December 2019

The Grapevine

New River Valley Master Gardener Association Newsletter

What a Fabulous Master Gardener Year

by Wendy Silverman

These are just a few highlights we can all be proud of

- We had a great training class, with almost everyone earning 50 hours or more of service. The others are expected to be finished by the end of December.
- We had some amazing educational meetings, field trips, and social events put on by our NRVMGA this year. I believe we had more events this year than any other year that I can remember. Thank you, NRVMGA board, for all your hard work making these events happen.
- We made enough money at the plant sale to award \$6,700.00 in community grants.
- We had 47 on-going projects throughout the NRV (not counting small, 1-day events).
- We served 5,793 service hours as of 11/20/2019, according to VMS. This is not fully accurate since we have people who have not yet entered their hours. It is still impressive!

Thank you all for your hard work, and I wish everyone a safe and happy holiday season.

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A Retrospective of 2019 Educational Opportunities

by Liz Swinfen

Hello everyone. As we approach the holiday season, I hope you have all completed your annual educational hours. To remain a Master Gardener, you must complete 8 hours each year. We have tried to present a varied selection of topics and offer outings at different times of the day to help you to complete your hours. You can do 4 of the hours online. Some online educational opportunities are available on VMS, and if needed, Wendy can help you find others.

We started the year with a talk by Barbara Pleasant, a Floyd-based gardener who is the author of several books on gardening and cooking. This was a great talk, especially as it was specific to our area. Kelli Scott ran a couple of workshops to support the plant sale. The month of March saw us putting together hanging baskets and in the fall, we propagated houseplants. Many thanks to Kelli for her time and knowledge.

We visited several local gardens. Arlean Lambert showed us the Hale Community Garden in Blacksburg and Beth Umberger gave us a tour of the Museum Garden in Christiansburg. Both visits were so informative and fun. Several of us visited the Floyd Eco Village, where they are doing organic gardening on a large scale. We then stopped at the Floyd Farmers' Market to purchase items grown locally and visit with the Master Gardeners who were working the booth. It is a lovely market: try and visit next year, if you haven't already.

The Websters welcomed us to their home in Fairlawn, where they grow plants hydroponically to sell at Radford Market. Francis Webster showed us how to build a greenhouse on a budget and Janet prepared salads from their produce for us to enjoy.

This year you were able to get 2 hours of education for taking the Garden Tour in July. It is a wonderful way to get ideas for your own gardens or just marvel at the talent of some of our local gardeners. Many of you also worked a shift to get volunteer hours.

We thank Margene for opening 3 Birds Blueberry Farm to let us pick and to tell us all about the different blueberries they grow. Socially, we thank Stan and Gaby Stanley for inviting us to their home for a yummy pizza party.

In addition to specific Master Gardener talks, we are very fortunate to have a wide range of additional educational possibilities in this area. The Hahn Horticulture Garden puts on many talks that are of interest to us. Some of them are part of the "Learn at Lunchtime" series. Contact the Hahn to be put on their email list for upcoming events. The libraries sometimes hold workshops on garden-related topics. Our own Erica Jones usually does a couple of talks. This year, she held a well-attended workshop on container growing at Christiansburg Library. The Wild Gardeners Club in Floyd holds talks on Sunday afternoons at Floyd Library and from spring through fall, organizes visits to interesting gardens in Floyd. The Parks and Recreation departments sometimes offers tours that are garden related. Some of us are going to visit the Millmont Greenhouses in Stuarts Draft in November. A special thanks to Javad, who arranged talks at the Government Center in the spring and fall.

Please let me know if there are certain topics you want to see covered or places you'd like to go and I'll see what I can do.

Happy gardening! Liz

SHARE THE SPARE: 2019 Report

by Lynn Brammer

Since 2010, our Master Gardener project, Share the Spare, has been a part of local farmers markets, spreading the message of acknowledging the underprivileged in our community who might not have access to locally grown healthy food options. We also serve as a Plant Clinic, giving out soil test kits, regional planting charts and lots of seeds. Two locations were involved this year, the Blacksburg Farmers' Market (BFM) and the Floyd Farmers' Market. At each venue, our team set up on Saturdays from May through September. It was another prosperous season of donations of produce, as well as monetary donations for purchasing produce.

