BUCKEYE YARD AND GARDEN LINE 2014-02
04/10/14

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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 2nd 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.

*PERENNIAL - CROCUS (Crocus spp.). Crocus, in the iris family, is one of the early spring blooming bulbs to make its appearance in our landscapes. The multi-colors of purple, white, purple and white and others bloom profusely in the early spring. The grass-like leaves emerge before the blooms. The flowers open on warm sunny days and close at night (see why they do this just below). The plants get around 4 - 6" tall when in bloom. Plant in full sun or light shade and in well-drained soils.
Crocus bulbs are excellent for naturalizing in the landscape and are extremely easy to maintain. The main problem is that certain rodents (i.e.: chipmunks, squirrels, and mice) eat them like candy so keep your eyes open for these guys.

Crocus flowers won't open if planted in the heavy shade. They are in the group of plants that are differentially responsive to temperature. When it's warm (during the day in the sun), the cells on the inside surface grow faster than those on the outside. This causes the tepals to spread outward and the flower opens. When it gets cold at night, the cells on the outside grow faster than those on the inside and the bloom closes. How cool is horticulture? For a time-lapsed video of this process, go to the [http://plantsinmotion.bio.indiana.edu/plantmotion/flowers/crocus/whitecrocus.html] website. It's provided by Roger P. Hangarter with the Department of Biology at Indiana University. Check out the website for more time-lapse videos of plant growth. Author: Pamela J. Bennett

**WOODY - STAR MAGNOLIA (Magnolia stellata).** It won't be long before the first magnolia blooms of the season are in full swing throughout Ohio. The fragrant white flowers open early in the spring and are sometimes damaged by frost. This can sometimes be avoided by planting in an area that is somewhat protected. Don't plant in a south-facing site as these flowers will open earlier than others, possibly exposing them to frost injury.

Star magnolia is normally a dense shrub with an oval growth habit. It can also be pruned into a small tree. It gets to around 15 - 20' tall with a spread around 10 - 15'. The leaves are a nice dark green color in the summer and will turn a bronzish-yellow in the fall. There are several cultivars available with different growth habits and some with pink buds and white flowers or pink flowers. This plant tends to have very little pest problems and is easy to grow. Scale on the stems and branches has been an issue in Ohio landscapes at times. Author: Pamela J. Bennett

**VEGETABLE - SPINACH (Spinacia oleracea).** Spinach is an early cold-hardy crop that is easy-to-grow and provides numerous vitamins and minerals. Most spinach varieties prefer cool soil temperatures between 40 - 70F. A thoughtful selection of spinach varieties will provide a harvest throughout the spring and fall, as well as plants to winter over for an early crop next year.

Spinach should be planted in full sun to part shade in a well-drained but consistently moist soil. Alkaline soils are best and 6.5 - 7.5 pH is ideal. Seeds should be planted 0.5" deep and will take 6 - 14 days to germinate. The tastiest plants are grown in cool temperatures. Hot temperatures cause the plants to bolt and taste bitter.

The variety of leaf textures - flat to savoyed (curly) - make spinach an attractive addition to container plantings and edible landscapes. Spring varieties include America and Dark Green Bloomsdale. Tyee and Melody varieties are suitable for both spring and fall plantings. Author: Denise M. Johnson

**WEED - LESSER CELANDINE (Ranunculus ficaria).** This low-growing herbaceous perennial belongs to the buttercup family and is sometimes called "fig buttercup." The 1" diameter glossy butter-yellow flowers are borne singly on stalks and have 8 petals. The succulent, shiny dark green kidney or heart-shaped leaves are tightly clustered at the base of the plant. This highly invasive plant is native to Eurasia and it was originally sold in the U.S. as an ornamental. It prefers moist, forested floodplains; however, in recent years lesser celandine has escaped cultivation and is becoming widespread in parks, yards, and forests growing under a range of environmental conditions including drier upland areas.

Control of lesser celandine is challenged both by the plants unusual life-cycle and its prolific reproductive potential. The weed is spread by seed and by movement of thickened underground stems or tubers in contaminated soil or by wildlife. For example, deer may transport pieces of tubers between their hooves or under their dew claws to new locations. In southwest Ohio, the plant spends most of its life underground from June through January. Typically, leaves begin to appear in February and
colonies thicken through March and April. Blooms appear in late-March and early April. By May, the above-ground portion of the plant begins to fade.

