BUCKEYE YARD AND GARDEN LINE 2012-17
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This is the 17th 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 - DAHLIA (Dahlia hybrid). Dahlias are bulbs that are generally planted as tubers in early spring. They can be planted from seed as well. Some of the newer varieties are grown from vegetative cuttings and can be found in garden centers in the spring with the bedding plants. These newer varieties tend to require less deadheading than older varieties. For instance, in the OSU Extension field trials in Clark County, where plants are not deadheaded, the Grande series is a hybrid that has performed quite well. Minimal deadheading would even make these plants better. Another recent hybrid, Mystic Illusion, with dark purplish foliage and vivid yellow flowers that pop, has also done quite well in trials with no deadheading.

Dahlia flowers come in a huge variety of sizes, shapes and colors of and make excellent cut flowers for arrangements. Once they start blooming, they'll last until frost (with deadheading). The colors range from white to pink, yellow, purple, burgundy, orange, salmon, coral, red and multi-colors; butterflies are attracted to them. These flowers have such a wide range of shapes that they are grouped into categories. They are as follows: anemone, ball, cactus, fimbriated, orchid, decorative, colerette, single, waterlily, pompom and dwarf. If one succumbs to dahlia fever, consider joining all of the other infected people in the American Dahlia Society [ www.dahlia.org ]! One can find trial gardens and much more at their website.
Dahlias take full sun and require some work. Plant sizes range anywhere from 1 - 6' depending upon the variety. They can be bushy and covered with clusters of smaller flowers or slimmer with longer stalks of individual flowers. Plant dahlias indoors in the early spring; transplant them after the danger of frost in order to have blooms earlier in the season. They can be directly planted into the ground once the soil warms up. Keep them watered during the summer as they don't like to dry out. Water in the morning and avoid long periods of moisture on the foliage as this can lead to powdery mildew in some varieties. In the fall, pull up the tubers and store them for next year.

*PERENNIAL - RUSSIAN SAGE (*Perovskia atriplicifolia*). Perennial gardens are enhanced by this 1995 Perennial Plant Association's Plant of the Year with its foliage and bloom color as well as form. It can be used as a specimen or feature plant or it can be massed in a grouping with other plants. The bright, light, purplish-blue flowers and silver foliage provides an accent or background for other plants and is a bright attraction to the garden. The flower spikes appear in mid-July and last up until frost. They make excellent cut flowers. The foliage is silvery and thread-like and fragrant. Plants can grow up to 4' tall, depending upon the cultivar. It develops woody stems that are not always killed back to the ground. In order to keep the overall plant less leggy and more compact, cut it back to just above the crown in early spring.

Russian Sage tolerates a wide array of soil types except for wet soils. It grows best in full sun; it tolerates shade but becomes quite leggy and flops. *Perovskia* also tolerates dry seasons and thrives in hot summer weather.

'Little Spire' grows 1 1/2 - 2' tall and as wide and 'Longin' is 3 - 4' tall and only 2 - 3' wide. Make sure to give the species plenty of room and it is guaranteed to attract the eye in a perennial border.

*WOODY - CORNELIANCHERRY DOGWOOD (*Cornus mas*). Corneliancherry dogwood typically misses out as a "Woody of the Week", since the sunny yellow flower display, long before forsythia in spring time, predates the annual BYGL opening day the first week of April. However this is a multi-season tree/shrub with its exfoliating bark in winter, those chartreuse-yellow flowers of late winter to early spring, its glossy green leaves of summer, and its summer-into-fall fruits. What a cornucopia of ornamental features!

Right now, earlier than normal as has been the case since the season started, the cherry-like fruits of corneliancherry dogwood are starting to show their true colors. Orange to orange-red to cherry-red fruits are on the trees now, and in great abundance on most specimens. At several programs at Secrest Arboretum in the past week, a number of people have been tempted to pop one in their mouths, proclaiming that they are ripe. *Au contraire*, it is still way too early unless you really have a sour tooth. Wait until these oblong drupe fruits become a dark purple and soft before you munch.

They are 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 3/4 apple cider cocktail. It is quite a treat as is the overall appeal of this most excellent small landscape tree.