In Blacksburg, over 1,200 pounds of produce were donated, both at the market, and by harvesting from the backyard gardens of friends and neighbors. A very generous farm vendor at the market (Glade Road Growing, which in the past had donated boxes and boxes each week), left the scene and caused a slow start for us this season. However, Riverstone Organic from Floyd made their BFM debut in 2019 and their extreme generosity made up for the loss of Glade Road Growing (GRG).

And a sidebar on GRG: The New River Glean Team had an anonymous donor who purchased two rows at Glade Road to grow and harvest for them...so a win-win for all! We appreciate that the New River Glean Team donates what they glean to the same food banks and food pantries that Share the Spare does.

Share the Spare in Floyd runs a bit differently as monetary donations are taken for the direct purchase of produce. That produce is taken to Plenty!, the program that inspired Share the Spare. NRV Master Gardeners visited Plenty! this year and in the past. Please look them up if you are not familiar with their mission. They are the template for a food equity program. (<u>https://plentylocal.org/</u>)

As important as the mission of produce collection is, our presence itself at these markets goes miles in making our community aware of all that Cooperative Extension is and does. And, just as relevant, are the thousands of hours we, as Master Gardeners, give back with our volunteering. It is so rewarding to have a conversation and explain our training and our commitment to give back through various programs. It becomes a great opportunity to talk about our grants and all we have supported in the NRV.

I am grateful to Diane Emery for leading the Floyd table, as well as all the numerous volunteers who assisted at the two venues throughout the season. You brought great energy and inspiration. We welcome your feedback on how we could expand or fine tune our work. All of you involved hopefully received as much from your volunteer time as was given to our community.

With Gratitude,

Lynn Brammer

Forcing Bulbs

by Susan Perry

I'm always looking for ways to make winter feel like spring or summer. One good, easy way is to "force" bulbs in pots, basically simulating a compressed version of winter indoors. Depending on what bulbs you want to force, you have to allow about 8 to 12 weeks from start to end. Most bulbs that can be grown in the ground can be forced – daffodils, hyacinths, crocus, and tulips. I prefer paperwhites.

Put 5 to 7 large bulbs in a pot and follow the forcing instructions that came with the bulbs. Some bulbs prefer potting soil, while others, like paperwhites, can be forced in a shallow layer of pebbles. All forced bulbs will require even moisture, but be careful not to over-water because it can result in the bulbs rotting. If you're trying more than one type of bulb, it may help to label your pots.

Find a cold, dark place to store the pots. I've used my unheated garage and a covered window well – both require a layer of "insulation" (such as an old blanket) to protect the bulbs from freezing, but the blanket also insured an extended period of darkness. Ideally, you want to find a place that can be kept dark, where the temperature cools down gradually over a two to three month period to just above freezing, and that can be easily accessed to periodically check moisture in the pots.

The length of the cold, dark period that you need will depend on what type of bulbs you selected. Again, refer to the instructions that came with the bulbs. However, once you see white roots showing from the drainage hole in the pot or new green shoots in the top of the pot, you know that the bulbs are ready to start growing.

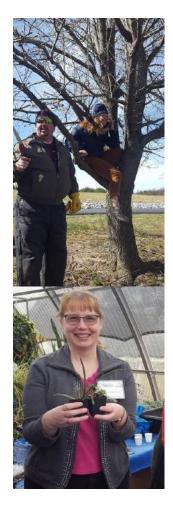
Now, find a spot in a cool (50 - 65 degree), bright location in the house for them to grow. I use a guest room with a south-facing window where I can close the heating vent. Be sure to continue steady moisture. Flower buds will appear within several weeks, and the pots can then be moved into the main living quarters to be enjoyed. Just remember that excessive heat or dim light will shorten the time they provide you mid-winter enjoyment.

2020 Master Gardener Training

by Wendy Silverman

Please help spread the word... 2020 Master Gardener Training Class

We are currently recruiting for the 2020 Master Gardener Training Class! If you can, please help advertise by sharing the flyer on the next page. This year the training class will be offered weekly on Tuesday evenings, 3 Saturday afternoons, and 3 Thursday evenings. In addition, some topics will be presented on-line learning. We hope to encourage people from Giles, Floyd, and the far end of Pulaski Counties to attend, since we are meeting in-person less often than we normally do. A complete training schedule will be sent out soon.





