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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 9th 2013 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 - NEW GUINEA IMPATIENS (Impatiens hawkeri). Bedding impatiens have held the title of #1 bedding plant for many years and along with the New Guinea impatiens "group," these 2 dominate the bedding market. New Guinea impatiens are very similar to the bedding impatiens in regards to bloom color; however, they have the added feature of colorful variegated foliage as well as the ability to tolerate a little more sun than bedding impatiens. New Guinea impatiens thrive in full shade or in a morning sun and afternoon shade situation. They don't tolerate full sun all day long, however. Moisture requirements are similar to bedding impatiens.

The variety of flower colors on New Guinea impatiens is almost overwhelming. They come in white and almost every shade of red, pink, salmon, and orange. In fact, if one tries to match the colors to the color of a home or the shutters, it's best to see the plants in full bloom because of all of the color variations. Recent breeding efforts have resulted in larger flowers and more of them on the 1’ rounded, mounded plants. In addition, cultivars show a variety of variegation on the foliage, including vivid yellow and green, red, yellow and green, and more. New Guinea impatiens can be planted in masses in beds, in containers, or in hanging baskets.

One final note, New Guinea impatiens (I. hawkerii) are resistant to downy mildew and are a good substitute for bedding impatiens (I. walleriana) in the shade.
*PERENNIAL - GARDEN LILIES (Lilium group). When garden lilies are in bloom, one has to stop and marvel at the intricacy and beauty of the flower as many of cultivars are quite bold and visible in the garden. Lilies are classified into 9 major groups based primarily on flower form and orientation. The Asiatic lilies are in Division 1 and have upward, outward, or downward facing flowers on stems anywhere from 2 - 7' tall. They are usually non-fragrant and bloom in early summer. Oriental lilies are in Division 7 and are generally fragrant with bowl-like or flat-shaped flowers that bloom in mid- to late summer. The Missouri Botanical Garden Kemper Center for Home Gardening has a listing of the different divisions and their habits at the following site [http://www.mobot.org/gardeninghelp/plantfinder/plant.asp?code=A462].

Lilies are true bulbs and are quite easy to grow. Plant the bulbs in well-drained soil as they do not tolerate wet areas. Lilies prefer to be planted in full sun. However, if the roots are shaded, they tend to thrive. If they are interplanted with other perennials, the perennials provide the shade for the roots and hide the foliage after the blooms decline. This works out great in the perennial garden as once the flowers petals fall, the remaining foliage doesn't provide a lot of interest. If one doesn't like the look of the plant when the petals fall, trim it back to the top of the foliage but leave the foliage until it turns yellow (sometime in the fall).

*WOODY - WHITE FRINGETREE (Chionanthus virginicus). This is a lovely small tree (15 - 20' and larger with age) with the ultimate in attractive late spring flowers. The Latin name literally means "Virginia snowy flower." These flowers are in frilly drooping panicles which are wonderfully aromatic. Virtually all fringetrees are dioecious, with males having the advantage of more aromatic blossoms but females with outstanding blue-purple fruits. Another name is Old-Man's Beard. The genus is in the Oleaceae family, along with ash, forsythia, lilac and privet. Plant in moist but well-drained, slightly acid soils.

*VEGETABLE - SWEET POTATO (Ipomoea batatas). This herbaceous vine, related to the flowering morning glory that graces many gardens, produces large starchy and sweet edible roots. Native to Central and South America, the sweet potato will succeed in areas that can provide a long warm growing season. In Ohio, sweet potatoes are started from "slips", rooted cuttings or sprouts from a growing vine. The slips are grown in southern states or greenhouse grown and shipped north during the proper planting season (late spring). Slips are planted 18" apart in rows 3’ apart. The vines quickly develop to cover the entire area crowding out most weeds. In recent years, sweet potato plants have also been available in local garden centers.

Sweet potatoes can be harvested beginning in late summer and harvest should be completed shortly after frost. Cold soil temperatures reduce the storage life of the sweet potato and rot organisms can quickly move from frosted vines to the roots. Dig carefully to avoid damaging the tuberous roots.

