

The Grapevine

March 2022

New River Valley Master Gardener Association Newsletter

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The Plant Sale is Happening!

by Beth Kirby

The annual NRVGMA Plant Sale will be held on Saturday, May 7 at the Government Center in Christiansburg. The sale is the primary fund raiser for the Association Community Grants Program.

We are looking for plant donations for the sale from area Master Gardeners or folks who are friends of Master Gardeners. In the past, a good portion of the plants came from business donations, but we do not solicit much anymore, since it was a lot of work for little reward.

We hope to add a Native Plant section this year. Native plants have become very popular and are also good for the environment.

Please look around your yard. What is crowded? What is in the wrong place? What just doesn't work anymore? We do not accept any plants that are considered invasive or diseased. And if you don't know what it is, please don't expect us to figure it out.

Please let me know, by April 1, what you are planning to donate to the sale. Hang tags are made up for most of the plants, so customers can get good information about the plants. It takes time to write these up, hence the need to know in advance what plants will be donated.

I have plenty of pots if you need them. Please don't wait until the last minute to dig up plants – I recommend digging & potting your donations by April 1. We want them looking good and thriving in their pots. If you have plants you want to donate and can't dig them yourself, please let us know by March 15 and we will arrange to dig and pot them for you.

If you can grow annuals from seed, please let me know. Annuals are very popular and in short supply. I can supply cell packs and flats.

We also need volunteers for setup/tear down, hospitality, cashiers, vegetables, perennials, annuals/herbs/fruits, house plants, trees/shrubs, yard sale, plant clinic, and rain barrels. If you are available to help in any of these areas, please contact me at nrvmgplantsale@hotmail.com.

Thanks!

WENDY WORDS

By Wendy Silverman

A Year in Review & the Year Ahead

Review of 2021:

The Master Gardener year of 2021 looked closer to 'normal,' after almost a full year of lockdown. We still did not have our usual May pot-luck, and we had a modified November pot-luck, but many of our programs did start up again. The end of the year data proved that we can do a lot of wonderful service projects, despite COVID restrictions.

We held a training class in the fall, rather than spring, with 13 new trainees, and 4 trainees finishing up from 2020. The International Master Gardener Conference was held virtually, but was still a success. Plant clinics and Share the Spare tables occurred like normal. We had a very successful plant sale and two rain barrel workshops, which resulted in the NRV MGA donating \$6,000 to community grants. The NRV MGA started hosting in-person meetings once again, with a trip to Iron Heart Winery, and a compost talk at Steve Hale's house. Polly Ashelman hosted a pollinator garden walk and talk at the Live Work Eat Grow Blacksburg Community Garden. Keith and Janice Mileski of Mystic River Lavender Farm hosted a tour for both the NRV Master Gardeners and the Roanoke Master Gardeners. This is not all that we did, but it gives you a taste of what we can do, even with restrictions and social distancing.

In November, Meredith Hoggatt began her job as the Montgomery County Agriculture and Extension agent. She is my direct supervisor, so if you need to discuss any Master Gardener concerns, you are welcome to contact her.

Thank you for all of the hard work you did in 2021. Also, thank you for recording your hours and contacts. In 2021, we had 80 Master Gardeners and interns representing several counties: Giles, Pulaski, Montgomery, Floyd, Radford, Craig, Patrick, and Salem. Of those 80, 56 were also NRV MGA members. Collectively, we had 9,605 direct contacts and 6,334 indirect contacts. Just a reminder: a **direct contact** is when we exchange horticultural information to a client either in-person or on Zoom. An **indirect contact** is when we exchange information via phone, email, paper mail, or on social media (Facebook or on the website). Cumulatively, we volunteered 5,215.5 hours with a total value of \$151,965.00. This is based on the Virginia volunteer value/hour of \$29.14. In other words, WE ROCK! This data goes to the state and local governments to justify funding the Master Gardener program. So once again, thank you for all you do.



Most Hours Volunteered Awards

And now for the fun part!!!! The person who volunteered the most hours in 2021, who has not previously received this award, is **ERICA JONES!!!** Congratulations! Erica volunteered 218.9 hours, mostly in the following projects: Triangle Garden in Craig County, VMGA representative, McCleary Elementary School Garden Club in Craig County, and Wonder Universe Garden Camp. Erica will be receiving the Master Gardener Volunteer Garden Stake Award at *our next pot-luck/in person meeting on March 15th*.

The Intern who volunteered the most in 2021 goes to **JENNY SHEPHARD!** Jenny volunteered 167 hours in 2021. Her main projects included the Pulaski Library Zoo Garden, Wilderness Road Museum, New River Valley Garden tour, and the New River Valley Fair. Congratulations! Jenny will be receiving an award on March 15th.

Welcome to Master Gardener Year 2022!