*VEGETABLE - MINT (*Mentha* spp.). Mint has been used for thousands of years for anything from medicinal wraps to talismans that scare away demons. Today it is commonly used in cooking and tea for its distinctive flavor and calming scent. Mint is a perennial that grows approximately 12 - 18" in height. Stems are erect and square in cross section. Some varieties spread aggressively by underground and surface-growing stolons; mint can become a weed problem if not controlled.

Mint comes in many "flavors" such as chocolate, spearmint and lemon. Color is generally green but there are cultivars with purple, yellow and variegated leaves. Mint is easy to grow and prefers an area with full sun but tolerates partial shade. It also tolerates poor soil and dry conditions but performs better with regular irrigation. It can be started from seed but cultivated varieties are generally planted as potted stock from the local garden center. Leaves are used fresh or dried for storage. The flowers attract many different kinds of butterflies and bees and it is a beautiful addition to any garden.

*WEED - PROSTRATE KNOTWEED (*Polygonum aviculare*) is a summer annual commonly found growing in compacted soils such as sports fields, next to driveways and walks, and areas contaminated by road salt. Prostrate knotweed, as its name suggests, crawls along the ground from a central crown arising from a thin taproot. It is gray-green in appearance with narrow leaves up to 3/4" in length. Leaf bases wrap around the stem. Tiny inconspicuous flowers are borne in the leaf axils. This weed is one of the earlier-germinating summer annuals.
2. HORT SHORTS.

A. CORRECTION TO OHIO IS THIRSTY AND SO IS THE WILDLIFE! In last week's BYGL newsletter (BYGL Issue 2012-16), the HORT SHORT titled "OHIO IS THIRSTY AND SO IS THE WILDLIFE" recommended dealing with pesky skunks and raccoons by trapping them, then removing them from the property. A critical step was omitted which falls in between trapping and removing the animal, and that step was euthanasia. Ohio law states is it legal to trap nuisance raccoons and skunk without a permit, however it is illegal to relocate the animal to a new area. Therefore removing the trapped animal from the property without euthanizing it first would be against the law. This law exists to prevent the possible spread of diseases, such as rabies, that raccoons and skunks can carry. Trapped raccoons or skunks must by humanely euthanized on site or released back onto the property where capture occurred. Sometimes, releasing the trapped animal makes sense. For example, if a skunk is denning under a porch, the recommendation would be to trap the animal, permanently seal up the hole under the porch, then release the skunk. Unfortunately, many times releasing the trapped animal won't solve the problem and the only option left is euthanasia. Remember, there are many nuisance wildlife control companies that can help with this process. For more information on Ohio's trapping laws, contact your Ohio Division of Wildlife Country Wildlife Officer or the Ohio Division of Wildlife ([www.wildohio.org]) at 1-800-WILDLIFE.

B. PRECOCIOUS FLOWERING. Precocious flowering of small fruit plants was on the mind of several BYGLers. It seems with the early start to the season and subsequent high temperatures early in the season, crops like blueberry and brambles appear to be ahead of schedule. As the current crops are picked, development of new growth for next season seems to be developing at an accelerated rate - spurred on by high temperatures and irrigation provided for ripening fruit.

Initiation of flower buds for the following season is controlled by daylength, but the question arises as to whether the "earliness" of the season will carry into fall and lead to precocious flowering in some fruit crops. It is not abnormal to find a few fall blooms on apples and pears. However, BYGL callers were debating the possibility of seeing more fall flowers on more crops in late summer and fall. No action can be taken to prevent the sporadic fall flowering, but the amount (if any) should be noted as it could affect next year's crop.

3. BUG BYTES.

A. YELLOWJACKETS BECOMING EVIDENT. BYGLers located throughout the state reported that yellowjacket (Vespula spp. and Dolichovespula spp.) populations appear to be on the rise. All reported that they have experienced some buzzing activity and have received phone calls loaded with stinging commentaries regarding yellowjackets. Yellowjackets are found in Ohio throughout the growing season; however, nest populations reach their zenith in late summer to early fall.

Fertilized queens spend the winter outside of the nests from which they developed; alone and in protected locations such as under loose tree bark. The overwintered queens start looking for suitable nesting sites as soon as they warm-up in the spring. All species of yellowjackets in Ohio build circular to oblong paper nests. The non-native GERMAN (EUROPEAN) (Vespula germanica) and COMMON (Vespula vulgaris) YELLOWJACKETS build nests underground or occasionally in hollow trees, rock crevices, or crevices in buildings. The native EASTERN YELLOWJACKETS (Vespula maculifrons) build their nests underground and AERIAL YELLOWJACKETS (Dolichovespula arenaria) build exposed nests in trees, shrubs, or on buildings.

