BUCKEYE YARD AND GARDEN LINE 2015-01
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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 1st 2015 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.

*******BUCKEYE YARD AND GARDEN LINE SUPPORT. The Ohio State University Buckeye Yard and Garden Line (BYGL) writers need your support to continue this newsletter. OSU puts a great deal of resources into this project and we do not receive funding necessary for full support. We know you like BYGL, as the 2014 Reader’s Survey respondents indicated BYGL saved them $2.45 million dollars, 96% indicated BYGL was useful in their jobs, and 87% indicated BYGL helped with their diagnostic skills.

Funds will support on-going work of the Ohio State University Extension Nursery Landscape and Turf Team (ENLTT) in preparation and delivery of the weekly April-October BYGL e-newsletter. Expenditures will include but are not limited to equipment such as cameras, upgrades of computers and related devices, management of the website, editing and webinar costs, and travel reimbursements.

The giving levels on our development website (COMING NEXT WEEK) are: $50, $75, $100, $250, $500, $1,000. There is also a $3,000 level of support that involves the Presidents Club and football ticket access. If you are interested in this level, please contact Jennifer Heller ([heller.4@osu.edu]), the Director of Development for the OSU College of Food, Agricultural and Environmental Sciences.

So, over the next week, think of how much you utilize and enjoy BYGL and consider your potential level of support that could assist us, the BYGL writers, in providing the highest quality newsletter. Next week, information on how to support BYGL will be provided.******

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1. PLANTS OF THE WEEK.

*PERENNIAL - DAFFODILS (Narcissus spp.).* What is the difference between a daffodil or a narcissus or a jonquil? This very common question can be answered with the phrase that horticulturist frequently employ - "it depends!" All of these terms have been used interchangeably and in many cases, used incorrectly. *Narcissus* is the genus for all and daffodil is the common name used as well as the name recommended for use by the American Daffodil Society (ADS, [www.daffodilusa.org]). Then it gets a little more complicated after that and depending on who you talk to or what resource you use, the genus is divided into between 40 and 200 species, and cultivars and subspecies and varieties.

No matter what you call them, they are certainly beautiful this time of the year and provide a fresh spot of color to the awakening landscape. Daffodils are one of the easiest bulbs to grow. They will take light shade but will perform much better in full sun. If you have heavy shade, plant an earlier blooming variety rather than a late-season bloomer. They grow in most garden soils but the main criterion for success is well-drained soil; they won't tolerate wet soils. Though they are planted in the late summer and early fall, take a look at your landscape now and determine where you might want to plant them later this year.

Fertilize in the early spring as the leaves begin to emerge with a bulb fertilizer. Deadheading is not essential on daffodils, it's more for looks. Technically, you should not fold, braid or otherwise eliminate the green foliage after the blooms fade. This foliage is needed to help rebuild the bulb for the next season. The lack of surface area for photosynthesis decreases the amount of food stored in the bulb. On the other hand, I know people who braid and rubber band the foliage to "tidy up" the garden and they are still satisfied with their subsequent blooms. The best practice is to let the foliage go until it's completely yellow and then remove or mow. If you can tug the foliage and it comes up easily, it's time. My rule of thumb is to let the foliage go as long as possible and when I can't stand it any longer, I wait one more week and then remove. Or, interplant with perennials so that their emerging foliage hides the dying daffodil foliage.

One of the best things about having daffodils in the garden, next to the fact that they are simply beautiful, is that deer and other critters don't like them!

*Author: Pamela J. Bennett*

*WOODY - CORNELIANCHERRY DOGWOOD (Cornus mas).* This early harbinger of spring is one of the earliest flowering trees, often overlooked if you blink, but quite spectacular in mass bloom. The tiny chartreuse-yellow flowers open well before the leaves and give mass plantings a showy appeal and a sunny promise of warm weather to come. If you are in Columbus, check out the planting just to the west of the Schottenstein Center on the OSU campus. Corneliancherry dogwood is a multi-season tree/shrub as well. It has exfoliating bark in winter, chartreuse-yellow flowers of late winter to early spring, glossy green leaves of summer, and summer-into-fall fruits. What a cornucopia of ornamental features!

Come late summer those cherry-like fruits of *Cornus mas* will show their true colors: orange to orange-red maturing to cherry-red and almost purplish-red colors by fall. Many an edible landscape lover is tempted to pop one in their mouths, proclaiming that they are ripe. *Au contraire*, wait until these oblong drupe fruits become dark red-purple and soft before you munch - unless you have a sour tooth.

Corneliancherries are also great for jellies and if you are interested in a most wonderful, ruby-colored tart yet sweet drink which is beyond compare, try a 1/4 corneliancherry dogwood juice and 3/4 apple cider cocktail. It is quite a treat as is the overall appeal of this most excellent small landscape tree. And if you
partake, try the OSU Master Gardener Volunteer Lois Rose-inspired vodka-steeped corneliancherry dogwood fruits, which the Akron Beacon Journal’s Mary Beth Breckenridge deemed "chewable alcohol."

Author: Jim Chatfield

*VEGETABLE - PEAS (*Pisum sativum*). You may have heard the adage - plant peas on St. Patrick’s Day, March 17. That date can work, BUT basing your planting schedule on soil temperature is more reliable. If the soil temperature is at least 45 F and you can work the soil (not too wet), planting cold-hardy varieties of peas such as Daybreak or Spring can provide a harvest in 54 - 57 days.