The New River Valley Master Gardeners are Now Accepting Applications for the 2020 Master Gardener Training Program

Are you looking for a way to improve your community through volunteer service? Are you interested in horticulture? If your answers are "YES", then being a Master Gardener may be right for you!

- Applicants must be able to attend a 60-hour training program and complete 50 hours of volunteer service with Virginia Cooperative Extension during their first year.
- Training classes will be held on Tuesday evenings from 5:30-8:30 PM, on the Virginia Tech campus and at the Montgomery Co. Govt. Center from late February through early May. Additionally, there will be three Thursday evening classes, three Saturday afternoon lab classes as well as some on-line learning.
- There is a \$180.00 fee to cover class materials and background check.

For more information, or to obtain an application, please contact Wendy Silverman, Montgomery County Extension Office; 540-382-5790 or wss@vt.edu

Virginia Cooperative Extension programs and employment are open to all, regardless of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, veteran status, or any other basis protected by law. An equal opportunity/ affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. Edwin J. Jones, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; M. Ray McKinnie, Administrator, 1890 Extension Program, Virginia State University, Petersburg

Cold Frames Part 1: What They Are and Why Use Them

by Susan Perry

Have you ever grown so many carrots, lettuce, spinach, onions, or beets that you can't eat them all by the time cold weather arrives? Don't want to freeze, can, or pickle? Or maybe you haven't had enough of your fresh, home-grown produce Well, a cold frame might be an answer to consider. A cold frame is a low-tech alternative to a greenhouse, with a lower profile (in case an HOA is watching) and smaller footprint. While not without some effort, making and using a cold frame can harness the benefits of solar energy to keep mature (or almost mature) vegetables alive, in a semi-dormant state, until you decide to harvest them. Baby plants will not grow – or not grow very much – but mature plants will go into their own type of hibernation until you're ready to use them.

Simply, a cold frame is a wooden frame you set on the ground around your cold-hardy vegetables. Think of it as a small, 12" high greenhouse with wooden sides, no bottom, and a cover that allows sunlight to penetrate. During the day, the sun warms the air and ground inside, even on cloudy days. In fact, often on sunny winter days, it's often necessary to vent (or open) the cover so the inside doesn't become too hot. The first year I tried this, a 50 degree sunny January day successfully fried my lettuce by 11am. The temperature in my tiny hoop house nearby registered 90 degrees!

In the afternoon, shortly before the sun goes down, put the glass back on so that the inside of the box stays warm during the night from heat retained by the ground. The cold frame creates a micro-climate in which the plants can survive cold nights or extreme cold spells.

To take advantage of daily solar gain, make the north end of the cold frame taller than the south end. The east & west sides will slope from north to south. If you're not the handy type or don't know someone handy with a saw, then skip the sloping – a wooden box with glass or clear plastic on top will work just fine. Maybe not ideal, but in future years you can make enhancements. The important thing is that the box doesn't let air in unless you vent it, so things need to fit together well.

The cover can be an old glass storm window, well anchored plastic sheeting, or other more rigid clear plastic. The first year I tried this I made an 18" high hoop from chicken wire, covered it with clear plastic, and clothes-pinned the plastic to the chicken wire. During really cold spells, I threw a blanket on top. All was well till that fateful, sunny January day mentioned above.

There are many resources on the Internet that describe how to make a simple cold frame. VCE Publication 426-381 describes how to construct a cold frame and suggests other ways to extend the growing season. (Another benefit of cold frames is they are a great way to get an early start on your plants in the spring). Other resources are available at our local libraries. Often these resources recommend orienting the cold frame in one direction or another (north-south, east-west). In my opinion, you need to make it work for your garden, regardless of what the experts say. In our case, our beds are long from north to south and narrow from east to west and so my cold frames are oriented to work within this constraint -- much easier than trying to re-orient the entire garden. However, I refer you to these resources because they can describe the construction details for cold frames in far more detail than can be addressed here.

