



**PRINCE GEORGE'S SOIL
CONSERVATION DISTRICT
2021 ANNUAL REPORT**

Pea shoots in a hightunnel at ECO City Farms in Hyattsville, MD



PRINCE GEORGE'S SOIL CONSERVATION DISTRICT

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Pea Shoots (Front Cover)

Botanically classified as *Pisum sativum*, pea shoots are highly nutritious and are commonly found in Chinese cuisine. This leafy green is a good source of Vitamins A, C, and K, while also having anti-inflammatory properties due to its high chlorophyll content.



Drip Irrigation

Drip irrigation is a delivery system that directs water to the plant's roots. It minimizes water waste, improves plant growth, and prevents excessive moisture to fight fungal diseases.



Drip irrigation with lettuce at ECO City Farms in Hyattsville, MD.

PGSCD Receives Second Urban Agriculture Conservation (UAC) Grant by Joseph Haamid, Soil Conservation Grant Planner

On April 20, 2021, the Prince George's Soil Conservation District (PGSCD) was awarded a National Association of Conservation District's (NACD) **Urban Agriculture Conservation (UAC) Grant**. This grant allows PGSCD to boost its capacity in providing technical assistance to address community needs in urban areas. The grant was awarded to PGSCD through a partnership with NACD and the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS).

Following the grant, one of the District's goals is supporting new urban farmers with infrastructure, such as ECO City Farm's incubator farm at Maryland-National Capital Park and Planning Commission (M-NCPPC) and Watkins Regional Park (currently under construction). Primary partners and stakeholders in this project include M-NCPPC, ECO City Farms, the Prince George's County Food Equity Council, and PGSCD. New stakeholders are also signed on to support the project through the USDA-NRCS's Urban Ag Innovation & Production Grant awarded to ECO City Farms.

The Capital Market—a local farmers' market—is also partnering with new producers to assist with aggregating and distributing products at its farmers' market located in a Healthy Food Priority Area. The District is also exploring research and demonstration project opportunities with NRCS, University of Maryland Extension, and the Patuxent Wildlife Center—a research center and urban site where the District can showcase its technical assistance through implementing conservation practices.

Some of the outcomes projected from these projects and the NACD grant are:

- ⇒ **Accelerate** existing and emerging models of urban agricultural practices that serve multiple farmers and improve access to local food.
- ⇒ **Promote** the growth of urban agriculture producers to reduce food insecurity.
- ⇒ **Assist** in the development of additional incubator farms in the county and throughout the region.
- ⇒ **Keep** soil health and water quality at the center of our role in urban agriculture.

With my 40-year career at NRCS, it has been an honor to be a part of PGSCD during this movement toward urban and small-scale sustainable agriculture to reduce food insecurity and food inequity nationwide.

The Prince George's Soil Conservation District is committed to gaining greater awareness to understand issues important to diverse communities, and is focused on supporting actions that advance diversity, equality, and inclusion in soil and water conservation.

In all our efforts, we continue to ensure productive land use in concert with healthy soils and the environment. By doing so, we can spread our conservation message into communities and expand grassroots partnerships which, some years ago, only a few conservation districts in the country could have ever dreamed of.



Eleanor Roosevelt High School Students Win Local Envirothon Competition

by Donnell Richardson, Administrative Aide II



Eleanor Roosevelt High School won first-place honors at the 2021 Prince George's County Envirothon competition! PGSCD and William S. Schmidt Outdoor Education Center hosted the competition in partnership with the Parks Division of the Maryland-National Capital Park and Planning Commission and Natural Resources Conservation Service—both of whom served as our Resource Specialists for competition preparations. (For 2021, Prince George's County was the **only** county to host a competition.)

Participating schools included Eleanor Roosevelt, Fairmont Heights, Laurel, Oxon Hill, and Potomac high schools, with Laurel High School coming in second place.



