

Number 1 - April 11, 2016

First Issue for 2016

Welcome to the Home, Yard, and Garden Pest Newsletter for 2016. We provide information on insect pests, diseases, weeds, and other pests of professionally maintained trees, shrubs, turf, and flowers in Illinois. It is written for the professional arborist, landscaper, lawn care professional, golf course superintendent, and garden center operator.

Through the year, we will let you know what pests we are seeing and anticipating throughout the state. Because Illinois is 400 miles long, what happens in Cairo tends to happen about one month later in Rockford. Be mindful of where we report pest activity. As the authors of most articles are primarily located at the University of Illinois, Urbana-Champaign, if a location in the state for the pest is not given, it is probably occurring in the central part of the state. In general, timing of control will be two weeks earlier in southern Illinois and two weeks later in northern Illinois compared to central Illinois.

The first three issues of this newsletter will be two weeks apart. Then we will issue weekly through May and June. Issues will be published every other week through July, August, and September, with a single, final issue in October. This corresponds to the frequency and importance of timing in managing pests through the growing season.

This newsletter is only published online, but there will be a pdf of each issue that can be printed for use if desired. The author's name is provided at the end of each article. (*Phil Nixon, Newsletter Coordinator*)

Spruce Spidermite

Conifer feeding mites including spruce spidermite, arborvitae mite, juniper mite, and pine mite are active at this time of year. They should be feeding through mid-April in southern Illinois, through April in central Illinois, and mid-May in northern Illinois.

Verify that the mites are present by holding a white piece of paper below a branch and striking the branch. If present, numerous mites will be knocked onto the paper where they can be easily seen. Slow-moving greenish to grayish dots that streak green when smashed are damaging mites. Quick-moving red to clear mites that streak red when smashed are predatory mites. Numerous predatory mites will control the spider mites without the need for miticide application.

Spider mites are tiny, eight-legged, sucking pests that are more closely related to spiders than insects. They are too small to be seen without a hand lens on foliage. They feed by sucking the contents, including the green chlorophyll, out of

several cells next to each other. This results in a tiny, white spot. As the damaged cells die, the spot turns brown. Numerous spots caused by many mites feeding is referred to as stippling, borrowed from artists' use of pencil dots to cause a shading effect. From a distance, the brown stipples merge with the green around them to cause the foliage to appear bronze in color.

Spider mites are controlled with miticide sprays when the mites are active, making the paper test before application critical. Effective miticides include acequinocyl (Shuttle), bifenthrin (Onyx, Talstar), fenazaquin (Magus), insecticidal soap, spiromesifen (Forbid), and summer oil. As summer approaches, the mites will lay over-summering eggs that will not hatch until fall. These eggs are resistant to most miticide applications. (Phil Nixon)

Mosquitoes and Zika Virus

Zika virus has been in the news through the winter and several cases have been found in people in Illinois who apparently picked up the virus during foreign travel. This leads to concerns about the health of landscape workers and others this summer when mosquitoes become prevalent.

Zika virus can be transmitted between people in several ways, but of major concern is vectoring by mosquitoes. The main vector of Zika virus is the yellow fever mosquito, *Aedes aegypti*. This is a tropical to subtropical mosquito that does not survive our freezing Illinois winters. It could survive in Illinois during the summer if it was accidentally introduced but would die out during the winter.

Another known vector, Asian tiger mosquito, *Aedes albopictus*, does occur in Illinois. Asian tiger mosquito is apparently a less effective vector or transmitter of Zika virus. This mosquito does survive Illinois winters as eggs and is found sporadically in Illinois south of Interstate 80. It is also present in Cook County.

Both mosquitoes lay their eggs on damp surfaces above standing water containing decaying organic matter, develop as larvae and pupae in water, and bite during the day, particularly in late afternoon. Neither flies very far, typically less than one-quarter mile. For this reason, residents can greatly reduce their likelihood of getting Zika virus by the neighborhood elimination of breeding sites.

Cleaning out gutters, replacing water in birdbaths and wading pools weekly, stocking minnows or other fish other than koi in ornamental ponds, and eliminating or drilling drainage holes in old tires, tin cans, abandoned cars, and ceramic pots will eliminate these mosquitoes' breeding sites. These mosquitoes can develop in as little as one cup of water. Repairing window screens keeps out adult mosquitoes.