In my second year of cold frames, as an experiment, we used a cold frame to prevent the ground from freezing around the several hundred carrots we had in October. We quickly cobbled together one cold frame using hinged wood boxes from a local recycler, lined them with Styrofoam, and covered them with two old aluminum storm windows. We enjoyed carrots much of the winter and harvested the last ones in mid-January 2014. This was a vast improvement over the prior winter, when we had no cold frame, and beginning in mid-December had to literally use a chisel to get the carrots out of the frozen ground! Surprisingly, they tasted fine – until we had a thaw and re-freeze. Then they were mush and went directly into the compost pile.

During our fourth year of winter gardening, we expanded our cold frame efforts. We had six cold frames – built from "culled" wood and lined with Styrofoam insulation because culled wood doesn't fit together tightly (a design flaw on our part). We covered our cold frames with rigid plastic. Most years we hope to harvest spinach, lettuce, carrots, beets, and leeks – throughout the winter. Sure, we'll have to remember to vent them most mornings and cover them most evenings but we'll also have fresh, home-grown veggies all winter.



For more on cold frames, and veggies that they can be used with, see the article on page 14.

Gardens of Central Germany: Why Our Ancestors Felt at Home in Virginia

by Emma Patterson

In late October 2019 my husband and I travelled by train and air to and around Germany. On the way to the airport in DC, we took photos from an Amtrak train as we admired the beautiful mountain scenery of southwest Virginia. When we landed in Frankfurt, Germany, and toured the countryside of central Germany, we began to notice how much where we were looked like where we had just come from. We quickly realized that the home we left behind looked very much like the homeland of our German ancestors. See if you notice similarities in the photos below, which were taken a day or two apart – can you spot which ones are from central Germany or from Virginia ? (answers are at the end)



Like Virginia, central Germany is a region filled with scenic beauty, yet towns are much closer together than in Virginia, and growing spaces – including farmland – are at a premium. The cities are large and crowded, and whether in city streets or rural neighborhoods, space is difficult to find and houses are snuggled close together. Multiple families live in almost every building. What looks like a single-family home in Virginia probably houses 6 or 8 German families, and with the lack of elbow room, Germans have to find ways to be creative with the little space they do have to cultivate. Still the farms we drove past were well cultivated and had rich brown soils, despite millennia of use. The farmland in the upper left photo below, for example, was right outside a small town that had celebrated its 950th birthday (!) in 2013. We saw fields with corn (grown only for animals), beans, and many types of vegetable crops. In the Rhein River valley, vineyards were in abundance, with grapevines frequently turning a lush yellow in autumn.

Gardens appeared wherever even a few meters of space happened to be free: on the streets, in window boxes, on bridges and stairs, on the sides of government buildings, and even in cemeteries. On a Saturday morning in a local cemetery we noticed



several adults caring for headstone gardens, even bringing in bags of fertilizer, new plants, and lavish, dedicated containers. We learned that keeping gravestones beautiful is a shared value of many Germans, and even in communities where the deceased have no more family members, neighbors will take on the task of ensuring each gravesite is well tended and surrounded with plants.

Even though the temperatures hovered above freezing and it rained regularly, central Germany had not yet had its first frost when we visited, so we saw many beautiful blooms. Roses and geraniums were especially popular, but we also glimpsed pampas grass, holly, English ivy, sedum, asters, and others. We noticed numerous types of bushes with wild berries, most of which were poisonous, we later learned from friends who lived in the area and cautioned us not to try them.

All in all, we felt very much "at home" in central Germany's gardens and rural areas. We understood almost immediately why early German settlers in the American colonies would write to their families in the home country to encourage them to emigrate to the spacious Appalachians of Virginia. The similarities of topography, soils, and vegetation must have stood out to them as soon as they arrived, as it did to us. It's highly likely they brought some of their favorite plants with them as they re-settled in southwest Virginia.

And now to share the locations of the first set of photos... from top left to right, they are from: central Germany, Virginia, and central Germany. The photo in the bottom left is from Virginia and the bottom right from central Germany. Did you guess all of them? Thanks for joining on this tour of the gardens of central Germany – you all were in our thoughts as we went through this amazing experience!

Unexpected Finds (Travels With(out) Paige) by Erica Jones

We were in Huntington, West Virginia last weekend and I knew we would have about two hours free. So, I told my GPS to take us to the Huntington Arts Center. The Center turned out to be on top of a very steep hill in an "old" (read pricy) neighborhood. I suspect the grounds were once an estate but all that was left were some rock walls, a large wrought iron gate entrance, and a former sidewalk that was converted to a nature trail. (Paige could not buy a ticket for the train tour for some reason, so she stayed home and chewed on an assortment of plastics).