Small colonies of lesser celandine can be removed by digging up the tubers; however, extreme care should be taken not to leave behind any of the tubers. Chemical control recommendations in the literature tend to focus on multiple applications of systemic glyphosate-based herbicides starting in February. Landscapers in Cincinnati have had success using pelargonic acid (e.g. Scythe) applied at the highest labeled rate in three monthly applications made in February, March, and April. Scythe is a contact herbicide. It does not translocate within plants so it will have a lower impact on non-target plants growing among the lesser celandine. **Author: Joe Boggs**

2. HORT SHORTS.

A. KEITH SMITH TO RETIRE JUNE 2015. Dr. Keith Smith, Associate Vice President for Agricultural Administration, Associate Dean of the College of Food, Agricultural and Environmental Sciences, Gist Chair in Extension Education and Leadership, and Director of Ohio State University Extension since 1992 has announced that he will retire in June, 2015. Keith started at Ohio State in 1980 in personnel development in Extension and later became the Director of Extension. He received the Extension National Service Ruby award in 2002 and served as the national leader for the Extension Committee on Organization and Policy in 2004.

Keith has been a tremendous supporter of the team concept at OSUE. The Extension Nursery Landscape and Turf (ENLT) Team was one of the first teams established and has thrived with Keith's support. He is a tireless advocate for OSUE and our programming and services. Keith's passion and spirit for Extension and its service to the citizens of Ohio and the human resource of his Extension family is legend. He is a true servant-leader – and he is a lover of crabapples. It may seem as if once retirement arrives we will miss Keith's leadership and friendship, but we know our relationship with Keith will be ever embedded within OSU Extension and its mission. **Authors: Pamela J. Bennett and James Chatfield**

B. OSU EXTENSION CELEBRATES VOLUNTEERS! What would we do without our volunteers?!? They are a tremendous part of OSUE outreach efforts and we wouldn't be near as effective in meeting our mission of engaging people to strengthen their lives and communities through research-based educational programming. We have a variety of program services and a variety of volunteers from all aspects of life helping with numerous efforts and educational programs. Master Gardener Volunteers, Ohio Certified Volunteer Naturalists, 4-H and Youth Development and advisory committees are just a few of the areas that you can volunteer for OSUE. Contact your local county extension office to learn more about becoming an OSUE volunteer. [http://extension.osu.edu](http://extension.osu.edu)

We would like to take this opportunity in this BYGL newsletter to thank all of our volunteers that help make our jobs and our efforts so much more effective! Dr. Bruce McPheron, Dean of the OSU College of Food, Agricultural, and Environmental Sciences (CFAES) thanks our volunteers in this video: [https://www.youtube.com/watch?v=elXD1ML5yS4](https://www.youtube.com/watch?v=elXD1ML5yS4)

Learn more about our volunteers and their impact in this CFAES news story: [http://cfaes.osu.edu/news/articles/extension-volunteer-efforts-tally-thousands-years-service](http://cfaes.osu.edu/news/articles/extension-volunteer-efforts-tally-thousands-years-service) **Author: Pamela J. Bennett**

3. BUGBYTES.

A. EASTERN TENT CATS ARRIVE. Joe Boggs reported that overwintered eastern tent caterpillar (ETC) (*Malacosoma americanum*) eggs have hatched in southwest Ohio. Joe also reported that he
received an e-mail message last week from the "BYGL Early Warning System" (a.k.a. Larry Hanks, Pampered Properties, Lexington, KY) noting that ETC eggs had hatched on April 2, 2014 in Georgetown (Scott County), Kentucky.

ETC caterpillars are accomplished and prolific tent-makers producing highly visible silk nests in the forks of branches. They begin producing silk nests immediately upon hatching from eggs. The caterpillars prefer to feed on trees in the family Rosaceae, particularly those in the genus *Prunus*, such as cherries. They also occasionally feed on ash, birch, maple, and oaks. The caterpillars are covered in short, grayish-white hairs and they have a distinct, unbroken white stripe down their backs.

The caterpillars are capable of causing serious stress to their host trees. Leaves lost to caterpillar feeding this spring must be replaced using energy stored from last season. Small nests can be eliminated digitally using five-fingered "smash and/or smear" techniques. Less hands-on methods include applications of the naturally occurring bacterium, *Bacillus thuringiensis* (Bt), applied to early instar stages, as well as standard insecticides labeled for general caterpillars. These cats may only meow now, but they will roar later in the season!  

