BUCKEYE YARD AND GARDEN LINE 2014-18
07/31/2014

From: Denise Johnson (Lead editor and contributing author) and Joe Boggs (Co-editor and contributing author).

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Buckeye Yard and Garden Line (BYGL) enhanced with photos and links is available online at: [http://bygl.osu.edu]. Become a fan of the BYGL on Facebook at [http://www.facebook.com/OSUBYGL] or follow the BYGL on Twitter at [http://www.twitter.com/OSUBYGL].

This is the 18th 2014 edition of the Buckeye Yard and Garden Line (BYGL). BYGL is developed from a Tuesday morning conference call of Extension Educators, Specialists, and other contributors in Ohio.

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1. PLANTS OF THE WEEK.

*ANNUAL - LOBELIA (*Lobelia erinus*). The delicate blue, pink, and purple blooms of the Lobelia are still looking fresh in Central Ohio due to the cooler temperatures and the regular rainfall. Under normal summer conditions, Lobelia tends to be a bit straggly at the end of July and usually performs best in early spring and late fall. Lobelia should be planted in full sun to part shade in organically rich well-drained soil. If planted in full sun an ample supply of water is required. Regular fertilization is recommended for hardy blooming. Plants grow 4-9” tall and form small clusters of tubular richly-colored flowers.

Renewed interest in Lobelia has produced new cultivars in a variety of colors and traits. You can select lobelia suitable for containers, hanging baskets, flower beds, borders and rock gardens. Cultivars receiving high scores in recent evaluations in the OSU Columbus Floriculture Cultivar Trials for use in container were Lobelia ‘Sunbelia™ Blue’ and ‘Sunbelia™ Compact Sky Blue’ and for use as bedding plants were Lobelia ‘Bella Cielo’ and ‘Bella Bianca 2014’.

Lobelia attracts butterflies and is deer resistant and non-aggressive. Check out the new varieties and add a beautiful new color to your containers or garden.

Author: Denise M. Johnson

*PERENNIAL - RUSSIAN SAGE (*Perovskia atriplicifolia*) This 1995 Perennial Plant Association's Plant of the Year is known for its upright and shrub-like shape, slender stems and deeply notched silvery-gray foliage. The leaves are aromatic and resistant to the browsing of wildlife. The bright lavender-blue flowers and delicate foliage provide an attractive accent in a mixed perennial bed in the middle to back of the border. The flower spikes appear in July and last up until frost. They make excellent cut flowers. Even though its common name includes the word sage, it is not in the genus *Salvia*, members of which are also commonly called “sages.” Russian sage’s square stem signals that it is in the mint family.

Russian sage tolerates most soil types except for wet soils. It prefers full sun but will tolerate some shade though it may become leggy and flop over. There are no serious insect or disease problems.

Plants can grow 3 – 5' tall and 2 – 4' wide, depending upon the cultivar. Russian sage develops woody stems that are not always killed back to the ground. In order to keep the plant more compact it is best to cut it back to just above the crown in early spring.

Author: Julie S. Crook

* WOODY PLANT OF THE WEEK: RIVER BIRCH (*Betula nigra*). This native birch is a wonderful landscape tree for its exfoliating bark, for its winter features of finery against the sky (twigs and catkins), for its resistance to the bronze birch borer, for the sea green foliage, and as the perfect tree for accenting with landscape lighting. Bark varies from gray-brown to cinnamon to whitish pink with some of the cultivars. River birch does best in acid soils; if sited in alkaline soils it often develops interveinal chlorosis and fails to thrive. It tolerates Midwest summer conditions better than many birches, but will exhibit leaf yellowing and leaf drop during droughty periods.
A popular taxon is the Heritage river birch, properly designated as *Betula nigra* ‘Cully’ Heritage®. *River* birch is the common name, *Betula nigra* is the botanical name, ‘Cully’ is the horticultural cultivar name, and Heritage® is the commercial name which in this case, as designated by the ® symbol, indicating it has completed the trademarking registration process.

