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Buckeye Yard and Garden onLine provides timely information about Ohio growing conditions, pest, disease, and cultural problems. Updated weekly between April and October, this information is useful for those who are managing a commercial nursery, garden center, or landscape business or someone who just wants to keep their yard looking good all summer.

BYGL June 23, 2011

Thursday, 23 June 2011 16:13

This is the 12th 2011 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 - KALANCHOE 'FLAPJACK' (*Kalanchoe thyrisflora* 'Flapjack').

Tropical and succulent plants are still the rage in gardens and landscapes, and many of the smaller ones are used in hypertufa and trough gardens. 'Flapjack' is a really cool tropical succulent that can be used in the garden or in a container planting. It's a small clumping succulent with large flattened (hence the name) leaves that have a grayish green color. The leaves are anywhere from 3-8" in diameter (new leaves start out small and expand in width). 'Flapjack' can take full sun to light shade. However, if it's planted in full sun, the leaf margins turn a brilliant scarlet, fiery red. This color deepens with cooler fall weather. It's not hardy to Ohio gardens; however, it can be brought into the house and overwintered. Since it is a

succulent, do not overwater!

*PERENNIAL - GARDEN LILIES (*Lilium* spp.).

When these plants are in flower, they have tendency to elicit "wow" from visitors as some of the cultivars are quite bold and visible in the garden. Lilies are classified into 8 major groups based primarily on flower form and orientation. The Asiatic lilies are in Division 1 and have upward, outward, or downward facing flowers on stems anywhere from 2-7' tall. They are usually non-fragrant and bloom in early summer. Oriental lilies are in Division 7 and are generally fragrant with bowl-like or flat-shaped flowers that bloom in mid- to late summer. The Missouri Botanical Garden Kemper Center for Home Gardening has a listing of the different divisions and their habits: http://www.mobot.org/gardeninghelp/plantfinder/plant.asp?code=A462.

Lilies are grown from true bulbs and are quite easy to grow. Plant them in well-drained soil as they do not tolerate wet areas. Lilies prefer to be planted in full sun; however, if the roots are shaded, they tend to thrive. Some don't like the appearance of the foliage once the blooms are finished. If they are interplanted with other perennials, the perennials hide the foliage as well as provide shade for the roots. In addition, once the petals fall, trim the lily back to the top of the foliage but leave the foliage until it turns yellow (sometime in the fall).

For more information, see:

- Missouri Botanical Garden Kemper Center for Home Gardening fact sheet on Lilies
- University of Minnesota Extension Fact Sheet on Selecting Lilies for Your Garden

PlantFacts

*WOODY - BOTTLEBRUSH BUCKEYE (*Aesculus parviflora*).

Bottlebrush buckeye is in peak bloom throughout the middle of the State. Bottlebrush buckeye is a spreading shrub that flowers in early summer in either sunny sites in the open, or as an understory shrub beneath the tall canopy of shade trees. Bottlebrush buckeye have opposite, palmately-compound leaves, with 5-7 leaflets that are characteristic of members of the genus *Aesculus*. This is the only shrub-form member of buckeyes and horsechesnuts. Bottlebrush buckeye has bottlebrush-like flowers that bloom in early spring. This plant thrives in full sun to partial shade in moist, well-drained soil. At maturity, bottlebrush buckeye can reach heights of 6-12' and approximately 15-20' in width. This plant has a mounding form and works best used as a screen, in mass plantings or used as a specimen plant.

For more information, see:

- University of Illinois Extension – Shrub Selector
- University of Connecticut

PlantFacts

*VEGETABLE - SQUASH (*Curcubita* spp.).

It's not too late to plant squash in the garden as long as one selects a variety that matures before the season's end. These plants have very similar cultural requirements and are pretty easy to grow successfully. Summer squash (zucchini, crookneck, scallop, etc.) have shorter growing requirements and can be planted now and a few weeks later for continual harvest. Look for varieties that mature anywhere from 45-75 days; one can go a little longer in the season by covering these plants with a greenhouse-like structure. Directly plant seeds into the garden or purchase transplants at the garden centers if they are still available. Most of these plants require a large amount of room to grow; however, there are varieties that have a 'bush' or compact growing habit for smaller gardens. Space the plants according to label directions.

Watch for insects on this group of plants as there are some insects that transmit viruses. In addition, squash vine borer can prevent even the best gardener from growing zucchini! For details on specific pest problems, go to http://ohioline.osu.edu and click on Vegetables and then Pumpkins and Squash. Harvest in the fall and enjoy.

