

BYGL Newsletter

[July 12, 2012](#)

This is the 15th 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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Plants of The Week »

*Weed - Prostrate Spurge (*Euphorbia humistrata*)



Prostrate spurge is a mat-forming summer annual found in landscape beds, container nurseries, and along sidewalks and driveways. As its name indicates it is prostrate, hugging the ground while forming large, almost perfectly round, mats. Individual leaves are oval, less than 1/4" in length, about half as wide and may have an oval purple spot along the midrib. Being in the Euphorbia family, this plant has milky sap.

Flowers are held close to the stem in the upper leaf axils. As with all Euphorbia the flower consists of several male and one female flower forming a small cluster. Flowers are present throughout

the summer.

SPOTTED SPURGE (*Euphorbia maculata*) is almost indistinguishable from PROSTRATE SPURGE; several resources list them as synonyms of the same plant. Some of the differences include spotted spurge having more color to the leaves, and not rooting at the lower nodes. Another closely related spurge is the NODDING SPURGE (*Euphorbia nutans*). This spurge has somewhat larger leaves and an upright, almost erect, habit.

*Vegetable - Eggplant (*Solanum melongena*)



Eggplant is a close relative of the tomato, pepper and potato. Like the tomato it is a tender annual requiring a long season to reach maturity so it is put into the garden as a transplant. Since it is a member of the tomato family it should not be planted in an area where other members of the tomato family had been grown the prior year.

There are many varieties of eggplant available giving the grower and chef a choice of colors and sizes - the large purple eggplant is no longer the only eggplant available at markets. The white, striped, and finger-sized fruits that were once novelties are now

the fruit of choice in the eggplant category.

Fruit from eggplant is useable from the time it is about 1/3 of its final size. Therefore, they remain edible for several weeks, although the smaller sized fruit are preferred for cooking. The fruit should be harvested before

*Perennial - American Lotus (*Nelumbo lutea*)



This aquatic plant is the only lotus species that is native to the US and Canada. It may be found in the backwaters of rivers and reservoirs, in pools in marshes and swamps, and in lakes. The circular, deep green leaves range in size from 1 - 3' and are flat if floating on the water surface or slightly cup-shaped if they rise on rigid stems up to 3' above the water. Leaves lack slits which helps to distinguish this plant from water lilies. The showy, fragrant, pale yellow flowers may be 10" in diameter with more than 20 petals and are borne on stalks. The inverted-cone shaped seed pod in the center of the flower has openings in which the seeds develop making the structure look like a shower head. Once

petals drop, the seed pods droop down making them look even more like shower heads.

American lotus colonies spread by seeds and submerged rhizomes and the plants may be propagated by bare root, rhizomes, or seeds; the seeds must be stratified. The lotus plants provide a healthy habitat for a wide range of micro and macro organisms. The large leaves protect immature fish from predators, the seeds are utilized by ducks and other migratory birds, and the rhizomes are fed upon by beavers and muskrats. American lotus is listed as "threatened" in Michigan, and "endangered" in Pennsylvania and New Jersey. However, the plant is banned in Connecticut and is included on the state's "Invasive Plant List." Indeed, this species may become aggressive and difficult to control in shallow ponds and lakes throughout its native habitat.

For More Information:

USDA Natural Resources Conservation Service, Plant Profiles

<http://plants.usda.gov/java/profile>

***Woody - American Linden or Basswood (*Tilia americana*)**



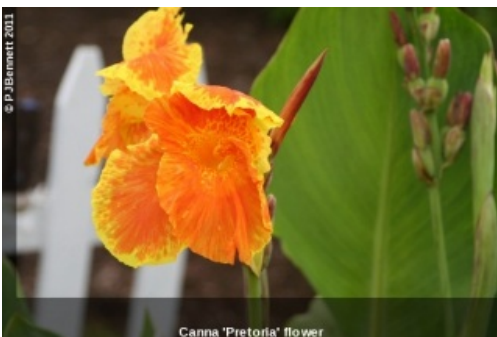
The American linden or basswood is a great shade tree with a pleasing form and lustrous dark-green leaves. The growth habit is pyramidal when young, becoming rounded when mature. The tree grows in sun or partial shade and adapts to a variety of soil and moisture conditions. Flowers are small and yellow. Bees use the fragrant flowers to make what some consider the very best honey. The tree's fruit is attached to a pale-green bract, and gives the tree a two-tone appearance in mid-summer.

