BUCKEYE YARD AND GARDEN LINE 2012-06
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This is the 6th 2012 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 - PETUNIA (Petunia spp.). Many people are not fond of petunias because they are high maintenance - deadheading being the number 1 necessary task. Today's petunias are not your grandma's petunias. In fact, there have been such great strides in breeding that these petunias might just convince even the most die-hard, anti-petunia person to come back to the pro-petunia side! There are so many wonderful varieties on the market today that don't require deadheading and look fantastic all season, thriving until a hard frost.

Field trials such as those at the Gateway Learning Gardens (OSU Extension office in Clark County), on OSU main campus, and at the Cincinnati Zoo all show top ratings for most petunia varieties. Some of the top performing varieties include: Surfinia, Supertunia, Wave, Cascadia, Madness, and many more. In fact, there are so many more that it becomes overwhelming when trying to select the best varieties. Check out field trial sites in order to see these plants and their growth habits and performance during the season. Once one sees these new varieties and how great they look with very little maintenance, they may become convinced that petunias are good. One note, if there are rabbits in the gardens, protect newly established plants from these critters. Once they are grown and have a bit tougher foliage, these pests tend to leave them alone.
*PERENNIAL - BEARDED IRIS (*Iris* spp.). This hardy and vigorous perennial requires that one get up close and personal with the flower to really appreciate why it's called a bearded iris. A close inspection reveals the "beard" of hairs that are in the center of the falls. The downward curving petals are called falls and serve as a landing pad for pollinators. The fuzzy beards help the pollinators to hang on as they navigate their way to the luscious nectar in the center. The upright petals are called standards and they serve as flags to attract pollinating insects.

*Iris* breeders have developed a myriad of colors and color combinations. The plants prefer full sun and good drainage for best results. In addition, Irises are pretty tough plants as is evidenced by stands of them still blooming in abandoned farmsteads and homes. Don't mulch over the rhizomes as this may lead to potential rot of the rhizomes. After blooming, the plant enters a period of semi-dormancy; too much water at this time can lead to rot of the rhizomes. Once the bloom dies, cut the entire flower stalk back to the base of the plant. Some varieties of bearded iris are considered "reblooming." Once you cut the flower stalk off, the plant sends up another bloom for later in the season.

The most common pest of bearded iris is the iris borer, which can devastate a planting. Good cultural practices, including keeping the bed clear and free of debris that harbors overwintering eggs of iris borers, help to reduce potential pest problems.

*WOODY - TULIPTREE (Liriodendron tulipifera). As a large tree reaching heights of 70-100' and a spread of 35-50', the tuliptree is a good selection for a large area where it can fully grow and develop. This tree can be somewhat weak-wooded and may break apart in ice and severe storms, thus giving us another reason for not planting this tree in small residential property sites. Tuliptrees prefer a deep, moist, well-drained soil. This tree also prefers a slightly acidic soil but can adapt to the pH of most of Ohio's soils. The flowers bloom in May to early June and resemble the tulip flower. The tuliptree has the largest solitary flower of any native tree in Ohio. The beautiful flowers typically only occur in the upper canopy of the tree making this display go unnoticed for the passerby. Tuliptrees are hardy in zones 4-9.

*VEGETABLE - THYME (*Thymus* spp.). According to Allan Armitage, in "Herbaceous Perennial Plants, A Treatise on their Identification, Culture, and Garden Attributes," there are over 350 species of thyme that are used as ornamental plants. Found growing naturally on the banks and hillsides throughout the Mediterranean and the British Isles, thyme prefers full sun and outstanding drainage. They rot quickly if soils remain damp. The leaves are usually quite small, less than 1/2' long and oval-shaped. The flowers are usually lavender to pink and are full of nectar as the bees are always working them.

As thyme plants age, they tend to develop woody stems. Cutting them back in the spring every so often keeps them looking their best. Thyme can be used in the landscape or perennial border as a ground cover, in the vegetable or herb garden for culinary uses, in the rock garden, or between stepping stones (walk on it for the great fragrance - it won't hurt the plant!).

*WEED - COMMON REED GRASS (Phragmites australis). Common reed grass is a tall perennial wetland grass that reaches heights of 15'. This non-native grass was thought to be introduced into North America in the early 20th century. While a native common reed grass exists in the United States the introduced strain is much more invasive than the native. The non-native strain grows well in areas that are stressed, such as roadside areas and polluted waterways. The invasive strain of common reed grass competes with other more desirable plants and provides little food or shelter for wildlife. The non-native common reed grass is found throughout the United States. In Ohio, the non-native common reed grass is found in many parts of northern Ohio and more recently has been found to be migrating to parts of Southern Ohio.

