Seeking Seed Starters

KATIE DOTT

It is never too early to think about the BCMG Plant Sale on May 9, less than 100 days away. MGs need donations of seedlings and plants. Anyone can start seeds just by following a few easy steps.

Get your materials together. You will need a light source and timer, seed trays, labels and seeds. I use two Hydrofarm JSV4 4-Foot Jump Start T5 Grow Light Systems available on Amazon for $71. These systems come complete with stand and bulbs. The local home improvement store has fluorescent shop lights or clamp lights ($10-16) that you can outfit with plant light bulbs ($6-12 each). Keep in mind that as the plant grows, you will need to raise the lamp to 1-2 inches above the new growth. Use a timer so that you don’t need to babysit your crop every day.

Jiffy-Start seed trays are available at Walmart for less than $7. Each tray has 72 peat pellets and a clear plastic lid that keeps the soil moist for germination and growth. For each four-foot grow light, you’ll need only two of these seed trays.

Decide what you want to grow. Since these plants need to look large and lush and ready to plant by May 9, I start in mid-February with tomatoes, cucurbits and perennials. Most perennials do not grow very fast and will not be a good size to sell by May 9. Plant these perennials in your garden for 2015 and plan to donate them to the 2016 plant sale.

Throughout the winter, I start seeds from Key limes and Calamondin, a miniature orange tree. As the citrus and larger plants grow, I move them to larger pots and keep them under the grow lights. Calculate the pot space requirements or be prepared to set up more lights.

For sowing in your own garden, annuals can be started 10-12 weeks before the last frost and vegetables can be sown 8-10 weeks before last frost. Historically, the last frost can occur any date between April 11 and May 19 depending on your Maryland location. For seed starting dates for specific vegetables, visit http://extension.umd.edu/growit/vegetable to view the GIEI vegetable planting calendar.

The seed trays come with easy directions. Just add water. Measure the water carefully. Too much water equals slime. I like to think warm (not hot) water gives the seeds an extra boost to germinate early. I use chopsticks to push one to three seeds into each cell. Finish the job with waterproof labels. It is recommended that lights should be set for 14 to 16 hours, but I set my timer for 12 hours with no ill effects. After all the seeds germinate, remove the covers. Don’t overwater and keep the temperature at 70-75° F during the day and 65° F at night. My seedlings live in the furnace room, so temperature is never a problem. Thin the plants to one seedling per pod by scissoring the lesser seedlings.

For more information, visit the Grow It Eat It website, view the UMDHGC channel on youtube, or contact the plant sale committee chair, Nancy Lewis for a list of MGs who can help.

New website
HTTP://EXTENSION.UMD.EDU/ BALTIMORE-COUNTY/ MASTER-GARDENERS
**Gymnosporangium globosum**

In Norman’s Patch 44, “The Anatomy of a Native Plant Bed,” I reported that my Cockscrew Hawthorn, *Crataegus crus-galli*, had already suffered from the fungal disease, Cedar-Hawthorn Rust. Linda Myers informed me that her three Cockscrew Hawthorns had suffered from the same malady. She asked me if I’d found a cure for the disease. While I did not have the recommended cure, I thought of a new article.

Around the same time, Nancy Lewis fortuitously offered me her near 600-page tome, *Diseases of Trees and Shrubs*, published by Cornell University in 1987. Nearly 50 pages are devoted to rust, the most common we encounter in the landscape being Cedar-Apple (*Gymnosporangium juniperivirginianae*), Cedar-Hawthorn (*G. globosum*), and Cedar-Quince (*G. clavipes*).

All three are closely related rust diseases that require two hosts to complete their life cycle. All three rusts can infect most varieties of eastern red cedar (*Juniperus virginiana*) as well as many other junipers as alternate hosts. Cedar-Hawthorn rust, in addition to affecting apples, crabapples, and many hawthorns, sometimes infects pears, quince, and serviceberry.

The fungus produces reddish brown galls on twigs and small branches of susceptible junipers. The galls reach a diameter up to one-half inch and resemble the surface of a golf ball. In the spring, small chestnut brown structures protrude from each of the dimples. During wet spring weather, these projections greatly expand into an orange mass of spore-bearing, jelly-like tendrils known as telial horns. In the spring of 2009 at the Hampton House on a field walk, the telia were observed. Every juniper in the garden had been affected and their appearance was the inspiration for the movie “The Blob.”

