

Plant Health Care Report

Scouting Report of The Morton Arboretum

July 25-31, 2009

Issue 2009.16

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.

Beginning next week, we will go to a bi-weekly schedule. The next report will be August 14.

Quick View

What Indicator Plants are in Bloom at the Arboretum?

The fruits of wayfaringtree viburnum (*Viburnum lantana*) are starting to turn red.



Accumulated Growing Degree Days (Base 50) as of July 29: 1413.5

Insects

- Dog day cicadas
- Galls on fragrant sumac
- Hummingbird clearwing moth

Diseases

- Measles on peony
- Thyronectria canker
- Lily-of-the-valley anthracnose
- Septoria leaf spot of dogwood

Miscellaneous:

- Leaf drop due to dry weather
- New Fall Education Brochure Available!

Weed Note

- Birds-foot trefoil (*Lotus corniculatus*)

Degree Days and Weather Information

As of July 29, 2009, we are at 1413.5 growing degree days which are approximately fifteen calendar days behind the historical average (1937-2008) and four calendar days behind last year.

Location	Growing Degree Days through July 29	Precipitation between June 22 to 29 in inches
The Morton Arboretum (Lisle, IL)	1413.5	0.49
Chicago Botanic Garden (Glencoe, IL)*	1296.5	0.33
Chicago O-Hare Airport*	1451.9	0.29
Aurora, IL**	1372.6	
Champaign, IL**	1801.8	
DuPage County Airport (West Chicago, IL)**	1577.0	
Decatur, IL**	1884.9	
Moline, IL**	1663.9	
Peoria, IL**	1793.2	
Quincy, IL**	1927.5	
Rockford, IL**	1404.6	
Waukegan, IL**	2026.2	
Wheeling, IL**	1352.0	

*Thank you to Mike Brouillard, Northbrook Park District, and 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 <http://www.gddtracker.net/?zip=60185&model=2&state=IL>

This Week's Sightings

Dog day cicadas

We're starting to hear the songs of the annual dog day cicadas, **not** the periodical cicadas that emerged two years ago. These are the insects make the sound "weeeeeeeeeeeeeee", "weeeeeeeeeeeeeee" high in trees during the warm, dog-days of summer. This is the mating call of the male. They are about 1.75 inches long and are green to brown with black markings. Like the periodical cicadas, females 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. As the insects grow larger, they break out of their old exoskeletons or skins.



Control: Control is not necessary since annual cicadas cause minimal damage to trees.

Good websites:

<http://ohioline.osu.edu/hyg-fact/2000/2137.html>



Galls on fragrant sumac

We're seeing lots of small bead-like leaf galls on Gro-Low fragrant sumac (*Rhus aromatica* 'Gro-Lo'), most likely caused by an eriophyid mite.

Hummingbird clearwing moth

We've seen a few hummingbird clearwing moths (*Hemaris thysbe*) flying around our Royal Red butterfly bushes (*Buddleja davidii* 'Royal Red'). These insects aren't pests, but sometimes we like to write about insects that are neat. Hummingbird moths beat their wings very rapidly, causing their wings to look like a blur, and hover over flowers, sticking their proboscis into flowers to feed on the nectar. This really makes them look like hummingbirds when you first see them. Hummingbird moths also like feeding on trumpet vine flower nectar.



Photos by John Hagstrom

Measles on peony



Cladosporium leaf blotch has been found on a few of our peonies. This disease is also known as red blotch or measles, although, to be honest, the origin of the common name doesn't fit what we found. (The spots don't look red or like any measles my family ever had.) Instead, symptoms are large, circular, dark purple spots on the upper surface of the leaves and corresponding light brown spots on the lower surface of the leaves. We placed the leaves overnight in our favorite piece of equipment, the humidity chamber (or plastic bag with a moist paper towel in it), to encourage sporulation. Under the microscope, we found the brown, lemon-shaped spores of *Cladosporium*.

Control: Sanitation is important. Dispose of diseased plant parts at the end of the growing season to reduce inoculum. For chemical recommendations, refer to the *Commercial Landscape and Turfgrass Pest Management Handbook 2007* (CPM)

if you are a commercial applicator or *Home, Yard and Garden Pest Guide* (HYG) from the University of Illinois if you are a homeowner.

