BUCKEYE YARD AND GARDEN LINE 2012-23
09/06/12

From: Dave Dyke (Lead editor and contributing author), and Amy Stone (Co-editor and contributing author).

Pam Bennett, Joe Boggs, Jim Chatfield, Erik Draper, Gary Gao, Tim Malinich, Cindy Meyer, Marne Titchenell and Curtis Young (Contributing authors).

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/OSUEBYGL] or follow the BYGL on Twitter at [http://www.twitter.com/OSUBYGL].

This is the 23rd 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.

In This Issue:

1. PLANTS OF THE WEEK: Annual (Euphorbia); Perennial (Switchgrass); Woody (Black Gum); Vegetable (Lettuce); and Weed (Common Chickweed).
2. HORT SHORTS: Protect Trees from Deer Rubs and US Department of Agriculture Confirms Emerald Ash Borer (EAB) Detection in Kansas.
3. BUG BYTES: Please Report Goldenrain Tree Bugs; Boring Black Locust; Soldier Beetles; Net-Winged Beetles; Spider Mania; and Windshield Wipes (Locust Leafminer Beetles).
4. DISEASE DIGEST: Cucurbit Yellow Vine Disease.
5. TURF TIPS: No Report.
6. INDUSTRY INSIGHTS: Calibration and Coverage.
7. WEATHERWATCH.
9. BYGLOSOPHY.

APPENDIX - ADDITIONAL INTERNET RESOURCES.

1. PLANTS OF THE WEEK.

*ANNUAL - EUPHORBIA (Euphorbia spp). Euphorbia's have hit the market in the last few years and have caused quite a stir. This plant is very easy to grow and can be used as a bedding plant or in a container or basket. It does, however, take on a different look in a container. In the ground, it grows in a tight clump, getting around 1' tall by 1' wide, depending upon the cultivar. In a container, it's not as competitive as other plants. It sort of has more of an open habit, meandering around other plants. This makes it a nice filler for containers. The white flowers don't require deadheading and last all season until a hard frost. The plant somewhat resembles the perennial plant baby's breath.

This annual Euphorbia (there are a great many perennial Euphorbias as well) takes a variety of conditions, thriving in wet or dry summers. It's extremely heat and drought tolerant and does not seem to be bothered by deer. At this time, there are no major pest problems. Plant it in the full sun for best results. Despite the frilly, airy, delicate appearance, this plant is very tough. There are a few cultivars on the market with many looking the same, having very little noticeable difference in appearance. Some have red stems while another is a little taller. Cultivars include (in no certain order): 'Breathless Blush', 'Breathless White', 'Diamond Frost', 'Cool Breeze', 'White Manaus' and others.

*PERENNIAL - SWITCHGRASS (Panicum virgatum). This tough, versatile ornamental grass was once a large component of North American tallgrass prairies. Switchgrass is an excellent ornamental grass that gets around 4-7' tall with sturdy stems that hang on throughout the winter. The leaves are around 1/4-1/2" wide and range from green to deep green to gray-green. It is a clump-type grass with panicles (flowers) that begin to bloom in mid-July; they grow 1-2' above the foliage and start out tight at first but become light and airy. The fall color is a spectacular yellow gold and, with
a setting autumn sun in the background, it presents quite a garden feature. It tolerates a wide range of soil types as well as wet soils. Therefore this plant can be used alongside pond edges and around water gardens. It also tolerates salt spray.

Taller cultivars make excellent background plants in the garden. Shorter cultivars can be used as accent plants anywhere in the landscape. 'Heavy Metal' is a popular cultivar that has metallic blue leaves, forming a tight upright clump. In the fall, the foliage turns powder-blue and then bright yellow. 'Badlands' grows 3-5' tall and 2-3' wide and has a purplish bloom and purple tips on the end of each blue-green leaf. 'Cheyenne Sky' is a shorter cultivar that grows 2-3' tall and as wide with a red bloom color and tall upright, blue-green foliage that turns deep red-wine in the winter.

Switchgrass is also being studied as a biofuel with higher yields found in the southern and mid-latitude US.

