In Season with MGPW

the quarterly of the Master Gardeners Prince William

Summer 2022

black-eyed Susan (*Rudbeckia hirta*); cardinal flower (*Lobelia cardinalis*

photo by Jason Alexander

Summer

PRESIDENT'S MESSAGE

Fellow Master Gardeners - your efforts are paying off! I don't know about you - but I am getting asked a lot of questions about native plants, pollinators, and helping our local environment. All of your classes, discussions, demonstrations, and social media posts are paying off. I know this is a busy time of year for us - but it feels great knowing the Master Gardeners are having such a positive impact on Prince William County. We are fulfilling our mission of providing education on healthy environments and water conservation through sustainable gardening. Thank you for all that you do - and Garden On!!!!

-Janene Cullen, PhD, President, MGPW Board

FUNDRAISER: GET YOUR COBRA WEEDER!

If you don't have one already—it will become your favorite weeding tool! If you do have one, they make wonderful gifts for gardening friends & family! Contact Jeanne Lamczyk at jeanne.lamczyk@yahoo.com or text 703-623-1110. Cost: $25.00, while supplies last. ◇◇◇

INSIDE THIS ISSUE

TOPICS OF INTEREST

- Lawn
- Prized Plants
- Garden to Table
- Out and About
- Book Nook
- Insights
- Local & Sustainably Grown
- In the Community
- Congratulations
- Courtesy of Plant NOVA Natives
- Conservation at Home
- Courtesy of Plant NOVA Trees
- Critter Neighbors
- Free Online Classes

LAWN CARE FOR PWC

Virginia is part of a transition zone between areas where cool and warm season grasses thrive. This can make lawn care in our area challenging. If you're a first time homeowner, new to Prince William County or just looking to better manage your lawn, Virginia Cooperative Extension can help.

We offer help with interpreting soil test results, information on cultural practices, pest identification and pest control recommendations.

For more assistance with lawn care, contact the Virginia Cooperative Extension Environmental Educator at 703-792-4037 or BESTlawns@pwcgov.org.

The BEST Lawn Program can sample and measure your lawn for you and provide you with a fertilizer schedule that will help promote a healthy lawn.

Zinnia (*Zinnia elegans*)
photo by Jason Alexander

LAWN: 12 STEPS TO A GREENER LAWN

video presentation by Natali Walker, Environmental Educator, VCE-Prince William

Here are a few highlights from the presentation:

- Test your soil. Contact Prince William Cooperative Extension for a test kit.
- At least 6 hours of sunlight is needed for a healthy lawn. Consider alternative groundcovers under trees, and other shady places.
- Lawn care timing is crucial. Know if you have warm or cool season turf grass.
- Leave clippings when you mow for free fertilizer. Cool season grass clippings *do not* cause thatch when mowed properly.
- Mower maintenance is the key to optimal mowing. Change the oil, replace the air filter and spark plugs, and *sharpen blades after 10 hours of use*.
- Spring rain should provide adequate irrigation for lawn. If you decide to water, continue to do so throughout the summer. Inconsistent watering weakens the plant.
- View the full presentation, available on YouTube, VCE-Prince William channel.
- Contact the Horticulture Helpdesk with questions, or sign up for the BEST Lawns program (mastergardener@pwcgov.org; 703-792-7747)◇◇◇

PRIZED PLANTS: ZINNIA

by Maria Stewart, Master Gardener Volunteer

Nothing could be easier for a burst of summer color than zinnias! Easy to start from seed, with a wide range of colors and sizes, you're sure to find one that's perfect for you. Grow a tall variety at the back of a planting bed, or grow dwarf varieties in containers and window boxes.

Zinnias thrive in full sun with well-drained soil. Cut blooms for an indoor display, and encourage new buds. At the end of summer, let the flowers fade on the stem as a treat for American goldfinches. You can save whatever seeds they don't eat for next season.

For more information: University of Florida ◇◇◇

hoary mountain mint (*Pycnanthemum incanum*); photo by Jason Alexander

GARDEN TO TABLE: MINT, DARE TO PLANT A PATCH

by Maria Stewart, Master Gardener Volunteer

We've all heard the warning, "Don't plant mint in the ground!" Only a foolish gardener would plant mint in the ground. It's an energetic spreader, and will quickly take over any area, if given half the chance. Is that such a bad thing though? I propose that it is not. Hear me out.

Mountain mint (e.g. *Pycnanthemum incanum* or *Pycnanthemum tenuifolium*), our native mint, is a wonderful plant for attracting all kinds of beneficial insects. I planted some in an area that needed to be taken over by something beneficial. It has nicely filled in the bare patch, and brought life to a formerly desolate spot.

Inspired, I visited the garden center where I was drawn to the plentiful varieties of mint - peppermint, spearmint, apple mint, orange mint, chocolate mint, Kentucky Colonel mint (the essential mint for a mint julip), you get the idea. Before I knew it, I had half a dozen or more mints in my cart. "I'll grow them in pots," I told myself.