Web site: http://www.ag.uiuc.edu/~vista/pdf_pubs/631.pdf

Thyronectria canker

We found branch dieback symptoms of Thyronectria canker on Caspian-locust (*Gleditsia caspica*). This disease, caused by the fungus *Nectria austroamericana*, is a common and serious canker disease of honey-locust. It is a major cause of decline of thornless honey-locusts in urban plantings in Illinois. The disease is minor in natural woodland areas.

Thyronectria canker causes girdling branch and trunk cankers that result in branch dieback, reduced foliage, yellowing and wilting of foliage, premature fall coloration, and early leaf drop. Cankers are elongated and slightly sunken with callus ridges sometimes developing with age. The surface of killed bark may have a red-yellow discoloration. Reddish brown discoloration develops in sapwood beneath and near the cankers and may extend to the heartwood. Note that the reddish color associated with the center of honey-locust stems is not related to this disease.



Control: Prune out dead branches to a branch junction in dry weather and at least one foot below the visible margin of the canker. Clean pruning tools with 70% alcohol or a similar disinfectant between cuts to reduce spread of the fungus. Eliminate drought stress by mulching trees and watering during dry periods. Avoid physical damage to the trees.

Honey-locust cultivars vary in susceptibility to Thyronectria canker. An Illinois test found that canker incidence on inoculated stems was least on cultivars 'Holka', 'Imperial', and 'Shademaster'; greatest on 'Sunburst'; and intermediate on 'Moraine' and 'Skyline'.

Good websites:

<http://www.unl.edu/nac/diseasetrees/chap27.pdf>

http://www.uky.edu/Ag/kpn/kpn_99/pn991025.htm

Lily-of-the-valley anthracnose

Anthracnose (*Ascochyta majalis*) is a common disease on lily-of-the-valley (*Convallaria majalis*). On this plant, it causes circular to oval brown spots with purplish red margins. The spots are one-half inch in diameter or larger. Diseased tissue drops out and the foliage dies prematurely. It does not kill the plants but does weaken them. As a result of infection, there may be fewer flowers next year.

Control: Destroy diseased foliage in the fall and remove diseased plants when seen.





Septoria leaf spot of dogwood

Septoria leaf spot, caused by one of the Septoria fungi, was found on flowering dogwood (*Cornus florida*). It is common on flowering dogwood, Siberian dogwood (*C. alba*), yellow-twig dogwood (*C. sericea* ssp. *sericea* 'Flaviramea'), and dwarf dogwood (*C. pumila*). The leaf spots are somewhat uniform in size, reach about 1/4 inch in diameter, angular, and limited by veins. Initially the spots are purplish-brown, then later turn gray in the center and retain their purplish margins. Leaf spotting becomes more severe in late summer, but because photosynthesis has slowed, there is usually no serious harm done to the tree.

Control: Septoria leaf spot is generally an aesthetic problem so fungicides are not needed. Prune out dead branches and improve air circulation around the foliage if possible. The spores are moved by water and need moist conditions to infect new leaves. Rake and discard leaves in fall to reduce inoculum.

Good website:

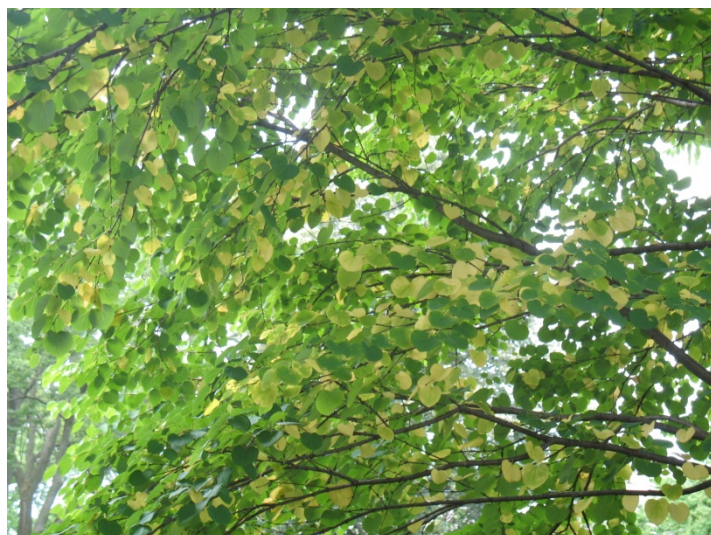
<http://www.ext.vt.edu/pubs/plantdiseasefs/450-611/450-611.html>

Leaf drop due to dry weather

We had more than sufficient rainfall in spring through the first half of June, but since then, we've had below normal amounts of rain and **plants need to be watered**. We're starting to see the inner leaves of drought-sensitive trees such as river birches, katsuratrees, and magnolias turn yellow and fall off.