After harvest, the roots must be cured to develop their sweet flavor. After they are dried for a few hours, they are moved into a warm (85F) area with high humidity for two weeks. After this initial curing they can be stored long term in a cool area (55F).

Most varieties available are orange-fleshed ('Centennial', 'Georgia Jet', and the non-trailing 'Vardaman') but white-fleshed varieties might still be found. As a houseplant or school project, a sweet potato will grow an abundance of fine roots, leaves and vines from a tuberous root suspended in water. They can also be stored through spring to grow a crop of slips for next year's garden.

The term yam is often used interchangeably with sweet potato. Yams (Dioscorea spp.) are native to Africa and Asia and produce very large starchy tubers. They grow only in the tropics. However, because the two names are often thought to indicate the same vegetable, USDA labeling rules require "sweet potato" to be included anytime the word "yam" is used.

Ornamental sweet potatoes (also Ipomoea batatas) are selected for their foliage and growth habit and not for the eating or keeping quality of the roots. Additionally, pesticides used to grow ornamental sweet potatoes may not have been labeled for use on vegetables.

*WEED - JAPANESE KNOTWEED (Fallopia japonica; synonym = Polygonum cuspidatum). This aggressive, large perennial was once regarded as an ornamental plant. Now, it graces roadsides, fencerows and other unused
Japanese knotweed is a fast growing weed that will easily reach heights of 5 - 6' and take over large areas in a few years. It overwinters as an extensive system of underground rhizomes and will spread by seed to new areas.

New shoots are red. Mature plants have thick reddish stems, which are hollow and chambered, much like bamboo. Leaves are green and oval. Panicles of small white flowers are produced in late summer.

Because of the extensive underground network of rhizomes, Japanese knotweed is difficult to control. Repeated applications of a systemic broadleaf weed killer will eventually take care of the problem. As another option, continual removal of the stems will eventually starve the rhizomes; total coverage of the problem area with fabric or plastic mulch can achieve the same result.

2. HORT SHORTS.

A. DIGGING DEEPER - TREE TOPPING. Several BYGLers reported coming across a bizarre collection of newly topped trees during recent trips through southern Ohio; they noted the scene would make a tree-lover cry! The trees weren't topped to avoid tangling with utility lines. That's a different problem related to trees having been planted under power lines (= poor tree selection) or new power lines installed over existing trees. No one wants to be without power after a storm.

The trees weren't pollarded. Pollarding originated in Europe as a method to produce a continual supply of livestock feed or wood from the same trees. It has evolved into an established pruning practice most often performed on trees growing in formal gardens or urban landscapes. Pollarding may resemble tree topping to the untrained eye; however, rather than simply sawing off the main trunks and branches of mature trees (= topping), pollarding involves selective pruning of immature trees to achieve and maintain a desired size and shape.

Tree topping is the misguided practice of slicing off the tops and lateral branches of mature trees. Despite continued efforts by university educators and the professional tree care industry to educate the public that topping trees will eventually kill trees, the destructive practice remains. It is often based on well-meaning but misinformed tree management decisions. Most commonly, tree topping is an attempt to reduce the chances that trees will topple in a wind storm. Another reason given for tree topping is to produce more shade by thickening the canopy. In fact, topping trees will make the canopy thicker, but it's a temporary gain since making the canopy thicker actually increases the chances that the trees will topple in a wind storm!

When the trunk and main branches of a deciduous tree are cut off, the first thing the tree does is to re-grow the cut stems. However, rather than just re-growing one stem per cut stem, the tree replaces each lost main stem with multiple stems. This does mean more leaves for shade, but it also means more leaves to catch the wind ... to topple the tree. Some people call it the "sail effect." More leaves means more "sails"; it's just like what happens when a sailing ship unfurls more sails. Except more sails on a ship makes the ship go faster; however, more "sails" on a tree makes the tree more prone to toppling over!

How does tree topping kill trees? Trees cannot close the large wounds left by topping, particularly the horizontal wound left by topping the trunk. Instead, the xylem (wood) inside the tree remains exposed to the elements ... and exposed to wood rotting fungi! The fungi colonize the wood, the wood rot moves downward, and eventually the tree dies from the inside out. Of course, the rotted wood also makes the trees more susceptible to breaking apart in a wind storm. The bottom line is that rather than making trees less hazardous, tree topping actually make trees more hazardous!

