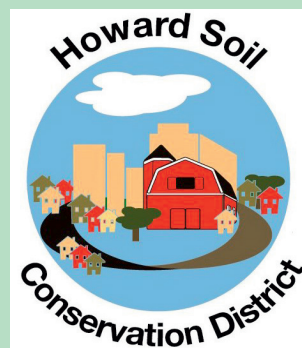


Howard Soil
Conservation District
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Cooksville, MD 21723
410.313.0680
www.howardscd.org

Conservation Matters



July 2022

CALENDAR

HSCD Office Holiday Closures:

Sept 5 Labor Day

Oct 10 Indigenous Peoples Day

July 1– 18: Sign-up for MDA's Traditional Cover Crop and Cover Crop Plus Programs

(See Pages 4-5 for Additional Details)

August 6-13: Howard County Fair (Stop by our booth in the new 4H building and say hello)

September 15: Howard SCD Cooperator's Dinner

Agricultural Preservation Cost-Share Program

County Executive Calvin Ball and the Howard County Council approved \$200,000 in funding for fiscal year 2023 (beginning July 1, 2022) to encourage and promote the implementation of conservation practices on farms in Howard County. The funding was recommended by the Howard County Agricultural Preservation Board and supported by the County Executive and Council Member David Yungmann, who represents District 5, which includes most of the rural areas of Howard County. This program will be one of the first of its kind in the State of Maryland, and should provide a great opportunity for farmers to get conservation practices installed.

The focus of this program is to help address the sky-rocketing prices associated with installing conservation practices. Recent increases in supplies, materials, labor, and other costs have created a barrier to getting conservation practices implemented. Many of these conservation practices, also known as best management practices, play a key role in the Chesapeake Bay restoration effort

and also have significant impacts on our local streams and reservoirs. This funding will provide an additional incentive to help farmers get these practices on the ground.

These funds will be available to anyone that is installing a conservation practice through participation in a local, state, or federal cost-share program. The Agricultural Preservation Cost-Share funds will be used to offset the shortfalls farmers are currently experiencing from the reimbursement rates set by other cost-share programs. Specific details regarding allocation of this funding are still being finalized. The Agricultural Preservation Board and Howard Soil Conservation District Board of Supervisors are working in concert to ensure that the funds will be available to advance the installation of conservation practices.

Please contact the Howard Soil Conservation District at 410.313.0680 with any questions about the program or to see how it may apply to your conservation projects.

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Above: A gravity-fed livestock watering trough with a riparian forested buffer in the distance.

Right: A grassed waterway helps protect soil and limit erosion coming off the crop field.



The Return of Our Environment in Our Hands in 2022

The Howard County Public School System is excited to share that their 2022 Our Environment in Our Hands (OEOH) 4th grade field program for select Title I schools, was a success! After a 3 year hiatus, due to the pandemic, students were able to get back outdoors studying soil and water health in their local environment, as well as how these impact the local living organisms. The program is held at The Howard County Living Farm Heritage Museum.

While on site, students were doing field research for the following questions:

What evidence of human impact and/or environmental change can be obtained?

How do we identify its effect on plant and animal life in the local environment (biosphere)?

Hydrosphere: Students compare the physical properties of a stream and pond habitat. The different organisms found in each are examined to identify the external structures that function to allow them to thrive in their habitats. The human impact on aquatic habitats and the organisms within them is discussed in the context of the Chesapeake Bay Watershed. Students participate in three stations during the hydrosphere rotation.

Geosphere: Students investigate soil samples to identify indicators of soil health: look at the physical properties of soil, the organic matter that is found within it, and the importance of it for a healthy environment. A variety of organisms is explored to identify the external structures that function to allow them to thrive in their habitats. The human impact on soil health and the organisms that rely on it is discussed in the context of Howard County. Students participate in four components during the geosphere rotation.



Above: Michael Calkins, Howard Soil Conservation District Conservation Planner, helps a student team as they investigate their soil sample.