Once I got home, I realized I didn't have enough large pots for my mint collection. I suppose I could have planted them in smaller pots, but I wanted a lot of mint. I had so many plans for mint-based treats. Small pots of mint would not do. So, I threw caution into the wind, or, rather, dug a bunch of holes and stuffed caution directly into the ground. Yes, I planted my mint collection directly in the ground. I rationalized that the mint wouldn't get too out-of-control because I would regularly harvest it, and I planted it in a spot surrounded by hardscape. The hardscape will contain it, right? And maybe mint isn't as energetic and everyone says.

Well, mint *is* as energetic as everyone says. The apple mint has attempted to cross right over the brick walkway more than once, the peppermint started out as a nice groundcover around the blueberry bush, but can get as tall if not cut back, and the Kentucky Colonel mint strolls about anywhere it can.

But, they smell amazing. They also provide an almost endless supply of tea when dried and a refreshing summer drink when steeped in cool water. My mint medley also has been the key ingredient in the best mint chocolate chip ice cream I have ever had, courtesy of my husband!

Plus, there are health benefits. "Mint contains perillyl alcohol, which has been shown in lab studies to inhibit the growth of cancer cells, according to the AICR. Mint may also help to reduce digestive issues, something many cancer patients deal with in the midst of treatment." (The Ohio State University, Comprehensive Cancer Center, *Cancer and Food: Five Herbs That Could Reduce Risk*, 4/13/2022).

True, mint can get wild, and over-extend itself, but with so many redeeming qualities, it's surely welcome in my garden. ◇◇◇

RECIPE

Vegetarian Dirty Rice

INGREDIENTS

- 1 tablespoon olive oil
- 1 large onion, chopped
- 1 medium red or green pepper, finely chopped
- 2 stalks celery, diced
- 1 clove garlic, minced
- 2 teaspoons Cajun seasoning
- 1 teaspoon thyme
- 1 teaspoon chili powder
- 1 (16-ounce) can red kidney beans
- 1/2 cup vegetable broth (or chicken broth for non -veg)
- 2 cups cooked brown rice, or leftover rice
- Salt, to taste
- Freshly ground black pepper, to taste
- 4 green onions, thinly sliced

INSTRUCTIONS

1. In a large skillet over medium heat, heat the olive oil and then add the onion, bell pepper, celery, garlic, Cajun seasoning, and thyme. Allow to heat, stirring for about 4 to 5 minutes.
2. Stir in the red kidney beans and the vegetable broth, combining well, and then stir in the cooked or leftover brown rice.
3. Cover the pan and reduce the heat to low. Allow everything to cook for at least 10 minutes, stirring occasionally. You may need to add a bit more liquid, so check to make sure the rice isn't burning.
4. Remove the rice from heat and add in the sliced green onions and season well with salt and pepper, to taste.

source: Jamie Nick, Master Gardener Volunteer

OUT AND ABOUT: GREEN SPRING GARDENS

Green Spring Gardens

by Jamie Nick, Master Gardener Volunteer

Green Spring Gardens, part of Fairfax County Park Authority, is a year round place for the home gardener to gather information and inspiration.

Many of my garden club friends are also Master Gardeners, like myself. They tell me how much they enjoy Green Spring, and every time they do their Master Gardener work there, or just visit with a friend, they find something new.

Green Spring is a museum, outdoor classroom, and a national historical site. The park has a wooded stream valley with ponds, naturalistic native plant garden, greenhouse, over 20 themed demonstration gardens, plant shop, horticulture reference library, historic house, and GIFT shop.

I recommend you make a point to visit Green Spring if you haven't already. And don't forget to stop by the gift shop - it's a good one!

Park grounds are open dawn to dusk. ◇◇◇

Does boneset really set bones?

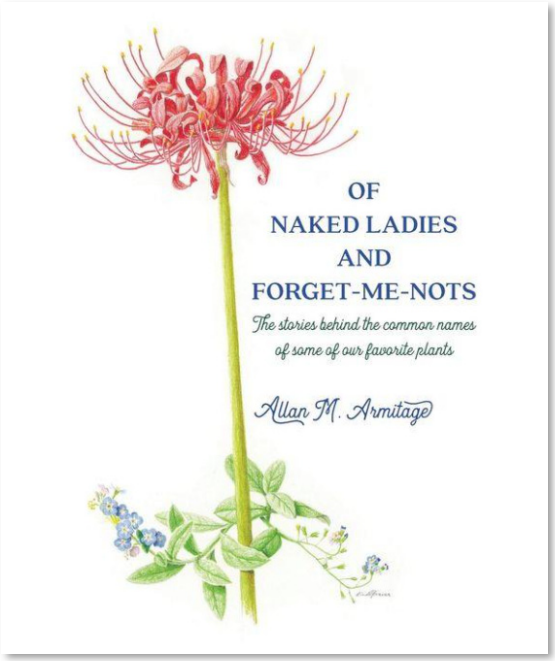
BOOK NOOK: *OF NAKED LADIES AND FORGET-ME-NOTS* BY ALLAN M. ARMITAGE

by Maria Stewart, Master Gardener Volunteer

The perfect summer read, *Of Naked Ladies and Forget-Me-Nots* by Allan M. Armitage, is fun and light, but also informative and engaging.