We are off to a strong start with 2022. We have 10 new trainees who began class on February 15th. Our first big volunteer event will be at the NRV Home and Garden Show on April 9th and 10th. I will be sending out a Signup Genius in a few weeks to volunteer for this event.


Project (Activities) update

I will be sending out project (Activities in Better Impact) update forms to all of our project leaders next week. I want to update Better Impact descriptions of our activities, remove the projects that are no longer active, and add in new projects for 2022. I will have the updates completed by the end of March.

Better Impact

We have a few changes and updates regarding Better Impact.

•**When logging your hours, please only use 'travel time' as a separate activity for driving to and from Continuing Education events. For driving to and from service projects, simply include your travel time WITH you service hours.** For example, if you volunteer on Monday night at the Hahn for 2 hours and you drove 15 minutes there and 15 minutes back, enter 2 hours and 30 minutes in Better Impact. The mileage entry is optional for you to use and can be helpful if you itemize on your taxes, but I will no longer be calculating mileage separately.



•If you go into Better Impact and click on “Opportunities,” you will see “Opportunity Calendar” and “Opportunity List” in the drop-down. **Do not use this calendar.** There is nothing on it. But you can use the “Opportunity List” to see all the activities (Projects) with descriptions. To find the descriptions, click on the button with the “i” in it. Ignore everything in bold below the description, since it is related to the calendar that we are not using. If you are interested in volunteering for an activity (project), contact the project leader (as noted in the description) directly, to schedule your volunteer time.

If you go to the Home page, you will see a box on the lower right-hand corner labeled “Files”. You will find a link to download the NRVMGGA membership form. If you want to be in the NRVMGGA, please fill out the form and send it to the Montgomery County Extension Office with your dues of \$15.00. The 2021 Master Gardener Trainees can be NRVMGGA members free of cost. Just fill out the form and send it in.

Also, in this files section is an electronic copy of the Master Gardener Handbook. At the bottom of the box is a dark gray button that says “See All Files.” If you click on that, you will find a calendar. It is in Excel and is downloadable. So far, I have February and March events on it. I will have it updated in the next few weeks. If you download it now, it is not complete and you will need to download it again. I will also be adding events on it as the year goes on, so it is best to look at it from the website than a previous download.

Did you know that Better Impact works on your phone? Go to your Google Play Store and type in My Impact. You can also type in Better Impact and My Impact will pop right up. Click install. If you have an I-phone, try your app store.

I am available for one-on-one help with Better Impact. Just contact me for an appointment.

New River Valley Garden Tour - 26th Anniversary

by Lynn Brammer

This year, the NRV Garden Tour will offer 6 private gardens covering Ellett Valley and Blacksburg town limits on **Saturday July 9th, 9 am until 5 pm (rain or shine)**. This self-guided tour is sponsored by the Montgomery-Floyd Regional Friends of the Library (FOL), with assistance from the NRV Master Gardeners.

As a volunteer your role will be pointing out unique plants/trees, answering questions, and welcoming those taking the tour. Owners often are available throughout the day to greet those taking the tour but are not required to be out all day. You are there to assist them and make them feel they can take a break from the long day.

It is a wonderful opportunity for MGers to highlight sustainable garden principles in play at the garden: mulching methods, erosion control, use of drought tolerant plants, pest management, watering methods, and more.

After signing up for a garden, you will be asked to take a tour of that garden prior to July 9th, and will be given the notes from the garden owner about their garden. This will allow you to be comfortable with the garden dynamics and able to field questions. As a volunteer, you will be invited to attend our Sunday Garden Social (4 pm to 6 pm), where we celebrate the garden owners (26 years of owners are invited), the FOL volunteers who check/sell tickets, and YOU!

The tour is a wonderful day of community and fellowship for garden lovers. The NRV Garden Tour Committee is an all-volunteer team working hard to make each year a success. A percentage of the proceeds are given to the Master Gardeners in gratitude for their contribution.

As in 2021, since this is a fundraiser for a worthy cause, all volunteers will be asked to purchase a \$15 ticket for the event. Tickets will be available for sale beginning June 1 at all local libraries or on the day of the tour.

Our 2022 Master Gardener coordinator of volunteers is Lori Kuszmaul. She will schedule shifts, share the owners' information, and arrange a visit prior to the tour. Contact her with questions or to sign up for a shift (or two) at lkuszmaul@sbcglobal.net

Many thanks Lori!

Please mark your calendar for July 9th!

