

Gardening on the Shore

Spring, 2018

Message from the President

It's Spring! Despite all of the continuing cold, windy weather, the ESVMG is in full swing.

We are so excited about our new intern class. The 12 "almost Master Gardeners" graduated on Feb. 28, and they have all hit the ground running. I have been visiting many of our projects recently and am happy to report that at least one of our new interns has been working at each one of them. Go New Interns! In this newsletter, you will read a little bit about each of them. Please welcome and talk to them whenever you get a chance – they will not bite. Also, do whatever you can to help them get involved in our projects.

Speaking of MG projects, we have two new ones this year both at the Accomack Office. The first is assisting our Extension Agent, Theresa Pittman, and the second is a new Plant Clinic. These two new projects represent an excellent opportunity for the Master Gardeners. We will be able to get a firsthand, up-close look at the inner workings of the Virginia Extension Program. We will get more experience in what it does and how it is done. These projects will give us a venue to develop a comprehensive, vibrant public outreach program. I hope that each of us will volunteer for these programs in the year. Please contact Theresa to schedule.

Please make sure to put a couple of upcoming events on your schedule. The Blessing of the Worms will be happening on April 28 at the New Roots Youth Garden in Cape Charles. On the same day, the 85th Annual Historic Garden Week will also be occurring in Cape Charles. The next day, we will be showing Hometown Habitat at the Theater Annex in Chincoteague. On May 22, Fran Kubick has organized a trip to Hermitage Gardens in Norfolk. Our annual picnic will be held on June 5th. Finally, I would like to remind everyone that Master Gardener College will be held June 21-24.

Lots to do. Let's get out there and get our hands and knees dirty. I know my finger nails will not be clean until next December.

Phil Goetkin

IN THIS ISSUE

Master Gardener Training 2017-2018

- Program Overview
- Meet the Interns

Articles of Interest

- Potting Mix – Store Bought vs. Homemade
- Creating a Garden from Scratch, Phase 1

Gardener Tips

- Spring To Do List
- Test Your Knowledge
- Excerpt from "Annuals: Culture and Maintenance"
- 2018 Webinar Series

Save the Date

Master Gardener Training 2017-2018

PROGRAM OVERVIEW

The Eastern Shore of Virginia Master Gardener Class of 2018 celebrated their graduation from trainee to intern status on February 28th at a luncheon at the Machipongo Clam Shack. The twelve members of the Class of 2018 completed an intensive twelve-week course presented by a variety of instructors who spoke on everything from soils and botany to insects and vegetables. Field trips included tours of a wildlife habitat garden, a local organic farm, and AREC research/demonstration gardens.

With the course completed, the new Master Gardeners interns have already begun their initial 50 hour commitment by volunteering in a variety of projects throughout the area, the first being the Heritage Festival held at the Eastern Shore Community College. They will remain under the supervision of master gardener volunteers until they have completed their volunteer hour commitment and become Certified Master Gardeners. Please welcome them to your master gardener gardens and projects.

Applications for the 2019 class are now being accepted. The new class will start in October 2018, break from mid-November to mid-January and end in February.

MEET THE INTERNS



*Left to right rear: Christine Williams, Pauline Milbourne, Paul Tiffany, Jim Crunk, John McCormick
Left to right front: Doris Lejoie, Mary Lou Waller, Donna Doan, Barton Bull, Cathy Mikel, Victor Klein, Carol Amorosi, Joanne Fitchchett, Lynn Wajda. Not pictured: Hannah Denny*

Pauline Milbourne, Parksley

Originally from the Eastern Shore, Pauline returned in 1984 after working as a classroom home economics teacher in Columbus, OH, and as a 4-H and Family and Consumer Science Extension Agent for the Ohio Cooperative Extension in Cleveland. She first learned about the Master Gardener Program while working in Cleveland where the program was very popular, and the horticulture extension agent was “like a rock star.”

On returning to the Shore to take the position of Extension Agent for the Accomack County Extension Office, she barely had time to get

involved with gardening, and it was not until after retiring from full-time extension work that she had the opportunity to devote more time to the things that she truly enjoys, including “mastering the art of gardening” by becoming a Master Gardener. After realizing how much she has to learn and already feeling behind with Spring tasks, she has decided to “just start someplace and later put the things that I have learned in place in the fall and winter.”

She feels the most competent in nutrient management and vegetable gardening while, of the topics covered in class, Nutrient Management and Water Quality and Conservation were her favorites. Pauline’s biggest takeaway from the class is in regard to soil preparations, the soil test and the application of soil amendments. She sees this as “a fundamental and first step towards gardening success.”



Jim Crunk, Jamesville

Jim and his wife moved to Jamesville on Nassawadox Creek in July of 2017. While raised on a farm in Tennessee in the 1960s, the Master Gardener course brought him up to date and provided him with the tools and resources that will help to identify and resolve problems to the benefit of all.

Jim enjoys helping others and has signed up to support the Ker Place Herb Garden, Kiptopeke Native Plan Garden, Eastville Garden, Chincoteague Songbird Garden, Chincoteague NTSL as well as other MG events. He is anxious to put what he learned about his favorite topic of the MG class, propagation, to use. Jim has always liked herbs and is particularly excited about the Kerr Place Herb Garden.