*WOODY - BLACK GUM (*Nyssa sylvatica*). When someone mentions the beauty of fall color, black gum is likely on the list of favorites. Black gum, also known as sourgum, is a tree that may have the most spectacular reds of any fall tree foliage. Black gum is a medium-sized (30'-50') native tree, though it can grow much taller. While young, it is often regularly pyramidal in form but it often opens over the years. It has outstanding lustrous green leaves in spring and summer and fabulous fall foliage color with shiny bright oranges to intense reds. This plant thrives in wet sites.

*VEGETABLE - LETTUCE (*Lactuca sativa*). This veggie can still be sown this year for a fall crop. A cold tolerant plant, lettuce prefers cool spring and fall weather to summer's heat. Ample moisture and cooler weather are needed for good germination and growth of most types of lettuce. In fact, warm weather will cause lettuce to bolt (go to flower).

Seed for lettuce is available in an unbelievable array of shapes, textures and colors. Oakleaf types have deeply cut leaves; bibb lettuce have longer, generally thick leaves; butterheads produce loose heads full of sweet leaves; and leaf lettuces grow a continuous supply of individual leaves arising from a single crown. Colors of lettuce range from red and burgundy to yellow, and deep or light green. The seed is inexpensive and plants can be grown in a cold frame or low tunnel through most of the fall.

*WEED - COMMON CHICKWEED (*Stellaria media*). With many horticultural timelines running ahead of schedule, this winter annual has already begun its late summer and fall germination. Common chickweed grows in a low dense patch in turfgrass but can reach heights of 8 -10" in the landscape. The entire plant--leaves, stems and petioles--are light green in color. Leaves are egg shaped and up to 1" in length. The plant grows from seed, which germinates late summer or early spring; common chickweed may also grow as a perennial in cool, moist areas. Flowers have five petals, are white, and about 1/4" in diameter.

Mechanical control of mature plants can be difficult, as thick mats of chickweed will clump up and foul cultivators and mowers. Post-emergent herbicides can be used to control already emerged chickweed but pre-emergent herbicides should be considered to halt continued germination especially in areas with high weed pressure.

2. HORT SHORTS.

A. PROTECT TREES FROM DEER RUBS. September is here and Ohio’s white-tail deer population is gearing up for mating season. The bucks have completed their antler growth, which begins around April and extends roughly through August, and are ready to start polishing them up in order to attract the ladies! How do bucks polish their antlers? As the antlers grow, they are covered with a layer of soft, vascularized tissue, commonly referred to as velvet. Polishing requires the buck to rub the layer of velvet off in order to display their literal crowning glory, although sometimes the velvet will dry up and slough off without rubbing. Rubbing stations are often the trunks of saplings or small trees that fit in and around the antlers perfectly.

While the white-tail deer breeding season ranges from October through December, velvet removal has already started in some parts of the state and can continue through September. Protect saplings and small trees from deer rubs by wrapping woven-wire (chicken wire) around the trunk of the tree. The wire should be 4 – 5’ high with several inches of space between the tree and the wire. There are also plastic tree wraps and other types of tree guards commercially available. Rubbing is often most intense during and shortly after velvet removal, but can continue throughout the breeding season, as bucks will rub their glandular foreheads over rubs to leave a scent behind. It is recommended to leave tree protection up through the winter.
B. US DEPARTMENT OF AGRICULTURE CONFIRMS EMERALD ASH BORER (EAB) DETECTION IN KANSAS. The U.S. Department of Agriculture has confirmed that emerald ash borer is now in Kansas. The first-ever presence of EAB in Kansas was confirmed in Wyandotte County on August 29. The discovery was made by Kansas Department of Agriculture and USDA staff during a survey being conducted as a result of the July 2012 confirmation of EAB in Platte County, Missouri. The staff identified a tree during the visual survey that showed symptoms of the EAB. They removed a portion of the tree and sent it to a USDA lab in Michigan for further analysis. Regulatory officials at USDA’s Animal and Plant Health Inspection Service’s Plant Protection and Quarantine (USDA-APHIS-PPQ) division removed a live insect from the sample and confirmed the presence of EAB on August 29.