Getting Started with (Outdoor) Container Gardening by Erica Jones

I've taught multiple versions of classes on container gardening over the years, as long, short, and hands-on classes. My personal experience leans me towards promoting (outdoor!) herb containers to newbie gardeners, hopefully to get them interested in gardening. Herbs are tough, they mostly look good, and some are frost resistant. I suspect a lot of cooks do not use fresh herbs often; or if they do, they buy rather than grow them. And herbs are something you can grow (assuming you have the sun) near your back door. Finally, containers can help contain plants like mint, which spread quickly (and uncontrollably). Mint has some culinary uses and may deter animal incursions into your garden. Plus, it's nice just to take a sniff as you gallop past it to go weed that garden. If you keep it well watered (a bit optional with mint), it even looks nice.



Mint in a container.

There are several important topics to consider when container gardening: container size, potting mix, drainage, and fertilizer use. Here are the most important points about each.

Container size matters! If you want container success, do not use containers that are too small. Almost all hanging baskets sold use containers that are too small. While the size makes them easier for growers to handle and transport, being too small causes misery for homeowners who must keep them hydrated in the summer. My rule of thumb is 'not smaller than three gallons of potting mix, and four is better.' You can try to dodge the hydration problem by using soil additives (a search for "water retaining polymers" will yield lots of results) which probably help, but they are not cheap. See <https://s3.wp.wsu.edu/uploads/sites/403/2015/03/hydrogels-3.pdf> from Washington State University for some pros and cons.

Let's discuss those five-gallon buckets. In my experience, really BIG pots have some disadvantages, even for young people with strong backs. Personally, I have not had great luck with containers over 12 inches deep. It seems like the potting mix ferments in the bottom where it stays damp, and does not have any plant roots in it. If you want to use something that deep, you can put a light-weight filler in the bottom to take up space and reduce potting mix. Some good fillers are Styrofoam peanuts, upended small plastic pots and/or 4-packs, balled up plastic. To avoid air gaps in your root area, put a layer of cardboard, newspaper, fine screen, or even my nemesis, landscape fabric, on top of your filler to keep the soil from settling and leaving holes. If you want to use rocks in the bottom, I know of a good physical therapist! Rocks are right up there in my list of "Annoying old wives/codgers' tales." I have yet to have a container blow over/get knocked over, but it might happen, I admit.

I'd also like to share some thoughts on soil/dirt/potting mix. I was (once!) a Horticulture major (briefly) and had a prof 40-something years ago say, "I put clay in my potting mixes." I have found this works wonders. I think most commercial potting mixes are too porous. (This brings us back to the question of 'can soil have too much organic matter?' Not going there!) Clay in your soil helps absorb and retain both fertilizer and moisture. Again, I've had newbies look aghast at this suggestion — it might be something in my delivery. All I can say is, "Try it! You will like it!" The only two problems I have with this approach are getting the blimey rocks out of the clay and working the clay when it is dry enough to handle but has not yet become (almost) rock hard.

Some commercial potting mixes are better than others; if you buy cheap, you probably get cheap. Cheap potting mixes have bigger un-composted chunks in them. You do not want the stuff you put in containers to be decomposing, just as you don't mix sawdust into you garden soil but rather, pile it on top and let it decompose from above. Adding soil amendments that decompose during the growing season will slow or prevent healthy plant growth, until they fully decompose.

Drainage – that is, those holes in the bottom – is very important in container gardening. There must be some formula for square inches of drainage hole per volume of potting mix, but I've not found it. A lot of big containers seem to be seriously short-changed in this department. And yes, with the right drill bit you can drill holes in ceramic, clay and plastic pots. Think about your average 5" plastic pot & how much drainage it has. If containers sit too flush on the (solid) surface underneath them, they can form water locks and not drain much or even at all. Garden stores sell plastic triangles to go underneath pots and I've found they work extremely well.

And finally, fertilizer. Herbs can usually make it through the summer with granular fertilizer added to the soil at potting time. Most vegetables, though, need some supplementation. Professional growers combine soluble fertilizer application with their irrigation. One approach you can take when encouraging anyone new to container gardening is to hand out some slow-release granules. Slow-release granules are usually rated for a certain number of months, and they also do best if mixed in with the soil. Unfortunately, some of the formulations for slow-release granules have joined the current trend of 'the more nitrogen, the better' and have unequal percentages of nitrogen, phosphorus, and potassium. I have had very good luck with the fish (poop) fertilizers but you be prepared for critters digging up your plantings to sample the fertilizer.

Several years ago, people were really promoting roof-top gardening and elevated walkway gardens. Both have plentiful sunshine. One famous elevated walk/greenway is the High Line, on the west side of Manhattan. It's 1.45 miles of New York Central Railroad viaduct that was transformed in 2009. All (or almost all) of the plants growing on the High Line are, by definition, growing in containers. Field trip anyone?

Happy planting!



The author.
Photos courtesy of
Erica Jones.