Overwintered queens start laying eggs once they have constructed a few brood cells in their small nests. Sterile workers that develop from these cells soon join the queen in gathering food and expanding the nest. Eventually, the queen is only involved with laying eggs. From late-spring through the summer, the ever-expanding numbers of yellowjacket workers keep busy enlarging their nest and foraging for caterpillars, sawfly larvae, and other soft-bodied insects. They use their powerful mandibles to grind-up these protein-rich meat items to feed to developing yellowjacket larvae. Thus, throughout much of the season, yellowjackets are considered beneficial insects.

However, in late-summer to early fall, drones (males) and new queens begin to develop in the nests. These new-comers do not require protein since they are not growing; they need energy from carbohydrates. So, they lounge around the nest begging the workers for sweets. In an effort to appease these freeloaders, the workers search for foods that have this much needed energy boost, such as soda, donuts, hamburgers, and French fries; the fine cuisine served at county fairs!
Thankfully for the over-worked workers, nest populations of adults begin to peak in the fall with 5,000 or more workers in the colony.

As fall comes to an end, the new queens and drones leave their nest to mate, and the queens seek protected overwintering sites. The colony from which they developed dies during the winter; yellowjacket nests only last one season. This means that there is no point in trying to kill yellowjacket colonies at this time of the year since they will eventually die-out on their own; with no fanfare for the poor overworked workers.

B. FESTERING BLISTER BEETLES. Joe Boggs reported that he received an e-mail message with images from a gardener in southwest Ohio showing tomato plants being heavily damaged by MARGINED BLISTER BEETLES (Epicauta pestifera). While this species as well as BLACK BLISTER BEETLES (E. pennsylvanica) are not common garden pests in Ohio, both species will feed on a wide range of annuals and herbaceous perennials and are certainly capable of showing-up in damaging numbers in home gardens.

Aside from occasionally producing noticeable defoliation, these beetles also pack a serious defensive punch! The beetle's blood contains cantharidin, a chemical that can cause severe blistering of the skin if the beetles are mishandled, hence the common name. This chemical can also be toxic to people and animals if ingested. Oddly, cantharidin is extracted from a European blister beetle to produce "Spanish Fly."

Several species of blister beetles may be found in Ohio. They range in size from 3/4 - 1 1/4" long. The beetles have long legs and narrow, elongated soft bodies. Their heads appear almost bulbous because they are much wider than the pronotum ("neck"). The beetle's flexible front wings often fail to extend to the tip of the abdomen. Margined blister beetles are so named because the margins of their black wings are bounded by gray edges. Black blister beetles lack marking; they are totally … black.

The adults of most species are plant feeders and may be found consuming leaves or flowers on plants in the families Amaranthaceae, Asteraceae (= Compositae), Fabaceae (= Leguminosae), and Solanaceae. The larvae are specialized predators. Some feed on grasshopper eggs while others feed in the nests of solitary bees where they consume bee eggs, larvae, and food stored in the nest. Blister beetle adults may emerge en mass and produce rapid plant damage. Fortunately, their visits are usually very short lived, lasting only a week or two. They can be easily controlled if necessary by using a gloved hand to knock them into a bucket of soapy water (to be carefully disposed!), or by using an insecticide labeled for the host plant.

C. ALONG CAME A SPIDER. There are over 600 species of spiders found in Ohio and most feed on insects. Ohioans may be surprised at the large number of spiders living in their landscaping when heavy morning dews reveal the gossamer creations of these important predators. A few of the more obvious webs currently being seen in Ohio landscapes are those created by FUNNEL WEAVERS (Family: Agelenidae); SHEETWEB WEAVERS (Family: Linyphiidae); and ORBWEAVERS (Family: Araneidae).

Funnel weavers produce large, flat, sheet-like webs spun across grass, under rocks or boards, or over the branches of shrubs such as yews and junipers. The webs slope gently towards a narrow funnel or tube where the spider resides, awaiting its next victim. The spiders are medium-sized and resemble small wolf spiders. Funnel webs may measure more than 1’ across and can become very evident when covered by dew, or when they snare dust during droughty conditions.