Controlling common reed grass is difficult. The plant produces horizontal rhizomes that grow on or beneath the ground. These rhizomes, which allow the plant to form large growing areas, then produce roots and culms (stalks). Mechanically removing the plants should be done early in the growing season with cut stalks removed entirely from the area to ensure no regrowth. Herbicide applications are shown to be effective in the fall. For both control measures several years of management will be needed to ensure plants are eradicated from the site.
2. HORT SHORTS.

A. 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 402 to 709. Following is a report of GDD for several locations around Ohio as of May 10, 2012: Painesville, 402; Cleveland, 444; Toledo, 505; Canfield, 461; Findlay, 517; Van Wert, 527; Wooster, 495; Coshocton, 570; Columbus, 650; Springfield, 613; Dayton, 619; Cincinnati, 678; Ironton, 707; Portsmouth, 709; and Piketon, 676.

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.

Holly leafminer, adult emergence, 375; Vanhoutte spirea, full bloom, 406; euonymus scale (first generation), egg hatch, 406; black cherry, full bloom, 419; Miss Kim Manchurian lilac, first bloom, 422; locust leafminer, adult emergence, 437; doublefile viburnum, full bloom, 444; black locust, first bloom, 467; common ninebark, first bloom, 478; oystershell scale, egg hatch, 497; 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; calico scale, egg hatch, 748; and greater peach tree borer, adult emergence, 775.

B. IS THAT WILDLIFE BABY REALLY AN ORPHAN? Spring to early summer is the time of year when one may stumble upon a nest or den of young wildlife babies. Perhaps it's a tightly woven grass nest filled with tiny, newly hatched birds or possibly a small depression under a bush-lined with fur and filled with 4-5 young and fuzzy rabbit kits (baby rabbits are called kits, which is short for kitten). Many times, the parents are absent when wildlife young are stumbled upon, and unless something is amiss, for example a nest knocked out of a tree or wounds/bleeding present on the young, the best thing you can do is leave the babies alone.

Many times, the parent or parents will leave their young alone to search for food. For example, female cottontail rabbits will often leave their kits alone yet concealed while she feeds during the day, only returning at night to care for them. Female deer also employ this same strategy, which also serves to protect the young from being found by predators.

Sometimes wildlife babies appear incapable, but are in fact self-sufficient. Rabbit kits mature very quickly, leaving the nest after 3 weeks as small (and very cute) versions of their parents. A small baby rabbit with erect ears and open eyes does not need assistance. Neither does a young bird with feathers fully covering their body. At this point, the young bird is a fledgling and learning to fly. Although it may appear to be alone, the parent(s) is often nearby to help if there is trouble. On the other hand, nestling birds that lack feathers and are covered with down are not able to fly or perch on their own. These nestlings should be placed back in their nest, or if the nest has been destroyed, a new nest can be constructed.

Wildlife parents are generally very committed to their young and will usually only abandon them if there is an injury or death. Be sure to give the parents plenty of time to recover their young. If the young animal is not
recovered, or if there are injuries present, contact a wildlife rehabilitator. A list of country rehabilitators is available on the Ohio Division of Wildlife's website (see link below).

3. BUG BYTES.

A. ODA ADDS SECOND OHIO COUNTY TO THE HEMLOCK WOOLLY ADELGID QUARANTINE. The Ohio Department of Agriculture (ODA) and the Ohio Department of Natural Resources (ODNR) announced on May 7, 2012 a discovery of a hemlock-killing pest in Washington County in southeast Ohio. Hemlock woolly adelgid (HWA) is a small, aphid-like insect native to Asia that threatens the health and sustainability of eastern hemlock and Carolina hemlock in the eastern United States.

HWA was first reported in the eastern United States in 1951 near Richmond, Va. By 2005, it was established in portions of 16 states from Maine to Georgia, where infestations covered about half of the range of hemlock. The infestation was confirmed in Washington County after citizens reported suspicious hemlocks to state officials from ODA and ODNR. At this time, 404 hemlocks out of approximately 1,025 hemlocks surveyed were found infested. Further surveys will be conducted in the surrounding areas to determine the scope of the infestation. HWA is primarily transmitted by wind and birds. Officials believe the finding in Ohio is the result of natural spread from nearby areas where the pest is established.

