



SFOP Quarterly NEWSLETTER

SPRING 2024

Dear Small-Scale Farmers, Ranchers and Veterans,

ducational outreach program

small

Spring is in the air! As you prepare for this production season, I hope you've been in touch with the VSU program assistant who covers your area. Have you taken advantage of the resources that the Small Farm Outreach Program (SFOP) has to offer?



Check out upcoming trainings and workshops at the Small Farm Resource Center: <u>https://</u><u>vsusmallfarms.com</u> or the SFOP Calendar of Events at <u>https://www.ext.vsu.edu/calendar</u>. Explore our Ag Tips section for insights on improving your farming experience this season.

Help us help you! If you haven't already, please take a moment to complete our Program Entry Survey at <u>https://vsusmallfarms.com/entry-survey</u>. The information you provide will help us learn about your operation and its stage of development, and guide us in determining how best to assist you.

Take advantage of our free, self-paced online Agribusiness and Financial Management Class at <u>https://www.technologyed.org/vsu</u>. If you're a beginning farmer and the FSA requires you to take a financial management class to qualify for a loan, this is the class for you. Upon completion, you will have met the FSA requirement and receive a certificate of completion to submit with your loan application. To stay up-to-date on events and other notifications, sign up for the all-new SFOP Text Alerts at <u>https://vsusmallfarms.com/sfop-text</u>.

Finally, let me welcome our many urban farmers to the SFOP family.

Continue to stay safe and practice the Centers for Disease Control (CDC) safety precautions guidelines.

> VCE/VSU-SFOP keeping you informed, William Crutchfield, SFOP Director

Inland Shrimp Farming in Virginia

By Nicholas Romano, Extension specialist & coordinator

Marine shrimp are the most consumed seafood in the United States, claiming 38% of the seafood market. This demand for shrimp generates relatively high prices for shrimp in many locations. In 2023, the price at one fish market in Hampton, Virginia, was \$16.99 per pound.

Traditionally, shrimp farming was limited to earthen ponds near the ocean with access to natural brackish or sea water, making it impossible for the vast majority of Americans to produce shrimp for personal consumption or commercial sales.

However, several decades ago, biofloc technology (BFT) emerged. Now, marine shrimp can be farmed far from the coast in tanks that require little to no water exchanges.

 $-continued \ on \ page \ 2$



Inland shrimp farming continued from page 1

Far less expensive than culture systems that relied on expensive filters, BFT is now practiced worldwide.

What is **BFT**?

BFT was developed in Brazil and Israel where researchers and farmers independently found that adding molasses to ponds encouraged natural blooms of various aquatic animals and plants. These animals and plants kept the water healthy and provided additional nutrition to the shrimp.

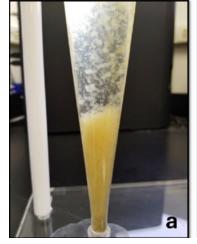
When this method was used in tanks, they discovered the naturally occurring bacteria in the water flourished. As the bacteria continue to grow, they transform nitrogen, which is typically toxic, into food. They also "floc" together other biological material in the water (such as planktonic animals and plants, bacteria and uneaten feeds) until the particles are large enough for the shrimp to eat. This process maintains the water quality and eliminates the need to replace old water or buy expensive filters. The biofloc becomes the water filter!

Because bioflocs provide additional nutrition, shrimp often grow faster in BFT than in clearwater systems.

This discovery spawned a blue revolution with some form of shrimp-farming BFT adopted in countries throughout the world, including the United States.

With BFT, bacteria grow and clean the water within 24 hours of adding sugar to the tank. Initially, the water appears milky. After a week or so, it may appear dirty as more of the bioflocs accumulate; however, in this state the water is clean and contains nutritious particles.

Bioflocs initially appear "snow-like" (a) but then become denser with time and take on a more orange-brownish appearance (b).





Keys to successful shrimp farming

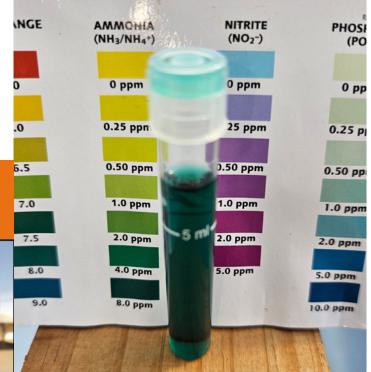
Under good conditions, it takes about five to six months using BFT to raise shrimp to marketable size. The following three aspects are key:

- Add the right amount of sugar.
- Aerate rigorously.
- Manage solids well.