For more information, see:

- OSU Extension FactSheet on Growing Pumpkins and Squash in the Home Garden

PlantFacts

*WEED - FIELD BINDWEED (*Convovulus arvensis*).

Field bindweed is a twining perennial vine. Field bindweed is known by many names such as bellbine, corn lily, cornbind, creeping Jenny, devil's guts, European bindweed, hedge-bells, possession vine, sheep-bine, wild morningglory, or withwind. Field bindweed has arrowhead-shaped leaves and pinkish petals fused into funnel-shaped flowers. These plants have a rhizome stem system with both lateral and deep vertical roots, which makes it an aggressive competitor for our crops and turf areas. Another competitive ability that field bindweed possesses is the seed longevity. The seeds can remain viable for up to 30-50 years in the soil. Field bindweed can also reproduce vegetatively from the roots and rhizomes, which can produce adventitious buds. All of these factors make field bindweed extremely difficult to eradicate from an area. When trying to control field bindweed, tillage and hand pulling can remove much of the plant. With continuous monitoring for re-sprouts and establishment of other plants in the infested area, field bindweed can be controlled successfully.

For more information, see:

- University of Idaho
- Utah State University
- Oklahoma Invasive Species

PlantFacts

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 849 to 1352. Following is a report of GDD for several locations around Ohio as of June 22, 2011: Painesville, 849; Cleveland, 892; Toledo, 995; Canfield, 946; Findlay, 1018; Van Wert, 1038; Wooster, 1017; Coshocton, 1143; Columbus, 1313; Springfield, 1243; Dayton, 1249; Cincinnati, 1312; Ironton, 1349; Portsmouth, 1352; and Piketon, 1297.

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.

Oakleaf hydrangea, first bloom, 835; **cottony maple scale, egg hatch, 851;** panicle hydrangea, first bloom, 856; **fall webworm, egg hatch (first generation), 867**; **mimosa webworm, egg hatch (first generation), 874**; fuzzy deutzia, full bloom, 884; **winged euonymus scale, egg hatch, 892**; **spruce budscale, egg hatch, 894**; winterberry holly, full bloom, 897; panicled goldenraintree, first bloom, 924; June bride littleleaf linden, first bloom, 953; **azalea bark scale, egg hatch, 957**; **Japanese beetle, adult emergence, 970**; rosebay rhododendron, first bloom, 1,010; June bride littleleaf linden, full bloom, 1,115, bottlebrush buckeye, first bloom, 1158; Ural falsespirea, first bloom, 1170; panicled goldenraintree, full bloom, 1251; rose-of-Sharon, first bloom, 1347; **pine needle scale, egg hatch - 2nd generation, 1349;** and **mimosa webworm, egg hatch - 2nd generation, 1920**.

For more information, see:

- Growing Degree Days and Phenology for Ohio
- Understanding and Using Degree-Days

B. BECOME A BEETLE DETECTIVE AND HELP PROTECT OHIO'S TREES!

Ohio State University Extension Master Gardener Volunteers, the United States Department of Agriculture, and the Ohio Department of Agriculture are partnering to help raise public awareness of the Asian longhorned beetle (ALB). With the recent discovery of this pest in Clermont County, Ohio (see below), this effort is even more critical! ALB has the potential to wipe out a wide variety of hardwood trees in landscapes, woodlands, and forests. Citizens can get involved in this effort by becoming a beetle detective and looking for signs of it where they live.

The first step is to go to the BeetleDetectives website (http://beetledetectives.com) and learn about ALB (emerald ash borer information is also on the site and can be included in this effort). Click on the link "About The ALB & EAB" and read the factsheets and learn about the pest. Then, look for signs of this pest on at least 10 trees on a property or in a neighborhood. After inspecting the trees, report findings on the website by clicking on the "Report Your Findings" link. If one suspects ALB on a tree, the name of the person to directly contact is on the website. In addition, report negative findings so that coordinators know where in the state people are checking.

Raising the awareness is the first step to help protect trees around the state. Join the effort by becoming a beetle detective!

For more information, see:

- BeetleDetective Website

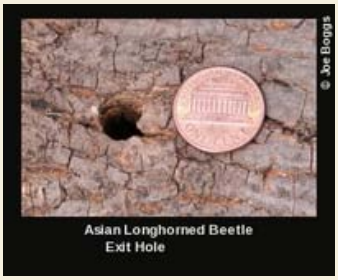
3. BUG BYTES.