Peas come in two types - garden or English peas (*P. sativum var. sativum*) also called shelling peas with fibrous, non-edible pod; and snap or snow peas (*P. sativum var. macrocarpon*) also called sugar peas with edible pods. Interestingly, pea vines are also edible.

Peas grow and mature in cool, moist weather conditions above 40 F with their ideal temperatures being 55 - 65 F. Although pea plants are frost hardy, flower and pod production will stop once the thermometer is above 85 F. Plant peas in well-drained soil, 1 - 1.5” deep and 1” apart in single or double rows. Young plants are very tender and care should be taken when cultivating or weeding around them. A trellis will make harvesting easier for most varieties. Selecting disease resistant varieties will help avoid fusarium wilt and powdery mildew. Extend your pea harvest by planting peas that mature later such as Sparkle, Little Marvel, Green Arrow and Wando. Sugar pea varieties include: Snowbird, Dwarf Gray Sugar and Snowflake.

To determine your soil temperatures, visit OSU's Ohio Agricultural Research and Development Center (OARDC) website ([http://www.oardc.ohio-state.edu/newweather/](http://www.oardc.ohio-state.edu/newweather/)) where you can view hourly soil temperatures for Ohio's 15 weather stations.

Author: Denise M. Johnson

*WEED - PURPLE DEADNETTLE (*Lamium purpureum*). Purple deadnettle is beginning to show up in landscapes now that spring has arrived and the temperature is getting warmer. A winter annual, purple deadnettle is germinating now from the seeds they produced last year.

This weed can easily reach heights of 16 - 18”. Purple deadnettle has a distinct four-sided stem which is common to plants in the Lamiaceae (mint) family. The leaves are opposite, triangular to heart shaped with a serrated leaf margin. The leaves appear crowded near the upper part of the stem; they are overlapping and bent downward. These leaves are purple to red in color. The lower leaves are larger and have longer petioles and tend to be deep green in color. The flowers are light purple to pink.

Purple deadnettle can be controlled by hand weeding and cultivation. A post-emergent broadleaf herbicide can be applied in early spring to control the blooming plant, but a pre-emergent herbicide will need to be applied in late summer to control the germinating seeds of this winter annual. If you do choose to use an herbicide, be sure to follow and read all label directions.

Author: Julie S. Crook

2. HORT SHORTS.

A. SOCIAL MEDIA - CHECK US OUT! In addition to BYGL as an email and web version, BYGL-fanciers can also connect with us on Facebook ([http://www.facebook.com/osubygl](http://www.facebook.com/osubygl)) and Twitter
These two social media outlets provide additional avenues of outreach in Ohio, across the country, and the world. Like us on Facebook and follow us on Twitter.

Author: Amy K. Stone

B. INTERESTING DIAGNOSTIC SITUATION - BUXUS BITING THE DUST?? Pam Bennett reported that a hedge of boxwood, approximately 15 years old is showing some odd symptoms. After a thorough discussion by BYGLers, there was no solid conclusion, only speculation. However, we were wondering, "is anyone else out there in BYGL reader land seeing these symptoms on boxwood?"

Here’s the story: The hedge looked great all last season (2014) despite experiencing the normal winter burn that many boxwoods had last year. The new growth came out and looked good. There were no obvious problems with the plants going into the winter. Pam had a meeting at the site on March 24, 2015 to specifically discuss these plants (and others) and there were no apparent symptoms (no signs of winter burn or brown tips) on the outside, at least. The next visit to the garden was April 1, 2015 and no fooling - the plants had the symptoms of browning and leaf discoloration. It was interesting as the discoloration had a very unusual pattern that didn’t necessarily resemble the traditional winter burn or winter injury. Upon closer inspection Pam discovered that wherever there were yellow leaves, the stems at the base of the plant had split bark.

All BYGLers were extremely surprised at the symptoms showing up so quickly, especially given the fact that we haven’t really had extreme temperatures that would put a lot of stress on the plant. Others speculated that perhaps this was related to damage from the winter of 2014 while Erik Draper suggested that perhaps the plants didn’t harden off before cold temperatures set in last winter.

We are not totally sure of the problem and more digging is taking place - literally! Pam will be digging up a few samples as well as checking around to see if any type of chemicals were applied to the building or in the area. Very curious indeed.

If you are seeing anything like this on boxwoods, please let us know. We would love to hear your feedback on this (and any issues you are seeing in the landscape)! Go to [www.facebook.com/osubygl]. We would love to hear from you and learn about what’s happening around the state.

Author: Pamela J. Bennett

C. TIME TO GET THE PERENNIAL BEDS CLEANED UP. BYGLers discussed the variety of perennials beginning to emerge around the state. On that note, we want to remind readers that it's time to get things cleaned up in the garden and to cut back any perennial foliage that you left for winter interest. It’s a lot easier to cut the dead foliage back before the new growth emerges. Ornamental grasses, sedum and many other perennials are beginning to show signs of new growth so do it now. It’s also the time to divide summer and fall blooming perennials.