Left: Prince George's County students Ayda Girma, Abigail Lopez Freire, Joshua Johnson, Sophia Riazzi-Sekowski, Abigail Coleman, and their coach Gabrielle Sanchez.

The Envirothon provides a fun and exciting way for high school students to learn about natural resources, make informed decisions about the environment, and earn scholarships funded by PGSCD. It combines classroom lessons with active field experience in the following disciplines:



Wildlife

Naturalists teach students about animal populations and dynamics in Maryland about the importance of preserving wildlife habitat.



Forestry

Foresters teach students how to identify tree species and determine a tree's height and age. Students also learn techniques to assure healthy and productive forestry resources.



Soils

Students work with soil scientists to learn soil profiling, mapping techniques, and how land-use changes impact soils and peoples' lives.



Aquatics

Fragile underwater ecosystems are explored with marine and freshwater biologists. Students also learn about water quality, stream health, and wetlands.

The focus of the fifth discipline, Current Environmental Issues, changes each year but covers topics including **climate change**, **alternative energy**, **composting**, and **recycling**. The Envirothon empowers students to educate others, take action in their local communities, and work toward careers in the environment, natural resources, and conservation!

PGSCD Cultivates New Opportunities for Urban Farmers

by Kim Rush Lynch, Urban Agricultural Conservation Planner

In 2021, the Urban Agricultural Conservation (UAC) program focused on its monthly Open Mic Nights and the development of the Prince George's County Urban Farm Incubator at Watkins Regional Park with our partners. We were also fortunate to receive **\$50,000** through the National Association of Conservation District's Urban Agriculture Conservation Grant to support conservation practices and initiatives at this 11-acre site.

Overall, the UAC program conducted 63 site visits with urban farmers and other urban agriculture stakeholders. We provided technical assistance to 46 aspiring, new, and seasoned urban farmers and 48 stakeholders.

With our technical assistance, many of our urban farmers are implementing soil conservation practices on their farms such as composting, mulching, cover cropping, nutrient management, and pollinator habitat. Farms range from 1/8th of an acre to almost 5 acres and provide diverse offerings including produce, herbs, cut-flowers, honey, and other value-added products and services. Several farms are now interested in adding eggs to their operations, and thanks to the Food Equity Council, stakeholders, and other urban farm advocates, this may soon become a reality when the new Zoning Ordinance goes into effect on April 1, 2022!



Above: PGSCD District Manager Steven Darcey with Council Member Tom Dernoga, and former council member Monique Anderson-Walker, during a visit to the proposed Incubator Farm at Watkins Park (June 2021).



Above: An urban farmer's homemade high-tunnel and wheel hoe.

Our monthly **Bloomin' PGC Open Mic Nights** blossomed this year as we hosted presenters from USDA, University of Maryland Extension, Future Harvest CASA, ECO City Farms, and many of our County's own dynamic urban farmers. These agricultural service providers and farmers have shared information and resources on topics such as wildlife management, nutrient management, training programs, starting vegetables from seed, crop planning, marketing, and more! Check out our website for additional events and to access our YouTube channel for past program records. There is even a "Find an Urban Farmer" page!

While the Open Mic Nights are tailored towards an urban agriculture audience, all are welcome to participate.

PGSCD Cultivates New Opportunities for Urban Farmers (Cont'd)

by Kim Rush Lynch, Urban Agricultural Conservation Planner



Hoop house at ECO City Farms in Hyattsville, MD

Lending our voice to serve the community

Our Urban Agricultural Conservation Planner continued to serve on key committees including the Prince George's Food Equity Council, the Food Security Task Force, and the Prince George's County Public School Systems Environment Ag and Natural Resources (EANR) Program Advisory Committee. Additionally, our Planner also served on the County's Climate Action Plan Resident Advisory Group to promote agriculture and soil-healthy practices to mitigate the effects of climate change and increase the county's resilience.

