New Boxwood Disease Arrives in Maryland and Virginia

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Websites

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• Grow It Eat It
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Call us at 800-342-2507 (in state) 410-531-1757 (out of state), or visit us on the web hgic.umd.edu

A new disease called Box Blight or Boxwood Blight has been causing defoliation of boxwoods throughout Europe since the late 1990’s. In October 2011, the disease was found in North Carolina and Connecticut in both nursery, and landscape plantings. The disease was also found in a Virginia nursery. Since this first US report the disease has been identified in a number of northeastern states and also in Oregon, and British Columbia. The first Maryland case of Boxwood Blight was confirmed on plants from a landscaper’s nursery in December, 2011.

The disease is caused by a fungus called Cylindrocladium pseudonaviculatum (synonym: Cylindrocladium buxicola). The first symptoms begin as leaf spots followed by rapid browning and leaf drop starting on the lower branches and moving upward in the canopy. The key symptoms that differentiate Boxwood Blight from other boxwood diseases, such as Volutella Blight and Macrophoma Leaf Spot, are numerous narrow black cankers (black streaks) that develop on the green stems. The pathogen does not attack the roots, so larger plants may produce new leaves during the growing season, but may lose ornamental value as defoliation becomes severe. Repeated defoliation and dieback from stem cankers has killed small rooted cuttings in nursery propagation. The causal fungus can remain alive in fallen leaves which can then serve as the source of infection for subsequent years.

The spores of the fungus can be splash-dispersed through irrigation or rainfall resulting in spread of the disease within a plant or to

Boxwood stem canker; Photo D. Clement, UME; Inset photo K. Kelly Ivors, Dept. of Pathology, NCSU

Close-up of Boxwood blight fruiting bodies; Photo Landis Lacey & Kelly Ivors, NCSU Dept. of Plant Pathology

Established planting of boxwoods with symptoms of boxwood blight (in CT); photo by Sharon Douglas Connecticut Agricultural Experiment Station
nearby boxwoods. The primary method of long distance disease spread is most likely shipping of infected plants, use of contaminated tools and transport vehicles that contain fallen infected leaves.

American, English and Korean boxwoods are all susceptible to this new disease although some variation in disease severity among cultivars has been reported. Sweet box, *Sarcococca*, an ornamental that is in the boxwood family (Buxaceae) has been infected under experimental conditions. Research is under way to test the effectiveness of fungicides for management of Boxwood Blight.

If you suspect you see boxwoods infected with this new disease in landscapes, please call the 1-800-342-2507 toll free number for the Home and Garden Information Center and speak to a horticulture consultant. For more information, see Boxwood Blight - A New Disease for Connecticut and the US and NC Pest Alert: A New pest to the US Ornamental Industry: The “box blight” pathogen.

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**Interesting Visitors in Your Landscape**

*Ray Bosmans, Professor Emeritus, University of MD*

**The Spring Peeper**
This spring, be sure to take the time to notice, observe, and enjoy the many sights and sounds that announce that spring is here! Because of the mild winter you may hear Spring Peepers earlier than normal. They produce a high pitched single note song. The Spring Peeper is a true harbinger of spring. As the ice melts off the marshes, wetlands, and ponds he produces “songs of love” to attract a mate.

What is a “Spring Peeper”? It’s not an insect, nor a bird but a very tiny frog. Adults are only 1/2 inch (thumbnail size). They are often drab gray, brown or sometimes green. Their sound is produced in a vocal sack inflated with air under their throats. The sound can be heard for good distances. You are not very likely to actually have them in your yard but will hear them singing in near-by wetlands.

**The Wood Frog**
The Wood Frog is the next in line to sing its chorus in the spring. Its song sounds somewhat like a duck’s quack. The Wood Frog, like the Spring Peeper, is also very tolerant of the cold and may come out even when there is still some ice on the water. The Wood Frog is a small to medium sized frog (two inches) of a dark to medium brown color with a very dark brown, almost black mask around its eyes. Once very scarce in our region, the Wood Frog is making a nice come back due to the installation of many back yard water gardens.
After its spring mating and singing rituals, Wood Frogs move from the water to live on the land much like a toad. On land it becomes a pinkish tan color but can still be recognized by its characteristic black eye mask.

The American Toad
The song of the American Toad begins in early April and is a shrill low pitched whistle-like song. The largest toad species in Maryland, the American Toad reaches a mature size of around 3-4 inches. Mostly brown, reddish brown, and sometimes a rusty red with a few dark spots, the American Toad is covered with many ‘warts’. Toads are a close relative of frogs but are not as fast—moving or jumping, nor are they graceful swimmers like frogs. Toads also have a drier and rougher skin. But toads have real personality! Toad eggs look like long strands of jelly-like substance beneath the water’s surface. After mating the toads will leave the water to spend the rest of the year on the land.

The Fowlers Toad
The Fowlers Toad is a little smaller than the American Toad and instead of being brown its background color is grayish green. It does its mating and singing ritual later in the spring (May and June) than the American Toad. It is more common in areas that have sandy or silty soils such as near river and stream flood plains. They are also the toad often found living on the dunes of beaches.

The frogs and toads described in this article are all harmless to pets and people and they are all beneficial animals. In addition to being very interesting to have around, they help regulate insect and slug populations and they serve as an important food for other wildlife in the food web. When you see them, take some pictures, learn more about them and provide a healthy environment for them to live in your yard. To learn more about frogs and toads and hear their calls see the Maryland Department of Agriculture’s website.

Did you know?? There are 23 authors across Maryland that contribute to the Grow It Eat It blog. They share their considerable experiences with fellow gardeners on their successes and, yes, their frustrations. I didn’t say ‘failures’ because they turn each sticky situation into a learning opportunity – which they then share with you! The Grow It Eat It website provides resources to help gardeners get started and keep going. Not all of the blog writers are experienced gardeners but they all give you the benefit of their personal adventures in food gardening and provide practical advice, funny stories, garden philosophy, recipes, and more! Enter your email address on the blog to get new posts delivered directly to your inbox. For your convenience, the most recent blog posts automatically appear on the Grow It Eat It and Home and Garden Information Center home pages. Just click anywhere in the Grow It Eat It Blog box to go directly to the blog.