**Author: Jim Chatfield**

* VEGETABLE – PEPPER (*Capsicum sp*). Peppers of all varieties are fun to grow! They need well-drained soil and do best in soils high in organic matter. Peppers can be grown from seed or transplants. Seed should be planted 2 weeks before the last frost. Transplants should have 6 - 9 mature leaves and a good root system before they are planted in the garden. Plant 4 - 6 pepper seeds 1/2" deep and 18" apart in the row. After the seedlings have two leaves, thin to a single plant. Peppers should be transplanted when soils are 60F or after all frost danger has past. Transplants should be planted 18" apart in row, with rows 18 - 24" apart.

Water peppers by applying 1 - 2” per week. Use drip irrigation if possible. Mulch around the plant will conserve soil moisture and reduce weed growth. Irrigate so that moisture goes deeply into the soil. Irregular watering (over or under) can cause flower drop or blossom-end rot, a dark leathery spot on the bottom of the fruit caused by a calcium deficiency.

Blossom end rot, sunscald, virus, wilt, and leaf blights flea beetles, and aphids can all be issues that one might encounter when growing peppers. Avoid heavy fertilization of peppers which encourages excessive foliage and delays flowering and fruiting.

Peppers are often classified by the shape of their fruit; the familiar bell, round cherries, heart-shaped anchos, long cayennnes. Any of these shapes may be either sweet or hot.

Peppers are normally harvested in the immature green stage for use in relishes, salads, for stuffing, and for flavor in many cooked dishes. In general, peppers have short storage life of only one to two weeks. Cool, moist conditions (45 - 50F) and 85 - 90% relative humidity are the ideal storage conditions for peppers.

**Author: Cindy Meyer**

* WEED – CRABGRASS (*Digitaria* sp.). Crabgrass, a summer annual, is one of the most prevalent weeds found in lawns and planting beds at this time of the season. Crabgrass is a light green, course bladed, weedy grass. Seeds germinate in the spring when temperatures reach 58F for at least three consecutive days. In Ohio, this is usually around middle to late April.

Encouraging thick, dense stands of turfgrass can help keep this weed at bay. Fertilizing based on a soil test, mowing at the proper height (greater than 2 1/2"), reducing thatch, core aerating, over-seeding, and supplemental watering during drought are steps that can help keep a lawn healthy and thus keep weed populations low. Traditionally, chemical control focused on preemergent herbicides which must be applied prior to seed germination. However, in recent years, there have been a growing number of herbicides that provide good postemergent control as long as plants are not fully mature.

**Author: Cindy Meyer**
2. HORT SHORTS.

A. MEET THE EDUCATOR – AMY STONE. Meet Amy Stone, Agriculture and Natural Resources Extension Educator in Lucas County and BYGL Contributor. Amy began her career with OSU Extension in 1992 as a horticulture program assistant with a multiple county project that covered eight counties in NW Ohio. In 2000, Amy was hired in Lucas County as the AgNR Educator. While her training and background was primarily in ornamental horticulture, much of her time and effort in recent years has been dedicated to invasive species; particularly emerald ash borer (EAB) and Asian longhorned beetle (ALB).

She enjoys the challenges of the job and that no two days are the same with Extension. Amy is a member and co-leader of the Extension Nursery Landscape and Turf Team, and is also involved with the Woodland Stewards Team. Occasionally you can find her dressed up as one of her favorite invasive species: EAB and ALB!

Author: Amy Stone

3. BUGBYTES.

A. STRAFING HORSEFLIES. Cindy Meyer and Joe Boggs reported that HORSE FLIES (Tabanus spp.) are on the wing in southwest Ohio. There are several species of horse flies in Ohio ranging in size from 3/8 - 1 1/8" in length. All are aggressive and vicious biters, but the bigger ones are particularly menacing. Female horse flies require blood meals to be able to produce eggs. When she finds a host, the female uses her sharp, knife-like mouthparts to slash upon a wound in the skin; the mandibles of large horse flies are powerful enough to cut through tanned leather! After opening a wound, the female injects saliva that has anticoagulation properties and she then laps up the free flowing blood. The bite is extremely painful, and blood continues to flow from the wound even after the female finishes feeding.