These spores are then windblown or carried by insects to the leaves of nearby susceptible hawthorn plants. The spores then turn brown, infect the leaf tissue, and form yellow spots on the leaves. In the late summer, spores are produced on hawthorn leaves. They are windblown back to needle bases or cracks in juniper twigs. After infection of the juniper, small galls form, thus completing the cycle. It takes two years to produce a spore-bearing gall. The galls produce spores at least two years in succession after which they dry out and harden. They can remain on the juniper host for several years.

The best Integrated Pest Management strategy for both hawthorns and junipers is to prune out diseased branches. The spread of Cedar-Hawthorn rust can be limited by eliminating infested plant parts. My favorite recommendation, however, is to live with the disease. It rarely kills trees, although it can disfigure plants when twigs are infected.

The non-organic gardener might use fungicidal sprays. Both junipers and hawthorns can be protected from infection during periods of spore production prior to spring bloom with fungicide applications. Fungicides registered for use are the broad spectrum, non-systemic, chlorothalonil (Daconil) and Mancozeb. Thorough, uniform coverage of plant surfaces is essential for good disease control. Chlorothalonil was found to be an important factor in the decline of the honey bee population, by making the bees more vulnerable to gut parasites. Chlorothalonil is highly toxic to fish and aquatic invertebrates, but not toxic to birds. Mancozeb has a LD50 of 5000; however, it is reported in the literature that the fungicide can act as a cholinesterase inhibitor and therefore can have effects on the nervous system. Read the label before usage! Both fungicides are used in commercial fruit and nut production, including tomatoes.

Genetically resistant hawthorn varieties could be planted. Unfortunately, ‘Hooks’ is the only cultivar that meets this criteria because the Cockspur Hawthorn is a hybrid between *C. crus-galli* and *C. prunifolium*. The hybrid is not considered a native species.

There is no sugar coated bromide in the prevention or cure for the disease. Either we live with it, prune, put other plants in their place, or spray fungicides.

---

**AMG Committee Annual Report**

In the excitement of the getting ready for our January recognition ceremony, I failed to include highlights in our powerpoint presentation from one of our most dedicated Master Gardeners and his committee. Ask A Master Gardener committee, run by Norman Cohen, participated in 69 events and reached 1,668 adults and 36 children. Thank you so much for all the outreach that you do for the Master Gardeners! —Anna
**Reminder about new websites**

**PLEASE REGISTER FOR OUR NEW MG PRIVATE WEBSITE**

This private website is replacing the Weebly website as a more secure location to share internal documents, reports, contact information, event updates, and more. All MGs should register to get connected; already 40 people have.

The website that will strictly house all our internal content can be found at AGNR Groups: https://agnrgroups.umd.edu/baltimore-county-mg. To access this content, each MG will need to create a username and password, request permission to join the group, and then be added to the group by the website administrator (Anna). Instructions are available at: https://agnrgroups.umd.edu/how-use-site/information-new-users/registering. Please note that this username and password are separate from those used to complete online hours.

**PLEASE SHARE OUR NEW PUBLIC WEBSITE**

In our efforts to switch from the Weebly to a University of Maryland Extension (UME) webpage, we have also created a new website that provides a place for the public to learn about what we as Master Gardeners do and about all the educational programs that we offer throughout the year.

The public webpage is http://extension.umd.edu/baltimore-county/master-gardeners. Please share this new website with the public when you are educating them at library classes, farmers markets, Bay Wise certifications, community fairs, speaker bureau events, and everywhere else you find yourself talking about the Master Gardeners.

Please contact Trish Moore or Anna Glenn with suggestions for items to include.

**Online hours tracking system**

The Maryland State deadline for submitting 2014 Master Gardener hours is February 11, 2015. You have until then to enter your hours and get them approved by the county coordinator in order to maintain your status as an Active Master Gardener. Some may be wondering about the December 15 deadline. That deadline was to help county coordinators gather data to create annual reports for various county agencies and supporters. Thank you to the Master Gardeners who turned in their hours by December 15; this helps ensure that our program gets proper recognition for all the hours of educating our community each year.