The "trails" at the Huntington Museum of Art are fairly short (we covered them all at least once); they wandered through a very steep ravine with



Celtis occidentalis

marvelous older trees. The museum has cleverly placed about six stone sculptures along the trail. We had fun trying to find all six; a family with three small children were having a blast looking for them. What a clever idea for getting people outside! (But, where WAS that last one? Broken?). The stone sculptures turned out to be slightly scary faces carved into flat surfaces on existing large rocks; one was in a large rock outcropping area where the trail slogged up a set of steps. I actually put my hand on it before I managed to find it.

Right at the end of our laps around the property, we ended up on the nature trail (spouse very willing to walk as it kept me from going in the art gallery). We came upon a labeled hackberry (*Celtis occidentalis* or maybe laevigata ("distinction... is problematic...")(Flora of Virginia). Peterson's "Trees and Shrubs" states that this tree "may hybridize." When I see that, I throw in the towel and don't get too worried about which one it is.

Celtis laevigata is a medium sized tree, supposedly common in the coastal plains and rare-to-infrequent in Piedmont and the mountains. USDA's "The Yearbook of Agriculture" (1949) states that the tree "...deserves more attention [for ornamental planting] as is tolerant of urban conditions." The growing range for *Celtis occidentalis* extends farther west past West Virginia.

Younger versions of the tree have a very distinctive bark with thick



Celtis laevigata

compressed scales. The tree also has edible berries which ripen in the fall, are high in fat and can be eaten raw. Given that humans eat the berries, so will many songbirds and larger residents like quail woodpeckers, and turkeys. Trees with interesting bark are definitely a plus in the coming months. Leaves are on the list of easily confused leaves that are pointed, oval and toothed (think elm beech, birch and aspen). Since we are past leaf season I suggest honing in on the bark. On our in-hand specimen, the warts were closely packed together, not exposing any of the smooth bark in-between.

Baltimore's Hidden Gems

by Carol Kauffman

When you think of the top attractions in Baltimore, what typically comes to mind? Maybe it's the Inner Harbor and National Aquarium, Fort McHenry, or perhaps Camden Yards – home of the Baltimore Orioles baseball team. Visitors, however, may not be aware of several "hidden gems" that are of particular appeal to historians, gardeners and conservationists alike - Baltimore's Public Gardens. I was fortunate to have the opportunity in September to tag along on a group tour of these gardens sponsored by the National Recreation and Park Association.

First stop: Howard Peters Rawlings Conservatory & Botanic Gardens

We knew we were in for a treat when the bus pulled up to the Rawlings Conservatory



& Botanic Gardens located in historic Druid Hill Park. The imposing, five-stories tall glass structure which houses the Palm House was built in 1888 and is one of the few remaining Victorian conservatories left in the world. Adjoining the Palm House is the exquisite Orchid Room which features a seasonal collection of several orchid varieties including *cattleyas, phalaenopsis, cymbidiums, paphiopedilums,* and *dendrobiums*. A short walk through the courtyard led to three more interconnected indoor gardens: the Mediterranean House, the Tropical House and the Desert House. The Mediterranean House featured plants from five distinct areas characterized by mild rainy winters and hot dry summers. These areas include the California coast, central Chile, South African Cape, western and southern Australia,

and the Mediterranean basin. The perfectly themed room complete with fountains, olive trees and intricate garden benches transported us to the Mediterranean landscape. Moving to the Tropical House, my personal favorite, we were greeted by a colorful and fragrant garden of *plumeria*, *bromeliads*, bird of paradise, and lush green foliage. Fruits and other foods such as banana, papaya, guava, and coffee were also highlighted. The final stop on our guided indoor tour was the Desert House, which showcased a variety of plants from deserts in Asia, Africa and the Americas.

The outside gardens that surround the Conservatory were also a delightful collection of colors, textures, and patterns. The flower beds change from spring through late fall, offering visitors a continually changing landscape to enjoy. The Druid Hill Farmer's Market is held on the Conservatory grounds during the summer months as well.