For More Information:

University of Illinois Extension Plant Selections - American Linden

http://extension.illinois.edu/IPLANT/plant_select/arboretum_trees/American_Linden.htm

***Annual - Cannas or Canna Lilies (*Canas X hybridis*)**



These bold exotic tropical plants are great for containers, perennial borders, mass planting, and just about any location in the home landscape. Then new varieties include colors of flowers and foliage that absolutely show off in the garden. One of the most popular seed-grown varieties, the Tropical Series, has been around awhile and is still quite popular. In 1992, Tropical Rose was an All-America Selection. Cannas begin to bloom in mid-summer and don't quit until frost. Flower colors are quite tropical in the reds, oranges, salmons, and pinks range. Leaves of cannas are quite large and usually shiny green. However, there are numerous cultivars with variegated and bronze leaves. For instance,

'Cleopatra' has yellow flowers and dark green foliage with bronze-red markings and 'Stuttgart' has green and white variegated foliage.

Standing anywhere from 2 - 8' tall depending upon the variety, these plants are quite easy to grow in the garden. They do best in full sun and well-drained soil.

Purchase cannas as rhizomes in the spring and pot up indoors in April to have blooms earlier outside in the summer. Seed-starting for cannas can be quite a challenge. The rhizomes must be dug up in the fall and stored in a cool dry place.

However, some plants have been known to overwinter in the ground in some protected areas of the garden. Don't take a chance, though, if it's a variety you want to save!

For More Information:

Missouri Botanical Garden Kemper Center for Home Gardening information on Canna 'Striata' (yellow variegated foliage)

<http://www.missouribotanicalgarden.org/gardens-gardening/your-garden/plant-finder/plant-details/kc/b909/canna-striata.aspx>

Iowa State Extension publication on Growing Cannas

<http://www.extension.iastate.edu/Publications/RG323.pdf>

Hort Shorts »

White or Brown Drupelets in Blackberries

Blackberries have started ripening in parts of Ohio. A few gardeners and growers noticed white or brown drupelets on ripe berries. A drupelet is one of the many tiny fruitlets that make up each blackberry. Some of those white or brown drupelets may have been caused by sunscald. Insects, though less likely, may have pierced the drupelets with their mouthparts. It appears that some blackberry varieties grown in open fields are more prone to white drupelet disorder than others. Blackberries grown with shade protection in the late afternoon tend to have less white drupelets. An innovative system for growing blackberries has been developed to minimize sunscald to berries. The system is called the rotatable cross arm trellis. With this system, all of the berries are on the east side of the trellis, thus minimizing sun exposure. Dr. Mike Ellis commented that the blackberries with white drupelets can still be eaten since there is no disease associated with this physiological order. With blackberries that have brown drupelets, it is important to make sure that the berries are not rotten. When in doubt, throw them out.

For More Information:

UC Fact Sheet on White Drupelets

<http://www.ipm.ucdavis.edu/PMG/r71800111.html>

Hail Damaged Wine Grapes



Gary Gao reported that a hail storm hit OSU South Centers in Piketon around 5:30 p.m. on July 6, 2012. He was initially happy to see the rain. However, hail came shortly after the storm started. Most hail stones that fell that evening were about pea-sized. However, some of them were marble-sized. A few hail stones were about cherry-size. This hail storm caused quite a bit of damage to the fruit crops, especially to the wine grapes. There were a lot of damaged fruit clusters, berries, leaves and even shoots. Just about every cluster had damaged berries. Some of the leaves were shredded while berries were bruised and turned brown. Hail also left marks on the shoots. Hail-damaged berries

will not likely reach full maturity. According to Dr. Tom Zabadal of Michigan State University, berries will be scarred or will die without onset of fruit rot, if they were hit by hail during early stages of berry development. Hail during or after veraison will promote fruit rot.

For More Information:

University of Maryland Fact Sheet on Hail Damage

<http://www.grapesandfruit.umd.edu/TimelyVit2/TimelyVitHailDamage.pdf>

Drought Stressed Trees

Drought stressed trees are a common sight this year. Recent rains have had little effect on alleviating the water shortage in some areas. During long periods of drought trees may exhibit typical signs of water stress: dull green color, wilting or curling of leaves, leaf drop. There are some steps one can take to help some trees through long periods of drought.

