



UNIVERSITY OF ILLINOIS EXTENSION

HOME, YARD & GARDEN PEST NEWSLETTER

College of Agricultural, Consumer and Environmental Sciences, University of Illinois at Urbana-Champaign
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Newsletter Switches to Biweekly Issues

This is the last weekly issue of the *Home, Yard, and Garden Pest Newsletter* for 2008. We will continue with issues every other week through July, August, and September before finishing the year with monthly issues in October and November. As we get into the summer months, both disease and insect pest problems tend to decrease in numbers, and timeliness of management becomes less of an issue. (*Phil Nixon*)

PLANT DISEASES

Brown Rot of Stone Fruits

Stone fruits such as cherry, peach, apricot, and plums have been hit hard this year with brown rot. Ornamental members of the *Prunus* genus have been affected as well. The causal fungus, *Monilinia (Sclerotinia) fructicola*, thrives where spring and summer rains are frequent. Although it is dry in many areas of Illinois now, rain was plentiful when infection occurred on blossoms and tender shoots. We have seen cases of brown rot on edible and ornamental *Prunus* species alike this year.

Brown rot causes fruit to become brown and decayed. Eventually, it is covered with gray spore tufts. As the fruit rots, it retains its shape but becomes shriveled and dry, earning the name “mummy berries.”

Infection may also occur on flowers or small stems. Cankers caused by this fungus are eventually covered in gray spore masses. If the cankers girdle the stems, dieback occurs. This stage has some lasting effect on ornamental *Prunus* species in the form of dieback. Still, it should not be life-threatening to the tree.

The pathogen lives over winter in cankers or on mummified berries, either in the tree or on the ground. Obviously, removal of these berries is helpful in reducing inoculum for the next year.

Disease control for edible stone fruits usually focuses on removing mummified berries and applying fungicides. The most critical time for fungicide application is from the time blossom buds show pink through flowering and again when the fruit begins to color. Many fungicide options are listed in the *Midwest Tree Fruit Spray*

Guide for commercial growers and the *Home, Yard, & Garden Pest Guide* for home growers. Take a look at these now, and plan to spray next year. It is likely you will see the disease again.

Those having problems with brown rot, blossom rot, and twig blight on their ornamental *Prunus* species can spray when first blossoms open, during full bloom, and again at petal fall. For details about this disease, read the *Report on Plant Disease* at <http://www.ag.uiuc.edu/~vista/abstracts/a804.html>. (*Nancy Pataky*)

Don't Prune Oaks Now

The reason to avoid pruning oaks now is that you don't want to invite sap-feeding beetles in the Nitidulidae family to your trees. When you prune during the growing season, the oak branch produces sap where it is cut, and that sap is inviting to these beetles. The beetles themselves are not harmful to healthy trees, but they may have visited an oak infested with oak wilt spores. If they did, they are bringing the spores to your tree.

If oak wilt is not known to be a problem in your area, you don't have to abide by this advice. On the other hand, we have found oak wilt on trees as far south in Illinois as Marion and as far north as the Wisconsin border. Our samples are not a survey of the state. They generally reflect the more populated areas of the state. This advice would probably be good for all of Illinois.

Oak wilt is a devastating fungal wilt disease that may kill a mature oak in a matter of weeks. Oaks in the red oak group are most susceptible, and those in the white oak group less susceptible. None of the oaks is resistant. Symptoms may include scorching of the foliage near the top of the tree, entire branch death or areas of a tree that die, overall off-color foliage, and tree death. Vascular tissue is stained brown in infected trees. Scattered leaf spots are not part of this disease.

You can't save a tree that is severely infected with the oak wilt fungus, but fungicides (Alamo and Savvi) can be used to prevent infection in nearby oaks. If you would like your oak to be tested for the oak wilt fungus, send a sample of live wood from a symptomatic area of the tree to the Plant Clinic, along with the \$12.50 fee. The wood will be cultured in the lab, and within 7 to 10 days cultures will tell us whether the oak wilt fungus is

present. For the most accurate testing, take samples that are 8 to 10 inches long, thumb thick, and exhibiting vascular streaking.

If you would like more details about oak wilt, consult *Report on Plant Disease*, no. 618, "Oak Wilt and Its Control," at <http://www.ag.uiuc.edu/~vista/abstracts/a618.html>. (Nancy Pataky)

Leucostoma (Cytospora) Canker of Spruce

Have you seen spruce trees in which the lower limb died, and then the next limb, and then the next, until you find yourself annually limbing up the tree? Or maybe the branches have not died yet, but they are oozing sap near the junction with the trunk.

Leucostoma canker is also known as Cytospora canker, a name that seems to have stuck in the plant industry. The fungal pathogen is *Leucostoma kunzei*. Colorado blue and Norway spruces, especially those 10 to 20 years old have been reported to be the most susceptible to this disease. Like most canker diseases of trees, *Cytospora* is a pathogen that infects trees stressed by other factors. Some contributing factors include a limited root zone, moisture extremes, compaction of roots, chemical injury, nearby construction, and insect or mite problems. Possibly the shallow, spreading root system of spruce trees explains why they grow best in a moderately moist, well-drained soil and not as well in hot, dry, polluted conditions.