The Rawlings Conservatory fulfills an educational mission by hosting adult workshops and children's nature programs, and staffing their gardens with trained and dedicated volunteers ready and eager to answer questions and enhance the visitor experience. If you're interested in visiting this historic landmark which showcases plants from around the world, you can visit their website – www.rawlingsconservatory.org for more information.

Next stop: Clyburn Arboretum

If you're looking for a serene and beautiful respite from the noise and pace of Baltimore's urban environment, you need look no further than the Clyburn Arboretum, the second stop on our tour. The Arboretum boasts a 207-acre property featuring a mature Piedmont forest, several miles of woodland hiking trails, lovely cultivated gardens, seasonal flowering trees such as cherry, magnolia, and quince, and brilliant varieties of maple, gingko, oak, and gum trees.

A focal point on the property is the elegant Clyburn Mansion, a 19th century Renaissance Revival mansion which plays host to weddings, meetings, and parties, as well as holding architectural and historical interest. Adjacent to the mansion is the Raindrop Trail that traces the path of rainwater from the roof and driveway of the mansion through a natural stormwater system consisting of rain gardens, rock filters, and swales.

In contrast to the mansion is the new Vollmer Center which features "green" technology, including geothermal heat, a living roof, and composting toilets. During our visit, a representative from the Baltimore Recreation and Parks Forestry Division gave a very informative presentation on their Zero Waste Wood Recycling Program. This unique and highly successful program is operated out of Camp Small in North Baltimore. The Camp Small wood waste facility uses city trees and other decomposed wood debris that was previously stockpiled and hauled off to landfills or incinerators and converts/ sells the wood chips, compost, mulch and logs at very reasonable prices. Buyers and other users include sawmills, woodcraft companies, the city, and the general public. The city has realized \$60,000 in annual savings by eliminating the hauling expense, and added revenue from the sale of the wood material. A win-win for the city, the buyers, AND the environment! For more information on the Clyburn Arboretum, visit www.cylburn.org.

Last stops: Baltimore City Farms

Last, but not least, our group visited two of the eleven City Farms. This program, which began in 1978, is managed by the Baltimore City Recreation and Parks department in partnership with the University of Maryland Extension and Baltimore City Master Gardener Program. City Farms enable city residents to establish garden beds for a nominal annual rental fee. Each garden has an assigned Garden representative who offers advice about growing and preserving nutritious produce and provides gardening workshops and training in environmental conservation. It was interesting and fun to see the diversity of plants and flowers in the gardens and the personal touches that the city gardeners gave their own garden plots. It was evident from talking with some of the gardeners who were present that the program is appreciated, well-utilized, and nourishing to both body and soul.

I hope in your future travels to Baltimore, you'll consider a visit to one or more of these "hidden gems". You won't be disappointed!

A Visit to the International Rose Test Garden by Sharon Eifried



During a trip to Portland, Oregon, I was fortunate to visit the International Rose Garden. Even though it was early May, there were several beautiful roses in bloom and there was much to learn about the judging of the roses which occurs in every June. The four-acre park was established in 1917 and the first "Gold Medal Award" was given in 1919. When the garden was established, Portland was already known as the "City of Roses" mostly because of the twenty

miles of the city's streets that were planted with roses in 1905 for the Lewis and Clark Centennial Celebration.

One interesting fact is that the roses being tested are known only by numbers, not names. Four plants of each entry are scored for two years concerning the plant habit, vigor, disease resistance, color, form and fragrance. Each year, 200 cultivars are tested. If the rose is chosen for outstanding performance, it is planted in the "Gold Medal Garden," which was constructed in 1969 to honor 50 years of awards.

The garden displays a collection of over 8,000 roses that represent more than 610 varieties. A visitor can enjoy a show of modern hybrid, grandiflora, miniatures and landscape roses plus a section of garden shrub roses. So, it is no wonder that some roses were blooming in early May. In addition, I enjoyed a backdrop of gorgeous rhododendrons which are always blooming in Portland in May.



Cold Frames Part 2: Improvements, Maintenance, and Which Veggies to Try

by Susan Perry

This discussion of cold frames will focus on how to improve cold frame function, as well as vegetables that lend themselves to cold frames.