EAB, which is a pest of ash trees that is native to Asia, was first discovered in North America near Detroit, Mich., in July of 2002, and in Ohio in February 2003. Since that time, the pest has killed millions of ash trees in Ohio, Indiana, Illinois, Maryland, Pennsylvania, West Virginia, Virginia, Wisconsin, Missouri, Minnesota, Kentucky, New York, Iowa, Tennessee and Connecticut. Financially, the United States risks an economic loss of $20 billion to $60 billion because of this pest.

Immediately after confirmation by USDA, Kansas implemented an emergency intrastate quarantine for Wyandotte County to prevent further spread of EAB in Kansas. The quarantine applies to any corporation, company, society, association, partnership, governmental agency, and any individual or combination of individuals. It prohibits movement of regulated items from the quarantined area, except under specific conditions established in the quarantine order.

For additional information about EAB, check out the regional website at [http://emeraldashborer.info] or Ohio’s AshAlert at [http://ashalert.osu.edu].

3. BUG BYTES.

A. PLEASE REPORT GOLDENRAIN TREE BUGS. Last week, Joe Boggs reported that he is finding that goldenrain tree bugs (Jadera haematoloma) are widely distributed on its namesake host in southwest Ohio (BYGL 2012-22, 08/30/12). He observed infestations on every goldenrain tree that he inspected. Joe noted that this native southern insect may have gone largely undetected and unreported in Ohio because of being misidentified as BOXELDER BUGS (Boisea (= Leptocoris) trivittata). There is little information on the occurrence and distribution of goldenrain tree bugs in Ohio, so BYGLers are asking that readers take a look at goldenrain trees in their area and report the location of infestations to Joe at: boggs.47@cfaes.osu.edu

Goldenrain tree bugs have the same elongated shape and are about the same size as boxelder bugs. However, they differ in coloration and markings. The key to separating the two bugs is included in their scientific names. The specific epithet, "haematoloma," is Greek for "blood-fringed," and clearly describes the deep red "shoulders" (the edges of the pronotum; the segment just behind the head) on the goldenrain tree bugs. The body of the bugs is grayish-black to gun-metal blue and devoid of any markings. The bugs are usually found feeding on the fallen seeds of goldenrain trees beneath infested trees.

The specific epithet for boxelder bugs, "trivittata" is Latin for "three-striped" and describes the three reddish-orange lines on the pronotum. Boxelder bugs have grayish bodies and distinct orangish-red markings on their front wings. They may be found beneath or near a wide range of hosts, but they prefer maples including boxelder and silver maple.

B. BORING BLACK LOCUST. Joe Boggs reported that the intense yellow blooms of GOLDENROD (Solidago spp.) are becoming very evident in central and southern Ohio. Of course, according to Joe, what really makes this weed / landscape perennial of great interest are visits by LOCUST BORERS (Megacyllene robiniae). Indeed, the coloration of this black and yellow beetle seems to be in sync with allowing the beetle to dodge predators as it feeds on the pollen of yellow-flowered goldenrod.

The locust borer is a type of long-horned beetle (family Cerambycidae), so named because of their extremely long antennae. The beetles are 3/4 - 7/8" long with reddish legs. They have tapering cylindrical black bodies that are covered by yellow bands and two distinct "W"-shaped markings on their wing covers. The borer spends the winter as first instar larvae inside small hibernation chambers bored into the xylem. The larvae become active in the spring to tunnel and feed through the heartwood throughout the season. Adults emerge to feed, mate, and lay eggs in late summer to early fall.

Although generally associated with producing large holes on the main stems and branches of mature black locust (Robinia pseudoacacia) trees, BYGLers have observed damaging infestations of this insect on 2" diameter nursery stock. The
damage caused by these stem borers can kill small trees. Damage to large forest trees can cause structural weakening resulting in branch and trunk breakage. Insecticide applications to trunks to protect nursery stock, or small landscape trees, should be made now to prevent damage by this borer.

C. SOLDIER BEETLES. Joe Boggs reported observing soldier beetles (Chauliognathus pennsylvanicus, Family Cantharidae) on a range of late season flowers including goldenrod and goldenrain tree, 'September'. The elongate 1/2" long, soft-bodied beetles are tannish-brown and they have two oblong dark marks near the back of their front wings (elytra). These markings, coupled with the beetle's tawny color, make them look like they're wearing a WWI-era soldier's uniform, thus the common name. The beetles are also known as "leatherwings" based on their soft, leather-like front wings, and "goldenrod beetle" based on their fondness for the nectar and pollen of the plant.