Horse flies have specialized vision that allows them to see heat; they literally use thermal imaging to locate their hosts. The flies are also able to track large moving objects, particularly dark colored objects, even while the flies are in fast flight. Taken together, their visual acuity allows them to effectively zero in on large, savory, warm blooded animals like cows, deer, people, and of course, horses. Unfortunately for the flies, their visual perception may also cause them to be fooled. A dark colored moving car that has been warmed by the summer sun looks to a horse fly like a dark, galloping horse! Horse flies swarming around moving cars can lead to catastrophic consequences ... for the flies ... with the last thing passing through the fly's minds being their rear ends.

There are a number of things you can do to keep yourself off the horse fly menu. If possible, avoid horse fly habitat. Their larvae feed on decaying organic matter in moist soil, so horse flies are frequently found in swamps or near streams and ponds. If you can't avoid their habitat, schedule your activities to avoid the flies. Horse flies are active during the day; they can't find their hosts at night. So, evening pool parties will be free of horse flies. If you must venture into horse fly habitat during the day, remain alert and take precautions. Most flies are silent flyers while horse flies produce a loud, buzzing sound. When you hear the buzz, locate the fly because horse flies love to land stealthily for a quick bite. However, avoid running; remember that horse flies are attracted to moving objects! Wear light clothing; dark clothing is like wearing an "eat hear" sign. Finally, while insect repellents that contain DEET or picaridin may provide
some protection, horse flies are very good at finding unprotected skin. Long sleeves, long pants, and neckerchiefs can help to thwart the flies.

Author: Joe Boggs

B. WINDSHIELD WIPE. BYGLers also ran into a few other arthropods this week including:

* Pam Bennett sent a report that CHRYSTANTHEMUM LACE BUGS (Corythucha marmorata) are hammering asters in several gardens in Clark County. Lace bugs use their piercing/sucking mouth parts to suck juices from their host plants. Their feeding produces tiny yellow or whitish leaf spots (stippling) that may coalesce to produce large, yellow-to-copper colored areas on leaves, and early leaf drop. They also deposit unsightly hard, black, varnish-like tar spots of excrement onto the leaf surface as they feed. Most lace bugs feed on the lower leaf surface and the subsequent leaf stippling appears on the upper leaf surface. However, chrysanthemum lace bugs feed on both the upper and lower leaf surfaces. As with many lace bugs, this lace bug has multiple generations per season; their damage builds with each succeeding crop of new bugs.

Author: Joe Boggs

* Jim Chatfield reported that the "summer generation" YELLOW POPLAR WEEVIL (Odontopus calceatus) adults continue to produce noticeable damage on magnolia as well as its namesake host in northeast Ohio. Yellow poplar weevil adults feed on leaves and the larvae feed within leaves as leafminers. Adults and larvae may be found on three hosts: yellow poplar (a.k.a. tuliptree or tulip polar); magnolia; and sassafras. Thus, alternate common names include "sassafras weevil" or "magnolia leafminer." The small (2/16" long), oval-shaped weevils (order Coleoptera; family Curculionidae) range in color from black to brownish-black to reddish-brown and have deeply grooved wing covers (elytra). Although they are good flyers, the weevils often elect to fold their legs, drop to the ground, and "play dead" when disturbed; a defense strategy that is common among weevils. Adult feeding damage appears as characteristic half-moon-shaped holes in the foliage. Numerous feeding holes can cause leaves to wilt, turn brown, and die.

Author: Joe Boggs

* Joe Boggs showed images of PRAYING MANTIS (family Mantidae) egg cases found southwest Ohio. Mantis females deposit their eggs in a frothy fluid produced by specialized glands located at the tip of their abdomen. The fluid hardens to resemble Styrofoam and serves to protect the eggs located within the structure. Although commonly referred to as an "egg case," or "egg mass," the proper name for the mantis's egg structure is "ootheca" which means "egg container." Mantis oothecas are often attached to plant stems and may be light tan to gray and round-shaped or shaped like a bread loaf. They typically appear in autumn since these predators spend the winter in the egg stage; the appearance of the ootheca seemed a bit early in the season.