Cold frame function improvements can be explained using the analogy of layering clothes for the coldest days in the winter – each layer & the tiny airspace in between keeps you toasty warm. By using floating row covers inside your cold frame or sheets, blankets, or tarps over the cover, you may be able to improve cold frame heat retention. This will only be necessary for periods of extreme cold.

Researchers at Colorado State University (CSU) discovered the following:

- Floating row covers provide 2 4 degrees of frost protection and allow sunlight to penetrate, therefore can be left in place permanently.
- Clear plastic sheeting added 3 6 degrees of frost protection.
- When reflective space blankets, with the shiny side facing the ground (so that heat is reflected back), were placed over plastic sheeting on top of a cold frame, freezing was prevented even when outside temperatures dropped below zero the night following a sunny day. However, space blankets (or sheets or blankets) must be removed daily to allow sun to reheat the ground and air inside the cold frame.

Another idea that's been tested is to string incandescent Christmas tree bulbs inside your frame and plug them in on those super-cold nights. CSU found that another 6 -18 degrees of protection was provided by a string of lights, and when a space blanket was combined with lights, 18 – 30 degrees of protection was added. If using lights in your cold frame, as a safety precaution be careful not to have hot incandescent bulbs touch plants, floating row covers, plastic, or space blankets. I made wire wickets to drape space blankets over.

During extreme cold, use your judgment to determine whether to uncover your cold frame during the day. The critical factors are air temperature and cloud cover because solar re-heating of soil must happen for the box to retain warmth at night. Making these decisions is more of an art than a science and can just be a matter of trial and error.



Cold frames: space blanket and wickets, Christmas lights, & an outdoor thermometer (pink box, lower R corner) to protect lettuce and spinach.

If you can find an inexpensive thermometer to hang inside your cold frame, you can check daytime temperatures yourself. For the curious, a remote wireless thermometer inside a cold frame will enable you to see exactly how cold the cold

frame gets during extreme cold.

Another consideration is wind. We get many windy winter days where reported wind speeds can be 60 mph or greater. After investing the effort to build and use a cold frame, you probably don't want it to blow to Richmond! Lashing the lid on the cold frame is wise.



These covers are staying put!

Some of my plants are taller than my cold frame and their foliage touches the cover. Plant tissue may be damaged if

in direct contact with the cover. In the past, I have cut off some foliage of carrots, so that it will not come in contact with the cover, leaving just enough to allow photosynthesis to continue (i.e. 5 - 6" tall). There was no apparent negative effect of doing this. In subsequent years, I trimmed back foliage from beets as well.

My decision to use 'culled' wood (imperfect wood, typically not straight) meant that my cold frames had numerous gaps between pieces of wood. Funny how that made them really cold, just like outside! So I lined each box with foil-wrapped Styrofoam insulation to eliminate all the gaps that were letting air in.

Finally, resist the temptation to water your cold frame. Condensation will build up daily and I personally have found it rarely necessary to water. At most, you can include your cold frame in once a monthly watering. Remember, we want the veggies to remain dormant; we are not trying to get them to actively grow because they are already mature.

What veggies work best in a cold frame? Forget about tomatoes, peppers, or other warm season vegetables. While a cold frame can enable seed starting earlier than normal in the spring by warming the soil, a cold frame will not support a hothouse garden during winter. Instead, a cold frame is a way to keep mature cool season plants in a dormant state until you are ready to harvest them. Good candidates are: lettuce, spinach, and other greens; beets; parsnips; kale; chard; carrots; radishes; turnips; cabbage; Brussels sprouts; and leeks. Most of these vegetables can survive if temperatures are kept in the mid- to high-20s; some can withstand temperatures in the teens. Some, particularly root crops, often become sweeter as a result of cold temperatures and can actually withstand a freeze and remain edible as long as they are not subjected to freeze-thaw cycles.

Why do I think it's worth considering a cold frame in Virginia? I've read books written by people who live in Maine and Nova Scotia who use cold frames all winter long. If they can do it, why can't we? At least it's worth a try.

The Journey Continues

by Tracy Pouzar

As we move into the fall and winter seasons, our focus moves from the fun summer festivals, farmers markets, fresh flowers and vegetables, to budgets, new officers and all those fun administrative tasks that are essential to running an efficient organization. Still others may be having fun composting, raking leaves, mulching, or even Christmas shopping.