This is the second time HWA has been detected in a naturally occurring stand of hemlock in Ohio. In January an infestation was found in eight hemlocks in Shade River State Forest in Meigs County. At this time, ODA will move to expand its hemlock quarantine to include Washington and Meigs counties. Ohio's updated quarantine, enforced by the ODA's Plant Health Division, would add the two infested Ohio counties to the 30 counties declared infested in other states.

Ohio regulations that cover the transportation of hemlock materials restrict any hemlock plant material from counties known to be infested from entering non-infested counties in Ohio. Hemlock materials grown in non-infested counties in quarantined states must be inspected and shipped with a phytosanitary certificate, which verifies that the material is free of HWA, before it can enter Ohio.

For more information about the HWA and Ohio's quarantine, visit [www.agri.ohio.gov].

B. HORNED OAK GALLS. Joe Boggs reported that a fascinating time-sensitive gall event has occurred in southwest Ohio, the emergence of the "horns" that give horned oak galls their common name. The gnarled, woody galls are formed on the twigs of pin oak under the direction of a tiny wasp, Callirhytis cornigera (Family Cynipidae). These stem galls may completely encircle twigs and incorporate all of the vascular tissue within the gall structure. These are one of the few oak galls that can cause significant harm to their tree hosts by disrupting vascular flow to and from the portion of the twig beyond the gall. The life cycle of the wasp includes alternating generations that give rise to two distinct types of galls produced by two types of female wasps.

The current crop of woody stem galls that have reached maturity in southern Ohio were started 33 months ago by a generation of wasps that included both males and females. The mated females laid their eggs into stem tissue. The resulting stem galls are communal and may house anywhere from 1-160 wasp larvae. Each larva is housed individually in a cone-like structure (the horns) which is embedded within the internal gall structure; the horns are hidden from view until the immature wasps complete their development. As the immature wasps reach pupation, the horns rise from within the gall to break through the surface. The exposed horns exude sugary liquid from the tips. It is speculated this liquid may nourish newly emerging wasps, or it may serve to attract ants and other insects that protect the galls until all wasps have emerged.

The wasps that emerge from the stem galls are agamic, meaning that they are all females. This form of reproduction, where females do not require fertilization by males to produce fertile eggs, is called parthenogenesis. These wasps crawl to developing leaves to lay eggs and initiate the production of a second type of gall; tiny, inconspicuous leaf galls that develop near the leaf veins on pin oaks. The immature wasps in the leaf galls require
around 3 months to develop and emerge. The wasps that emerge from the leaf galls are the "sexual generation"; thus, there are males and females. The mated females of this generation crawl back to twigs to lay eggs and initiate the production of the horned stem galls. This alternation of two different reproductive modes and life-styles between generations of a species is known as heterogamy.

The developing stem galls appear succulent and light green in color. However, once the horns break the surface to release the new wasps, the woody galls become dry, hardened, and dark brown. The old stem galls may linger for years marring the tree's aesthetic value. Both the maturing and matured stem galls also serve as a home and feeding ground for a wide range of other insects including more than 20 other wasps, as well as two clearwing moths: DOGWOOD BORER (Synanthedon scitula) and OAK GALL BORER (S. decipiens).

Trees infested by these wasps will have both types of galls occurring at the same time making control difficult. For example, pruning out developing twig galls will have no effect on the leaf galls. Wasps emerging from the leaf galls will simply crawl to the twigs to start the development of new twig galls. Fortunately, research has shown that this gall-making wasp is highly susceptible to the depredations of wasp parasitoids. Studies conducted at the University of Kentucky have shown the rate of parasitism to be as high as 70% to 80% in the leaf galling generation. However, the overall impact on the population dynamics of this gall-maker has not been well documented.

C. ANNUAL MAPLE LEAF-DROP COMMENCES. The annual leaf drop caused by MAPLE PETIOLE BORER (Caulocampus acericaulis) on sugar maples is beginning to occur in southwest Ohio. Although sugar maples are generally preferred, this sawfly will also occasionally infest other maples. Fortunately, while the number of fallen leaves beneath an infested tree may look dramatic, defoliation seldom exceeds levels that are considered detrimental to the overall health of the tree.