Armitage explores questions like *does boneset really set bones?* and *what do dogwoods have to do with dogs?*

He gives brief histories of how so many well known and well loved plants likely got their names. He also offers growing suggestions and plenty of photographs to compliment his joyful exploration. Arranged by plant, it's an easy book to pick up for a minute or two, although, once I picked it up, I found it difficult to put down! ◇◇◇



MASTER GARDENERS PRINCE WILLIAM TEACHING GARDEN

The Teaching Garden is a project of the Master Gardener Volunteers. It began as a garden to grow fresh produce for the Plant a Row for the Hungry project and a place where Master Gardeners could teach homeowners how to grow vegetables. The Teaching Garden displays low maintenance gardening techniques that homeowners can implement in their own gardens. It also features plant material that grows well locally.

View the Teaching Garden Brochure which contains a map of the teaching garden bed layout. View the upcoming events at the Garden here as well as other horticulture classes offered by the Master Gardeners.

Sign up for The Teaching Garden blog to stay-up-to-date, and get the latest *In Season with MGPW* newsletter!

photo by Lynne Lanier Master Gardener Volunteer

photo by Jason Alexander

INSIGHTS: MYCORRHIZA

by Abbie & Vincent Panettiere, Master Gardener Volunteers

Long, long, ago, in 2005, when we were studying to be Master Gardeners, I remember being impressed when hearing about a mysterious "mycorrhizal layer" that was made up of certain fungi connected to plants' roots in its area, and how important a facet it was for the ability of plants to thrive.

This spring, when trying to figure out why some patches of soil on our property are so enthusiastically alive with new growth and others show hostility to each faltering sprout that tries to seek its place in the sun, I wondered what role the mycorrhizal layer, lurking below, played.

Looking back into our notes from the Master Gardener training classes and augmenting them by traveling through the internet, I found a lot we'd forgotten (or never quite learned). The realization came that *somehow* the plant roots and the fungus work together to help each other out. The plant roots giving part of their food to feed the fungus and the fungus providing water and nutrients, such as phosphorus, to the plant through its hyphae (*long filamentous branches, the main mode of vegetative growth in fungus and much longer and finer than plant roots*).

The term, mycorrhiza, actually comes from two Greek words. One for fungus and the other for root. A mycorrhiza is a symbiotic connection between a fungus and a plant. To achieve this connection, the fungus sends out hyphae to colonize the roots of green plants, from trees on down to smaller plants, and even farmers' crops.

The fungi are unable to make food for themselves. The plants make, generally from leaves, organic molecules of sugars, such as glucose and sucrose by means of photosynthesis and supply some of it to the fungus. The fungus' hyphae, in turn, are able to reach further into the earth than plant roots can and are able to bring up to them water and various mineral nutrients, like phosphorus, which are generally unavailable to the plant roots, and supply them to the plants. This symbiotic relationship is particularly valuable if the soil in the area doesn't have sufficient nitrogen and phosphorus or if water would not be as available to the plant roots without the fungi's help.

Mycorrhizae form what are called "obligately symbiotic" relationships (*the plants and fungi are in a symbiotic relationship because they cannot survive without each other*). Plants and fungi provide benefits to each other. Neither member of the relationship suffers any ill effects.

Beside bringing water and nutrients to plants, mycorrhizae are capable of providing

A backyard wildlife preserve:

My Garden of 1,000 Bees

a wildlife filmmaker turns his lens on his own backyard to discover an abundance of diversity and life

"This is my garden. It's not really that special. We've just let some of the wildlife back in."

available on PBS

Insights: Mycorrhiza

Sources & For More Information

https://en.wikipedia.org/wiki/Mycorrhiza
From Wikipedia, the free encyclopedia

https://www.rhyniechert.com/invertebrates/rhynie_chertDD fossils
The Rhynie Chert

https://hort.extension.wisc.edu/articles/mycorrhizae/
Wisconsin Horticulture, Division of Extension
Mycorrhizae
– Karen Delahaut, University of Wisconsin – Madison

https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/mycorrhizae
Science Direct
Mycorrhizae
From: Encyclopedia of Forest Sciences, 2004
Dighton, in Encyclopedia of Microbiology (Third Edition), 2009

https://www.scientificamerican.com/article/root-fungus-stores-a-surprising/
Scientific American Environment
Root Fungus Stores a Surprising Amount of the Carbon Sequestered in Soil
Falling leaves and branches are important, but roots and their fungi win out
By Mark Fischetti on March 28, 2013

https://pubmed.ncbi.nlm.nih.gov/27748365/
NIH National Library of Medicine pubmed.gov
. 2016 Oct 17;6:34336.
Arbuscular mycorrhizal fungi enhance soil carbon sequestration in the coalfields, northwest China
Zhi-Gang Wang 1 , Yin-Li Bi 1 , Bin Jiang 1 , Yryszhan Zhakypbek 2 , Su-Ping Peng 1 , Wen-Wen Liu 1 , Hao Liu 1

https://esajournals.onlinelibrary.wiley.com/doi/abs/10.1002/ecy.2978
Ecology: Ecological Society of America, Concepts & Synthesis
Climate change influences mycorrhizal fungal–plant interactions, but conclusions are limited by geographical study bias
Alison E. Bennett, Aimée T. Classen
First published: 18 January 2020

protection against soil-borne diseases and may help the plants to survive more successfully than those without a mycorrhizal relationship. Mycorrhizal assistance to plants allows the plants to resist the effects of drought, high temperatures, and soil salinity and acidity. They may also reduce the effect of toxic elements in the soil.