Getting involved with the native plant shoreline project at his home where it extends

onto his entire property is an exciting prospect to Jim. What he has learned through his Master Gardener training and what he expects to learn at the Kiptopeke Native Plant Garden will support that effort.

In addition to being a Master Naturalist, Jim is a beekeeper and has offered to share his knowledge of honey bees with his fellow Master Gardeners. He has given two honey bee presentations at the National Wildlife Refuge.



Doris Lejoie, Cape Charles

Doris moved to Cape Charles last April from Pennsylvania. She has always loved to garden, whether out of necessity to help feed her family or just for enjoyment. Since coming to Cape Charles, Doris has been volunteering at the New Roots Youth Garden and has realized “that there is a need for the children to learn as well.” Doris will also be volunteering at the ESVMG Plant Clinic at the Cape Charles Farmer’s Market this summer.

She chose to continue her learning by signing up for the Master Gardener class so she can grow her own knowledge of types of soil insects and learn how to better sustain a proper family garden. She also looks forward to creating a special spot at home to relax for her “own quiet time.” Doris is very appreciative to the class for giving her new inspiration.



Mary Lou Waller, Locustville

Having owned their property on the Eastern Shore for 25 years, Mary Lou and her husband finally sold their home in Tom’s River, New Jersey and moved here to live full-time about a year ago. She was aware of the Master

Gardener program in New Jersey but was not able to participate due to work and other commitments. Now that she has had the time, it was an easy decision for her to sign up for the classes after reading about them in the local newspaper.

Having been brought up on a farm, Mary Lou has always had a garden. "When you start with dirt under your fingernails, it's kinda hard to get rid of it." She sees her best skill is in keeping those fingernails dirty through weeding and planting.

Being a hands-on learner, Mary Lou most enjoyed the classes that got her involved. She enjoyed the trip to Virginia Beach, the demonstrations and plant propagation class.

She is interested in Ker Place and helping with AREC garden. She is also planning to volunteer at the Accomack Extension Office and the upcoming Plant Clinic that will soon be offered there.



Donna Doan, Belle Haven

Almost 8 years ago Donna came to the Shore from the St. Louis area where she and her husband, Steve, were co-pastors in a Christian congregation. Donna had always thought of herself as someone who couldn't grow anything, dreading the occasion when someone gave her a plant as a gift, because she knew it would be short lived. But in retirement Donna began to garden. She read books, magazines, online articles, and watched her flower and vegetable gardens grow. Her work in the garden took on a spiritual dimension as she watched her "meager efforts blossom into beauty by the power from an invisible Spiritual force. The plants themselves became the manifestation of a divine benevolent Creator."



As she concentrated on pollinator gardens through individual study and experimentation, she planted in the wrong places, didn't understand the plant tags, underestimated how much space a plant would require and sometimes pulled the young seedlings out with the weeds. She soon realized that she needed reliable information and decided to enroll in the Master Gardener classes.

Donna expresses her gratitude for the knowledge, support and encouragement of the Master Gardeners. With the new friends she has made through this program, she has a new determination to gain more knowledge, and opportunities to work within the community. So far, she is thoroughly enjoying the work at Pungoteague Elementary School. She plans to do more work at the Eastern Shore AREC in Painter and learn more about shade gardening in those shady beds. She looks forward to "visiting all the gardens maintained by Master Gardeners, learning so much more about gardening, and learning more about my new friends."

Barton Bull, Exmore

A native Eastern Shoreman, Barton recently retired and bought a house on Occohannock Creek. His new home had been previously owned by an avid and capable gardener, and he found himself drawn to the gardens. Making the commitment "not to kill it!" Barton decided to take the Master Gardener classes.

Through his intern experience, he has "seen how the organization leads not just to a network of friends sharing like interests, but to giving us the opportunity to beautify and help educate the people of our community."



Cathy Mikel, Chincoteague

Growing up in rural Michigan, Cathy developed an appreciation for gardening and the peacefulness and joy it can provide. She retired to the Eastern Shore 14 years ago but, instead of living the retirement lifestyle, she bought a wine store which she kept for 13 years. She sold the store last year and finally has “time for some fun garden activities.”

Cathy now lives in a condo which limits her opportunities for personal gardening, but she is looking forward to working in the various public gardens available through the Master Gardeners program.



Victor Klein, Parksley

Victor considers himself to be “an avid but amateur Gardener.” He has lived in Parksley for five years after having moved here from Frederick, MD. As a resident of downtown in Parksley, he doesn’t have a great deal of space to garden but has managed to put in some raised beds for vegetable gardening and borders along the edges of the property for flower gardening. He continues to keep himself busy with creating new garden spaces in his lawn areas.

Victor has been a ESVA Master Naturalist for the past four years with most of his volunteer work involving Shorebird Surveys at the Chincoteague Refuge Birding and Wildlife Surveys in Accomack and Northampton Counties, Ebird Surveys and occasionally leading field trips for Birding.

With an innate curiosity for nature, the Master Gardener program is a good fit for Victor who wants to “improve my gardening knowledge, to

participate more in the gardening community here and to offer my services as a volunteer.”

Carol Amorosi, Parksley

Carol has lived on the Eastern Shore about one and a half years and has always been interested in growing things, primarily for food. Taking the Master Gardener training has allowed her “to branch out into other areas. Primarily I wanted to learn more about what I was doing.”