Book Review

by Hazel Beeler

Treepedia, A Brief Compendium of Arboreal Lore
by Joan Maloof, Princeton University Press, 2021

This little book is full of tree facts. They range from basic background information known by many people who love trees (especially me, since I am a botanist by training) to descriptions of relatively obscure forests and people.

Everyone who's into conservation surely knows the outsized roles played by Teddy Roosevelt, John Muir, Gifford Pinchot, and others. Every child in my youth learned about John Chapman, known as "Johnny Appleseed." But do you know about Lucy Braun? The reader will learn that Lucy was one of the first women to earn a doctorate from the University of Cincinnati. She published a classic book *Deciduous Forests of Eastern North America* (in 1950, at age 61, after decades of travel and study) and was the first woman president of the Ecological Society of America. Other influential female conservationists/ecologists include Wangari Maathai of Kenya, Mary Byrd Davis, Margaret Lowman (who pioneered studies of the tree canopy), and Nancy Stranahan. These were not familiar names to me.

For a greater account of the exploits of Bob Leverette, who located remnant old-growth forests in Massachusetts, developed a more accurate way of measuring tree height, and determined that old trees (50+ years) sequester more carbon than younger ones, see the January/February 2021 *Smithsonian* magazine, which was delivered soon after I read this book. Fictional characters get a nod in this book too: J.R.R. Tolkien's Ents and Dr. Seuss' Lorax, who speaks for the trees, both have entries.

Everyone has certainly heard of Muir Woods, which preserves monumental coast redwoods. Maybe you are familiar with the Tongass National Forest of Alaska, the largest in the U.S. You've probably heard of the Adirondacks, where the park is the largest public protected area in the lower 48 states. In this book, you'll learn about the Białowieża Forest (don't ask me how to pronounce it), on the Poland-Belarus border,

the last large old-growth forest in Europe. You'll read about the Menominee Forest in Wisconsin, an entire county so well-defined that it's visible from orbit. I had never heard of either. The latter is owned by the Menominee people, who log it selectively and sustainably, after winning a 20-year court battle to regain control of it after their tribe lost recognition in 1954.

There are entries on common or familiar tree species and genera: aspens, ginkgo, oaks, baobab, cedars, pine, etc., with descriptions of particularly interesting or prominent individual trees, economic uses, and historical references. Conservation events, such as the Redwood Summer, are described; pests and diseases like chestnut blight and emerald ash borer are included; forest recreation, conservation, and tree biology are explained. You'll find entries on silviculture, mycorrhizae, old growth, the spotted owl, reforestation, forest bathing, coppicing, carbon sequestration, and a host of other forest- or tree-related topics. A short list of works cited follows the text.

This is a modest little book, and its goals are modest. It's not a compendium of all tree species or forest information, and it isn't meant to be. The author's preface says "...no matter how much you know about trees already, I can promise you that you will learn something new here." This book lives up to this promise. Much of the material was prior knowledge for me, but there was plenty I didn't know. Maloof goes on to say that her book is meant to be picked up and put down, "perhaps to be kept within reach in the smallest room in the house." It might also make a good "starter" book for a young person just getting interested in trees, forests and the environment. Royalties from the book benefit the Old-Growth Forest Network.

Vegetables Have Friends, Too

by Emma Patterson

Let's face it, many of us are already drooling over seed catalogs and thinking about (or ordering) seeds for the late spring and early summer. Winter weather and falling snow does that to us gardeners. But just like people, vegetables do best among friends. Vegetables can help other vegetables grow – if we know which friends to put together – and which foes to keep apart.

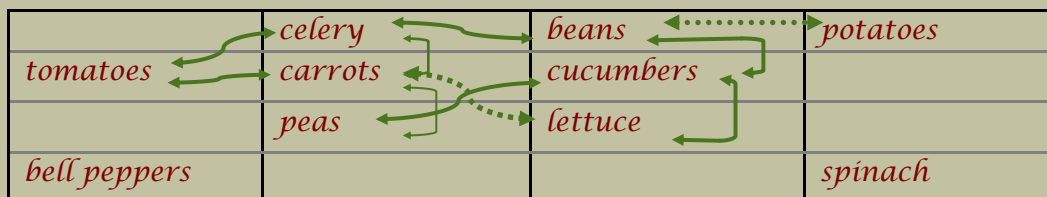
Needs some ideas on planning a friendly vegetable garden? A useful research-based resource is Louise Riotte's *Carrots Love Tomatoes* (Storey Publishing), which was recommended in a recent Virginia Cooperative Extension webinar. Most gardening resources advise planting vegetables that we and our families really like. That's a good start. Once that list is ready to go, Riotte's advice can help us get to the next step – figuring out which ones are friends.

