# The VMGA Report

## The Voice for Virginia Master Gardeners

## https://vmga.net/wordpress/

May/June2024 Volume 29, Number 6

In This Issue



**From the President**
**Georgi Hall, Loudoun County, President@VMGA.net**

**President's Letter**

We had a great Bi-monthly Board meeting in Christiansburg April 13th. I want to thank the New River Vally Master Gardeners Association (NRVMGA) for hosting us, providing delicious breakfast beverages and snacks, a Mission Barbecue lunch, Flower Arrangement class and three tours of NRVMG projects. Thank you to everyone who traveled to Christiansburg and those who joined us via Zoom.

We have our slate of officers for FY25-FY26. Congratulations and thank you for accepting your position. We look forward to supporting and working with you as we go forward.

Our new Officers of the Virginia Master Gardeners Association:

| | |
|---|---|
| President – Stacey Morgan-Smith | Vice President – Jeanne Lamczyk |
| Secretary – Deb Straw | Treasurer – Betsy Brown |

If you are interested in helping with any of our Standing Committees, please let me or Stacey Morgan-Smith know - president@vmga.net or treasurer@vmga.net. Your ideas, expertise and talents as a Master Gardener support not only your local unit but the entire VCE Master Gardener program.

Our VMGA Spring Virtual Continuing Education Event will be Saturday May 18, 2024 9:30am – 12:00pm on Conservation Landscaping. Dr. David Burke, Research chair of the Holden Arboretum, will examine the interaction between plants and soil microorganisms to restore critical balances in urban trees and plants. Krista De Cooke, Innovation Project Manager for Homegrown National Park, will explain how homeowners can improve biodiversity that supports the birds and the insects on which they rely.
Registration link: https://forms.gle/gMeaDSWeYzU3c2kh7 Once registered, you will be sent a reminder with the Zoom link the week of the event.

I am looking forward to our Extension Master Gardener College (EMGC) June 5-9. Schedule: June 5, 6, 8, and 9 afternoon to early evening. June 7: day of virtual and in-person tours beginning in the morning. This year's event will be held via Zoom Events, an easy-to-use conference platform that works the same way regular Zoom meetings work. There will be four keynotes, more than 18 concurrent sessions, round-table sessions to network with other volunteers, virtual tours, and optional add-on in person tours. Registration is open.

In-person tour spaces are limited, so register early! Currently, there isn't a cap on registration–as many EMGs as want to attend can come!
Water Steward training will be held **separately** from EMGC this year. Look for more information and registration this spring.

**VMGA** Membership has its advantages:

- Unit Support
- Scholarships
- Newsletter
- Advanced Training
- Discount Event Fees
- Membership Directory
- Statewide Networking

**From the Editor**
Deadline for issue: July/Aug **June 26**

We would love to feature your unit's announcements, events or articles in the next issue. Articles can be about a favorite plant, tree, project, book review, or other topic of interest. This will encourage involvement around the state, getting more involved.
Please send to:
VMGA Newsletter Editor
**newsletter@vmga.net**

As we approach June 15th, I encourage you to attend our Annual Board Meeting and Conference. The Gloucester Master Gardeners are hosting the event at Brent and Becky's Bulbs, 7900 Daffodil Ln, Gloucester, VA 23061, from 9AM to 4PM. The Saturday conference will feature three seminars, with Joseph Tyconievich, Holly Scoggins and Brent Heath as speakers, box lunches, and for those traveling, we arranged for specially priced rooms in a local hotel. For Friday evening, VMGA reserved a conference room at the hotel for an informal get-together and wine tasting. The conference will have as many of the traditional College events as possible!

As my term as President is ending, I want to thank you for supporting me and our Board. You have helped me find answers to questions and get through the last two years. I could not have done this job without the support of our Executive Board and our committee chairs. Please do the same for our new officers.
Thank You,

Georgi Hall
VMGA President – President@VMGA.net

## VMGA's Annual Meeting and Conference – Replicating the College Experience

Register now! June 15, 2024, is an opportunity for gathering with other VCE Master Gardeners to catch up with friends from across the state, hear some fabulous speakers, and wander beautiful, themed gardens. VMGA must have an annual meeting and this in-person conference gives us a chance for the social interaction along with learning. We're trying to provide as close to a 'VT campus College' as possible – we'll even have a silent auction!

And what a lineup of speakers we have! Joseph Tyconievich, Holly Scoggins, and Brent Heath! Because VMGA is sponsoring this in-person event as part of MG College, we are able to provide this to members for just $15 including lunch! Non-members will be able to register for $30 – or join for $12 and register at the discounted rate. What a deal!