First, provide new transplants with water on a regular basis. The 1" of irrigation per week is a good rule to follow. Probe the area around the tree and feel the soil to gauge the moisture level near the surface and a few inches below. Even without drought, newly planted trees would require monitoring and regular watering. Be careful, however, not to flood the planting hole, effectively drowning the plant.

Second, provide young trees or specimen plants with infrequent but deep irrigation during long periods of drought. Giving

younger trees several years of tender loving care will help them establish an efficient, deep and extensive root system. After this initial period of establishment, they will be able to handle droughty weather without much assistance.

Finally, thoroughly irrigating large, mature trees may be impractical. The volume of water and the time needed to apply it are significant. However, if there are valuable specimen plants that require irrigation intervention, then irrigating in several areas within the dripline of the tree may help get them through the worst of the dry spell. Apply the water at a very slow rate, just a slow drip, for several hours at a time. Faster application will probably lead to puddling and runoff.

Bug Bytes »

Windshield Wipes



BYGLers also ran into a number of other insect pests this week including:

* Participants in the Southwest Ohio BYGLive! Walk-About held an impromptu diagnostic clinic with the "patient" being an ornamental cherry that had numerous droplets of glistening sap oozing from the bark. A close inspection revealed that the sap was being exuded from small, shot-sized holes and some sap contained small flecks of sawdust-like frass indicating the culprit was likely a bark beetle or ambrosia beetle (family Scolytidae).

Drawing his trusty diagnostic pocket-knife, Dave Leonard (Dave Leonard Consulting Arborist, Inc., Lexington, KY) excavated the bark to find that the beetles had not penetrated the xylem, meaning the true culprit was a bark beetle since bark beetles only bore into the phloem. Ambrosia beetles bore into the xylem to release their ambrosia fungi that in turn feeds their larvae. No beetles were found so an exact identification could not be made. However, it was agreed upon by the group that the bark beetles were a secondary problem attacking a cherry that was already suffering from another malady, perhaps drought stress. It was a grim prognosis for the patient.

Strafing Horseflies on the Move Again



Joe Boggs reported that HORSE FLIES (*Tabanus* spp.) are once again flying in great numbers. One does not have to be around horses to know that the extremely large horse flies are active, traveling in a car can be enough. These ferocious, but seemingly silly flies will attack cars driving down the highway. The flies will target cars, chase them down the road then ram into them when the car stops at a traffic signal or stop sign. After the Tuesday BYGL conference call, Curtis Young drove to Columbus from NW Ohio and throughout the trip, he observed numerous horseflies buzzing around all of the cars on the highway. These flies are big enough to be seen even when one is traveling at 55+ mph in the

car. The carcasses of several were observed dashed and smashed in the grill of the car after the trip was over.

There are several different species of horse flies in Ohio. These flies range in size from 3/8 - 1 1/8" in length. Female horse flies require blood meals to be able to produce eggs to initiate the next generation, thus they search for large mammals from which to obtain their blood. When the female finds a host, she uses her sharp mandibles to slash a wound in the skin into which she injects saliva that prevents the blood from coagulating, then she laps up the free-flowing blood. The bite is extremely painful. After the fly finishes or is interrupted while feeding, the blood will continue to flow from the wound.

Horse flies are adept at locating warm-blooded animals, including people near swimming pools, streams, ponds, marshy areas and in the woods. According to Missouri University entomologists, the flies apparently are sensitive to parts of the electromagnetic spectrum - their sight may be like "thermal vision" cameras used to detect heat leaks in houses. They are also attracted to large moving objects which give off heat, like cars and trucks and more savory targets such as cows, horses, deer and humans.

There isn't much that can be done to prevent the horse flies from biting. Suggestions include: avoid areas where horse flies are most active; since the horse flies are active during the day, stay inside during daylight hours (this is not very practical when we have so many activities outside during the day to attend); stay alert while outside because unlike most other flies, many horse flies' flight is nearly silent. They are also known for landing stealthily on exposed skin then delivering a painful

bite; wear light colored clothing that is presumably less attractive than dark colors when outdoors to help reduce the annoyance from biting flies; in extreme cases, hats with mesh face and neck veils and neckerchiefs may add some protection; and use an insect repellent containing DEET or picaridin. Traps may help reduce horse fly populations. One such trap is the Manning trap. The Manning Trap is a large stationary area trap. For more information on the Manning trap, see the University of Wisconsin Garden Facts on deer flies and horse flies at:
<http://wihort.uwex.edu/gardenfacts/XHT1049.pdf> .