Adding the right amount of sugar

- **1.** Use an aquarium test kit to closely monitor the levels of ammonia and nitrite (toxins) in the water.
- **2.** Determine how much sugar to add each day based on the carbon to nitrogen ratio of the water.
- **3.** Use this as a guide: If the ammonia and/or nitrite rise above 1 mg/L, then more sugar is needed.

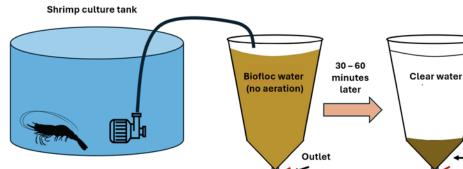
Bacteria within biofloc systems work incredibly fast. Several minutes after adding sugar, the ammonia and nitrite levels begin to decline. Over time, a farmer will get a feel for how much sugar to add during production.



Testing ammonia in the water: the color is compared to a chart to indicate the ammonia level. In this case, the dark green is indicative of 8 mg/L, which is high enough to cause shrimp mortality.

Rigorous aeration

The demand for oxygen in a biofloc system is much higher than in a clear water system because both the shrimp and the bacteria that create the bioflocs require oxygen. Aeration is essential to ensure adequate oxygen levels and to circulate the bioflocs to promote optimal health. To ensure there is enough oxygen for all the living organisms in the water, an aeration system, most



bigger investment.

Simple schematic showing how to conduct solids management. A submersible pump transfers the biofloc-rich culture water into a separate conical tank where the bioflocs are allowed to settle for 30-60 minutes. The concentrated bioflocs are removed by opening the bottom valve. The remaining clear water is pumped back to the culture tank.

you do, start small to get a feel for it before making a

Many farmers start by using 15' x 48" above-ground

inexpensive and work well because the width of the culture area is more important for shrimp than its depth.

Time may be your biggest investment. You must feed the

shrimp daily, add sugar and ensure aeration is functioning

well. You must check the water quality at least weekly, and

Various companies, many in Texas and Florida, sell and

swimming pools bought at local stores. These are

conduct solids management as necessary.

commonly airstones, should make the water appear to be boiling.

Interruptions to aeration, even for one hour, can cause the shrimp to die. Therefore, installing a backup generator is important, especially for large-scale commercial shrimp farmers.

Solids management

Bioflocs accumulate faster than shrimp can consume them, which stresses the shrimp and reduces oxygen levels. Eventually, to maintain a healthy environment for the shrimp, it is necessary to reduce the amount of bioflocs in the system, a process known as solids management.

There are essentially three ways to manage solids:

- Transfer the shrimp to a new tank with 90% new water and 10% old water to kick-start the biofloc again. This strategy is simple and effective, but wastes water and space.
- **2.** Remove the solids from the original tank. First, pump the water out of the culture tank and into a smaller

tank where the heavier solids can settle. Open the valve at the bottom of the tank after 30-60 minutes and remove the concentrated bioflocs. Pump the remaining clean water back into the culture tank.

3. Remove a small amount of bioflocs continuously.

How to start farming marine shrimp with biofloc

First, consider whether or not you have the necessary space and time to farm shrimp. If you believe



Biofloc system in a 2,000 L tank with such a high concentration of biofloc that it is hard to see the tank bottom.

ship shrimp post-larvae (PL). Interested in learning more about raising

shrimp inland? This year the Sustainable Urban Agriculture Certification Program incorporated shrimp farming with BFT into its Urban Aquaculture section. BFT workshops will be offered at VSU Randolph Farm during the summer and fall.

For more information, advice or training on how to start your own biofloc system, contact me at <u>nromano@vsu.edu</u>.

Solids management

Concentrated

bioflocs that

settled

Sow Smart: Understanding the USDA's Updated Plant Hardiness Zone Map

By Sanjun Gu, Extension horticulture specialist

If you are a farmer, gardener or plant lover, you need to understand the updated USDA Plant and Hardiness Zone Map (PHZM) to ensure the plants in your field, garden or yard flourish. Since the first PHZM was released in 1990, it quickly became the standard by which gardeners and growers decide which perennial, long-lived-woody and herbaceous-perennial plants will likely survive or thrive in their climates. Additionally, the maps are used by government agencies to develop risk-management plans and recommended plant lists, by horticultural firms to schedule plant shipments, and by other entities that sell seasonal products.