The day will begin at 9:00AM with the opening of the auction, shirt sales, and morning refreshments. We'll start with introductions then move to our first two speakers. There will be time around lunch to update auction bids and pick up your box lunch before the annual meeting begins. The hour-long meeting will consist of committee reports of the past year's achievements, a couple of special presentations, and the passing of the gavel to our new officers!

After lunch, we'll have the final speaker before adjourning to the gardens of Brent and Becky's, led by the Gloucester Master Gardener tour guides. The day will conclude by 4:00PM.

For those who would like a bit more time with each other, a room block at a local hotel has been arranged. VMGA has reserved a conference room for Friday evening where we can gather and Frank Reilly will offer a wine tasting. The room rate is $159 plus the 7% tax.

Registration is open now. Sign up quickly as there are a limited number of seats! In mid-May, the registration link will go out to all EMGs across the state. When you register, you'll let us

know if you'll try to join us on Friday evening and select your choice for the box lunch. The caterer offers delicious sandwiches and salad, and is willing to work with other dietary preferences.

We have a fantastic event planned, and the price CANNOT be beat! We hope to see you in June!

## 2024/2025 VMGA BI-MONTHLY BOARD MEETINGS

Bring VMGA members to your area for the bi-monthly meeting. Contact Vice President Nelda Purcell at purcelln@hughes.net. for more information.

**2024**

**June 15**—Annual Meeting—Brent & Becky's Bulbs, Gloucester

**August 10—**Hosted by Henrico County Unit

**October 12**—Hosted by Hill City Master Gardeners Association at Poplar Forest

**December 14**—Zoom

**2025**

**February 8—Zoom**

**April 12—TBA**

**August 9—Lexington**

**October 11—Suffolk**

**December 13—Zoom**

## CALENDAR

**May 18, 2024—9:30am**—Spring VMGA Education Event—9:30am to 12 noon Virtual

**June 5-9, 2024**—Master Gardener College

**June 8, 2024—9am—**Henrico Master Gardener Association Plant Sale and Pollinator Festival. Over 3000 plants and tables full of "gardening treasures" will be available for sale with proceeds funding HMGA programs and two scholarships for horticulture students at J. Sargent Reynolds Community College. Over 80% of the HMGA membership participated in some way, providing education and camaraderie to the members.

**June 15, 2024**—Annual Meeting at Brent and Becky's Bulbs, 7900 Daffodil Lane, Gloucester, VA 23061

**August 8, 2024—12pm—**Bring your lunch and join us for a session on Lawn Renovation. Heart of Virginia Lunch & Learn Series Prince Edward Extension Office, 100 Dominion Dr., Farmville, VA

## NEWS AND NOTES FROM VCE LIAISON

Devon Johnson  State EMG Office

For updates, be sure to check out the Bi-weekly Update at https://mastergardener.ext.vt.edu/biweekly-update/

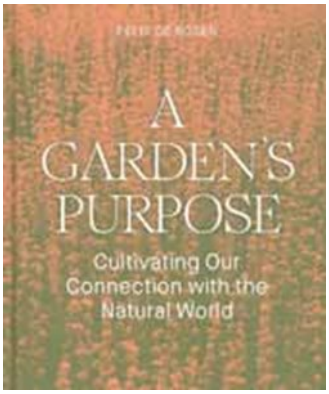
## NEWSWORTHY NOTES FROM NOTABLE NEWSLETTERS

The VMGA Report is always looking for submissions from EMGs, Unit Representatives, VMGA Committee Chairs, VCE Agents, and VCE Program Associates.The next deadline for the VMGA Newsletter is **June 26.** What can you submit? All the news that's fit to print! Here are a few suggestions to get you started:

Training recaps. Tell us your takeaways!
Highlights of your successes in programming, lessons learned, photos ofvolunteers in action
Upcoming events offered by your unit
Book reviews
Plant or garden spotlights.
Photos of your plants
Recipes using produce from your garden or a farmer's market
Garden-related poems and other creative writing

Be sure to include your name and unit name. Submit your content by email to newsletter@vmga.net.

## Book Review: "A Garden's Purpose, Cultivating Our Connection to the Natural World" by Felix de Rosen




This relatively slim book, published in 2023, is an ode to the garden-- any type or size garden. The author, Felix de Rosen, is an ecological garden designer focusing on biodiversity. He is located in Oakland, California, and is a graduate of the University of California at Berkeley and Harvard University.

