



# SFOP Quarterly NEWSLETTER

SPRING 2021

Dear Small Farmers and Ranchers,



I hope you had a joyous and productive holiday season. I am excited to see that many of you are taking advantage of the virtual workshops, as well

as the limited in-person workshops, the Small Farm Outreach Program (SFOP) is conducting. Going forward we will continue to utilize this method of communication since it has proven successful in reaching so many of you.

I am pleased to inform you that the high-tech, high tunnel and the mobile agriculture education unit, mentioned in an earlier newsletter edition, are finally coming to realization.

In this edition of our quarterly newsletter, you will hear from some of our expert small farm program assistants, formerly known as small farm agents. You will also learn about our upcoming events for the next quarter, April – June 2021.

SFOP would like to encourage you to practice COVID-19 safety precautions, as the pandemic is still active. We will continue to keep you informed about beneficial resources offered by the USDA and other partnering programs.

VCE SFOP at VSU keeping you informed,  
William Crutchfield, SFOP Director

## The Beginning of a Farmer

By Derrick Cladd, State Program Assistant for Beginning Farmers



What is a beginning farmer? According to the U.S. Department of Agriculture (USDA), the definition of a beginning farmer is a farm or ranch operation that has been operating 10 years or less. Typically, when someone contacts the Virginia Cooperative Extension Small Farm Outreach Program (VCE SFOP) at Virginia State University (VSU) with an interest in joining the beginning farmer program, they are unsure

of how to become a farmer or have many questions about accessing capital, managing finances or marketing. SFOP provides outreach, training and technical assistance to beginning farmers and ranchers across the Commonwealth of Virginia. The goals of this program are to orient farmers and ranchers, work with them on a one-on-one basis and help them develop skills needed to operate a successful farming operation.

### The Process:

When a person comes to us seeking assistance, they are first referred to the New Farmer Orientation Class. In this class, they are able to discuss, assess and explore the process for becoming a farmer. They are given practical information, such as what farming is, the type of enterprises in their counties or localities, the rules and regulations that govern farming and the feasibility of the enterprise they are looking to invest in. After the orientation, they are introduced to a small farm program assistant in their area.

### VCE-VSU SFOP Small Farm Program Assistants:

After orientation, the SFOP program assistants also provide one-on-one technical assistance on the farm. It is very important for the new farmer to receive this type of guidance and assistance in the initial phase of their farming operation. The program assistants will continue to provide guidance and hands-on training and also monitor the farmer's progress over a three-year period.

This program also provides mentoring farmers who share their expertise and assist with educating the new beginning farmers

## The Beginning of a Farmer, *continued*

on successful farming practices. The SFOP program assistants also work closely with the Virginia Cooperative Extension specialists to provide training in areas, such as marketing, aquaculture, urban farming, hydroponics and specialty crops.

### Resources:

New farmers are provided with resources, such as contact information for their county extension offices and program assistants, their local USDA offices and information and worksheets to help them track their current assets, income and expenditures to manage their inventory. They are also

guided on how to acquire a track number for their farm.

### Workshops:

The Small Farm Outreach Program provides agriculture workshops all throughout the year. This information is shared by flyers, on the calendar of our Virginia Cooperative Extension website at [ext.vsu.edu](http://ext.vsu.edu) and on our Small Farm Resource Center website at [vasmallfarmers.com](http://vasmallfarmers.com).

If you would like more information about the SFOP Beginning Farmer and Rancher Development Program, contact Derrick Cladd at (804) 892-4489 or [dcladd@vsu.edu](mailto:dcladd@vsu.edu).

# Students Embrace Garden at Chase City Elementary

By Leonard Elam, Regional Program Assistant



The school garden at Chase City Elementary School in Mecklenburg County is a special initiative of the Small Farm Outreach Program. The mission is to create an awareness of how food is grown, the many steps that must be taken to get food from the field to the table and an overall awareness and appreciation

for nature and the great outdoors. The garden project is led by SFOP program assistant Leonard Elam, who is assisted by school guidance counselor Kelly Colgate, FCS agent Amy Hawkins, teacher Brittany Card and principal Fred Taylor.