2023 PHZM: Know your zone!

Released in November 2023 using data from 1991 to 2020, this revised map is based on the average annual extreme minimum winter temperature. It consists of 13 zones across the United States, displayed as 10 F zones and 5 F half zones. Zone 1, which includes Fairbanks, Alaska, has the lowest low temperatures and Zone 13, which includes Hawaii and Puerto Rico, has the highest of the low temperatures.

The 2023 map is more accurate because data from 13,412 weather stations is used compared to 7,983 for the 2012 map. Comparing the 2023 and 2012 maps, you will find that about half of the country shifted to the next warmer half zone, and the other half of the country remained in the same half zone. Most places across the contiguous United States are about 2.5 F or 1⁄4 zone warmer.

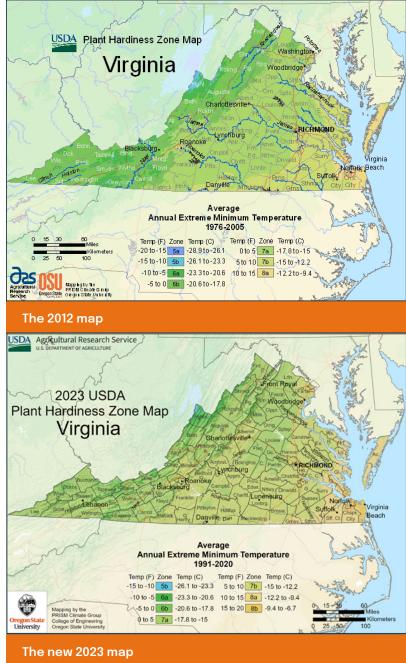
Virginia's hardiness zones range from 5b at the Appalachian Plateau (below 15 to below 10 F) to 8b at the Coastal Plain/Tidewater (15 to 20 F).

Simply put, this shift enables more plant species to survive and thrive. Your existing landscape will be fine, but now, you can plant new perennial plant species, including flowers, shrubs, trees and fruit species! With many places in Virginia having jumped up by a half zone, residents will be able to enjoy more plants that previously could not survive Virginia's winters.

For example, some flower bulbs may not need to be dug out before winter; annual cold-hardy vegetables such as collards, spinach, lettuce, mustard greens and carrots will have a longer harvest season; and winter cover crops will have more flexible sowing dates and produce higher biomass.

Don't let warmer temps bug you!

Warmer winters do not always mean good winters, especially for farmers and market gardeners. Bugs, disease pathogens and weeds that typically would be killed or weakened during a colder winter may become serious problems in the coming spring. Some new bugs also may appear in your region. Farmers and gardeners need to watch for pests and be ready to deal with them.



Sow Smart continued

Beware map limitations.

Because climate changes are assessed based on data from 50 to 100 years, not 30 years, this map does not signify global warming. Furthermore, we are unsure if the first autumn frost or last spring frost date in your region will change. Lastly, the map is a reference tool, and does not forecast future extreme low temperatures in winterwe all wish we could, don't we!

Get in the zone!

The USDA does not offer paper maps, so I recommend you download and print a high-definition map for quick, easy reference. To find the Plant Hardiness Zone at your location quickly, visit <u>https://planthardiness.ars.usda.</u> gov and either enter your zip code in the Quick Zip Code Search box or click on the interactive map to zoom in on your area.

Spring Ag Tips from our SFOP Program Assistants

Planning, Preparing & Planting

- Write an annual production plan to reduce your stress and improve your yields.
- Clean your garden and fields to make planting quicker and easier. Remove broken or damaged limbs or vines, and dead wood that can harbor disease.
- Rid your high tunnels of weeds and trash.
- Refresh or add compost to your raised beds.
- Plant potatoes, onions, Brussels sprouts, cauliflower, and other leafy greens.
- Prune plant species that do best with spring pruning, including apple and peach trees (winterearly spring), shrubs that bloom in the summer (such as crape myrtles), flowering shrubs, such as azaleas, forsythias and lilacs, and most roses. Some flowering perennials can be pruned in the spring after they finish blooming.
- Prepare for potential drought. How will you irrigate? Remember that drip irrigation is 98% effective. It is economical, evenly distributes the water to root zones, and minimizes water waste and weed growth. Overhead irrigation is about 45% effective, wastes water and encourages weed growth.