3. BUG BYTES.

A. SWARMING HONEY BEES. A swarm of honey bees descended on OSU's main campus last week, bringing with it several calls and questions about swarms. Honey bee swarms can contain thousands of bees that have broken away from the original colony, including workers, drones and the original queen. Swarms are common in late spring and early summer, when hives may be overcrowded and congested. An old queen, a mild winter or a
cool, rainy spring can also trigger swarming. Swarming is a natural mechanism for the honey bee colony to reproduce itself. The workers and drones left behind in the original hive produce a new queen by feeding some larvae royal jelly with their food.

Swarms are not dangerous. Honey bees are only defensive near their nest. Prior to swarming, honey bees gorge themselves on food reserves. Even though swarms can contain thousands of honey bees, these bees do not have developing bees or food reserves to defend. They are unlikely to sting unless directly provoked.

Swarms often leave on their own within a day or two, and often within hours (the OSU swarm left before a beekeeper could be called to collect the swarm). The queen is at the center of the swarm. Her pheromones attract the other bees to her. A few scout bees will leave the swarm to seek out a suitable location for a nest, such as a cavity in a tree. When a location is found, the swarm will move to the cavity. The book "Honeybee Democracy" [http://press.princeton.edu/titles/9267.html] by Thomas Seeley provides a fascinating account of the dynamics behind honey bee swarms and swarm decision making.

Oftentimes, local beekeepers are willing to capture a swarm. To find a local beekeeper, contact the county bee inspector [http://press.princeton.edu/titles/9267.html] or local beekeeping association [http://www.agri.ohio.gov/divs/plant/apiary/Docs/2013%20COUNTY%20BEEKEEPER%20ASSOCIATION%20CONTACTS.pdf]. Many associations compile lists of local beekeepers who will capture nearby swarms. The beekeeper will place an empty container, such as a bee hive, at the base of the swarm, and shake or dislodge the bees from the swarm into the entrance. The now-occupied hive can be moved after dark, when the bees are done foraging and are less active.

Occasionally, honey bees will attempt to nest in house walls. The OSU Extension HYG FactSheet, "Honey Bees in House Walls" [http://ohioline.osu.edu/hyg-fact/2000/pdf/2079.pdf] provides detailed information on removing a honey bee colony from structures. Professional exterminators can also be hired to remove swarms or colonies nesting in structures.

B. BAGWORM EGGS HATCH. Joe Boggs reported that overwintered eggs of the COMMON BAGWORM (Thyridopteryx ephemeraeformis) have hatched in southwest Ohio. According to accumulated Growing Degree Days (GDD), the event was right on time with Cincinnati reaching the 630 GDD threshold for bagworm egg hatch over the weekend. Joe observed silk strands dangling from last season's female bags as well as 1st instar bagworms widely distributed on infested host plants. A percentage of the tiny 1st instar caterpillars will produce a strand of silk upon hatching from eggs. The silk catches the wind to transport the caterpillars to new locations. This method of distribution is known as "ballooning" and it is one of the reasons bagworms often appear on hosts that were not infested last season.

It is a common misconception that bagworms only eat evergreens; in fact, the caterpillars can feed on over 130 different species of plants including a wide range of deciduous trees and shrubs. Indeed, deciduous trees and shrubs are sometimes overlooked during bagworm inspections allowing the plants to become reservoirs for reinestation of neighboring evergreens.

The 1st instar bagworm caterpillars carry their bags held upward making them look like tiny dunce caps. The 2nd instar bagworm caterpillars, as well as all the succeeding instars, carry their bags held downward like pine cones. Late instar bagworms can be highly destructive, particularly to evergreens. The best way to avoid damage is to target early instar caterpillars for control.