Sheetweb weavers construct several types of webs depending upon the spider species. Some species spin flat or slightly curved webs that overlay vegetation and rival the sizes of webs spun by funnel weavers. However, there is no funnel in the web. The spiders hide beneath one edge of the web, or in plant foliage along the edge of the web, to await their prey.

One of the more interesting sheetweb weavers appearing on plants in the southwest part of the state is known as the BOWL AND DOILY WEAVER (Frontinella communis). This spider constructs a distinctly bowl-shaped web suspended from plant stems by a crisscrossing array of silk threads and anchored below by interweaving threads. Flying insects drop into the web-bowl after bouncing in pin-ball fashion off the interlacing silk threads used to suspend the web. Of course, when they drop into the web-bowl, they fall into the "arms" (and fangs!) of the awaiting spider!

Orb weavers create circular webs, as their common name describes. Web construction involves sticky and non-sticky silk. Non-sticky silk is used for "radial threads" which radiate from a central point in a bicycle spoke-like pattern. The
non-sticky silk is also used for "frame threads" which encircle the web like a bicycle wheel to hold the radial threads in place and to attach the web to support structures such as plant stems or grass blades. "Spiral threads" are composed of sticky silk arranged in a spiral pattern emanating from the center of the web; it's sticky silk that captures the spider's prey. Orb webs range in size from more than 1' to only a few inches in diameter, depending upon the spider species. While some orb weavers create vertical webs, others spin horizontal webs and are often found in home lawns.

Although there are several insecticides labeled for spider control, this is not a recommended practice. Homeowners are urged to practice restraint, appreciation, and understanding. Spiders are very important in reducing insect pest populations; they provide a great service free-of-charge by reducing the need for controlling more significant pests.

D. ASIAN LONGHORNED BEETLE UPDATE. Last week, The Ohio Department of Agriculture (ODA), in collaboration with the United States' Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) announced the discovery of the Asian Longhorned Beetle (ALB) on two properties in Stonelick Township in Clermont County.

State and federal officials cite the movement of firewood in 2010 from Tate Township, prior to the actual ALB discovery in Ohio and the implementation of the current ALB quarantine zone, as the source of the new discovery. APHIS and ODA inspection crews are surveying the surrounding areas to determine the extent of the ALB infestation. Crews will inspect host tree species susceptible to ALB for signs of the wood-boring beetle using ground surveyors and specially trained tree climbers. Once the extent of the infestation is evaluated, ODA will move to expand the ALB quarantine to include additional properties near the new infestation. When available, a map of the regulated properties will be posted on the ODA website at [www.agri.ohio.gov] and BYGL readers will be alerted to that posting.

In September 2011, firewood movement from Tate Township was cited as the source of an ALB infestation on properties in Monroe Township in Clermont County. Satellite infestations like these in Tate and Stonelick Townships, where the source was moved prior to the actual discovery of the beetle, are not uncommon and have also been noted in other states where they have been eradicated or eradication efforts are ongoing.

Ohioans must remain vigilant by familiarizing themselves with the signs of an ALB infestation and then monitor trees, damaged limbs and branches, and firewood for those signs. Recent storms have rolled through Ohio causing a lot of tree damage. As homeowners and green industry professionals remove this tree debris, everyone is urged to look for internal feeding damage which results in structural weakening of the wood caused by ALB larvae.

A new, certificate training, specifically intended and geared for green industry professionals, will be offered next month in the Cincinnati area – see the upcoming event listing for program and registration details.

To become more familiar with signs and symptoms, or to report a suspect ALB infestation, please call the Ohio ALB Cooperative Eradication Program Office at 513-381-7180 or report online at [www.BeetleBusters.info].

E. QUESTIONS BEING ASKED ABOUT ASH TREE REMOVALS. Since the first discovery of the EMERALD ASH BORER (EAB) in Ohio in 2003, the management of this invasive species has a price tag that is tabulated in the millions of dollars and will continue to grow. Whether your connection is with a municipality, business, woodlot, or residential landscape, the impact of EAB is being seen and felt across the buckeye state.