According to the Maryland Master Gardeners State Policies and Guidelines (available on the website), if a Master Gardener doesn’t submit hours three years in a row, they will be asked to go through the process of reestablishing membership, which entails attending 50 percent of basic training classes, completing 20 hours of volunteer service, passing the final exam again, and re-signing the UME Volunteer Appointment Agreement. Please also remember that the Emeritus and Hiatus statuses are also available upon request. The Emeritus status will grant an MG who can no longer remain active, but wishes to stay connected to the program, the privilege to attend meetings, educational seminars, and social gatherings. The Hiatus status will grant an MG who wishes to become inactive for a short period of time due to personal circumstances, the ability to do so upon request without losing their membership status. Hiatus status can be maintained for up to three years.

Please let Anna Glenn know if you wish to request a status change; she will make the proper documentation in your file.

**CONTINUING EDUCATION**

**March 12, 6:30—8:30PM**

**Monarch butterflies**

Pam Spencer

I will discuss Monarch butterflies. After some background information and what makes them so special, Pam will share her own experience rearing Monarchs. What can we do to help? Learn the pitfalls to avoid and why Monarchs are at risk.

Pam is a 2014 graduate of the MG class. She is a registered nurse and spent her entire career working with children. Pam says, “Gardening lifts her spirits...nothing feels better than to dig in the dirt!”

We will also be having a brief discussion about the new factsheet “What Counts as Baltimore County Master Gardeners Hours?” so if you have ever felt unsure or had questions on this topic, please be sure to attend.

**April 9, 10 AM - NOON**

**Vegetable Gardening**

Jon Traunfeld, principal agent, director, and state MG coordinator, will talk about what’s hot in the vegetable garden as well the state’s Grow It Eat It program.

Starting its seventh year, GIEI is thriving on the growing public demand for food gardening information and help. Jon will discuss important updates on plant problems and pests, some trending crops, cultivars, and techniques and provide advice that will help clients be more successful in their vegetable gardens.
PolLEN Nation Station
Pollinators,
Where are my winter quarters?
GLEN SCHULZE

Let’s take a closer look at some of our native pollinators in a search for their winter quarters. Come on an adventure to discover some fascinating wintering strategies.

Leaf litter, plant stems, and winter annuals

Our first stop is to search in the winter remains of flowers in the Violaceae family, including violets, Johnny Jump-up or Field Pansy, and assorted hybrid pansies. We might see the wintering chrysalis of the Variegated Fritillary butterfly (Euptoieta claudia) in the leaves and stems. This butterfly is one of the last butterflies active in Maryland at the end of each growing season. The Variegated Fritillary favors the nectar of common milkweed (Asclepias syriaca), and may-apple (Podophyllum peltatum).

We can also search for pupae of the daytime moths like Hummingbird moths (Hemaris), concealed in leaf litter or even nestled in the soil. Among the flora that their larva feed on are coral honeysuckle (Lonicera sempervirens) and common snowberry (Symphoricarpos albus). They also forage on members of the rose (Rosaceae) family, including trees and shrubs such as plums and cherries (Prunus), and hawthorn (Crataegus). In spring, the adults enjoy feeding on members of the mint family, especially bee balm (Monarda). They also nourish themselves with nectar of red clover (Trifolium pratense), common lilac (Syringa vulgaris), woodland phlox (Phlox divaricata), blueberry (Vaccinium corymbosum), field thistle (Cirsium discolor), and other flora.

Winter annuals provide leaf cover for pupae of the Eastern Tailed Blue butterflies (Cupido comyntas). Host plants for the caterpillars and larva of these butterflies include crimson and white clover (Trifolium pratense and Trifolium repens) and other plants in the pea family. As adults, these butterflies are typically found feeding on nectar in flowers that are close to the ground. They like cinquefoil wildflowers such as dwarf cinquefoil (Potentilla canadensis) and asters, such as late purple aster (Symphyotrichum patens), whorled wood aster (Oclemena acuminate), and New England aster (Symphyotrichum novae-angliae).

Trees and shrubs

In and near some of the trees and shrubs, we may find a pupa of the Viceroy Butterfly (Limenitis archippus) keeping cover through the winter wrapped in a leaf of its host plant. Hosts include trees and shrubs in the Salicaceae family including willows (Salix) and eastern cottonwood (Populus deltoides). As an adult, this butterfly is often mistaken for a Monarch. This is a survival strategy known as Müllerian mimicry. Adults like to feed on aster (Asteraceae), goldenrod (Solidago), and joe-pye weed (Eutrochium purpureum).