For More Information:

OSU FactSheet on Biting Flies

<http://ohioline.osu.edu/hyg-fact/2000/2115.html>

University of Kentucky FactSheet on Biting Flies

<http://www.ca.uky.edu/entomology/entfacts/ef511.asp>

University of Kentucky FactSheet on Horse Flies

<http://www.uky.edu/Ag/CritterFiles/casefile/insects/flies/tabaniid/tabaniid.htm>

Illinois Department of Public Health - Biting Flies

<http://www.idph.state.il.us/envhealth/pcbitingflies.htm>

Squished Squash



Several BYGLers reported that gardeners in Ohio are starting to experience the handiwork of SQUASH VINE BORERS (*Melittia cucurbitae*). Caterpillars of this moth bore into the stalks of squash, pumpkins, and gourds to feed on the inner tissues causing vines to weaken, and collapse. Heavy infestations can cause lush, full, healthy-looking plants to rapidly wilt, and die.

The moth belongs to the family Sesiidae, the clearwinged moths. Clearwinged moths are so named because many species lack scales on their wings. They mimic wasps both in the membranous appearance of their wings and the shape of their

bodies. However, squash vine borer moths only slightly resemble wasps. Their front wings are covered in dark metallic-green scales, and only their hind wings are clear. The moth's thorax is greenish-black, and their abdomen is a flamboyant reddish-orange topped with a dorsal row of black dots. There is typically only one generation of this moth per season in Ohio; however, occasionally a partial second generation may occur in the southern part of the state. Adults fly during the day and may be observed from early-June through early-August.

Management strategies to minimize the overall impact of this insect include catching and killing moths that are resting on leaves in the afternoon before they lay eggs; hand-picking the dull red eggs from main stems before they hatch; wrapping stems in strips of old nylon to prevent egg laying; and excavating larvae from infested stems then burying the stem nodes to produce new plants. Plants may also be protected by covering them with cloth "row covers" that are available at many garden centers. Of course, covering the plants will also exclude pollinators which means gardeners must hand pollinate flowers.

Standard insecticide applications may also be used, but multiple applications are required and insecticides applied near the flowers will kill bees and other pollinators. The Ohio Vegetable Production Guide (Bulleting 672-10) lists a number of insecticides labeled for use against the squash vine borer. The Bulletin can be accessed online at
<http://ohioline.osu.edu/b672/>.

For More Information:

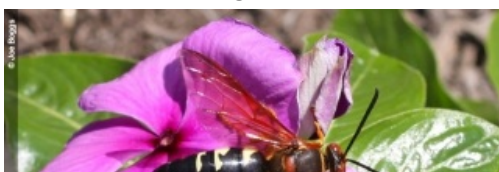
University of Kentucky EntFacts

<http://www.ca.uky.edu/entomology/entfacts/ef314.asp>

University of Minnesota Home Gardening Fact Sheet

<http://www.extension.umn.edu/distribution/horticulture/M1209.html>

Cicada Killers Cruising Ohio Lawns and Landscapes



Participants in this week's Southwest Ohio BYGLive! Diagnostic Walk-About were "treated" to numerous cicada killer wasps (*Sphecius speciosus*) buzzing around landscapes in Glenwood Gardens, Hamilton County Park District. These giant wasps are the nemesis of ANNUAL DOG-DAY CICADAS (*Tibicen* spp.), so



they are considered beneficial. However, their low-level flights over sand volleyball courts, lawns, and bare areas in landscapes can be disconcerting. Their attack on a cicada is signaled by an abrupt halt in the staccato "singing" of the cicada, often punctuated by a high-pitched screech, which usually means a cicada killer has committed an insecticidal act. It is no accident

that the arrival of the wasps coincides with the peak arrival of the dog-day cicadas.

These are the largest wasps found in Ohio, measuring 1 1/8 - 1 5/8" in length. The wasps have black bodies that are marked with yellow to white patches on the first three abdominal (rear part) segments. The head, thorax and legs are rusty red and the wings russet-yellow. As with all hymenoptera (wasps, bees, etc.), only the females possess stingers (ovipositors); however, they are not aggressive.

