

Plant Health Care Report

Scouting Report of The Morton Arboretum

May 24, 2013

Issue 2013.6

Our report includes up-to-date disease and insect pest reports, as well as color images, for northeastern Illinois. You'll also find a table of accumulated growing degree days throughout Illinois, precipitation, and plant phenology indicators to help predict pest emergence. The report is published bi-weekly on Fridays in April and August, and weekly May-July.

Arboretum staff and volunteers will be scouting for insects and diseases throughout the season. We will also be including information about other pest and disease problems based on samples brought into the Arboretum's Plant Clinic from homeowners and professionals.

If you have any comments or concerns regarding the Plant Health Care Report, please send them to Sharon Yiesla at syiesla@mortonarb.org.

Quick View

What indicator plant is in bloom at the Arboretum?

Black locust (*Robinia pseudoacacia*) is in bloom (figure 1)

Accumulated Growing Degree Days (Base 50): 303.5 (as of May 23)

Accumulated Growing Degree Days (Base 30): 1294.5 (as of May 23)

Insects:

- Rose slug sawfly
- Bagworm
- Oak leaf roller
- Galls, galls, galls
- Rose plume moth

Diseases:

- Ash anthracnose
- Golden canker



Figure 1 Black locust (photo credit: John Hagstrom)

Degree Days and Weather Information

As of May 23, we are at 303.5 base-50 growing degree days (GDD). On average we usually have accumulated 258 GDD base-50 by this date. For the month of May so far we have had 5.34 inches of rain which is above average.

Location	B ₅₀ Growing Degree Days Through May 23 , 2013	Precipitation (in) May 17-23, 2013
Carbondale, IL*	627	
Champaign, IL*	505	
Chicago Botanic Garden**	259	2.01 (5/15-22)
Chicago O'Hare*	364	
Kankakee, IL*	470	
The Morton Arboretum	303.5	4.71
Northbrook, IL**	317.5	2.36 (5/16-22)
Quincy, IL*	485	
Rockford, IL*	349	
Springfield, IL*	504	
Waukegan, IL*	265	

**Thank you to Mike Brouillard, Northbrook Park District and Mike Annes, 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 <http://www.gddtracker.net/>

New this year: To make the Plant Health Care Report (PHCR) more effective, each pest/disease article will be marked parenthetically this year to indicate the severity of the problem. Problems that have the potential to be serious and which may warrant chemical control measures will be marked “potentially serious”. Problems that are included in the PHCR, but are seldom serious enough for pesticide treatment, will be marked “minor”. Articles that discuss a problem that is seen now, but would be treated with a pesticide at a later date, are marked “treat later”. Since we will cover weeds from time to time, we’ll make some categories for them as well. “Aggressive” will be used for weeds that spread quickly and become a problem and “dangerous” for weeds that might pose a risk to humans. As the season goes on please give me feedback as to whether this system helps you or not. Contact me at syiesla@mortonarb.org .

Pest Updates: Insects

Rose slug sawfly (minor)

Rose slug sawfly (*Endelomyia aethiops*) larvae (figure 2) have been found feeding on rose leaves. Larvae feed on the upper layers of the leaf, leaving behind the lower epidermal layer and creating a "window pane" effect. The larvae are greenish yellow with orange heads and are about 13 mm (1/2 inch) long when fully grown. They are covered in slime that helps protect them from predators. When larvae mature, they lose their slimy coverings.



Figure 2 Rose slug sawfly larva and damage

Management: Minor infestations can be controlled by using a forceful jet of water to dislodge the sawfly larvae or by handpicking. Insecticidal soap can also be used for low populations of young larvae. Controls should be implemented now since insects are present.

Good website: <http://hort.uwex.edu/articles/roseslug-sawfly>

Bagworm (treat later)

The Plant Clinic has been receiving reports of bagworm, but these have turned out to be left over bags from a previous infestation. Bagworms overwinter as eggs inside the female bag (figure 3) that contains between 300 and 1,000 eggs. The eggs will not hatch until early summer (700-800 GDD base 50). At that time the young larvae suspend from a silk string and are often "ballooned" by wind to nearby plants. When a suitable host plant is found, larvae begin to form bags over their bodies.