The Arboretum recommends the following tips for ensuring your landscape's healthy water supply.

To cope with lack of rain, trees and shrubs need an inch of water every week to ten days. Let the top few inches of soil dry out between waterings, allowing roots and soil organisms to breathe.



- ◆ Establish effective watering habits, opting for one or two deep waterings over several light ones.
- ◆ Use soaker hoses and drip irrigation -- effective because they discharge even streams of slow, trickling water directly to the root zone. When combined with a 3- or 4-inch layer of organic mulch, plants can use nearly all of the water with little evaporation loss.
- ◆ Place a container near your sprinkler system to measure when you have distributed 1 inch of water to the soil.
- ◆ Water strategically. Plants absorb more water in the morning, before sunlight causes evaporation. Morning watering helps plants avoid pests and disease.
- ◆ Prioritize watering, caring for newly transplanted trees and shrubs first, then those that have been in the ground from 2 to 5 years and have under-developed root systems. Next, water "specimen" trees or those with significant personal meaning, then all other plants.
- ◆ During drought, water large trees every 3 weeks. Water by letting the hose run at various points around the tree's drip line – the imaginary line that encircles a tree's extended branches.

- ◆ Water small trees by letting a hose run at the base until the ground is saturated. Water shrubs at their bases and under the branch spread, until soil is moistened to a depth of 6 to 8 inches.
- ◆ Avoid using fertilizer in drought conditions. Undiluted, its harshness can burn plant roots.

New Fall Education Brochure Available!

We have some great new classes and popular program repeats coming up this fall at the Arboretum. Check out Doug Tallamy's presentation, "Bringing Nature Home," on September 19 and Mark Zampardo's new course on "Growing Woody Plants- Collecting and Preparing Seed." Don't miss Kunso Kim's new program on "Woody Plant Diversity," with a fall emphasis on identifying and siting Oaks and Beeches.

CEUs will be available for some classes. You can register on line at www.mortonarb.org by clicking on Education, Adult programs, Horticulture, View and enroll. You can also call the Registrar at 630-719-2468.

Weed Note



Birds-foot Trefoil (*Lotus corniculatus*)

This low-growing, mat-forming perennial plant has bright yellow flowers in summer until frost. The compound leaves have 3 narrow leaflets about ½ inch long. Flowers grow in clusters of two to eight flowers. The flowers are shaped like sweet peas. The seeds are created in dark pods up to one and a half inches long. The plants have taproots that can grow up to three feet deep. Each plant creates copious amounts of seeds.

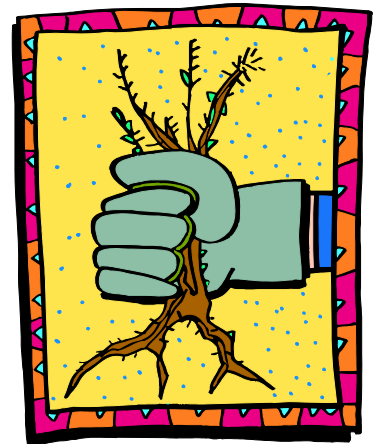
Control: The plants can be dug up, but all roots must be removed. Herbicides that contain clopyralid can be sprayed on plants.

What to Look for Next Week

We will be looking for yellow-necked caterpillars, melampsora rust, and butternut canker.

Quote of the week

“When weeding, the best way to make sure you are removing a weed and not a valuable plant is to pull on it. If it comes out of the ground easily, it is a valuable plant.” ~*Author Unknown*





The Plant Health Care Report is prepared by Donna Danielson, Plant Clinic Assistant and edited by Fredric Miller, PhD, research entomologist at The Morton Arboretum and professor at Joliet Junior College; Doris Taylor, Plant Information Specialist, and by Carol Belshaw, Plant Clinic volunteer. The quote of the week was provided by Rita Hassert, Technical Services Librarian Extraordinaire at the Sterling Morton Library. 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.

The *2007 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). You may also purchase them online at <https://pubsplus.uiuc.edu/ICLT-07.html> (commercial handbook) and <https://pubsplus.uiuc.edu/C1391.html> (homeowners' guide). One further source is your local county extension office.

This report is available on-line at The Morton Arboretum website at <http://www.mortonarb.org/>.

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 Donna Danielson at ddanielson@mortonarb.org.

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