In some cases, and this may be a factor in problem spots on our property, conditions exist that make mycorrhizal connections difficult or unlikely. If nutrients and water are plentiful in the soil, plants may not need the help that mycorrhizal fungi can give and possibly mycorrhizal fungi would not grow in such places. Soils that have been fumigated, areas where large amounts of topsoil have been removed (such as new developments), or areas where trees have not previously been grown, may suffer mycorrhizal deficiency. Adding nitrogen, phosphorus or complete fertilizers reduces the presence and activity of mycorrhizae.

To non-specialists like us, the whole subject is dauntingly complex. For example, these colonizations fall into two types generally, *ectomycorrhizae* and *endomycorrhizae*. The difference between the two types is that the hyphae of ectomycorrhizae do not penetrate the cell walls of roots but endomycorrhizae do and get inside the root cells' membranes.

Ectomycorrhizae form relationships with about ten percent of plant families, such as various woody plants, some rose families, orchids and other plants. In ectomycorrhizae, the hyphal sheath covers the root and a net of hyphae surround the plant cells in the root. A tree may have fifteen or more different ectomycorrhizal colonizers at a time. Ectomycorrhizal mycelium (*the mass of branching, thread-like hyphae*), apart from the tree, form a network in the soil and leaf litter. According to one source, scientists have discovered that nutrients move through this network between various different plants. That article gave as an example that "Carbon has been shown to move from paper birch trees into Douglas fir trees thereby promoting succession in ecosystems."

Another example of the intricacy of mycorrhizal networks is that they may do battle with insects by releasing chemicals that attract the insects' predators. The fungi seem to be able to lure and kill springtails (*tiny insects, most between one and two mm long, which feed on decaying fungus and plant roots*), to obtain nitrogen, some of which may then be transferred to the mycorrhizal host plant. Some fungi are able to connect plants together in order to bring water, carbon and other nutrients from plant to plant through their underground networks.

The endomycorrhizae variety of fungi are found in 85% of plant species including crops and greenhouse plants such as most vegetables, grasses, flowers, and fruit trees. The fungi penetrate the cells of their plant hosts and form either balloon-like sacs or cysts or branching intrusions increasing the available space and allowing for greater nutrient exchange. Endomycorrhiza have an exchange mechanism on the inside of the root, with the fungi's hyphae extending outside of the root. It is a more invasive relationship compared to that of the ectomycorrhiza. These structures are dissolved and digested by the host plant after a few days so the growth and destruction of the structures is constant.

An odd example of a relationship between plant roots and fungus hyphae occurs in orchid mycorrhiza. All orchids need the connection to fungal partners to obtain the food they need for either some part or all of their lives; some orchids cannot photosynthesize until they reach the seedling stage; some orchids are unable to photosynthesize at all.

The relationship is, actually, parasitic. Orchid seeds cannot survive to germinate because the seedlings can't obtain enough food to grow independently. The orchid parasitizes the fungus, invading it and once the seed germinates and roots begin to come out, the hyphae penetrate the root's cells and form coils so that there can be an exchange of nutrients.

The mycorrhizal layer figures prominently in regard to the changing climate. Two areas of serious interest at present with respect to these mycorrhizal relationships are 1) the ability of mycorrhizal colonies to sequester quantities of carbon for long periods of time and 2) how climate change is changing the way mycorrhizal communities survive and work.

Concerning the ability of these colonies to sequester carbon, it was thought that the forest floor with its litter of leaves and decaying matter, was responsible for providing most of the help in limiting global warming by storing carbon from these decaying materials. An article written in 2013 covering the study of boreal forests in Sweden formed a different

https://doi.org/10.1002/ecy.2978
Citations: 38
Corresponding Editor: Jason D. Hoeksema.

https://esajournals.onlinelibrary.wiley.com/doi/full/10.1890/ES15-00217.1
Ecosphere: An ESA Open Access Journal
ESA Centennial Paper
Open Access
Direct and indirect effects of climate change on soil microbial and soil microbial-plant interactions: What lies ahead?
Aimée T. Classen, Maja K. Sundqvist, Jeremiah A. Henning, Gregory S. Newman, Jessica A. M. Moore, Melissa A. Cregger, Leigh C. Moorhead, Courtney M. Patterson
First published: 07 August 2015
Citations: 288
Corresponding Editor: D. P. C. Peters.

https://byjus.com/questions/what-is-mycorrhiza/
byju's
What is Mycorrhiza?

https://biologydictionary.net/mycorrhizae/
Biology Dictionary
Mycorrhizae
By: BD Editors
Last Updated: May 18, 2017
Mycorrhizae Definition

http://mushroomthejournal.com/greatlakesdata/Terms/arbus799.html
Mushroom the Journal
mycorrhiza

https://oceanservice.noaa.gov/facts/carbon-cycle.html
National Ocean Service
NOAA
What is the carbon cycle?

https://www.merriam-webster.com/dictionary/forb
Merriam Webster
Definition of forb

https://news.nau.edu/rebecca-hewitt-permafrost-fungi/
Northern Arizona University – NAU
Sep 27, 2018 Research & Academics
Feeding fungi: NAU researcher finds fungi in permafrost gets nutrients through surprising route

conclusion: that 50% to 70% of the carbon sequestered in soil comes from the activities of the mycorrhizal communities that grow on the trees in the area. The fungi, in their symbiotic relationships to plant roots, receive the sugars provided by plants' photosynthesis and transport the carbon directly into the soil.