The females spend their time digging and provisioning burrows with paralyzed cicada-prey. The males spend their time establishing and defending territories that encompass females. They will aggressively buzz any transgressor who dares to enter their territory, including people. The females prefer to dig their brood burrows in bare, well-drained soil that is exposed to full sunlight. Although the wasps are considered solitary, all of the females have the same nesting requirements. Thus, it is not unusual for there to be numerous burrows, and wasps, in relatively small areas. The males are notoriously territorial and will chase after other males as well as picnickers, golfers, volleyball enthusiasts, and gardeners. Fortunately, it's all a rouse since the males lack stingers.

Cultural practices that promote a thick growth of turfgrass will usually eliminate a cicada killer infestation in a lawn in one or two seasons. In landscapes, the wasps prefer loose soil in full sun. However, they will occasionally set-up shop in open areas that are covered in a thin layer of mulch. Deepening the mulch layer and periodical raking to disturb the mulch or adding plants to shade the soil will make conditions less favorable for the wasps. Since this is a beneficial insect, there are no insecticide recommendations specific to controlling these wasps. Education is one of the best approaches to reducing the angst sometimes caused by these wasps. Indeed, Glenwood Gardens have a nice sign posted next to one of their cicada killer colonies located in a high-traffic area to educate the public on what's really going on with these bio-allies.

For More Information:

NC State Fact Sheet

<http://www.ces.ncsu.edu/depts/ent/notes/O&T/lawn/note63/note63.html>

University of Kentucky EntFact

<http://www.ca.uky.edu/entomology/entfacts/ef004.asp>

Hickory Tussock Moth



Joe also reported that Kathy Smith (OSU School of Natural Resources) sent an e-mail message with an image showing 1st instar HICKORY TUSSOCK MOTH (*Lophocampa caryae*) caterpillars munching on the leaves of a white oak on her farm in northeast Ohio. First instar caterpillars feed gregariously in colonies as leaf skeletonizers; the appearance of "see through" leaves is a good indicator the caterpillars are afoot. The caterpillars eventually disperse with later instars becoming solitary feeders and consuming entire leaves.

The caterpillars may be found on a wide range of deciduous trees and shrubs including ash, crabapples, elms, oaks, and sweetgum, as well as their namesake host. Additionally, as with all tussock moths, the caterpillars are protected by stinging (urticating) hairs. Direct contact with skin can produce a rash similar to reactions to poison ivy.

Although larvae of all instar stages are covered with stiff white hairs, there are different color forms. All color forms are variations of a black on white motif and range from thin black stripes across the back (tiger striping) to a row of black spots down the back. Most color forms also have two prominent side-by-side tufts of long black hairs immediately behind the head which is typical for a tussock moth caterpillar. In past years, these caterpillars have been responsible for heavy defoliation of oaks in southern Ohio. It is suspected that the hickory tussock moth has two generations per year in Ohio.

Summer Cats

Joe Boggs reported observing late instar WALNUT



CATERPILLARS (*Datana integerrima*), and YELLOWNECKED CATERPILLARS (*D. ministra*) in southwest Ohio. The caterpillars of both species are general defoliators and they feed in groups that may include 10 - 30 caterpillars. Since both species occur at the same time, share general traits and some hosts, the two species are sometimes misidentified.

Both species of moths lay eggs on the underside of leaves. First instar caterpillars often go unnoticed since they only skeletonize the lower leaf epidermis. Damage becomes more apparent when

the caterpillars reach the second instar stage and consume most of the leaf, except for the midvein. In later instars, they devour whole leaves, often including the petiole. Since the caterpillars of both species are gregarious feeders, defoliation tends to occur one branch at a time, unless populations are high and multiple groups are feeding on many branches. Both species of caterpillars have the interesting habit of rearing their front and tail ends in unison to ward off offenders. Also, they both pass through several color phases, meaning that the larvae change color patterns as they mature.

The yellownecked caterpillars have black heads and a bright orange "neck," or prothorax, which gives them their common name. The caterpillars pass through three distinct color phases during their development. First instar caterpillars are copper colored with no distinct lines. The next color phase begins with second instar caterpillars; they have distinct alternating longitudinal yellow and orangish-red lines. The final color phase is observed on last instar caterpillars which have alternating longitudinal black and yellow lines. Although all instars have hairs, the hairs are most evident during the last instar stage.