One of the biggest highlights this year—in addition to making progress on the urban farm incubator—was USDA Secretary Tom Vilsack's visit to ECO City Farms in Bladensburg. ECO City Farms, a non-profit urban teaching and learning farm in Prince George's County, also received a **\$300,000** USDA-NRCS Urban Ag and Innovation Production Competitive Grant for its incubator farm project—a collaboration between PGSCD, Maryland-National Capital Park & Planning Commission, The Capital Market, and the Prince George's County Food Equity Council. Secretary Vilsack's visit coincided with National Farmer's Day, which highlighted USDA's commitment to promote emerging agricultural practices. Be sure to view all the photos of this event on our website's blog, *The Dirt!*

Right: Agricultural Secretary Tom Vilsack tours ECO City Farms.

Photo Credit: United States Department of Agriculture (USDA)



Why is Healthy Soil Important?

by Heather Zdobysz, MDA Conservation Planner

Healthy soils are the building block to improving plant production.

They are a complex system that includes nutrient cycling, biological control of plant pests, and regulation of water and air supply. The food web of soil includes bacteria, fungi, protozoa, and other living organisms that breakdown living and dead matter to be released into the surrounding soil for plants to use during their growing season.



Healthy Soil Principles

Healthy soil principles include: minimizing disturbance, maximizing soil cover, maximizing biodiversity, and maximizing the presence of living roots. Farmers can implement different Best Management Practices (BMPs) that will enhance soil health on their fields.

Minimizing Disturbance

No-till or reduced-tillage BMPs should be incorporated into the farming process to improve soil health. When soil is tilled, it disturbs the biological process of the micro-organisms living in the soil. Over time, increased tillage can lead to reduced organic matter in the soil and decreased plant productivity, thereby decreasing the farmer's financial bottom line.



Maximize Soil Cover

To maximize soil cover, farmers can implement cover crops to keep the soil covered during winter or summer to prevent erosion and runoff. Cover crops keep the soil intact and prevent erosion from occurring during different times of the year. Another tip is to leave plant residue on the fields when planting the next crop, leading to better ground cover and allowing the new seedlings to grow.



Maximize Biodiversity

Farmers can implement a diverse conservation crop rotation on the fields. This might include a two-year crop rotation of corn, winter cover crop, and soybeans. Examples of winter cover crop include: wheat, barley, rye, spring oats, triticale, turnips, kale, and forage radish mixes. All of these examples will add biodiversity to the crop rotations, and also increase biodiversity on the fields.

Maximize the Presence of Living Roots

Farmers can allow their fields to be fallow for certain periods of time. Living roots reduce erosion and provide food for organisms such as earthworms and microbes that live in the soil. Overall, healthy soils result in healthier plant production and ensure that the farm is sustainable for future generations.



Resources for Prince George's County Farmers

by Wade Hampton, District Planner

With resources to assist with purchasing land, growing crops, marketing products, and conserving natural resources, the Prince George's County farming community has access to a wealth of knowledge and services to help their operations grow and prosper.



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The Prince George's Soil Conservation District is an excellent resource for farmers in the community. We provide conservation planning, conservation engineering, agronomic advice, conservation farm equipment rental, and even historical records of conservation on your farm. And we are also proud to direct members of the community—such as our cooperators—to other great resources available to them.

University of Maryland Extension

The University of Maryland Extension, also referred to as UMD Extension, is one of the most common resources that we direct cooperators to. The Extension offers a wealth of agronomic knowledge gathered through trials and studies conducted at research farms located throughout Maryland. Whether you are interested in growing grapes, grass, corn, or cabbage, UMD Extension has the information you'll need to get started successfully.

Southern Maryland Agricultural Development Commission (SMADC)

The Southern Maryland Agricultural Development Commission (SMADC) has abundant resources to assist all farmers and producers in successfully marketing their products. SMADC also helps consumers connect to farmers in the community, closing the local food circle through a variety of various programs. Producing a crop is only half the battle—you must market it to be successful!