A. ASIAN LONGHORNED BEETLE IN OHIO.

`On Friday, June 17, 2011, the United States Department of Agriculture, Animal and Plant Health Inspection Service (USDA APHIS) and the Ohio Department of Agriculture (ODA) announced that an Asian Longhorned Beetle (*Anoplophora glabripennis*) (ALB) infestation was found a few miles from the Village of Bethel in Tate Township, Clermont County. Consequently, the Governor of Ohio signed an Executive Order restricting the movement of hardwood logs, firewood, stumps, roots, and branches out of Tate Township. This is the first ALB infestation found in Ohio. USDA APHIS has responded with personnel on the scene to assess the extent of the infestation and to develop and implement a management plan.

As its name indicates, ALB is native to Asia and is considered a serious pest in China. It is well known that the beetle is capable of hitch-hiking across the globe in wood packing material (e.g. infested pallets). ALB was first discovered in North America in Brooklyn, NY, in 1996. Subsequently, other infestations were soon discovered in other parts of New York City, in several nearby New Jersey suburbs, and on Long Island. In 1998, ALB was discovered in and around Chicago, IL, and in Toronto, Ontario. The Chicago infestations have been declared eradicated while work continues on eradicating the other infestations. In 2007, the largest infestation to date was discovered in Worcester, MA, and in 2010 as relatively small infestation was found Jamaica Plain, a suburb of Boston, MA.

Trees that are preferred by ALB include all species of maples (e.g. sugar, silver, red, Norway, box elder) as well as birches, elms, willows, horsechestnuts, and buckeyes. Trees that may be hosts to ALB, but are rarely attacked include: ashes, European mountainash, hackberry, London planetree, mimosa, and poplars.



ALB is a large, striking looking beetle with very few look-a-likes found in North America. Indeed, many of the North American infestations, including the Worcester infestation, were discovered by people finding beetles rather than diagnosing the tree mortality caused by the beetles. Adults measure 1-1 1/2" in length. They are dark blue to bluish-black and covered with around 40 irregularly-shaped and -sized white dots. One of the Chinese common names for the beetle translates to the descriptively named "starry night beetle." As with most Cerembycids, ALB has exceptionally long antennae which are responsible for the common name. The antennae have alternating black and white bands.

ALB adults have been reported to emerge in other infestations in North America from July to October; however, adults were found in the Ohio infestation on June 16. Adult emergence holes are circular and very large measuring around 3/8-1/2" in diameter. Although the beetles are capable of flying several hundred yards in search of a suitable host, they prefer to remain close to the tree from which they developed in order to re-infest the tree if it will support another generation. After mating, ALB adult females chew oblong-shaped 3/8" wide oviposition pits through the bark and phloem exposing the xylem (white wood). A single egg is deposited into each pit; the females are capable of laying 35-90 eggs during her lifetime. The oviposition pits and adult exit holes, if found on living branches and stems, are strong diagnostic indicators for an ALB infestation.

Cerembycid larvae are commonly referred to as "roundheaded borers," and ALB larvae look like typical cerembycid larvae. The segments towards the front of the fleshy, thin-skinned, yellowish-white larvae are larger in diameter than the rest of the segments. This makes the larvae look like they have round heads and tapering bodies. ALB larvae develop through 5 instar stages. First and second instar larvae tunnel through and feed on phloem tissue. Their feeding activity produces weeping canker-like symptoms on the bark. Third, fourth, and fifth instar larvae bore deep into the white wood. The wood boring activity produces two diagnostic indicators of an ALB infestation. The first is course, white, sawdust-like frass that is exuded from the infestation sites. The second is a branch and stem breakage. In fact, one of the Worcester infestations was discovered by USDA APHIS personnel examining the ends of branches broken in an ice storm.

A special toll-free telephone number has been established by the ODA for Ohioans to report suspected ALB infestations or suspiciously large black and white beetles. The number is: 855-252-6450.