Above: Dana Rushovich, USDA Natural Resources Conservation Service Soil Conservationist, provides support as a team of students make determinations concerning soil properties, including color.

Feedback from teachers was great:

"OEOH is an incredible experience! I thought the timing was absolutely perfect. The stations offered variety, yet connected to each other, and to an overarching objective. Every station was hands-on, interactive, and taught students something they didn't know by leading them to a conclusion through data collection, as opposed to giving the answer."

"The trip was very valuable for my students because many of them had never been on a farm before. They were able to make real-world connections to the focus question through their hands-on experiments & investigations."

"Some of our students would not have accessibility to a park like this with experienced volunteers to guide them. This opens up new doors for them into possible careers and interests they would not have otherwise."

Volunteers from many outside organizations play an integral role in making this program a success. Howard Soil Conservation District is thrilled to be a part of this.

Right: Students indicate their investigation determinations and results on a summary board, to be later shared with a larger group of students comparing their findings.



Maryland Envirothon 2022

The Envirothon is an international environmental and natural resource problem-solving competition that builds leadership experience for high school students (grades 9-12 or ages 14-19). Incorporating STEM (Science, Technology, Engineering, and Math) principles, experiential learning and hands-on outdoor field experiences, the Envirothon program encourages students to expand their knowledge and explore environmental education and natural resource conservation in the areas of Aquatic Ecology, Forestry, Soils and Land Use, Wildlife and Current Environmental Issues.

Emphasizing hands-on learning and real-world application of concepts, Envirothon students can be found getting their hands dirty in a soil pit, measuring the basal area of a forest, collecting macroinvertebrates in a stream to determine water quality, identifying wildlife tracks and/or signs and many other skills and activities used by environmental and natural resource conservation professionals. Students learn directly from these environmental and natural resource professionals, introducing the students to a wide array of higher academic study and careers in the environment, natural resources and conservation.

This year, Howard Soil Conservation District was excited to have the Maryland Envirothon in our own backyard. The event was held at University of Maryland Central Maryland Research and Education Center—Clarksville. Due to pandemic concerns, at the time of initial planning, and teams coming from across the state, the event was transitioned from the typical two-day event to a one-day event. With



County Councilman David Yungmann (far left) and Howard County Executive Calvin Ball (fourth from right) pictured with (left to right) Barry Burch (Maryland Envirothon Steering Committee Chair), Melissa Bell (Wilde Lake High School Envirothon team advisor), Cristina Wilcox (Wilde Lake High School Envirothon team member), Jacob Niv (Wilde Lake High School Envirothon team member), Andrew Heffner (Wilde Lake High School Envirothon team member), and David Plummer (Howard SCD District Manager).



Above: Students working at resource stations - Wildlife (top left), Soils (top right), and Aquatics (bottom).

much teamwork and cooperation from all involved, the event was quite a success. Thirteen teams from across Maryland traveled to participate in our first in-person event since 2019. The 2020 event, like most things, was cancelled. 2021 we took to a virtual platform. While it was a success, virtual does not compare to the students actually participating in a hands-on experience. The Maryland Envirothon Steering Committee hopes to return to a two-day event in 2023, allowing for participating teams to receive additional training and interact with, and be able to ask questions of, natural resource professionals.

After the teams were finished competing, and while waiting for the final scores, Howard County Executive Calvin Ball and County Councilman David Yungmann stopped by to commend all of the students participating from across the state along with a few special words of encouragement for the Howard County team from Wilde Lake High School.

Congratulations to the winning team from Richard Montgomery High School, Montgomery County. The team will represent Maryland during the NCF Envirothon being held in Miami, Ohio.

If you would like additional information about Envirothon in Howard County contact Kristal McCormick, 410.313.0680 or kmccormick@howardcountymd.gov

Maryland's 2022-2023 Cover Crop Program

SAVE THE DATE!

This year's cover crop sign-up runs from **July 1 through July 18, 2022**. This is your opportunity to apply for grants to help pay for seed, labor, and equipment costs to plant cover crops in your fields this fall.

WHY COVER CROPS?

