



UNIVERSITY OF ILLINOIS EXTENSION

HOME, YARD & GARDEN PEST

College of Agricultural, Consumer and Environmental Sciences, University of Illinois at Urbana-Champaign
Illinois Natural History Survey, Champaign

NEWSLETTER

No. 16 • August 29, 2007

Golf Turf Field Day

The 2007 University of Illinois Golf Turf Field Day is scheduled for Wednesday, September 12, at the Landscape Horticulture Research Center on the South Farms area south of the University of Illinois campus in Urbana. Although the focus will be on golf turf, other turfgrass professionals are welcome to attend. The field day will begin with registration at 9:30 a.m., with the program starting at 9:45 a.m. The day's activities will end with an included lunch from noon to 1:00 p.m. For more information, contact Carol Preston at preston1@nres.uiuc.edu. (Tom Voigt and Phil Nixon)

PLANT DISEASES

Plant Clinic Closing Soon

You may have heard that the University of Illinois Plant Clinic will be closing in mid-September. That is true. The lab is seasonal, open from May 1 to mid-September every year. This has proven to be the time when most samples are sent. In addition, staffing is funded for only the growing season. This year, the Plant Clinic requests that all plant samples arrive by September 15th for full processing. Staff will remain until those samples have been completed. Samples arriving after September 15th will not be processed. If you would like more information about the Plant Clinic, visit the clinic Web site at <http://plantclinic.cropsci.uiuc.edu/>.

Where do you go for help when the Plant Clinic is closed? Start with your local UI Extension office. Follow this link to find the Extension office near you: <http://web.extension.uiuc.edu/cie2/offices/findoffice.cfm>. Even if the needed specialist is not on staff, every Illinois Extension office has digital cameras and equipment to send samples through the distance diagnostic network. You must still provide background information, but it will be sent online, along with images of your problem. Samples are sent to Extension specialists throughout Illinois for help.

If you are a commercial grower and you have a good idea of the type of problem, you can call one of the campus specialists listed here. Do not send plant

samples to these specialists. These phone numbers are provided as a starting point to finding someone who can help with your plant problems.

Insect problems: Phil Nixon, (217)333-6650

Disease problems: Nancy Pataky, (217)333-2478

Trees/shrub problems: David Williams, (217)333-2126

Turf problems: Tom Voigt, (217)333-7847

Herbaceous plant problems: Jim Schmidt, (217)244-5153

Weed or herbicide problems: Michelle Wiesbrook, (217)244-4397

The Plant Clinic staff thanks those who have used our service in the past and welcomes those who may use it in the future. The quality of the samples and support information has improved over the years, allowing us to provide more accurate diagnosis. (Nancy Pataky)

What Is White Mold?

White mold is the common name for a fungal disease that occurs in very wet conditions. Other common names include watery soft rot, cottony rot, and Sclerotinia disease. Heavily irrigated areas may have this problem even when rainfall is short. The disease appears where the planting is dense and the soil is wet. The northern part of Illinois certainly qualifies this year.

The causal fungus is *Sclerotinia sclerotiorum*, *S. minor*, or *S. trifoliorum*. These fungi can infect hundreds of plant species. Look for the disease on aster, begonia, columbine, dahlia, delphinium, larkspur, peony, snapdragon, and other garden plants. Vegetables such as bean, carrots, tomatoes, and peas are hosts, as well as soybeans and some woody plants.

Symptoms of white mold may occur on any above- or belowground portion of the host plant. You'll see the problem where plantings are dense and the soil is wet. Look for tan or bleached lesions, especially on the stems, which become covered with a fluffy white mycelial growth (mold). This growth is very white and wispy, as compared to the dense, gray mold of *Botrytis*. Stem tissue dies from the site of infection to the tip of the stems. As the disease develops, you see large, black resting bodies of the fungus that look much like irregular rabbit pellets. These resting bodies are called *sclerotia*, and they are composed of tightly packed mycelia. They

grow in or on the plant tissue. Although black on the outside, these resting bodies are white inside. As the infected plant tissue dries, the white mycelium may dry up or disappear, but the canker still looks bleached or tan, as if it were grabbed by a very hot hand or glove.

This disease is discussed in *Report on Plant Disease (RPD)*, no. 1008, available at <http://www.ag.uiuc.edu/%7Evista/horticul.htm>, listed as “Sclerotinia Disease, White Mold or Watery Soft Rot,” or find it in Illinois Extension offices. Correct identification of the white mold disease is important to disease control. The resting stage may remain in the soil for many years, causing problems at that location on many other hosts. Sclerotia in the top 2 to 3 inches of soil germinate each year given a favorable environment. There is no cure for infected plants. When replanting, choose nonhost crops for the infected area. A list of plants susceptible to this disease is provided in *RPD*, no. 1008. (Nancy Pataky)

Maple Decline

Maple decline is a term that is often used loosely by many diagnosticians to refer to more than one condition. There seem to be more reports of maple decline now than 20 years ago, possibly because it has become more widely accepted. Maple decline does not involve a consistent pathogen. An individual tree may exhibit symptoms caused by a combination of factors, with pathogens usually as secondary invaders. Stress factors might include mechanical injury, weather stress, girdling roots, deep planting, salt injury, nutrient imbalance, grade changes, compaction, herbicide injury, or many other factors.