The images also showed small, perfectly round holes in the oothecas which are evidence that parasitoid wasps had emerged. There are a number of parasitoids that make a living on mantis eggs with one of the most common being the wasp, Podagrion mantis (family Torymidae). Yet another example of the well-known rhyme penned by famed British mathematician Augustus De Morgan: "Great fleas have little fleas, upon their backs to bite 'em, and little fleas have lesser
fleas, and so, ad infinitum. And the great fleas themselves, in turn, have greater fleas to go on; while these again have greater still, and greater still, and so on."

Author: Joe Boggs

* Joe also showed images of spiderlings within the dense specialized webbing produced by a NURSERY WEB SPIDER (family Pisauridae); another interesting arthropod predator. Females of these spiders carry around their egg sacs in their jaws until the eggs are about to hatch. Just before the eggs hatch, the female spins a dense tent-like web structure that strongly resembles a webworm nest. Indeed, at first glance, Joe thought the spider's web-nest was produced by FALL WEBWORM (*Hyphantria cunea*). However, the webbing was on a common milkweed plant and fall webworms are not included in the list of herbivorous insects that can overcome the strong chemical defenses of this plant. The female nursery web spider deposits her egg sac within her "nursery" webbing, thus the common name for spiders in this family. She then stands guard to protect her off-spring. The family includes a number of well-known spiders including FISHING SPIDERS (*Dolomedes* spp.). These spiders are so-named because of their favorite prey. The spiders have dense hydrophobic hairs covering their legs which allow them to walk on water.

Author: Joe Boggs

4. DISEASE DIGEST.

A. MOIST CHAMBER. Nancy Taylor reported on a number of recently arrived samples to the Clinic. These included: TUBAKI LEAF SPOT ON PIN OAK causing multitudes of tiny discolored spots on leaves often accompanied by considerable yellowing and browning; RHIZOSPHERA NEEDLECAST OF SPRUCE, resulting in purpling and browning of last season's needles; PHYTOPHTHORA ROOT AND CROWN ROT OF PETUNIAS, to be expected in areas drowned by recent rains, BLACK ROT OF GRAPE, with brown leaf spots bordered in purple and the mummification of the fruits; NECTRIA CANKER OF ELDERBERRY, occurring on stressed plants, and TWIG AND BRANCH DECLINE OF SUGAR MAPLE AND NORWAY MAPLE.

The twig and branch dieback on Norway maple has become quite common this year in many Ohio locations. In one development in northeastern Ohio the extent of this dieback is surprising as damage is occurring on plants that in previous seasons had excellent annual growth; even this year, leaf color and growth seems fine. There are some usual suspects such as girdling roots or some Botryosphaeria fungal cankers on a few of the trees, but the extent of the damage on many trees healthy-until-now is puzzling. Winter injury is of course one possibility, but again the extent of damage is surprising and further investigations are warranted.

Author: Jim Chatfield

5. TURF TIPS.

A. TURF TOLERATES CRAZY CONDITIONS! The range of weather challenges and current conditions of turfgrass this week across Ohio are pretty diverse and striking. Amy Stone reported that in the Toledo area, with the prevailing dry conditions, the turf has already shut down and gone into summer dormancy. To endure environmental extremes, like the lack of
moisture and/or hot, sunny days with daytime temperatures in the low to mid-80F, cool season turf adopts the approach of avoidance! The turf goes brown and simply shuts down most transpirational losses in an attempt to preserve moisture in the crown, rhizomes, and roots. The turf can remain dormant and viable for 4 - 5 weeks; however, if the crown, rhizomes and roots dehydrate from prolonged adverse conditions, then summer dormancy becomes "permanent dormancy" - the turf dies!

Conditions are totally opposite in Northeast Ohio where Erik Draper reported receiving 4.4" of rain in the last storm! Most turfphiles are struggling with a lack of sufficient time between rainstorms to allow the lawns to dry out so that they can be mowed. All of the turfgrass is lush, green and growing like gangbusters. Eric noted that mowing frequency is usually once or twice per week because of the rapid growth; however, the rapid turf growth has made it difficult to follow the "1/3rd Rule" with only removing 1/3rd of the turf blade during each mowing.

