

Plant Health Care Report



Scouting Report of The Morton Arboretum

July 26 – August 1, 2008

Issue 2008.16

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.

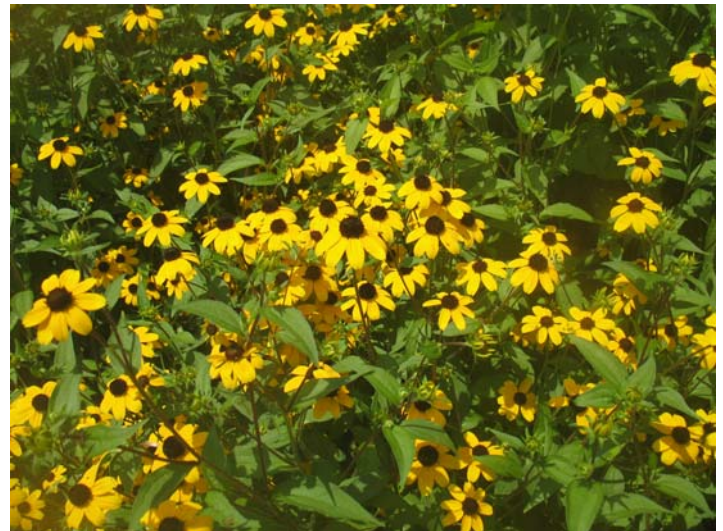
There will be no Plant Health Care Report next week as we are now going to biweekly publication. The next issue will be August 15.

Quick View

Plants that are in bloom at the Arboretum:

We've run out of indicator plants, so from now on, we'll be displaying photos of plants blooming here at the Arboretum.

Black-eyed susans (*Rudbeckia* spp.) are blooming.



Accumulated Growing Degree Days (Base 50):1525.5

Insects

- Honeysuckle aphids
- Solitary oak leafminer
- Sycamore lace bug
- Baldcypress rust mites
- Milkweed bug
- Black banded woolly bear caterpillar

Diseases

- Cercospora leaf spot
- Tar spot of maple

Miscellaneous

- Oak leaf scorch
- Remontant flowers

Degree Days and Weather Information

Through August 1, we are at 1525.5 growing degree days which is 12 days behind of the historical average (1937-2006) and 16 days behind of last year.

