

Plant Health Care Report

Scouting Report of The Morton Arboretum

June 24, 2011

Issue 2011.10

Our report includes up-to-date disease and insect pest and abiotic problem information 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 Friday in April and August, and weekly May-July.

Arboretum employees and volunteers will be scouting our grounds for insects and diseases throughout the season. Information about other pest and disease problems based on samples brought into the Arboretum's Plant Clinic from homeowners and professionals will also be included.

Over the course of the next year the Plant Health Care Report (PHCR) will be undergoing some format changes, but will still be offering the same content. [If you prefer a PDF version of the PHCR, please click here to download and print.](#)

If you would like to receive a notification email when the PHC Report is available on-line, send me an email (sadams@mortonarb.org) with 'subscribe to PHCR notification' in the subject. The emails on the notification list are only used for the notification and nothing else.

Accumulated Growing Degree Days (Base₅₀): 778
Accumulated Growing Degree Days (Base₃₀): 2486

This week's Indicator Plant: Chicory (*Cichorium intybus*)

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Weather update

As of June 16, 2011, we are at 778 base-50 growing degree days (GDD₅₀), which is 289.5 GDD₅₀ (14 calendar days) behind 2010, and behind the historical average (1937-2010) by 229 GDD₅₀ (11 calendar days). June has received 5.10" of precipitation, which brings 2011 to 20.5" total.

	B₅₀ Growing Degree Days through June 27	Precipitation (inches) June 9 - 27
Aurora, IL*	883	
Carbondale, IL*	1700	
Chicago Midway*	817	
Chicago O'hare**	747.5 (6/22/11)	0.83 (6/15 - 6/21)
Crystal Lake, IL*	854	
Harvard, IL*	804	
Kankakee, IL*	1063	
The Morton Arboretum	778 (6/27/11)	1.65 (6/16-6/27)
Peoria, IL*	1220	
Quincy, IL*	1313	
Rockford, IL*	900	
Springfield, IL*	1355	
Waukegan, IL*	685	
Champaign, IL*	1233	

**Thank you to Mike Brouillard, Northbrook Park District, 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>

Pest Update: Insects

Thrips

Thrips have been found feeding on roses (*Rosa sp.*). There are numerous species of thrips that attack a wide spectrum of ornamental plants. These insects feed by rasping soft plant tissue and sucking the juices of leaves and flowers. Feeding injury appears as leaf distortion, coarse stippling on the leaf surface, and slight necrosis of petals and petal browning.

Adult thrips are tiny black-to-pale-yellow insects about



1/8 inches long with fringed wings. They are spread long distances by floating with the wind or being transported on infested plants. Healthy woody plants in the landscape normally outgrow thrips damage.

Management: Though damage is often minor, control is warranted since thrips are notorious disease vectors. The western flower thrip (*Frankliniella occidentalis*) wreaks havoc in greenhouses by spreading tomato spotted wilt disease to many ornamental plants. Here are a few cultural tips for controlling your thrips:

- Remove weeds in plant beds
- Keep plants well watered during periods of drought
- Clean up the debris from plant beds and dispose of old, spent flowers
- Avoid excessive applications of nitrogen fertilizer
- Avoid shearing plants as this stimulates new growth that is susceptible to attack

The above cultural practices will help manage but not eliminate thrips. If your problem is severe, chemical controls can be used. Apply insecticidal sprays when thrips are numerous. Blue sticky cards are useful to assess thrip population levels. For specific chemical recommendations, refer to the CPM or HYG.

Suggested reading: <http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7429.html>

Linden looper

Linden looper (*Erannis tiliaria*) larvae are feeding on American linden (*Tilia americana*). Feeding by young larvae causes small holes in expanding leaves. Older larvae consume the entire leaf, except midribs and major veins. Serious infestations may result in defoliation. The larvae have rusty-brown heads and yellow bodies, with thin, wavy black longitudinal lines on their backs. They reach 3.8 cm (1.5 in) at maturity. Preferred hosts include: maple, linden, oak, apple, birch, elm, hickory, crabapple, and hawthorn.

Management: Infestations are rarely severe so control is generally not warranted. For severe infestations, *Bacillus thuringiensis* var. *kurstaki* (Btk) is effective against young larvae and should be applied now.

Suggested reading: <http://www.forestpests.org/hardwood/lindenlooper.html>



Ash flower gall

Flower galls are beginning to form on male (seedless) ash trees. Some people have described them as “bunches of grapes” hanging on the trees. These galls are caused by ash flower gall mites, an eriophyid mite (*Aceria fraxiniflora*). 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 gall mites, the galls may stay on the tree as long as two years. Seedless green ashes are most commonly attacked.



Management: Control is not necessary, as damage is just aesthetic. Although unsightly, the ash flower gall does not harm the tree. We think of it as winter interest.