De Rosen suggests that gardens can be found everywhere--from the planned and well-maintained plot to the cracks in the pavement. This book does not teach how to design but suggests the many considerations gardeners should keep in mind to create the garden they have in their imagination.

De Rosen reminds us early in the book that nature and the garden are places of wonder and enjoyment. The best and easiest way to approach the garden is to determine what the existing area says to the planner and how the planner chooses to react to it. Gardens offer the gardener and the observer a healing experience because they remind us that we are connected to nature. How you design and build your garden will tell people what you value and what makes you happy. We hope what we build makes others happy as well and may give them some interesting new ideas.

Many elements of garden design are included in the book. None is recommended over any other. Design elements such as fences, walls, paths, edges, slopes, and height (planters and pots) are mentioned and discussed as ideas to keep in mind and inform a planner's approach to a space under consideration. An example of de Rosen's approach is captured in this excerpt from a longer discussion of edges (page 71):

> *An edge, when it comes to paths and garden design, is simply the end of one area and the beginning of another. We can demark the edge with something material – and there are good reasons to do this. A separate edge can be funcƟonal – helping prevent soil from spilling into a walking area… Edges can serve a purely visual role, by defining the boundary of a path or by creaƟng a threshold that announces the beginning of a new garden space. They can divide a large area into smaller, more inƟmate spaces. These divisions can be abrupt and clear (i.e., funcƟon like walls) or they can be soŌ (e.g., gravel gradually giving way to soil).*
>
> *Although edges might seem like minor details in the garden, they are powerful tools that help us define space.*

De Rosen's message on paths is that they not only take us from one place to another in the garden, but they also can tell a story as they lead us through the garden and interact with the plants and spaces around the plants. Paths give us the opportunity to define how we want to organize the space. The material we use to create a path can add greatly to the character of the path.

Ground surfaces we choose to use in and around the garden, whether bare soil, permeable surfaces, mulch, wood, pavers, or pavement, influence the flow of water and provide different habitats for plants, insects, and animals. We can mix and match ground surfaces to create interesting designs.

De Rosen discusses slopes and various elevation changes. Moving from yard to street level by stepping off a curb is as intrinsic to our lives as are steep slopes like major hills and high-rise buildings. He admonishes the reader to work with the topography rather than against it. We can utilize plant roots, seed mixes, biodegradable materials, and hard materials like concrete to stabilize a slope. Using steps to allow people to move through sloping gardens offers an opportunity to be creative in where and how the steps are implemented. He also challenges the reader to consider doing the least possible intervention to a slope and letting it remain as natural as possible.

He devotes a chapter to the interest and joy of using planters and pots. Containers can be almost anything that will hold soil, water, and plantings. They can be one of the more eye-catching parts of a garden. They can stand in for a garden when we live

someplace that only provides us with a balcony or a very small area in which to grow things. Containers are also mobile, so they can be moved from one spot to another depending on the weather, sun and shade, or the whim of the gardener.

De Rosen urges the gardener to keep in mind that a garden can, and probably should, be a place to play, relax, and unwind. Even if you are a vegetable gardener who works hard to grow a lot of produce, still think if your garden space as your refuge.

He touches on garden observation and maintenance as important for the gardener. The gardener should determine the goal: to evolve the garden as the plants grow and change, or to keep the garden looking the same year after year. Is the gardener willing to spend time doing high maintenance or to allow the garden to have some control over its evolution? Each method means a different approach to the garden.

A chapter is devoted to the size and shape of plants. This is one of the basic concepts of garden design that we may sometimes take for granted. He discusses the use of trees in a garden. Many of us who live in suburban neighborhoods don't work with trees in a garden design. Trees are large, possibly too large for the space we may have in our yards. Trees also take a long time to reach their height and width, and many people move from their homes well before a tree reaches maturity. Those of us who move into areas with fully grown trees often don't know how to best utilize them in a garden design.

Plant colors and textures—of both leaf and flower--are important design variables. Most gardeners are well aware of flower colors and plant heights. But using leaf colors and textures in a garden provides a subtle and fascinating look.

Many of the gardens de Rosen discusses and uses as examples are set in former waste areas like abandoned parking lots and roadsides. This may be the most interesting and exciting concept: that you can turn almost any area into an interesting "garden" as long as you consider the soil, water, and light availability and the type of plants that will grow there.

This book is filled with beautiful pictures taken all over the world to illustrate de Rosen's points.