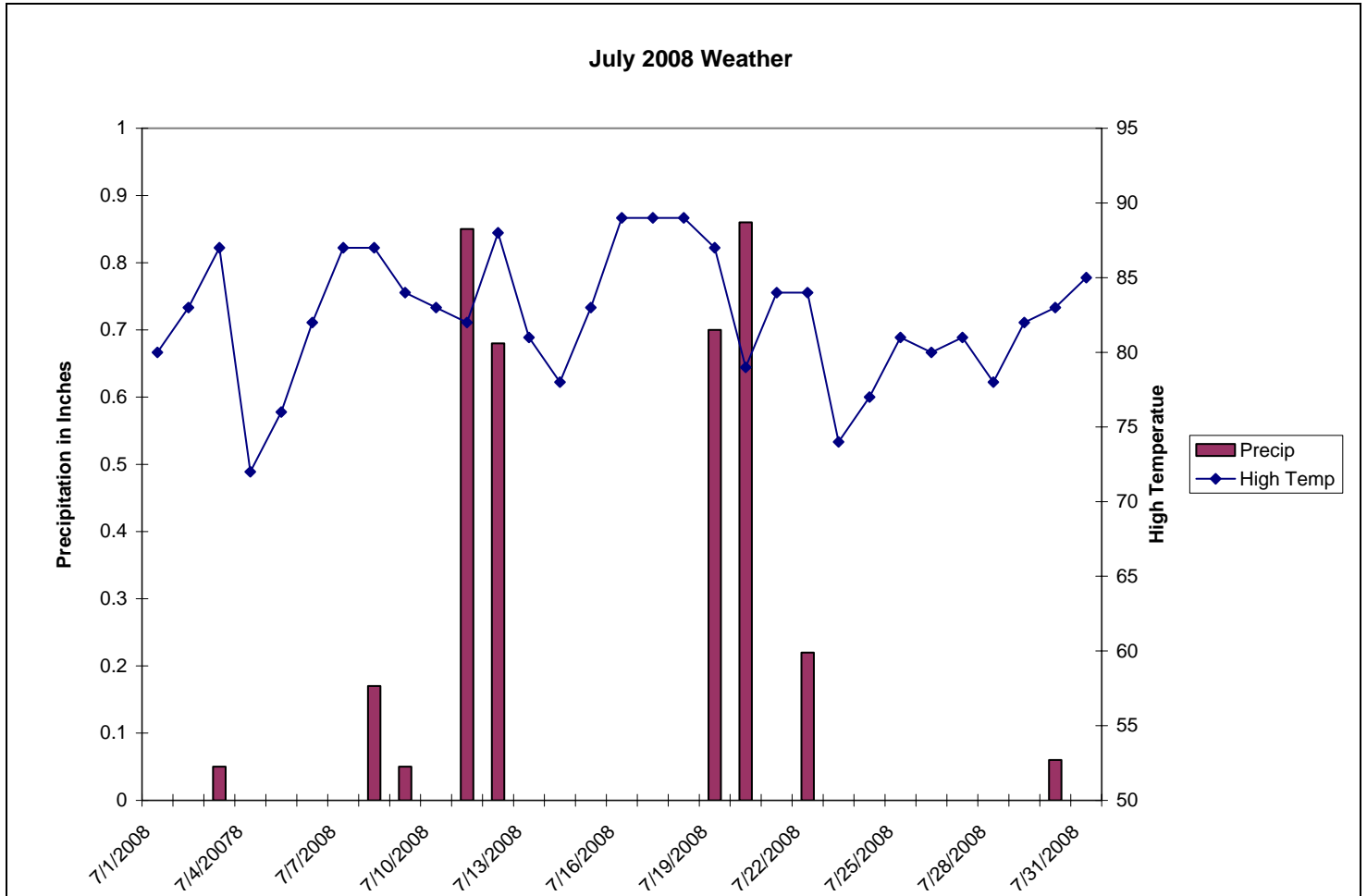
Location	Growing Degree Days through August 1	Precipitation between July 26 to August 1 in inches
The Morton Arboretum (Lisle, IL)	1525.5	0.06
Chicago Botanic Garden (Glencoe, IL)*	1540.5	0.00
Chicago O-Hare Airport*	1607.5	0.23
Aurora, IL	1591.5	
Bloomington, IL	1753.0	
Champaign, IL	1851.0	
DuPage County Airport (West Chicago, IL)	1567.0	
Midway Airport	1782.5	
Danville, IL	1985.0	
Decatur, IL	1940.5	
DeKalb, IL	1598.0	
Moline, IL	1804.5	
Palwaukee Airport (Wheeling, IL)	1610.0	
Peoria, IL	1910.0	
Peru, IL	1935.5	
Pontiac, IL	1724.0	
Rantoul, IL	2046.0	
Rockford, IL	1673.5	
Romeoville, IL	1619.5	
Springfield, IL	1952.0	
Waukegan, IL	1382.5	
Madison, WI	1455.0	
Milwaukee, WI	1342.5	

**Thank you to Mike Brouillard, Green Living, Inc. and Chris Yooning, Chicago Botanic Garden for supplying us with this information.*

We obtain most of our degree day information from the Virtual Arborist web site. For additional locations and daily degree days, go to <http://virtualarborist.com/>.

July Weather

The average temperature for July was four degrees lower than our historical average (1937-2007). It was slightly drier by 0.13 inches of rainfall than the average July. The chart below provides daily precipitation and temperature highs for July.



Summary of July Temperature and Precipitation Data

	July 2008
Average Daily Temperature	70° F
Historical Avg. Daily Temp.	74° F
High Temperature	89° F
Low Temperature	44° F
Total Precipitation	3.64 in.
Historical Precipitation	3.77 in.
Total Days with Precipitation	9

This Week's Sightings

Honeysuckle aphids

A sample of honeysuckle aphids (*Hyadaphis tataricae*) was brought into the Plant Clinic this week. Feeding on honeysuckle by this aphid can stunt new growth and cause witches' brooms. The red-streaked, curled, and dwarfed leaves, which result from early feeding, are typical of aphid damage. Heavy aphid infestations can kill plants. There are multiple generations during the summer.