Author: Joe Boggs

B. GYPSY MOTH UPDATE. While gypsy moth is still in its egg stage, hatching of the caterpillars will be here before we know it. Caterpillars begin to hatch at 192 GDD, or about the same time first bloom of redbud (*Cercis canadensis*) is observed. Gypsy moth egg masses can be found almost everywhere from the branches and trunks of trees to on sign posts, houses, wheel wells of trailers, garden art, inside of dog houses and bird houses, and on fences. They can be about the size of a quarter or larger, but are often more oval than round.

To date, 51 of Ohio’s 88 counties have established gypsy moth populations. The Ohio Department of Agriculture (ODA) operates three programs aimed at managing the gypsy moth in Ohio. The three programs mirror the three zones defined in a spreading infestation. The Suppression Program (infested zone) is in areas where the gypsy moth is well established and treatments are performed at the voluntary request of the landowners. The Slow-the-Spread Program (transition zone) focuses on monitoring, detecting, and reducing isolated populations to slow the gypsy moth’s movement across the state. The Eradication Program (uninfested zone) focuses on monitoring and detecting any populations that may have jumped out ahead of the transition zone. Treatments are so designed to “eradicate” the isolated populations.

Four products recommended by the USDA Forest Service will be used in the 2014 treatment of Ohio and include: Gypchek, Foray 48b, Dimlin 4L, and Disrupt II.

Interactive maps, treatment block maps, and information about this non-native pest can be found on the ODA website at [http://www.agri.ohio.gov/divs/plant/gypsy/gypsy-index]. Author: Amy Stone

4. DISEASE DIGEST.

A. WHY HOST RANGE MATTERS, PART 1. Understanding the host ranges of pests and pathogens that cause infectious plant diseases and pest infestations is important in plant health management, in evaluating the potential risks of a particular pest or pathogen, and in communicating with our clientele and customers. After all, the host is one of the three sides of the Disease and Pest Triangles that also includes the pest or pathogen and the environment conducive to disease or infestation. Here are a few key considerations about host ranges.

Host Ranges Are Often Narrow. Most plant pathogens have narrow host ranges. The downy mildew of impatiens water mold pathogen (*Plasmopara obducens*) occurs on *Impatiens walleriana*, the common bedding plant impatiens and some wild impatiens species, but not on other plant genera, and not on New Guinea impatiens (*Impatiens hawkeri*). The rose black spot fungus (*Diplocarpon rosae*)
occurs only on certain roses in the genus *Rosa*. The plum black knot fungus (*Dibotryon morbosum*) infects only plants in the genus *Prunus*, such as cherry, almond, peach, and of course, plum. Bacterial fireblight occurs only on genera in the rose family (Rosaceae) such as apple/crabapple (*Malus*), pear (*Pyrus*), and *Sorbus* (mountainash).

Likewise many insect pests have highly limited host ranges. The devastating emerald ash borer (*Agrilus planipennis*) infestation in North America occurs only on ashes (*Fraxinus*). The bronze birch borer insect (*Agrilus anxius*) occurs only on birches (*Betula*). Hemlock woolly adelgids occur only on hemlocks (*Tsuga*), viburnum leaf beetle damage only on *Viburnum*, and European pine sawflies occur (and thrive) on *Pinus*. On the other hand ...........

**Host Ranges May Be Wide.** In sharp contrast to the fraxinophilic emerald ash borer that we have gotten to know all too well, another borer in the news, the Asian longhorned beetle (*Anoplophora glabripennis*), has a wide host range including maples, horsechestnuts, elms and willows (some of their favorites), as well as many additional hosts such as birch, planetrees, poplars, goldenraintrees, and many others. This fact makes it even scarier to contemplate what might occur if we do not eradicate the known infestations. Another example, Japanese beetles (*Popillia japonica*) feed on many hosts; the larval grubs feed on turfgrass and the adults have a broader palette that includes everything from roses to lindens, to dawnredwoods and primroses.

Similarly, there are pathogens with wide host ranges. The *Verticillium* fungus infects many plants, both woody and herbaceous. These include *Acer* (maple), *Viburnum*, *Impatiens walleriana* as well as fruits and vegetables such as brambles and tomatoes. *Botrytis cinerea* and its cousins infect almost everything from redwoods in propagation to roses and petunias in the landscape. The bacterial crown gall pathogen, *Agrobacterium tumefaciens*, has a host range of at least 600 plant species in 142 genera and over 90 families, including susceptible evergreen euonymus and roses.