The Grow It Eat It program and website provide education and resources to help food gardeners get started and keep going. We strive to deliver current food gardening information to you, our loyal readers, as we try to tap new audiences using Social Media platforms. Like what you see? Share the information with your friends. Let us know what you like or what you would like to know about. Social Media is meant to be interactive. Comment on a blog or Facebook post. Share a Facebook post on your page and invite your friends to ‘Like’ Grow It Eat It. Twitter users - please retweet our tweets to your followers!

University of Maryland Extension is here for YOU!
Prepare for Fruit or You May Despair of Fruit!

Jon Traunfeld, University of Maryland Extension Specialist, Fruits and Vegetables

The grow-your-own fever has left backyard and community gardeners hungry for edible delights beyond the vegetable world. The possibility of home-grown apples, peaches, cherries, and blueberries is sending gardeners scurrying for fruit trees and bushes. My advice to all those in a hurry to plant, is to slow down and do some research first.

What can I grow?
Lots of different fruit plants will grow in Maryland. In fact, I have a neighbor who successfully and lovingly tends lime, lemon, orange, and neem trees in containers that he moves into a small greenhouse during the winter. These subtropical trees require special care and knowledge; they are not good choices for first-time fruit gardeners.

Start small
Small fruits like blueberry, blackberry and raspberry (brambles), strawberry, and grape are the best choices for new fruit gardeners. Compared to tree fruits (apple, pear, peach, plum, and cherry) small fruit plants take up less space, are less expensive to buy, can be grown organically, and are easier to dig up, remove, or relocate. Our fact sheet, “Getting Started with Small Fruits” will help you succeed.

Are you ready for tree fruits?
Do you have the space, time, and knowledge to be successful? If you love the idea of tree fruits start with fig, Asian pear, tart cherry, or European plum. These are “gateway” fruit trees that will usually grow and produce edible fruit without pesticides. Peach, apple, Asian plum, and European pear are likely to have the most serious insect and disease problems and should only be planted after careful thought and planning (read “Getting Started with Tree Fruits”). Backyard gardeners are often frustrated with the many insect and disease problems regularly encountered in peach and apple trees.

Most common gardener mistakes and first year problems

- **Planting in semi-shade locations**- most fruit plants need a minimum of eight hours of direct sun for best growth; blueberry, currant, and gooseberry can tolerate six hours of direct sun.
- **Poor soil conditions**- avoid sites where water stands after rainfall and drains poorly. Test your soil one year prior to planting and adjust the soil pH if necessary. Improve soil structure and fertility by mixing compost into the site prior to planting.
- **Good plant, wrong space**- American persimmon is a wonderful native fruit tree but it can grow to a height of 60+ ft. and should not be planted in a row house backyard! Many fruit trees are crammed into spaces that doom them to failure.

Blackberry is one of the easiest fruits to grow. For small spaces select erect, thornless varieties such as ‘Navaho’, ‘Arapaho’, and ‘Apache’ or grow the new “fall-bearing” varieties like ‘Prime-Ark’, ‘Prime-Jim’, and ‘Prime-Jan’ (these will produce fruit in late summer on shoots that emerge in spring).

Select Northern highbush or Southern highbush varieties. Add lots of compost to the soil prior to planting. Consider adding iron sulfate and elemental sulfur to lower soil pH to the required 4.5-5.2 range. Water blueberry roots regularly for the first three years after planting. They have shallow, fibrous roots that can easily dry out.

Growing individual apple trees on cordons is a great way to save space. These city apple trees are growing a dwarfing rootstock.
Brown rot is a pervasive fungal disease that infects peach trees and ruins a lot of peaches each year. Peach and apple are difficult to grow organically.

- **Critter attack**- Deer and rabbits will chow down on fruit plants as soon as you put them in the ground. Deer and voles will feed on plants through the fall and winter. All fruit plants, except for raspberry and thorny blackberry, need protection. Tree guards and hardware cloth can prevent feeding but fences are the surest long-term solution. (Don’t pile mulch around the base of your fruit plants overwinter because voles can use it as a cozy home and feed comfortably on bark, roots, and crowns.)

- **Low quality plant**- select healthy plants and recommended small fruit and tree fruit cultivars. Beware of plants at garden centers that are missing labels or appear stressed (roots growing around the bottom of container, dropping leaves, off-color leaves). Bare root plants are less expensive than container plants and will catch up in growth.

- **Failure to water**- all fruit plants need to be watered during dry periods for the first 2-3 years after planting. This is especially true for blueberry. Soaker hoses and drip irrigation works well with small fruits.

- **Benign neglect**- don’t be a “plant and forget” kind of gardener. In addition to watering you need to monitor for plant and pest problems, prune correctly, provide physical support if necessary (grape, brambles, dwarf apple), and possibly winter protection (strawberry, fig).

- **Kill ‘em with kindness...or poison**- the problem here is usually overfertilizing. Fruit plants growing in fertilized lawn areas are already receiving nutrients. Read about the specific nutrient needs of your fruit plants. Follow the 4 Rs of fertilizing- use the right amount of the right type and apply it at the right time in the right location. Avoid spraying herbicides anywhere in the vicinity of your fruit plants. We see a fair bit of damage to fruit plants from glyphosate and lawn weed killers.

Voles feed on lower plant stems and trunks for nourishment over the winter months.

Here’s a fruit plant that should be destroyed, not cultivated! It’s wineberry, Rubus phoenicolasius, an invasive plant from China that displaces native plants. It spreads by seed (carried and deposited by wildlife), suckers, and tip rooting. The fruit is delicious but Do Not bring wineberry into your landscape.
The Sweet Smell of Ants - Citronella or Large Yellow Ants, *Acanthomyops interjectus*

Mike Raupp, Professor & University of Maryland Extension Specialist, Ornamental Horticulture, IPM

Imagine returning home after a hard day of work and finding your study teeming with dozens of insects emerging from the baseboard, swarming on the sofa, cavorting on the windowsill. Are disturbing insects, the winged kind that evoke the fear of home destroyers – termites and carpenter ants? Is it time to call the exterminator? Maybe not. A closer examination of these rascals reveals the telltale narrow waist of an ant rather than the wide waist of a termite. The antennae on these insects have the distinct “elbow” joint characteristic of ants rather than the “string of beads” look of antennae found on the termite.

