

# Plant Health Care Report

Scouting Report of The Morton Arboretum



THE  
CHAMPION  
of TREES

Aug 19, 2022

Issue 2022.11

For comments regarding PHCR, or to subscribe to email alerts regarding posting of new issues, contact me at [syiesla@mortonarb.org](mailto:syiesla@mortonarb.org).

Our report includes up-to-date disease and insect pest reports for northeastern Illinois. This year we resume our on-grounds scouting program. Plant Clinic staff and volunteers are back working on-site this year. Contact us via email at [plantclinic@mortonarb.org](mailto:plantclinic@mortonarb.org) or by phone at 630-719-2424 (Monday thru Friday, 10 am to 4 pm). The Plant Clinic is also open to walk-ins, but a [timed entry](#) for the Arboretum is required and non-members need to pay the entry fee.

## Quick View

### What indicator plant is in bloom at the Arboretum?

Seven Sons Flower (*Heptacodium miconioides*) is starting to flower (fig 1)

**Accumulated Growing Degree Days (Base 50): 2274 (as of Aug 18)**

**Correction: To report spotted lanternfly in Illinois, send an email (with photos, if possible) to [lanternfly@illinois.edu](mailto:lanternfly@illinois.edu).**

## Insects

- Spotted lanternfly
- Mimosa webworm
- Fall galls

## Diseases

- Tar spot of maple
- Crown gall

## Miscellaneous

- Goldenrod is a good guy

## Upcoming Education

- Upper Midwest Invasive Species Conference (Oct 25-27, 2022)



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://www.isws.illinois.edu/warm/soil/> (you will need to set up an account to access data.)

Max. Soil temps For 8/18/2022*	St. Charles reporting station (north)	Champaign reporting station (central)	Carbondale reporting station (south)
2-inch, bare soil	80.9	100.6	96.2
4-inch, bare soil	83.9	93.6	87.2
4-inch, under sod	76.5	83.8	79.9
8-inch, under sod	72.8	78.7	78

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

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

As of Aug 18, we have 2274 base-50 growing degree days (GDD) at The Morton Arboretum. The historical average (1937-2021) for this date is 2127 GDD<sub>50</sub>. The table below shows a comparison of GDD in different years. We are comparing the GDD reported in this issue with the GDD reported in 2021, 2015 and 2014. These years were selected since publication dates of the first issue were within a day or two of each other. Glencoe, Lisle and Waukegan (60085) were not used in 2015 and 2014, so there is 'no report' from those stations.

Location	GDD as of 8/18/22	GDD as of 8/19/21	GDD as of 8/20/15	GDD as of 8/21/14
Carbondale, IL*	3120	2902	3111	2886
Champaign, IL*	2601	2521	2670	2472
Chicago Botanic Garden**	2293	No report	1949 (8/19)	1824
Glencoe*	1815	1880	No report	No report
Chicago O'Hare*	2428	2464	2366	2289
Kankakee, IL*	2318	2359	2342	2260
Lisle, IL*	2451	2456	No report	No report
The Morton Arboretum	2274	2248	2066.5	1972.5
Quincy, IL*	2740	2662	2795	2643
Rockford, IL*	2170	2278	2035	1982
Springfield, IL*	2685	2612	2777	2558
Waukegan, IL* (60087)	2109	2229	2002	1992
Waukegan, IL (60085)	2225	2336	No report	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.			
	2022	2021	Historical average (1937-2021)
Jan	1	1.5	1.946
Feb	2.61	1.49	1.765
Mar	3.88	1.24	2.520
April	3.88	1.39	3.665
May	6.10	3.34	4.18
June	2.51	6.57	4.2
July	5.7	2.04	3.87
Aug	.84 (as of 8/19)	2.12 (whole month)	3.78 (whole month)
Sept			
Year to date	26.52 (as of 8/19)	19.69 (Jan thru Aug)	25.95 (Jan 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

#### Spotted lanternfly (serious)

In our last issue, we reported on an [alert](#) indicating that spotted lanternfly (SLF) has been found in Iowa. Since then, it has also been found in Huntington, IN, and in Pontiac, MI.