With regard to the changes in mycorrhizal activity due to changes in climate, Wikipedia's article contained the statement "Mycorrhizae are one of the most widespread symbioses on the planet, as they form a plant-fungal interaction with nearly eighty percent of all terrestrial plants. The fungi are essential to the planet as most ecosystems, especially those in the Arctic, are filled with plants that survive with the aid of mycorrhizae."

However, an article written by Alison E. Bennett and Aimée T. Classen in 2020 said that they had reviewed the material available and developed a map to try to find how the "…three most common types of mycorrhizal fungi (arbuscular mycorrhizal [AM], ectomycorrhizal [EcM], and ericoid mycorrhizal [ErM] fungi) respond to elevated atmospheric carbon dioxide concentrations (eCO2), climatic warming, and changes in the distribution of precipitation," only to discover "…that 92% of studies were conducted in the northern hemisphere, and plant host, ecosystem type and study location were only correlated with each other in the northern hemisphere because studies across all mycorrhizal fungal types were only common in the northern hemisphere."

Bearing that in mind, since mycorrhizal interactions provide nutrients and affect plant populations, changes in the temperatures experienced and in the timing of pollination may have an effect on the stability of plant populations. With the rise in temperatures, plant populations change. In a paper in the ESA Open Access Journal, published in August of 2015, mention is made that "… warming has resulted in shrubification of the arctic as woody shrubs have replaced grasses and forbs (*an herb other than grass*), in several regions leading to changes in ecosystem properties and carbon feedbacks in these systems." Warming temperatures may result in carbon sequestered in the soil being released back into the atmosphere.

Another site, however, found a more positive result to the release of carbon and nitrogen in the melting permafrost. Written and released in 2018, the scientists were researching the effects warming climates in the arctic were having on the permafrost. They found that mycorrhizal colonizations may help plants make use of the nitrogen and carbon that had been stored even though their plant roots were too shallow to reach down to the thaw front.

The release of carbon and nitrogen is seen as valuable to the plants because the fungi are able to supply these much needed elements as fertilizer to the plants that now grow in the tundra and may offset the loss of carbon caused by warming.

The study of these symbioses and their effects on all aspects of farming, forestry and possible effects on the world's future climate present many questions that need answers.

But my mind does wander. It started by wondering about a patch or two of mostly indifferent soil, and then our attention went underground and we studied these around the world. When we decided to become Master Gardeners, it all seemed so simple. Planting seeds and watering. But it's a lot more than that. We learn. And the nice thing is that there is still so much more out there for us to learn, or at least *try* to learn. ◇◇◇

LOCAL & SUSTAINABLY GROWN: DIVERSITY ACRES

by Maria Stewart, Master Gardener Volunteer

On May 15th, Jamie Nick, Jason Alexander, and I met at fellow Master Gardener Ross Eagles's Diversity Acres where he's hybridizing and growing irises and other perennials at his small scale Woodbridge operation.

We were overwhelmed with the variety and quality of Ross's plants. Happily, he walked us through his process of creating new iris hybrids, including the steps he takes to test the plants for quality and performance. Ross explained that even though a new hybrid may be beautiful, it must also perform well in the garden. It's a heart-breaking but important step to ensure a vibrant plant that will bring joy rather than frustration to the gardener who selects it for their landscape.

"Sustainably Grown in Virginia!"

Ross has been hybridizing irises since 2012, and has become quite accomplished in the field. Among his many academic credentials, Ross has co-authored an expert-reviewed Virginia Cooperative publication, *Small Scale Perennial Production: Using Iris as an Example Crop*.

Diversity Acres belongs to many iris societies, including the American Iris Society, Fredericksburg Iris Society, the Society for Louisiana Irises, the Society for Siberian Irises, and the American Hemerocallis Society.

Ross's garden was a stop on the Fredericksburg Iris Society's garden tour this year. If you missed visiting in person, be sure to visit online. Many varieties are selling out, but there are still gorgeous selections available (I got my order in!): Diversity Acres. ◇◇◇

clockwise from top:
inside an iris, Ross explains the hybridizing process

Ross shows Maria Stewart and Jamie Nick irises that have made the cut for production, and others that may not

one of so many stunning blooms!

irises "in the field"

photos by Jason Alexander

IN THE COMMUNITY:

SECOND ANNUAL BEE FESTIVAL

courtesy of Harriet Carter, Master Gardener Volunteer and Nancy Berlin, Natural Resource Specialist PW Unit

The 2nd annual Bee Festival, held at Liberia House on June 25th, was a resounding success. A family event, it was fun and informative for all with lots of activities and a native bee talk by Nancy Berlin, Natural Resource Specialist at Cooperative Extension. Prince William Master Gardeners and Audubon at Home teamed up to share information and answer questions from the community.