Walnut caterpillars also have three color phases. Newly hatched caterpillars are yellow and remain this color through the second instar stage. During the third and fourth instar stages, the caterpillars are brick red with faint white stripes. In the final instar stage, the caterpillars are grayish black with long, soft white hairs. Walnut caterpillars practice an unusual molting behavior. When molting, they group together on the bark of their host tree and all molt at the same time, leaving behind a mass of hairy exoskeletons that looks like a patch of fur.

The yellownecked caterpillars feed on a wide variety of trees including: crabapples, flowering fruit trees, maples, elms, nut trees, beech, lindens, honey locusts, and boxwoods. There are normally two, and sometimes three generations in Ohio. With the early spring this season, there will almost certainly be three generations this year. As their common name implies, walnut caterpillars favor walnut trees, but they will also feed on hickories, birches, oaks, and willows. This species usually has two generations per season in Ohio; however, there may be an additional generation this year.

Caterpillars of both species feed for 4 - 6 weeks until full grown (about 2" long), then they drop from the trees and pupate in underground cells. Although the damage caused by both types of caterpillars can be devastating to small trees in landscapes, these caterpillars are seldom considered a serious pest in woodlands. The caterpillars can be easily managed on small landscape trees by knocking them to the ground and performing the "caterpillar stomp dance;" so far, none have become resistant to this control method.

For More Information:

USDA Forest Service Leaflet

<http://www.na.fs.fed.us/spfo/pubs/fidls/Walnutcat/walnutfidl.htm>

Texas A&M University Extension Fact Sheet

<http://insects.tamu.edu/fieldguide/cimg310.html>

Disease Digest »

Magnolia Leaves Dropping Early



Erik Draper reported seeing in his landscape about one-half of the leaves of one of the "Little Girl" magnolias, specifically 'Betty', dropping to the ground. He was intrigued why this was happening and further discovered the leaves had black spots scattered over them. These spots were classic symptoms of POWDERY MILDEW (PM) of Magnolia, caused by the pathogen (*Microsphaera magnifica* (*Erysiphe magnifica*)). Other symptoms of PM on Magnolia leaves include white powdery patches (mycelium) of the fungus that appear on the leaf surface. These patches may enlarge until they cover the whole leaf on one or both sides. With environmental conditions favoring PM

development, young expanding leaves can become covered in white mycelium and become distorted in shape; eventually, even young, green twigs can become twisted and distorted by this fungus. Early on in the infection cycle, as PM is affecting and infecting leaf tissues, leaves often begin to turn reddish in color and then begin to turn off-color. This produces a yellowish-green-brown leaf color, wherein the initial patches or spots of the PM fungus will then turn a deep brown-black on the leaves.

What are the conditions that favor this fungus developing? Typically, PM will flourish when daytime temperatures are warm to hot (71 - 92F), the nighttime temperatures are cool (55 - 65F) with high relative humidity (90 - 99%). Humm, those weather conditions seem plausible this year, right? In essence, one might say that so far, this year appears to be the year of the "dew"... powdery mildew in fact! PMs tend to be exacerbated on plants that are crowded too close together, where air circulation is poor, resulting in longer periods required for the foliage to dry. Fungicides like chlorothalonil and thiophanate-methyl can be very effective in helping to prevent and delay symptoms of PM on plants.

For More Information:

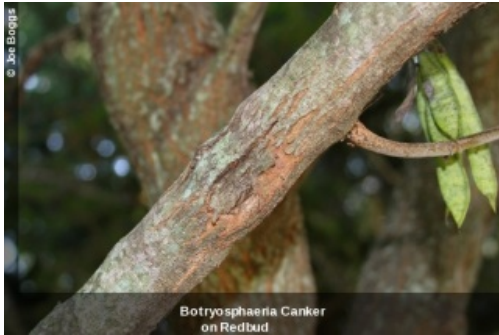
Morton Arboretum Fact Sheet on Powdery Mildews

<http://www.mortonarb.org/tree-plant-advice/article/742/powdery-mildews.html>

University of Illinois Extension- report on plant disease

http://web.extension.illinois.edu/forestry/publications/pdf/forest_health/UIUC_Powdery_Mildew_of_Lilac.pdf

Botryosphaeria Canker on Redbud



Southwest Ohio BYGLive! participants also spotted several redbuds with branches showing symptoms of Botryosphaeria canker caused by the fungus, *Botryosphaeria dothidea*. The fungus is considered both "cosmopolitan" meaning that it can infect woody plants in over 100 genera, and "opportunistic" meaning that it readily infects trees and shrubs that are suffering from environmental stress, particularly drought stress. Hosts include ash, birch, cotoneaster, crabapple, dogwood, elm, magnolia, and of course, redbuds. Cankers may become abundant on older, stressed redbuds.