Workers can protect themselves by applying mosquito repellents containing DEET, picaridin, or lemongrass oil. Mosquitoes bite through thin clothing so application to clothing may be needed as well as skin protection. The northern house mosquito, *Culex pipiens pipiens*, lives in similar locations, and the same practices help prevent transmission of West Nile Virus.

Most people who get Zika virus will have no symptoms. About 20% have mild

symptoms including fever, achy joints, conjunctivitis (pink eye), and a skin rash. Symptoms typically occur 2 to 7 days following the bite from an infected mosquito. More severe symptoms may occur in some individuals including paralysis. Researchers are investigating the link between the Zika virus and birth defects including microcephaly, abnormally small heads in fetuses and babies that results in death or mental deficiencies.

Additional information can be obtained from the Zika Virus National Pest Alert published at the North Central IPM web site: ncipmc.org/action/alerts/zika.php. Revisions of this pest alert are expected as additional information becomes available on this new threat. (*Phil Nixon*)

2016 Season at the University of Illinois Plant Clinic: Celebrating 40 Years of Diagnosing Plant Problems

Welcome to the 2016 Plant Clinic Season! We are open year round to serve your plant diagnostic needs. 2016 marks our 40th Anniversary, so make sure to stay connected with us on Facebook (<https://www.facebook.com/UofIPlantClinic>) to celebrate.

Plant Clinic services include plant and insect identification, diagnosis of disease, insect, weed, and chemical injury problems (chemical injury on field crops only), nematode assays, and help with nutrient related problems, as well as recommendations involving these diagnoses. Microscopic examinations, laboratory culturing, virus assays, and nematode assays are some of the techniques used at the Plant Clinic. Many samples can be diagnosed within a few days. Should culturing be necessary, isolates

may not be ready to make a final reading for 10-14 days. Nematode processing also requires 1-2 weeks depending on the procedure. We send your final diagnosis and invoice to you through both the US mail and email.

Please refer to our website at <http://web.extension.illinois.edu/plantclinic/> for additional details on samples, sample forms, fees, and services offered. If you have questions about what, where, when, or how to sample call us at 217-333-0519. When submitting a sample, please provide as much information as possible on the pattern of injury in the planting, the pattern on individual affected plants, and details describing how symptoms have changed over time to cause you concern. Pictures of the affected plants or areas can also be sent with the sample to give us a better idea of what is occurring in the environment.

Our fees vary depending on the procedure necessary. General diagnosis including culturing is \$15, ELISA and other serological testing is \$25, nematode analysis for SCN or PWN is \$20, specialty nematode testing (such as corn) is \$40. Checks should be made payable to the University of Illinois Plant Clinic. Please contact us if you are uncertain of which test is needed.

Sending a sample through the mail:

University of Illinois Plant Clinic
S-417 Turner Hall
1102 S. Goodwin Ave.
Urbana, IL 61801

Other contact information:

Our telephone and voicemail number is 217-333-0519. Our email is plantclinic@illinois.edu. Our Facebook address is <https://www.facebook.com/UofIPlantClinic/>

[inic](http://web.extension.illinois.edu/blogs/eb387/) and blog is located at <http://web.extension.illinois.edu/blogs/eb387/>

Dropping off a sample:

You can drop off samples at S-417 Turner Hall. Park in the metered lot F 28 on the east side of Turner or at the ACES Library metered lot on the west side of Turner. Come in the South door and take the elevator located in the SE corner of the building to 4th floor. Turn left when exiting the elevator; we are located along the south corridor of the 4th floor. Please use the green drop box located just outside S-417 if we are temporarily out of the office.