This non-native sawfly was introduced into the United States from Europe. It spends the winter in the pupal stage buried 2-3" in the soil beneath the affected tree. Adults emerge in the spring and after mating, the females use their saw-like ovipositors to insert a single egg into the petiole near the leaf blade. The resulting grub-like larva feeds by boring down the center of the petiole. Once the larva completes its development, it drops to the ground and crawls into the soil to pupate. There is one generation per year.

The initial symptoms of a maple petiole borer infestation are highly variable. Some leaves may become wilted and discolored while still attached to the tree, with the petioles collapsing and turning brown just prior to leaf drop. Other infested leaves show no outward symptoms and appear perfectly healthy when they drop from the tree. However, all of the fallen leaves will retain only a very small portion of the hollowed-out petiole. Most of the petiole, along with the larva, remains attached to the tree. Thus, raking and destroying fallen leaves will not reduce the sawfly population. Fortunately, the sawfly has a minimal impact on tree health, so controls are not necessary.

D. YUCKY YUCCA. Joe Boggs reported that YUCCA PLANT BUGS (Halticotoma valida) are causing noticeable injury to their namesake in southwest Ohio. The bugs use their piercing-sucking mouthparts to extract the essence of yucca. This produces small, yellowish-white spots (stippling) which may coalesce causing the foliage to turn yellow. The bugs also deposit spent yucca extract in the form of black, tarry waste spots. Off-colored foliage splattered with black specks makes yucca look yucky. Intense annual feeding activity may eventually cause yucca plants to die. Indeed, Joe noted the bugs have seriously depleted some yucca plantings that were established in his part of the state in the late 1800's.

Both adult and immature (nymphs) yucca plant bugs have a somewhat oval-shaped body. Adults of this small (3/16" long) native of the southwestern U.S. have black wings and orangish-red legs, head, thorax, and abdomen. The nymphs share this striking color scheme, but they appear more reddish in color since their black wing pads fail to cover their entire abdomen.

The bug spends the winter as eggs inserted into the yucca leaves. Eggs hatch in early spring and there are multiple, overlapping generations, so populations can build rapidly. Topical insecticides (e.g. pyrethroids) labeled for use on yucca require multiple applications since there are multiple generations throughout the season. Systemic
neonicotinoid insecticides have proven to be more effective in controlling the bug; however, applications must be made now to avoid further plant damage from the bug's intense feeding activity.

E. THE SMALL CARPENTER BEE TUNNELING IN BRAMBLES. Gary Gao reported that a small carpenter bee was seen tunneling in blackberry and raspberry stems. He cut open one stem and saw one small carpenter bee busy tunneling inside. The bee tunneled about 6” deep so far. Small carpenter bees are black, bluish green, or blue, and often have yellowish or whitish markings on the clypeus, pronotal lobes, and legs. Follow this link for pictures of the small carpenter bee: [http://bugguide.net/node/view/15027/bgimage]

Control measures include clipping the stems with holes, seal the cut ends with wax, and application of insecticides. The small carpenter bee can be quite persistent and cause quite bit damage to brambles, especially raspberries. The BugDoc, Dave Shetlar told BYGLers that the small carpenter bee also attacks roses and hydrangeas. The small carpenter bees prefers stems with soft pith.

F. PREDATOR PARADISE. Several BYGLers reported observing insect predators in Ohio woodlands and landscapes. Their reports are a reminder that while our attention may focus on plant pests, we should be thankful that these meat-eating bio-allies focus their attention on the plant pests. Amy Stone and Pam Bennett noted that SIX-SPOTTED TIGER BEETLES (Cicindela sexguttata) are on the prowl in their parts of the state. This native beetle has a curious affinity for darting about on woodland trails. The shiny beetle is actually more emerald green in color than the emerald ash borer causing it to sometimes be mistaken for the borer. As the common name implies, the six-spotted green tiger beetle has white spots that are arranged along the trailing edge of the wing covers, three spots per side. As with all tiger beetles (family Cicindelidae), this is a ferocious predator and it sports powerful sickle-shaped mandibles that are used to grab and dispatch hapless arthropod prey.