The garden is a hit among the students to the point that many are willing to trade their PE time for garden time! Students were excited about pulling weeds and picking up rocks, while socially distancing themselves. Students had the opportunity to sample kale chips and turnip greens and donate four dozen heads of cabbage to the school market. The garden also provided enough collards to donate to several senior citizens and a church group.

In addition to learning the basics of growing a fall garden, students were exposed to soil testing, drone mapping, drip irrigation and careers in agriculture. Future plans include permanent fencing, signage, spring crops, wildflower garden and using the garden as an outdoor classroom.



More than 100 students from kindergarten to fifth grade helped tend to the garden by picking weeds and rocks.

# We be Planting at Rasta Farms

By Michael J. Carter Sr., Regional Program Assistant



As rocking rhythms of the reggae group, Midnight, flow from a shed, Kenny Pretty Sr. tends to the weeds in his blueberry field.

His strong and sturdy, almost 90-year-old frame, bounces to the beat.

Pretty has been growing and planting all his life, wherever he's been planted. Growing up in Aruba, he grew up tending his family's and community's avocado trees, mango trees and pigeon pea plants among other tropical plants on the inviting island. His island roots is where his green thumb and love for agriculture began.

Pretty migrated to the United States and after serving in the U.S. Army settled down in White Plains, New York, before later moving to Queens, New York. His desire to keep his thumb green was not lost in New York, where he continued farming. These days, he farms in Orange County, on his late wife's, Fayette's, family home. In Orange, he's enjoyed camping, fishing and the rural setting of the Piedmont region of the Commonwealth.

Figs became Mr. Pretty's tree of interest because of their viability and production in the urban landscapes of New York. For over 60 years Mr. Pretty has been growing figs, and now at his farm in Virginia, he delights in growing



Kenneth Pretty Sr.

these fall favorites, and sharing both the fruit and trees with friends, family and neighbors.

There are over 200 varieties of figs. When considering to plant figs select a variety that will grow in your area or planting zone. Figs should be planted while in the dormant stage around late fall or early spring. The figs range in color and can be purple, green or brown. Plant fig trees the same depth as they were growing at the nursery or at a local farm. Figs need a sunny spot that is protected from harsh winds. They should be planted 10 -15 feet apart, and trees mulched with compost. One may want to prune the tree if desired, but pruning isn't required. Figs can be propagated by taking stem cuttings. They may also be

rooted by placing a low growing branch down to the ground and securing it with a U-shaped wire or rock. Once the stem has rooted, sever it from the mother plant. Use a shovel to remove suckers that root throughout the growing season.

Typically, figs don't suffer from disease issues, but do attract birds. Netting can be used to keep the birds away. Wood ashes can be spread around the base of the tree to keep ants from climbing up the tree. Keeping plants moist will avoid leaf drop especially if they are grown in containers. Figs are harvested in late summer and fall. Check the fruit daily for ripeness. Some figs turn brown, while others are green. Ripe fruit is soft to touch. Figs will keep in the refrigerator up to one week, but spoil easily.



# Mapping with Drones for Precision Agriculture

By Leonel E. Castillo, State Program Assistant - Hispanic Outreach & UAS-FAA Drone Pilot



In 2019 the Small Farm Outreach Program started mapping fields and crops for small farmers using DroneDeploy software and subscription service. Several missions on farmer's acreage were flown with our new Matrice 200 drone and the maps processed were used to interpret and share

information with our farmers. At that time the useful information we could obtain to show the farmers was crop health, acreage calculations and ground elevation.



**Figure 1** (above) shows our Matrice 200, a working horse for mapping and taking beautiful, high-resolution videos.

In 2020, we were set back by several distractions, including COVID-19 restrictions. In spite of this, we have flown a few video and mapping projects using an upgraded version of the DroneDeploy software. The new software is an upgrade in precision agriculture applications, which we are using to benefit our farmers. Some of the new applications available from our mapping missions are 3D mapping of crop fields, woodlands and structures, plant counts, detailed area calculations of any given field location, crop health and elevation. We will be demonstrating the software use in our workshops with interested farmers and program assistants and coaching them on the use of the software once the processed maps are returned by DroneDeploy.