They are not termites so breathe a small sigh of relief, but could these be carpenter ants? Our most common carpenter ant in the eastern United States is the black carpenter ant, *Camponotus pennsylvanicus*. This ant is dark brown to black in color with wingless workers about ½ inch in length and winged queens slightly larger. The winged ants crawling on the sofa are reddish – yellow and less than ½ inch in length, not likely to be carpenter ants. The real clincher for this one is its aroma revealed by the “sniff test”.

For those unfamiliar with the fine art of sniffing insects, it is really very simple. Grasp the insect with your index finger and thumb and gently roll it back and forth between your fingers. Hold the insect about an inch from your nostrils and inhale slowly. Sense the odor. **Warning** – this technique should not be attempted with stinging insects like bees or wasps or those that spray noxious chemicals like bombardier beetles. A sniff test of this ant revealed a delightful bouquet reminiscent of lemon or citronella, hence, one common name for this ant is the citronella ant. The scent is produced by special glands in the ant and likely used as a defense against its predators. Citronella ants, *Acanthomyops interjectus*, are also known as large yellow ants. The good news is that citronella ants do not cause structural damage to homes. They nest in soil, often along foundations. Sometimes these nests extend under slabs or into crawl spaces beneath living spaces. The workers of this species feed on honeydew produced by ants and mealybugs outdoors and it is unusual to see workers inside the home. However, on a sunny spring day, the new queens may emerge inside a home. The wing-bearing queens are called alates and attempt to find their way outdoors to establish new colonies. This impressive exodus can last several days and is often confused with the swarming of termites. What should you do if you are treated to swarms of large yellow ants in your home? Workers and alates are not attracted to baited traps like many other ant species. For the alates emerging indoors, simply grab the vacuum, suck them up, and toss the bag out or maybe use it as an air freshener, the citronella scent is marvelous. My intrepid neighbors, who shared their citronella ants for this “Bug of the Week” column, plan to deal with their ants with a vacuum and a healthy dose of good humor.
If you discover a colony of large yellow ants located along the foundation outdoors, it can be eliminated with an insecticide labeled for this purpose. Colonies beneath crawl spaces or slabs may require the help of a professional.

For more information on yellow ants and carpenter ants, please see the following:

- HG 7 Ants and Their Control
- HG 115 Carpenter Ants
- Large Yellow Ant Identification - University of Nebraska-Lincoln

The Virtues of Narcissus

by Ray Bosmans, Professor Emeritus, University of MD

Native to Europe, North Africa, Western Asia and the Mediterranean region, *Narcissi* are one of the oldest cultivated bulbous ornamental plants. They are members of the “Amaryllis” plant family. Today, there are sixty known species and many horticultural varieties.

There are twelve ‘Divisions’ of *Narcissus*, each with different blossom characteristics based on the size and shape of the trumpet. They come in various shapes, sizes and colors ─ yellow, white and even bi-colored with orange or pink.

All types of *Narcissi* are very long-lived in the landscape; they grow well in our region, and will multiply over time forming a large mass of beautiful color. They need good drainage and grow best in full sun locations. As with all types of bulbs, gardeners should leave the foliage intact after blooming. Don’t remove the old foliage until it has yellowed. The foliage produces food for the bulbs to bloom in the next season.

If blossoming is declining in your garden, it’s likely that the plants are too shaded or are over-crowded. After the foliage has turned yellow, lift the bulbs, separate, and replant them. There is no advantage to storing these bulbs until the fall. Another big plus for *Narcissus* is that they are toxic; therefore deer, rabbits and squirrels will not eat them. This cannot be said about tulips and many other bulbs.

Did early emergence this year harm them?

Fortunately, *Narcissus* and most other spring bulbs are remarkably cold tolerant. Normally, even when the foliage is exposed to cold weather the damage is limited to some yellowing or browning of the foliage. Plants with a 2-3 inch layer of mulch are even less likely to be damaged by the cold. Flower buds are generally well protected below the soil.

This year our weather has remained unusually mild after the early emergence of *Narcissus*. In some locations, *Narcissi* started flowering about three weeks earlier than in previous Springs. The first bulbs to bloom are always in warm ‘micro climate’ locations that receive a lot of sunlight.

To learn more about a variety of insects, visit Mike Raupp’s Bug of the Week website.
Imagine an alien world where simply brushing up against the giant leaves of the plants that tower above you will lead to severe burns on your skin, and where getting the plants’ sap in your eyes causes blindness, and where these unpleasant plants cannot be eradicated without a three-year intensive campaign against them.

Unfortunately you don’t need to leave the eastern US to find this outlandish world of hostile vegetation. Giant hogweed is an invasive plant that goes beyond the standard practice of taking over native habitats and crowding out the sources of food and cover that our native wildlife species depend upon. They also shade out all competition creating bare earth and an erosion hazard, and are a serious public health threat.

Introduced as an ornamental plant from Eastern Europe sometime in the 20th century, giant hogweed prefers moist soils, but does well in many different environments. It is especially problematic along the banks of waterways, as its seeds can float downstream for up to three days.

It has been identified in western and central Maryland, Washington D.C., Pennsylvania, all New England states, and several other states scattered throughout the country. Most states where it’s present have active eradication programs working to completely remove it from the ecosystem.

Giant hogweed is in the carrot and parsley family, and can be confused with its cousins. Cow parsnip, Angelica, wild parsnip, wild chervil, poison hemlock, Queen Anne’s lace, and golden Alexamders are common lookalikes. Some of these plants also contain toxins, but none are as potent as giant hogweed.

In general, a mature giant hogweed plant is bigger in every respect than all of its lookalikes. It grows taller—up to fifteen feet, has bigger leaves—up to five feet wide, and has a thicker stem—up to four inches in diameter. The stem has purple blotches that surround hollow spines.