The beetle's elytra do not extend the full length of the beetle which leaves the tip of the banded abdomen exposed. Their exposed abdomens, size, shape, and general appearance make these beetles appear as dead-ringers for fireflies in some people's eyes. However, no amount of prodding or cajoling will cause them to flash as they lack the necessary bioluminescent equipment. Soldier beetles cause no harm to plants since they feed on pollen and nectar. Indeed, they are considered beneficial insects since they will also hunt down and consume caterpillars, aphids, and other soft-bodied insects that may be plant pests. Their larvae are also carnivorous feeding on insects in the soil.

D. NET-WINGED BEETLES. This is the time of the year when one of the more unusually looking beetles begins to appear in Ohio landscapes and forests; these are the NET-WINGED BEETLES (Family Lycidae). The front wings (elytra) on most beetles are hardened and they cover and protect the hind wings and abdomen. Indeed, the name of the beetle order, "Coleoptera," clearly describes this arrangement (coleo = sheath; ptera = wing). However, net-winged beetles have soft, leathery elytra. Their common name comes from the network of raised longitudinal and transverse ridges on the elytra that resemble netting.

There are around 50 species of net-winged beetles in North America. The two most common species found in Ohio are the banded net-winged beetle, Calopteron reticulatum, and the end-banded net-winged beetle, C. terminale. Both are medium-sized (about 5/8" long), elongate, slightly flattened beetles, with elytra that are widened towards the posterior end. The pronotum (segment behind the head) of both beetles is black with yellow margins, and the elytra are orange to yellowish-orange with the hind portion black. The banded net-wing has a narrow black band crossing the front of the elytra.

The beetles contain pyrazines that give the beetles a repugnant scent. They also contain lycidic acid and other fatty acids that may impart a foul taste if the beetles are consumed by a predator. It is speculated that their bright coloration provides a warning to predators that these beetles are not good to eat. Adults are active during the day and they feed on decaying plant material, and occasionally on other insects. The larvae are predaceous and consume a wide range of prey including insects, slugs, sowbugs, and millipedes. Thus, net-winged beetles are considered beneficial insects.

E. SPIDER MANIA. Curtis Young and other BYGLers reported that they are receiving substantial numbers of phone calls concerning WOLF SPIDERS (Family Lycosidae) in homes and other structures. Unfortunately, the spiders are often being mistaken for RECLUSE SPIDERS (Loxosceles spp., Family Sicariidae). Both types of spiders are hunters; they don't construct webs to catch a meal. Instead, they roam around using their acute eyesight to locate prey. Recluse spiders don't survive winters outdoors in Ohio, so they are found indoors. Wolf spiders typically live outdoors; however, they may journey into homes where their large size, quick speed and scary appearance makes them a prime candidate for being misidentified as a "dreaded recluse spider."

Wolf spiders are some of the largest spiders found in Ohio with adults commonly measuring 1/2 - 1" in body length (not including their legs!). They are mottled gray to brown in color and have long, hairy legs. The spiders have a distinct marking on top of their cephalothorax (the part of the spider where the legs attach) that resembles a British "Union Jack." Although all spiders are capable of biting people (they have fangs = chelicera), most spiders in Ohio, including wolf spiders, lack the ability to cause serious damage. Wolf spider bites have been appropriately likened to wasp stings; the pain and skin reactions are comparable.

Although recluse spiders have been found in Ohio, they remain relatively uncommon compared to other spiders. Indeed, they are certainly not as common in Ohio, or in Ohio homes, as wolf spiders and other outdoor spiders that my wander into homes. There are eleven species of recluse spiders that are native to the U.S., and a few non-native species that have
also become established in some areas of the county. Only one species has the common name of brown recluse (*L. reclusa*).