THANK YOU! to Harriet and Bob Carter, Nancy Berlin, Jeanne Lamczyk, Joye Blanscett, Carolyn Keith, Gloria Glarson, Theresa Coates Ellis, and Renee M. Wydajewski for their planning and efforts for such a wonderful day!

Save the date for next year—June 24th, 2023! ◇◇◇

photo by Nancy Vehrs

left to right: Leslie Paulson (VMGA President), Dave Close, (Extension MG Coordinator), Nelda Purcell (VMGA VP); photo by Pat Reilly (Chair, VMGA MG Gear)

CONGRATULATIONS!: DAVE CLOSE WAS HONORED BY THE INAUGURAL "FRIEND OF MASTER GARDENER AWARD"

courtesy of Frank Reilly, Communications Chair, VMGA

At a special award ceremony Dave Close, Extension Master Gardener Coordinator, Consumer Horticulture Specialist, and State Program Leader for Agriculture was recognized for his unparalleled efforts to advance our Master Gardener Program. VMGA President, Leslie Paulson delivered an address detailing all the awards he has received, advances he has made for Master Gardeners and the program. He is being promoted out of the Master Gardener Office to State Volunteer Engagement.
Dave has prolific outreach from VCE nationally and internationally. He is a member of the State MG Coordinator Association. He has spoken at several International Master Gardener Conferences, and even attracted the conference to Virginia 2 years ago. His work extends internationally. He attracted international speakers to the conference from Britain and Korea, and has interacted extensively with Korea Cooperative Extension Counterparts and the Royal Horticultural Society.

Dave has been recognized extensively by his peers and Virginia Tech. He is the recipient of more than 6 awards including Alumni Award for Excellence in Extension, College of Agriculture and Life Sciences, Virginia Tech, 2016 and Gamma Sigma Delta Extension Award, College of Agriculture and Life Sciences, Virginia Tech, 2016.

Dave has worked tirelessly to stabilize the Office of the State Master Gardener Coordinator. Not too many years ago we learned at Master Gardener College that the funding for his position was within days of ending. Through his efforts promoting the State Coordinator's Endowment through state-wide newsletters; providing Master Gardeners with relevant data to remind their local legislators of the extreme value of the volunteer Master Gardener Program to the citizens of the Commonwealth; developing and promulgating Impact Statements showing that value; interacting with Dr. Ed Jones and other leaders in VCE, not only has he moved the State Coordinator position away from uncertainty, he has worked tirelessly to establish a stable staff of several support staff, and student interns and helpers.

No single person has had a longer, more dynamic, and successful impact on VCE Master Gardeners than Dave Close. For these reasons The Virginia Master Gardener Association has established the award of Friend of Virginia Master Gardeners to help recognize Dave's contributions to us, to our Master Gardener Program, and to the citizens of the Commonwealth of Virginia.◇◇◇

native ground covers

COURTESY OF PLANT NOVA NATIVES: NATIVE GROUNDCOVERS AND TREES: THE PERFECT PAIRING!

reprinted with encouragement from PLANTNOVANATIVES, May 10, 2022; thanks to Leslie Paulson, Master Gardener Volunteer

Native groundcovers are becoming increasingly popular, for good reason: even if they have minimal time for gardening, people want to use native plants to support our local birds and butterflies. To avoid invasive non-native groundcovers such as English Ivy, Vinca, Yellow Archangel, and Japanese Pachysandra, they turn to native plants for the same landscaping benefits without the damage to our trees and the rest of the environment.

Equally popular among time-pressed residents are native trees, which are similarly easy to install and which have benefits that far exceed those of any other plants. Not only does the great mass of tree leaves and roots soak up stormwater, cool the air, and provide food and homes for birds, the insects that evolved with native plants are adapted to the chemical make-up of those plants and are able to co-exist peacefully with them. An American Beech tree, for example, is the host plant to 126 species of lepidoptera (butterflies and moths), Hickory to 200 species, Black Cherry around 450 species, and native oaks over 500 species. (The numbers for non-native trees are in the single digits or even zero.)

Over 30 species of locally native plants make excellent groundcovers, with options available for any growing condition. Several are evergreen, and many have the bonus of a month or two of colorful flowers. Some form a tight mat on the ground, while others such as ferns and White Wood Aster provide a taller look. Native sedges provide even more options. Some sedges make a beautiful substitute for the invasive Liriope, some look more like a grass that never needs mowing, and still others sport spiky seed heads that add a touch of quirkiness to the garden. Our local conventional garden centers are starting to carry some of these plants, and many more can be found at native plant garden centers.

Encircling native trees with native groundcovers makes eminent sense. Turf grass does poorly under trees because of the limited light. Trees do not appreciate lawn chemicals, not to mention the risk of injury from lawnmowers and string trimmers. A harmful but common practice, especially in commercial areas, is to pile layer after layer of mulch in a “mulch volcano” around trees and spray it with herbicides to prevent grass and weed growth. Not only does this poison the soil, but mulch that is touching the trunk will rot the bark, and compacted mulch prevents rainwater from reaching the roots. Arborist wood chips, which allow the water to run through, are an improvement over shredded bark mulch if applied properly and can protect the tree as it gets established. But in the long run, why not use nature’s alternative to a toxic mulch bed, which is to allow the fallen leaves to remain in place and add a “green mulch” made up of native plants? The trees and the soil will thank you for it. ◇◇◇

Plant NOVA Natives is the joint marketing campaign of a grand coalition of non-profit, governmental, and private groups, all working to reverse the decline of native plants and wildlife in Northern Virginia.