Joe Boggs reported observing a FIERY SEARCHER CATERPILLAR HUNTER (Calosoma scrutator) stalking free ranging caterpillar meat in southwest Ohio. Measuring over 1.25” long, this colorful beetle is one of the largest sized ‘ground beetles' (family Carabidae) found in Ohio. The beetle has long, purplish-black legs and antennae. The abdomen is almost rectangular, with the posterior end slightly pointed. The hardened front wings (elytra) covering the abdomen are metallic green with fine longitudinal grooves. The outer edges of the elytra are reddish-orange; a striking feature that is responsible for the fiery common name. The front end of the beetle, the business end, sports sickle-shaped mandibles used to reduce hapless caterpillars into beetle fodder. Adults may live for 2-3 years, spending the winter beneath bark or in the soil.

Curtis Young reported that GREEN LACEWINGS (Family Chrysopidae) are flying to his porch lights in northwest Ohio. Green lacewings belong to several genera and their collective common name refers to the color of the adults. They have light-green, soft bodies and this color may impart a light green tint to their otherwise clear, large, membranous wings which are held in a tent-like fashion over the body. The slender adults measure around 1” in length and they have long, hair-like antennae. Their bead-like eyes are often a metallic golden color. Green lacewing eggs are very distinctive: each oval, pearly-white egg is attached to a slender, hair-like, upright stalk that elevates the egg about 3/8” in the air, presumably to avoid predation. The eggs are laid singly, in clusters, or in rows.

Not every species of green lacewing is a predator. However, the predatory life style of those species that do prey on other insects is sometimes reflected by the common name of the larvae. For example, APHIDLIONS (multiple genera) are named in recognition of one of their favorite meat items. The larvae of some species pile debris on their backs as camouflage which may include pieces of bark, lichens, or the bodies of their victims. However, the true nature of these neato incognito larvae is given away by their impressively large, sickle-shaped mandibles that project forward in front of the head. The hollow, or grooved, mandibles are used to extract juices (e.g. "essence of aphid") from the bodies of their hapless victims. Aside from aphids, these lacewings also chow-down on lace bugs, caterpillars, larvae of some beetles, insect eggs, and mites.

G. WINDSHIELD WIPES. BYGLers also ran into a number of other plant pests last week including:
*Last week, Joe Boggs and Julie Crook in Hamilton County were the first BYGLers to report first emergence of the EMERALD ASH BORER (EAB) in southwest Ohio. They were pretty certain that they caught the first emergence as exit holes were fresh looking and there was no noticeable leaf feeding damage yet. This is critical information needed in the management of these pests, so critical that Samuel Discua, graduate student in the OSU Department of Entomology is doing research to characterize adult emergence patterns of EAB across latitudinal gradient. Last week, Discua was in Toledo, Ohio removing infested trees that will be monitored throughout the summer and exit holes recorded and counted during this emergence period.

*Pam Bennett reported that she spotted FOURLINED PLANT BUG (Poecilocapsus lineatus) adults and nymphs in her perennial plant evaluation garden at the OSU Extension, Clark County office and plant damage is becoming very evident. This sucking insect feeds on over 250 herbaceous plant species. 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 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. Both the adults and nymphs produce the same feeding symptoms meaning that damage will continue to accumulate until the bug onslaught ceases this season. Thankfully, there is one generation per year in Ohio.

*Pam also reported finding a heavy infestation of CALICO SCALE (Eulecanium cerasorum) on Japanese maple. This soft scale can infest a wide variety of deciduous trees and the large, 1/4" diameter helmet-shaped females, as well as the nymphs, tap into phloem vessels to suck plant juices. The scale is seldom a direct killer of established landscape trees; however, heavily infested trees may lose enough sap to cause them to succumb to other stress related factors. Both the adults and nymphs produce copious quantities of clear, sugary honeydew that drips onto the leaves, stems, and branches of scale infested trees where it may become colonized by black sooty molds producing an unsightly, black appearance. Trials in Ohio have indicated calico scale can be managed using soil drenches of neonicotinoid systemic insecticides such as imidacloprid (e.g. Merit, Marathon, Xytect, etc.), clothianidin (e.g. Arena), and dinotefuran (e.g. Safari) made from September into November. There is anecdotal evidence that an application of dinotefuran made now may provide effective scale suppression.

4. DISEASE DIGEST.

A. ORANGE RUST IN BLACKBERRIES. Gary Gao reported that he talked with growers who had orange rust on their blackberry plants. He also visited one grower in central Ohio and saw a blackberry plant with orange rust. Orange rust is the most important of several rust diseases that attack brambles. All varieties of black and purple raspberries, and most varieties of erect blackberries and trailing blackberries are very susceptible.