In addition, it appears that many of the roses around the state survived a little easier this past winter when compared to the winter of 2014. It’s also time to cut these back. By now, in most of you should see new sprouts beginning to emerge; remove any of the dead wood, cutting back to just above an outside facing bud. This encourages growth to go out, away from the center of the plant, allowing for better air circulation.

If you applied protective winter mulch to any of your perennials or roses, it's time to pull this away from the crown of the plant, leaving no more than 2” of mulch around the plant. It's also time for the first application of fertilizer for perennials. Remember, in order to know exactly what is needed in the soil, test the soil first! Perennials require about 1 - 2 lbs. of nitrogen per 1000 square foot for best growth. Or, simply use a fertilizer that is specific to perennial plants and follow label directions. Remember, if any of the fertilizer spills on the sidewalk or other off-target sites, clean the fertilizer up by sweeping into the
flower beds or lawn areas. DON’T sweep fertilizers down the sidewalk to the curb and consequently to the drains and then to the water system.

Author: Pamela J. Bennett

D. GARDEN-PEDIA - AN A-TO-Z GUIDE TO GARDENING TERMS NOW AVAILABLE! Do you sometimes get confused by horticulture terminology? Do you know the difference between hardening off and hardpan? If not, this book just might be for you! My co-author and fourth generation nurseryman Maria Zampini (UpShoot LLC, [www.upshoothort.com]) and I released this new book in January 2015 with the thought that we might be able to help new gardeners, Master Gardener volunteers, and green industry employees understand hortsspeak and some of the terminology used in gardening and landscaping today.

Garden-pedia (St. Lynn's Press) is $16.95 and is available at Barnes and Noble stores around the country as well as [www.amazon.com], [www.indiebound.org], and [www.barnesandnoble.com]. Your purchase of this book supports the Ohio State University Extension Master Gardener Volunteer program as a portion of the proceeds is given back to the program.

Like us on Facebook at [www.facebook.com/gardenpediathebook]. In addition, both of us are available to speak at gardening events and to be on hand to sign the books. Contact Maria at the UpShoot link above and me at [bennett.27@osu.edu].

Author: Pamela J. Bennett

E. OSU EXTENSION MASTER GARDENERS INTERNATIONAL OUTREACH PROGRAM. For the third year in a row, Denise Johnson and I have led a group of 14 enthusiastic and hardworking OSUE MGVs to Otavalo, Ecuador to work in a tree nursery and complete a variety of other gardening chores for the Ucinqui community. The goal of the project is to plant trees to help protect the water supply and to provide a windbreak for crops. The tree nursery is managed by one individual and the work we do provides many hands to assist with collecting seedlings, filling pots, planting, weeding and much more.

After a morning of work, we would head out for a tour of the area to learn more about the culture and people. This year we planted trees on a hillside (altitude 10,000 ft.) in order to provide a windbreak for the crops, worked in the tree nursery, planted a vegetable garden for one of the community families, did a garden-related activity with the kids at a local school and built a fence and garden area for one of the schools. We provided 321.5 hours of work and were called the "Technical Support Team" by Matias, the nursery manager.

The effort is in partnership with the Tandana Foundation ([www.tandanafoundation.org]) which provides cross-cultural service-learning volunteer vacations in highland Ecuador and other locations. We will be going again in 2016 from February 12 - 20. If you are interested, contact Denise Johnson ([johnson.2924@osu.edu]) for details.

Author: Pamela J. Bennett

F. A WALK ON THE WILDSIDE: SPRING IS IN THE AIR AND SO ARE THE BIRDS! Spring may be taking its time settling in, but Ohio’s birds are not! Migrant songbirds are making their way back to Ohio from warmer, tropical regions, vultures are soaring, and geese are nesting. EASTERN PHOEBES, RED-WINGED BLACKBIRDS, YELLOW-RUMPED WARBLERS, BROWN CREPERS, BROWN THRASHERS, EASTERN TOWHEES, and YELLOW-BELLED SAPSUCKERS are some of the migrants that have already arrived. Both EASTERN BLUEBIRDS and TREE SWALLOWS are searching for cavities and nest boxes. Hopefully you have cleaned out your nest boxes, but if not, get out there as soon as you can! So far, RUBY-THROATED HUMMINGBIRDS have not been spotted in Ohio, but they are making their way north this very minute. They will certainly be hungry when they arrive, so be sure to have your feeders washed and filled within the next few weeks.
For more information on bird migrational patterns, visit [http://ebird.org]. If you've never checked out eBird, it is worth a look-see. eBird is an online checklist program available to birders (from the novice to the professional), for recording bird observations. Visitors can search through the data, tracking when species arrive in certain areas, or where certain species can be viewed. There is also a page dedicated to birding hot spots, which are the best areas to visit to see birds. To track an individual species migration, click on 'Explore Data' then 'Species Maps'. Enter the species, time frame, and part of the world you are interested in to pull up a map of where that species has been spotted. Happy Birding!

Author: Marne Titchenell

G. A WALK ON THE WILDSIDE: GET A HEAD START ON MANAGING NUISANCE CRITTERS. As the temperatures warm and Ohio greens, deer and rabbits are switching their diets from woody plants to green leafy foliage and tender plant shoots. Be vigilant and keep an ever watchful eye open for damage. BYGL writer Marne Titchenell has already seen evidence of COTTONTAILED RABBITS nesting in her central Ohio backyard. Protect plants with egg and capsaicin (hot pepper) repellents. Perhaps you are thinking about adding some new plants to the landscape? If you’ve experienced deer damage in the past, consider planting less palatable species. A list of plants rarely damaged by deer can be found here: [http://njaes.rutgers.edu/deerresistance/].