How does all this play into plant health management strategies? If a key desire for a customer is a formal rose garden, planting evergreen euonymus around the house is taking quite a risk since this is a host for bacterial crown gall. The debilitating effects of crown galls on the vascular health of roses is usually what makes rose gardens fade over time, and it is not easy to do anything about it other than put up with lesser-quality roses or start over. Bacteriacides for crown gall are not effective. **Author: James Chatfield**

**B. A NOT SO FUNNY FUNGUS.** The fungus commonly called LACQUERED POLYPORE (*Ganoderma lucidum*) is a shelf fungus that homeowners may find growing on the base or in the root zone of deciduous trees such as maples or oaks. It can reach 14” across and has a shiny, "lacquered" surface in red-brown tones. It can also have yellow and white tones in it, making it one of the more attractive fungi. While attractive in appearance, it is problematic for tree owners, as it is a sign of rot inside the tree.

According to the University of California fact sheet, "Wood Decay Fungi in Landscape Trees" *G. lucidum* can kill a living tree in 3 - 5 years and, in maples and oaks, rot can happen very quickly. Wood rot weakens a tree’s structure, which poses a hazard if trees are near homes, vehicles, or high traffic areas. It may be necessary to remove the tree. Consult an expert arborist to inspect the tree and decide if removal is necessary and how best to manage it.

There is no treatment for *G.lucidum*-infected trees, so prevention is key. Stress and wounds can make trees susceptible to infection from fungal spores. Maintaining healthy trees can help reduce susceptibility. Some ways to keep trees healthy include: Using proper pruning techniques; reducing potential stress from drought and other pests; and avoiding injury from lawn equipment. **Author: Ashley Kulhanek**
5. TURF TIPS. No report this week.

6. INDUSTRY INSIGHTS.

A. ALIEN FOREST PEST EXPLORER (AFPE). Do you want to know where some of our most dastardly alien forest pests and pathogens are currently found (or not) in the U.S.? The web-based AFPE can provide the answer [ http://foresthealth.fs.usda.gov/portal/Flex/APE ]. This United States Department of Agriculture (USDA) Forest Service product provides mapped distribution and biological information for 75 non-native forest insects and 15 pathogens in the U.S.

The user-friendly website opens with an interactive map of the U.S. and a "toolbox" that appears along the left side of the map. The toolbox provides several search options; however, users can simply click on a list of non-native nasties to see the mapping data for the alien of interest. Counties that appear in red means the occurrence is known/documented; gray assumes a state-wide distribution. Descriptive information as well as images can be viewed by clicking on the "Data Summaries" tab in the toolbox; this is a very helpful option to aid in identification.

The AFPE is produced and offered by the USDA Forest Service, Northern Research Station, headquartered in Newtown Square, PA. You can learn more about the AFPE as well as other resources and information offered by the dedicated scientists and staff located in the 20-state Northern Research Station region by visiting the following website: [ http://www.nrs.fs.fed.us/tools/afpe/ ]. Author: Joe Boggs

B. BLACK VINE WEEVIL CHALLENGE. Randy Zondag reported encountering a case where black vine weevil (BVW) (Otiorhynchus sulcatus) larvae may have hitch-hiked into a nursery on infested container stock. Although BVW is a non-native pest, it is currently found coast-to-coast across the U.S. Despite best efforts to detect BVW prior to shipping, the weevil may occasionally find its way into container plants shipped from a wide geographical area. Thus, it is always important to pull a few plants from new deliveries to closely inspect the root system for BVW larvae as well as other root problems. BVW overwinters in the larval stage, so plants shipped in last fall should also be inspected if they weren't examined prior to the winter.

Although BVW is often associated with woody ornamentals, particularly yews and rhododendrons, the weevils may feed on over 100 different plant species and adult food choices may not always coincide with larval food choices. The characteristic leaf-notching signs produced by adult feeding activity don't always show up on the foliage of many herbaceous plants where the larvae are feeding on the roots.

The creamy-white BVW larvae have brown, bulbous head capsules. They curl themselves into a C-shape when disturbed which causes them to resemble white grubs; however, BVW larvae are legless whereas grubs have legs. The larvae live out-of-sight in the soil where they consume roots. Their feeding damage mimics symptoms caused by other root problems such as moisture stress (too little, or too much water), root-rots, winter root injury, and vole damage. BVW larvae are capable of consuming entire root systems and girdling plant stems below the soil line. Indeed, larval damage to containerized herbaceous plants may produce a "toupee effect" where above ground portions of plants detach and flop out of the containers.