We can continue to study more about the wonderful pollinators, their behaviors and surroundings. We can better help preserve and conserve them by recognizing and protecting their overwintering habitats. Some additional resources you can use to learn more, include the following references used in creating this article. http://www.mdflora.org/publications/gardenersguidelines/gguides.html (Maryland Native Plant Society. gguidelines03.pdf “Using Native Plants to Attract Butterflies”) http://bugoftheweek.com/ (articles, pictures, links for specific insects by M. J. Raupp, Ph.D. Professor of Entomology, Extension Specialist at University of MD.) http://www.butterfliesandmoths.org/ (species information and occurrence data). http://www.fs.fed.us/wildflowers/index.shtml (Pollinators)

Be sure to look for the next PollenNation Station article: “Come out, come out, wherever you are!”

Demonstration Garden Meeting

If you are interested in knowing what will be happening in the Demonstration Garden this season, please attend the March 11 meeting at 5:00 p.m. Every garden should have a representative present so everyone will be apprised of this year’s plans. All are welcome.

Several needs currently exist. Contact Leslie Erickson if you’re interested in becoming an organizer of Garden Fest. Kolman Kodeck is looking for people to help assemble items and repair tools in the tool room.

Co-chairs for the Demo Garden Committee are desperately needed (see previous issues of Budding News). Please step outside your comfort zone; contact Heather Wight to learn more.

Please let Heather Wight know if you are planning to attend the meeting in the lower conference room at the Ag Center.
A conservation landscape is a garden that improves water quality, promotes and preserves native species, and provides wildlife habitat. The Chesapeake Conservation Landscaping Council defines conservation landscaping through its “Eight Essential Elements”:
1. Is designed to benefit the environment and function efficiently and aesthetically for human use and well-being
2. Uses locally native plants that are appropriate for site conditions
3. Institutes a management plan for the removal of existing invasive plants and prevention of future nonnative plant invasions
4. Provides habitat for wildlife
5. Promotes healthy air quality and minimizes air pollution
6. Conserves and cleans water
7. Promotes healthy soils
8. Is managed to conserve energy, reduce waste, and eliminate or minimize the use of pesticides and fertilizers.

A great example of conservation landscaping in central Maryland is the Watermark Place Condominiums project in the Wilde Lake watershed in Columbia, Maryland. The community borders Wilde Lake along a steep slope that was experiencing major erosion. In the spring of 2014, 15 UMD senior landscape architecture students visited the property and did a storm water site assessment. Based on that report, a conservation landscape project began.

With a warm reception from the Watermark community members, a group of dedicated Howard County Master Gardeners and Master Watershed Stewards picked up the initial project design ideas and refined them into a beautiful conservation landscape design to help manage the stormwater-related erosion on site.

This past October, the 500 square foot conservation landscape was planted with more than 175 native plants including hydrangeas, clethras, witchhazel, wood ferns, ragwort, asters, and native grasses. Support for the project came from the Columbia Association and Sea Grant Extension’s Watershed Protection and Restoration Program.

Similar conservation landscaping, rain garden, and erosion prevention partnerships and projects would be valuable in Baltimore County. For more information about this and other project opportunities, contact your local specialist, Krisztian Varsa at kvarsu@umd.edu or (410) 887-8090.

**Plant identification training date set**

Baltimore County Master Gardeners are really pleased that ecologist Charlie Davis has agreed to lead a workshop on ways to identify native and non-native plants on Saturday, April 18 from 10:00 a.m. to 12:00 noon at the Ag Center.

As gardeners, we’re becoming increasingly interested in learning how to identify species. If answering questions at a public event, such as Ask A Master Gardener, it might be helpful if we could name the plant that a person brings to us. More importantly, we need to identify species for our plant sale. MGs generously donate plant material, but some plants are unidentified, which can create a headache for plant sale volunteers.

In Charlie’s workshop, Plant Taxonomy including Classification, Naming, and Identification, we will explore a fundamental skill for gardeners: plant identification. We’ll learn and practice skills for observing relevant plant features, use of identification keys and other tools, and strategies for confirming names.