Favorite Vegetables

Beans	Carrots
Celery	Cucumber
Lettuce	Peas
Peppers (bell)	Spinach
Potatoes	Tomatoes

- Beans get along well with celery, cucumbers, and potatoes.
- While carrots and celery are friends with tomatoes, the positive relationships with tomatoes on our list end there. Tomatoes are foes of potatoes, for example.
- Carrots, lettuce, peas, and cucumbers are all friends with each other.
- Spinach and peppers appear to be the "loners" from the list, who prefer to stay apart from the others.

Knowing all these relationships, we can plot out an arrangement to keep the friends together and the foes apart. A sample plot follows:



Of course, other vegetables may pop up on the favorite list. While those additions may make the plot a little more complicated, Riotte's book has them covered, from asparagus to watermelon. As a bonus the book offers sample plots (distinct from the one above). It also includes chapters on companion herbs, crops, shrubs, and perennials – and even poisonous plants to avoid. The ideas will help wile away the cold weeks ahead, as we plan for sunnier skies and longer days. May all our veggies be friendly!

Tomatoes

by Erica Jones

Tomatoes are probably the most-commonly grown vegetable when people are trying to grow something edible in our growing zone. (Move to Alaska and you might switch to cabbage!) Tomatoes can be very successfully grown in containers too, making them a good crop for people with limited sunny growing space.

Tomatoes are a 'warm season crop.' They have no resistance to frost, so you need to put plants outside after the average last frost date. More daring gardeners put tomatoes out earlier, but these are experienced gardeners who are familiar with what coverings will reduce frost damage. Average last frost dates will vary dramatically with elevation. The date for Blacksburg (according to NOAA) is May 5th. In Roanoke, with 50% lower elevation, the date is April 21st. Remember, 'average last frost date' is an average, not a guarantee. According to NOAA, Blacksburg temps dropped to 28 degrees on May 11, 2020! Additionally, researchers at multiple universities (Purdue, Illinois, Missouri, and Idaho, to name a few) have determined that temperatures below 50 degrees for extended periods can impair tomato growth.

Soil temperature should also be considered. Soil temperatures are fairly easily taken – put your soil thermometer four inches into the ground. The soil should be at least 60 ° F for tomato seeds to germinate (<https://bygl.osu.edu/node/722>), and higher would be better. According to Oregon State (<https://today.oregonstate.edu/news/let-soil-temperature-guide-you-when-planting-vegetables>), a soil temp of 65 – 70 degrees is best for planting tomato seedlings. To help soils warm up, remember bare soil warms faster than soil with mulch or cover crops.

Tomatoes have two types of growth habits – determinate and indeterminate. Indeterminate plants get taller while they are growing and can benefit from some pruning. Determinate varieties stop growing when they get to their maximum height and stop flowering and making tomatoes. Basically, all the fruit is produced at the same time with determinate varieties. Many paste tomatoes are determinate, which is helpful to people who can tomatoes.

Growers and seed companies discuss resistance to diseases like *Fusarium* crown and root rot, early blight, late blight, leaf mold, tomato apex necrosis virus, tomato mosaic virus, *Verticillium* wilt and leaf spot. Most common/troublesome are early blight and Septoria leaf spot (<https://extension.illinois.edu/spotlight/common-tomato-diseases>). Good growers will comment about tomato disease(s) on their labels. You can not necessarily go by variety name, as growers can and will make up names for a crop they grow (if not patented anyway).

Tomatoes are very easy to grow in 'new' ground or pots — that is, soil where tomatoes were not previously grown for at least three (or more) years. If you grow tomatoes in the same location every year, a multitude of tomato diseases will catch up to you, resulting in significantly reduced yields. Many tomato diseases are spread via soil, wind, and water, and often overwinter in the soil or in prior year garden debris.



Young tomato on a south-facing deck with sheet plastic mulch.
Photo: Erica Jones

There are several cultural methods to reduce exposure to tomato diseases, besides following the principles of crop rotation and using disease-resistant seed. To minimize the impact of tomato diseases, never let the plant's leaves touch the ground or touch water that has been in contact with the ground. Mulch your tomatoes as you plant them, even if you are growing them in containers. Staking tomatoes probably also helps reduce disease as it increases the distance between the ground and the leaves. And don't crowd the plants together – air and sunshine should flow around them. Finally, never compost diseased tomato plants or leaves, because some pathogens are not killed by composting.

Tomatoes grow well in containers, if you stake them and keep them watered but not soggy. Because they are fairly big plants, don't try to use a container smaller than five gallons, unless you are willing to water twice a day mid-summer. Always water tomatoes at the base of the plant, rather than wetting the leaves, to minimize disease spread.

