

# Plant Health Care Report

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Scouting Report of The Morton Arboretum

July 22, 2011

Issue 2011.14

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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 this 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](mailto: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 (Base<sub>50</sub>): 1436**

**Accumulated Growing Degree Days (Base<sub>30</sub>): 3665**

**This week's Indicator Plant:** Hills of snow hydrangea (*Hydrangea arborescens* 'Grandiflora') flowers turning white to green

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**Correction:** Last issue it was reported that the first instar elm leafminer was found, when in fact they emerged in early spring and reported in the May 13 issue. There is only one generation of this insect a year, so what was seen was likely damage from earlier in the year.

## Weather update

As of July 22, 2011, we are at 1436 base-50 growing degree days (GDD<sub>50</sub>), which is 263 GDD<sub>50</sub> (10 calendar days) behind 2010, and behind the historical average (1937-2010) by 167 GDD<sub>50</sub> (7 calendar days). July has received 0.84" of precipitation, which brings 2011 to 21.68" total.

	<b>B<sub>50</sub> Growing Degree Days through July 22, 2011</b>	<b>Precipitation (inches) July 15-July 22</b>
Aurora, IL*	1568	
Carbondale, IL*	2480	
Chicago Midway*	1490	
Chicago Botanic Gardens**	1350 (7/20)	0.44 (7/15-7/20)
Chicago O'hare**	1454.5 (7/20)	0.01 (7/13-7/19)
Crystal Lake, IL*	1531	
Harvard, IL*	1461	
Kankakee, IL*	1761	
The Morton Arboretum	1436	0
Peoria, IL*	1948	
Quincy, IL*	2060	
Rockford, IL*	1573	
Springfield, IL*	2088	
Waukegan, IL*	1329	
Champaign, IL*	1936	

\*\*Thank you to Mike Brouillard, Northbrook Park District, and Chris Henning, Chicago Botanic Gardens, 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

### Two-spotted spider mites

We are seeing the two-spotted spider mites (*Tetranychus urticae*) on a variety of plants. Two-spotted spider mites are very small, about 1/60 of an inch long. You need a hand lens to see them clearly. Mites are not insects but insect relatives. Mites have eight legs and two body regions, while insects have six legs and three body

regions. The two-spotted variety has two spots on their backs, which are composed of food contents. Two-spotted spider mites love hot, dry weather. Leaves attacked by spider mites show stippling or tiny, chlorotic flecks. If enough damage is done to a leaf, it begins to look bronzed and may drop prematurely. Spider mites attack many kinds of plants and are also very common on house plants, especially in winter when your house is warm and dry.



**Management:** First, you may want to determine what kind of mites are on your plant by holding a white sheet of paper under a branch and shaking the branch firmly. If you have mites, tiny specks will start crawling on the paper. Squish some of the moving specks. If the resulting streaks are green, you are seeing mites that feed on plants. If you see red or brown streaks, you probably have predatory mites that are the natural predators of spider mites (a good thing). Beneficial mites move faster than the pest mites. Pest mites don't have to move fast to catch their food; plants don't run too fast. But the beneficials have to move faster in order to catch their prey. Anyway, if you see lots of green spider mites, you may want to treat the plant.

There are several options. A forceful stream of water may knock mites off the plant. This should be repeated for three days. Predatory mites can also be purchased and released on the plants. Insecticidal soaps can be sprayed to control mites. For information about chemical control, refer to the *2010 Commercial Landscape & Turfgrass Pest Management Handbook* (CPM) if you are a commercial applicator or the *2008 Home, Yard & Garden Pest Guide* (HYG) if you are a homeowner.

**Suggested reading:** <http://www.ext.colostate.edu/pubs/insect/05507.html>  
<http://ohioline.osu.edu/hyg-fact/2000/2012.html>

### Honeysuckle aphid

Honeysuckle aphids (*Hyadaphis tataricae*) have been brought into the Plant Clinic on honeysuckle (*Lonicera* spp.). Feeding on honeysuckle by this aphid can stunt new growth and cause witches' brooms. Heavy aphid infestations can kill plants. There are multiple generations during the summer.

**Management:** Plant resistant varieties of honeysuckle such as Clavey's dwarf (*Lonicera xylosteum* 'Claveyi'), *L. tatarica* 'Arnold Red', *L. x notha*, *L. amoena* 'Alba', *L. muendeniense*, *L. xylosteoides*. Prune out witches' brooms before the eggs hatch. For chemical control, refer to the CPM if you are a commercial applicator or HYG if you are a homeowner.