She is very interested in native plants and enjoyed learning more about them. She is looking forward to using this new-found knowledge to successfully plant natives in small areas to break up her “blank canvas of lawn” and to provide habitats. She is planning to plant areas that attract birds and butterflies with year-round color and interest. And she is also looking forward to getting her vegetable garden going again.

Of the ESVMG gardens she has visited, she particularly enjoyed the Kitchen/Herb garden at Ker Place and the Bird & Butterfly gardens. As a history buff, Carol would like to get more involved in expanding her interest in historical gardens. She has been a re-enactor, talking about the foods the colonists ate and how they prepared it. She would now like to expand this interest into gardening.

Her biggest takeaway from the Master Gardener training was “learning about soil and how that is the basis for everything.”



Joanne Fitchett, Cape Charles

Joanne and her husband retired to her husband’s hometown of Cape Charles in 2010 where she planned to spend her time volunteering in her new community. When

New Roots Children Garden formed, she signed her grandchildren up and began volunteering herself at the garden. "I love working with children and this garden was my calling."

When working at the garden, she didn't feel qualified to answer all the questions about gardening that the children were asking and would always look to the master gardeners for answers. She came to realize that she had to learn the rules of gardening and, after receiving encouragement from several of the master gardeners at New Roots, she decided to enroll in the Master Gardener program.

The Master Gardener classes allowed her to gain a new perspective on gardening. She values her learning about the geographic area, plants, vegetables, fruit trees, pests and climate. "The class connected me more with the community, and I made long-lasting friends as well. Thanks to the master gardeners instructors for a good overall experience."



Lynn Wajda, Cape Charles

A former resident of Delaware, Lynn and her husband, Michael, live in Bay Creek in Cape Charles with their little dog, Chloe. After discovering Cape Charles three years ago and falling in love with the town and Virginia's Eastern Shore, they have made it their new home after retiring. Since moving to Cape Charles in 2016, Lynn has become an active volunteer and board member of New Roots Youth Garden which gives her the opportunity to combine her love of gardening and working with youth in the community.

"My love for gardening goes back many years and becoming a Master Gardener was at the top of my retirement 'bucket list'." Lynn's passion has always been flower gardening with

her greatest joy derived from designing and planting containers. An abundance of containers of various sizes and variety of plants grace her patio, porch, and yard every year.

Like most who enjoy gardening, Lynn has grown vegetables - mostly tomatoes, squash, lettuce, and peppers - in a few raised beds and containers, but always lacked the confidence to expand the variety of crops grown. The Master Gardening classes have increased her "knowledge and enthusiasm to expand my vegetable growing horizons!"

While thoroughly enjoying the entire course, Lynn was particularly interested in the classes on habitat gardening for wildlife, landscaping, plant propagation, pruning, nutrient management and fertilizers, and water quality and conservation. She extends her appreciation to everyone involved with the ESVMG program for providing excellent instruction, resources and assistance.

"I look forward to being a member of such a wonderful volunteer organization; promoting and sharing sound environmental horticultural practices with other gardeners and the community. And to my classmates, it was such a pleasure going through the program together and getting to know you. Happy gardening!"



Hannah Denny, Cape Charles

Hannah's family has lived on the Shore since 2015, but she only has come to reside on the "beautiful Shore" since the end of 2016. She is serving as the Garden Club Coordinator for the New Roots Youth Garden and is anxious know more of the answers to the questions



Hannah with the NRYG kids

that the children of the Shore ask while at the Garden. “Even if you think you are pretty knowledgeable about something, all it takes is one kid to completely upend everything.” But now as a future Master Gardener she “won’t fumble so badly [when] a kid asks me a question ... Because now I know that I can find the answer to anything with the teaching and resources I have been equipped with through the ESVMG training.”

She became interested in becoming a Master Gardener after becoming friends and ‘co-workers’ with Phil Goetkin and Christine Williams. “I was so in awe of their calm knowledge in the Garden, and how they always seemed to know where to find the answer.” She became further interested when her fellow NRYG volunteers Doris Lajolie, Lynn Wadja, and Joanne Fitchett said they were taking the class. She thought that this would be “the perfect

opportunity for me to put some structure to my colloquial garden knowledge.”

Her garden grows “wildly and joyfully, in leaps and spurts” with many ‘volunteer’ plants. Her vision of a beautiful garden is to “make every inch count: no matter how small the space is, if there is a will, the plants will find a way. With that, incorporating as much edible and similarly useful plants into all landscaping to promote easy, accessible nutrition for everyone.”

Of the topics studied, she was surprised to learn that one of her favorites was the one on soil. As an avid composter, she has always been concerned with the quality of the soil, but she wouldn’t have guessed that her interest in the soil section would make her “want to become a soil scientist.”

Articles of Interest

POTTING MIX – STORE-BOUGHT VS. HOMEMADE

by Abbie and Vincent Panettiere

(Originally published in the Prince William Master Gardeners’ *Turnip News*)

As we were leaving one of the big box stores recently, my husband, who was wheeling a cart with perhaps 80 pounds of potting mix in two or three big bags, commented that it might be a good idea to make up our own mix and thus avoid the cost, nuisance and wear and tear on his back that happened every few months, when inevitably, we’d replace the bags of the commercial mixes. The idea appealed to me and at the least, was something worth looking into, even though I’ve always been quite happy with the commercial mixes we’ve used through the years.

