? It may be aster yellows. This disease was once thought to be caused by a virus, but the causal organism has been reclassified as a phytoplasma. It can affect a wide range of flowers and vegetables, around 300 species. It is common in members of the aster (daisy) family, like marigolds, zinnias and mums. We mostly see it on purple coneflower



Figure 6 Aster yellows (photo: Heather Prince)

(*Echinacea purpurea*). Aster yellows causes strange, deformed growth of the flowers, foliage, and sometimes roots (seen in carrots). Purple coneflowers show floral deformities (fig. 6): stunted and/or green petals, completely deformed flowers poking out of the damaged originals. The disease organism is transmitted by leafhoppers, which are sap feeding insects. They spread the organism when they feed on the host.



Figure 7 Eriophyid mite damage (photo: Dr. Stephanie Adams)

There is also an eriophyid mite that can cause similar symptoms (fig. 7). Do we care about the cause of the damage? Yes. If it is aster yellows, you may have to dig up the plant and destroy it. If you can find the mites in the flower, then removing infested flowers or cutting the plant down to the ground in the fall and getting rid of the debris may be all that is needed. Dr. Stephanie Adams has provided us with a close up of the mites (elongated white flecks) within the flower head (Fig. 8).

So how can we tell who is who? Ohio State reports that when aster yellows is the culprit, the distorted flower parts tend to be green in color, but when mites are involved, the distorted flower parts maintain their normal color. Mites will affect only the flowers while aster yellows can affect other parts of the plant.

Management: There is no cure or treatment for aster yellows. Infected plants should be removed from the garden to prevent spread to other plants by the leafhoppers. Do not compost the plants. Manage the mites by removing infested flowers. Cut down and remove plants in the fall.

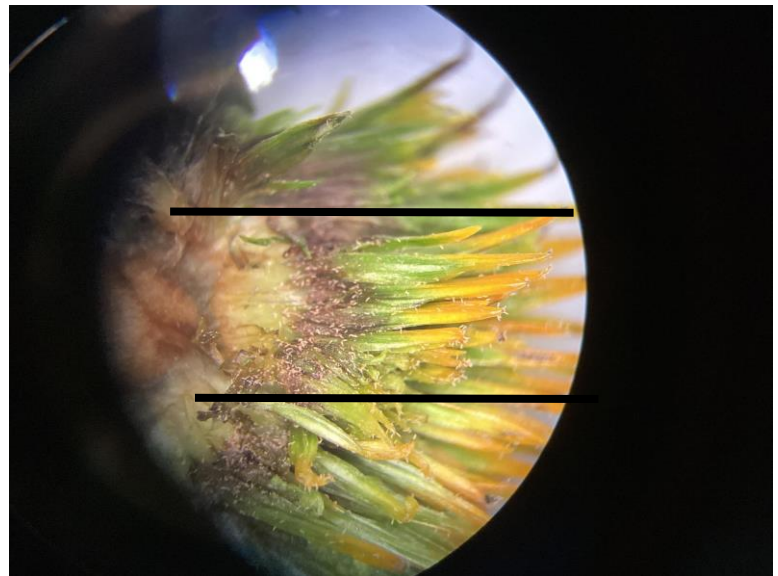


Figure 8 Eriophyid mites, mostly between the lines (Photo: Dr. Stephanie Adams)

Pest Updates: Weeds

Weeds, or not?

In recent years, we have received multiple reports on four ‘weeds’. The reason I put that word in quotes is that all of the plants in question are native plants, but ones that can get very busy and take over the yard. So, let’s look at who is showing up in home gardens all over the region, as well as on the Arboretum grounds.

Our first contender (fig. 9) is [stickseed](#) (*Hackelia virginiana*). We have been aware of this weed for many years. This one is tricky. Early in its growth, it resembles purple coneflower. So, most people assume that their coneflower made seedlings and they stop thinking about it. Then, before they know it, this plant has flowered and made seed pods. The seed pods are small and covered with little hooks like a bur. Once they are on your gardening gloves, they are almost impossible to remove. Get this one before it goes to seed.