Joe Boggs reported that turfgrass conditions in southwest Ohio fall somewhere between what is being experienced in the northeast and northwest parts of the state. While rainfall has been generally sufficient to avoid wide-spread summer dormancy, rainfall events have been highly localized. Turfgrass in some areas of Greater Cincinnati continue to require weekly mowing while turfgrass in other areas are now showing a tinge of off-coloring and slowed growth.

Author: Erik Draper

B. YOUTUBE VIDEO. Joe Rimelspach and Todd Hicks (OSU Department of Plant Pathology) provide a helpful review of turf health and how the recent cool weather is making turf management a little easier. They reported that anthracnose and dollar spot are still being sighted and samples are showing signs of mechanical damage. To view Joe and Todd's YouTube video report, click on the following weblink: [http://www.youtube.com/watch?v=CyAcL1TotKg&feature=youtu.be].

6. INDUSTRY INSIGHTS.

A. AUGUST IS ASIAN LONGHORNED BEETLE (ALB) AWARENESS MONTH. ALB Awareness Month kicks off this Friday, August 1. This month-long event has three goals: to raise awareness about this non-native invasive species; to encourage people to look at host trees for signs and symptoms; and to get the word out about not moving firewood. During the month of August, we will share each week in the BYGL different ways that you can be part of ALB Awareness Month in your own community.

We will also be encouraging you to take photos of your involvement and post them on our Facebook page or share for future editions of BYGL. We will have an option to email photos for this social media outreach. There may even be prizes for the best photo; stay tuned and let the awareness celebration begin!

Author: Amy Stone

B. 87th OHIO STATE UNIVERSITY GREEN INDUSTRY SHORT COURSE. This year's event will be held in conjunction with the 48th Annual Ohio Turfgrass Foundation Conference and Show on December 9 – 11, 2014, at the Kalahari Resort and Convention Center in Sandusky, Ohio.
A few of the OSU Green Industry Short Course talks confirmed this past week include: Hannah Mathers of OSU speaking on weed control and fertilizer strategies for landscape plants; Claudio Pasian of OSU discussing greenhouse management best practices and results of his OSU trials of annual flowers (we will also feature talks on other annual and perennial flower trials around Ohio); OSU emeritus Bernie Erven with the ever-important topic of labor management; and Jim Zwack of Davey Tree Expert Company from Minnesota holding forth on tree health management and tree benefit communications to clientele (part of our “Green is the New Green” theme).

Also remember that this broad-based OSU green industry program will be coupled with the great Ohio Turfgrass Foundation Conference program that covers all aspects of the world of turfgrass and their additional partnerships with the Ohio Landscape Association and the Ohio Lawn Care Association. Naturally, the programs will cover a wide range of pesticide applicator and professional certification credits.

Updates will occur throughout the summer and fall as we approach the Conference and Short Course. Look for information on the website at [www.osushortcourse.com] and here in the BYGL.

Author: Jim Chatfield

7. WEATHERWATCH. The following weather information summarizes data collected at various Ohio Agricultural Research Development Center (OARDC) Weather Stations spanning the dates from July 1 - 30, 2014, with the exception of the soil temperatures which are readings from Wednesday, July 30, 2014 at 5:05 p.m.

Erik Draper reported receiving 3.12" of rain at the Drape-scape in Chardon in the severe weather system that went through NE Ohio on Sunday and Monday. At the office in Burton, 4.44" of rain fell during the same event. Amy Stone reported that those same recent rains were hit and miss – missing much of the already very dry Lucas County.

Joe Boggs reported that Cincinnati broke a record low for July 29, 2014. At 7:00 a.m., it was 50°F at the Cincinnati-Northern Kentucky International Airport, the location for the National Weather Service’s official observation station for Greater Cincinnati. The previous record for the date was 54°F. It’s cold down south!

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For a link to the OARDC Weather Stations, visit: [http://www.oardc.ohio-state.edu/centernet/weather.htm]

Author: Amy Stone
8. COMING ATTRACTIONS.