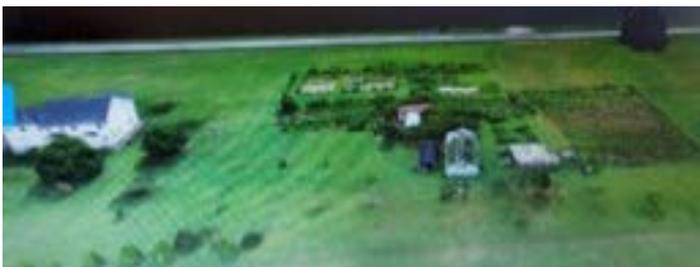


Figure 2

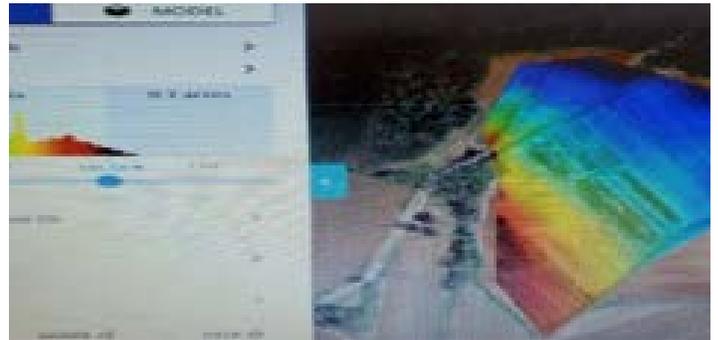
## 3D Mapping and Structures:

Three dimensional (3D) farm maps can be used by farmers to view the perspective of their buildings, structures and woodlands.

**Figure 2** is a 3D Model of Sammy Rodriguez's farm showing his house, greenhouse, orchard and vegetable plot.

## Field Elevation:

Farmers need to know the elevation of their fields in relation to their location to determine the direction of gradient. This is important in planning field layout, orientation of plant rows and drainage outlets.



**Figure 3** (above) shows the lower part of the field is at the top of the map. If the gradient is higher than 0.1 % (1 ft. drop in 1,000 ft.) you might consider designing the rows diagonally or perpendicular to the slope in order to minimize erosion and enhance the retention of soil moisture. In this case, field layout and row orientation are well designed.

## Plant Health:

The DroneDeploy software offers an option to determine plant health in a standing crop. These are determined by differences in the foliage coloration and temperature.

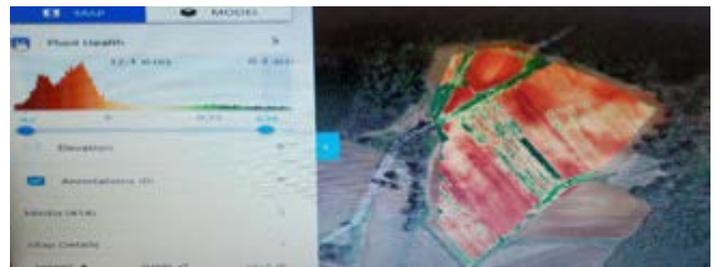


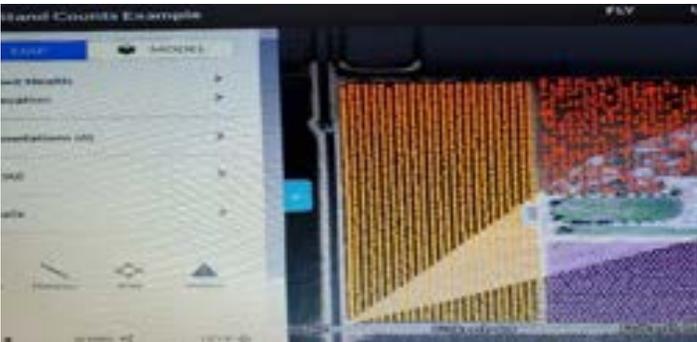
Figure 4

This option can also help predict soil moisture content.

**Figure 4** shows the field at the top of the map is too dry. It should be irrigated before planting if no rain is expected (red areas).

### Stand Counts:

Plant counts can be useful when field losses will affect yield. In this case determining the number of plants in a field of known acreage can help forecast productivity. Drone maps can provide both stand counts and acreage calculations of selected areas. In the case of woodlands, tree counts will facilitate the calculation of a harvestable board-foot of lumber.