Early instar bagworms can be effectively controlled using the biological insecticide Bacillus thuringiensis var. kurstaki (Btk) (e.g. Dipel, Thuricide, etc.). This is considered a biorational control method since the bacterium will not kill bio-allies such as predators and parasitoids. Once eggs begin to hatch, bagworm populations should be closely monitored since egg hatch can occur of an extended period of time. Btk is a stomach poison which means it must be consumed to kill the caterpillars, and its residual activity is very short-lived. Thus, two applications may be required. The efficacy of Btk declines once bags reach 3/4". University research has also shown that a soil drench application of dinotefuran (e.g. Safari) or products containing clothianidin are also effective against early instar caterpillars. Likewise, these systemic insecticides will have a limited impact on bio-allies.
C. GALLING REPORT. BYGLers reported observing several types of plant galls this week on trees in Ohio. Plant galls are abnormal plant growths produced under the direction of a wide range of gall-makers including arthropods (e.g. mites and insects) as well as fungi, bacteria, and nematodes. Despite their often unusual appearance, few plant galls cause significant harm to the overall health of their host trees. Indeed, Joe Boggs contended the galls actually add ornamental value to the affected trees; beauty is in the eye of the beholder.

The hairy, elongated, ELM POUCH GALLS produced by the aphid, Kaltenbachiella (= Pemphigus) ulmifusus, are rising from the upper leaf surfaces of several species of elms. Two types of prominent leaf galls are appearing on hickory. Jim Chatfield and Curtis Young reported that the round, button-like leaf galls produced by the midge fly, Caromyia caryae, may be found on hickory trees in northeast and northwest Ohio, respectively. Joe noted that the fuzzy, egg-yolk colored leaf galls produced by a member of the Phylloxeridae family, Phylloxera caryaeglobulis, are appearing on hickory in the southwest part of the state.

The handiwork of several gall-making mites in the family Eriophyidae is also becoming evident. These include the light-green to reddish-green, finger-like MAPLE SPINDLE GALLS on the upper leaf surface of sugar maple, caused by the eriophyid Vasates aceriscrumena, and on the upper leaf surface of black cherry, caused by the "cherry-ophyid mite" Phytoptus cerasicrumena. The light-green to deep-red, globose, MAPLE BLADDER GALLS produced under the direction of the eriophyid mite, V. quadripedes, are adorning the upper leaf surfaces of some red and silver maples.

Joe reported finding an eriophyid-induced bladder gall on walnut that he had never seen before. Deep green knob-like bladder or pouch galls were growing from the upper leaflet surfaces. As the galls mature, they appear to break open almost like popcorn to reveal tufts of silvery-white hairs. The change in appearance was so dramatic that Joe indicated he first thought the tree had two types of gall-makers. The eriophyid mite responsible for the galls was tentatively identified as Eriophyes brachytarsus; however, Joe could only find reports of this eriophyid occurring on California black walnut trees, not eastern black walnut.

D. WINDSHIELD WIPES. BYGLers also ran into a number of other insect pests this week including:

* Curtis Young and Joe Boggs reported that FOURLINED PLANT BUG (Poecilocapsus lineatus) nymphs are nearing the final instar stage in northwest and southwest Ohio, respectively. This means that damage will continue to escalate since both the nymphs and adults produce the same feeding symptoms. The bug injects enzymes into the plant causing cells to collapse. The damage appears as small, round, black sunken spots which may coalesce into extensive blackened areas on infested leaves; symptoms are commonly mistaken for a plant leaf disease. The bugs feed on over 250 herbaceous plant species. The appropriately named adults vary from yellow to green in color and have four black stripes down the wings. The quick-moving nymphs are reddish-orange with black wing-pads. Thankfully, there is one generation per year in Ohio.

* Curtis also reported observing AZALEA LACE BUG (Stephanitis pyriodes) nymphs crawling about on their namesake host in eastern Ohio. Like all lace bugs that infest evergreens, azalea lace bugs spend the winter in the egg stage on leaves and stems. This means damage appears early in the season soon after egg hatch. Both the nymphs and adults use their piercing/sucking mouth parts to feed on the underside of the leaves. Their feeding damage produces tiny yellow or whitish spots (stippling) on the upper leaf surface. Lace bugs also deposit unsightly hard, black, varnish-like spots of excrement onto the leaf surface as they feed. Heavy feeding from large infestations may result in large, yellow, blistered areas on leaves, chlorotic, yellowed leaves and early leaf drop. Damaging populations can be controlled by applying a properly labeled insecticide to the underside leaf surface.