Although this book does not teach garden design per se, it introduces us to and reminds us of the many aspects we can consider in creating and evolving a garden that fits our personality, and/or the objective of the garden (whether private or public), and/or the physical properties of the garden space.

Sharon Perryman, Loudoun County Extension Master Gardener

algal bloom, National Institute of Health and Environmental Science

## INSIGHTS: WHY ALGAE MATTER

by Abbie & Vincent Panettiere, Master Gardener Volunteers

I'd mentioned to my cousin that my husband and I were writing an article on algae and mentioned the Harmful Algal Bloom (HAB), He e- mailed back to me that in 2021, when his wife and he had moved to Florida and spent their first winter in Sarasota, they were introduced to the Red Tide. "Whenever you step outside, during a bloom, you can tell which way the wind blows. If everyone around you is coughing and sneezing then the wind is blowing off Sarasota Bay and distributing the aerosol throughout the city. The algae, Karenia brevis, produces a toxin called brevitoxin which is an odorless and tasteless compound that is toxic, primarily to shellfish."

He continued that, "If inhaled, brevitoxin causes an irritating cough, sneezing and runny nose which, for most healthy people, is only an annoyance. If a significant amount is ingested, primarily from eating shellfish or swallowing seawater, it can cause various unpleasant neurological symptoms."

"The Red Tide primarily occurs in the late summer to early autumn and can last for several weeks."

Harmful algal blooms have been of late more commonly covered in the news because of the increase in number and severity of the damage they cause. Algae, which range from the very large kelp at 100 feet in length, down to very small plants of many varieties, and live in fresh, salt or brackish water, photosynthesize as plants on land do. With the help of sunlight, algae take in carbon dioxide and water and convert it, through photosynthesis, into sugars and oxygen. The sugars serve as food, the oxygen, as a waste product, is released into the atmosphere. When it is cloudy or at night when it's dark, the algae take back some of the oxygen but it is not nearly as much as the beneficial amount it releases to the environment during the day.

Some types of algae produce toxins. A toxic bloom may develop when too many algae develop at the same time due to conditions in their surroundings. Light, temperature of water, its salinity, pH, and raised nutrient levels, such as may develop from excessive nutrients from fertilizers or sewage waste, may help to trigger harmful algal blooms.

With the warming of the earth's climate we are seeing more of these events and the damage they do is apt to be extensive.

NOAA (National Oceanic and Atmospheric Administration) has produced a list of some examples of the damage that HABs have done:

- In 2015, the largest harmful algal bloom ever recorded in the region struck the U.S. West Coast. A toxic bloom of Pseudo-nitzschia produced record-breaking toxin levels, shutting down the Dungeness crab and razor clam fisheries for many weeks.

- Fisheries closures kept seafood safe for consumers, but cut off access to important fisheries resources that many families depend on.
- In 2015, the commercial Dungeness crab fishery lost $97 million in landings (fish landings are defined as the catches of marine fish landed in foreign or domestics ports), compared to the previous year. The commercial fishery failures resulted in disaster declarations.
- In an ordinary year, ...razor clams draw tens of thousands of recreational clam diggers to U.S. West Coast communities. In 2015, Washington State's coastal communities lost approximately

$40 million in tourism spending. Fisheries closures lead to economic losses that affect many sectors of society. Fisheries closures meant that commercial and recreational fishers could not harvest from the sea. Seafood processors and markets had no product to process and sell. Without razor clam openers to draw visitors to the coast, coastal restaurants, hotels, and stores experienced lower patronage.

Another example, from China, mentioned in an article that August 9, 2021, was the "worst ever" algae infestation suffered by the eastern port city of Qingdao in Shandong province. The algae bloom "overwhelmed the city's normally golden beaches so that they now resemble sprawling grasslands."

Shandong province has suffered green algal blooms in the sea waters off the coast every summer for the last fifteen years. These blooms last about three to four months each time and in 2008, Beijing spent more than one million U.S. dollars to clean up the area to prepare for the sailing events the Beijing Olympics were hosting after a major bloom covered the sea around the area where the sailing competition was to be held.

It would take a great deal of space to give an accounting of all the major HABs, but this chart (see end of the article) from the National Institute of Health gives a brief overview of some common HABs and the damage they cause.

As with many environmental ailments, children and the elderly are apt to suffer worst from HAB toxins. Also, in areas where seafood is an important part of the diet, the local populations may suffer long-term health effects from frequent, low-level exposure to HAB toxins.