Planting tomatoes in the ground is easy, if you follow these steps. Dig the hole where you want the plant, and water the hole thoroughly. Plant tomatoes deep – up to the first leaves. Tomatoes will root along stems that are in contact with soil. Fertilize the plants as you plant them (do not go crazy with high nitrogen fertilizers) and expect to supplement the fertilizer at least once in the summer. If you have access to chicken, horse, or cow manure, you can put that in the hole with the plant. Mulch immediately; staking can be done at planting or soon after.

If you have conquered growing tomatoes, try something new — grow some tomatillos. Both of these fruits are in the nightshade family, but have a different genus. Tomatillos should fall off the stem when you touch them, before you harvest them. They will continue to ripen if picked too green, but vine ripened is always tastier. Tomatillos are used in cooking very much like tomatoes, but have a different flavor, are less juicy, and are never used peeled (but you do remove the husk). University of Georgia has published information on how to can tomatillos at https://nchfp.uga.edu/tips/summer/preserving_tomatillos.html



Tomatillo. Photo: Erica Jones.



Some results of all the work!
Photo: Meredith Hoggatt.

February in Pittsburgh

by Sharon Eifreid

Where are all the flowers amid the freezing winter temperatures in Pittsburgh, Pennsylvania? Why, they are at the Phipps Conservatory and Botanical Garden, of course!

In 1893, the Conservatory was built in Schenley Park as a gift to the city of Pittsburgh from steel and real-estate magnate, Henry Phipps. The glasshouse, designed by Lord and Burnham, now consists of fourteen rooms designed to be used for display of formal gardens and education.

On a recent visit to Pittsburgh, I was lucky to visit the Conservatory and step into the "Orchid and Tropical Bonsai Show: An Ocean of Color." It was just that; orchids galore, growing amid beautiful greenery. In the center of the Palm Room sat a beautiful slipper orchid (*Paphiopedilum gratixianum*) that was acquired in 2011 and cared for by three different horticulturists over the years. In January



2022, the American Orchid Society awarded the orchid a Certificate of Cultural Excellence. One could not help but be awed by all the different types and colors of gorgeous orchids. In addition, the bromeliads were stunning. In several areas the urn plant, *aechmea* 'Del Mar,' showed its beautiful purple spike alongside the orchids.



Photos: Sharon Eifreid

As I was leaving the Palm Room, on my way to the Sunken Garden, I was greeted by a magnificent orange, red and yellow structure that appeared to be "growing" in the garden. It was "Paint Brushes," a glass sculpture by Dale Chihuly. In 2007, the Gardens presented the "Chihuly at Phipps: Gardens and Glass" exhibit in which the glass sculptures of Dale Chihuly were displayed integrated among the plants. Next, I encountered another impressive Chihuly sculpture, "Celadon and Royal Purple Gilded Fiori" which stands in the center of the Tropical and Spice Room. What a great surprise I had when I realized that many beautiful glass sculptures were permanently displayed in the garden.



The last room I'll mention is the Broderie Room. This room is also known as the Parterre de Broderie, which translates to "embroidery of earth." The room would remind you of a chateau in France with precisely groomed hedges encompassing seasonal flowers. In this garden, I was amazed to see a young woman actually trimming the tops of the hedges with a scissor!

There are many other rooms to enjoy, with plants and design changing with the seasons. There are also lovely outdoor areas to enjoy in the warmer weather. If you are ever in the Pittsburgh area, plan a visit to the Phipps. You will not be disappointed.

Master Gardener Volunteer Opportunity

NRV Home Expo (sponsored by the NRV Home Builders Association)

by Lynn Brammer

The NRV Home Expo is a two-day event at the Christiansburg Rec Department on April 9th and 10th. As a non-profit, the NRV Master Gardeners are allowed a free booth. The expo features all sorts of vendors, from Bath Fitters to landscape design businesses. There are typically over a thousand attendees during the two days.

We function as a plant clinic and an informational booth. We'll have seed giveaways, soil test kits, our regional planting charts, and coloring books for the kiddies. It is a wonderful opportunity to share your knowledge, answer questions, sign up those interested in our rain barrel clinics, advertise our plant sale, give testimonials about the MG course, and interact with the public. Great fun, assuming you are comfortable in that setting.

Wendy will be creating an easy-to-use SignUpGenius, as the date gets closer, for those interested in a shift or two. If you are a trainee currently taking the class, you will always be paired with an experienced Master Gardener. It will be an excellent chance to see how a plant clinic works.

All materials will be provided, along with sign up clipboards for the various events we offer to the public. More information will be sent out to those who volunteer, including parking details and the rules we need to follow as participants.

Please consider marking these dates on your calendar and stay tuned for the notice from Wendy. For any immediate questions or concerns, feel free to contact me at lbrammer@vt.edu

Timely Tips:

Now is a good time to:

- Check your soil temp.
- Direct seed cool season crops.
- Start selected warm season crops indoors.
- Fertilize blueberries before bud break.
- Fertilize established asparagus by the end of March.
- Do dormant pruning, while there's still time.