The recluses are medium sized spiders, and their legs and abdomen are covered in fine hairs. The spiders are much smaller, and much less "robust" compared to wolf spiders. Their legs and cephalothorax (the part of the spider where the legs attach) are colored in various shades of brown, from dark reddish-brown to light brown. Their abdomen is usually a light brown to beige. The spiders lack obvious markings except for a brown violin-shaped marking on their cephalothorax which gives rise to the common names of "fiddleback" or "violin" spiders. However, the marking is not always readily apparent and is faded on spiders that have recently molted.

Given their perceived "deadly" nature, recluse spiders have periodically crawled into the news over the past several years. Most of the reports were based on serious misunderstandings, misidentifications, or misdiagnoses. Indeed, several research studies have demonstrated that recluse spiders rarely bite people and many of the symptoms that have been diagnosed as recluse spider bites were actually caused by other agents such as bacterial infections. Thus, management strategies for recluse spiders, as well as other spiders, start with a correct identification of the spider.

Following a correct identification, the most important recommendation for controlling spiders in homes is to reduce the spider's food supply which includes insects. Remember that where insects roam, so will spiders. Entry points into homes, such as gaps in doorways, around windows, and openings around wires and pipes leading into homes should be sealed. Outdoor lights attract insects (spider meat), so lights should be directed away from windows and doorways and white bulbs replaced with yellow bulbs if the problem persists.

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

* The geographic distribution for LOCUST LEAFMINER BEETLES (*Odontota dorsalis*) this season in Ohio was reported in BYGL 2012-17 (07/26/12) to be highly variable throughout the state. High populations and noticeable leaf-browning on black locust trees was noted in the northeast part of the state; however, leafminer activity in the northwest part of the state was negligible and leaf browning was difficult to detect in the central and southern parts of the state. This week, Joe Boggs reported that "flamed leaves" are now becoming apparent in southwest Ohio with a gradual increase in symptoms as travelers drive north on I-71 from Cincinnati to the Akron area. For more information on this leafminer, see BYGL 2012-12 (06/21/12).

4. DISEASE DIGEST.

A. CUCURBIT YELLOW VINE DISEASE. Nancy Taylor reported that both a giant pumpkin and a regular pumpkin that she received at the CWEPPDC were diagnosed with cucurbit yellow vine disease (CYVD). This disease first appeared on squash and pumpkins in Texas and Oklahoma in 1988. It now has been diagnosed across much of the United States.

CYVD is caused by the bacteria, *Serratia marcescens*. This bacteria survives the winter in squash bugs and is spread in the spring when the bugs feed on cucurbit crops. Young seedlings in the first true leaf stage are more susceptible to the disease than older plants. The bacteria grow in and eventually clog the plant vascular system. Symptoms are usually not detected until just prior to harvest. However, some symptomatic or asymptomatic immature plants may collapse suddenly in the middle of the season or just after fruit set. Typically, all the leaves turn yellow within a few days, starting about a week or two before harvest. Older leaves develop scorched margins and may die. The phloem in the crown and lower stem turns honey-colored.


Key word: Cucurbit yellow vine disease
Further information:
http://www.ars.usda.gov/research/publications/publications.htm?seq_no_115=271060
http://www.hort.uconn.edu/ipm/veg/htms/cucrbinct.htm
5. TURF TIPS. No Report.

6. INDUSTRY INSIGHTS.

A. CALIBRATION AND COVERAGE. Most growers would jump at the chance to reduce the amount of pesticide applied to fields, greenhouses, and landscapes. Yet, even though this goal would become a reality with a properly calibrated sprayer and efficient coverage, many growers do not properly maintain, calibrate, or check sprayer coverage.

Randy Zondag conducted another successful sprayer calibration clinic for grape growers on South Bass Island in Lake Erie last week. Participants were amazed at how spray patterns and equipment affected coverage and total amount of product applied per acre. Simple tools, such as water-sensitive paper, helped to gauge spray coverage in the canopy. A digital reader and free software was used to quantify data. Growers were then able to estimate the rate of over or under application to fields.

During these clinics it is found that many sprayers are over applying product. This over application is an additional expense of production that most growers would like to reduce. The take home message is proper calibration with improved coverage can reduce the amount of product applied. And, fall is a good time to calibrate and clean spray equipment so it is ready to use when weather breaks in the spring.