* The name "snipe" may invoke memories of night time expeditions into the woods to hunt for an elusive creature conjured-up by seasoned campers ... at the expense of neophyte campers. However, Joe reported observing a real-life snipe that may be found zipping about (during the daytime) in the deep woods of Ohio: the GOLDEN-BACKED SNIPE FLY (Chrysopilus thoracicus). Both the common and scientific names are highly descriptive. The top of the thorax ("back") is covered in highly reflective golden colored hairs; "Chrysopilus" means "golden hair." The fly's body and wing veins are bluish-black and the abdomen has lateral white markings.
Little appears to be known regarding the fly's life-style. Some reports indicate the fly is predaceous on other insects in the adult stage, while other reports suggest this is a type of "biting fly" that will take blood meals from animals, including hikers! However, Joe noted that the flies never behaved as a biting fly and speculated the nefarious reputation may have grown from "snipe" stories told around campfires by seasoned campers, at the expense of neophyte campers.

4. DISEASE DIGEST.

A. RUST NEVER SLEEPS. As we frequently note, rust diseases are many, with nearly 8000 species of rust fungi described worldwide. Rusks are some of the most famous plant diseases, from coffee rust to cedar apple rust, from black stem rust of wheat to white pine blister rust. In recent weeks, BYGLers have noted white pine blister rust in Michigan woods, rust of buckeye (presumably caused by *Puccinia andropogoni*) in the Akron area, leaf rust of wild geranium (*x* on *x*) at the Augusta Ann Olsen State Nature Preserve near Wakeman in northern Ohio, and ORANGE RUST OF BRAMBLES from several locations.

Orange rust (caused by *Arthuriomyces peckianus*) is so serious to black raspberry and blackberry growers (red raspberries are not affected) because the fungus becomes systemic and perennial, causing stunting, spindly growth and poor fruit production...and what would the good life be without spring and summer bramble berries? This rust fungus is particularly spectacular with its pustules of orange spores that first appear waxy and then powdery, are seen this time of year. The best control approach is to rogue out all infected plants in raspberry and blackberry plantings, and any wild brambles in woodlands, fence lines and along roadways in the surrounding area. For more detailed information on the disease cycle check out the OSU Fact Sheet at: [http://ohioline.osu.edu/hyg-fact/3000/pdf/HYG_3010_08.pdf](http://ohioline.osu.edu/hyg-fact/3000/pdf/HYG_3010_08.pdf).

B. NEW THOUSAND CANKERS DISEASE (TCD) FACTSHEET ONLINE. OSU Extension HYG FactSheet 3313-13, Thousand Cankers Disease, has been posted online. You can download a PDF version at [http://ohioline.osu.edu/hyg-fact/3000/pdf/HYG_3313_13.pdf](http://ohioline.osu.edu/hyg-fact/3000/pdf/HYG_3313_13.pdf). The FactSheet's authors are Anna Conrad, Enrico Bonello and Nancy Taylor.

The presence of this disease in Ohio has not been confirmed, although the beetle which transmits the pathogen was detected in a single location in late 2012. If you are interested in learning more about TCD, a workshop is planned for Wednesday, July 31, 2013 in Butler County. See the Upcoming Events section of BYGL for further details.

5. TURF TIPS.

A. TURFGRASS FUNGICIDES. Joe Rimelspach reported that an updated table of fungicides available for use on turfgrass has been posted to OSU Turfgrass Disease webpage at: [http://turfdisease.osu.edu/](http://turfdisease.osu.edu/). Also available on the same webpage is a section of OSU Extension Bulletin L-187, Management of Turfgrass Diseases [http://turfdisease.osu.edu/sites/drupal-turfdisease_web/files/L-187-2011%20from%20kim%2004.11.11.pdf](http://turfdisease.osu.edu/sites/drupal-turfdisease_web/files/L-187-2011%20from%20kim%2004.11.11.pdf). Visit the turfgrass disease webpage as well as the Buckeye Turf webpage ([http://Buckeyeturf.osu.edu](http://Buckeyeturf.osu.edu)) for numerous updates, articles, videos and publications on turf management in Ohio.