Growing to less than 1/16 inch in length and varying from a pale green to cream in color, the honeysuckle aphid can easily be missed during routine plant inspections. To aid in proper identification, look for a dark head and thorax and a white abdomen, which is often covered with a fine, powdery dust. The aphid's entire life cycle is completed on the host plant. In late summer, when the population of aphid colonies can reach in the hundreds, they can be found outside the damaged, curled leaves feeding on petioles and stems.



Control: Plant resistant varieties of honeysuckle such as Clavey's dwarf (*Lonicera xylosteum* 'Claveyi'), *L. tatarica* 'Arnold Red', *L. x notha*, *L. amoena* 'Alba', *L. muendeniensis*, *L. xylosteoides*. Removing infested branches 6 inches below any witches' brooms remaining from the previous season can be an effective method of control. Do this during the winter while the plant is dormant or in early spring before the eggs have hatched. As with other species of aphids, lady beetles will prey upon honeysuckle aphids in their adult and larval stages and, by late summer, many aphids will have been eaten by these natural predators. For chemical control, refer to the *2007 Commercial Landscape & Turfgrass Pest Management Handbook* (CPM) if you are a commercial applicator or the *Home, Yard & Garden Pest Guide* (HYG) if you are a homeowner. Go to <http://www.mortonarb.org/main.taf?p=3,5,4,2> and click on the honeysuckle aphid for a copy of our leaflet.

Good web sites:

http://www.oznet.ksu.edu/dp_hfrr/extensn/problems/honaphid_.htm

<http://learningstore.uwex.edu/pdf/A3184.pdf>

Solitary oak leafminer

We found solitary oak leafminer (*Cameraria hamadryadella*) larvae and blotch mines on bur oak (*Quercus macrocarpa*). Solitary leafminer larvae feed singly and "mine-out" blotch-shaped patches just below the upper surface of the leaf. Though just one larva feeds within a mine, many larvae often congregate within a leaf, causing numerous pale brown blotches on a single leaf. The caterpillars are pale yellow, flat, and reach just 5 mm (1/5 inch) in length at maturity.



Control: Larvae overwinter within fallen leaves, so they can be controlled by raking and destroying leaves in the fall. Since leafminer injury is generally aesthetic, chemical control is not necessary.

Good web site:

<http://fhpr8.srs.fs.fed.us/pubs/oakpests/p12.html>

Sycamore lace bug



Sycamore lace bug (*Corythucha ciliata*) adults have been found feeding on American sycamore (*Platanus occidentalis*). Lace bugs are a common pest of ornamental trees and shrubs and most lace bug species are host specific. An exception is the hawthorn lace bug (*C. cydoniae*) that attacks several species within the *Rosaceae* family including cotoneaster, flowering quince, crabapple, mountain ash, pyracantha, and hawthorn. Most lace bug species have two or more generations per year. The hawthorn lace bugs have only one generation per year.

The sycamore lace bug overwinters as an adult under loose bark of its host and becomes active in early spring as leaves begin to develop. Soon afterwards, the female lays eggs on the undersides of leaves. Eggs hatch within a few days, and spiny, wingless, black nymphs begin feeding. Within 4 to 6 weeks the nymphs pupate and the next

generation of adults emerge (this is the generation we are now seeing). Adults are 1/8 to 1/4 inches long with lacy wings.

Sycamore lace bug adults and nymphs live on the lower surfaces of leaves and feed on leaf sap, causing yellow and white stippling on the upper leaf surface. As the insects feed, they deposit brown varnish-like excrement, referred to as tar spots, on the underside of leaves. Heavy infestations may lead to complete stippling of the leaf and premature leaf drop.

Control: There are several naturally occurring predators including green lacewings, mites, and assassin bugs. A forceful spray of water will dislodge newly hatched nymphs, and they will often die before they find their way back to suitable leaves. Plant site selection is also important as lace bugs prefer bright, sunny locations. Insecticides generally are not necessary except for severe infestations. Avoid using insecticides if natural predators are present. For further information about chemical control and timing, refer to the CPM and HYG.