The leaves are deeply lobed, and the edges are very serrated and pointy, a bit like a huge exaggerated maple leaf. Lookalike species have leaves that are smaller with shallower lobes and more rounded edges, or have compound leaves with separate leaflets. The plant reaches its tallest height when it flowers in mid-May to June after four or more years of
growth. The flowers are flat-topped clusters of small white flowers about two and a half feet wide. The plant dies the same year that it flowers, although there are occasionally suckers that survive.

The sap of giant hogweed is laced with chemicals called furocoumarins. The plant probably evolved with these compounds to help protect against fungal attack, but they also serve as a potent weapon against humans and other animals. The sap is present throughout the plant, and is especially heavy in the base of the stem and in the spines on the stem. Just touching these spines can be enough to get sap on your skin.

If the sap does contact skin, these chemicals eliminate the skin’s natural protection from the sun’s ultraviolet rays, especially in the first two hours after contact. Without this protection, your skin easily burns, and even brief exposure to the sun can lead to severe injury lasting months. Increased sensitivity to sunlight often lasts for years after contact.

The moral of the story is to approach this plant with extreme caution and a full set of protective gear, including long sleeves, pants, and eye protection. Waterproof synthetic gear offers further protection from the sap. The seed heads contain 50,000 or more seeds and should be the main target of control. It is essential that seeds are not allowed to set. Seeds are viable in the soil for up to seven years, although most will have germinated after three.

Control of small groups can be done with hand tools. Never use a weed whacker, as it will create uncontrollable sprays of the toxic sap. Herbicides with triclopyr or glyphosate are also an option. If at all possible, leave the control of this dangerous plant to the experts.

Giant hogweed is federally listed as a noxious weed, which means that there are regulations controlling its transportation and sales. You may also be able to get assistance in controlling the plant on your property.

If you think you’ve seen giant hogweed in Maryland, please contact the Plant Protection and Weed Management Section of the Maryland Department of Agriculture at (410) 841-5920. In Delaware, please contact Faith Kuehn at (800) 282-8685 or Faith.Keuhn@state.de.us. Visit http://1.usa.gov/hogweed for more information.
**Question:** I have a few birch trees in my yard and on a couple of them I have observed these bags on the branches. Last summer I had bagworms on my arborvitae that ate them to the point where they all turned brown. Should I be concerned about what I found on my birch trees?

**Answer:** No, there is no need for you to be concerned about these cocoons. This is a cocoon of a polyphemus moth, one of the many giant silkworms in the Saturniidae family. Birch, oak, hickory, elm and maple are host plants for the larvae or caterpillars. These caterpillars are quite large but never appear in numbers large enough to do serious damage to trees. The adult moths are also large in size, tan in color with eyespots on their wings. Control is not necessary.

**Question:** Time got away from me last fall and I did not have the time to fertilize my lawn. Should I fertilize now in the spring or wait until next fall?

**Answer:** Make a note on your calendar now to remind yourself to begin to fertilize your lawn in September. Fall fertilization provides the greatest benefit to your lawn. If you have a mature lawn, older than 12 years or so, you should not need to fertilize in the spring. But if you remove the lawn clippings, have recently seeded, have a severe crabgrass problem, or your lawn is recovering from a pest or disease problem an optional application of 0.5-0.9 lbs. of nitrogen per 1,000 sq. ft. can be applied in mid-May to early June.

During last year’s legislative session the Maryland General Assembly passed the Fertilizer Use Act of 2011 which impacts Maryland homeowners and their lawn fertilizer practices. To see a summary of the bill go to the [Maryland Department of Agriculture website](http://www.mda.maryland.gov), or the [Chesapeake Bay Commission website](http://www.chesapeakebay.net). You can also contact us at the Home and Garden Information Center if you should have additional questions.

**Question:** After many years of living in the city we moved to a house on a wooded lot last summer. Recently, while walking through the wooded area of my yard I saw some vines starting to grow. I remember suffering with poison ivy many times when I was younger and really want to avoid being exposed to it. I was wondering if you can help me identify the two vines that I have taken pictures of and sent along with my question to your website.

**Answer:** We receive many digital photos from homeowners to help them identify plants, pests and plant problems. Photo #1 is a picture of a newly emerging poison ivy vine and photo #2 is a photo of Virginia creeper. They can be difficult to distinguish from one another very early in the season. The most distinctive characteristic is the number of leaflets on the leaves. Poison ivy has 3 leaflets (rarely can be 5, 7 or 9) and Virginia creeper has 5. Both of these are native plants but as everyone knows poison ivy can produce a severe allergic reaction. For additional information on poison ivy see our publication, HG 34 Poison Ivy.
Greetings,

Do you want to...

Teach your children how to garden or start a school garden?
Have a “greener” landscape?
Become a Master Gardener to learn new skills and help your community?
Get 24/7 research-based answers to all your plant and pest questions?

University of Maryland Extension’s (UME) offers three state-wide programs to make it happen- the Home and Garden Information Center (HGIC), Master Gardener Program (MG), and Grow It Eat It (GIEI). They are used by tens of thousands of residents who want to learn how to create healthy and sustainable gardens and landscapes. Our programs teach “best management practices” through online resources, telephone and e-mail consultations, and hands-on classes, plant clinics, and workshops. We directly address some of the largest environmental and public health issues of the day:

• Reducing pesticide and nutrient pollution… we teach Integrated Pest Management (IPM) practices and have a demonstrated track record for reducing unnecessary pesticide use through personal consultations. We are also ramping up outreach education on lawn fertilization in response to the Fertilizer Use Act of 2011.

• Stormwater management… our MG volunteers and staff are trained to educate homeowners about cost-effective measures to “slow it down, spread it out, and soak it in.”

• Childhood obesity and food security…we work with teachers and nutrition educators to use gardening as a way of exposing kids to veggies. If you grow it you are more likely to eat it!