 Plan your purchase of cool weather plants and seeds. Ask your nursery, farm center or other supplier when they will be available. Mark your calendars or place your orders

Soil, Fields & Crops

• Laboratory tests are your road map for healthy crops and good yields; however, they are only reliable for three years. Do not use soil test results over three years old. If you need new soil fertility tests, take them before planting.



Livestock, Fish & Poultry

- Clean out shelters and pens before calving or lambing.
- Make sure your livestock's inoculations are up to date.

Business Management

• Complete your taxes!

Health & Safety

Prevent. Protect. Be prepared for injuries or accidents.

- Pack a safety and/or first aid kit on all equipment. From band aids to blood stop.
- Protect yourself. Ensure everyone has the proper protective equipment for the task at hand, including hearing protection, gloves, masks and safety glasses.
- Educate hired staff: review safety features on all equipment and identify holes and stumps that everyone should steer clear of.
- Don't rely on hydraulics alone. When transporting or performing maintenance, use alternative support devices or features to secure bars or any parts that rely on hydraulics.
- Keep directions and names of all fields at home, in the shop, and with operational equipment in case of emergency.

NUag Expands to 27 Cities and Tribal Lands Under SFOP Leadership

By Briana Stevenson, SFOP National Urban Agriculture coordinator

After a successful Atlanta kick-off event last fall, the National Urban Agriculture (NUag) initiative is taking the U.S. by storm. Merging with TIME Inc. (To Improve Mississippi Economics), the NUag extended project team now covers 27 pilot cities and one tribal location. NUag is tasked with providing support and education to USDA and partner organizations.

In January, the NUag team traveled to Phoenix, Arizona to meet with Phoenix representatives from the Farm Service Agency (FSA), Natural Resources Conservation Service (NRCS), and the Phoenix USDA cooperative agreement recipient, the University of Arizona Cooperative Extension. Team members learned about the urban ag landscape in the region, the people they serve, and the equipment and growing techniques used. The core planning team will meet in different cities quarterly for planning, training and support.

Just months after the Atlanta Kickoff, the NUag team has been working diligently to put together another national event that will bring together over 500 people to celebrate urban agriculture. The date is set! The Detroit National Urban Agriculture Conference will be held August 4-6, 2024, at the Huntington Convention Center. We look forward to bringing a diverse list of stakeholders together for USDA training, networking, resource connecting and relationship building. We hope that the conference in Detroit will serve as a national opportunity to celebrate the advancement, investment and our dedication to urban agriculture.



NUag planning team in Phoenix, left to right: Judson Reid (Cornell), Dr. Cindy Ayers-Elliott (TIME Inc.), Cartelius Travis (VSU SFOP), Vicki Giarratano (Cornell), William Crutchfield (VSU SFOP), Ayman Mostafa (UofA Extension), Ginger Torres (AZ FSA), Pam Solem (AZ FSA), Ronald Howell (VA FSA), Talesa Jaramillo-Ortiz (AZ FSA), Katie Trozzo (VT), Eric Elliott (TIME Inc.), Kyle Karnuta (Cornell), Kim Niewolny (VT), Alston Hilliard (VSU SFOP), Briana Stevenson (VSU SFOP).



Scenes from the VABF | SFOP Summit in Roanoke



Keynote speaker, B. Ray Jeffers, addressing the conference.



Keynote speaker, Jean-Martin Fortier, signing copies of his book







William Crutchfield, SFOP director, Marilyn Estes, SFOP Program Assistant of the Year, Alston Hilliard, SFOP assistant director, and Diane Lenore-Giles, public relations outreach specialist, USDA Farm Service Agency.



Leonard Elam, Small Farm program assistant, and William Crutchfield, pose with Carolyn Cheek, SFOP Small Farmer of the Year award recipient. Elam nominated her.



William Crutchfield standing with Pedro Lopez-Morel, the Virginia Natural Resources Conservation Service Farmer of the Year, and Dr. Edwin Martinez Martinez, NRCS State Conservationist.

Are You in the Market for Fun?