Knowing ingredients would be the first step. I found a description online of what could be found in one typical brand, and a simplified version of their list of ingredients follows.

- **Sphagnum Peat:** comes mainly from Canadian peat bogs. It’s lightweight, breaks down slowly and holds lots of water.
- **Aged Bark Fines:** a byproduct of the lumber industry, bark fines break down slowly after being aged for months. The aging allows them to provide drainage aeration for container plants.

- **Perlite:** a mineral found in volcanic rock, which is crushed and heated to 1600F until it develops into lightweight particles. Its purpose is to increase air space and water drainage.
- **Coconut Coir:** shredded coconut husks, which also hold a great deal of water.
- **Plant Food:** composed of a "...fast-acting nutrient pack" for an initial jolt, then slow-release food lasting through the season.
- **Wetting Agent (some mixes):** peat and bark can be hydrophobic (repel water). Some mixes incorporate a surfactant or wetting agent to help the potting mix absorb water.

Next, I checked various sites for homemade potting mix recipes and found the basic recipe is pretty much like the commercial one, except for plant food and wetting mix. Basically, you need the following.

First of all, for a non-soil mix, peat moss, coconut coir or pine bark fines can be used, as well as shredded newspaper. Linda Chalker-Scott of Washington State, Extension Horticulturist and Associate Professor, Puyallup Research and Extension Center, added to the traditional list "... more current waste products including brewing waste, coconut coir, olive mill waste, pulp and paper sludge, municipal solid waste and sewage sludge, and even foam cubes."

Garden soil, which older recipes call for, can also be used for your potting mix. This will produce a heavier mix and will provide good drainage. If you are using soil, it's recommended to bake it for twenty minutes at 200° F, stirring every five minutes, in order not to be overwhelmed by weed seeds, diseases or insects. Next, add Perlite, vermiculite or sharp sand. Lastly, for nutrients, add compost. (Commercial fertilizer and wetting agents were

generally not mentioned in the homemade recipes for potting mix.)

All the sites I read mention starting with a recipe, then tailoring ingredients to suit the needs of whatever you're planting: seeds in trays of cells, foliage plants, older seedlings, soil suitable for orchids or other flowers, and so forth. As in all subjects of this sort where choices must be made, the further you dig into the ingredients you're likely to use, the more complicated it becomes. Here are a few points to consider.

When deciding whether to use Sphagnum/peat moss, coir or pine bark fines, an important consideration argues against using peat moss of any kind. It's a virtually non-renewable resource, which is currently being taken out of the ground at a faster rate than it can be renewed. Peatlands cover about three per cent of the earth's land area currently, though 89-98% of them are said to be gone. In undisturbed bogs, more is created yearly than decomposed, but peatlands grow at a rate of approximately a quarter of an inch per year, and they are harvested at a much greater rate than that.

An important feature of peat deposits is that they are the most efficient carbon sink on earth, since they capture the carbon dioxide that peat would release. When disturbed, they release sizable quantities of carbon dioxide and methane. Linda Chalker-Scott said that they "...are the single largest terrestrial store of carbon, equivalent to 75% of all carbon in the atmosphere," and, from Wikipedia, "... the world's largest peat bog, located in Western Siberia and the size of France and Germany combined, is thawing for the first time in 11,000 years. As the permafrost melts, it could release billions of tons of methane gas into the atmosphere.

Since peat accumulates over thousands of years, peat also has a valuable record of past vegetation and past climate conditions. Finally, peatlands provide home for whooping cranes in North America and for Siberian cranes in West Siberian peatlands. Peat habitats also provide homes for some species of wild orchids and carnivorous plants.

In regards to Perlite, vermiculite or sharp sand, here the issue may be the sand. Sand particles are quite large and if added to a clay soil, which has extremely small clay particles, the result may be that sand would turn a clay soil into something resembling concrete, according to several sources. Linda Chalker-Scott, again, wrote: "When one mixes a sandy and a clay soil together, the large pore spaces of the sandy soil are filled with the smaller clay particles. This results in a heavier, denser soil with less total pore space than either the sandy or the clay soil alone." Others were of the opinion that if you used builder's sand, or coarse sand, it would provide air space in your mix and would work well. Perhaps it would be safer to stick to either perlite or vermiculite.

I couldn't find any adverse warnings about the use of compost for nutrient enrichment, but for wetting agents, there are organic alternatives to the chemical agents in use commercially. One

It is difficult to find an equivalence in the cost of homemade mix versus the commercial brands you'd find in a big box store. Looking on

seven to eight liters); eight quarts of vermiculite \$6.19; eight quarts of perlite \$4.14; and four ounces of Agar-Agar powder for \$15.99. With luck, use compost of your own manufacture (free of weeds, disease or bugs), which would be gratis; otherwise, finding a source that will sell less than a truckload is very much to be desired.

source suggested that the simplest organic wetting agent could be made from agar-agar, which, as a testament to its harmless nature to humans, is also used as a vegetarian substitute for gelatin. It is suggested that you mix your supply of agar-agar with enough boiling water to form a paste, then combine one cup with approximately one gallon of water and mix with potting mix until it is the consistency you want.