Trick and I have been settling nicely into our new home in Roanoke and finding different ways to volunteer. If you didn't know, I was lucky enough to welcome Trick, my service dog, into my family last December. He's a 75 pound yellow lab who helps me with my neuropathy and stability issues. He walks beside me to make sure I don't fall and picks things up when I drop them.

I used to be afraid to go out by myself, but now have more confidence. However, Trick <u>does</u> draw attention. It takes people a second to get used to seeing a dog walk into Kroger, but he fits well with my rather large personality. Trick has helped me to not give up on living a fulfilling life.

This past fall, I was able to volunteer at the Master Gardener booth at GOFest in Roanoke. That was a blast. I had never seen anything like it. Dogs everywhere! Any outdoor activity you wanted to know more about, there was a booth for it. We had a worm composting bed. I know it was called something fancy, but that's how I explained it to people and got them to put their hands in it to dig up the worms. We helped the Girl Scouts earn their gardening badges.



The other big thing I have done is travel with a group of MG's to Gross' Orchards in Bedford VA. We met at Tanglewood Mall and

carpooled so we could get to know one another a bit more. One of the owners explained how he was able to grow peaches due to a micro climate caused by the mountains. We enjoyed a wagon tour of the orchard and a mini demonstration by the blacksmith in his shop. We ate lunch together and ended the trip with some shopping in their farm store. We all went home with apples and other goods.

That was the fun stuff, now onto the work. I have been co-leading the social media/marketing team here in Roanoke. Roanoke now has an Instagram account: <u>roanoke master gardeners</u>. We also have a Facebook page which has been around a little longer, <u>RoanokeMasterGardenersVA</u>. This team, as I understand it, has been somewhat inactive for a while and we are lucky to have two newbies (as I like to call them), a transfer (me), and one more experienced MG who just received an award for having 5,000 volunteer hours! Hey, did you know I got my 250 hour award?

We are trying to update booth and festival marketing, because what is being done now looks dull compared to other booths out there. We need ways to draw people in, other than free seeds. And even then, what kind of signage is needed to support the events team?

What signage do the speakers need? What festivals and events should we be at and should we have themes at them? Who is our target audience? Who can we partner with to get free giveaways? We can do online giveaways. How do we get the word out about our new Instagram page? How do we get original content? What are our priorities?

Ahhh, so much to do. That is where I am spending the majority of my time. My background in business ownership, social media marketing, and relational marketing is helpful. What I love about our team is that while small, it is full of talent and experience: the editor of the newsletter, a man with a print marketing background, and then a long-time MG who can help us navigate our way through the ins and outs of budgeting, officers etc. I am excited about what we are accomplishing, but our team realizes that we can only do what we have time to do, with the resources we have available to us.

Looking forward, I will be speaking for the second time at the Home Show at the Roanoke Civic Center in January. My talk will be on growing tomatoes from seeds, something I am familiar with and love to do.

I have traded my basket of seeds at the Floyd Farmers Market for a laptop and Instagram account in Roanoke, but that is ok. Life changes. Your Master Gardener experience is what you make of it, so I'm making it the best it can be!!!

Congratulations to our new Master Gardeners!



Back row (left to right): Andrew Smith, Gordon Trutt, David McEwen, Bill Kealy

Front row (left to right): Avis McCutchan, Rhea Davenport, Carol Trutt, Carol Kauffman, Angie Estrada, Polly Ashelman

Graduates not pictured: Emma Patterson, Dan Stewart, Donna Stewart

Special congratulations:

To Polly Ashelman who earned 270.5 hours of service and education this year! To Beth Kirby who earned 254 hours of service and education this year!

MASTER GARDENER PHOTOS



Carol Kauffman



Ruth Ann Whitener







Carol Kauffman

Emma Patterson

NRVMGA Executive Board

President: Lisa Lloyd

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Secretary: Carol Cox

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Carol Kauffman Olin Whitener

MG Coordinator: Wendy Silverman, <u>wss@vt.edu</u>

Website: www.nrvmastergardeners.com VCE Montgomery County Office: 540-382-5790



Comments, questions, and submissions can be sent to co-editors: Sharon Eifried (seifried@towson.edu) or Susan Perry (susan_perry@peacenlove.org)

A special thanks to everyone who contributed to this issue of the newsletter. You know who you are!