We look forward to serving you this year! (*Suzanne Bissonnette, Diane Plewa*)

Modified Growing Degree Days (Base 50°F, March 1 through April 7)

Station Location	Actual Total	Historical Avg. (11 year)	One-Week Projection	Two-Week Projection
Freeport	63	51	87	119
St. Charles	69	54	94	124
DeKalb	66	61	94	128
Monmouth	95	79	127	166
Peoria	107	88	143	188
Champaign	126	88	164	208
Springfield	146	101	188	239
Perry	156	106	198	246
Brownstown	141	122	192	249
Belleville	221	133	274	334
Rend Lake	219	144	280	346
Carbondale	225	143	283	345
Dixon Springs	235	158	299	367

Insect development is temperature dependent. We can use [degree days](#) to help predict insect emergence and activity. Home, Yard, and Garden readers can use the links below with the degree day accumulations above to determine what insect pests could be active in their area.

[GDD of Landscape Pests](#)

[GDD of Conifer Pests](#)

Degree day accumulations calculated using the [Illinois IPM Degree-Day Calculator](#) (a project by the Department of Crop Sciences at the University of Illinois and the Illinois Water Survey). – *Kelly Estes*

Mild Winter Favors Brown Marmorated Stink Bug; Increased Number of Reports

This past winter, the reports of brown marmorated stink bug (BMSB) continued to come by phone, and email well into February. We've seen an increase in populations in several areas of Illinois over the past year. Northeastern Illinois and Madison/St. Clair counties continue to be hot spots of activity. However, we are still receiving reports statewide, and have confirmed BMSB in several new counties.

During the spring, adults break their dormancy and move from their overwintering locations such as houses, garages, barns, and other dry places. Like many invasive insects, the brown marmorated stink bug has a very long list of host plants it will feed on. In addition to several woody ornamental trees, it feeds on many crops that are grown in Illinois—peaches, apples, grapes, soybeans, corn, tomatoes, peppers, and more. During this early part of spring, before many host plants are available, we will see them utilizing trees and shrubs.

As we progress through the growing season, we will continue to update you on the latest BMSB news, including updated distribution and host plant

injury. As always, we continue to encourage reports of BMSB, especially in areas we do not have official confirmations and if there is any unusual injury to plants.

To positively confirm any insect as BMSB, we need to look at an actual specimen. Suspect stink bugs may be sent to Kelly Estes, 1816 S. Oak St., Champaign, IL 61820. Please put stink bugs in a crush-proof container (pill bottle, check box, etc). You can also send a photo to kcook8@illinois.edu for preliminary screening if you wish. *(Kelly Estes)*

Nimblewill

Nimblewill, *Muhlenbergia schreberi*, is a warm-season perennial grass, thriving in summer's heat, but like zoysia and bermudagrass, looking straw brown from late fall thru spring. It's one of the last warm season grasses to green up, often causing worries that areas of the turf have died.

During the summer when actively growing, it forms one to two feet diameter clumps with an olive to bluish-green color, contrasting noticeably with bluegrasses, fescues and ryegrasses.

Unlike the cool season lawn grasses with elongated blades, nimblewill has a wiry appearance that almost seems branch-like, with the thin hard stems growing upright until they fall over, resulting in horizontal growth except for the tips which resume vertical growth. The stolons help it creep across the top of the soil, but these loosely attached horizontal stems can be pulled up easily.

For identification purposes, the ligule is slightly membranous with a few fine hairs.

During the winter, the brown patches resemble dead spots. However, if you pull up a plant and peel back the brown leaves and stems, you can find the green growing tissue. Warm May weather usually causes the grass to green.

Nimblewill is common in park settings, where the summer color isn't as problematic as it might be in a home yard

Nimblewill thrives in poorly drained soil, and in sunny or shady areas.

Increasing the vigor of the surrounding turf through proper watering, fertilizing, including the use of winterizers, and mowing can reduce the nimblewill patch size. Aeration promotes better drainage. Stimulating cool-season grasses in the fall when the nimblewill has browned can reduce patches the following spring.

Hand digging and pulling may be practical for small patches.

Only Tenacity (mesotrione) is currently labeled for selective control in cool-season yards. Several applications may be needed, and labeled rates must be followed to avoid damaging the bluegrass, ryegrass or fescue turf. Tenacity causes the affected grass to appear bleached.

Glyphosate products such as Roundup can be used for non-selective control, though these products can damage the desirable turf. Glyphosate must be applied to actively growing plants, and won't have an effect on the nimblewill until it greens up. *(David Robson)*