Good web site:

<http://hgic.clemson.edu/factsheets/HGIC2011.htm>

Bald cypress rust mites

Bald cypress rust mites (*Epitrimerus taxodii*) were found feeding on bald cypress (*Taxodium distichum*). These rust mites are about the size of dust. They look like tiny, pale, wedge-shaped mites. Mites crawl over the surface of needles, rasping through the epidermis and extracting the cell contents. The resulting damage first looks like very fine spots, or stippling. Occasionally, leaf tips become dwarfed and distorted. Needles eventually become



yellowish and then reddish brown. Inner needles are usually affected first. The mite population generally explodes with the onset of warm weather and thousands can be found on a single leaf.

Control: Severe infestations can unduly stress trees and therefore control may be warranted. According to the 1998 Home, Yard, and Garden Pest Newsletter from the Cooperative Extension Service of the University of Illinois, Carbaryl (Sevin) or oxythioquinox (Morestan) will control the mite if the foliage is thoroughly covered. Don't use horticultural oils to control bald-cypress rust mites because bald cypress is sensitive to oils

Good web site:

<http://hyg.aces.uiuc.edu/secure/subscribers/199815g.html>

Milkweed bugs

We've confirmed the sighting of milkweed bugs (*Lygaeus kalmii*) by one of our plant clinic volunteers. It is easy to mistake them for boxelder bugs. The big clue here is that they were found on butterfly weed (*Asclepias curasavica* 'Red Butterfly'), which is a kind of milkweed. The adult milkweed bugs which are about half an inch long with a red body and black wings with red markings that forms an "X" on their back. The head is black with a dull red spot on the back. It is easy to tell the males and females apart. There is a thick black band across the "males back" and a thick black band with two prominent black spots on the "females back". Adults suck sap from milkweed seeds. The insect overwinters as an adult. Eggs are laid on milkweed in spring.

Good web site:

<http://insected.arizona.edu/milkinfo.htm>

<http://www.life.uiuc.edu/ib/109/Insect%20rearing/milkweedbug.html>



Photo taken by Charles L. Fink

Black banded woolly bear caterpillar



The black banded woolly bear caterpillar (*Pyrrharctia Isabella*) was found this week. This adorable caterpillar is black at both ends and has a reddish-brown band in the middle, which varies in width. They are called "woolly bears" because of their thick, fur-like setae (hair-like structures). They resemble a bottle brush. They are present in the spring and then again from late summer to late fall. Full grown caterpillars are

approximately a little over an inch long. Host plants are mainly weeds such as dandelion, dock, plantain, aster, goldenrod and some grasses. The adult is called the Isabella moth, a type of tiger moth. It is a dull yellow to orange color, has a furry body, and sparse black spots on the wings. The wingspan is approximately 2 inches wide.

There are two generations per year. It is the second generation of the woolly bear caterpillar that catches our attention (in late summer and fall) as they quickly scurry across roads and sidewalks. Their mission is to find a sheltered location to hibernate as a larva for the winter, usually under dead plant debris. They survive our winter freezes by producing a cryoprotectant, a substance that is used to protect their tissues from freezing damage, equivalent to antifreeze, in its

tissues. When the warm spring weather awakens the caterpillars, they will feed briefly before changing into a cocoon and eventually a moth. The female moths lay eggs and the cycle starts over again.

While researching this fuzzy caterpillar, I found some interesting information. The banded woolly bear is mentioned in winter-prediction folklore that says: the longer the black at the ends of the body, the more severe the up-coming winter will be. Of course science has rebuked this legend by finding that the amount of black showing varies with the age of the caterpillar and the moisture levels in the area where it developed

This is one celebrated caterpillar in Vermillion, Ohio, where they hold the annual “Woolly Bear Festival” (move over, Philadelphia’s famous groundhog, Punxsutawney Phil!) It has become the largest one day festival in the state of Ohio. There is a parade, woolly bear races (I wonder if they race the caterpillars, which would be fun to watch) and the woolly bears’ forecast for the up-coming winter. This year’s 36th annual festival is scheduled for October 5, 2008.