As for a recipe, there were quite a few and ingredients and amounts were dependent on the purpose of the potting mix when finished. A general recipe for seedlings might have two parts peat moss, coconut coir, bark fines or other media mentioned above; one part vermiculite, perlite or sharp builders sand (Note that perlite is light enough that it is apt to float to the top of your mix when it's watered. It does not hold water, and it is dusty, so it should be watered before you mix it into the other ingredients.); two parts clean, weed-free compost; and an organic wetting agent, if desired.

Be sure to check the pH of your mix, which should be between 6.0 and 7.0. In both a soilless mix and a soil-based mix, the media may fall below 6.0 pH. If this is the case, you may want to add garden limestone to the mix to achieve the proper range.

Amazon, I found what may be representative costs for various ingredients: three bricks of coir for \$9.99 (each brick is said to increase to

The price of your potting mix may, depending on the ingredients you use, be less costly than a brand-name mix (representative price, two cubic feet for \$12.79). If you have a small space to plant, you may have a problem finding a place for all the leftover mix.

Resources

- Potting Mix Information, Micro Gardener Easy DIY Potting Mix Recipe (go to: <https://themicrogardener.com/easy-diy-potting-mix-recipe/>)
- Penn State Extension, [Homemade Potting Media](#)
- Linda Chalker-Scott, [The Myth of Soil Amendments](#)
- Wikipedia, [Peat](#) and [Polyacrylamide](#)
- Gardenerd, [Peat vs. Sphagnum Moss](#)
- Miracle Grow, [Taking Root with Miracle-Grow](#)
- Organic Gardener Justin Russell, [How to Beat Hydrophobia](#)

To answer the question of whether or not store-bought costs more or less than homemade potting mix, if you need a small amount, the commercial product would be most economical, because you would have to buy more of some of the ingredients than you need to make your own. In larger quantities, you may be competitive, but in all cases, it comes down to your own preference. Would you like to mix your own or buy it ready made? If you get a cook's satisfaction from putting the ingredients together, even if it may be hard to justify price-wise, or, on the other hand, if you have other priorities with your time and prefer to open a bag and fill up a container for soon-to-be happy plants, who am I to judge?

CREATING A GARDEN FROM SCRATCH, PHASE 1

by Jane McKinley

As the new owner of a home with an established yard in the historic district of Cape Charles, there was no immediate pressure to tend to the yard other than a few long overdue maintenance tasks. Being an avid gardener, however, I quickly began looking for opportunities to expand existing and create new garden beds.

When I bought the house it was winter, and there was a large deciduous tree in the front yard which revealed itself in the spring as a native redbud. But my delight in this discovery was short lived when I soon realized that the tree had grown too large for the house and blocked the view from the sidewalk and the front porch. I reconciled to keep the tree, albeit with some serious trimming, since it was a native. However, as spring moved into late summer the tree began to die and was, in all likelihood, the victim of Verticillium wilt, a fatal condition. After confirming the prognosis with a certified

arborist, the tree was removed in November, and the stump was ground down, leaving a broad pallet of grass in the middle of the yard. I could now begin to plan a new flower garden!

Last winter was spent in contemplation as to how to add color, interest and a draw for the eye to the front of the house. Should I plant another tree or shrub in that spot? Should I establish a new bed in the middle of the yard with an interesting focal point? Should I add more greenery along the front of the porch and leave the grass intact? After much thought and consultation with my Master Gardener friends, I decided to expand a small existing patch of garden to the right side of the walkway across to the left side. The expanded bed would be much bigger and would undulate along the sidewalk, eventually meeting up with a narrow existing bed of iris along the side yard fence.

Site Analysis

With a loose plan in mind, it was time to determine the site characteristics of the property. This is known as the site analysis which is a fairly straightforward process of taking note of the sunny and windy spots in the yard, soil and microclimate conditions, determining views to be kept open and those that require screening, topography, drainage and other related factors.

Remembering one of the biggest lessons learned as a Master Gardener trainee, I understand how critical it is to diagnose the composition of the soil, including the pH and nutrients. Therefore, my first step in the analysis process was to send a soil sample to the Virginia Cooperative Extension. Samples cost \$5 each with an additional \$10 or so for postage (I mailed three packets). It took about two weeks to receive the results which provided an assessment of the soil's need for fertilizer and lime, accompanied by supplemental explanations.

The soil test revealed that it is highly acidic and needs to be corrected through the application of lime which, according to the "Explanation of Soil Tests," is slower to react and affects only a fraction of an inch of soil per year if not mixed into the soil. This won't be a problem for my garden bed since the turf grass will be removed and topsoil added.