The symptoms of Cytospora canker may gradually develop over several years. Lower branches usually die first, over additional dead branches scattered throughout the tree with time. The dead needles on the affected branches may remain attached or may drop prematurely. Another key symptom is the presence of cankers covered with white sap or resin, usually at the base of the affected branch where it attaches to the trunk. Large globs of sap usually indicate an insect problem. Sappy Cytospora cankers may also appear at axils of small branchlets. The sappy exudate is just a thin layer of dry, white sap. If the bark is peeled away from these affected areas on the branch, the wood underneath is brown. Black, pinhead-sized fruiting structures of the fungus may form in the inner bark, often within resin.

There are no magic cures for Cytospora canker. Alleviate as much stress to the spruce as possible. Obviously this depends on site conditions, weather, and stage of tree decline. During dry conditions, prune and remove the affected, dead branches. Water the tree in times of drought (2 weeks without rain), and apply organic mulch over the roots and under the full spread of branches, but not against trunk. The mulch helps to

retain moisture, maintain a consistent soil moisture and temperature for tree roots, and add to the organic matter in the root zone. For more information on Cytospora or Leucostoma canker of spruce, refer to *Report on Plant Disease*, no. 604, available at <http://www.ag.uiuc.edu/~vista/abstracts/a604.html>, or through your Illinois Extension office. (Nancy Pataky)

INSECTS

Japanese Beetle Update

We have received a number of reports of Japanese beetle emergence, most from readers of this newsletter. Thanks for your response. Additional reports are not needed unless infestations are uncharacteristically high or low. Japanese beetle adults have emerged throughout the state, as we have reports from northern locations including Cook, DuPage, Boone, and Winnebago counties, as well as the central and southern Illinois counties of McLean, Tazewell, Adams, Champaign, DeWitt, Edgar, Jasper, and Richland.

There have been no reports of high beetle numbers. In fact, more reports through July 2 indicated only very low numbers of beetles, typically sightings on only one or two beetles. As a result, we are still in a holding pattern regarding predictions of damage from adult beetles or their larvae. The next couple of weeks should reveal what the Japanese beetle population will be this year in various areas of the state. (Phil Nixon)

White Grubs

Typically, by the end of the first week of July we are able to make some predictions on white grub infestations of turfgrass. However, not only are Japanese beetle adults emerging late and slowly, but also we have not seen any masked chafer emergence yet. Apparently, the cool spring soil temperatures have delayed emergence of all three species. The northern and southern masked chafer adults typically emerge in central Illinois around July 2 or 3, emerging a few days before that in southern Illinois and a few days after that in northern Illinois.

In addition, reduced rainfall in June has sent non-irrigated turf into dormancy by early July in most years. In those instances, even a modest Japanese beetle and masked chafer adult emergence results in a high number of eggs being laid in irrigated turf, which causes severe feeding damage in August and September. However, the heavy rainfall that most of Illinois has experienced in the spring has kept much of the turf green and actively growing even though some areas have had little or no rain for 3 weeks. Predicted rainfall before and over the July 4th weekend should keep unwatered turf green and growing.

In those situations, the beetles lay their eggs over large areas of turf, typically resulting in few white grubs per foot square and little turf damage later in the year.

We should be able to determine over the next couple of weeks whether grub damage will be likely, based on beetle numbers and rainfall. The delayed emergence of adult Japanese beetles and masked chafers should allow more time to apply grub-control insecticides such as imidacloprid (Merit) and halofenozide (Mach 2). We normally recommend application during July, but we should be able to extend that into early or mid August this year. (*Phil Nixon*)

Emerald Ash Borer Update

Emerald ash borer has been found recently in Algonquin in south-central McHenry County. This sighting is just a few miles north of previous finds in Kane County, so not unexpected. Similarly, the new location in Golf is just west of previous finds in Wilmette, Evanston, and Skokie. All of these are within the previously quarantined area of northeastern Illinois.

The increase in new locations of emerald ash borer this year is probably a factor of established colonies of insects moving out to new locations. An initial infestation is likely to be just a few beetles attacking a few nearby trees. Research conducted in Michigan indicates that this small population of beetles is content to attack just these few trees for a couple or more years. The next suitable host location is likely to be on the same tree or one nearby. During this time, apparently very little spread of the population occurs.

Once this localized population has built to higher numbers, the original small number of trees is now in decline and no longer providing as high of food quality. At this time, the population explodes from its original area, with beetles flying relatively long distances to find new hosts. The multiple new finds this year are probably the result of this long-distance dispersion that likely occurred about 4 years ago.

Although the initial infestations of emerald ash borer were discovered only in June and July of 2006 in central Kane County and northern Cook County, these infestations were estimated to have already been present for about 6 years at that time. These estimates were based on the number of beetles present and the decline of attacked trees. By the time these infestations were discovered 2 years ago, they were already large enough to have dispersed to other areas.