First Saturdays in Portsmouth offer markets for art, antiques and farm-fresh products.

By Ben Dukes, SFOP regional program assistant

Spring is in the air, along with the aroma of fresh fruits, vegetables, baked goodsand even seafood. With warmer weather, vibrant communities buzz with activity, farmers markets reemerge and people are drawn outside to explore, enjoy, reconnect-and shop! The throngs of people perusing farmers markets during spring are eclipsed only by summer crowds.

Mark your calendars and enjoy a day in Portsmouth, Virginia!

Enjoy the delights of Portsmouth's Farmers Market every Saturday. For added fun, attend First Saturdays, which boast three concurrent events: Farmers Market, First Saturday Art Market, and Olde Towne Antique and Flea Market! With palatepleasing foods, aesthetic art and gifts galore, there is something for everyone.

Mingle with historical reenactors and stop by Virginia Cooperative Extension's table for helpful science-backed information to help you thrive.

Farmers Market, held every Saturday, April-October, 9 a.m.-2 p.m., and November-March, 10 a.m.-2 p.m., along the intersection of High and Court streets, has an abundance of many food products for those who are health-conscious and those who enjoy a sweets and treats, such as sweets and baked goods, seafood, fresh vegetables and fruit, eggs, nuts and various beverages.





First Saturday Art Market stretches eastward along the sidewalks at the intersection of High and Court streets to Roger Brown's Restaurant and Sports Bar (midway to Middle Street). Peruse one-of-a-kind products such as jewelry, candles, paintings, woodcrafts and many other handmade goods from local crafters. Discover the perfect gift or pieces that light you up!

Olde Towne Antique and Flea Market, for those who enjoy hunting for ideal finds, is two blocks away with up to 75 vendors to explore.

Historical reenactors

roam the Saturday events, welcoming questions and selfies. History buffs will enjoy meeting Captain and Mrs. Crawford, grandparents to Portsmouth's founder, Colonel William Crawford, and two American Revolutionary War heroes: William "Billy" Flora, a hero at the Battle of Great Bridge and James Armistead

Lafayette, a double agent for the colonial militia.

Virginia Cooperative Extension is typically represented each market day by seasoned Portsmouth Master Gardener volunteers who provide research-based information to the public. Monthly themes keep patrons engaged with topics such as seasonal yard clean-up, seed starting, spring pruning or vegetable garden maintenance. Many free peer-reviewed publications and other documents are on hand for anyone to take home for further reading.

Master Gardeners presently consists of 51 active members, 10 trained interns and 15 emeritus members in Portsmouth. VCE has numerous outreach projects throughout the city at schools, churches and other nonprofit community and conservation organizations.

I began volunteering in 2012. For the last 8 years, my primary focus has been the farmers market.

For more information about the Master Gardeners programs, visit https://ext.vt.edu/lawn-garden/ master-gardener.html.