Owners and managers of ash (Fraxinus spp.) trees are calling their local Ohio State University Extension (OSUE) office, the Ohio Department of Agriculture (ODA), and Ohio Department of Natural Resources (ODNR) offices to inquire if funds are available to help them treat, remove, and/or replace their ash trees being threatened by EAB. Currently, ODNR is supporting two such efforts. Using congressionally directed funds, the community action agency WSOS is providing 40% cost share assistance for the removal of up to two ash (Fraxinus spp.) trees for homeowners in Wood, Erie, and Lucas counties. Additional information about this specific three county project can be found on the WSOS website at [http://www.wsos.org/program_details.php?id=63]. Additionally, ODNR has completed Round II of a community Ash Removal & Canopy Restoration grant for the 61 counties outside the Western Lake Erie Basin (WLEB) region.
Unfortunately, no other state or federal funds are available to help residential or municipal parties at this time. Ohioans are urged to prepare for the added expense of treating ash trees to protect them from EAB, removing dying and dead ash trees, and replanting a diverse palate of trees to replace the lost canopy.

F. GYPSY MOTH SUPPRESSION APPLICATIONS DUE SEPTEMBER 1, 2012. Wondering what the gypsy moth experience will be next year? In addition to male moth captures in gypsy moth traps tended by ODA, the number of recently laid egg masses can also give some insight. If you noticed an increase in gypsy moth caterpillar activity earlier this summer and are now counting egg masses in large numbers, property owners should become familiar with the ODA Gypsy Moth Suppression Application and determine if the property may meet the application requirements. The application deadline for next year's program is September 1, 2012. For additional information about gypsy moth or suppression activities, check out the ODA website at [http://www.agri.ohio.gov/divs/plant/gypsy/gypsy-index.aspx].

G. WARM SEASON MITES ABOUND. Pam Bennett and Joe Boggs reported serious developments in the population sizes and injury being produced by warm season mites. Weather conditions for the past month or so have been highly favorable for mite species that love it hot, dry, and little to no rain. Temperatures, as everyone who has stepped outside in the past month knows, have been in the 80’s - 90’s and even 100F+. Little to no rain during the same time frame has led to severely drought stressed plants, and with the lack of rain, there has been no "wash-off" effect for removing mites from plant surfaces. The lack of moisture has most likely also limited the development of fungal biological control agents that could usually help keep mite populations in check. All of these factors together frequently result in explosive population increases for the warm season mites.

Under these conditions, it is expected that mites such as ARBORVITAE (*Platytetranychus libocedri*), EUROPEAN RED (*Panonychus ulmi*), HONEYLOCUST (*Platytetranychus multidigitali*), MAPLE (*Oligonychus aceri*), and OAK SPIDER MITES (*Oligonychus bicolor*) will be abundant, and of course the most notorious of the mites, the TWO-SPOTTED SPIDER MITES (*Tetranychus urticae*). Most of these mites have relatively limited host ranges and may only feed on the host from which their common name is derived. Mites such as the European red mite and the two-spotted spider mite are found on numerous different hosts, and with this recent stretch of hot, dry weather some of them have appeared on unexpected hosts. Pam was especially taken aback with a major population explosion of two-spotted spider mites on false indigo plants (*Baptisia australis*) in the Clark County Learning Gardens. False indigo is typically considered a pest-free plant for the garden, but this season has had a couple of oddities appear on it including a yet to be identified caterpillar and now the spider mites.

Many of these mites are typically not managed, but in severe cases, action may be warranted. Damage by mite feeding results in discoloration of foliage (i.e. bronzing, early fall coloration, washing out of color, etc.) and may result in leaf drop. One usually looks for mite populations on the lower leaf surfaces, but with oak spider mites, they feed on the upper leaf surface. Silk production or webbing is also common among the spider mites. Inspection for mites involves looking for the symptoms of feeding, examining the leaf surfaces for active mites and egg (may require a hand-lens), and/or displacing the mites onto a sheet of white paper by "beating" the plants over the paper, then watching to see if the spots on the paper move. Slow-moving mites are usually plant-feeder and rapid-moving mites are typically predators.

Treatment for mites could be as simple as syringing the infected plants with a hard stream of water to knock the mites off of the foliage, but probably will require chemical management. A few of the old mite products are still available for mite control such as acephate (Orthene) and dimethoate, but there usage may be limited to specific locations (e.g. nursery production areas). Newer and alternative mite control products are available, but may be expensive or limited to professional applicators. A good alternative for homeowners is the specially formulated fatty acid salts otherwise known as insecticidal/miticidal soaps. The main thing to remember with these products is that they are contact pesticides only, there is no residual effect.