(continued on next page)

2011 IMPACTS

• 9,303 clients assisted by horticulture consultants via the HGIC’s toll-free phone number
• 482,753 unique visitors to the HGIC, Plant Diagnostic, Grow It Eat It and Master Gardener websites (combined) with a total of 615,778 user sessions
• 3,636 questions answered via online question submission service
• 3,030 subscribers to the GIEI Network News and 2,525 subscribers to the HGIC e-newsletter
• 35,024 people stay connected to HGIC and GIEI through Facebook, Twitter and blog
• 99 educational videos with 468,683 downloads
Invasive species...we provide safe and effective solutions to the brown marmorated stink bug inside and outside the home, and help residents identify and deal with an array of invasive plant and pest species.

We have much to look forward to this year as we build on last year’s successes and identify new opportunities for projects, funding, and partnerships. Thank you for your interest in and support of HGIC and don’t forget to call or e-mail us when YOU have a plant or pest question!

Center Director and University of Maryland Extension Specialist

#### SOCIAL MEDIA AND TECHNOLOGY

Since 2009, HGIC has delivered information to a wider audience through social media. HGIC and GIEI each maintain active Facebook pages and Twitter feeds. These social networking tools allow current horticultural information to be delivered directly to our users through the portal of their choice. The interactive aspect of Facebook and Twitter give us direct and immediate feedback from our clientele.

The GIEI Food Gardening Blog allows select authors across the state to write longer articles on their food gardening experiences and include images to share with clientele. With almost 600 blog posts so far, the authors share their successes and challenges to making food gardening a more realistic endeavor. Clientele can subscribe to new blog posts via email subscription.

#### 2011 AWARDS AND RECOGNITION

Three UME Master Gardener programs won “Search for Excellence Awards” at the 2011 International Master Gardener Conference in Charleston, WV.

- Anne Arundel County - “Grow It Eat It Summer Camps” (Innovative Programs category)
- Montgomery County - “Therapeutic Horticulture Program at Brooke Grove Retirement Village - Assisted Living (Special Needs Audience category)
- Calvert County - “Garden Smarter Program” (Workshops category)

#### MARYLAND MASTER GARDENERS- GROWING STRONG!

HGIC staff and faculty provided state-level support of Maryland’s rapidly growing Master Gardener program. Master Gardeners are regular users of HGIC fact sheets, web information, and horticulture hotline.

The Maryland Master Gardener Program, a volunteer education program taught and administered by University of Maryland Extension (UME), puts environmental power into the hands of the people who want to do their part to create sustainable gardens and landscapes and reduce pollution that affects Maryland’s water resources.

The state-wide program is active in 19 counties and Baltimore City. In 2010 our 1,540 certified Master Gardeners and Master Gardener interns gave 91,900 hours of dedicated service valued at $2.05 million. (2011 stats and impacts will be available in May.)

University of Maryland Extension programs are open to all citizens without regard to race, color, gender, disability, religion, age, sexual orientation, marital or parental status, or national origin.
**Monthly Tips from HGIC**

**March**

**Lawns**

- Now is considered the second best time (best is late August through October) to seed your lawn to make it thicker or cover bare areas. *(HG 102)*

- It is not a good idea to apply fertilizer to cool season turf in the spring unless your turf is weak and thin or if you did not fertilize this past fall. Fertilizing in the spring encourages rapid succulent growth that is more susceptible to attack by insects and disease.

**Woody Ornamentals**

- Non-flowering trees and shrubs can be pruned before new growth appears and when the worst of the winter weather is over. *(HG 84)*

- March is the beginning of the planting and transplanting season for woody landscape plants. Avoid working with wet soil; wait until the soil dries out. Common planting mistakes include planting in compacted or poorly drained soil, planting too deep and buying damaged plants with poor root systems. *(HG 202)*

**Ornamental Plants**

- Cut down perennials and over-wintering ornamental grasses to within 2 inches of the ground and remove plant debris from flower beds.

- Remember not to set out tender annuals (impatiens, marigolds, petunias, salvia, etc) until after the last frost date. This date varies across the state from late April on the Lower Eastern Shore to late May in Western Maryland. See our Spring frost/freeze table.

- Spring bulbs are emerging and some are even flowering at this time. Exposed leaves may be burned later by very cold temperatures but the spring flower display will not be adversely affected.

**Fruit**

- If you’re considering strawberries, try some of these June-bearing cultivars - Earliglo, Allstar, Cavendish, and Annapolis. Apache, Arapaho and Navaho are erect, thornless blackberry cultivars with good flavor that require no support and work well in backyard gardens.

- Now is the time to start routine pruning apple and pear trees. Start your pruning by removing dead, broken and crossing branches and keep younger trees trained with a central leader much like a Christmas tree shape. Peach trees should be pruned after flowering. For peach trees, maintain an open vase shape to encourage good air circulation and fruiting throughout. Shorten all the branches and thin out weak growth.

- Dormant oil sprays are very effective at reducing populations of some tree fruit pests, including scales, spider mites, and aphids. However, dormant oil sprays will burn open leaf and flower buds. If green tissue is showing, apply horticultural oil at the less concentrated summer, 2% rate. Be sure that temperatures are expected to remain above freezing for a 24 hour period after spraying oils or else plant damage may occur.

**Vegetable and Herb Gardening**

- Work 1-2 inches of compost into your vegetable beds as soon as the soil is workable.

- Potatoes, onion sets, onion seedlings and peas can be planted as soon as the soil can be lightly worked. Chinese cabbage, leeks, beets, kale, mustard, and turnips can also be planted now. Start sowing spinach and lettuce seed outdoors in cold frames. You can also start sowing seeds of spinach, lettuce, kale, mustard, sorrel, corn salad and other greens indoors under fluorescent tubes. It is still too early to start tomato transplants. Pepper plants are very slow growing and can be started indoors in March.

- Consider purchasing some floating row cover material *(GE 004)* to protect crops against insects and promote early growth. Floating row covers are made from a spun-bonded polyester material and are available from mail-order seed and garden supply companies.

- Now is the time to cut back last year’s old perennial herb plants. This will make them look better and make room for new growth. It will also help reduce insect and disease problems.