**Suggested reading:** <http://learningstore.uwex.edu/pdf/A3184.pdf>

**Pest update: Diseases**



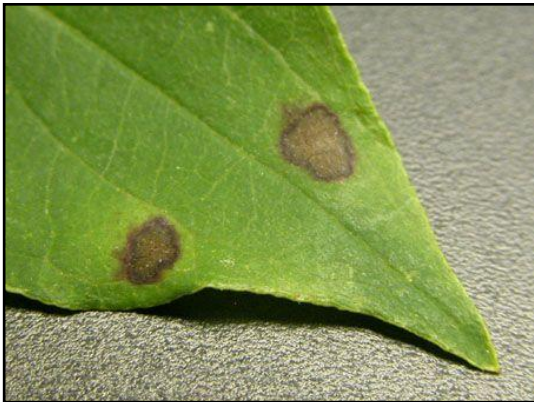
## Cedar hawthorn rust on fruit

Fungal spots, the aecia spore stage, have been seen on the surface of hawthorn fruit. The cedar rusts pathogens (cedar-apple rust (*Gymnosporangium juniper-virginianae*), cedar-hawthorn rust (*G. globosum*), and cedar-quince rust (*G. clavipes*)) have four spore stages (telial spore, basidiospore, spermogonia, and aeciospore), on two separate hosts. The first stage was seen earlier this year with the emergence of the telial horns on the juniper host.

In the spring after rain events, the telial horns, (orange slimy protrusions) in the cedar rust galls on the juniper hosts, emerge. The spores that are produced by the orange and slimy telial horns are the teliospores. When the teliospores germinate on the telial horns, they will bear the next spore stage, the basidiospores. The basidiospores are transported in the air and rain to the rosaceous hosts, where they penetrate the upper surface of the leaves and produce the spermogonium, which is what we're seeing now. The spermogonium will mature and produce the spermogonia, which will be carried in the air to the undersurface of the rosaceous leaf. On the undersurface of the leaf, the spermogonia will infect the leaf and give rise to the aecia, which bears the aeciospores. Late in the summer the aeciospores will be transported via wind to the cedar host, where it infects the cedar and overwinters. Then in the spring, the aeciospores develop into the galls we're seeing now. And the cycle continues.

**Management:** Plant resistant rosaceous host varieties and don't plant rosaceous hosts near junipers. Fungicides are useful if applied in the early spring shortly after bud break. Sanitation, raking up fallen infested plant debris, will eliminate spores overwintering in the soil.

**Suggested reading:** <http://learningstore.uwex.edu/assets/pdfs/A2598.pdf>



## Septoria leaf spot

Septoria leaf spot, caused by a *Septoria* species, was found on Catalpa (*Catalpa* sp.). The leaf spots are somewhat uniform in size, reach about 1/4 inch in diameter, angular, and limited by veins. Initially the spots are purplishbrown, 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.

**Management:** 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.

## Thyronectria canker

Branch dieback symptoms of Thyronectria canker on Caspian-locust (*Gleditsia caspica*) have recently been found. This disease, caused by the fungus *Thyronectria*, is a common and serious canker disease of honey-locust. It is a major cause of decline of thornless honeylocusts 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.



**Management:** 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.

**Suggested reading:** <http://www.ext.colostate.edu/pubs/garden/02939.html>  
[http://www.uky.edu/Ag/kpn/kpn\\_99/pn991025.htm](http://www.uky.edu/Ag/kpn/kpn_99/pn991025.htm)

## Pest update: Fungi

### Stinkhorns

Recently stinkhorns have been smelled and then seen in mulch beds. Stinkhorns are about 4 inch long slender mushrooms that have brown slime covering the top part of the pink mushroom. There is a white cup at the base of the stalk. It has an unpleasant odor (unless you're a fly). It is seen in wood debris and leaf litter. No control is necessary.



**Suggested reading:**

<http://www3.extension.umn.edu/yardandgarden/ygbriefs/p322stinkhorns.html>  
[http://botit.botany.wisc.edu/toms\\_fungi/oct2006.html](http://botit.botany.wisc.edu/toms_fungi/oct2006.html)

## Pest update: Abiotic

### Remontant flowers

A few magnolias are flowering, such as star magnolia (*Magnolia stellata*) and *Magnolia* 'Ann'. Magnolias are spring-flowering trees, but it's not uncommon that the plants get "confused" and bloom later in the season. 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.



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**What to look for in the next week:** oak wilt, Zimmerman pine moths, birch catkin feeders, sycamore tussock moth caterpillars, walnut anthracnose, tar spot on maple

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: Fritz Porter, Ann Klinge, Loraine Miranda, Bill Sheahan, and Jack Leider. 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; Sharon Yiesla, Plant Clinic Assistant; 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](mailto:plantclinic@mortonarb.org) . Inquiries or comments about the PHC reports should be directed to Stephanie Adams at [sadams@mortonarb.org](mailto:sadams@mortonarb.org) .