H. WINDSHIELD WIPES. BYGLers also ran into several other plant pests this week including:

* Curtis Young reported that he received an e-mail enquiry asking how to distinguish symptoms of "ASTER YELLOWS" on coneflowers from damage caused by the eriophyid mite known as the "CONEFLOWER ROSETTE MITE" (see BYGL 2012-14 (07/05/12)). Both can produce rosette-like tufts of stunted and distorted flower parts that sprout from the tops or sides of the cones of the coneflowers. However, the mites only infest the flowers, so the symptoms are confined to the flowers. Otherwise, the plants appear healthy. Aster yellows is caused by a systemic phytoplasma, so symptoms usually occur throughout the plant, or at least on many parts of the plant. There will be a combination of symptoms that
collectively add up to a possible diagnosis of the disease including: plant stunting; leaf chlorosis with green veins looking like a nutrient deficiency; deformed leaves, often very narrow and curled looking like herbicide injury, and deformed flowers particularly the bracts.

* Participants in the this week's Tree Amigos Diagnostic Walk at Secrest Arboretum observed numerous FALL WEBWORM (Hyphantria cunea) nests on a wide range of host trees. There are two types of fall webworms found in Ohio. "Black headed" webworms have black head capsules and two rows of black bumps (tubercles) running the length of their yellowish-white bodies. Black-headed caterpillars typically feed in a common web until they are half-grown, then they may separate to produce small, elongated, wispy nets along tree branches that envelope only a dozen or so leaves. "Red-headed" webworms have red to reddish-orange head capsules and two rows of reddish-orange tubercles running the length of their light to dark tan bodies. Red-headed webworms remain together throughout their development to produce truly spectacular multilayered nests enveloping dozens of leaves at the ends of branches. The diagnostoids only found red-headed fall webworms in the Arboretum.

* Curtis Young and Joe Boggs reported that the northeast Ohio appears to dominate the geographical distribution of LOCUST LEAFMINER BEETLE (Odontota dorsalis) activity this season with the highest populations occurring in that part of the state. Indeed, Curtis noted that leafminer activity in the northwest part of the state is negligible, and Joe reported that leaf browning is difficult to detect in the central and southern parts of the state. For more information on this leafminer, see BYGL 2012-12 (06/21/12).

* Amy Stone reported that the close relative of the locust leafminer beetle, the BASSWOOD LEAFMINER BEETLE (Baliosus nervosus), is doing the same to basswoods or American linden trees in NW Ohio as the locust leafminer beetle is doing to locust trees in NE Ohio. What may appear to be drought stress induced leaf scorch in woodlots may actually be basswood leafminer beetle feeding on basswoods. This is a difficult one to call from the windshield view from the car, because maple trees in NW Ohio are showing severe leaf scorch both in landscapes and woodlots.

4. DISEASE DIGEST.

A. FREE WEBINAR ON TOMATO BACTERIAL CANKER. The Lincoln University IPM Program will be hosting a webinar on tomato bacterial canker identification, disease development, and management options presented by Dr. Dan Egel of Purdue University and Dr. Sally Miller of The Ohio State University on July 30, 2012 at 10:00 a.m. This webinar is designed to instruct and inform Extension educators in regards to this disease, but may also be of interest to commercial growers, Master Gardeners and others. This is a free webinar with 100 open places available for attendees. Information on this webinar can be found at [http://learn.extension.org/events/584].

5. TURF TIPS: No Report.

6. INDUSTRY INSIGHTS.

A. EAB - AMBROSIA BEETLE CONNECTION? Time is collapsing in southwest Ohio between "first infestation" of an ash tree by EMERALD ASH BORER (Agrilus planipennis) (EAB) and tree mortality. It's now obvious that beetle population densities have transitioned from a shallow-sloped linear rise to a steep-sloped exponential surge. Consequently, the landscapes and forests in southwest part of the state are becoming dominated by dying or dead ash trees. Could this rapid rise in expiring trees produce a significant collateral rise in the populations of insects that make a living on dying or dead trees?

