

Number 5 – May 23, 2011

Scouting Watch

Vanhoutte spirea is still in bloom in central and northern Illinois, so refer to the scouting watch particularly for insects that are susceptible to control as bloom ends or finishes. This spirea bloom was extended this year due to the below normal temperatures experienced in Illinois over the last two weeks.

Several borers are susceptible to control at this time throughout the state including flatheaded appletree borer, roundheaded appletree borer, viburnum crown borer, and peachtree borer. Lilac (ash) borer and bronze birch borer are still susceptible to control in central and northern Illinois.

Several scale insects are in the crawler stage and susceptible to control. In southern Illinois, euonymus scale is susceptible to control. In central and northern Illinois, Fletcher scale, pine needle scale, and both gray and brown oystershell scale are susceptible to control. (*Phil Nixon*)

Red Pine Sawfly

We have received a couple of reports of heavy feeding on loblolly and Eastern white pine in Harrisburg and Vienna in southeastern Illinois by what appears to be red pine sawfly larvae, *Neodiprion nanulus nanulus*. Large numbers of white worms are being reported on the foliage and trunks of the trees.

Red pine sawfly feeds primarily on red and jack pines, but also is known to feed on eastern white, Japanese red, and Swiss mountain pines. Full-grown larvae are about three-fourths inch long with black heads. They have a thin yellowish-white stripe down the back bordered by olive-green stripes. There are also two dark stripes on each side and a thin dark stripe just above the prolegs. The underside and area between the stripes are greenish-white. Younger larvae have black heads and yellowish-white bodies without stripes.

Eggs overwinter and hatch in early May. Larvae can be present as late as July and August. They feed as groups of larvae, feeding on the two and three year old needles. As a group eats all of the older needles in one area of a tree, they migrate to another branch, resulting in their commonly being seen on the trunk. Full-grown larvae drop to the ground and pupate in fallen needles and debris under the tree. Adults, which look like small wasps, emerge in early fall to lay eggs in the first year needles left behind by the larvae.

Although the larvae usually do not eat the current year's needles, they will do so if older needles become scarce. Completely defoliated branches typically die. Loss of the older needles on the tree for several years in succession can cause a loss of overall tree vigor and attack by bark beetles that may kill the tree.

Because the larvae feed in groups, they are easily removed by hand on smaller trees. Spraying with acephate (Orthene), azadirachtin (Azatin, BioNeem, Ornazin), carbaryl (Sevin), spinosad (Conserve), or other labeled insecticide will also be effective. (*Phil Nixon*)

CIA (Cerceris Identification and Awareness) for EAB

The Morton Arboretum is cooperating with the US Forest Service to explore the feasibility of using a native, non-stinging, ground-nesting wasp, *Cerceris fumipennis*, to locate emerald ash borer infestations.

The prevalence and location of these wasp colonies are not known, and we need help locating them. *Cerceris* colonies are often found in packed sand soils. Ballfields, other athletic fields, sandy driveways, parking lots and even fire rings are likely locations. Therefore, we are asking for assistance from forest preserve districts, park districts and other land managers in watching for signs of wasp activity or nests this summer.

Should we be successful in locating wasp colonies, we would like to collaborate to develop a citizen science project to monitor for EAB in 2012. More information about this follows.

One of the many challenges to managing Emerald Ash Borer (EAB) is detecting infestations early enough to take action to protect ash trees. A new tool for EAB monitoring is called bio-surveillance. Following the activity of a small wasp, *Cerceris fumipennis*, can potentially help us find EAB. It looks like a common wasp, but does not sting. If the *Cerceris*

wasp is found bringing EAB back to their nests for dinner, we know EAB is in the area. Pilot bio-surveillance programs are taking place in Canada and the East Coast. The Morton Arboretum is collaborating with the US Forest Service to begin such a project in Illinois and needs your help.

The first step is to locate colonies of these ground nesting wasps. They are commonly found in open areas of hard-packed sandy soil with ash trees nearby. Athletic fields, such as ball diamonds, volleyball courts, horse shoe pits, and even parking lots, especially if they are not well maintained, are ideal locations.

To help us locate *Cerceris fumipennis* colonies, we simply need park maintenance staff to watch ball fields for signs of ground-nesting wasp activity or nests. The nests are marked by pencil-diameter holes on top of little mounds of sand. They are most active during the summer months.

Should colonies of *Cerceris fumipennis* be suspected:

1. Cooperating land managers would contact the Morton Arboretum.
2. Morton Arboretum staff will visit the site and evaluate insect activity.
3. If colonies are active, interested land managers would be invited to participate in a "citizen science" project in 2012 that could involve kids, educators and community leaders wanting to help protect trees.