Test Results

SAMPLE HISTORY										
Sample ID	Field ID	LAST CROP			LAST LIME APPLICATION		SOIL INFORMATION			
		Name	Yield		Months Pres.	Tons/Acre	SMU-1 %	SMU-2 %	SMU-3 %	Yield Estimate
3										
LAB TEST RESULTS (see Note 1)										
Analysis	P (lb/A)	K (lb/A)	Ca (lb/A)	Mg (lb/A)	Zn (ppm)	Mn (ppm)	Cu (ppm)	Fe (ppm)	B (ppm)	S Sats (ppm)
Result	1.9	5.3	6.74	9.2	16.2	5.6	1.6	17.0	0.2	
Rating	M-	L	L+	M-	SUFF	SUFF	SUFF	SUFF	SUFF	
Analysis	Soil pH	Buffer Index	Est.-CEC (meq/100g)	Acidity (%)	Base Sat. (%)	Ca Sat. (%)	Mg Sat. (%)	K Sat. (%)	Organic Matter (%)	
Result	5.5	5.98	4.6	53.9	46.1	36.4	8.2	1.5		

FERTILIZER AND LIMESTONE RECOMMENDATIONS

Crop: FLOWER GARDEN (211)

610. LIME RECOMMENDATIONS: Apply 14 pounds of agricultural limestone (ground or pulverized) per 100 square feet. If lime is not going to be mixed into the soil, make several small applications of up to 5 lbs each, at intervals of 1 to 6 months, until the full amount is applied.

991. "Explanation of Soil Tests, Note 1" and other referenced notes are viewable at www.soiltest.vt.edu under Report Notes.

221. FERTILIZER RECOMMENDATIONS: Apply 4 lbs (10 cups) of 5-10-10 or 2 lbs of 10-20-20 per 100 square feet. For additional information on fertilization, see Note 19.

It was determined that the pH of the soil is 5.5 which means that it is strongly acidic and needs to be brought up to a range of between 5.8 and 6.8 which is ideal for most landscaping plants.

An analysis of the soil nutrients revealed a Medium level of phosphorus and magnesium and a Low level of potassium and calcium. All others were at sufficient levels.

The soil test report did not include recommendations for the addition of organic matter.

Fertilizer recommendations are based on the availability of nine nutrients, including phosphorus, calcium, potassium, magnesium, zinc and others. Each is rated from Low to Excessively High. A Low rating indicates that plants will almost always respond to fertilizer. When soils test Medium, plants sometimes respond to a moderate amount of fertilizer and a High to Very High rating indicates that plants usually do not respond to fertilizer. To improve the availability of these nutrients, it was recommended that I apply either a 5-10-10 or 10-20-20 fertilizer. In the accompanying "Soil Test Note 19: Vegetable and Flower Gardens" explanation it recommends that the fertilizer be broadcast over the soil and worked into the soil about 5" deep.

Although my test did not include an analysis of organic matter, it was mentioned in the Soil Test Note that organic matter loosens and improves the structure of heavy clay soils. In sandy loam soil, which is typically found on the Eastern Shore, it helps to hold moisture and

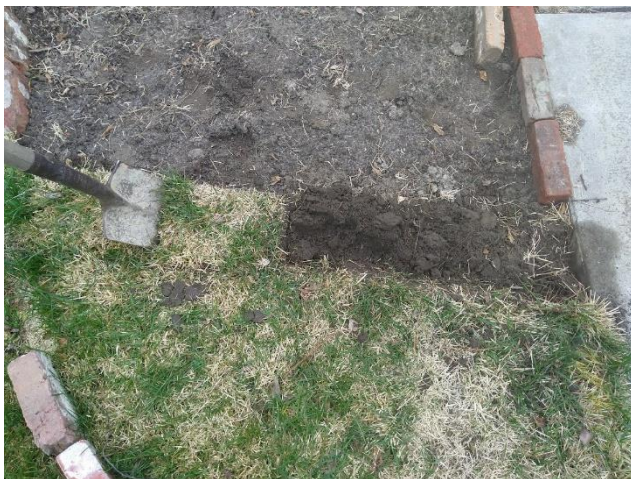
nutrients. Sources of organic matter include compost, manure, plant residues, leaf mold and sawdust. Although the Note includes peat moss as another source, this is a non-renewable resource and, therefore, no longer advisable. My plan is to add composted manure and vermicompost.

Although straightforward for my garden, topography should be considered when performing the site analysis. It is advisable to avoid areas with shallow, rocky soil, areas where water stands and steep slopes. There are solutions for improving these characteristics through plantings or drainage techniques to combat erosion, but, luckily, my garden bed is very flat with no rocks or problematic roots. However, without any change in elevation, there will be little interest and variety to the topography of this garden unless addressed through plant selection and the addition of architectural features.

To avoid the earlier problem of blocking the views by a large tree, it was an easy choice to design and fill the garden with low to medium plants. My desire is to enhance the front of the house, not block it from view. There are no areas in this plan that need to be screened and no need for privacy. I am hopeful that this garden will encourage passersby to slow their pace and enjoy the beauty of mother nature gently tamed.

The sun and shade pattern is a critical element in the site analysis. This garden will be located on the north side about 20 feet from the front of the house. The removal of the tree has opened the canopy to allow more direct sunlight, but it is still relatively shady since the north side of houses and trees cast shadows as the sun moves from east to west, traveling in the southern sky. A study of the shade pattern in the winter has the bed in direct light only from about 11:00 am until 3:00 pm. The summer sun which is higher in the sky may result in a slightly longer period of sun exposure, but it still won't receive a minimum of 6 hours of sun which is required for Full Sun plants. I will need to select plants that require Part Sun to Shade.

Site Preparation



Digging out the grass one square at a time!