**Soil, Mulch, and Compost**

- This is a good time to have your soil tested. Not sure how to take a soil sample? Watch our video on collecting a soil sample.
• If you want to grow vegetables, flowers or herbs this spring and your soil is especially poor, consider building a raised bed (video) and filling it with a purchased mixture of topsoil and leaf compost.

• Mulches should be applied only 2-3 inches deep around ornamental plants and kept away from direct contact with shrub and tree trunks. Mature trees do not benefit much from being mulched except to provide a protective barrier around their trunks from lawn mower damage.

• Your compost pile will begin to come back to life this month. When your pile dries out a bit, try to mix or turn the remaining ingredients to hasten decomposition. If your pile is overly wet and smelly, mix in some dry materials high in carbon, like shredded newspaper, straw, or shredded leaves. Be sure to bury kitchen scraps deep inside your outdoor compost pile to prevent offensive odors that might also attract rodents. (HG 35)

Seasonal and Indoor Plants

• Now is a good time to begin re-potting and dividing houseplants that are outgrowing their containers. Don’t jump pot sizes from a small pot to a very large pot. Moving to a too large pot will make the plant much more prone to over watering damage. Use lightweight soilless potting mixes containing materials such as peat moss, coir, vermiculite, perlite, compost, and rice hulls.

• A variety of pests may attack houseplants. (HG 60) You may notice honeydew, a sticky substance secreted by sucking insects, feeding most commonly on Ficus, Schefflera, and jade plants. Mealy bugs which appear as white fluffy masses are perhaps the most common houseplant insect pest. Other common houseplant insect pests that produce honeydew are the soft scales. These can be controlled with a light horticultural oil labeled for houseplants.

Indoor and Outdoor Pests

• Several species of insects are waking up from their winter dormancy. The earliest ones are the Asian lady bird beetle (photo), marmorated stink bug (photo), elm leaf beetle (photo), cluster flies, leaf-footed bugs, ants, and boxelder bugs (photo). Early in the season they all seem to want to come inside your home. No chemical controls are recommended. They are harmless and can be swept up or vacuumed. Prevent their entry by sealing up all small holes and cracks around the outside of your home.

• When ants come indoors, bait stations are very effective at controlling them (HG 7). Carpenter ants are attracted to wood that has been damaged by water. (HG 115)

Wildlife

• One of the earliest reptiles to come out of hibernation is the Eastern Garter Snake (photo). This is a very common and attractive snake that ranges in adult size from 2-3 feet long. Their typical background color is a dark brown or black with a yellow stripe down the back and two narrower stripes down each side. Small white diamond-like spots may also be visible going down the sides of its back. Garter snakes are completely harmless. To learn more about this and other snakes, refer HG 64 and watch our snake videos.

• Many birds are now actively scouting your landscape for a place to nest this spring. Now is the time to put up a birdhouse (nest box) in your yard to encourage nesting. Clean out and inspect existing nest boxes in your yard to make sure they are in good condition for the breeding season.

• Moles and voles are becoming more active this month. Moles create raised tunnels in lawns. Control by tamping down tunnels with your foot whenever they appear. Voles create tunnels underground or runways on the surface that are not raised. Look for entrance holes about 1 1/2 inches in diameter. Sometimes tunnels are shallow and are open along the soil surface. Voles feed on plant material such as roots, bark, or the entire plant. Where voles are a problem try using mouse snap traps baited with apples. Cover with a shingle or piece of wood to increase effectiveness.

APRIL

Lawns

• Lawn over seeding can still be done in April. Good seed to soil contact is important if the seed is to germinate and survive. Remove leaves and other debris and rake the soil. The best lawn grasses to use are varieties of turf-type tall fescue. Broadcast tall fescue seed at a rate of 3-4 pounds per 1,000 sq. ft. for over seeding. Double the seeding rate (6 – 8 lbs) if seeding over large barren areas. Cover the area lightly with straw and water daily until germination. Once the grass has germinated you can water less frequently; hopefully there will be adequate rain this spring to maintain the young grass.
This month broadleaf weeds resume growth. (TT 49) If you have only a few weeds, simply dig them out. For more extensive problems apply a labeled broadleaf herbicide to spot treat broadleaf weeds. Spot treatments with a liquid herbicide are more effective and less environmentally harmful than broadcasting dry herbicide. Read herbicide labels carefully. Make sure the product is labeled to control target weeds. Apply according to rates listed on label.

**Woody Ornamentals**

- Prune winter damaged canes of non-climbing roses back to healthy wood or to within about ten inches of the soil to reduce the size of the rose. Prune climbers and ramblers back only to living wood, not to the ground. (HG 108)

- Carefully inspect trees for gypsy moth egg masses. (photo) They are tan colored, felt-like and 1-2 inches long, and may be found on tree bark, firewood or any outdoor, wooden structure. Remove and destroy them now as they will be hatching this month. (HG 44)

- Aphid colonies usually begin feeding on tender new growth in April. Aphids are small, pear-shaped soft-bodied insects that come in many different colors and suck the plant sap from a wide variety of plant leaves. They may cause leaves to pucker, twist or curl downwards. Beneficial predator insects, such as lady bird beetles, hover fly larvae, green lace wing larvae, along with parasitic wasps can effectively control the aphid pests. Insecticide treatments are usually not necessary. The affected plant parts quickly grow out of the damage. (HG 83)

**Ornamental Plants**

- Butterfly weed, California poppies, *Gaillardia*, *Cleome*, bachelor’s buttons, strawflowers, chamomile, *Alyssum*, *Nigella*, and annual phlox can be directly sown into the garden at this time.

- If you haven’t already done so, now is the time to clean out flower beds and divide over grown perennials. (HG 99) Cut down over-wintering ornamental grasses to within 2 inches of the ground.

- You can weaken and kill poison ivy (HG 34) and other invasive plants, like Japanese honeysuckle, by cutting them to the ground now and throughout the growing season. Do not handle the hairy poison ivy vines wrapped around trees. Sever them at ground level and paint the cut end with a glyphosate product.