**Figure 5** (above) shows how stand counts can be done by marking the plants or trees using the software count option.

### Area Calculations:

In addition to the acreage determined for the whole field mapped, individual sections within the mapped area can be plotted for area calculation. In this case the perimeter of a selected area is plotted using the software, and its acreage will be automatically calculated and shown on the app.

**Figure 6** shows the area of the selected plot (lower section on the map) using the area calculation option.



Figure 6

### Media Usage (Aerial Photos):

The aerial photographs found in the media section of the map application can be used for looking up specific details in a given area of a field, such as vacant spots or abnormal coloring of the foliage in a crop stand.



**Figure 7** (above) shows a close up of a team picking beans from a plot at Pedro Lopez's farm. The aerial photograph is from the set of photos taken for processing the map.

I am at the Virginia Cooperative Extension Small Farm Outreach Program at VSU serving to facilitate small farm resources and provide support and technical assistance.



# Considering Plastic Mulch

By Grace Summers, State Program Assistant - NRCS, SFOP High Tech Tunnel



Plastic mulch is a saving grace for many growers as they have look for ways to increase their yields. There are many advantages to using plastic mulch on your farm, and if you're thinking about adding it to your farm plan, now is a great time to start planning for its use.

If you're a beginning grower or seasoned veteran, the late fall is a good time to plan your spring planting and also consider what you need to start plasticulture on your farm. Just like the seed supply companies, many plastic mulch and drip irrigation companies offer year-end or inventory reduction discounts. This is the perfect time to talk with Extension personnel, irrigation specialists and other persons with experience using plastic mulch and drip irrigation.

Plastic mulch has many advantages but as with any good thing there are also disadvantages. The advantages of plastic mulch far outweigh the disadvantages with the most important being that plastic increases yields, which increases profits. Plastic mulch has increased yields as much as five times in crops, such as cantaloupes and cucumbers. Plasticulture has also shown increased yields in crops, such as tomatoes, squash, peppers and watermelons. Some of the other advantages of plastic mulch include weed control, earlier production, reduced leaching of fertilizer, cleaner produce, irrigation management and direct fertilizer placement through fertigation (injection of fertilizers).

Disadvantages to plastic mulch include the removal and disposal of the plastic, the initial startup costs and the increased need for a high level of management. This

also includes the increased potential to stress plants, limit root zones for the plants and damage by rodents and insects underneath the plastic. Overall a grower can expect good results from their investment in a plastic mulch growing system. A good starting point is figuring out whether you have enough water to run a drip irrigation system under your plastic mulch. Whether you have a well, stream, pond or a municipal (city/county) water supply, there is a drip irrigation set up that can get you the amount of water needed to keep your drip tape hydrating and feeding your crop.

Your Extension program assistant and other qualified drip irrigation managers can help you make a checklist for your farm operation based on the crops you want to grow and help you get an idea of your startup costs and operating procedures. There are many shortcuts available for startup, such as renting/borrowing equipment for laying the plastic mulch versus buying new equipment in the beginning. Also now is a good time to look for used equipment from farm auctions and community sale sites on social media. Sometimes the seller will include leftover supplies with the equipment.

First-time growers should start with a small plot or a few rows before jumping into a large acreage. Growers who do their homework and make a plan at least three months ahead of their farm production are more likely to obtain the results they expect from the plastic mulch. If you've been thinking about adding plastic mulch to your farming operation, then there's no better time than now to start planning your endeavor. After all, the United Nations has designated 2021 as the International Year of Fruits and Vegetables, and you don't want to be the only grower who is not prepared. Good luck and let me know whether I can be of help.





## SFOP WORKSHOPS & EVENTS (APRIL - JUNE 2021)

Event Date	Workshop/Event	Start Time	End Time	Location	Contact Program Assistant	Cost
4/7/21	Vegetable Production and Crop Selection	9:00am	11:00am	Virtual	Clifford Somerville	
4/8/21	Farm Family Financial Wellness	10:00am	12:00pm	Virtual	Derrick Cladd	
4/8/21	Growing Small Grains Organically	10:00am	12:00pm	Virtual	Michael Carter Jr.	
4/13/21	VA Fresh Match/SNAP	12:00pm	1:30pm	Virtual	Michael Carter Jr.	
4/21/21	Flower Field Walk and Demonstration	9:00am	10:00am	Virtual	Susan Cheek	
4/22/21	USDA Information Session	10:00am	12:00pm	Virtual	Michael Carter Jr.	
4/27/21	Farm Equipment Safety	6:00pm	8:00pm	Virtual	Michael Carter Sr.; Michael Carter Jr.; Roland Terrell	