BVW adults are approximately 0.25" long. They have a narrower head and relatively short snout when compared too many other weevils. Their thorax is rounded and their abdomen is oblong-shaped. As their common name indicates, adults are black; however, their color is slightly muted by pits and deep striations as well as small patches of yellow hairs on their wing covers. Their wing covers are fused which means the adults cannot fly. When disturbed, the adults feign death by remaining motionless and holding their legs against to their body; this is an escape strategy practiced by many weevils. All
adults are females; there are no males. This makes detecting and eliminating BVW before it escapes infested plants even more important because a single adult can successfully spread the infestation.

Research conducted at Ohio State showed that Talstar (e.g. Talstar S; Talstar Nursery Granular Insecticide) is effective in controlling BVW in containerized plants. As with all pesticides, follow product label directions for safe applications and maximum efficacy. Of course, the most effective BVW management strategy is to avoid the problem in the first place by inspecting plants before the larvae complete their development. Author: Joe Boggs

7. WEATHERWATCH.

A. WEATHER UPDATE. The following weather information summarizes data collected at various Ohio Agricultural Research Development Center (OARDC) Weather Stations spanning the dates from April 1 - 9, 2014, with the exception of the soil temperatures which are readings from Wednesday, April 9, 2014 at 5:20 p.m.

Everyone has heard the saying – April showers bring May flowers. With that said, the first 9 days of April have brought above normal precipitation in each of the 5 weather stations highlighted in BYGL each week. We can't wait for the May flowers.

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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

B. GROWING DEGREE DAYS (GDD). GDD is a measure of the daily maximum and minimum temperature and directly relates to growth and development of plants and insects. The GDD of any zip code location in Ohio is estimated using the GDD of ten OARDC weather stations and available on the web at the site below.

The range of GDD accumulations in Ohio from north to south is 24 to 119. Following is a report of GDD for several locations around Ohio as of end of the day of April 9, 2014: Painesville, 24; Cleveland, 27; Toledo, 24; Canfield, 34; Findlay, 26; Van Wert, 28; Wooster, 45; Coshocton, 59; Columbus, 64; Springfield, 62; Dayton, 66; Cincinnati, 102; Ironton, 118; Portsmouth, 119; and Piketon, 115.

To put these GDD accumulations into perspective, the following is an abbreviated listing of plant and insect species with their respective phenological event and average GDD accumulations at which these events occur. Due to variations in weather, temperature, humidity, etc., these events may occur a few days earlier or later than predicted by the average GDD. By looking at a city, town, or village nearby on the above list, or visiting the above web site, one can see what is approximately taking place in the landscape.

Silver maple, first bloom, 34; Corneliancherry dogwood, first bloom, 40; silver maple, full bloom, 42; red maple, first bloom, 44; speckled alder, first bloom, 52; northern lights forsythia, first bloom, 58; Japanese pieris, first bloom, 60; red maple, full bloom, 75; star magnolia, first bloom, 83; border forsythia, first bloom, 86; eastern tent caterpillar, egg hatch, 92; Manchu cherry, first bloom, 93;
northern lights forsythia, full bloom, 94; Norway maple, first bloom, 116; border forsythia, full bloom, 116; chainticleer callery pear, first bloom, 123; sargent cherry, first bloom, 127; larch casebearer, egg hatch, 128; and Japanese pieris, full bloom, 129. Author: Amy Stone

8. COMING ATTRACTIONS.

A. EMERALD ASH BORER UNIVERSITY (EABU) SPRING SCHEDULE. Be sure to tune into EABU this spring to learn more about EAB and other related topics. Sessions can be accessed through the Regional Emerald Ash Borer website [http://www.emeraldashborer.info]. Here is a listing of the live sessions scheduled this spring:

*April 23, 2014, 11:00 AM (EST) Using Semiochemicals to Detect and Monitor Invasive Ambrosia Beetles in Hardwood Forests - Matt Ginzel, PhD., Purdue University

*May 8, 2014, 11:00 AM (EST) In Defense of Urban Forestry - Lindsey Purcell, Urban Forest Specialist, Purdue University