Figure 3 Bagworm on arborvitae

Management: Any bags found now could be hand-picked to reduce the population before they hatch out. We'll publish more about this pest at the time we find them emerging.

Oak leaf roller (minor)

The oak leaf roller (*Archips semiferana*) has been found on the Arboretum grounds. This insect overwinters as eggs on the bark of the tree. The larvae hatch out in May. The larva is green with a black head. They spin loose webbing around expanding leaves to roll them. Then they skeletonize the rolled leaf. In late June the larvae will pupate within the rolled leaves, emerging as adult moths after 10-14 days. The moths are about 1/2" long and tan. There is one generation per year.

Management: While this can be a serious defoliator in forests and stands of oaks, it is seldom a

major problem in home landscapes. *Bacillus thurengiensis kurstaki* (Btk) can be used in heavy infestations. This is most effective when the caterpillars are young and have not yet rolled the leaves.

Good website: <http://bugs.osu.edu/~bugdoc/Shetlar/factsheet/ornamental/FSoakleafroller.htm>

Galls, galls, galls (minor)

The season has barely begun, but the parade of galls is well underway. We have had reports of several galls just within the last week. Remember that most galls are cosmetic problems, and we do not recommend any treatment. We note them here in the Plant Health Care Report so that you can know what they are when you see them. Reports this week include the following:

Oak apple galls (figure 4) are caused by cynipid wasps. When fully developed, the galls are globe shaped, 1-2 inches in diameter, and filled with a spongy mass, and they are usually found on the midribs of leaves. The adult cynipid wasp lays eggs in developing leaves which causes adjacent plant cells to grow and engulf the egg, thereby providing it with food and shelter.

Vein pocket galls (figure 5) were found on pin oaks this week. These galls are hard, light green-colored elongate swellings that occur along mid- and lateral leaf veins of pin oaks. Feeding by the larval (maggot) stages of very small flies called midges cause the galls to form.

Ash flower galls (figure 6) are beginning to develop on male (seedless) ash trees. These galls are caused by ash flower gall mites, an eriophyid mite. They feed on male flowers before buds are fully expanded. Feeding induces formation of round, greenish galls that become dry and turn brown in late summer and remain on the tree over the winter. Normally male flowers fall off after disseminating pollen, but when infested with ash flower galls mites, the galls may stay on the tree as long as two years.

Management: None needed. These galls are cosmetic problems only.

Good website:

<http://www.mortonarb.org/component/content/article/193-insects-diseases/726-ash-flower-galls-.html>

<http://www.mortonarb.org/component/content/article/193-insects-diseases/751-plant-galls.html>



Figure 4 Developing oak apple gall



Figure 5 Vein pocket gall



Figure 6 Ash flower gall

Rose plume moth (minor)

The caterpillar of the rose plume moth (Figure 7) has come into the Plant Clinic recently. We have already received three reports of this insect. The caterpillar is approximately 0.5 inch long. It has five pairs of pro-legs and a reddish stripe running from its head to the middle of its body (that stripe has disappeared in the couple of days we have been watching our live samples.) The adults (figure 8) are present June through August. New larvae are produced in fall and overwinter inside the stems of the rose. They resume feeding in spring (May).



Figure 7 Rose plume moth caterpillar

It has been most commonly found near the tips of rose bushes, damaging the buds and leaves and sometimes creating some webbing. The caterpillar's color blends with the color of new rose growth nearly perfectly, so they may be difficult to find. A lot of frass (insect feces) is also found in these areas.

Management: To decrease the populations, pruning off infected tips may be the best management advice that can be offered at this time. Since this is a caterpillar, *Bacillus thurengiensis kurstaki* (*Btk*) should be effective, but use it while caterpillars are small.