Orange rust-infected plants can be easily identified shortly after new growth appears in the spring. Newly formed shoots are weak and spindly. The new leaves on such canes are stunted or misshapen and pale-green to yellowish in color. This is important to remember when one considers control, because infected plants can be easily identified and removed at this time. Within a few weeks, the lower surface of infected leaves is covered with blister-like pustules that are waxy at first but soon turn powdery and bright orange. This bright orange, rusty appearance is what gives the disease its name. Rusted leaves wither and drop in late spring or early summer.

To control orange rust, it is important to start with disease-free, certified nursery stock. When diseased plants first appear in early spring, dig them out (including roots) and destroy them before pustules form, break open, and discharge the orange masses of spores. If plants are not removed, these spores will spread the disease to healthy plants. Fungicide sprays are generally not considered an effective control method for orange rust in home fruit plantings. Commercial growers are referred to OSU Extension Bulletin 506-B2, "Midwest Commercial Small Fruit and Grape Spray Guide" for the most current fungicide recommendations.

5. TURF TIPS.
A. BROWN RING PATCH/WAITEA PATCH. Joe Rimelspach, Program Specialist - Turfgrass Pathology, recently posted an article on the OSU's Buckeye Turf website [http://buckeyeturf.osu.edu]. The timely turf topic is brown ring patch/waitea patch.

Joe reported that it appears that there is a second occurrence of brown ring patch/waitea patch (Waitea circinata var circinata) on Poa annua in Ohio. The first was during the "hot" period of March, when temperatures suddenly approached 80F. Cases were confirmed in northwest and central Ohio and more recently in southwest, northern, and central Ohio. If temperatures cool down and then there is a sudden warm-up, symptoms may occur again!

The disease is often active during the transition period of winter/spring to hot, early summer-like weather conditions experienced this year. Even though the disease may be widespread on greens and surrounds and tees out on the golf course, and the symptoms can be very noticeable, in most cases serious damage does not occur. When there is prolonged infection of the Poa annua plants there can develop on the leading edge (outer portion of the ring) of the affected patches a narrow band of brown leaf tissue. If this disease is a concern or if there is a history, fungicide applications may be considered. Products in the DMI/ Sterol Inhibitor family, some Strobilurins and flutolanil, have been used successfully. Also polyoxin D and fludioxonil have been used but may require more frequent applications. If an application(s) is made, keep in mind the importance of developing a well-planned and thought-out turf health management program and how additional fungicide applications fit the goals of overall disease management and turf health.

The following web site is an excellent power point presentation with additional information about the disease and management: [http://www.turfpathology.ucr.edu/Downloads/Management_BRP.pdf].

Check-out this article on the website and the accompanying photos and a PowerPoint presentation. A great site that should be on your favorites list - add it today!

6. INDUSTRY INSIGHTS.

A. DIAGNOSTIC CONUNDRUM OF STRANGE GROWTHS ON HONEYLOCUST. BYGLers discussed the occurrence of unusual knot-like stem growths that arose last season on the twigs and branches of honeylocusts. Although the growths developed last season, they remain very evident this spring. An association was made last year between unusual stem growths on honeylocust and exposure last spring to the turfgrass herbicide Imprelis. The chemical was also isolated from some stem growths. A number of other symptoms including leaf chlorosis, premature leaf drop, and twig dieback were also associated last season with Imprelis exposure.

However, readers should avoid rushing to diagnostic judgment since the symptoms that were associated with Imprelis may have other causes. For example, knot-like stem swellings on honeylocust were reported for many years prior to the use of Imprelis. Despite extensive investigations, the exact cause(s) of these stem swellings remains unknown. So, while some unusual stem growths on honeylocust have been associated with Imprelis, not all stem growths may have been caused by Imprelis. Leaf chlorosis as well as premature leaf drop and twig dieback could also be caused by a range of pests, diseases, and physiological problems.

Obviously, honeylocust as well as other trees that were known to have been exposed to Imprelis last season should be closely monitored this season. However, readers should continue to take a deliberate and thoughtful investigative approach to diagnosing the exact cause(s) of unusual symptoms. Remember the diagnostic axiom "never make the symptoms fit the diagnosis - always make the diagnosis fit the symptoms."

B. TREE CAMPUS USA. "I am a Buckeye, but most importantly I am a landscaper...OSU attaining Tree Campus USA status is like the football team winning a National Championship!"