SFOP Workshops: <i>April–June, 2024*</i>

Date	Workshop	Time	Location	Program Assistant	Limit	
4/2/24	Introduction To Permaculture	2-4 pm	VSU Randolph Farm Pavilion 4415 River Road, Petersburg, VA	James Gibson		
4/3/24	Woods and Wildlife Management	6-8 pm	Community Room Patrick & Henry Community College 212 Wood Brothers Drive, Stuart, VA.	Brent Noell		
4/9/24	Cut Flower Workshop	1-4 pm	Brent and Becky's Bulbs 7900 Daffodil Lane, Gloucester, VA	Tammy Holler	20	
4/10/24	Farm Tour	10 am-1 pm	Penhook, Virginia	Cliff Somerville		
4/12/24	Hemp Dos and Don'ts	noon-2:30 pm	Virtual	Derrick Gooden	40	
4/16/24	Small Farm Orientation	9-11 am	Virtual	Ben Dukes	40	
4/16/24	What is Heirs Property 101	9 am-1 pm	VCE Greensville Office 105 Oak Street, Emporia, VA	Marilyn Estes		
4/16/24	The Buzz About Beekeeping on Small Farms	10 am-noon	Warrenton, North Carolina	Leonard Elam	12	
4/16/24	Urban Forestry	1-3 pm	VSU Randolph Farm Pavilion 4415 River Road, Petersburg, VA	James Gibson and Roland Terrell		
4/16/24	Small Ruminants: To Cull or Not Cull?	7:30-8:30 pm	Virtual	Mandy Fletcher		
4/22/24	Alpaca Familiarization	10 am-noon	Moyock, North Carolina	Ben Dukes & Derrick Cladd		
4/23/24	Risk Management for Poultry and Rabbit Farming	10 am-noon	Lake Country Advanced Learning Center 118 E. Danville Street, South Hill, VA	Tammy Holler & Marilyn Estes		
4/24/24	Aerial Imagery for Farmers	9 am-noon	VSU Randolph Farm Pavilion 4415 River Road, Petersburg, VA	Tim Sexton	30	
5/3/24	Southwest VA Friends & Farmers Lunch "Meat" Up	noon-2 pm	Anderson & Sons, 13200 Chip Ridge Rd., Abingdon, VA	Mandy Fletcher	25	
5/8/24	Controlled Environment Agriculture	10-11 am	Virtual	Ben Dukes		
5/9/24	Spring Farm Market Tour	7:30 am-6:30 pm	State Farmers Market 1201 Agriculture Street, Raleigh, NC	Derrick Cladd	20	
5/28/24	Introduction to Permaculture	10 am-noon	Carver Center 9432 N. James Madison Highway, Rapidan, VA	Roland Terrell	20	
5/8/24	Soil and Water Conservation Service Information Session	2-4 pm	VSU Randolph Farm Pavilion 4415 River Road, Petersburg, VA	James Gibson		
5/9/24	Basics of Biochar	noon-1:30 pm	VSU Randolph Farm Pavilion 4415 River Road, Petersburg, VA	Derrick Gooden	25	
5/9/24	Fruit Selection Workshop	1-3 pm	Edible Landscaping 361 Spirit Ridge Lane, Afton, VA	Forrest Hobbs		
5/11/24	Fundamentals of Growing Garlic	10 am-noon	Unionville, Virginia	Roland Terrell	20	
5/16/24	Precision Agriculture	9 am-noon	VSU Randolph Farm Pavilion 4415 River Road, Petersburg, VA	Tim Sexton	30	

For more information and to register, visit <u>www.ext.vsu.edu/calendar.</u>

SFOP Workshops: April–June, 2024*						
Date	Workshop	Time	Location	Program Assistant	Limit	
5/16/24	QuickBooks for Farmers	10 am-noon	Catawba Community Center 4965 Catawba Creek Road, Catawba, VA	Brent Noell	20	
5/16/24	Drip Irrigation Management	5-7 pm	Conservation Trust for North Carolina 331 Piedmont Drive, Yanceyville, NC	Grace Summers		
5/16/24	USDA Information Update	3-5 pm	Amherst Farmers Market 194 2nd Street, Amherst, VA	Forrest Hobbs		
5/21/24	Small Farm Orientation	9-11 am	Virtual	Ben Dukes	40	
5/21/24	From Farm to Market	9:30 am-2 pm	Southside Produce Auction 137 Vincent Store Road, Charlotte Court House, VA	Cliff Somerville	100	
5/28/24	Beginning Farm Recordkeeping Using Quicken	9-11 am	Rockfish Valley Community Center, 190 Rockfish School Lane, Afton, VA	Forrest Hobbs	12	
5/29/24	What is Heirs Property 101	9 am-1 pm	TCC Portsmouth Campus 120 Campus Drive, Building E, Portsmouth, VA	Ben Dukes		
5/30/24	Farm Tour	9 am-noon	Brodnax, Virginia	Marilyn Estes	15	
5/30/24	Emergency Preparedness	4-6 pm	VSU Randolph Farm Pavilion 4415 River Road, Petersburg, VA	James Gibson		
5/30/24	Small Ruminants: Using Fecal Egg Counts on Your Small Farm	6:30–9 pm	Southwest VA Agricultural Research & Extension Center, 12326 VPI Farm Road, Glade Spring, VA 24340	Mandy Fletcher	20	
6/4/24	Introduction to Permaculture	1-3 pm	VCE Greensville Office 105 Oak Street, Emporia, VA	Marilyn Estes	15	
6/5/24	New Farm Tour	10 am-2 pm	Martinsville, Virginia	Cliff Somerville		
6/5/24	High Tunnel Maintenance and Repair	5-7 pm	Conservation Trust for North Carolina 331 Piedmont Drive, Yanceyville, NC	Grace Summers		
6/7/24	How to Create Worm Castings	noon-1:30 pm	VSU Randolph Farm Pavilion 4415 River Road, Petersburg, VA	Derrick Gooden	25	
6/10/24	Bringing Basic Solar Energy to Your Farm	6-8 pm	Fredericksburg, Virginia	Michael Carter Sr.		
6/17/24	Cut Flower Farm Tour, Bouquets and Market Prep	6-8 pm	Fredericksburg, Virginia	Michael Carter Sr.		
6/18/24	Small Farm Orientation	9-11 am	Virtual	Ben Dukes	40	
6/19/24	Environmental Management of Nutrients	9 am-noon	VSU Randolph Farm Pavilion 4415 River Road, Petersburg, VA	Tim Sexton	30	
6/25/24	Growing Flowers for Profit	10 am-1 pm	Church Road, Virginia	Marilyn Estes	15	
6/25/24	Growing Ethnic Crops for Soil Health and Nutrient Density	6:30-8 pm	Unionville, Virginia	Roland Terrell	20	
6/27/24	Small Ruminants: Farm Safety & Humane Handling	6:30-9 pm	Glade Spring, Virginia	Mandy Fletcher	20	