Figure 8 Rose plume moth adult

Pest Updates: Disease

Ash anthracnose (minor)

Anthrachnose is primarily a foliar disease affecting many deciduous trees including ash, sycamore, elm, oak, and maple. In the case of sycamore anthracnose, the disease can affect small branches and twigs, causing dieback. The disease is caused by several different fungi, including *Apiognomonia errabunda*, *A. veneta*, *Discula fraxinea*, *Glomerella* sp., *Gnomonia* sp., and *Stegophora ulmea*, depending on host species. Symptoms vary with the plant host, weather, and time of year when infection occurs. Infection is more severe when prolonged spring rains occur after new growth is produced. Although the symptoms appear in late spring into the summer, the initial infection took place in the early spring at bud break and before the leaves hardened off. Once the symptoms show up, it is too late for any chemical applications to be effective.



Figure 9 Symptoms of ash anthracnose

With ash anthracnose, (figure 9) initial symptoms are small irregular, dark brown, necrotic patches, often accompanied by leaf curl and distortion. Premature leaf drop may occur on highly

susceptible species, and this seems to be the symptom we are seeing most this year. Damage is usually minor on ash in our region, and symptoms dissipate as rains diminish and temperatures increase in early summer.

Management: Cultural methods are usually sufficient to reduce the severity of ash anthracnose in our region. These include:

- Pruning trees to remove diseased twigs and branches and to open up the canopy for better air circulation and light penetration.
- Maintaining tree vigor with proper watering and fertilization.
- Mulching around the base of the tree (always keep mulch about 2 to 4 inches from the trunk).
- In the fall, cleaning up and destroying fallen leaves to reduce the source of inoculum.

Good website:

<http://www.mortonarb.org/tree-plant-advice/article/714/anthracnose-of-shade-trees.html>
<http://ohioline.osu.edu/hyg-fact/3000/3048.html>

Golden canker (potentially serious)

With the stress that plants underwent with last year's drought, it is very likely that we will see a number of canker diseases this year. This week the Plant Clinic received a sample of golden canker on pagoda dogwood (*Cornus alternifolia*). Golden canker is caused by the fungus *Cryptodiaporthe corni*. Infected branches turn golden-yellow and eventually will become speckled with orange fungal fruiting bodies (figure 10). Other symptoms include wilting and death of leaves on infected branches, followed by branch dieback. This disease can be fatal if the main trunk of a tree becomes infected, but it usually takes out one branch at a time.

Management: Reduce stress on the plant. Prune the cankered branches during dry weather four to six inches below the discolored bark. The infected branches are the source of spores for many months. To prevent spread of the fungus, don't forget to disinfect pruning tools after each cut.



Figure 10 Golden canker on pagoda dogwood

Good websites:

<http://hort.uwex.edu/articles/golden-canker-cryptodiaporthe-canker>

http://blog.lib.umn.edu/efans/ygnews/2009/04/golden_canker_on_pagoda_dogwoo.html

The Plant Health Care Report is prepared by Sharon Yiesla, M.S., Plant Clinic Assistant and edited by Stephanie Adams, M.S. Research Specialist in Plant Health Care; Fredric Miller, Ph.D., Research Entomologist at The Morton Arboretum and Professor at Joliet Junior College; Doris Taylor, Plant Information Specialist, and Carol Belshaw, an 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 the volunteers who will be scouting for us this season. They find most of the insects and diseases that are in this report. The Scouting Volunteers include: LeeAnn Cosper, Deborah Finch-Murphy, Anne Finn, Ann Klingele, Arnis Krusow, Jack Leider, Loraine Miranda, Bill Sheahan and Kathy Stephens. Your hard work is appreciated.

Literature recommendation:

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. This book may be purchased through the publisher at: <http://www.laborofloveconservatory.com/>

The Commercial Landscape & Turfgrass Pest Management Handbook (CPM), for commercial applicators, and the Home, Yard & Garden Pest Guide (HYG) for homeowners from the University of Illinois, are available by calling (800-345-6087).

This report is available as a PDF at The Morton Arboretum website at <http://www.mortonarb.org/tree-plant-advice.html>

For pest and disease questions, please contact the Plant Clinic at (630) 719-2424 between 10:00 and 4:00 Mondays through Saturdays or email plantclinic@mortonarb.org . Inquiries or comments about the PHC reports should be directed to Sharon Yiesla at syiesla@mortonarb.org .

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