These are the words of OSU and Baltimore Ravens football player Justin Boren, who with his family owns and operates Grass Groomers, Inc., started by his father Mike Boren, in Reynoldsburg. What a great testament - and Justin is a great representative of OSU and the Ohio's multibillion dollar green industry. The occasion for Justin's
remarks was Arbor Day on the OSU Main Campus on April 27, an event supported by the Ohio Nursery Landscape Association and a program conducted by OSU's Chadwick Arboretum, its Trees Matter Committee, and the campus Landscape Architect and OSU's Facilities Operation and Development group.

OSU is stepping up its tree culture on campus, complete with a dedicated working group of students who, following last September's Arboblitz, meet weekly to complete the tree inventory and ecological audit of the OSU campus. This group is known as STICKS, which may or may not stand for Sustainable Tree Inventory and Care Keepers. They have great energy and skill and have been ably led over the past months by Oliver Firestone, Mike Pedley and Dr. Sakthi Subburayalu.

All told, there are now eight Tree Campus USA sites in Ohio: Kent State-Stark, Ohio Northern University, Youngstown State University, Kent State Main Campus in Kent, College of Wooster, Ohio State University Main Campus in Columbus, Denison University, and the University of Mount Union. All have comprehensive tree care plans, significant expenditures for tree care and planting, a tree care committee, Arbor Day celebrations, and student service projects organized around tree care and education. Next year's goal: TCUSA for OSU Wooster Campus and others, all aided by the assistance of the Ohio Department of Natural Resources urban foresters.

C. "FIRST GREEN INDUSTRY FIX" WEBINARS LAUNCHED. This Wednesday morning was a successful start to this monthly webinar partnership between the Ohio Nursery Landscape Association and the Ohio State University Extension Nursery Landscape and Turf Team. This month's "Get Your Green Industry Fix" Webinar covered everything from lingering effects of last year's Imprelis herbicide applications on honeylocust, to the identification of poison hemlock, a key safety issue for those involved in vegetation removal. Featured items included the contrast between Asian longhorned beetle and emerald ash borer infestations, and the management strategies for impatiens downy mildew in greenhouses and scouting for boxwood blight (not identified in Ohio to date) in nurseries. Questions from attendees are encouraged and we plan to include diagnostic images from the audience submitted for diagnosis as part of the program for next month's webinar. The rest of the scheduled webinars for 2012 (6:30 - 8:20 Wednesdays) are: June 13, July 11, August 8, September 12, and October 10.

These webinars offered by ONLA are a quick, affordable, convenient way to learn...helping with WHAT you need to know, WHEN you need to know it. These are 'hot topic' seminars delivered to your computer and hosted by speakers from the Ohio State University Extension Nursery, Landscape & Turf Team. You will be given timely and useful information on current and emerging issues critical to your green industry business: from plant selection to pest management, from weed control to product knowledge, from invasive species to infectious diseases. It's a short course class delivered to your office! Webinars are visual and will include many images of pests and plants. For registration information for the Get Your Green Industry Fix webinars, contact ONLA at 614-899-1195 or 800-825-5062.

7. WEATHERWATCH. The following weather information summarizes data collected at various Ohio Agricultural Research Development Center (OARDC) Weather Stations spanning the dates from May 1 - 9, 2012, with the exception of the soil temperatures which are readings from Wednesday, May 9, 2012 at 6:05 p.m.

If readers compare weatherwatch from one week to the next, you will notice the big change in the table below. The actual precipitation recorded at each of the 5 sites is greater than the normal or average amount for the first 9 days of May. While many BYGLers reported on the receiving end of rain, amounts varied from less than a 1/2" to nearly 3+".

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<tbody>
<tr>
<td>Ashtabula</td>
<td>NE</td>
<td>72.1</td>
<td>52.7</td>
<td>1.24</td>
<td>0.9</td>
<td>66.16/67.12</td>
</tr>
<tr>
<td>Wooster</td>
<td>NE</td>
<td>78.5</td>
<td>56.5</td>
<td>1.55</td>
<td>0.9</td>
<td>65.44/64.46</td>
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<tr>
<td>Hoytville</td>
<td>NW</td>
<td>76.2</td>
<td>55.4</td>
<td>1.64</td>
<td>0.8</td>
<td>65.56/63.82</td>
</tr>
<tr>
<td>Columbus</td>
<td>Central</td>
<td>82.4</td>
<td>60.7</td>
<td>1.84</td>
<td>1.1</td>
<td>64.55/63.80</td>
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For a link to the OARDC Weather Stations, visit: [http://www.oardc.ohio-state.edu/centernet/weather.htm]

8. COMING ATTRACTIONS.

A. SOUTHWEST OHIO BYGLIVE!. The second 2012 Southwest Ohio BYGLive! Diagnostic Walk-About will be held this coming Monday, May 14, at the Cincinnati Zoo and Botanical Garden 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 CEU's and Landscape Architecture Continuing Education System (LA CES) CEU's for Landscape Architects 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]. One can also e-mail Joe Boggs [boggs.47@cfaes.osu.edu] to learn more about this diagnostic training series.