The fungus kills bark and phloem tissue and infections may occur randomly throughout the tree. The cankers appear as sunken areas of bark that may be surrounded by swollen edges (callus tissue) and covered with roughened bark that occasionally splits to expose the xylem. The cankers range in size from small, almost unnoticeable elliptical lesions, to large areas of blighted tissue. Branches with multiple cankers are girdled and killed causing leaves on the affected branch to turn reddish-brown, a symptom known as "flagging." Entire trees may be killed if the cankers move from branches into the main stem.

Maintaining healthy trees is the best defense against Botryosphaeria canker since vigorously growing trees can resist infection. Proper site selection, planting, and aftercare are all essential to avoid loss of branches or entire trees to this fungus. It is particularly important to provide water throughout periods of extended drought. Should trees become infected, it is essential to remove cankered branches promptly upon detection to reduce spread of the disease within the tree or to nearby trees. Pruning should be done during dry weather and cuts made at least 6 - 8" below infected tissue. Pruning tools should be sterilized between cuts using denatured alcohol to prevent the tools from becoming vectors of the disease. Fungicide applications have not proven to be effective in controlling this cankering disease.

Ash Leaf Spot



Participants in this week's Southwest Ohio BYGLive! Diagnostic Walk-About at Glenwood Gardens, Hamilton County Park District, observed heavy ash leaf spot on trees that had been treated for EMERALD ASH BORER (*Agrius planipennis*) (EAB). Of course, the EAB treatments had nothing to do with the leaf spot. Several arborists in the group noted that they are educating their clients to not expect "perfect trees" after insecticide treatments to protect against EAB. The insecticides have no impact on fungal diseases such as the leaf spot, ash anthracnose, ash yellows, and Verticillium wilt. Indeed, ash yellows and Verticillium wilt are tree killers, just like EAB.

Fungal leaf spots on ash may be caused by two different fungi, *Mycosphaerella effigurata* and *M. fraxinicola*. The diseases associated with these fungi are sometimes called Mycosphaerella leaf spot. Other names used in the past include "Piggotia leaf spot," and "Phyllosticta leaf spot." Leaf spots caused by *M. effigurata* appear as small, fleck-like yellow spots on the upper leaf surface. Leaflets can become covered by hundreds of spots and fruiting structures that arise from the spots in late summer may give leaflets a sooty appearance. Leaf spots caused by *M. fraxinicola* are initially pale green, irregularly shaped, and much larger measuring as much as 1/2" in diameter. The spots may coalesce causing entire leaflets to die.

Severe infections by both fungi can cause premature defoliation. Unfortunately, there are no fungicides recommended to control this foliar disease. The fungi overwinter in fallen leaves and disease development is favored by wet weather in the spring. Close proximity to the fungal inoculum from fallen leaves coupled with reduced air circulation causes leaves located lower in the canopy to become more heavily infected compared to leaves higher in the canopy. Consequently, disease severity may be reduced by raking and destroying fallen leaves, pruning to increase air circulation, and avoiding wetting the leaves with irrigation.

Turf Tips »

Buzz-Bombing Beetles



Dave Shetlar and Joe Boggs reported that GREEN JUNE BEETLES (*Cotinus nitida*) have begun their annual terrorizing of backyard gardeners, golfers, sunbathers, small pets, etc., as they buzz golf courses and lawns. These large, metallic green beetles tend to emerge *en masse*. Their large size, coupled with an audible "buzzing" sound, and low level flight plan (cruising at about 2 - 3'), may induce mild panic with individuals unfamiliar with this insect. The beetles have great entertainment value!

Adults feed on tree leaves as skeletonizers, or they may be found on ripening fruit. Fortunately, they rarely cause significant plant injury, but they may seriously damage fruits. Adults seek out turf with high levels of organic matter (e.g. thatch) in which to lay eggs. Lawns covered with partially composted manures have also been found to be highly attractive to the adults and they may burrow into cool compost piles, under decomposing manure, and into decayed mulch. It has been speculated that this attraction to decomposing organic matter explains why large numbers of adults will assail certain lawns, while ignoring neighboring lawns. Dave noted that the beetles he spotted in central Ohio were cruising over rose beds mulched with poorly composted manure.