Good web site:

<http://extension.missouri.edu/explore/agguides/pests/ipm1019bandedwoollybear.htm>

<http://www.ipm.iastate.edu/ipm/hortnews/2005/11-9/caterpillar.html>

Ohio’s woolly bear festival web site:

<http://vermilionohioharbourtown.homestead.com/VermilionOhioWoollyBearFestival.html>

Cercospora leaf spot

Cercospora leaf spot was found on northern catalpa (*Catalpa speciosa*). The spots are about ¼ inch in diameter and dark brown with a distinct margin. There is a yellow halo around most of the spots. The microscopic fungal spores are long, thin, and multi-cellular.

Control: Like other leaf spots, damage in the latter part of the growing season causes minimal stress to the tree overall. Gathering and destroying the leaves in the fall helps reduce inoculum. The inoculum of this disease overwinters in fallen leaves; therefore, rake up and discard or compost fallen leaves in the fall. Practices that improve air circulation and keep humidity levels around the tree low will minimize spread. Chemical control is probably not necessary.



Tar spot of maple

Tar spot of maple was found on cut-leaved silver maple (*Acer saccharinum* ‘Laciniatum’). The disease looks just like shiny black spots of tar 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. *Rhytisma* spp. most commonly infects leaves of silver and Norway maples, although big leaf, mountain red, Rocky Mountain, and sugar maples are also susceptible. It does little harm to the trees this late in the season, but is unsightly.

Control: Control is not necessary unless a tree is severely infected. To reduce inoculum, rake up and discard the leaves in fall. An appropriate fungicide may also be helpful. For chemical recommendations, refer to the CPM if you are a commercial applicator or HYG if you are a homeowner.

Web site:

<http://plantclinic.cornell.edu/FactSheets/tarspot/tarspots.htm>

Oak leaf scorch

Oak leaf scorch was found on some of our white oak (*Quercus alba*) trees on our grounds this week. Leaf scorch is often noticed in mid- to late summer.



Leaves show an irregular yellowing, browning or drying of tissue between the veins and at the outer margins on many leaves scattered uniformly within the canopy. The areas near the veins generally remain green. All leaves on a branch will be affected and may entirely appear brown and burnt as the season progresses. Severe abiotic leaf scorch causes leaves to drop prematurely. Leaf scorch itself will not kill a plant, but it may weaken the tree making it vulnerable to insects or disease pathogens that can further injure it.

Scorch symptoms develop for many different reasons. It is most common when followed by periods of dry, hot, windy weather or excess water. Plants that are growing in unfavorable locations, near sidewalks or streets causing a physical restriction of the roots, or on an exposed windy slope can also cause scorch. Leaf scorch

can occur yearly in such unfavorable locations, or when there is an injury to a part of the root system that is permanent or severe, regardless of weather. Other contributing factors may be a nutrient deficiency; transplant shock; fastidious xylem-inhabiting bacteria (bacterial leaf scorch); girdling roots; shallow, compacted, or poor soils; a change in the soil grade or an altered water table; toxic concentrations of one or more chemicals (deicing salt, fertilizer, or pesticide); air pollutants; root destruction from nearby construction work; heavy infestations of sucking or boring insects; nematode, insect, or rodent damage to the roots; a diseased root system; wood rot; wilt disease; and large girdling cankers.

Control: Abiotic leaf scorch can be reduced through proper management practices. Trees and shrubs should be irrigated during drought to a depth of 6 to 8 inches. Recently-transplanted trees and shrubs should receive at least one inch of water per week. Heavily compacted soil will reduce water flow to the plants; therefore, mulch, amend, and loosen surface soil in compacted landscapes. Avoid root injury.

Good web sites:

<http://www.njaes.rutgers.edu/pubs/download-free.asp?strPubID=FS875>

Remontant flowers

We're seeing a few magnolias with flowers in full bloom such as the saucer magnolia (*Magnolia x soulangiana*) and Ann magnolia (*Magnolia 'Ann'*). 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. 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.



What to Look for Next Week

Next week we will be looking for cottony maple scale, mossy rose gall, and fall webworm.

Quote of the week: "One of the most delightful things about a garden is the anticipation it provides." ~W.E. Johns, *The Passing Show*



The Plant Health Care Report is prepared by Trica Barron, Plant Health Care Technician, and edited by Donna Danielson, Plant Clinic Assistant; 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 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.mortonarboretumphc.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 Trica Barron at tbarron@mortonarb.org.

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