B. BEEKEEPING WEBINAR. Denise Ellsworth, Program Director, Honey Bee and Native Pollinator Education with the OSU Department of Entomology, announced the May 16, 2012 webinar - Pesticides in and around the Hive. If you are a beekeeper and are interested in participating you can join by connecting to [http://go.osu.edu/theOSUbuzz]. Beekeepers can join the bee lab contact list at [http://go.osu.edu/beelablist]. Subscribers will receive log-in information and other updates from the OSU Bee Lab.

C. WOODY PLANT ID WORKSHOP AT SECREST ARBORETUM. On Friday, June 1, 2012 from 10 a.m. - 3:30 p.m., there will be a woody plant identification class held at Secrest Arboretum in Wooster, Ohio. This workshop will highlight plant identification terms, describe and explain them, and then show on plants and samples, common taxonomic terms used in most dichotomous plant identification keys. Jim Chatfield and Erik Draper will be the instructors for this hands-on, samples galore workshop. Lunch, handouts, snacks and prizes are all included in the $40.00 fee for this workshop. To register for this workshop or to obtain additional information, please contact the Ohio State University Extension, Geauga County at 440-834-4656.

D. PLANT DIAGNOSTIC DILEMMAS UNDONE WORKSHOP. On Wednesday, June 13, 2012 from 10 a.m. - 3:30 p.m. there will be a plant diagnostic workshop held at Secrest Arboretum in Wooster, Ohio. The workshop will highlight the latest and greatest plant maladies and diseases that are afflicting plants throughout Ohio. As is the tradition of our diagnostic workshops, there will be multiple plant samples to help refine critical diagnostic skills. There will be exploration of findings regarding Imprelis symptoms, discussions of new and emerging diseases in Ohio and samples, samples, samples! Jim Chatfield and Erik Draper will be the instructors for this hands-on, clinical catharsis of plant diseases workshop. Lunch, handouts, snacks and prizes are all included in the $40.00 fee for this workshop. To register for this workshop or to obtain additional information, please contact the Ohio State University Extension, Geauga County at 440-834-4656.

E. 2012 NW OHIO SUMMER SESSION. Save the date for this year's NW Ohio Summer Session for green industry professionals. The event will be held on Wednesday, August 1, 2012 at Owens Community College just south of Toledo, Ohio. The yearly event is kicked off with lunch, followed by concurrent sessions during the afternoon. Registration materials will be available next month.

F. 2012 COMMERCIAL NEW APPLICATOR TRAINING SCHEDULED. The Ohio State University Extension's Pesticide Safety Education Program has scheduled four training dates for those preparing to take the commercial applicator's exams including Core, 8 (Turf), 5 (Industrial Vegetation); 6c (Ornamental Weed) and 2c (Agricultural Weed). The morning session also qualifies as Trained Serviceperson training. The dates are April 18, 2012; May 9, 2012; August 29, 2012; and September 26, 2012. Registration begins at 8:30 a.m. Additional information, including pre-registration is available on the web at [http://pested.osu.edu/commnewapp.html].
9. BYGLOSOPHY: "I like trees because they seem more resigned to the way they have to live than other things do." - Willa Cather

APPENDIX - ADDITIONAL INTERNET RESOURCES:

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 were the participants in the May 8th conference call: Pam Bennett (Clark); Joe Boggs (Hamilton); Erik Draper (Geauga); Gary Gao (OSU South Centers); Tim Malanich (Erie); Dave Shetlar (Entomology); Amy Stone (Lucas); Nancy Taylor (C. Wayne Ellet Plant and Pest Diagnostic Clinic); Curtis Young (Van Wert); and Randy Zondag (Lake).

BYGL is available via email, contact Cheryl Fischnich [ fischnich.1@caes.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/ ].

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 (ENLT). 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.

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