Reading all that, it might seem sensible to make an effort to be rid of algae, if possible. That would be a fatal mistake. Unfortunately, if there were no algae in the waters of the planet, we would be gasping to find a well-oxygenated breath of air.

It has been said so often that forests are the lungs of the planet. However, Earth is only 29% terrestrial and of the forests on that portion, great tracts are being destroyed by the wildfires we have experienced as the climate warms and becomes more erratic. 71% of the Earth is covered by oceans and these provide more than half of the oxygen we breathe, mostly by means of algae.

Recall that algae take in carbon dioxide and expel oxygen as plants on land do even though they don't have the root systems, leaves, or stems that land plants do. Sunlight allows them to convert carbon dioxide and water into oxygen and sugar. The sugar feeds

https://www.niehs.nih.gov/health/topics/agents/algal-blooms/index.cfm National institute of Environmental Health Sciences; *Algal Blooms*

https://earthobservatory.nasa.gov/images/8897/algal-bloom-along-the-coast-of-china NASA; *Algal Bloom Along the Coast of China*

https://oceanservice.noaa.gov/hazards/hab/ NOAA; *Harmful Algal Blooms*

https://www.fisheries.noaa.gov/west-coast/science-data/hitting-us-where-it-hurts-untold-story-harmful-algal-blooms NOAA; *Hitting Us Where it Hurts: The Untold Story of Harmful Algal Blooms*

https://www.whoi.edu/know-your-ocean/did-you-know/does-the-ocean-produce-oxygen/ Woods Hole Oceanographic Institution; *Does the ocean produce oxygen?*

https://askabiologist.asu.edu/plants-and-producers-coast ASU; *Seasons of the Sea*

https://atlas-scientific.com/blog/does-algae-produce-oxygen/
Atlas Scientific; *Does Algae Produce Oxygen? April 7, 2022 Blog*

https://freshwater-aquaculture.extension.org/if-algae-produce-oxygen-in-a-pond-how-can-having-too-much-algae-cause-an-oxygen-depletion/
Cooperative Extension, USDA; *Freshwater Aquaculture*

https://www.floridamuseum.ufl.edu/earth-systems/blog/floridas-algae-problem-what-is-it-and-how-can-it-affect-you/
Florida Museum; *Florida's Algae Problem: What Is It, And How Can It Affect You?*

the algae and oxygen is released into the atmosphere as a waste product.

Of the more than one million species of algae that produce oxygen, Prochlorococcus, which is the smallest photosynthetic at 0.00002362205 of an inch, produces the most oxygen in the ocean.

More than half of Earth's oxygen comes from the top 656' of the ocean, the portion that sunlight can reach. An article in Atlas Scientific said that "scientists estimate photosynthesizing algae produce around 70% of all atmospheric oxygen."

Factors that promote the photosynthesizing of oxygen in algae are: light intensity, water movement (when the weather is calm, water mixing is reduced), CO2 concentration, temperature (warmth increases the process), and an increase in nutrients (nitrogen & phosphorus) from agricultural run-off.

Algae can be friend or foe. How we manage the environment in large part determines the future path, and there continues to be the work that needs to be done. Helping to ensure that fertilizer is not over-used, helping to clean up sources of pollution, (for instance the need to keep the waters spilling into the Chesapeake as clean as they can be), and other projects that help maintain the land and the oceans as best as we all can, are the goals we all strive towards. ◊◊◊

| Organism | Water Type | Color | Toxin | Health effects |
|---|---|---|---|---|
| *Alexandrium sp.* | Salt | Red or brown | Saxitoxins | Gastrointestinal (nausea, vomiting), and neurologi- cal (a floating sensa- tion, headache, or muscle weak- ness) |
| *Cyanobacte- ria* | Fresh | Blue-green | Cylindrosper- mopsin | Nausea, vomiting, diar- rhea, ab- dominal tender- ness, pain, or acute liver failure |
| *Gambierdis- cus* | Salt | Orange | Ciguatoxins | Nausea, vomiting, diar- rhea, or stomach pain |
| *Karenia brev- is* | Salt | Red | Brevetoxins | Gastrointestinal illness, muscle cramps, seizures, paralysis, respira- tory prob- lems, especially for asth- matics |
| *Pseudo- nitzschia* | Salt | Red or brown | Domoic acid | Vomiting, head weaving, nausea, seizures, diarrhea and abdominal cramps, bulging eyes, or headache |
| *Microcystis* | Fresh | Blue-green | Microcystin | Gastrointestinal illness, liver damage |

# VMGA Spring Continuing Education Event

## Conservation Landscaping

## The Science and Practical Application to Create or Restore Bio-Diversity in the Home Garden

Soil Ecology ∞ Biodiversity ∞ Keystone Species

**Saturday May 18, 2024 9:30am – 12:00pm**

Watch the Bi-Weekly Update for a registration link

**Restoration Ecology of Urban Trees – Dr. David Burke**
**Research chair of the Holden Arboretum**
Concentrating on soil ecology, His presentation examines interaction between plants and soil microorganisms, especially mutualistic and associative soil organisms, to restore critical balances in urban trees and plants. Ph.D. from Rutgers University.