The first step in soil preparation is to rid the area of the current vegetation, which is no small or quick task. Although some methods use a broad-spectrum herbicide, I have chosen to use elbow grease instead, by grubbing and digging out all the turf by hand. Other options include piling an inch-thick layer of newspaper on the ground and covering it with five to eight inches of compost, mulch or sandy loam soil. But I don't have the three- to five-month waiting period for the newspaper to do its job. I could also "solarize" the area with clear plastic sheeting during the sunny summer months, but, again, the garden is going in this spring so that is not an option.

It is recommended that, whatever method used to get rid of grass and unwanted weeds, it is best to repeat the process several times throughout a growing season to rid the soil of its "seed bank."

After the it is free of vegetation, the next step is to add organic matter and till it into the soil. In addition to compost (purchased since my own compost is still “cooking”), I plan to add vermicompost to the soil as a top dressing. Vermicompost, a combination of earthworm castings (feces) and partially decomposed bedding and food scraps, is an organic soil amendment that adds nitrogen, phosphorus, potassium, calcium and magnesium in a form readily taken up by plants. It also has good moisture-holding capacity and adds plant growth hormones to the soil, which is a good source of nutrients for the growing plants.

In addition to the organic material, I will follow the guidelines in my Soil Test Report and apply lime and fertilizer which will be mixed into the soil.

Mulch should be applied as the final layer. Mulch provides many benefits to the garden, not the least of which is weed suppression and visual appeal, both important in a garden such as this one which will be



Phase 1 complete

constantly in the public eye. I will start out with purchased hardwood mulch but, come fall, I will have all the beautiful leaf mulch from surrounding crepe myrtle trees that I could ever want. And it’s free!

Irrigation is also a consideration when preparing the site. It has become more critical to plan for watering needs as our summers have become more hot and dry. There are a variety of do-it-yourself kits that work well, and they can even be put on a timer to schedule occurrence and duration applied at the best time of day. I have had good luck with these, however, since this garden will be so small and close to a water source, I will rely on hand watering.

Next Steps

Once the analysis is complete and the site has been prepared, the fun begins. The next step will be to design the garden bed and select the plant material that will grow well and provide the look that I want. The actual planting of the perennials and annuals will take place, followed by standing back and watching it grow and bloom. These steps will be covered in Phase II of this article. So stay tuned.

Gardeners' Tips

SPRING 'TO DO' LIST

Spring brings with it a zillion things for the gardener's To Do List and tickles the latent desire to make all things beautiful. So, go forth and conquer! But, in so doing, you might want to keep these tips in mind.

- **Prune trees and shrubs.** Remove dead, damaged, and diseased branches from woody plants. Thin and trim summer-blooming shrubs such as butterfly bush and hydrangea (unless they bloom on old growth). Prune your roses just as or before new growth emerges from the canes. Prune fruit trees, including apples, pears, cherries, and peaches before new growth develops. Prune spring flowering shrubs once they finish flowering for the season.
- **Divide overgrown perennials.** Give older perennials new life by dividing them. Dig up varieties (such as Siberian iris, aster, coreopsis, yarrow, and many hostas) that form dense clumps and split them apart. They'll bloom better when they're not crowding each other out -- and you end up with more plants to fill in your yard or to share with friends and neighbors. Cut back ornamental grasses.
- **Plant early vegetables.** Plant carrots, radishes, spinach, lettuces and other cool-season varieties while there's still a bit of frost in the air. They'll withstand light freezes easily but need to be covered if the temperature drops into the low 20s.
- **Revitalize the soil.** Because your soil is likely dried out and packed after winter, it's time to add moisture. Add organic material like compost or manure and, if you haven't done so in a couple of years, get a soil test and follow recommendations. Add 1-3" of mulch to flower beds and garden.
- **Clean out.** Remove all old plant debris (leaves, leftover snow, dead weeds, etc.). Make sure that you get the roots of weeds, so they won't grow back.

Test Your Knowledge

Choose the correct answer for zip code 23310.

1. What is the hardiness zone?
 - a. 7b
 - b. 8a
 - c. 8b
2. What is the average number of days at 86° or higher?
 - a. 60-90 days
 - b. 45-60 days
 - c. 70-90 days
3. What is the number of frost free days?
 - a. 210
 - b. 178
 - c. 250
4. What is the average precipitation?
 - a. 46.1"
 - b. 40.9"
 - c. 45.7"
5. What is the yearly average temperature?
 - a. 56.7°F
 - b. 60.6°F
 - c. 58.8°F

Thanks to Paul Tiffany for this research. Hope you got at least one of the questions right!

Answers: 1.b, 2.a, 3.a, 4.a, 5.c

EXCERPT FROM VIRGINIA COOPERATIVE EXTENSION

Annuals have many advantages and can be started indoors or sown directly in the garden. The following excerpt gives you good advice on starting and growing annuals.

“Annuals must be set out or seeded every year ... Some varieties will self-sow, or naturally reseed themselves. This may be undesirable ... because the parents of this seed are unknown and hybrid characteristics will be lost. Plants will scatter everywhere instead of growing in their designated spot. Examples are alyssum, petunias, and impatiens. Some perennials, such as begonias and snapdragons ... are not winter-hardy and must be set out every year. Annuals have many positive features. They are versatile, sturdy, and relatively cheap...are easy to grow, produce instant color, and, most important, they bloom for most of the growing season. Many annuals will thrive without the need of grooming due to their “self-cleaning” ability.