Maple decline usually includes branch tip death, defoliation of enough leaves to give the tree a sparse look, and a slow decline of the tree over a number of years. Maple decline affects primarily sugar maple (*Acer saccharum*), Norway maple (*A. platanoides*), and red maple (*A. rubrum*); but other species are also susceptible. Maple decline may not be something that can be “controlled,” but often it can be prevented or avoided by selecting the tree species or variety best suited to a planting site, followed by giving the tree proper care and maintenance. Learn how to avoid girdling roots; plant at the proper depth, and use mulch over the root system for a healthier root environment.

Maple decline is difficult to confirm because there is no single pathogen that can be isolated and implicated as the cause. Instead, the diagnosis follows a long fact-finding process and elimination of various factors.

These two sources of information on maple decline can be found on the Internet:

- A Cornell University fact sheet, <http://plantclinic.cornell.edu/FactSheets/mapledecline/maple.htm>

- A fact sheet at the University of Rhode Island, <http://www.uri.edu/ce/factsheets/sheets/mapletreedecline.html> (Nancy Pataky)

INSECTS

Oak Leaf Gall Itch Mite

Many people have been complaining of bites in northeastern Illinois over the past couple of weeks. The reports are primarily in the suburban communities in western Cook and the eastern half of DuPage counties, just west of Chicago. A considerable amount of effort has been expended in searching for the source of these bites. This has included the placement and analysis of sticky traps, searching galls, dissecting periodical cicada egg-laying sites, sifting leaf litter, and observing attacked skin surfaces. Specimens have been found, but positive identification of them and association with the bites are still in progress. It appears that the most heavily involved areas are those where periodical cicada was numerous this spring, which is why twigs containing periodical cicada eggs are being examined.

Due to the nature of the bites, the lack of associated specimens, and several other factors, it appears that the most likely cause is an itch mite in the genus *Pyemotes*. The oak leaf gall itch mite, a member of this genus, was discovered a few years ago in Nebraska and has subsequently been found in Kansas, Missouri, Texas, and other locations. There have been reports for at least a couple of years from southern Illinois of similar bites. This mite has not been found previously as far north as northeastern Illinois. The mite apparently is a recent invasive species into North America from Eurasia, with it being first reported in the United States in 1955.

Previously in the United States, the mite has been associated with the oak marginal fold gall maker. This gall appears on pin oak as an approximately 1/8-inch-wide lapping over of the leaf underside onto its upperside. It appears on the inside curves of the leaf's lobes and is typically about 1/2 to 1 inch in length. The gall is green and not obvious during most of the growing season, being noticeable only by the lighter green leaf underside along the edge of its upperside. At this time of year, the galls have turned brown, making them much more obvious against the green leaf uppersides. The fold is easily opened by prying back the folded leaf margin. The oak marginal fold gall is caused by a gall midge, a very small fly. Through much of the growing season, one can find the transparent to white, spindle-shaped fly larvae inside the galls.

The oak leaf gall itch mites attack and feed on the gall midge larvae, killing them. The mature female

mite develops a large, rounded abdomen and is found inside the empty gall. Mites are produced in very large numbers, which leave the galls and fall from the trees. They are blown on the wind to new areas. The number of these mites is so large that this dispersal is commonly referred to as “mite showers.” The mites are elongate, whitish, and exceedingly tiny, at the lower edge of being visible to the unaided eye. They are about 2/10 of a millimeter long, about the size of the leg of a twospotted spidermite.

These mites try to feed on anything that they land on. They take at least 4 hours to bite people. When they bite the skin of people, the result after 10 to 16 hours is a roundish, red area about one inch across, with a small, whitish swollen area in the center. This bite typically takes 10 to 14 days to subside. Most people are being bitten on the face, neck, arms, chest, and back. Because we and other animals other than insects are not the correct host, the mites are unable to survive on us and no reproduction occurs. Unfortunately, these mite showers can last from early to mid-August into early December.

Bites can be reduced by wearing long-sleeved shirts, long pants, hats, and other clothing that covers as much of the skin as possible. Apply insect repellents containing DEET to exposed skin and clothing to reduce the number of bites. Change clothes and shower or bathe after being outdoors in infested areas. Landscapers and other professional horticulturists who need to spend extended time outdoors in infested areas should change clothes and shower every 4 hours, if practical, to reduce the number of bites. Soap kills on contact any mites on clothes or skin. There have been numerous hospitalizations due to bites in northeastern Illinois. Because these mites blow easily on the wind and are tiny enough to go through the mesh openings in window screening, it is advised to keep doors and windows shut as much as is practical.