For more information, see:

Ohio Department of Agriculture
- USDA APHIS

PlantFacts

B. WINDSHIELD WIPES.

BYGLers also ran into a few other insect and mite problems this week including:

*Dave Shetlar reported observing the adults of three other *Agrilus* beetles on the wing in central Ohio. Two of these borers focus their attention on stressed trees including newly planted trees, and the other kills European white birch. The TWOLINED CHESTNUT BORER (*A. bilineatus*) infests oaks and chestnuts and HORNBEAM BORER (*A. bilineatus carpini*) attacks hornbeams (both *Carpinus* and *Ostrya*), as well as beeches. These borers are one of the major causes of the death of newly transplanted oak and hornbeam trees in landscapes. BRONZE BIRCH BORER (*A. anxius*) attacks both native and exotic birch trees, but has its greatest impact on the imported European white birch. Dave reminds readers that one should not forget about these other borers while the attention of Ohio is focused on emerald ash borer and Asian longhorned beetle.

4. DISEASE DIGEST.

A. SCAB ON CRABAPPLE.

As noted last week in BYGL, the apple scab fungal disease is predictably bad this year, as the wet environmental conditions conducive to disease were persistent for the first two months of the growing season. The OSU crabapple team of Erik Draper, Bruce Cubberley and Jim Chatfield confirmed this with their first disease evaluations on June 10. The ratings for this early season evaluation in many cases indicated levels of scab that we often do not see until August when ratings tend to be highest. Taxa such as 'Weeping Candied Apple' and 'Royal Fountain' were almost totally defoliated from apple scab already, which is highly unusual.

Nevertheless, of the 79 taxa in the replicated randomized Crablandia II plot at the Secrest Arboretum of OSU's Ohio Agricultural Research and Development Center in Wooster, 30 showed no symptoms of scab, indicating excellent genetic resistance to this pathogen for these taxa. Examples of crabapples with no scab in our plot at this June rating include: 'Adirondack, '*Malus baccata* 'Jackii', 'Callaway', ' Camelot', 'Canterbury', 'Cardinal', 'Dolgo', 'Excalibur', 'Firebird', 'Foxfire', 'Guinevere', 'Holiday Gold', 'King Arthur', 'Lollipop', 'Louisa', 'Maypole', 'May's Delight', 'Orange Crush', 'Pink Princess' , 'Prairie Maid', 'Prairie Rose', 'Pumpkin Pie', 'Rawhide', 'Red Jewel', *M. sargentii*, 'Silver Moon', 'Spring Sensation', 'Strawberry Parfait', 'Sargentina', and one additional *M. sargentii* clone.

Finally, in the world of crabapples, enquiring minds want to know…did those crabapple seeds that went into space aboard the Space Shuttle Endeavour germinate? The answer from Lenicia McCrary of Crystal Lake Middle School in Broward County Florida is an "ecstatic" YES.

B. DIAGNOSTIC DILEMMA: DIPLODIA (SPHAEROPSIS) TIP BLIGHT OF PINE.

This appears to be a big year for this fungal tip blight on pines such as Scots pine, Austrian pine, red pine, mugo pine, but not white pine. With infections that occurred this spring during leaf needle and candle emergence, symptoms include needle stunting, needle browning, and shoot curling and dieback. On pines which have multiple years of significant infection symptoms often seen are considerable branch dieback, extensive needle browning and in some cases, plant death.

From a diagnostic perspective, the symptom of shoot curling is important regarding the 6th question of the 20 Questions of Plant Diagnsotics, namely "What Exactly Do You See?" As noted in previous BYGLs and as we are seeing with more and more samples and reports of damage, one of the symptoms on Norway spruce and white pine associated with some Imprelis herbicide applications is curling of this season' new shoots. So, when observers see a conifer such as Austrian pine with shoot curling and needle browning it may be easy to jump to the conclusion that this must be associated with Imprelis. However, as noted, shoot curling and needle browning is especially evident this year due to Diplodia/Spaheropsis infections.

So, look carefully. In samples Jim Chatfield and Curtis Young noted this week, the curling of shoots and brown needles was not accompanied by needle twisting, and the new growth at the terminals higher up in the tree were not affected, unlike what would be expected with root uptake of herbicides. Furthermore in cases where Diplodia/Spaheropsis was diagnosed good weed control was not present around these pines, and Imprelis is a highly effective broadleaf herbicide. So, put all these symptoms together when you put on your diagnostic hat. As noted last week: Do not make the symptoms fit the diagnosis, make the diagnosis fit the symptoms. All the symptoms.