“There are a few disadvantages to annuals. They must be set out as plants or sowed from seed every year, which involves some effort and expense. For some, removal of spent flower heads is necessary on a weekly basis to “clean” the plant and promote continuous bloom. If they are not removed, the plants will produce seed, complete their life cycle, and die. Some annuals, such as petunias and snapdragons ... need to be cut back for regrowth or replaced.

Annuals offer the gardener a chance to experiment with color, height, texture, and form. If a mistake is made, it is only for one growing season. Annuals are useful for filling in spaces until permanent plants are installed; to extend perennial beds and fill in holes where an earlier perennial is gone or the next one has yet to bloom; to cover areas where spring bulbs have bloomed and died back; and to fill planters, window boxes, and hanging baskets.

“Annuals seeded in the garden frequently fail to germinate properly because the surface of the soil cakes and prevents entry of water. To avoid this, sow seed in vermiculite-filled furrows. Make furrows in soil about 1/2 inch deep. If soil is dry, water the furrow, then fill it with fine vermiculite and sprinkle with water. Then make another shallow furrow in the vermiculite and sow the seed in this furrow.

“By setting started plants in the garden you can have a display of flowers several weeks earlier ... Before setting out transplants, harden them off by exposing them to outside conditions during the day which will provide more light and cooler temperatures than they received inside. After the last frost date, annual plants may be set out.

“Do not be in a rush to start seeds outdoors or to set out started plants. As a general rule, delay sowing seed of warm-weather annuals outdoors or setting out started plants until after the last frost date. Most such seeds will not germinate well in soils below 60°F. If the soil is too cold when seed is sown, seeds will remain dormant until the soil warms, and may rot instead of germinating. Some cold-loving annuals, like larkspur or Shirley poppies, should be sown in late fall or very early spring.

from “Annuals: Culture and Maintenance”
[VCE Publication 426-200](#)

Guides for Plant Q&A

The University of Georgia College of Agriculture has produced a video “[Hit the Panic Button](#)” with guidelines for Master Gardeners who are working a help line or at a Plant Clinic. You may find that this will help to get you started with your volunteer hours “on the desk.”

2018 WEBINAR SERIES

In 2018, the Virginia Cooperative Extension is hosting monthly webinars on the second Thursday of each month at 10:00 AM. Topics will alternate between horticultural topics and program management topics, all from a variety of presenters.

The March EMG Webinar “Boxwood Blight: Frequently Asked Questions” featured special guest Mary Ann Hansen, Extension Plant Pathologist with the Virginia Tech Plant Disease Clinic. See the sidebar for a summary of this webinar.

To see the list of topics and register for the current program, click [here](#). And don't forget that attendance at these webinars will earn you one CEU.

My Webinar Takeaway

Boxwood blight is caused by the pathogen *Neonectria pseudonaviculatum* which survives for long periods (up to 5 years in decomposing leaf litter & soil). It is specific to plants in the Boxwood family including Pachysandra and Sweetbox. Symptoms include leaf lesions, black stripes on stems, and defoliation. If defoliation persists, it will be fatal to the plant. It showed up in 2011 in Virginia and spread on infected plants via a “big box store” to the Hampton Roads area in 2016. Thus far, there has been none detected in the ESVA. Resistant cultivars are available but it has not been determined whether they could be carriers. Preventative measures include familiarity with symptoms and being aware of purchasing discounted plants.

Save The Date

Apr 23, 11:00 – 2:00	Accomack Plant Clinic (every Monday)
Apr 28, 9:30 – 4:00	Historic Garden Week, Eastern Shore Tour
Apr 29, 1:00 – 4:30	Showing: Hometown Habitat, Chincoteague
May 1, 9:30 – 11:00	Executive Board Meeting
May 1, 3:00 – 6:00	Cape Charles Plant Clinic (every 1 st Tue)
May 10, 10:00 – 11:00	VCE MG Webinar , Spotted Lanternfly Update
May 22, All Day	ESVMG Trip to Hermitage Gardens in Norfolk
June 5, 11:00 – 2:00	Annual ESVMG Picnic, Sawmill Park, Accomack
June 21 – 24, All Day	Master Gardener College

2018 ESVMG BOARD MEMBERS

President – Phil Goetkin
Vice-President – Bob Shendock
Secretary – Julie Cardinale
Past President – Julie Rogers
Member at Large (Accomack) – Joyce Falkinburg
Member at Large (Northampton) - Paul Tiffany

VISIT ESVMG WEBSITE

Eastern Shore of Virginia Master Gardeners Newsletter Editor: Jane McKinley
23303 Front St., PO Box 60, Accomack, VA 23301.

Phone: 757-787-1361/Hotline: 757-678-7946. E-mail esmgv@gmail.com.



If you are a person with a disability and desire any assistive devices, services or other accommodations to participate in this activity, please contact Jill Wright at [757-385-4769](tel:757-385-4769) during the business hours of 8:00 a.m. and 5:00 p.m. to discuss accommodations 5 days prior to the event. TDD number [\(800\) 828-1120](tel:800-828-1120). 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, Interim Administrator, 1890 Extension Program, Virginia State University, Petersburg.