Some of these areas of dispersion may be some of the ones that have been found this year. Others are likely to be due to other accidental introductions, including those found in Peru, Glendale Heights, Hazel Crest, and

Chicago, because they are farther away than the beetle is likely to fly and infestations have not been found between them. At this time, it appears that these were human-mediated, likely from the transport of firewood or as hitchhikers on vehicles from other infested areas in northeastern Illinois or from other infested states.

Remember that trap trees were established at a fairly high density throughout northeastern Illinois through 2007. Trap trees have been shown to be more sensitive to picking up smaller infestations of emerald ash borer than the purple traps that were instituted this year. However, because an initial infestation appears to be limited to just a few trees in close proximity to each other for a few years, a trap tree would need to be one of those few trees to pick up an early infestation. A trap tree perhaps as close as a block or two away would not be likely to attract beetles to it until the core trees went into decline. These same trap trees, as well as arborists, other professional horticulturists, and the public, would be likely to find at least large infestations between these sites. Even so, we are likely to find additional infestation sites during the next few months. These finds are likely to continue the build over the coming few years until at least northeastern Illinois becomes generally infested.

The good news is that there is no evidence of far-flung infestations except for the Peru infestation found last year. There have been no additional finds along Interstate 80 in Illinois, and no other downstate infestations have been found.

This serves as a reminder that preventive systemic insecticide treatment of ash trees is not recommended more than 15 miles from a known infestation. This 15-mile radius encompassed essentially all of the Chicago metropolitan area but not other areas the state except for the area around Peru. With an eradication cut having been completed at the Peru location, we are hopeful that no more infestations will be found over the next few years in that area.

Remember that research indicates a high percentage of at least short-term recovery of attacked trees exhibiting up to 40% dieback when treated with systemic insecticides. Research has not been conducted for enough years to determine long-term survival of treated trees, but it is expected. This makes preventive treatment of trees that have not been attacked by emerald ash borer even less necessary. (*Phil Nixon*)

Invasive Species Spotlight: Giant African Land Snail (*Achatina fulica*)

For the exotic pet collector, this giant snail may seem to be a unique and interesting specimen; land managers and farmers may disagree. As fascinating a creature as the giant African land snail is, it also is a threat to natural and agricultural areas.

The giant African land snail (http://www.aphis.usda.gov/plant_health/plant_pest_info/gas/downloads/achatinafulica.pdf) is native to East Africa, mainly Kenya and Tanzania. It can now be found established throughout the northern half of Africa, southern Asia (including the numerous island and coastal countries), South America, Australia, and Hawaii. It was first found in the Hawaiian Islands in 1936 and remains there, it has also been reported in Arizona in 1959 and Florida in 1966 but was quickly eradicated.

Though this giant snail is fairly large, it still travels at a snail's pace. It has been found "hitchhiking" aboard shipping containers and plants from the Hawaiian Islands into the mainland United States, as well as smuggled in by international travelers for their interest as exotic pets. For the most part, quarantine authorities have been able to intercept this species and keep it from escaping, but they still routinely find them. To aid in control, it has been placed on the noxious pest list, making it illegal to transport, sell, or buy them anywhere in the United States.

The giant African land snail can be readily distinguished by its enormous size. An average size is around 3 in. tall and 8 in. long. Their shells form a conical shape that may coil in either direction, colored in several brown tones that vary slightly according to their diets. They are active at night and spend their days burrowed underground. Average snails can live up to 10 years in captivity but usually live around 3 to 5 in the wild. After their first year, they are able to copulate. Their rate of reproduc-

tion varies according to the quality of their habitat and climate. In Hong Kong, a clutch of eggs can number up to 300, while in Hawaii it can be as many as 1,000.

One of the difficult things about managing these snails is their ability to adapt to different conditions and diets. They are a threat to both natural and agricultural areas. Along with organic detritus, their preferred food list consists of over 500 known plants so far, ranging from coffee and bananas in the tropics to potatoes and tobacco in temperate areas.

Also of concern of the giant snails are several health issues. They may harbor and transmit the parasitic rat lungworm (*Angiostrongylus cantonensis*), which in turn can transmit eosinophilic meningoencephalitis to humans. A gram-negative bacterium, *Aeromonas hydrophila*, can also be transmitted to humans, leading to several problems, especially for individuals with compromised immune systems.

Captured, and suspected populations of, snails should be reported to authorities in the U.S. Department of Agriculture. For more information, stop by the Illinois CAPS blog (www.illinoiscapsprogram.blogspot.com) for all the latest news on invasive pests in Illinois. (*Mike Garrett*)

Home, Yard, and Garden Pest Newsletter is prepared by Extension specialists from the University of Illinois at Urbana-Champaign and the Illinois Natural History Survey. Information for this newsletter is gathered with the help of staff members, Extension field staff, and others. Karel Jacobs and Donna Danielson of The Morton Arboretum also provide information and articles.

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