7. WEATHERWATCH. The following weather information summarizes data collected at various Ohio Agricultural Research Development Center (OARDC) Weather Stations spanning the dates from September 1–5, 2012, with the exception of the soil temperatures which are readings from Wednesday, September 5, 2012 at 6:05 p.m.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ashtabula</td>
<td>NE</td>
<td>83.4</td>
<td>66.6</td>
<td>0.41&quot;</td>
<td>0.50&quot;</td>
<td>79.98/82.97</td>
</tr>
<tr>
<td>Wooster</td>
<td>NE</td>
<td>84.1</td>
<td>69.2</td>
<td>1.59&quot;</td>
<td>0.70&quot;</td>
<td>81.76/80.37</td>
</tr>
<tr>
<td>Hoytville</td>
<td>NW</td>
<td>83.2</td>
<td>68.8</td>
<td>0.34&quot;</td>
<td>0.50&quot;</td>
<td>77.11/74.92</td>
</tr>
<tr>
<td>Columbus</td>
<td>Central</td>
<td>83.5</td>
<td>72.3</td>
<td>0.62&quot;</td>
<td>0.60&quot;</td>
<td>79.17/77.84</td>
</tr>
<tr>
<td>Piketon</td>
<td>South</td>
<td>86.0</td>
<td>70.0</td>
<td>0.39&quot;</td>
<td>0.30&quot;</td>
<td>84.41/83.16</td>
</tr>
</tbody>
</table>

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! DIAGNOSTIC WALK-ABOUT. The September SW Ohio BYGLive! Diagnostic Walk-About will held 12:00-3:00 p.m., Monday, September 10, 2012 at the Boone County Arboretum at Central Park. The BYGLive! will be hosted by Dr. Mike Klahr, County Extension Agent for Horticulture, University of Kentucky (UK) Cooperative Extension Service, Boone County, and Kris Stone, Director, Boone County Arboretum. Mike founded the Arboretum in 1999, and this truly impressive ever-growing work in progress now encompasses 121 acres of park-land, and over 800 trees and 1500 shrubs, all labeled and positioned by a Global Positioning System to better monitor and manage the arboretum.

This monthly hands-on training series for Green Industry professionals provides the following training credits: ISA Certified Arborist CEU’s; ONLA OCNT credits, and Landscape Architecture Continuing Education System (LA CES) CEU’s for Landscape Architects. Visit the following website for more information: [http://hamilton.osu.edu/topics/horticulture/byglive-diagnostic-walk-about]. For directions to the arboretum, visit their website at [http://www.bcarboretum.org/] or call the UK Boone County Cooperative Extension Office at: 859-586-6101.

B. DIAGNOSTIC WALKABOUTS FOR THE GREEN INDUSTRY. The last two classes will be held in the Cleveland area in September at Cleveland Metroparks Zoo, September 13, 2012 and Sunset Memorial Park, September 27, 2012.
Both classes are 7:30 - 9:30 a.m. Pre-registration is required and class size is limited to 35 per class. ODA, ISA and OCNT credits are available. For registration, location and pesticide credit information see: [http://www.onla.org].

C. 2012 COMMERCIAL NEW APPLICATOR TRAINING SCHEDULED. The Ohio State University Extension's Pesticide Safety Education Program has one scheduled training date left 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. This last date is 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: "Weather means more when you have a garden. There's nothing like listening to a shower and thinking how it is soaking in around your green beans". – Marcelene Cox

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 September 4th conference call: Joe Boggs (Hamilton); Dave Dyke (Hamilton); Gary Gao (South Centers); Amy Stone (Lucas); Nancy Taylor (CWEPPDC); Marne Titchenell (School of Natural Resources); and Randy Zondag (Lake).

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.

Ohio State University Extension embraces human diversity and is committed to ensuring that all research and related educational programs are available to clientele on a nondiscriminatory basis without regard to race, color, religion, sex, age, national origin, sexual orientation, gender identity or expression, disability, or veteran status. This statement is in accordance with United States Civil Rights Laws and the USDA. Keith L. Smith, Ph.D., Associate Vice President for Agricultural Administration and Director, Ohio State University Extension, TDD No. 800-589-8292 (Ohio only) or 614-292-1868.