It is not recommended to spray trees with pesticides to reduce mite numbers. Not only do we not know if these mites are to blame, but they have blown onto all surfaces. If the cause is the oak leaf gall itch mite, the females are protected from contact sprays because they are inside the galls. The gall tissue is brown and dead, so it does not transmit systemic miticide into the gall. Even if insecticide moved into the gall tissue, itch mites feed on the gall midge larvae, not leaf tissue, so the mites would still not be killed. Surviving gall midge larvae have dropped to the ground and pupated, so their control is not practical at this time. If it is determined that the oak marginal fold gall maker is involved with this situation, control recommendations will be made in this newsletter by next spring when any preventive treatments can be made. *(Phil Nixon)*

Zimmerman Pine Moth

Zimmerman pine moth can be effectively controlled at this time of year throughout Illinois. This insect commonly attacks at branch whorls of Scotch, Austrian, red, and other pines. On white pine, it is found more commonly in the tips of branches, causing dieback and a proliferation of shoots due to secondary bud break.

Identification of attacked trees is by the appearance of masses of white pitch on the trunk near the base of one or more branches. This sap exudes from wounds made by the caterpillars tunneling under the bark and through the trunk. Damage can be severe enough to girdle and kill major branches on young trees. However, several years of these moth borers tunneling into the trunk can weaken it, causing the trunk to snap off a few feet above the ground. The tree is usually not killed by this occurrence. Instead, several buds break at this location, resulting in a multi-trunked tree that eventually matures into a much shorter, broader tree than those that are not attacked.

During the summer, the mature, brown, 1-inch long caterpillars pupate under masses of pitch on the trunk. They emerge as gray moths that are about 1/2 inch long. This emergence occurs from about mid-July in southern Illinois to early August in northern Illinois. After mating, the moths lay their eggs on pine trees. Apparently, the moths do not fly very high because damage rarely occurs more than 6 feet up the tree. As a result, only younger, smaller trees are susceptible to serious damage. Older trees with trunk DBH's (Diameter Breast High) over 6 inches are typically not attacked.

These eggs hatch into tiny caterpillars that wander over the bark for several weeks in the fall before each overwinters under a mass of silk called a *hibernaculum*. The hibernaculum is typically spun by the caterpillar under a bark flake. In the spring, these tiny caterpillars emerge from their hibernacula and wander again over the bark for several days before tunneling under the bark.

These caterpillars are susceptible to being killed on contact by insecticides during the fall and spring. Once the caterpillars bore into the tree, they are not susceptible to control. Permethrin (Astro) applied to the bark anytime during the next month or so is effective in controlling the newly hatched caterpillars. Application is also effective when applied in the spring. In a “normal” year, the caterpillars emerge from their hibernacula and become susceptible around mid-April in central Illinois. *(Phil Nixon)*

White Grubs

The second half of August is when white grub damage becomes apparent in Illinois. Heavily attacked turf areas wilt and turn brown due to the grubs eating off the roots. Because the root mass has been greatly reduced, the turf is easily rolled back to reveal the C-shaped, white grubs in the root zone. At this time, the grubs are about 3/4 inch long.

Japanese beetles have become the dominant white grub in most areas of the state. The adults have been very numerous in southern and northern Illinois, where damage will be likely to occur in nontreated, irrigated turf. In central Illinois, the number of adult Japanese beetles has been very low, about one-fourth of what has been normal for several years. As a result, white grub damage should be spotty. In areas where Japanese beetles have not displaced the masked chafers, their white grubs are also present and causing damage at this time.

Check for white grubs by cutting through the turf with a heavy knife and peeling the turf back to reveal the grubs. Some grubs hang in the sod's roots, but most are easily seen on the surface of the exposed soil. Use the knife to till 2 to 3 inches deep into the exposed soil to dig up any deeper grubs. In dry soil, the grubs may be 4 to 6 inches deep.

Generally, 10 to 12 grubs per foot square (12 by 12 inches) are enough to cause serious turf damage. Lightly used turf may support 18 grubs or more per foot square without showing damage, whereas heavily used turf

may show damage with as few as 6 to 8 grubs per foot square. Skunks, raccoons, and armadillos dig up turf when 3 or more grubs per foot square are present.

Trichlorfon, sold as Dylox, is usually the insecticide of choice when white grubs are present. An advantage of Dylox is that it kills up to 95% of the grubs within 3 days. However, Dylox typically lasts only about 5 days. It is recommended that dry turf be irrigated a couple of days before applying Dylox, to bring the grubs up into the root zone. Apply at least 1/2 inch of water after applying Dylox, to move the insecticide down into the root zone where the grubs are located. (*Phil Nixon*)

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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