A. 2014 TURFGRASS RESEARCH FIELD DAY. Don't miss the annual Turfgrass Research Field Day on Wednesday, August 6 at the OTF Research & Education Facility in Columbus, OH. Take advantage of the opportunity to interact with peers and the OSU turf team to discuss the season's biggest turf issues; see first-hand results of various turf trials, and try the latest industry equipment. Recertification credits are available. To register go to: [http://www.ohioturfgrass.org/event/FieldDay].

B. NW OHIO GREEN INDUSTRY SUMMER SESSION. Don't miss this year's NW Ohio Green Industry Summer Session. The program will be held on Wednesday, August 6, 2014 at Owens Community College. The program will include a keynote address by Matt Ross. Matt previously worked for The Toledo Botanical Garden and Owens Community College, and is currently working at Longwood Garden in Pennsylvania. It will be great to have Matt back in NW Ohio for this program. Additionally, there will be 16 concurrent sessions that participants can choose from throughout the afternoon from the plant track, best practices track, diagnostic track, and pest track, and will include credits from both ODA and ISA. Registration will go live next week.

C. SOUTHWEST OHIO DIAGNOSTIC WALK-ABOUT. The August 2014 Southwest Ohio BYGLive! Diagnostic Walk-About for Green Industry professionals will be held from 12:00 - 3:00 pm. on Monday, August 11, at Mt. Airy Forest & Arboretum, 5083 Colerain Ave., Cincinnati, 45223. Directions to the meeting location are: 1) Enter the main entrance to Mt. Airy Forest and Arboretum off of Colerain Avenue; 2) Stay to your right onto Blue Spruce Road; 3) Drive past the entrance to the Arboretum; 4) Park in the first parking area on your right that is on Blue Spruce Road.

Participants will start at 12:00 pm. and walk-about with Joe Boggs and Julie Crook (OSU Extension) and our host Larry Parker (Cincinnati Parks) looking at plants, plant pests, diseases, and other points of considerable interest until 3:00 pm. ISA Certified Arborist Credits, ONLA OCNT Credits, and Landscape Architecture Continuing Education System (LA CES) CEU's for Landscape Architects will be available. Visit the following website for registration information: [http://hamilton.osu.edu/topics/horticulture/byglive-diagnostic-walk-about].

D. PESTICIDE SAFETY TRAINING - New Commercial Applicators and Training Servicepersons, August 27, 2014. Core and Trained Serviceperson trainings are held in the morning, and Categories 8, 5, 2c, and 6c in the afternoon. The session will be held at the ODA in Reynoldsburg, Ohio. For more information about the event, check out the PestED website at [http://pered.osu.edu].

E. PLANT TRIALS DAY AT THE CINCINNATI ZOO & BOTANICAL GARDEN. This all day symposium will take place August 28, 2014. Speakers include legendary plantsmen/nurserymen Roy Klehm of Beavercreek and Song Sparrow Nurseries and Bill Hendricks of Klyn Nurseries; top perennial trials expert Richard Hawk, Chicago Botanical Garden; top annual trials expert Susie Raker, Raker’s & Sons; and Steve Foltz and Scott Beuerlein. For more information and to register visit [https://tickets.cincinnatizoo.org/mainstore.asp?vid=2#cat1199].

F. OHIO PLANT DIAGNOSTIC WORKSHOP: FIRST NOTICE – SEPTEMBER 5. Don't miss the 82nd Ohio Plant Diagnostic Clinic, open to all interested plant diagnosticians. This all day,
hands-on workshop held at OSU’s Secrest Arboretum in Wooster, OH includes diagnostic samples, walks and updates by OSU plant pathologists, entomologists, and horticulturists and all the assembled attendee-experts. The registration fee of $40 includes program materials, lunch and refreshments. Coming soon will be the link to download the brochure and registration form.

G. FARM SCIENCE REVIEW. This year’s Farm Science Review takes place September 16th - 18th, 2014 at The Ohio State University’s Molly Caren Agricultural Center outside London, OH. Participants can peruse 4,000 product lines from 600 commercial exhibitors, and capitalize on educational opportunities from Ohio State and Purdue University specialists. For in-depth information on natural resources, visit the Gwynne Conservation Area during the review or visit [www.gwynne.osu.edu](http://www.gwynne.osu.edu) for more information now. Farm Science Review pre-show tickets are $7 at all OSU Extension county offices, many local agribusinesses, and also online at [http://fsr.osu.edu/visitors/tickets](http://fsr.osu.edu/visitors/tickets). Tickets are $10 at the gate. Children 5 and younger are admitted free. Hours are 8 a.m. to 5 p.m. Sept. 16th-17th and 8 a.m. to 4 p.m. Sept. 18th.