**Restore Biodiversity with Keystone Plants—Krista De Cooke**
**Innovation Project Manager for Homegrown National Park**.

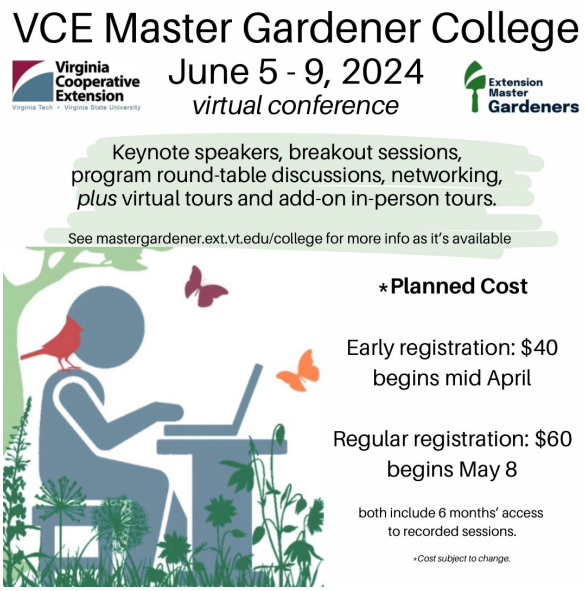
How the homeowner can improve biodiversity that supports the birds, and the insects on which they rely. M.S. in Ecology and Evolutionary Biology at the University of Tennessee; MBA in Entrepreneurship and Innovation from Haslam College of Business.

# Plan now to Join VCE's 2024

# Virtual Master Gardener College June 5 - 9

EMGC 2024 is coming! This year's virtual event will keep the education and fun of an on-campus conference while improving accessibility for the 5,000+ volunteers in the VCE MG program.

This year you can…




learn from **interesting keynote speakers:**

**-Doug Tallamy** talks about **restoring ecosystem function** at home, work, and play;

**-Debra Freeman** explores **traditional African-American crops** that you can find today; and

**-Heather Holm** discusses some of the **specialist bees t**hat visit our native plants.

-participate in more than **a dozen concurrent sessions** on a range of topics, including:

-Trees and shrubs in small gardens;

-Indoor vegetable gardening; and

-Gardening as we age.

-and enjoy **optional add-on tours and social time** with fellow volunteers at locations throughout the state, like:

-Some of Virginia Tech's Agricultural Research Centers,

-Oak Spring Garden,

-Maymont's Gardens, or

-Enjoy a "Virtual Tour" from home at the National Arboretum, Desopo House, and other spots.

-You'll even have the opportunity to **network and learn from one another** by joining round-table discussions and visit social spaces to

-View unit brag boards;

-Talk about projects, like seed libraries, garden tours, or public workshops; or

-Learn more about the Advanced EMG Steward programs.

For those new to hybrid continuing-ed events, they have unique benefits, like keeping costs lower, saving hours on the road, and removing some of the accessibility concerns that come with setting up on campus for a few days. They also give you increased continuing-education opportunities; in addition to the 3+ hours of online sessions per day and optional tours in June, you can see any breakout sessions you missed (or rewatch a favorite) because you'll have access to recordings for six months. Prior Zoom educational conferences allowed more volunteers to attend than the traditional in-person format, but if hybrid learning isn't for you, EMGC will be back on campus at a future conference.

More information on keynotes, breakouts, and tours will follow soon, with early registration beginning mid April. You'll also have the opportunity before June to see this Zoom conference platform in action through a short training webinar.

VMGA's mission is to foster communication, education, and fellowship among VCE MG volunteers. It is happy to support EMGC and the state program office in this year's conference as part of that mission. If you have questions, you can reach the state office at emgoffice@vt.edu or VMGA at Treasurer@VMGA.net.

See you in June!
Stacey Morgan Smith
Treasurer, VMGA