<b>SFOP WORKSHOPS/EVENTS (APRIL - JUNE 2021)</b>						
<b>Event Date</b>	<b>Workshop/Event</b>	<b>Start Time</b>	<b>End Time</b>	<b>Location</b>	<b>Contact Program Assistant</b>	<b>Cost</b>
4/28/21	Raising Rabbits	1:00pm	4:00pm	Emporia Rabbitry	Marilyn Estes; Tammy Holler	\$5 fee
4/28/21	Hive Inspections and Expansions	9:00am	12:30pm	Virtual	Tracy Porter	
5/5/21	High Tunnel Types and Construction	9:00am	11:00am	Virtual	Clifford Somerville	
5/6/21	Pastured Poultry Workshop	6:00pm	7:30pm	Virtual	Michael Carter Jr.	
5/10/21	Small Farm Orientation	9:00am	12:00pm	Virtual	Vernon Heath	
5/12/21	Hispanic Field Day	9:00am	12:00pm	Fair Produce Farm	Mery Caldwell/ Leonel Castillo	\$10 fee
5/12/21	Flower Field Walk and Demonstration	9:00am	10:00am	Virtual	Susan Cheek	
5/13/21	Aquaponics	10:00am	1:00pm	Virtual	Derrick Cladd	
5/18/21	Growing Ethnic Vegetables	6:00pm	8:00pm	Woodford, VA	Michael Carter Sr.; Michael Carter Jr.; Roland Terrell	\$5 fee

### SFOP WORKSHOPS/EVENTS (APRIL - JUNE 2021)

Event Date	Workshop/Event	Start Time	End Time	Location	Contact Program Assistant	Cost
5/19/21	Cover Crop Field and Demonstration	2:00pm	3:00pm	Heavenly Hideaway Lavender Farm	Susan Cheek	\$5 fee
6/14/21	Small Farm Orientation	9:00am	11:00am	Virtual	Vernon Heath	
6/15/21	Flower Field Walk and Demonstration	9:00am	10:00am	Virtual	Susan Cheek	
6/16/21	Marketing your Farm Products (Promotion, Pricing, Packaging & Display)	9:00am	11:00am	Virtual	Clifford Somerville	
6/19/21	Bees and Mushrooms - Farm Field Day	10:00am	12:30pm	The Old Virginia Farm LLC	Amanda Fletcher	\$5 fee
6/24/21	USDA Information Session	10:00am	12:00pm	Virtual	Michael Carter Jr.	
6/30/21	Hispanic Field Day	9:00am	12:00pm	Rosa's Farm	Mery Caldwell/ Leonel Castillo	\$10 fee

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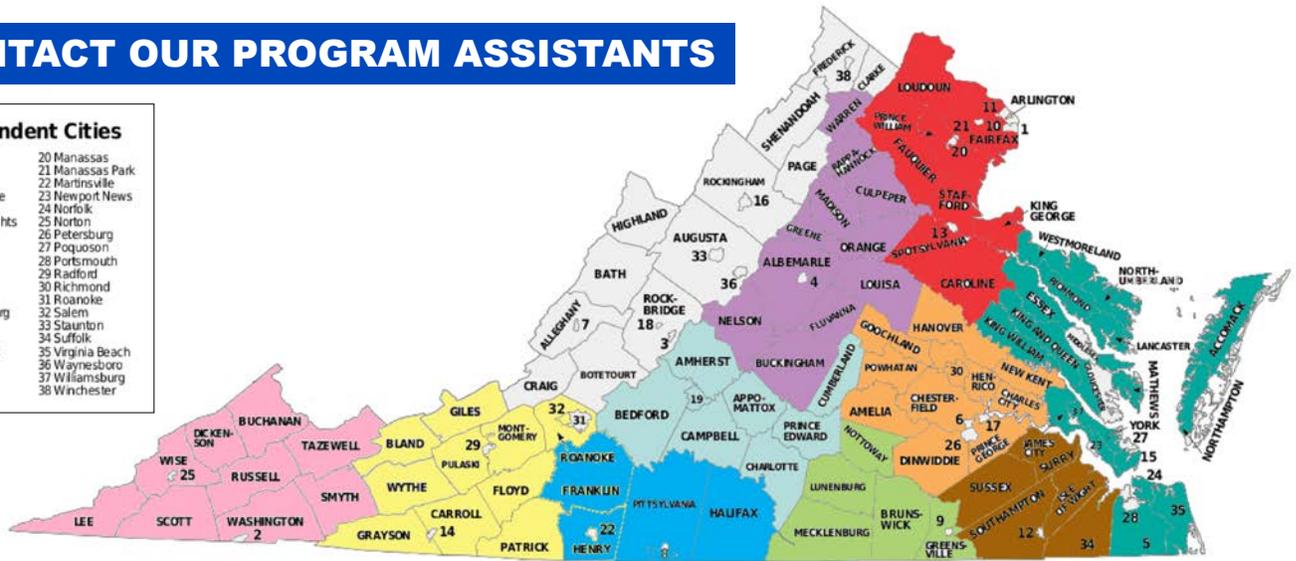
You can also sign up on our homepage ([ext.vsu.edu](http://ext.vsu.edu)) for our weekly eNewsletter and for email notifications of upcoming programming for Virginia small farmers.