6. INDUSTRY INSIGHTS.

A. EMERALD ASH BORER ADULTS TAKE FLIGHT. Joe Boggs reported seeing adult emerald ash borer (EAB) in southwest Ohio. The first emergence of this invasive species coincides with the blooming of black locust. Adult beetle activity typically peaks mid-June to mid-July depending upon your location and the season, but adults can usually be found into August.

Once EAB is found in a county, the Ohio Department of Agriculture (ODA) does not continue to update maps with each additional find. Instead, we are urging everyone to report infestations using the Great Lakes Early Detection
(GLED) App. The Smartphone App, for both Androids and iPhones, allows user to submit photos along with GPS coordinates. Once confirmed, the data submitted by the app's users goes into the web-based Early Detection and Distribution Mapping System [http://www.eddmaps.org/], which tracks the location and spread.

The app also includes invasive plants (including trees, vines, shrubs, herbs, grasses and forbs such as wildflowers), fishes, insects, mammals, mollusks, crustaceans and plant diseases. The network covers the states of Ohio, New York, Illinois, Indiana, Wisconsin, Michigan, Minnesota and Pennsylvania. To download, check out this link at [http://go.osu.edu/GLEDN].

B. GET YOUR GREEN INDUSTRY FIX WEBINAR II. Topics covered at the last Fix (Wednesday, May 8) included proper pruning techniques and the horror of poor pruning practices, and the invasive species of hemlock woolly adelgids and the downy mildew of impatiens pathogen. To get the training material updates from this ongoing ONLA and OSU webinar series - from business issues such as the Imprelis damage compensation class actions being wrapped up by June 28 by DuPont to the importance of P (phosphorus) for plant growth and development - keep tuned to the monthly webinars and the weekly BYGL. Register for the webinars by calling the Ohio Nursery Landscape Association at 614-899-1195 or 800-825-5062. The next Webinar is coming soon on June 12, 2013 from 8:00 a.m. - 8:50 a.m.

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 May 1 - 28, 2013, with the exception of the soil temperatures which are readings from Tuesday, May 28, 2013 at 11:20 a.m.

While still running at a deficit at each of the five weather stations for the month of May, many areas across the state have been on the receiving end of recent rains. Stay tuned to next week's weather report to see if we have gained ground in the precipitation column.

The other weather news that occurred this past week was a five-letter word: FROST. While it was mainly a northern Ohio occurrence, reports of frost on the turf to toasted tender foliage were made on the BYGL call earlier this week.

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<td>Ashtabula</td>
<td>NE</td>
<td>69.1</td>
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<td>3.0&quot;</td>
<td>64.52/60.85</td>
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<td>48.4</td>
<td>1.29&quot;</td>
<td>3.5&quot;</td>
<td>59.21/58.47</td>
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<td>50.1</td>
<td>0.69&quot;</td>
<td>3.1&quot;</td>
<td>65.35/59.51</td>
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<td>1.01&quot;</td>
<td>3.9&quot;</td>
<td>63.38/63.06</td>
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<td>74.2</td>
<td>51.6</td>
<td>1.82&quot;</td>
<td>4.0&quot;</td>
<td>69.41/67.69</td>
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For a link to the OARDC Weather Stations, visit: [http://www.oardc.ohio-state.edu/centernet/weather.htm].

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 516 to 725. Following is a report of GDD for several locations around Ohio as of May 29, 2013: Painesville, 516; Cleveland, 543; Toledo, 568; Canfield, 553; Findlay, 580; Van Wert, 586; Wooster, 567; Coshocton, 653; Columbus, 717; Springfield, 673; Dayton, 677; Cincinnati, 708; Ironton, 718; Portsmouth, 725; and Piketon, 719.

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 website, one can see what is taking place in the landscape.

Smokebush, first bloom, 501; arrowwood viburnum, first bloom, 534; American yellowwood, first bloom, 546; **bronze birch borer, adult emergence, 547**; black locust, full bloom, 548; American holly, first bloom, 556; mountain laurel, first bloom, 565; **potato leafhopper, adult arrival, 568**; juniper scale, egg hatch, 571; common ninebark, full bloom, 596; American yellowwood, full bloom, 599; arrowwood viburnum, full bloom, 621; multiflora rose, full bloom, 643; northern catalpa, first bloom, 675; **black vine weevil, first leaf notching due to adult feeding, 677**; Washington hawthorn, full bloom, 731; and **calico scale, egg hatch, 748**.