MARBIDCO

For most farmers, obtaining financing for land, equipment, and supplies can be difficult. The Maryland Agricultural & Resource Based-Industry Cooperation (MARBIDCO) is an excellent place to start. MARBIDCO offers loans and grants catered to unique financial situations for farming.

Land Preservation Update

by Jeanine Nutter, Ag Land Preservation Administrator

There are several land preservation options in Prince George's County

- **Maryland Agricultural Land Preservation Foundation (MALPF)**
- **Historic Agricultural Resource Preservation Program (HARPP)**
 - **Rural Legacy Program (RLP)**

These programs purchase development rights and place a conservation easement on the property. If a landowner wants to donate a conservation easement, there is also the Maryland Environmental Trust (MET).

Update for 2021

One HARPP property (**150** acres) and one MALPF property (**235** acres) were permanently preserved for a total of **385** acres. As of December 31, 2021, a total of **75** properties totaling **7,134** acres have been permanently preserved under the District's administration.

Currently, **7** properties totaling **400** acres have applied to sell an easement. Five of those applicants received an offer and expect to settle in 2022.

We continue to seek landowners who would be interested in applying to these programs. Please contact our office for details about land preservation in your area!

PROGRAM	NUMBER OF EASEMENTS PRESERVED	PRESERVED ACRES	NUMBER OF PENDING APPLICATIONS	ACRES AWAITING PRESERVATION
HARPP	48	4,246	7	400
MALPF	20	1,972	0	N/A
RURAL LEGACY	7	916	0	N/A
TOTAL	75	7,134	7	400

Agricultural Conservation Accomplishments (January 1-December 31, 2021)

by PGSCD Agricultural Team

PLANNING ACTIVITIES	CONSERVATION APPLICATION
New Cooperators: (47) 512.5 ac	Farmers Applying BMPs: 66 ea.
New Farm Plans: (34) 2,990 ac	BMPs Installed on Farms: 212 ea.
Revised Farm Plans: (25) 1,515 ac	Acres Receiving Treatment: 4,819 ac
Total Plans: (59) 4,505 ac.	

BMP Funding Sources

FUNDING SOURCE	BMPs INSTALLED
MACS Capital Projects: 4 Agreements	8 BMPs
MACS Cover Crop: 13 Farmers	2,083 ac / 58 Tracts
USDA-EQIP: 4 Contracts	11
USDA-AMA: 1 Contract	2
BMPs Applied with Cost-Share	79
Farmer/Landowner Funded	133
Total BMPs Applied	212

Total Tons of Soil Saved

1,776 tons

Equipment Rental Program

EQUIPMENT TYPE	FARMERS	ACRES
No-Till Drill (10') [Old]	3	90
No-Till Drill (10') [New]	7	121
No-Till Drill (6')	18	141
Pasture Aerator	1	5
Post Pounder (Number of Posts)	8	531 (Posts)
Manure Spreader	0	0
Lime Spreader	0	0
Vicon Fertilizer Spreader	4	23

Agricultural Conservation Accomplishments (January 1-December 31, 2021)

by PGSCD Agricultural Team

Best Management Practices Applied

PRACTICE	AMT APPLIED	PRACTICE	AMT APPLIED
Cover Crop	2,221 ac	Residue & Tillage Management	1,767 ac
Heavy Use Area Protection	2.89 ac	Fence	5,016 ft
Nutrient Management	112 ac	Upland Wildlife Habitat Mgt.	325 ac
Roof Runoff Structures	7 ea	Conservation Crop Rotation	1,150 ac
Pasture/Hay Land Planting	162 ac	High Tunnel	2 ea
Forest Stand Improvement	79 ac	Livestock Pipeline	430 ft
Underground Outlet	580 ft	Rotational Grazing	11 ac
Diversion	424 ft	Lined Waterway	31 ft
Channel Bed Stabilization	45 ft	Grassed Waterway	0.5 ac
Stormwater Runoff Control	1 ea	Mulching	0.6 ac
Stream Crossing	1 ea	Obstruction Removal	0.1 ac
Critical Area Planting	126 ea	Conservation Cover	36 ac