For more information and to register, visit <u>www.ext.vsu.edu/calendar.</u>



Regional Program Assistants*

804-481-1163	<u>mcarter@vsu.edu</u>
804-731-7916	<u>bdukes@vsu.edu</u>
804-894-3095	<u>lelam@vsu.edu</u>
804-481-0485	<u>mestes@vsu.edu</u>
804-892-0108	<u>afletcher@vsu.edu</u>
	804-731-7916 804-894-3095 804-481-0485

Derrick Gooden	804-586-5352	<u>dgooden@vsu.edu</u>
James Gibson	804-720-6826	jegibson@vsu.edu
Vacant	804-524-3292	
Forrest Hobbs	804-892-5910	<u>fhobbs@vsu.edu</u>
Brent Noell	804-892-0140	bnoell@vsu.edu
Cliff Somerville	804-892-4581	<u>csomerville@vsu.edu</u>
Roland Terrell	804-892-4612	<u>rterrell@vsu.edu</u>

State Program Assistants

Frederick Custis | 804-894-0218 | <u>fcustis@vsu.edu</u> Agriculture Management Coordinator

Derrick Cladd | 804-892-4489 | <u>dcladd@vsu.edu</u> Beginning Farmers

James Edwards | 804-720-2588 | jtedwards@vsu.edu Military Veteran, AgrAbility **Barry Harris** | 804-720-6367 | <u>bdharris@vsu.edu</u> Conservation Practices

Tammy Holler | 804-229-2730 | <u>tholler@vsu.edu</u> Nutrient Management

Wanda Johnson | 434-632-9701 | wjohnson@vsu.edu Community Gardens, Food Services

Grace Summers | 804-712-0093 | gsummers@vsu.edu NRCS, SFOP High Tech Tunnel

Small Farm Outreach Program Office hours: Monday-Thursday, 8 am-5 pm, Friday, 8 am-noon. 95% of SFOP is out in the field. *If you have any difficulty figuring out which region is yours, please call 804-524-3292 for clarification.



NONPROFIT ORG U.S. POSTAGE PAID PETERSBURG, VA PERMIT NO. 46



Where Virginia's small and beginning farmers and ranchers access comprehensive resources to help make their farm businesses profitable and sustainable.

vsusmallfarms.com

Education & Training Resources · Diverse Models of Farm Production & Operation · Ag-Related News & Events · Federal, State & Local Agency Contacts Agro-Equipment Rental Programs · Expert Advice Online or by Phone...*and More*

The Virginia Small Farm Resource Center is developed and supported by Virginia State University's Small Farm Outreach Program.



If you are a person with a disability and desire any assistive devices, services or other accommodations to participate in this activity, please call 804-524-3292 / TDD 800-828-1120 during business hours of 8 am and 5 pm to discuss accommodations five days prior to the event.

Virginia Cooperative Extension is a partnership of Virginia Tech, Virginia State University, the U.S. Department of Agriculture, and local governments. Its programs and employment are open to all, regardless of age, color, disability, sex (including pregnancy), gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, military status, or any other basis protected by law.