*May 19, 2014, 11:00 AM (EST) EAB101- What Happened and What's Happening Now - Amy Stone, Extension Educator, Ohio State University and Robin Usborne, Communication Manager, Michigan State University

Have questions about EABU? Contact Amy Stone at [stone.91@osu.edu]. Author: Amy Stone

B. SOUTHWEST OHIO BYGLIVE! DIAGNOSTIC WALK-ABOUTS. This is the 17th year for the Diagnostic Walk-About series in Southwest Ohio. The first 2014 BYGLive! Diagnostic Walk-About will be held Monday, April 21, at Spring Grove Cemetery and Arboretum from 12:00 - 3:00 p.m. This monthly hands-on training series for green industry professionals focuses on diagnosing plant pest, disease, and physiological problems. ISA Certified Arborist CEUs, Landscape Architecture Continuing Education System (LA CES) CEU's for Landscape Architects, and ONLA OCNT credits will be available. Visit the following website for registration information as well as driving directions: [http://hamilton.osu.edu/topics/horticulture/byglive-diagnostic-walk-about]. You can also e-mail Joe Boggs [boggs.47@osu.edu] to learn more about this diagnostic training series.

C. TREE SCHOOL. Tree School is an all-day workshop on all things trees! It takes place May 3, 2014 at the Ohio State Mansfield Campus. Are you a woodland owner, Christmas tree grower, gardener, wildlife enthusiast, landscaper, or just interested in learning more about trees? Tree School features 12 different educational sessions on a variety of tree-related topics - including things like tree planting, the top landscape trees, mapping your property and invasive species management and more! Registration is now open at: [http://www.woodlandstewards.osu.edu] and closes April 25, 2014.

D. WILDLIFE IN YOUR WOODS. Interested in learning more about the wildlife that is in your woods? Want to learn how to attract deer, birds, and amphibians to your woods? Then this class is for you! Come to the Ohio State Mansfield campus on May 9, 2014 to spend a day learning how to not only attract a variety of these species to your woodlot with proper management but also how to monitor them! We will begin indoors in the morning and end outdoors with a walk through the woods where we will further discuss monitoring techniques, management tips, and search a vernal pool for frogs and salamanders. Registration is now open at: [http://www.woodlandstewards.osu.edu] and closes May 2, 2014. Don't wait - register now!

E. THE BUCKEYE LADY BEETLE BLITZ 2014! The Agricultural Landscape Ecology Lab is hosting three sessions of a workshop this year in May to kick off The Buckeye Lady Beetle Blitz 2014! This workshop will focus on the 'secret lives' of beneficial garden arthropods. You will learn about the diversity of predators, parasitoids, and pollinators that inhabit your garden. They will discuss foraging
strategies, courtship, parental care of young, shelter and nest building, and much more! Participants can also get involved with two exciting research projects, the Buckeye Lady Beetle Blitz and a NEW study examining pollination services in home gardens!

They have three locations for this workshop:

* May 14, 2014 at OARDC's Fisher Auditorium, 1680 Madison Ave, Wooster, OH
* May 15, 2014 at the Rocky River Nature Center, 24000 Valley Parkway, North Olmsted, OH
* May 16, 2014 at the Civic Garden Center, 2715 Reading Road, Cincinnati, OH

For more information visit: [ http://gardinerlab-dev.cfaes.ohio-state.edu/node/31/person-workshop-new-and-existing-blbb-volunteers ].

9. BYGLOSOPHY. Spring is nature's way of saying, "Let's party!" ~Robin Williams

APPENDIX
ADDITIONAL WEBSITE RESOURCES:

Ask a Master Gardener Volunteer
http://mastergardener.osu.edu/ask

Buckeye Turf
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://pested.osu.edu/

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

Ohio State University Extension Bee Lab

Ohio State University Extension Master Gardener Volunteer Program
http://mastergardener.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 April 8th conference call: Pam Bennett (Clark); Joe Boggs (Hamilton); Denise Johnson (Master Gardener Volunteer program); Ashley Kulhanek (Medina); David McCann (C. Wayne Ellett Plant and Pest Diagnostic Clinic (CWEPPDC)); Joe Rimelspach (Plant Pathology); Amy Stone (Lucas); Nancy Taylor (C. Wayne Ellett Plant and Pest Diagnostic Clinic (CWEPPDC)); Danae Wolfe (Summit); and Randy Zondag (Lake).

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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