For more information contact: Edith Makra, Community Trees Advocate, The Morton Arboretum, 630-719-2425 or emakra@mortonarb.org or visit

<http://www.cerceris.info/index.html>
(Phil Nixon, slightly modified from *The Morton Arboretum*)

To Be Organic, or not to Be Organic, with Your Veggies and Manage Disease, That Is the Question?

We have had several “organic” vegetable samples submitted to the U of I Plant Clinic, due to the wet and favorable conditions for disease. All veggies (organic and conventional) can be susceptible to a plant pathogen (if it is present), and with just the right environmental conditions one can unfortunately get diseased plants! Once a plant that is considered to be organic is infected with a disease there may not be a lot of options for disease control. This is why it is very important for those who wish to grow organic veggies, and not use chemicals, to focus on disease prevention or cultural management of diseases. The following disease prevention tips are good for all vegetable gardeners (conventional or organic) in order to protect against disease!

1. Try to grow either resistant or tolerant plant varieties. The U of I Extension website, “Illinois Vegetable Guide”, has a list of “recommended varieties” that can be grown in Illinois at: <http://web.extension.illinois.edu/vegguide/step03.cfm>

In addition, the U of I Extension website, “Watch Your Garden Grow”, has recommended varieties, as well as other information that may help you gain success with your garden at: <http://urbanext.illinois.edu/veggies/directory.cfm>

2. Plant clean seed or “certified seed,” because some plant pathogens can

be seed-borne! Be careful if you save your seed, because it could be harboring disease for the next year’s crop! Be sure to buy transplants that don’t look sickly or have symptoms of disease. You may be bringing unwanted plant pathogens to your garden!

3. Wash off garden equipment and disinfect pots or trays with steam or bleach.

For more information go to the U of I Extension website, “Illinois Vegetable Guide” website at:

<http://web.extension.illinois.edu/vegguide/step04.cfm>

4. Be careful if using irrigation ponds or recycling water, because water can also be a home to plant pathogens such as bacteria.
5. Remove or “rogue” diseased plants from your garden to prevent further disease spread. Prevent the “build-up” of disease inoculum in your garden by turning over old plants and crop residue immediately after harvest.
6. Choose a well-drained site for your garden in order to reduce the risk of infection from soil pathogens. For additional helpful tips on picking a garden site, go to the U of I website, “Illinois Vegetable Guide” at: <http://web.extension.illinois.edu/vegguide/step01.cfm>
7. Wide row spacing encourages air movement, which helps to discourage the development of foliar disease.
8. Do not overwater! In order to prevent most foliar diseases, drip irriga-

tion is the preferred watering method, because you are not promoting disease development by wetting the foliage. You will need to allow for adequate time for foliage to dry if using overhead irrigation. For additional information on proper watering, you can go to the U of I website, "Illinois Vegetable Guide" at: <http://web.extension.illinois.edu/vegguide/step09.cfm>

9. One of the most important cultural methods to control disease is crop rotation! This can get complicated, but basically, try to move crop families around to different locations in your garden each year.
10. Scout for any signs of disease and remove this disease material or if possible, consider using an "organic" fungicide as a last resort. If you are unsure of a problem, the U of I Extension website called "Hort Answers," may be able to help! Here is the link: <http://urbanext.illinois.edu/hortanswers/>

In addition, there is a U of I Extension web site called, "Common Problems for Vegetable Crops" that may prove to be helpful at: <http://urbanext.illinois.edu/vegproblems/>

11. Lastly, there are some fungicides that are considered to be organic including copper- and sulfur-based fungicides. Copper fungicides have some activity against a broad range of fungi and bacteria, but their effectiveness may be limited if disease

pressure is high. Sulfur compounds can give some control of many plant diseases, but are mainly used to control powdery mildew. Be aware that both copper and sulfur can burn some crops under certain conditions. There are also organically approved bicarbonate fungicides and peroxide-type fungicides available, but remember that these products will only suppress the pathogen on the plant surface. Basically, these products "sterilize" the foliage. Some other organic options are products that contain microbes or their by-products, such as species of *Trichoderma*, *Bacillus*, and other beneficial organisms; however, timing and correct application is required. In addition, these beneficial organic products should be applied prior to infection and some may need time to populate the soil to be effective.

12. Most importantly, you need to correctly identify the pest in your garden! This is key for disease management! You are always welcome to submit a plant sample to the U of I Plant Clinic for an accurate diagnosis!

Some other great U of I Extension web sites for information about gardening is "A Taste of Gardening," found at <http://urbanext.illinois.edu/tog/> and "My First Garden" at <http://urbanext.illinois.edu/firstgarden/>.

If you are really serious about organic gardening, check out the following web site, "The New Agriculture Network" at <http://www.new-ag.msu.edu/>.
(Stephanie Porter)