**Fruit**

- This is a good time to plant tree fruits and small fruits. Fruits that require little or no spraying include figs, Asian persimmon, Asian pear, blueberry, blackberry, raspberry, strawberry and currant. (HG 68, HG 69)

- Before planting blueberries, be sure that your soil pH is in the 4.3-5.3 range and the area has been heavily amended with organic matter. You can lower soil pH with iron sulfate and elemental sulfur.

- Thin out the new shoots emerging from blackberry and raspberry crowns so they are spaced at least 6 inches apart.

**Vegetable and Herb Gardening**

- Turn under oats, vetch, rye and other fall-planted cover crops in the vegetable garden. They will require a few weeks to break down in the soil prior to planting vegetable crops.

- Tomato, eggplant, and pepper seeds can still be started indoors under lights. They need 6-8 weeks to grow to a good size for transplanting. Keep the medium moist, not soaking wet. Seedlings may keel over and die due to pathogenic water molds if the mix remains too wet. (Watch our Seed Starting Videos for step by step instructions.)

- Beans and corn can be sown where soil temperatures are above 50°F. Consider pre-sprouting the seed indoors to get them off to a fast start in the garden and eliminate the need for thinning. Squash, melon and cucumber plants can be started indoors now as well and grown for 2-3 weeks before transplanting into the garden.

- Avoid the temptation to set out warm season crops until after all danger of late frosts. This would be late May in Western Maryland, May 10-15 in Central Maryland and April 25-May 5 in Southern Maryland and on the Eastern Shore. (See our frost/freeze dates table.) Be prepared to cover tender transplants with paper bags, blankets, floating row cover, or other materials if frosts are anticipated.

**Soil and Compost**

- Avoid the temptation to turn over or dig into wet soil. This can cause long-term damage to the structure of your soil. Squeeze a handful of soil and bounce it up and down in your hand. If it breaks apart easily you can dig it; if it holds together it’s too wet to dig.
• This is a good time to turn compost piles, remove any large woody materials, and add a nitrogen source to accelerate the breakdown process.

Seasonal and Indoor Plants

• If a houseplant is already in a very large container and you cannot move it up to a larger one, you can remove the plant and prune its roots. Fill the outside with fresh potting medium. Pruning some of the roots may set the plant back a little but it will recover and it will have more space for the roots and improve pot drainage.

• Many gardeners like to move their houseplants outdoors for the summer. Most tropical plants do very well outdoors. But, don’t move your plants directly from indoors out into the direct hot sun. The hot sun will damage the foliage and may even kill the entire plant. Instead, move them into a semi shaded location. April is still a little early to leave them out overnight because many parts of Maryland still get frost in April.

• Fungus gnats are small, harmless black flies that hover around, breed in and feed on moist growing media. They can be controlled by being careful not to over-water houseplants. Growing media should be allowed to dry out before watering again. Learn more...

Indoor and Outdoor Pests

• Winged forms of termites are actively swarming inside and outside many houses. The termites are dark brown, about 1/4 inch long with 4 long wings of equal length and a fluttery flight habit. See EB 245 for additional information on termites.

• Fleas are sometimes observed in homes even where there are no pets. The most likely source is an animal such as a raccoon living in the attic, crawl space, fireplace chimney or some other sheltered area connected to the inside of the home. Fleas are 1/16 to 1/8 inch long, brownish black in color. They are wingless but strong jumpers and they bite. (HG 27)

• Ticks are very active now. Wear light colored clothing and get in the habit of checking yourself, your children and pets closely for ticks after spending time outdoors. Repellents are also effective at keeping ticks at bay. Deer tick populations (also known as black legged ticks) are especially high around the Chesapeake Bay.

Wildlife

• This month eastern box turtles are coming out of hibernation and may visit your yard. Consider yourself fortunate to see a box turtle. They are becoming very scarce through much of Maryland because of road mortality and habitat destruction. Observe it but don’t collect it as a pet.

• You do not always need a large property to help wildlife. Plant window boxes and containers on decks and balconies with a mix of shrubs, annuals, perennials, and herbs to attract butterflies, bees, and hummingbirds.

• Woodpeckers may be heard this time of year tapping on wooden structures. This may be territorial behavior or actively searching for insects. They prefer soft woods like cedar. Dissuade persistent woodpeckers by tacking up some hardware cloth over the area. Small trees may be protected from wood pecker damage by draping nylon netting over the canopy and trunk. Protect branches and trunks of larger trees by loosely wrapping 1/4 inch hardware cloth or burlap around them.

MAY

Lawns

• Dry white or tan colored grass blade tips are an indication that the mower blade is dull. Dull mower blades tear turf grass and can lead to disease problems. Keep your blade sharp and leave the grass clippings where they lay.

• Mushrooms may be an eyesore but do not damage the lawn (photo). You may also see slime molds develop on lawns and mulches. These fungi are feeding on decaying organic matter in the soil, dead tree roots, etc. The fungi can be knocked or kicked apart to help dry them out. They will disappear with a return to dry conditions.

Woody Ornamentals

• Lace bug feeding begins this month and may be seen now on rhododendrons, azaleas, andromeda, and mountain laurel. You’ll notice small white or yellow spots on the upper sides of leaves and small black fecal spots will appear on the undersides. (photo) Lace bugs are more of a problem on stressed plants on exposed hot sunny sites. If faced with a severe infestation, treat with a systemic insecticide. (HG 95)
A common fungal disease known as anthracnose can show up on oaks, maples, sycamores, ash, beeches and apples. Irregular shaped, brown spots appear on the upper leaf surface. Leaves may wither, die and drop as the disease spreads. Healthy, mature trees can tolerate these symptoms and will put out new foliage. Young trees that are badly infected can be sprayed next spring, with a labeled fungicide. Sprays will not help once leaf spotting symptoms are observed. Rake up and dispose of fallen, infected leaves to reduce the incidence of the disease next year. (Read more...)