Joe Boggs reported that a consulting forester recently e-mailed him about ash logs being rejected by a sawmill because they were heavily infested with AMBROSIA BEETLES (family Scolytidae). The logs had been salvaged in southwest Ohio after the trees had been killed by EAB. Ambrosia beetles are very small, measuring only 1/8 - 2/8" long. They bore through the bark and into the xylem (wood) creating shot-sized holes in the bark and tunnels in the wood. As the female beetles tunnel forward into trees to lay eggs, they push a mixture of excrement (frass) and wood particles backwards. The sticky mixture clings together as it is extruded from the entrance holes and has been commonly described as looking like "frass toothpicks".
The beetles release fungi from specialized oral structures called mycangia and the fungi colonize the wood. Ambrosia beetle larvae do not eat wood; instead, they eat the fungal "ambrosia" that grows from the walls of the tunnels created by the adults. Some types of ambrosia fungi will stain wood producing distinctive dark blue to black streaks in the wood. The beetle's tunneling activity coupled with the fungal wood staining can seriously degrade lumber quality.

Ambrosia beetles do not select healthy trees. Some species focus their attention on stressed or dying trees while others prefer dead trees. Joe noted that reports from arborists of ambrosia beetles infesting newly planted landscape trees have been gradually rising over the past few years in southwest Ohio. Whether or not there is a connection between increased ash mortality by EAB and an increase in ambrosia beetle activity can only be speculated since there has been no data collected to evaluate such a connection. However, BYGL readers should be aware that such a connection is possible, so newly planted trees should be closely monitored. It is particularly important to provide water to avoid tree stress throughout the current drought.

B. MAGNOLIA SERPENTINE LEAFMINING CATERPILLAR. Participants in this week's Tree Amigos Diagnostic Walk at Secrest Arboretum observed the handiwork of the magnolia serpentine leafmining caterpillar (*Phyllocnistis magnoliella*). The moth belongs to the leafmining family Gracillariidae. The tiny caterpillars of this aptly named moth feed close to the upper leaf epidermis, producing long, thin, serpentine mines that appear as silvery tracks snaking across the leaf surface.

Hosts for this leafminer includes southern, cucumber, sweet bay, star, umbrella, and the aforementioned bigleaf magnolias. Large numbers of mines on a single leaf can cause the leaf to turn brown and drop from the tree. Little is known of the life-cycle of this moth making the effective timing of insecticide applications to control the caterpillars problematic. Indeed, efforts to control this leafminer in nurseries in Ohio and in the southern U.S. are marked by reports of high insecticide failure rates. Fortunately, heavy populations involving multiple leaves appear to be a rare occurrence. Thus, populations may be managed by removing and destroying infested leaves when mines first appear.

C. "GREEN INDUSTRY FIX" WEBINAR IV. The next webinar will be on Wednesday morning, August 8 from 7:30 - 8:20 a.m., followed by additional webinars on September 12 and October 10, 2012.

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 July 1-July 25, 2012, with the exception of the soil temperatures which are readings from Wednesday, July 25, 2012 at 6:05 p.m.

Drought conditions continue across most of Ohio. Soaking, spiting, and nothing are three words to describe precipitation totals this week by BYGLers. The other weather news is the continued high temperatures couple with drying winds - a brutal combination.

Next week we will report year-to-date temperatures and precipitation totals for each of the weather stations.

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<tbody>
<tr>
<td>Ashtabula</td>
<td>NE</td>
<td>84.8</td>
<td>65.6</td>
<td>3.17&quot;</td>
<td>2.3&quot;</td>
<td>87.80/88.96</td>
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<tr>
<td>Wooster</td>
<td>NE</td>
<td>88.6</td>
<td>65.5</td>
<td>1.61&quot;</td>
<td>3.4&quot;</td>
<td>83.71/80.98</td>
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<tr>
<td>Hoytville</td>
<td>NW</td>
<td>91.6</td>
<td>66.7</td>
<td>2.06&quot;</td>
<td>3.2&quot;</td>
<td>89.83/82.77</td>
</tr>
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</table>
Columbus Central 92.1 69.8 1.67" 3.9" 82.09/80.22
Piketon South 90.1 67.4 2.18" 3.0" 87.53/85.65

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

8. COMING ATTRACTIONS.

A. 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 information is available online at [http://lucas.osu.edu/topics/green-industry-summer-session] or by calling 419-578-6783 and registration materials will be mailed to you.

B. WOODY PLANT ID WORKSHOP AT SECREST ARBORETUM - NOTE: DATE CHANGE!!! On Wednesday, August 8, 2012 from 10:00 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 these characteristics 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 fee for this workshop. To register for this workshop or to obtain additional information, contact the Ohio State University Extension, Geauga County at 440-834-4656.