Spotted lanternfly (*Lycorma delicatula*) is not a fly at all. It is a planthopper. It is a serious pest of many plants. While it commonly feeds and lays eggs on the invasive tree-of-heaven (*Ailanthus altissima*), it has been found on a range of host plants including many of high economic importance (including grapes, apples, plums and other fruits, as well as oak and walnut trees). The insect will be on different hosts at different times in its life cycle.

This is a sap-feeding insect and this feeding can weaken hosts plants. In addition, SLF produces honeydew. Sooty mold will grow on honeydew, and that limits photosynthesis, weakening the plant further. Also, other insects will come to feed on the sticky honeydew. Spotted lanternfly produces extremely large amounts of honeydew, making it unpleasant to be under an infested tree.

Spotted lanternfly overwinters as eggs on host plants as well as on hard structures. If these structures are mobile (cars, railroad cars, wood pallets), they allow easy spread of the egg masses. The [egg masses](#) are a non-descript gray and can easily be overlooked.

Egg hatch occurs in spring and early summer. Nymphs feed on a range of host plants and go through four nymph stages, with the first three being [black with white spots](#) and the last stage [red with white spots and black stripes](#).

Adults begin to show up around late July. The adult is about one inch long. When at rest, the wings close over the body. The closed wings are [gray with black spots](#) and some obvious veining at the ends. When the wings are open and the inner wings can be seen, there are obvious [splashes of red](#).

For more information see the links below. To see pictures of all life stages of this pest go to <https://bugguide.net/index.php?q=search&keys=Lycorma&search=Search>

To report a sighting of this pest, contact your state Department of Agriculture. In Illinois, send an email, with photos, to [lanternfly@illinois.edu](mailto:lanternfly@illinois.edu).

<https://www.aphis.usda.gov/aphis/resources/pests-diseases/hungry-pests/the-threat/spotted-lanternfly/spotted-lanternfly>

[https://www.agriculture.pa.gov/Plants\\_Land\\_Water/PlantIndustry/Entomology/spotted\\_lanternfly/SpottedLanternflyAlert/Pages/default.aspx](https://www.agriculture.pa.gov/Plants_Land_Water/PlantIndustry/Entomology/spotted_lanternfly/SpottedLanternflyAlert/Pages/default.aspx)

<https://nysipm.cornell.edu/environment/invasive-species-exotic-pests/spotted-lanternfly/spotted-lanternfly-ipm/biology-life-cycle-identification-and-dispersion/>

### **Mimosa webworm (minor)**

For the last two years, we have received confirmed reports of mimosa webworm (*Homadaula anisocentra*) in northern Cook County. This year we have received an additional report of this pest in another town in northern Cook County. This is not a common pest in the Chicago region, but with changes in weather in the last few years, we are starting to see things that are uncommon here, so it is good to keep scouting. We don't grow mimosa here, but this insect also likes honey-locust (*Gleditsia triacanthos*), and apparently the cultivar 'Sunburst' is a big crowd pleaser for this pest. The relatively mild winters we have had may be helping this pest exist here on a more regular basis.

Mimosa webworm adults are silvery-white to gray moths with black spots (sort of like [dalmatians with wings](#)). The adults emerge from late spring into early summer, then mate and lay eggs. Further south in Illinois, there are two generations per year, but we can't verify that we had two here. The first generation is usually a smaller one, and the damage may go unnoticed, scattered among the branches of a large tree. The first-generation caterpillars will web together only 2 to 3 leaflets (fig. 2) and feed on those leaflets inside the web. They will pupate in the web and, when the moths emerge and mate, they will use the webbing as a place to lay the eggs of the second generation.



Figure 2 early damage by mimosa webworm (Photo: Cathy Stevens)

The second generation is larger and will web together more leaflets, so the problem is much more obvious, with the webbing being more noticeable (fig. 3), especially when the leaflets inside turn brown. Also, the webbing is filled with frass (insect excrement). When the second generation is ready to pupate, they will do so under loose bark or on nearby buildings, under siding and around windows. Since we are seeing mimosa webworm again this year, it might be a good idea to note trees with the webbed leaves and be watching for them in the same area next year.