Unlike other white grubs affecting turfgrass, green June beetle grubs create vertical burrows 10 - 12" into the soil, and they remain closely associated with these burrows. The grubs venture out at night to feed on thatch and other organic matter, and occasionally find their way onto driveways, sidewalks, and into swimming pools, especially after heavy rains. Indeed, the huge grubs appear to practice their backstroke by employing an unusual method of travel ... they crawl about on their backs! Despite their large size, green June beetle larvae seldom cause injury to turf equal to that caused by other white grubs.

Industry Insight »

Field Guide to Common Macrofungi in Eastern Forests and Their Ecosystem Functions

The United States Department of Agriculture's Forest Service (USDA-FS) is known for their excellent forest related publications. Revised in February 2012, Field Guide to Common Macrofungi in Eastern Forests and Their Ecosystem Functions, is available online at: <http://www.nrs.fs.fed.us/pubs/38089>.

The guide is intended to serve as a quick reference to selected, common fungi with large fruit bodies such as mushrooms, brackets, or conks, also known as macrofungi. Information for each macrofungi includes both the common and scientific names, identification characteristics, season of fruiting, ecosystem function, edibility, and additional fungal notes. Photos are also included. Kudos to the authors, Michael E. Ostry, Neil A. Anderson, and Joseph G. O'Brien for an excellent reference that is a must for any fungal finders in the group.

WeatherWatch »

Current Conditions

The following weather information summarizes data collected at various Ohio Agricultural Research Development Center

(OARDC) Weather Stations spanning the dates from July 1 - July 11, 2012, with the exception of the soil temperatures which are readings from Wednesday, July 11, 2012 at 6:05 p.m.

Joe Boggs weather report included the following: from June 28 through July 9, 2012, the greater Cincinnati area had 12 straight days with temperatures above 90F; five days were above 100F with two of those days reaching 104F. During that period, the region only had widely scattered rain events, with most areas receiving no rainfall to only trace amounts. It was literally boom or bust with thunderstorms, some severe, occurring in Northern Kentucky and points east of Cincinnati while the rest of the region remained dry-roasted.

Hit or miss precipitation reports during this week's BYGL seemed to be the normal. In recent weeks, the Toledo area seemed to dodge Mother Nature's bullets, but was hit hard with straight line winds on Friday and again on Saturday. Significant tree damage was reported in west Toledo and points westward.

Weather Station	Region of Ohio	Ave. High Temp. F	Ave. Low Temp. F	Total Precip."	Normal Precip."	Soil Temp. F 2"/3"
Ashtabula	NE	84.8	65.9	1.67	0.8	84.99/87.24
Wooster	NE	90.2	66.0	0.9	1.5	81.44/79.31
Hoytville	NW	94.3	68.5	0.28	1.3	77.10/79.30
Columbus	Central	95.9	69.4	0.85	1.6	84.36/82.56
Piketon	South	94.9	67.1	0.86	1.4	91.94/89.66

For More Information:

OARDC Weather Stations

<http://www.oardc.ohio-state.edu/centernet/weather.htm>

Coming Attractions »

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>.

Woody Plant ID Workshop at Sequest 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 Sequest 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.

2012 NW Ohio Summer Session

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

Diseases & Other Dilemmas Affecting Fruits and Vegetables - Diagnostics for Master Gardeners Workshop

On Friday, July 20, 2012 from 10:00 a.m. - 4:00 p.m. there will be a hands-on class held at OSU Extension, Geauga County office in Burton, Ohio. This hands-on workshop will be an opportunity to reacquaint, re-learn and improve those disease identification and diagnostic skills regarding fruit and vegetable problems. This advanced Master Gardener educational workshop will offer the opportunity to see, learn and experience how to correctly identify problems from plant samples. Bring any and all baffling samples and tough questions for Erik Draper and Jim Chatfield! This class will count for 5 hours of advanced Master Gardener training credits. The fee for the program is \$35.00. Lunch, handouts, snacks, samples galore and prizes are all included in the fee for this workshop. Register for this workshop by July 16 or to obtain additional information, contact the OSU Extension, Geauga County at 440-834-4656.

Diagnostic Walkabout for the Green Industry

Will be held at Stan Hywet Hall and Garden in Akron, 7:30 - 9:00 a.m., on Thursday July 19, 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>

Byglosophy »

"Whether you think you can or can't, you are probably right." - *Henry Ford*

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