Native Groundcovers for the NRV

by Beth Umberger

Most gardeners think of evergreen plants that are low and colonize as a definition of a ground cover. Virginia bluebells cover the ground for about six weeks, but are dormant the rest of the year. Wild ginger, while dormant for the winter, is a reliable ground cover starting in mid- spring through the frost in fall.

Mats of English ivy, wintercreeper, and liriopse are not worth walking around your yard to observe. We have historically planted these groundcovers because they have a neat, low maintenance appearance all year. But the two vines grow up trees, negatively affecting their health. They also produce seed that birds spread into neighbor's yards and native habitats. None of these plants serve as a host to native insects, which are an important part of the food web. The vines also mat the forest floor and outcompete native plants.

At the Montgomery Museum, we will be planting more mixed, native ground covers under native shrubs. Under tall perennial native plantings such as Joe Pye weed and New York ironweed, we will be establishing low growing native ground covers like dwarf cinquefoil to replace the non-native Indian strawberry and winter annuals such as hairy bitter-sweet, *Veronica hederifolia*, and purple deadnettle.

To cover a small area with native groundcovers, start with at least five to seven plants. A large area will require 25 to 50 plants. You can order 30 to 50 plugs in flats, bareroot plants and large quantities for good prices online for spring and fall planting from Mid Atlantic Native Plant Farm, Reeseville Ridge Nursery, Prairie Moon Nursery, Prairie Nursery, Itzel Nursery, and Sunshine Farm and Nursery. It is best to order in late December or January, as the plants you want may not be available until late spring or early fall. Shipping is usually in April. I prefer getting the plants in late March to mid-April so they can benefit from spring rains. I sometimes pot up the plugs and bareroot in pots if we are going through a dry spell when they arrive. Then in late August to late September, especially when we have rain, I plant them so they can establish their roots before frost. Plants will heave out of the ground if the roots are not established.

Crow's Nest Nursery in Blacksburg, Wood Thrush Nursery in Floyd, and a couple from Pulaski who sell their plants at the Pulaski Farmer's Market (as well as Christiansburg Farmers Market) are local sources for native plants. Both the New River Valley and the Blueridge Chapters of the Virginia Native Plant Society have native plant sales in the spring.

Carex species are deer-proof and support insects, birds, and small mammals. The ones listed here I have used in my gardens. There are many more that like wet areas, a few I am trying at Depot Park. All the plants listed below support native insects and provide needed nectar and pollen sources.

Ferns are also deer-proof and like *Carex* species, can form colonies or can be clumpers. There are several fern species that will form large colonies over time, such as hay scented fern and eastern bracken fern. They can be aggressive and do not share garden space well. Because I prefer as much biodiversity as I can get in a small area, I choose clumpers. But if you have a large property, these types of aggressive native plants work well.

The main purpose of this article is to give those looking for ground cover plants native to our area a starting reference list. This list is not all inclusive.

+ Indicates this plant will mix with other woodland plants

Evergreen groundcovers— SHADE:



Packera aurea (Golden Ragwort) Makes a mat. Yellow daisy-like blooms in spring for four to six weeks at two feet high that die back to a ground hugging bright green evergreen mat.

+ *Carex albursina* (White Bear Sedge) Makes clumps with wide foliage. Good for mixing with other with spring ephemerals, clumping ferns, blue stem goldenrod, wood aster.

+ *Carex amphibola* (Creek Sedge) Makes clumps. Dark green foliage holds up well in winter. Mix with spring ephemerals, clumping fern, bluestem goldenrod, wood aster. Host for some skipper caterpillars.

+ *Carex appalachica* (Appalachian Sedge) Very fine textured bright green foliage. Mix with wood aster, foam flower, *Iris cristata*.

Carex blanda (Eastern Woodland Sedge) Can be aggressive. Medium texture. Good for covering areas with exposed soil in sun as well. Plant with mistflower, Christmas fern, *Phlox divaricata*.

Carex eburnea (Ebony Sedge) Wiry foliage that spreads by runners. Dry, rocky, limestone sites. Will work well in sun as well.

+ *Carex glaucoidea* (Blue Sedge) I collected this in my neighbor's yard in a drainage area and along a back road north of Christiansburg. The foliage is a medium texture with blue green color. It prefers damp low areas.

+ *Carex pennsylvanica* (Pennsylvania Sedge) Reproduces slowly by rhizomes. Fine texture, only 8 inches high. Will mix with other native perennials.



Carex plantaginea (Plantain-leaved Sedge) Clumping with wide, pleated, bright green foliage. Has a formal look. One of my favorites.

Carex woodii (Wood's Sedge) Pale, medium texture, green colonial, low growing. Plant with clumping ferns, foamflower, other low growing shade perennials.