Figure 3 Late season damage by mimosa webworm (photo: Cathy Stevens)

**Management:** This is an occasional pest, and at this point, not a highly damaging one in our area, so management is not needed. This will be a pest to watch for the future, especially when we have milder winters.

Good website: <https://www.forestpests.org/vd/8635.html>

### Fall galls (minor)

We are featuring a nice selection of late season galls 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.

We have two galls showing up on goldenrod. They are the goldenrod fly gall (fig. 4) and the goldenrod bunch gall (fig. 5).

The goldenrod fly gall (*Eurosta solidaginis*) shows up as those interesting ball shapes in the goldenrod stem. The gall maker lives inside that round gall and will pupate there in spring.

The goldenrod bunch gall is caused by a midge (*Rhopalomyia solidaginis*). The larva of this midge secretes a chemical that stops the goldenrod stem from growing any taller. The leaves keep forming, though. This leads to a bunch of shortened leaves at the end of the stem. Actually, very pretty! This one has been very prevalent this season.

### Pest Updates: Diseases

#### Tar spot of maple (minor)

We have received very few reports of tar spot of maple this year, but we know it is out there. As the name indicates, the spots will look just like shiny black spots of tar (fig. 6) flung about on the upper surface of maple leaves. Several different fungi in the genus *Rhytisma* infect the leaves of maples and cause the spots. The spots range from 1/5 to 4/5 inch in diameter. In some cases, a red ring surrounds the spot. *Rhytisma* spp. most commonly infect leaves of silver and Norway maples, although red and sugar maples are also susceptible. It does little harm to the trees, but is unsightly.



Figure 4 Goldenrod fly gall (Photo: S. Yiesla)



Figure 5 Goldenrod bunch gall



Figure 6 Tar spot (photo: S. Yiesla)

**Management:** Fungicides generally are not necessary. To reduce inoculum, rake up and discard the leaves in fall. Raking, however, is only effective if you and your neighbors with infected maples all rake and discard leaves.

Good website: <https://mortonarb.org/plant-and-protect/tree-plant-care/plant-care-resources/tar-spot-of-maple-rhytisma-spp/>

### **Crown gall (serious)**

We have had one report of crown gall on euonymus ground cover. Crown gall has a wide host range and attacks woody and herbaceous plants. It is very common on rose and euonymus. It is caused by several strains of a bacterium, *Agrobacterium tumefaciens*, that form woody galls that girdle stems. The galls appear near the soil line (fig. 7) on most plants. The bacterium lives in the soil and is spread by splashing rain and by tools that were used in infected soil and not cleaned properly. Infected soil on shoes may also be a source of inoculum.



Figure 7 Crown gall

**Management:** Remove and destroy infected plant parts. As the bacterium must enter the plants through wounds, avoid wounding stems and roots. Do not plant susceptible plants in the infected soil for 5 years. Without a host plant, the bacterium will eventually die out. Grasses are immune and can be planted in an area where crown gall has been found.

Good websites:

<https://ag.umass.edu/landscape/fact-sheets/crown-gall> (includes a list of resistant species)

<https://extension.umn.edu/plant-diseases/crown-gall>

### **Miscellaneous**

#### **Goldenrod is a good guy**

We often get comments of concern about goldenrod (*Solidago* and *Oligoneuron* species). Those concerns include health issues and ‘invasiveness’. One of the big concerns is hay fever during fall flowering. Ragweed is the real culprit in this case. It has green flowers that go unnoticed. Ragweed is wind-pollinated, so the pollen is blowing on the wind and is finding its

way to allergy sufferers. Goldenrod has heavier pollen that is moved by insects. Some people express concern about touching goldenrod, and I suspect that this is just misinformation that has grown out of the hay fever myth.