RACCOONS and STRIPED SKUNKS are also on the move. They've woken from their winter slumber and are emerging from dens in search of food and mates. Now is the time to exclude these uninvited house guests from underneath porches, sheds, and other building foundations. Homeowners are able to live trap nuisance raccoons and skunks on their own property throughout the year without a permit. However, Ohio law states that trapped skunks and raccoons cannot be relocated off the property on which they were trapped. This law is in place to avoid the potential spread of harmful diseases. Homeowners must either euthanize the trapped animal or release it back onto their property. If assistance in removing and euthanizing trapped animals is needed, homeowners can hire a Nuisance Wild Animal Control Operator (NWACO). For a list of NWACOs by county, visit the Ohio Division of Wildlife’s homepage [www.wildohio.com] and click on 'Species and Habitats' then 'Nuisance Wildlife'.

CANADA GEESE have paired up by this time of year and many females are already sitting on nests with eggs. At this point, it is no longer effective to use harassment techniques to remove geese from an area. As this species is protected by law, nests or eggs cannot legally be harmed without a permit. Goose damage permits are issued by the Ohio Department of Natural Resources (ODNR), Division of Wildlife. Visit [https://apps.ohiodnr.gov/wildlife/goose/] to submit a Goose Damage Report, the first step in applying for a permit. Stay tuned for more information and tips on managing nuisance wildlife in future BYGL articles!

Author: Marne Titchenell

H. MEET THE EDUCATOR AMANDA BENNETT. Hello from Miami County! Meet Amanda Bennett, Agricultural and Natural Resources Extension Educator and Master Gardener Volunteer Coordinator in Miami County. Prior to her new position, Amanda worked in the county with Ohio Farm Bureau coordinating events to promote agriculture, policies, local foods, and education. Her experience in Extension includes work as a program coordinator on several special projects including leadership conferences, biofuels, and 4-H State Fair skillathons. Amanda is getting acquainted in her new role and has become involved with the Agronomic Crops Team, BYGL and looks for other ways to make an impact in her home county.

Amanda has a background in traditional agriculture including grain crops and animal production, but has a vested interest in horticulture, native plants and their relation to pollinators as she is a hobbyist beekeeper.

Author: Amanda Bennett
3. BUGBYTES.

A. EASTERN TENT CATS TO ARRIVE SOON. Joe Boggs reported that he had received an e-mail message from the "BYGL Early Warning System" (a.k.a. Larry Hanks, Pampered Properties, Lexington, KY) noting that overwintered eastern tent caterpillar (ETC) (*Malacosoma americanum*) eggs began hatching on 3/23 in Georgetown (Scott County), KY. ETC spends the winter in shiny, blackish-brown egg masses wrapped around twigs on their host plants. A close examination will reveal that the eggs are encased in a structure that resembles bubble-wrap. The accumulated Growing Degree Days (GDD) that predicts ETC egg hatch is 92. Joe reported that Cincinnati has reached 84 GDD meaning that ETC eggs are poised to begin hatching in southwest Ohio.

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; newly planted trees are particularly vulnerable. 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 caterpillar. These cats may only meow now, but they will roar later in the season!

Author: Joe Boggs

B. PITCH MASS BORER ON SCOTCH PINE. The handiwork of the pitch mass borer (*Synanthedon pini*) was observed last week on Scotch pine in a state park landscape in central Ohio. Caterpillars of this clearwing moth (Family Sesiidae) bore through the bark and into the phloem causing trees to ooze copious quantities of sap that forms sticky masses of pitch on the bark. The caterpillars then feed on the resin within these pitch masses. The oozing, dripping sap creates an unsightly, sticky mess and large numbers of caterpillars coupled with repeated infestations can severely stress trees making them susceptible to other problems.

The pitch masses are flecked with reddish frass (excrement) making them appear very similar to pitch nodules produced by ZIMMERMAN PINE MOTH (*Dioryctria zimmermani*). However, as the common name implies, the pine moth attacks pines including Austrian, Scotch, red, and white pine. The pitch mass borer will attack the same pine hosts as well as Norway and Colorado blue spruces. Making a positive identification between the two moths on pines may be challenging, particularly if caterpillars can't be found to aid in the identification. However, pitch mass borers produce an almost continuous flow of low viscosity sap that drips from the pitch masses. Since the caterpillars feed on the resin, they are most often found within the pitch mass or near the wound they create to keep the pitch flowing. The pitch that contributes to Zimmerman pine moth resin nodules tends to have a higher viscosity with little dripping from the nodules. Pine moth caterpillars are phloem feeders so they are usually found within feeding galleries gouged through the bark and into the phloem.