H. PESTICIDE SAFETY TRAINING - New Commercial Applicators and Training Servicepersons, September 24, 2014. Core and Trained Serviceperson trainings are held in the morning, and Categories 8, 5, 2c, and 6c in the afternoon. The session will be held at the ODA in Reynoldsburg, Ohio. For more information about the event, check out the PestED website at [http://pested.osu.edu](http://pested.osu.edu).

I. WOOD-DESTROYING INSECT INSPECTION TRAINING, October 8, 2014. Mandatory training is required for applicators becoming licensed in commercial Category 12. Recertification credit is available. The session will be held at the ODA in Reynoldsburg, Ohio. For more information about this event, check out the PestED website at [http://pested.osu.edu](http://pested.osu.edu).

J. THE 87th OHIO STATE UNIVERSITY GREEN INDUSTRY SHORT COURSE. Mark your calendars! The 87th OSU Green Industry Short Course, formerly the OSU Nursery Short Course, will be held in conjunction with the 48th Annual Ohio Turfgrass Foundation Conference and Show on December 9 – 11, 2014 at the Kalahari Resort and Convention Center in Sandusky, Ohio. For more information, visit the Short Course website at: [www.osushortcourse.com](http://www.osushortcourse.com).

8. BYGYLOSOPHY. For the "rest of the story," De Morgan’s rhyme cited in "BUGBYTES" appeared in his book "A Budget of Paradoxes." He was actually putting a more multi-directional spin on the words written earlier by the Rev. Johnathan Swift in his "On Poetry: a Rhapsody": "So, naturalists observe, a flea Has smaller fleas that on him prey; And these have smaller still to bite 'em; And so proceed ad infinitum."

APPENDIX
ADDITIONAL WEBSITE RESOURCES:

Ask a Master Gardener Volunteer
[http://mastergardener.osu.edu/ask](http://mastergardener.osu.edu/ask)

Buckeye Turf
[http://buckeyeturf.osu.edu](http://buckeyeturf.osu.edu)
Emerald Ash Borer Information
http://ashalert.osu.edu

National Plant Diagnostic Network and First Detector Program
https://www.npdn.org/first_detector

Growing Degree Days and Phenology for Ohio
http://www.oardc.ohio-state.edu/gdd/

Hungry Pests Website
http://www.HungryPests.com

Ohio Pesticide Safety Education Program
http://sted.osu.edu/

Ohio State University Department of Horticulture and Crop Science Plantfacts
http://plantfacts.osu.edu/web/

Ohio State University Extension Bee Lab
http://u.osu.edu/beelab/

Ohio State University Extension Master Gardener Volunteer Program
http://mastergardener.osu.edu

Ohio Woodland Stewards Program
http://woodlandstewards.osu.edu

The C. Wayne Ellett Plant and Pest Diagnostic Clinic (CWEPPDC)
http://ppdc.osu.edu/

USDA APHIS Beetle Buster Website (Asian Longhorned Beetle)
http://www.beetlebusters.info/

USDA APHIS Beetle Detective Website (Asian Longhorned Beetle and Emerald Ash Borer)
http://beetledetectives.com/

Following are the participants in the June 24th conference call: Joe Boggs (Hamilton); Jim Chatfield (Hort and Crop Science and Plant Pathology); Julie Crook (Hamilton); Erik Draper (Geauga); Denise Johnson (Master Gardener Volunteer Program); Cindy Meyer (Butler); and Nancy Taylor (C. Wayne Ellett Plant and Pest Diagnostic Clinic (CWEPPDC).

BYGL is available via email, contact Cheryl Fischnich [ fischnich.1@osu.edu ] to subscribe. Additional fact sheet information on any of these articles may be found through the OSU FactSheet database [ http://plantfacts.osu.edu/web ].

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