The other big concern is ‘invasiveness’. The term invasive indicates that the plant is doing some harm to other organisms or habitats. The goldenrods are native plants and don’t have this kind of impact on other plants or habitats. Some goldenrods are spreaders and can grow more aggressively than is wanted in a residential garden. So, when including goldenrod in a landscape, choose species that are clumpers, not spreaders.

Goldenrod is not guilty of any of the things of which it stands accused. In fact, goldenrod is a really good guy in terms of pollinators. Goldenrod flowers (fig. 8) late in the season when there are fewer plants in flower, so it is beneficial to pollinators as a late season meal. Some plants have flowers that are visited by a few pollinators. Goldenrod has a very open-door policy and serves a wide range of pollinators, including several species of bees, wasps, beetles, flies, butterflies and moths. After the pollinators are gone and the seeds are produced, there are some birds that will stop by for a snack as well. So, the party at goldenrod’s house just keeps going well into autumn. This is definitely a group of plants that deserves more respect.



Figure 8 Goldenrod in full flower

## **Upcoming Education**

### **Oaks below Ground Conference**

The Morton Arboretum, 4100 Illinois 53, Lisle, IL 60532, in the Sycamore room  
September 1, 8:30 a.m. - 4:00 p.m. (Lunch and transportation on your own)  
Register [here](#).

We invite you to participate in a two-part workshop on the latest research and observations of belowground interactions and conditions that impact oaks — impacts that help them to thrive and grow or those that can weaken and even kill them. The morning session will be four lectures and discussions led by scientists studying below-ground impacts with an afternoon site tour exhibiting some of these impacts. The site tour will take at The Morton Arboretum and in Glen Ellyn. The program and detailed instructions will be provided after registration.



## **Upper Midwest Invasive Species Conference (Oct 25-27, 2022)**

**Hosted by:** [Invasive Plants Association of Wisconsin](#), [Midwest Invasive Plant Network](#), and [Minnesota Invasive Species Advisory Council](#).

KI Convention Center in Green Bay, Wisconsin; Tuesday, Oct 25 - Thursday, Oct 27, 2022

This will be a hybrid event, so you can opt to join us in Green Bay or to access the conference virtually. An overview of the [conference agenda](#) can be found on the UMISC website. Note that over 90% of our speakers will be in person.

The goal of UMISC is to strengthen management of invasive species, especially prevention, control, and containment. This conference provides numerous opportunities to network with professionals, land managers, researchers, nonprofits, and others.

In addition to the excellent lineup of sessions we have for you this year, there are [two workshops](#) and [seven field trips](#) to choose from to enhance your conference experience. The workshops are being offered free of charge, but registration is required. The field trips must be selected and paid for at the time of registration. Space is limited, so book early. You don't want to miss out. Information on [hotel accommodations](#) at the convention center is also available at the [UMISC website](#).

### **[REGISTER TODAY!](#)**

Members of [MIPN](#) and [IPAW](#) receive a \$30 discount on conference registration, so there's no better time to become a member. UMISC represents a strong partnership between its three hosts: [Invasive Plants Association of Wisconsin](#), [Midwest Invasive Plant Network](#), and [Minnesota Invasive Species Advisory Council](#).

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***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 Stephanie Adams, Ph.D., Plant Health Care Leader; Fredric Miller, Ph.D., Research Entomologist at The Morton Arboretum and Professor at Joliet Junior College; Julie Janoski, Plant Clinic Manager; 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. I would like to thank all the staff and volunteers that report disease and pest problems when they find them. Our scouts this year 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://www.ipm.msu.edu/agriculture/christmas_trees/gdd_of_landscape_insects)

[http://extension.unh.edu/resources/files/Resource000986\\_Rep2328.pdf](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](mailto: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. Arboretum members need [a timed entry ticket](#) to enter the Arboretum and visit Plant Clinic in person. Non-members need [a timed ticket](#) and must pay the Arboretum entry fee. Inquiries or comments about the PHCR should be directed to Sharon Yiesla at [syiesla@mortonarb.org](mailto:syiesla@mortonarb.org) .

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## 2022 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 2022.01 or the newsletter dated April 1, 2022. 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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