Pitch mass borer caterpillars require 2 - 3 years to complete their development. Adult moths emerge in early to mid-summer and females target stressed trees, wounded trees, and trees that have been previously infested. Indeed, the moths will frequently lay eggs on pitch masses produced by older caterpillars meaning that pitch masses may contain caterpillars of multiple ages. Management should focus on keeping trees healthy and avoiding mechanical injury. Pruning should be avoided during June and July when moths are laying eggs. While insecticide bark sprays may kill adult moths, caterpillars
feeding within the pitch masses will not be killed. Manually removing pitch masses and crushing the
caterpillars will reduce populations and aid in wound closure by the tree.

Author: Joe Boggs

C. HOME INVADERS EMERGE. We reported late last season (BYGL 2014-26, 9/25/14) that a number of insects that seek protected overwintering quarters in and around homes were practicing a little breaking-and-entering. The goal of these "cold-blooded" home invaders was to find sheltered locations where cool temperatures will slow their metabolism so they will not "burn up" their stored fat reserves. This strategy keeps them alive since there is nothing for them to eat throughout the winter. Occasionally these seasonal interlopers accidently find their way into homes from attics or outside walls. Although high temperatures doom the insects—they burn through their fat and starve to death—they can become significant nuisance pests as they frantically roam around in search of food or a way out.

In the spring, these fall home invaders reverse course with the intention of emerging into the great outdoors. However, lacking blueprints, the insects occasionally crawl into rather than out of homes. Two of the more common home invaders reported last fall in Ohio was the notorious BROWN MARMORATED STINK BUG (BMSB) (Halyomorpha halys), and the formerly very notorious MULTICOLORED ASIAN LADY BEETLE (MALB) (Harmonia axyridis).

MALB first made its disturbing debut in Ohio in October, 1993, when residents began reporting that thousands of beetles were congregating on the sides of homes and other buildings. Reports from throughout the state of large numbers of MALB entering homes became common throughout the 1990’s and into the early 2000’s; however, for reasons unknown populations began to decline in the mid-2000’s and numbers eventually receded to such an extent that MALB was seldom a problem by 2007. In 2013, MALB began making a comeback with high numbers reported in southern Ohio. The resurgence continued last season with home invasions reported in several other areas of the state. BMSB, which is also an Asian import, was first reported in 1998 in Allentown, PA, but the bug did not reveal itself as a serious nuisance or fruit and vegetable pest until the early 2000’s. Eventually, unrelenting home invasions became a yearly event in a number of northeastern states but peaked in the Mid-Atlantic States in 2012. However, at about this same time, BMSB began making consistent appearances in several areas of Ohio, particularly in the central and eastern parts of the state. Since that time, bug populations have continually risen with other areas of the state also affected.

The best way to deal with these footloose nomads is to prevent them from gaining entry in the first place. Insect exclusion efforts include finding and sealing-off entry points such as cracks around windows, doors, or utility pipes. Poorly attached home siding and rips in window screens provide an open invitation. Check homes for unprotected vents, such as bathroom and kitchen vents, or unscreened attic vents. Also, while in the attic, look for openings around soffits. The large opening created by a worn-out exterior door sweep may as well have a flashing neon "Enter Here" sign hanging above it. Leave the garage door up? Say hello to our little friends! An ounce of prevention is worth a pound of bugs.

Once inside the home, swatting or otherwise smashing these insects can release a lingering eau de bug; lady beetles have stinky blood and stink bugs are called stink bugs for a reason!

The best method to manage invading BMSBs is to collect and kill them. A handy bug collector can be made by cutting about 1/4th off the top of a plastic water bottle, reversing the cut top, and inserting it into the open bottom of the bottle to create a funnel collection trap. Easing the trap edge up beneath a bug will cause it to drop through the funnel into the bottom. Soapy water added to the bottom will drown the collected bugs. Vacuuming is the best option for dispatching MALB and is the second best method for BMSB because the bugs more freely release their odor. However, make certain that the vacuum cleaner is "fan by-pass" type, meaning refuse is not passed through an impeller. Do not use a "direct-fan" vacuum cleaner with the impeller in front of the collection bag; these vacuums become horrifying bug-blenders!
4. DISEASE DIGEST.

A. SMOOTH PATCH DISEASE. Smooth patch disease is a condition of the outer bark of some conifers and several deciduous tree species, especially white oak (*Quercus alba*). The disease is caused by the fungus, *Aleurodiscus oaksii*. The disease seems to only impact the outer most layers of the bark on infected trees. Infected areas of bark eventually loss the outer layers resulting in sunken patches of smooth bark. These patches may appear as small circular spots to patches that reach completely around the circumference of the trunk and extend several feet up the length of the trunk. The areas smoothed by the fungus also tend to be a lighter in color compared to the intact, original bark surfaces.

The smooth patch fungus appears to be restricted to the dead layers of the outer bark and does not invade living tissue under the bark or deeper into the tree. Thus, to the best of our knowledge, smooth patch is only a saprophyte on the bark, not a parasite, and does not adversely harm the tree.

The fungus is at times visible in the smooth patch area of the bark. Reproductive structures (fruiting bodies) emerge on the surface of the bark after periods of wet weather. They are small, 1/8" - 1/4" in diameter, flat, leathery discs that are typically curled at the edges, and light-tan to light gray colored. One has to look very closely in the affected area to spot the fungus. They are sometimes mistaken for lichens. In dry weather, the fungal fruiting bodies shrivel and become much more inconspicuous.