8. COMING ATTRACTIONS.

A. OHIO'S INVASIVE SPECIES SERIES, JUNE 2013, OSU MANSFIELD CAMPUS. Invasive species come in all shapes and sizes. Whether a plant, insect, fungus or vertebrate, each invasive species impacts their segment of the ecosystem in different ways. This seminar series focuses on some of the key issues associated with non-native, as well as how to identify them and deal with them in your own backyard.

*June 4 - This evenings topic will cover two non-native invasive insects impacting Ohio's trees. Learn how to identify emerald ash borer (EAB) and Asian longhorned beetle (ALB) and understand their impact on your trees.*

*June 11 - While EAB and ALB have gotten a lot of attention lately, there are still other non-native pests that you should be aware of. This seminar will cover gypsy moth, thousand canker disease on black walnut, viburnum leaf beetle and hemlock wooly adelgid.*

*June 18 - Non-native invasives don't impact just our trees. This evening seminar will focus on the impacts non-native invasives have on wildlife and the wood products our woodland produce.*

*June 25 - The last seminar session will focus on specific non-native invasive plants. Characteristics for identification will be covered along with control options.*

Registration for each seminar is $15 OR register for all 4 seminars for $45. Information can be found on the website at [http://woodlandstewards.osu.edu](http://woodlandstewards.osu.edu).

B. DIAGNOSTIC WALKABOUT FOR THE GREEN INDUSTRY series is once again occurring around Ohio this summer. ONLA, AGI and OSU Extension will be hosting 7 of these events in 2013: June 6, Cleveland Metroparks Zoo; June 27, BGSU Firelands, Huron; July 18, Mingo Park, Delaware; August 1, Stan Hywet Hall and Gardens, Akron; August 15, Toledo Botanical Gardens; September 12, Inniswood Metro Gardens, Westerville; September 26, Sunset Memorial Park, North Olmsted. Pre-registration is required and class size is limited to 30 per class. ODA, ISA and OCNT credits available. For registration, location and pesticide credit information see: [http://www.onla.org](http://www.onla.org).

C. TCD WORKSHOP. On Wednesday, July 31, 2013, a workshop will be held in Hamilton, Ohio to discuss THOUSAND CANKER DISEASE ON WALNUT. The program will be held at the Butler County Extension and include both an indoor and outdoor portion. Information, including a flyer about the workshop can be found on the Woodland Stewards website at [http://woodlandstewards.osu.edu/](http://woodlandstewards.osu.edu/). The workshop runs from 9:00 a.m. - 3:45 p.m. Registration cost is $20.00 per person. Questions about the program can be directed to Kathy Smith at 614-688-3136.

9. BYGLOSOPHY. "A society grows great when old men plant trees whose shade they know they shall never sit in." - Greek Proverb

APPENDIX - ADDITIONAL WEBSITE RESOURCES:

Ask a Master Gardener Volunteer (Consumer Gardening Questions) [http://mastergardener.osu.edu/ask](http://mastergardener.osu.edu/ask)
Buckeye Turf
http://buckeyeturf.osu.edu

Emerald Ash Borer Information
http://ashalert.osu.edu

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

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

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

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 May 28th conference call:  Joe Boggs (Hamilton); Jim Chatfield (Hort and Crop Science); Julie Crook (Hamilton); Francesca Peduto-Hand (Plant Pathology); Tim Malinich (Erie); Amy Stone (Lucas); Nancy Taylor (C. Wayne Ellett Plant and Pest Diagnostic Clinic); Anastasia Tonti (OSU MS Student); Curtis Young (Van Wert); Randy Zondag (Lake).

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

BYGL is a service of OSU Extension and is aided by support from the ONLA (Ohio Nursery and Landscape Association) [http://onla.org/; http://buckeyegardening.com/] to the OSU Extension Nursery, Landscape and Turf Team (ENLTT). Any materials in this newsletter may be reproduced for educational purposes providing the source is credited.

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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