Figure 9 Stickseed

Our second weed (fig. 10) is [black snakeroot](#) (*Sanicula odorata*). It is native to most of Illinois, but we don’t generally get inquiries about it. This year, it has been showing up in yards all season. There are other species of *Sanicula* out there, but we feel we have mostly been seeing *Sanicula odorata*. It has yellow-green flowers, while the other species have greenish-white flowers. If this plant is happy in your yard it may form colonies, especially in shady sites. Some people consider that naturalizing, some think of it as weedy. Your call.



Figure 10 Black snakeroot

Our third and fourth plants are related; they belong to the same genus. They are [butterweed](#) (*Packera glabella*) and [golden ragwort](#) (*Packera aurea*). Butterweed (fig. 11) is a native of Illinois, but is far more common in the southern half of the state than it is in the Chicago region.

Yet, we have had numerous reports of it in the past few years. This plant does well in partial to full sun and is reported to prefer a loamy soil, with moist to wet conditions. Butterweed is actually fairly attractive, with yellow daisy-like flowers, that provide nectar for pollinators. It flowers for 6 to 8 weeks. The leaves are interesting too, being deeply and irregularly cut. Those leaves contain alkaloids which prevent rabbits and deer from feeding on them.

Golden ragwort is a cousin to butterweed and has similar yellow flowers that also provide for pollinators. The basal leaves of this plant are oval to almost rounded, with rounded teeth. Leaves higher on the stem are much smaller, narrower and deeply dissected. The leaves also contain the alkaloids.

Are all these plants weeds or wildflowers? This is a decision each person has to make. They are native plants, but every native is not desirable (poison ivy is native, too). Weigh the pros (benefits to pollinators) and cons (potential to colonize too much) of each plant. I have linked the name of each plant to a webpage, so you can gain more information to make that decision. I wanted to present these here since they are showing up so much in our area. Hopefully, this article at least answers the question “What plant is that?” for you.

Good websites: <http://illinoiswildflowers.info/>
<https://bygl.osu.edu/node/1023>
<https://farmdoc.illinois.edu/field-crop-production/weeds/what-is-that-yellow-flowered-plant.html>

Miscellaneous

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. 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 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.



Figure 11 Butterweed

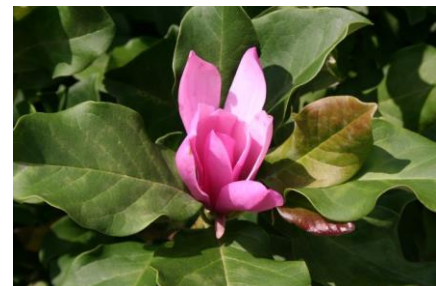


Figure 12 'Ann' magnolia flowering in August

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The Plant Health Care Report is prepared by Sharon Yiesla, M.S., Plant Knowledge Specialist and edited by Stephanie Adams, Ph.D., Plant Health Care Leader; Fredric Miller, Ph.D., Research Entomologist at The Morton Arboretum; and Carol Belshaw, 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 2023 are Deb Link, Maureen Livingston, Loraine Miranda, and Molly Neustadt.

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/>

For pest and disease questions, please contact the Plant Clinic. You can contact the Plant Clinic via email at plantclinic@mortonarb.org. Emails will be answered during business hours Monday through Friday. You can call the Plant Clinic by phone (630-719-2424) or visit in person, Monday thru Friday 10 am to 4 pm. On weekends and national holidays, Arboretum members need [a timed entry ticket](#) to enter the Arboretum and visit Plant Clinic in person. Non-members need [a timed ticket](#) every day and must pay the entry fee. Inquiries or comments about the PHCR should be directed to Sharon Yiesla at syiesla@mortonarb.org.

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2023 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, Cicadas..... 1 means that it was discussed in the PHCR 2023.01 or the newsletter dated April 7, 2023. The index is updated with the publication of each full issue and is included at the end of each full issue.

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