Complementing the workshop and as part of a long-term plant survey at the Ag Center, Charlie is planning series of plant walks throughout the year. In spring, summer or fall, some might like to examine plants in bloom, while others may be more interested in identifying trees in any season.

The workshop and the plant walks can help us learn about plant identification. In the meantime, there are several online Facebook resources that anyone can use to get an ID for a plant – just post a photo at:

- "Plant Identification" (https://www.facebook.com/groups/159805504394635/): Many experts and 36,000 + members worldwide: often quick IDs.
- "Maryland Native Plant Society Discussion Group" (https://www.facebook.com/groups/marylandnativeplantsociety-discussiongroup/): Maryland natives only.

Another source for plant identification is What’s this Plant?, a program Charlie and Judy Fulton run on the second and fourth Monday of every month from 7 to 9 p.m. at the Natural History Society of Maryland. Anyone can sign up at www.meetup.com/marylandnature/events/. You can come with actual specimens or plant photos, or join up with others who are working on identifying plants collected during Ag Center walks.

Mark your calendar and sign up for the April 18 workshop and the plant walks. Both activities are considered advanced training, but the Ag Center plant walks count as either training or volunteer hours.
Voluntary donation

The Baltimore County Master Gardeners will be collecting membership donations from January to March. The suggested annual contribution is $25, but you are welcome to contribute any amount. These funds are used for supporting various activities not covered by the UME, Baltimore County Extension Office. Donations can be made by cash or check endorsed to Baltimore County Extension Advisory Council (BCEAC), not Baltimore County Master Gardeners. Donations can be given to Treasurer Ruth Simon at the meetings or mailed to the Baltimore County Extension Office (Attn: Anna Glenn).

*The Baltimore County Extension Advisory Council is a 501(c)(3) organization. Please consult your accountant for guidance on the tax implications of your donation. Your donation will in no way affect your membership status as an Active Baltimore County Master Gardener.

Spring Lectures

Attend all four lectures at the Ag Center from 7:00 to 9:00 p.m. each month for $50 or $15 each evening. (Master Gardeners pay $10 per evening.)

March 2 Part 1: Anybody can plant a tree but how do you raise a tree?
Stephen Allgeier; Part 2: Native Shrubs, Stan Kollar

April 6 Get on board about natives, Connie Schmotzer

May 4 Part 1: Growing a work of art- (container gardens), Marilyn Sparks; Part 2: What's new in 2015

June 1 Small space vegetable gardens: How to get a lot from a little, Chrissa Carlson

Contest!

To entice visitors to experience our fabulous Demonstration Garden, we are developing a series of six colorful signs. The signs will be placed in the oak tree mulch leading out to the garden.

Write a question for the front of the sign or an interesting, exciting fact about the Demo Garden. The answer will go on the back of the sign. Each winner will receive a $5 gift certificate for the BCMG Plant Sale. If two or more people come up with the same winning question/answer, we will have a drawing for that winner.

Submit your ideas to Ruth Simon.

February General Meeting

February 12th, 10:00 a.m. to 12:00 noon
Creating a native wildflower meadow

Our own Mary Clark and her husband Dewey will share lessons learned during the last several years in transforming 1½ acres of lawn into a native wildflower meadow. Randy Low and Patsy Pahr suggested this meadow presentation after their Bay-Wise Certification visit to the Clarks’ home. The February 12th presentation, in the form of a photo essay, will highlight the meadow at various stages of development and in different seasons. The Clarks will share photos of the diverse wildlife their meadow has attracted and discuss challenges related to invasive plants.

Information about all MG Advanced Training Classes may be found at: http://extension.umd.edu/mg/advanced-training

UME Baltimore County Extension
1114 Shawan Road
Cockeysville, MD 21030
Phone: (410) 887-8090
Fax: (410) 785-5950
NEW website: http://extension.umd.edu/baltimore-county/master-gardeners
Anna Glenn, Horticulture Faculty Extension Assistant, amglenn@umd.edu

University of Maryland Extension (UME) programs are open to any person and will not discriminate against anyone because of race, age, sex, color, sexual orientation, physical or mental disability, religion, ancestry, national origin, marital status, genetic information, political affiliation, and gender identity or expression.