5. TURF TIPS.

A. GROUND-NESTING BEES ON THE WING. Overwintered ground-nesting bees are becoming active in southwest Ohio. Although there are a number of species of ground-nesting bees representing several hymenopteran families, the species currently on the wing belongs to the family Andrenidae. The common name for this family is "mining bees," however, these important native pollinators are most often called "ground-nesting bees," as well as "burrowing bees," or "digger bees" owing to their soil excavating nesting habit. The small (3/16 - 3/4" long) black bees have narrow white stripes across their abdomens, one stripe per abdominal segment.

The female bees dig individual burrows several inches deep into the soil. They prefer to nest where the soil is lightly exposed due to sparse vegetation such as areas with weakened turfgrass. Each burrow consists of a hole about the diameter of a wooden pencil surrounded by a mound of loose, excavated soil particles. The size, shape, and color of the soil particles may cause the mounds to be mistaken for those produced by ants. The loose soil particles may disappear after a heavy rainfall leaving only the hole. The females become receptive to mating after they provision their burrows with wads of pollen to nourish their larvae.

These are very effective pollinators and understanding their behavior may reduce fear of these highly beneficial insects. For example, while these are solitary bees with no social structure, large numbers of females often locate their burrows in close proximity to one another giving the appearance of an organized colony. The males will cruise menacingly just above large collections of burrows; however, the males they lack stingers! While the females are busily digging and provisioning their burrows, the males buzz back and forth chasing other males and possible predators. This presents the appearance of a "swarm of bees," but it's all a rouse!

Since these are beneficial insects, management efforts should focus on making the environment less favorable for the bees rather than targeting these bio-allies with insecticide applications. The females prefer to excavate where the soil is expose by sparse vegetation. Turfgrass that is weakened and thin
due to poor management provides ideal conditions. Thickening the turfgrass through applying good management practices will create an environment less favorable for these bees. The bees will simply move to other locations.

Author: Joe Boggs

B. BLEACHED PATCHES OF GRASS. As turfgrass begins to “green up” and show signs of life, patches of bleached out grass are becoming very obvious in some lawns. These patches in some cases are turf that was damaged by PINK SNOW MOLD/MICRODOCHIUM PATCH (Microdochium nivale, formerly referred to as Fusarium nivale). Pink snow mold-damaged turfgrass appears as sunken, flattened, matted, tan-colored patches of grass. However, another type of off-colored patch of grass is one that is due to the presence of a different species of grass, NIMBLEWILL (Muhlenbergia schreberi).

Nimblewill is a warm-season perennial grass. Thus, once it becomes established in a lawn, it will return each year in the same spot until it is eliminated. It is also a strong competitor, especially in turfgrass that is weakened by poor growing conditions (i.e. heavy shade, poor fertility, improper mowing heights, etc.) and spreads by stolons (above ground stems). Nimblewill also spreads by seeds; it flowers and produces seeds in late summer/early fall. Nimblewill often forms roughly circular spots in lawns.

Nimblewill is easy to spot in lawns right now because it greens up later in spring than the desirable turfgrass species (e.g. Kentucky bluegrass (Poa pratensis)). In areas of Ohio where turfgrass is just starting to grow again, the overwintered nimblewill stems and leaves are still taller than the rest of the grasses and looks like fluffy, bleached out cushions. On closer examination, the plants in these areas have thin, wiry stems with short, flat blades. They look as if they are completely dead; however the crowns and stolons are still green and alive close to the ground. They are also well-anchored and difficult to pull out.

Even after nimblewill begins actively growing, it still stands out from the other grasses because of its gray-green color that is much lighter in color than the surrounding grasses. And then in the fall, it goes dormant quickly and browns out before the other grasses.

Management of nimblewill is not easy as there is a limited selection of herbicides available. Pre-emergent herbicides have limited effect on nimblewill once it is established in a lawn because it is a perennial weed, although they will reduce the spread of the weed by seed.

Mesotrione (i.e. Tenacity) is a systemic herbicide that selectively controls nimblewill as well as several other grass and broadleaf weeds in lawns. It is safe to use in Kentucky bluegrass, perennial ryegrass, tall fescue, and fine-leaf fescue lawns. Tenacity herbicide is only available for use by lawn care professionals. When treated with Tenacity, nimblewill stops growing, turns white, and eventually dies. Three applications at 2 - 3 week intervals are usually necessary to completely remove nimblewill from a lawn. Tips of the desired turfgrasses can also be whitened by a Tenacity treatment, but plants will not be killed. The white tips are eventually removed through continued mowing of the grass.

A more drastic measure to remove nimblewill from a lawn is to treat the infested area with a non-selective, broad-spectrum herbicide such as glyphosate (e.g. Roundup) or to dig out the nimblewill along with the intermingled turfgrass. Go out a little farther around the actual patch of nimblewill when digging or spraying to ensure that you got it all. These are the “nuke” options that require replacement of the desired turfgrasses by seeding or sodding after the nimblewill is completely destroyed.