Ornamental Plants

- Plant all warm season annual plants at this time. Purchase stocky, transplants with healthy, white root systems. Remove any flower buds or opened flowers when you get them home to hasten root establishment. This will help direct the plants’ energies to root development and will result in more productive plants. Summer annual bulbs like gladiolus, tuberous begonias, cannas, caladium, and dahlias can be planted now.

- Consider planting a groundcover this spring in areas of your yard where the turf is consistently weak. Groundcovers are especially useful on slopes, in shaded areas under trees, and as a border around buildings and garden beds. Before planting a groundcover, work in organic matter and add lime and fertilizer according to soil test recommendations. Groundcovers for sunny areas include creeping thyme, phlox, artemesia, creeping dianthus, oregano, plumbago, and lambs ear. Some good shady area groundcovers include Vinca minor, Astilbe, Epimedium, coral bells, wild ginger, Hosta, Mazus reptans, and sweet woodruff.

- You may notice streaking in iris foliage caused by young iris borers. The larvae then tunnel down and feed on the rhizome. (photo) The leaves and flower stalks may wilt. The best control is prevention. Do not mulch your irises, plant rhizomes high in the planting bed, and select full sun sites. If you suspect borers, dig up the rhizomes after bloom, cut off rotted and infested portions and re-plant.

- Now is a good time to divide and repot hardy water lilies and other crowded aquatic plants. Fertilize your aquatic plants with products recommended for aquatic plants. Wait until June to plant tropical water lilies.

Fruit

- Remember to keep all new fruit plants properly watered this summer. The first season is critical for their establishment.

- Ripening strawberries attract sap beetles. Consider placing small plastic jugs in your strawberry rows filled with water, molasses, and yeast to attract and trap sap beetles.

- Peach tree borer larvae that over-wintered in the lower trunks of peach trees are actively feeding on the cambial tissue, right below the bark. You will see entrance holes with thick sap or gum at the opening. The feeding of only a few borers can girdle and kill a young tree. A vertical cut with a very sharp knife can be made around the entrance hole in an effort to locate and kill the borers. Inserting a sharp thin wire into the holes may also spear the borers. Borers are attracted to stressed trees so keep your trees healthy to prevent damage.

- The floricanes (canes with flowers) of June-bearing raspberries should be pruned back to a height of 3-4 feet to encourage lateral growth. Thin out new bramble shoots (primocanes) so that there is at least a 6 inch space between shoots. Tip the laterals of the floricanes of bramble plants to 12-18 inches. The skinny growth at the ends of laterals will not bear good fruit and will create a dense, unproductive canopy. Remove any bramble canes that show virus symptoms - small, curled, distorted or mottled leaves.

Vegetable and Herb Gardening

- Did your garden get over taken by weeds last year? Take action now, before weeds become unmanageable. Consider the following options around plants and between rows: dried grass clippings, sections of newspaper covered with straw or mulch, black landscape fabric or black plastic mulch. The latter two will also warm the soil and hasten the harvesting of warm-season vegetables like melons, eggplant, tomatoes, and peppers.

- Salad greens should be grown in rich soil and regularly watered and fertilized for optimum succulence and eating quality. (Learn more...)

- Squash vine borer adult females are large, clearwing moths with orange/black bodies. They begin flying mid-late May in Central Maryland and lay eggs on squash stems, especially zucchini. Use floating row covers to exclude the adult females. (Learn more...)
Soil, Fertilizer, and Mulch

• Earthworms are a sign of healthy soil. Contrary to popular belief, heavy rains don’t drown earthworms (they have no lungs) or drive them out of the ground. They come to the surface during wet periods to mate more freely. They die because they dry out or are parasitized by insects and diseases. Soil insecticides will also drive them out of the soil.

• Avoid the temptation to fertilize ornamental garden plants that appear to be healthy and productive. Overfertilization, especially with those high in nitrogen, can lead to overly succulent, weak growth and encourage sucking insect pests like scales, aphids and adelgids.

• Various slime molds, like “dog-vomit” fungi and stinkhorn fungi, may be observed now growing in mulch. Although not harmful to plants, they are unsightly and can be broken up, turned under, or removed.

Seasonal and Indoor Plants

• This is a good time to take and root stem and leaf cuttings and to re-pot plants that are out-growing their containers. Be careful not to over-water houseplants. Growing media should be allowed to dry out between watering. Begin fertilizing houseplants again once you notice them putting on new growth.

• Low light is a common cause of houseplant failure indoors. Some recommended plants for low-light conditions include Chinese evergreen, peace lily, snake plant and various types of Dracaena.

Indoor and Outdoor Pests

• Avoid mosquito and midge problems later this summer by turning over any pots, lids or saucers that might collect water and create a breeding site.

• Mining bees are active now. They are solitary bees that nest in underground burrows, fly low over the ground and make 1/4 inch holes in loose soil. They are not aggressive and the males have no stinger. (HG 104)

• Wasps and bees are also very active. Carpenter bees (photo) cause concern at this time of year. They make clean, round holes about ⅛ inch in diameter. They usually will not bother wood that is freshly painted or stained. They can be a problem in weathered and untreated wood. Contact a pest control professional if you’re having a serious problem with carpenter bees. (HG 29)

• Slug populations are high. They can be controlled with a directed spray of full strength vinegar, with traps and baits and, of course, handpicking.

Wildlife

• Rabbits and groundhogs can be a serious threat to flower and vegetable gardens, feeding on young and tender plants. Rabbits can be excluded with a low, 2 ft. high fence that is secured to the ground. Groundhogs can climb, so an additional strand of electric fence wire at the top is necessary. You can also repel them with commercial repellents, blood meal, or by sprinkling hot pepper flakes around plants. Polywire fencing connected to an inexpensive, solar-powered charger can successfully exclude deer. (HG 90)

• Snakes, turtles and toads are very active by now. These are all very beneficial creatures. They are very sensitive to pollutants such as pesticides. Their presence in the landscape is a sign of a healthy environment.

• Where deer are feeding on garden and landscape plants, apply a repellent, such as “Deer-Away”, “Hinder” or “Ro-Pel” to vulnerable plants. If deer pressure is heavy, try rotating repellents. Small deodorant soap bars have been used with some success.