C. PESTICIDE COLLECTION DAY HELD IN GEAUGA COUNTY. The Ohio Department of Agriculture will be sponsoring a collection for farmers wishing to dispose of unwanted pesticides on August 9, 2012 from 10:30 a.m. - 2:30 p.m. at the Geauga County Fairgrounds, 14373 N. Cheshire Street, Burton, OH 44021. This collection day will be the only one located in northeast Ohio this year and all counties are welcome to participate in this event. The pesticide collection and disposal service is free of charge, but only farm chemicals will be accepted. Paint, antifreeze, solvents, and household or non-farm pesticides will not be accepted. To pre-register, or for more information, contact the Ohio Department of Agriculture at 614-728-6987.

D. DIAGNOSTIC WALKABOUT FOR THE GREEN INDUSTRY will be held at Inniswood Metro Gardens in Westerville, 7:30 - 9:00 a.m., on Thursday August 16, 2012. 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].

E. ALB CERTIFICATION TRAINING PROGRAM. Don't miss this first-of-its-kind Asian longhorned beetle (ALB) Certification Training Program for Green Industry Professionals: Thursday, August 16, 2012, 1:00 - 4:00 p.m. at Maple Ridge Lodge, Mount Airy Forest, Cincinnati Parks, 3040 Westwood Northern Blvd., Cincinnati, Ohio 45211. Registration fee is $15.00; registration is limited!

This in-depth program will present an up-to-date overview of the current status of ALB in North America; provide information on the biology and management of the beetle; cover impacts including safety issues associated with an ALB infestation; deliver tree selection information relative to ALB in Ohio and elsewhere; and arm participants with the knowledge of what to look for with ALB.

Participants will receive a Certificate of Training; the program is recognized by USDA APHIS, and CEUs for ISA Certified Arborist; TCIA Certified Treecare Safety Professional (CTSP); and ONLA OCNT. The program's curriculum team includes: USDA APHIS; ODA; ODNR; ONLA; Ohio Chapter of the ISA; TCIA; Sentinel Plant Network, American Public Gardens Association; Cincinnati Park Board; Cincinnati Zoo and Botanical Gardens; Phipps Conservatory and Botanical Gardens; Ohio State University Department of Entomology; and OSU Extension.

For questions, contact Joe Boggs [boggs.47@cfaes.osu.edu]. For more information and to register online, visit the following website: [http://hamilton.osu.edu/topics/horticulture/asian-longhorned-beetle-alb-certification-training-program-for-green-industry-professionals].
F. WHAT IS THAT WOOD? - WOOD ID WORKSHOP, AUGUST 17, 2012. Is a hardwood really "harder" than a softwood? What does it mean for a hardwood to be diffuse porous, ring porous, or semi-ring porous? Thinking about remodeling and deciding between several woods? This class will help you answer those questions and learn the basics of wood identification. It could also real handy if you are dealing with the demise of the ash as a result of EAB.

Eric McConnell, Forest Products Specialist with OSU's School of Environment and Natural Resources will explore the skills needed to identify various wood structural characteristics, including rays, tyloses, resin canals, and more. The historical benefits of these woods, as well as their current uses will be discussed.

The program will be held at the Toledo Botanical Garden in Toledo, Ohio. The class fee is $35, which covers educational materials and lunch. Class participants can also purchase their very own wood ID kit to take home for $25. The kit has 24 different wood species, (samples are 0.75"x0.75"x3.0").

Registration can be done online at the Ohio Woodland Stewards website – [http://woodlandstewards.osu.edu/classes/events/whats-wood-0 ] Class size is limited to the first 30 registrants.

G. 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 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: "Imagination was given to man to compensate him for what he is not; a sense of humor to console him for what he is." - Francis Bacon

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 July 24th conference call: Pam Bennett (Clark); Joe Boggs (Hamilton); Jim Chatfield (Horticulture and Crop Science); Erik Draper (Geauga); Tim Malinich (Erie); Cindy Meyer (Butler); Amy Stone (Lucas); Nancy Taylor (C. Wayne Ellet Plant and Pest Diagnostic Clinic); Marne Titchenell (School of Environment and Natural Resources); and Curtis Young (Van Wert).

BYGL is available via email, contact Cheryl Fischnich [fischnich.1@cfaes.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 (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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