Author: Curtis E. Young

6. INDUSTRY INSIGHTS.
A. WHITE PINE WEEVIL WARNING. The accumulated GDD in Cincinnati, OH, had reached 83 as of Tuesday this week. The GDD that predicts the emergence of overwintered white pine weevil (*Pissodes strobi*) females is 84 which means these snout beetles are primed to spring forth in the southern part of the state. Overwintered females deposit eggs in the terminals of a wide range of conifers including: Douglas-fir; all spruces; and its name-sake host as well as Scotch, jack, red, and pitch pine. The resulting white, legless, slightly curved, grub-like larvae tunnel downward just beneath the bark, feeding on phloem tissue until pupation. The tops of weevil infested trees become wilted, turn brown, and die. Main leaders are often curved into a "shepherd's crook." There is one generation per year.

Trees may be protected by making topical applications targeting tree terminals using specially formulated "borer sprays" such as Onyx (bifenthrin) prior to the females laying their eggs. Populations may be reduced later in the season by removing and destroying infested terminals. A soil drench or soil injection application of imidacloprid (e.g. Merit, Xytect, etc.) in the fall has been shown be effective in protecting trees against white pine weevil infestations the following season. This application is generally considered economically feasible only for landscape trees and should be reserved for landscapes that have a history of white pine weevil activity.

Author: Joe Boggs

B. EMERALD ASH BORER FOUND IN 24 STATES. While the emerald ash borer (EAB) may seem like old news to many Ohioans, the exotic invader continues to make headlines nationally. This past February, a find in Louisiana brought the number of infested states to 24. Those states include: Michigan, Ohio, Indiana, Illinois, Maryland, Pennsylvania, West Virginia, Virginia, Missouri, Wisconsin, Minnesota, Kentucky, New York, Iowa, Tennessee, Connecticut, New Hampshire, North Carolina, Georgia, Colorado, New Jersey, Arkansas, and Louisiana.

Pam Bennett reported that ash trees in a particular area in Clark County were hammered by woodpecker activity this winter. The bark had fallen from the tree as the woodpeckers discovered the larvae. This activity is evident as an irregular and jagged hole can be found on the main trunk and larger branches where the birds have found their next meal. As the bark falls, the trunk and branches are lighter in color. Some describe the tree as "blonde." While some may think that this is damaging to the ash tree, the damage has already been done by the feeding of the larva underneath the bark.

Information on the emerald ash borer can be found on the regional EAB website managed by Michigan State University Extension through funding by the US Forest Service. The website can be found at [http://emeraldashborer.info]. FactSheets, bulletins, maps and recorded webinars are just a few of the things that can be found on the website. If you have additional questions about EAB in Ohio, you can contact Amy Stone at [stone.91@osu.edu].

Author: Amy K. Stone

C. CALL FOR COMMENTS ON ASIAN LONGHORNED BEETLE PROJECT. The U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) is seeking public comments on the draft programmatic environmental impact statement (EIS) for the Asian Longhorned Beetle (ALB) Eradication Program. The draft EIS analyzes the potential effects of eradicating ALB should the beetle be discovered elsewhere in the continental United States.

"While we hope ALB is not in other parts of the country, the environmental impact statement will help us to respond more quickly if there is a detection in a new area," states Osama El-Lissy, APHIS Deputy Administrator of Plant Protection and Quarantine. "We hope to obtain input from the public regarding any significant environmental impacts as well as reasonable alternatives for future ALB eradication efforts."

Once complete, the EIS will reduce the response time to act on new detections by allowing APHIS to tie subsequent area-specific environmental assessments to the EIS, and it provides the public with an analysis of the potential environmental impacts from the different ALB eradication alternatives available.
to APHIS. The EIS process ensures the policies and goals defined in the National Environmental Policy Act are integrated within continuing ALB eradication programs and actions, as well as any future infestations that may be discovered.

The draft EIS evaluates five alternatives and their potential effects on human health and the environment. The five alternatives include:

* No Action - APHIS would implement quarantine restrictions but no eradication program;

* Removal of Infested Trees - APHIS would implement quarantine restrictions and remove only ALB-infested trees;

* Full Host Removal - APHIS would implement quarantine restrictions and remove only ALB-infested trees, and all high-risk host trees up to a 1/2 mile radius of infested trees;

* Insecticide Treatment - APHIS would implement quarantine restrictions, remove all infested trees, and chemically treat all high-risk host trees with an insecticide up to a 1/2 mile radius of infested trees; and

* An Integrated Approach - APHIS would implement quarantine restrictions, remove infested trees, and use a combination of removal and insecticide treatments of high-risk host trees (preferred alternative).

ALB is a serious insect pest of certain hardwood tree species, and it can cause significant economic and environmental damage if it is allowed to establish and spread throughout the United States. The Program is a collaboration between federal and state agencies to identify and eradicate ALB infestations in the United States. To date, ALB outbreaks have occurred in five states: New York, Illinois, New Jersey, Massachusetts and Ohio. ALB has been eradicated from Illinois and New Jersey.

The draft environmental impact statement has been published in the Federal Register and any interested persons are invited to comment during the 45-day open-comment period. APHIS will consider all comments received on or before April 27, 2015. The draft programmatic EIS for the ALB Eradication Program may be viewed [here].

Comments regarding the draft environmental impact statement may be submitted by either of the following methods:


* Postal Mail/Commercial Delivery: Send your comment to Environmental and Risk Analysis Services, PPD, APHIS, Station 3D-06.21, 4700 River Road Unit 149, Riverdale MD 20737

For questions related to the ALB draft environmental impact statement, contact Dr. Jim Warren, Environmental Protection Specialist, Environmental and Risk Analysis Services, PPD, APHIS, 4700 River Road Unit 149, Riverdale, MD 20737; (202) 316-3216.