C. POWDERY MILDEW PROFILE: PART 2.

Let's look at the signs and symptoms of powdery mildew diseases. Plant diagnosticians discriminate between signs and symptoms. When some part of the pathogen is observed it is a "sign" of the pathogen. With powdery mildews the familiar sign we see is the whitish to grayish masses of threads of the powdery mildew fungus (the mycelia) and spore-bearing structures (sporophores) on leaves and stems. Another sign, less often noticed is tiny dark round sexual fruiting bodies of these powdery mildew fungi (cleistothecia) which are one of the ways the fungus survives overwinter. This sign of the fungus is about the size of a tiny pepper grain when seen by the naked eye, but ornamentations on the cleistothecia help with identification when using a dissecting microscope. The key diagnostic sign to look for, though, is the familiar powdery growth.

"Symptoms" are the results of the interaction with the plant and the pathogen. With powdery mildews symptoms include: curling and twisting of young shoot growth, flowers and leaves, yellowing and reddening of leaves, and even drying and browning of leaf tissue in serious infestations. Also, the results of the fungal growth on leaf tissue result in impaired photosynthesis (food production) by the plant leaves. It is often said that powdery mildews are not a serious disease, since these signs and symptoms do not result in plant death, but down-playing the importance of powdery mildew diseases for ornamental plants may be a mistake in many cases.

First, with ornamentals these signs and symptoms may make the plant unattractive, an important consideration. Lilac powdery mildew will not kill a lilac in someone's landscape, but it might kill your garden center business. Second, overall effects may be significant down the road, for instance, poor flower production on roses or an extra year to produce a sellable flowering dogwood for nursery growers.

As noted, powdery mildew fungal spores do not germinate in free water on the leaf surface, it depends on relative humidity of the air, and the level of relative humidity that favor different powdery mildew diseases is variable. One general key for control is to site plants in environments with good air movement. To the extent possible, do not plant in damp, humid environments, and space plants to encourage air movement. Use good sanitation practices by pruning out badly infested old wood and remove and dispose of infested leaves at the end of the growing season.

Powdery mildew fungi infect plants superficially, not penetrating deep into the cell layers of a leaf. Thus, fungicides can be quite effective if applied according to label directions and in a timely manner. A wide range of fungicides are available for various powdery mildew diseases, from old stand-by multisite products to newer highly specific products, as well as a number of organic and biological control alternatives. A good listing of labeled fungicides (though labeling regularly changes) is available in the "Powdery Mildew" fact sheet in the Diseases of Landscape Plants series from Purdue University.

For more information, see:

- Diseases of Landscape Plants

5. TURF TIPS. (see Industry Insights)

6. INDUSTRY INSIGHTS.

A. CHEMICAL CONUNDRUMS.

Navigating suspected chemical injury for green industry companies is challenging on many levels. This includes the diagnostic dilemmas we have already noted in this BYGL, and the many diverse communications issues that arise. Here are two examples of these challenges relative to questions that have emerged regarding Norway spruce, Black Hills and white pine injury and possible association with Imprelis herbicide applications.

First, according to James Belt, Agriculture Inspection Manager of ODA, the Ohio Administrative Code 901:5-11-02(D) indicates:

Pesticide applicators:

(4) Shall report to the department of agriculture:

(b) By written report within ten calendar days after learning of any property damage in excess of five hundred dollars resulting from or allegedly resulting from a pesticide used by the pesticide applicator or a trained serviceperson, immediate family member or subordinate employee working under the pesticide applicator's direct supervision.

Ohio Revised Code 921.24: Prohibited Acts

No person shall do any of the following:

(Q) Refuse or fail to comply with this chapter, the rules adopted thereunder, or any lawful order of the director;

Secondly, Jim Chatfield recently met with Dr. John Lloyd, Chief Science Officer of the Rainbow Companies, based in the Twin Cities of Minnesota. John shared aspects of their communication with their customers from Rainbow Treecare President Greg Krogstad:

This week we have been receiving more calls regarding spruce [Norway and Black Hills] and pine damage due to Imprelis Herbicide. There was a letter sent out [to] Lawncare clients that we know have spruce and pine trees. Hundreds of companies have been using Imprelis this year so you may certainly see damage on properties. Lawncare will look at the property and talk with the client.

For now, we are not recommending anything for the declining trees. We have attempted [applications of] POM [Prescription Organic Matter]. We are waiting until DuPont instructs us on how to proceed. We will not remove the tree until we know what DuPont requires to support the claim.