## CONTACT OUR PROGRAM ASSISTANTS

### Independent Cities

- |                    |                   |
|--------------------|-------------------|
| 1 Alexandria       | 20 Manassas       |
| 2 Bristol          | 21 Manassas Park  |
| 3 Buena Vista      | 22 Martinsville   |
| 4 Charlottesville  | 23 Newport News   |
| 5 Chesapeake       | 24 Norfolk        |
| 6 Colonial Heights | 25 Norton         |
| 7 Covington        | 26 Petersburg     |
| 8 Danville         | 27 Poquoson       |
| 9 Emporia          | 28 Portsmouth     |
| 10 Fairfax         | 29 Radford        |
| 11 Falls Church    | 30 Richmond       |
| 12 Franklin        | 31 Roanoke        |
| 13 Fredericksburg  | 32 Salem          |
| 14 Galax           | 33 Staunton       |
| 15 Hampton         | 34 Suffolk        |
| 16 Harrisonburg    | 35 Virginia Beach |
| 17 Hopewell        | 36 Waynesboro     |
| 18 Lexington       | 37 Williamsburg   |
| 19 Lynchburg       | 38 Winchester     |



## Regional Program Assistants

- |                                                                                              |                                                                                                |
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| <span style="color: brown;">■</span> <b>Derrick Cladd</b> (804) 892-4489 dcladd@vsu.edu      | <span style="color: cyan;">■</span> <b>Cliff Somerville</b> (804) 892-4581 csomerville@vsu.edu |
| <span style="color: lightgreen;">■</span> <b>Marilyn Estes</b> (804) 481-0485 mestes@vsu.edu | <span style="color: yellow;">■</span> <b>Brent Noell</b> (804) 892-0140 bnoell@vsu.edu         |
| <span style="color: orange;">■</span> <b>Vernon Heath</b> (804) 892-4518 vheath@vsu.edu      | <span style="color: pink;">■</span> <b>Amanda Fletcher</b> (804) 895-0108 afletcher@vsu.edu    |

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- |                                                                                                                |                                                                                                     |
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| <b>Leonel Castillo</b>   (804) 731-0230   lcastillo@vsu.edu<br><i>Hispanic Outreach</i>                        | <b>Grace Summers</b>   (804) 712-0093   gsummers@vsu.edu<br><i>NRCS, SFOP High Tech Tunnel</i>      |
| <b>Susan Cheek</b>   (804) 720-5539   scheck@vsu.edu<br><i>Cut Flowers, High Tunnels</i>                       | <b>Wanda Johnson</b>   (804) 894-4858   wjohnson@vsu.edu<br><i>Community Gardens, Food Services</i> |



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If you are a person with a disability and desire any assistive devices, services or other accommodations to participate in these activities, please contact the Small Farm Outreach Program Office at (804) 524-3292 /TDD (800) 828-1120 during business hours of 8:00 a.m. and 5:00 p.m. to discuss accommodations five days prior to the event.



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