Suggested reading: <http://www.entomology.umn.edu/cues/Web/065AshFlowerGallMite.pdf>
<http://www.uwex.edu/ces/wihort/gardenfacts/X1048.pdf>

Pest update: Diseases

Phomopsis tip blight

We are seeing Phomopsis tip blight damage, caused by the fungus *Phomopsis juniperovora*, from last year's infection on several juniper species (*Juniperus* sp.) and arborvitae (*Thuja* sp.). Phomopsis tip blight damages new growth and succulent branch tips of junipers from mid-April through September. However, new symptoms don't



occur until late in the growing season and during winter on the terminal four to six inches of branches. Foliage turns yellow, then brown and eventually gray as the fungus girdles branches and causes blighting of foliage beyond the infection point. In the advanced stage, pinhead-sized black pycnidia, the reproductive structures of the fungus, can be found on blighted twigs, particularly the gray colored areas. Old, mature foliage is resistant to infection. Note that similar branch tip dieback symptoms may result from winter injury, frost damage, and drought; however, injury from abiotic sources will be more uniformly dispersed on a plant and may not result in black fungal fruiting bodies. Also, there

are a handful of other juniper twig and foliage diseases, but these are not as harmful or prevalent as Phomopsis. Repeated blighting of junipers in early summer can result in witches' broom, stunting and, in severe cases, plant death.

Phomopsis tip blight affects many different members of the cypress family but is most severe on junipers, especially eastern red-cedar (*Juniperus virginiana*), Rocky Mountain (*J. scopulorum*), and creeping junipers (*J. horizontalis*). Phomopsis blight has also been found on various species of cypress, false cypress, fir, larch, and white-cedar.



Management: Spores of Phomopsis are produced on the blighted twigs throughout the summer so infection can occur whenever succulent foliage and twigs are available and moisture or humidity is high. Eliminate the source of the spores, which are found on blighted twigs, by pruning dead and dying tips now. Remove tissue four to six inches below the symptoms and restrict pruning to dry weather.

Avoid excessive shearing and high nitrogen fertilizers that encourage succulent growth. Space plants to provide good air circulation and avoid heavily shaded areas. Water plants in early morning so the foliage dries before nightfall. If you've had severe problems in the past, chemical sprays should be applied when new flushes of growth appear later this spring. Refer to the CPM, for commercial applicators, and the HYG, for homeowners, for specific chemical recommendations.

The following junipers have been found to be resistant to Phomopsis tip blight:

- *Juniperus chinensis* cultivars 'Hetzii'*, 'Ketelerrri'*, 'Mas'*, 'Mountbatten'*, 'Robusta Green'*
- *Juniperus communis* 'Depressa', 'Oblonga pendula'
- *Juniperus horizontalis* 'Douglasii', 'Procumbens'
- *Juniperus sabina* 'Arcadia', 'Broadmoor'
- *Juniperus scopulorum* 'Moffettii'*
- *Juniperus squamata* 'Fargesii'
- *Juniperus virginiana* 'Cinerascens', 'Globosa', 'Peptans'

*Plants are also resistant to *Kabatina*, which is another fungal infection of junipers. More information on *Kabatina* can be found: <http://www.mortonarb.org/component/content/article/193-insects-diseases/725-juniper-tip-blight.html>

Suggested reading: <http://plantclinic.cornell.edu/FactSheets/junipertipblight/juniper.htm>
<http://ohioline.osu.edu/hyg-fact/3000/3056.html>

Powdery mildew

Powdery mildew has been found on yellowwood (*Cladrastis kentukea*) and on horse chestnut (*Aesculus hippocastanum*) here at The Arboretum. Powdery mildew was covered in issue 2011.07. [To read the article in the previous issue, click here.](#)

Chicken of the woods (*Laetiporus sulphureus*)



Laetiporus sulphureus, also known as chicken of the woods, was recently found growing at the base of a white oak (*Quercus alba*) in The Arboretum's east woods. This rather delicious wood decay fungus is commonly found at the base of hardwood trees in midsummer after periods of rain. This choice edible is easily identified by its bright orange color, lack of gills, and shelf-like growth habit. Unfortunately, its ability to kill trees often leaves a bitter taste in your mouth. If *L. sulphureus* is found growing at the base of a tree, it's almost a guarantee that there is root and stem decay occurring under the bark. Like most wood decay fungi, there are no recommended management tactics that can be used to stop the infection.

****Note:** When hunting for edible mushrooms, be sure to have an experienced mycologist confirm your identification before feasting on your finds. Although there are few mushrooms that would kill a healthy adult, there are several that may make you wish you had.

What to look for in the next week: frogeye leaf spot, azalea sawfly, black vine weevil, mosaic viruses on hackberry and ash

Thank you...I would like to thank the volunteers that scouted this past week and found most of the insects and diseases that are in this report. The Scouting Volunteers for this Report include: Mary Carter Beary, Davida Kalina, Fritz Porter, LeeAnn Cosper, Jack Leider, and Kate Riha. Your hard work is appreciated.

The Plant Health Care Report is prepared by Stephanie Adams, M.S., Plant Health Care Technician, and edited by 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.

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 *2010 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 on-line 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 Stephanie Adams at sadams@mortonarb.org .

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