Our strategy is to encourage residents as well as public and commercial entities to install native plants as the first step toward creating wildlife habitat and functioning ecosystems on their own properties.

All are welcome to participate in this collective action movement!

CONSERVATION AT HOME: CARDINAL FAMILY

by Jason Alexander, Master Gardener Volunteer

When we first moved into our home, we marked the giant azalea for removal. It had been ruthlessly sheared for years, and was a giant ball of browning greenery that would turn red for just a few days in the spring. And it wasn't a native, so why keep it?

During the pandemic lockdown, Nancy Berlin, Natural Resource Specialist at Cooperative Extension, wanted to continue reaching out to the community, and asked for specimens to use for a pruning demonstration video. We readily offered up our unsightly azalea. We told Nancy to prune all she wanted, we were going to rip it out anyway.

Well, once Nancy worked her pruning magic on it, we changed our tune. First, it wasn't one giant azalea, it was four plants that had been planted close together and merged over the years. Nancy deftly cut into the plant so that light and air could get into the dead center. She gave it texture, and interest. Now, instead of one quick flush of red in the spring, there is a vibrant succession of blooms for several weeks. We decided to keep it, or rather, them.

"...really drove home the importance of helping our native critters by providing them with shelter."

photos by Jason Alexander

And we're glad we did because this year, a pair of cardinals moved in and started a family. Instead of an impenetrable, ugly shell of a shrub with a dead center, our cluster of azaleas had become an inviting shelter for our cardinal family to build their nest, and fledge their baby.

The azalea cluster was even able to protect the cardinal family from a red-shouldered hawk attack. It was horrifying. Sitting one evening, watching the family settle in for the night, with mamma and pappa birds providing baby with a bite to eat, the hawk swooped directly at the azaleas! Hawks need to eat too, but not our cardinal family!

I waited a moment or two after the hawk flew away, then checked on the family. Thankfully, the azalea branches were only big enough for small birds to fly through. The hawk seems to have learned its lesson, and hasn't been back to harass the family.

Our experience with our azaleas really drove home the importance of helping our native critters by providing them with shelter. We still have plans to add native azaleas to our landscape, like flame azalea (*Rhododendron calendulaceum*), but with proper pruning, we were at least able to turn our non-native azaleas into a useful, safe bird home. ◇◇◇

Audubon Society of Northern Virginia

Prince William has a core group of trained Master Gardeners in the Audubon at Home program who have certified over 100 homes. To make more land in Prince William County wildlife-friendly, start to certify your property today! If you are ready to make your backyard or community space more environmentally friendly, give us a call at 703-792-7747 or email master_gardener@pwcgov.org.

PLANT NOVA TREES: FREE TREES FOR COMMUNITIES

reprinted with encouragement from PLANTNOVATREES, June 18, 2022; thanks to Leslie Paulson, Master Gardener Volunteer

As community associations around Northern Virginia ramp up their native tree planting efforts, they are looking around to find ways to make it affordable. Burke Centre resident Craig Willett has solved that problem for his neighbors: all they have to do is fill out a simple form to get a free tree. A member of Burke Centre Conservancy's volunteer Open Space Committee, Craig has organized a system both for private property and for common land. On private land, residents pick up seedlings from Craig's house and plant them themselves. On common land, the Trustees of the various clusters put in a request, and Craig and his colleagues will install trees or shrubs either to replace ones that have died or to reforest open areas. You can see him pictured here with fellow volunteer Mike Hathaway, in red.

Trees grow slowly, and they also die slowly. Many neighborhoods around Northern Virginia have been losing their canopy coverage, bit by bit, so that once pleasantly shaded yards and streets where neighbors and children could gather are gradually becoming intolerable as our summer temperatures rise. Communities that wish to reverse this trend are most likely to succeed if they build a long-term routine for tree care and tree replacement into their master plans. Where there is no community association, residents will need to step forward to help each other make a plan.

Plant NOVA Trees is a focused drive by the Plant NOVA Natives campaign to increase the native tree canopy in Northern Virginia. The drive launched in September 2021 and continues through the fall of 2026.

learn more

Burke Centre Conservancy obtains its tree seedlings from Fairfax ReLeaf, a non-profit organization of volunteers who plant and preserve native trees on public and common lands in Northern Virginia. Individual landowners may also request seedlings from Fairfax ReLeaf.

Any community in Fairfax County that owns open space may also apply for free trees from the Fairfax Tree Preservation and Planting Fund. It is not necessary to be a 501(c)3 organization to apply as long as the open space is commonly owned. This is a solid funding source for organizations that want to plant either seedlings or larger trees. The application process looks a little intimidating at first glance because of the long list of requirements, but in fact the required steps are all ones that any organization would take anyway when planting trees.