The trees were not accidentally sprayed; it appears to be a systemic issue where roots are absorbing the compound. Newly planted, root-bound trees, do not appear to be impacted like mature, established trees. This is due to the application occurring over lawn areas and not under or around trees.

Please feel confident when discussing the Imprelis issue with clients. You may have some very upset clients. Remind them that the product was released in fall of last year and we waited before using it. All research showed Imprelis to be the least toxic, landscape friendly product on the market. It fits our commitment to low toxic, low input options and their property was not in any way a test site. We will correct the problems, but need to work with DuPont because they have responsibility in the matter.

As BYGL goes to press, John notes that the issue in the Twin Cities is now gaining local media attention.

These are just a few reminders that the green industry is a challenging business. As Joshua J. Marine noted: "*Challenges are what make life interesting; overcoming them is what makes life meaningful.*"

7. WEATHERWATCH.

The following weather information summarizes data collected at various Ohio Agricultural Research Development Center (OARDC) Weather Stations spanning the dates from June 1- 22, 2011, with the exception of the soil temperatures which are readings from Wednesday, June 22, 2011 at 6:05 p.m.

Weather Station	Region of Ohio	Ave. High Temp F	Ave. Low Temp F	Total Precip."	Normal Precip."	Soil Temp F 2"/3"
Ashtabula	NE	77.6	56.6	1.27	3.3	76.86/78.19
Wooster	NE	80.1	58.3	2.87	2.9	77.17/75.68
Hoytville	NW	83.7	61.4	1.00	2.6	85.99/81.30
Columbus	Central	84.2	62.9	2.93	3.2	75.23/73.59
Piketon	South	83.0	60.4	2.49	2.1	79.07/77.35

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

8. COMING ATTRACTIONS.

A. DIAGNOSTIC WORKSHOPS FOR MASTER GARDENER VOLUNTEERS.

OSU Extension Master Gardener Volunteers wanting to sharpen their diagnostic skills should register for one of three upcoming workshops held in NW, Central, and NE Ohio. The programs are designed for volunteers and will include first detector training, as well as hands-on samples. Registration for each session is being handled through the local Extension office. Here are the dates and locations: July 27, 2012, in Hancock County; August 30, 2012, in Franklin County; and September 12, 2012 in Cuyahoga County.

B. SCHOOL INTEGRATED PEST MANAGEMENT SEMINARS SCHEDULED.

When it comes to pesticide use in schools, Ohio has new school rules. Is your school in compliance? Ohio State University (OSU) Extension is available to assist Ohio schools with Ohio laws on pesticide use in schools and integrated pest management. In addition to website resources and free consultation, there are three scheduled seminars.

- Collins Seminar (Huron County) - July 21, 2011
- Mt. Orab Seminar (Brown County) - August 2, 2011

Registration information is available on the website: http://bugs.osu.edu/schoolipm/ .

For more information, see:

- IPM Website

C. 2012 OHIO COMMERCIAL PESTICIDE APPLICATOR RECERTIFICATION CONFERENCES SET.

Next year's conference dates have been set. While the events are 6 months out, take the opportunity to get them in your calendar today. Here are the dates: January 31, 2012, Kalahari Conference Center, Sandusky; February 8, 2012, John S. Knight Center, Akron; February 15, 2012, Dayton Convention Center; and March 8, 2012, Columbus Convention Center.

9. BYGLOSOPHY

"Ah, summer, what power you have to make us suffer and like it." - *Russel Baker*

APPENDIX - ADDITIONAL WEBSITE RESOURCES:

- Ohio State University Department of Horticulture and Crop Science Plantfacts
- The C. Wayne Ellett Plant and Pest Diagnostic Clinic (CWEPPDC)
- Buckeye Turf
- Ohio State University Extension Master Gardener Volunteer Program
- Emerald Ash Borer Information

Following were the participants in the June 21st conference call: Pam Bennett (Clark); Joe Boggs (Hamilton); Jim Chatfield (Horticulture and Crop Science); Julie Crook (Hamilton); Dave Dyke (Hamilton); Craig Everett (Wood); John Lloyd (Rainbow Treecare, Minnesota); Bridget Meiring (C. Wayne Ellett Plant and Pest Diagnostic Clinic (CWEPPDC)); Cindy Meyer (Butler); Joe Rimelspach (Plant Pathology); Dave Shetlar (Entomology); Amy Stone (Lucas); Nancy Taylor (CWEPPDC); 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/ .

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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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