2021-2022 MDA Cover Crop Program



13 Farmers Fall-Certified



2,083 Acres for \$71,519.00

MACS Cost-Share Payments: 4 Agreements for 8 BMPs totaling \$41,944.15

MACS Applications Submitted: 4 Applications for 11 BMPs totaling \$82,671.00

Pond View Gardens

by Donnell Richardson, Administrative Aide

2021 marked the start of the District's Pond View Gardens! Our staff planted tomato, cucumber, green pepper, bush bean, kale, corn, and spinach seeds with bountiful results.



Above: Cucumber plant.



Above (Left to Right): Office Manger Terry Hampton, Administrative Aide Cleandra Stephens, and Urban Engineer Fiona Thampi with fresh tomatoes.

Pond View Gardens became a fun, collaborative, and educational experience for District staff! Our project was so successful that the staff had weekly fresh salads with kale, tomatoes, and cucumbers.

We are excited to expand **Pond View Gardens** in 2022!



Pond View Gardens (Cont'd)

by Donnell Richardson, Administrative Aide





Above: Sweet Corn



Above: Corn Smut (Truffle)

Have you ever heard of **corn smut**? Also known as *huitlacoche*, this fungus causes metabolic changes in the corn, resulting in galls that grow on and around the kernels. This fungus—which has been consumed since the Aztec times—is a nutritional powerhouse rich in protein, unsaturated fatty acids, lysine (an amino acid), and beta-glucans. Given its culinary history, we couldn't pass on the opportunity to try it as a "mushroom" toast with scrambled eggs, Gruyere cheese, and sourdough bread. Yum!

 **Fun fact:** Corn smut can be found in many Mexican dishes, and can sell upwards of **\$15 per pound!** 



Employee Updates

by Donnell Richardson, Administrative Aide



Heydsha Cordero

In October 2021, we said farewell to Heydsha Cordero, our former USDA-NRCS District Conservationist.

Heydsha spent a wonderful five years at PGSCD and now serves as NRCS's Assistant State Conservationist for Programs in Maryland. We enjoyed working with her as we served our customers and producers to conserve natural resources and agricultural land.

Heydsha loved to share fresh avocados and sesame seed candies from Puerto Rico! We are grateful to have worked with her and wish her the best.



Zachary Berry

In December, we welcomed Zachary Berry!

Zachary is an NRCS Civil Engineering Technician for the Southern Maryland counties! Focused on Prince George's, Anne Arundel, and Calvert Counties, Zachary assists with engineering computer programs, engineering inquiries, and develops engineering plans for federal cost-share programs.

In his spare time, Zach enjoys cooking, hunting, and PC gaming! We are excited to have him on our team.

Employee Updates

by Donnell Richardson, Administrative Aide

Julie McGivern

Julie McGivern has joined our staff as our new Soil Conservationist from NRCS!

Julie has had an eclectic career in academic science labs, aquatic biology, fisheries, and wetland assessments before getting into resource conservation at MDA. She joined NRCS as a Soil Conservationist last August.

In addition to the reward of helping producers address their resource concerns, she enjoys the diversity of people and their farming operations in Prince George's County!



Jacob Koenig

Jacob Koenig has joined PGSCD as a new Civil Engineer through NRCS!

Based out of Prince George's County, Jacob will work in the Southern Maryland region. He will provide engineering assistance on agricultural and conservation projects through the Farm Bill programs and federal cost-share projects.

In his spare time, Jacob keeps busy with beekeeping, brewing beer, biking, and hiking with his girlfriend, Kelsea, and his dog Zeke.



PRINCE GEORGE'S SOIL CONSERVATION DISTRICT

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 Joe Bonanno, P.E., Urban Engineer
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United States Department of Agriculture
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