For more information about the Asian longhorned beetle, please visit [www.aphis.usda.gov] or [www.asianlonghornedbeetle.com] or call the ALB toll free hotline at 1-866-702-9938.

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 January 1 - March 31, 2015, with the exception of the soil temperatures which are readings from Wednesday, April 8, 2015 at 11:20 a.m.
Ohioans experienced a winter to remember in 2013/2014. While many were looking forward to a gentler and milder season in the winter of 2014/2015, it did not happen. Signs of spring seemed slow to start this year again, just as in the previous year. While snowfall totals didn’t exceed the amounts that fell last year, cold temperatures did remind us that we live in the Midwest. Record snowfall events in places like Buffalo, New York and Boston, Massachusetts had each of those cities seeing white and shovels, a regular fixture in the hands of their residents.

Year-to-date temperature averages at each of the weather stations listed below are below normal, and precipitation totals are lacking when compared to the normal precipitation totals. Much of the state is receiving rain this week which will be factored in as part of the next week’s weather report.

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<tbody>
<tr>
<td>Ashtabula</td>
<td>NE</td>
<td>31.2</td>
<td>12.7</td>
<td>3.75&quot;</td>
<td>6.2&quot;</td>
<td>51.83/43.80</td>
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<tr>
<td>Wooster</td>
<td>NE</td>
<td>34.4</td>
<td>14.9</td>
<td>5.89&quot;</td>
<td>8.9&quot;</td>
<td>51.86/50.54</td>
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<tr>
<td>Hoytville</td>
<td>NW</td>
<td>31.9</td>
<td>13.6</td>
<td>3.26&quot;</td>
<td>6.0&quot;</td>
<td>43.13/42.08</td>
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<tr>
<td>Columbus</td>
<td>Central</td>
<td>37.0</td>
<td>19.1</td>
<td>7.42&quot;</td>
<td>9.7&quot;</td>
<td>52.30/51.44</td>
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<tr>
<td>Piketon</td>
<td>South</td>
<td>41.2</td>
<td>19.1</td>
<td>8.14&quot;</td>
<td>9.8&quot;</td>
<td>55.30/53.35</td>
</tr>
</tbody>
</table>

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: [http://www.oardc.ohio-state.edu/gdd/].

The range of GDD accumulations in Ohio from north to south is 27 to 105. Following is a report of GDD for several locations around Ohio as of end of the day of April 8, 2015: Painesville, 27; Cleveland, 31; Toledo, 32; Canfield, 33; Findlay, 31; Van Wert, 34; Wooster, 39; Coshocton, 58; Columbus, 70; Springfield, 65; Dayton, 69; Cincinnati, 94; Ironton, 104; Portsmouth, 105; and Piketon, 104.

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; and border forsythia, full bloom, 116.

Author: Curtis E. Young

8. COMING ATTRACTIONS.

A. TREE SCHOOL. Tree School is an all-day workshop on all things trees! It takes place April 18, 2015 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 11
different educational sessions on a variety of tree-related topics - including tree planting, tree selection, pruning, landscaping for wildlife, and more! Registration is closing soon, so sign up now at [http://www.woodlandstewards.osu.edu]. Registration closes April 11, 2015.

B. SOUTHWEST OHIO BYGLIVE! DIAGNOSTIC WALK-ABOUTS. This is the 18th year for the Diagnostic Walk-About series in Southwest Ohio. The first 2015 BYGLive! Diagnostic Walk-About will be held Monday, April 20, 2015 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 and Landscape Architecture Continuing Education System (LA CES) CEU's for Landscape Architects will be available.

For more information and to register, visit [http://go.osu.edu/zs7]. You can also e-mail Joe Boggs [boggs.47@osu.edu] to learn more about this diagnostic training series.

9. BYGLOSOPHY. "The world is mud-lucious and puddle-wonderful." - E. E. Cummings

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
beelab.osu.edu

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

Ohio Woodlands 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 April 7th conference call: Amanda Bennett (Miami); Pam Bennett (Clark); Joe Boggs (Hamilton); Jim Chatfield (Plant Pathology); Julie Crook (Hamilton), Erik Draper (Geauga); Denise Johnson (Master Gardener Volunteer program); Ashley Kulhanek (Medina); Amy Stone (Lucas); Marne Titchenell (School of Environment and Natural Resources); Danae Wolfe (Summit); and Curtis E. Young (Van Wert).

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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BYGL is available online at: [http://bygl.osu.edu], a website sponsored by the Ohio State University Department of Horticulture and Crop Sciences (HCS) as part of the "Horticulture in Virtual Perspective." The online version of BYGL has images associated with the articles and links to additional information.

Where trade names are used, no discrimination is intended and no endorsement by Ohio State University Extension is implied. Although every attempt is made to produce information that is complete, timely, and accurate, the pesticide user bears responsibility of consulting the pesticide label and adhering to those directions.

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Keith L. Smith, Associate Vice President for Agricultural Administration; Associate Dean, College of Food, Agricultural, and Environmental Sciences; Director, Ohio State University Extension; and Gist Chair in Extension Education and Leadership.