Programs for obtaining free native trees are also available to communities in Arlington and Falls Church. And although not free, there are numerous ways to obtain native trees for a very low price. For example, the Virginia Department of Forestry sells tree and shrub seedlings for $2.00 apiece for orders of ten or more. Our local native plant garden centers all sell medium-sized trees in containers at reasonable prices. Those trees may look a little small when first planted, but they will rapidly catch up to trees that were planted when larger, since older trees suffer more transplant shock. Two wholesalers of larger trees offer their trees at wholesale cost to people who are organizing community plantings. Links to all these programs can be found on the Plant NOVA Trees website.

Since 2018, Burke Centre Conservancy has planted over 600 bare root seedlings, which is in keeping with the nature-centered philosophy of this community with its extensive network of trails through the woods. More details about their process can be found on this web page. ◇◇◇

CRITTER NEIGHBORS: GREY TREEFROG (*HYLA VERSICOLOR*) OR COPE'S GREY TREEFROG (*HYLA CHRYSOSCELIS*)

by Jason Alexander, Master Gardener Volunteer

Grey Treefrog (*Hyla versicolor*) and Cope's Grey Treefrog (*Hyla chrysoscelis*), are indistinguishable from each other except by their calls. Both species produce very similar low frequency, melodic trills with the Cope's being slightly higher pitched and more nasal.

photos by Jason Alexander

They are native throughout much of the eastern United States including Texas, and north into Canada. The treefrogs breed from April through August, typically in shallow, slow moving bodies of water, including vernal ponds and roadside ditches. Females deposit up to 2,000 eggs in small clutches of 10-50 eggs each. Tadpoles metamorphose in about 30 days.

Their diet consists primarily of insects, but occasionally includes their own larvae and other smaller frogs. They hibernate in trees through the winter months. ◇◇◇

Source:

A Guide to the Frogs and Toads of Virginia, published by the VA Dept of Game and Inland Fisheries

What is a Master Gardener?

Virginia Cooperative Extension Master Gardeners (VCE-MG) are trained volunteer educators who provide the public with environmental information that draws on the horticultural research and experience of Virginia Polytechnic Institute and Virginia State University.

Join Us!

click here to learn more

Master Gardener Volunteer Cynthia Long answering questions about Charlie the snake at the Manassas Farmers Market

photo by Jason Alexander

TEACHING GARDEN WORKDAYS:

TUESDAY A.M., THURSDAY P.M., SATURDAY

ATTENTION MASTER GARDENERS AND

MASTER GARDENER INTERNS

Teaching Garden Workdays - Come & Help!

no sign up, just show up

wear closed toed shoes, hat, gloves, and bring your favorite tool, drinking water, and tick protection

Teaching Garden Workdays 2022:

Tuesday Morning 9 a.m. -Noon

July 19, and 26

August 2, 9, 16, 23, and 30

September 6, 13, 20, and 27

October 4, 11, 18, and 25

November 1, 8, and 15

Thursday Evening 630 p.m. to Dusk

July 14, 21, and 28

August 4, 11, 18, and 25

September 1, 8, 15, 22, and 29. Also Friday the 9th for preparation for the Plant Sale

Saturday Morning 9 a.m. -Noon

August 6
September 3
October 29

Saturday in the Garden Programs 9 a.m. - Noon
August 13
September 10 – Plant Sale
October 8
All Saturdays in the Garden are Workdays

Master Gardeners Prince William

Master Gardeners of Prince William (MGPW) is the supportive organization for active Master Gardener Volunteers in Prince William County, Manassas City and Manassas Park. There are approximately 200 active volunteer environmental educators serving in various capacities.

Volunteers and volunteerism are central to the MGPW mission as we strive to make our community a more sustainable, healthy and beautiful place to live and to educate residents about the many benefits of gardening, including the opportunity to grow nutritious, healthy food, environmentally friendly landscapes, all with the ultimate goal of protecting water quality in local waterways and the Chesapeake Bay.

FREE ONLINE CLASSES

Virginia Cooperative Extension (VCE) is hosting classes via zoom Wednesdays, 11:00 a.m. to Noon. For a schedule of classes, click here: Prince William County Cooperative Extension Horticulture Classes.

Please register for classes by contacting the Horticulture Help Desk at mastergardener@pwcgov.org or call 703-792-7747.

All classes as well as Teaching Garden tour videos can be found on our YouTube channel.

VCE Staff and Master Gardener Volunteers are working to answer your lawn and garden questions. Please contact us by emailing mastergardener@pwcgov.org or call 703-792-7747.

Help Support Master Gardeners Prince William while you shop with (click the icons to learn more):

amazon smile

Bloomin' Bucks with Brent and Becky's Bulbs

Master Gardeners Prince William

Virginia Cooperative Extension
Prince William Office
8033 Ashton Avenue, Suite 105
Manassas, VA 20109-8202

Phone: 703-792-7747
E-mail: Master_gardener@pwcgov.org
Website: MGPW.org
Website VCE: www.pwcgov.org

Find us on Facebook

FOLLOW US ON twitter

Follow us on Pinterest

Follow us on Instagram

YouTube

PLEASE PLACE STAMP HERE

-Send submissions, questions, or comments to
MGPWnewsletter@gmail.com
The Editors,
Jason Alexander & Maria Stewart, Master Gardener Volunteers