+ *Gautheria procumbens* (Wintergreen) Good-draining acid soil in part shade is required. Very slow grower.

+ *Mitchella repens* (Partidgeberry) Grow with mosses, ebony spleenwort, and other small spring ephemerals. This plant can easily overwhelmed. I lost it to dwarf cinquefoil. I chase away drunk football fans who get close to peeing on the one spot it occurs in Stadium Woods.

+ *Polystichum acrostichoides* (Christmas Fern) This fern can be divided in spring. Works well by itself as a mat or used in a mix of natives. A clumping fern that mixes well with other shade-loving natives.

+ *Tiarella cordifolia* (Heart-leaved Foamflower) Looks great combined with *Phlox divaricata* or just by itself. Blooms for four to six weeks with attractive maple-leaf-like foliage.



+ *Potentilla canadensis* (Dwarf Cinquefoil) Will grow in sun and shade. Aggressive in Stadium Woods and at Montgomery Museum Garden. I am going to plant with yucca, ferns, and sedges at Montgomery Museum. I am hoping it will work as an under plant under tall perennials, after we remove Indian strawberry.

+ *Phlox divaricata* (Wild Blue Phlox) Long bloom in the spring. It will seed around when happy and forms a mat over time.

+ *Phlox stolonifera* (Creeping Phlox) Very similar to *Phlox divaricata* only not as showy bloom or length of bloom.

Elymus hystrix (Bottlebrush Grass) Nice mixed with *Monarda didyma* (Scarlet Beebalm) in part shade when the bottle shaped seed heads form in late summer. The monarda will colonize over time. Both plants will be 3' to 4' feet tall. The bottlebrush grass will flop. Forms evergreen clumps and freely seeds around.

+ *Osmorhiza longistylis* (Aniseroot) Mixes well with spring ephemerals, ferns, and fall shade native perennials. Bright green, low growing foliage in winter. Foliage is anise-scented. In spring, tiny white flowers on two feet plants. In fall, bears hard sickle shaped seeds. Easy to grow from seed collected in fall.

Evergreen groundcovers— SUN:

Antennaria neglecta (Field Pussytoes) Very low grey foliage. Good for rock gardens or sandy soil. Host to the American painted lady butterfly. These are deer-resistant. Requires a male and female plant to produce seed.

Antennaria plantaginifolia (Plantain-leaved Pussytoes) Very low grey foliage. Good for rock gardens or sandy soil. Host to the American painted lady butterfly. Deer-resistant. Requires a male and female plant to produce seed.

Phlox subulata (Moss Phlox) Needs good drainage, as in rock gardens but benefits from watering during drought. Long blooming season. Deer will eat.

Deciduous groundcovers:

+ *Chrysogonum virginianum* (Green and Gold) Hard for me to establish, but I had success this year. Yellow spring flowers.

Comptonia peregrina (Sweet Fern) Use as low shrub cover in dry sandy areas with good drainage. Not a fern. Tough plant once established. Scented fern-like foliage.

Conoclinium coelestinum (Mist Flower) Can be aggressive in the right conditions. I have trouble getting it established. Likes moist soil. Lovely blue flowers in late summer.

Gaylussacia baccata (Black Huckleberry) Needs acid soil in light shade. Low colonial shrub with small white bell flowers and edible berries. Bright red fall color. I noticed this is Stadium Woods this fall and have ordered some to try at the Montgomery Museum garden.

+ *Geranium maculatum* (Wild Geranium) Almost evergreen. Mixes well with spring ephemerals.

Solidago flexicaulis (Zigzag Goldenrod) Grows best in shade and needs space to spread. It grows well with other larger woodland plants, but would not work well with smaller woodland plants or spring ephemerals. Stands out with yellow flowering racemes in fall. Works well with white wood aster and heart-leaved aster.

+ *Symphotrichum cordifolium* (Heart-leaved Aster) Will grow in shade to part shade and forms a colony over time. Works well with zigzag goldenrod and white wood aster.

Viola sororia (Common Blue Violet) Easy ground cover that is a host for fritillary butterflies. They lay their eggs in the leaf litter in the fall next to the violets. The eggs hatch and the tiny caterpillars move to the violet foliage. If you rake up the leaves in the fall, the eggs will be moved and may end up far from violets.

Photos: Beth Umberger

MASTER GARDENER PHOTOS

by Ruth Ann Whitener



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MG Coordinator: Wendy Silverman, wss@vt.edu
Website: www.nrvmastergardeners.com
VCE Montgomery County Office: 540-382-5790



*Comments, questions, and submissions can be sent to Susan Perry
(susan_perry@peacenlove.org)*

A special thanks to everyone who contributed to this issue of the newsletter.
I appreciate you all!