Cover crops are your first line of defense against erosion and runoff in winter. Want to improve your soil's health? Check out this triple play of benefits:

- Cover crops add organic matter to the soil.
- Cover crops help suppress weeds and reduce compaction
- Cover crops protect fields from too much or too little rain

WHAT'S NEW THIS YEAR

- The base rate for incorporated seed has been raised to \$55/acre.
- The incentive payment to plant rye and mixed species has increased to \$15/acre.

ADDITIONAL PROGRAM HIGHLIGHTS

- Incorporated seed qualifies for a \$10/acre early planting incentive.
- Aerial seed or aerial ground seed cover crops into standing corn on or before September 10, 2022 to qualify for a \$10/acre incentive payment.
- Terminate your cover crop after May 1, 2023 to qualify for a \$10/acre Extended Season incentive payment.
- Plant rye or multi-species cover crops for a \$15/acre incentive payment.
- Plant cover crops after corn, soybeans, sorghum, tobacco, vegetables, hemp and millet.

ELIGIBLE COVER CROP SPECIES

- Cereal Grains:** Wheat/Spelt, Rye, Barley, Triticale, Oats, and Ryegrass
- Brassicas:** Forage Radish and Canola/Rape
- Legumes:** Clover, Austrian Winter Peas and Hairy Vetch (must be planted with a cereal grain as part of a mix)

COVER CROP MIXES

- Two-species cover crop mixes may be planted at a rate of 50% cereal grains and 50% brassicas or legumes.
- Three species mixes (50/25/25) must contain a minimum of 50% eligible cereal grains.

PLANTING TERMINATION DATES AND LATE PLANTING EXTENSIONS

- Plant cereal grains by November 5, 2022. Some species have earlier deadlines.
- Mixes containing legumes, forage radish, canola/rape, or oats must be planted by October 1, 2022.
- The aerial seeding deadline for cover crops is October 10, 2022. Some species have earlier deadlines.
- Terminate cover crops between March 1 and June 1, 2023.
- Cover crops planted from November 6 through November 15 qualify for a reduced flat rate. Seed must be incorporated, the rye incentive is available, and termination must occur after May 1, 2023.

PROGRAM ELIGIBILITY

- You must be in good standing with the Maryland Department of Agriculture's (MDA) Conservation Grants Program and in compliance with Maryland's nutrient management requirements.
- You must submit a current Nutrient Management Plan Certification with your application. Forms are available on MDA's website: mda.maryland.gov/conservation
- Additional restrictions may apply.

2022-2023 COVER CROP PLANTING AND PAYMENT OPTIONS					
TRADITIONAL COVER CROPS PAYMENT OPTIONS	NO-TILL	CONVENTIONAL	BROADCAST WITH LIGHT, MINIMUM OR VERTICAL TILLAGE	AERIAL/ AERIAL GROUND SEEDING	BROADCAST STALK CHOP AND BROADCAST CULTIPACKER
Base payment:	\$55/acre	\$55/acre	\$55/acre	\$60/acre	\$55/acre
Plant by October 10, add:	\$10/acre	\$10/acre	\$10/acre	\$0/acre	\$0/acre
Aerial seed into standing corn on or before September 10, add:	\$0/acre	\$0/acre	\$0/acre	\$10/acre	\$0/acre
Plant rye or a multi-species cover crop, add:	\$15/acre	\$15/acre	\$15/acre	\$15/acre	\$15/acre
Terminate cover crop after May 1, add:	\$10/acre	\$10/acre	\$10/acre	\$10/acre	\$10/acre
Maximum Payment Amount:	\$90/acre	\$90/acre	\$90/acre	\$95/acre	\$80/acre
Flat rate: (for cover crops planted from November 6 through November 15)	\$45/acre	\$45/acre	\$45/acre	\$0/acre	\$0/acre



INTRODUCING Cover Crop *Plus+*, a new pilot financial incentive program for soil health farmers. Cover Crop *Plus+* offers higher incentive payments and more perks for farmers who plant cover crops to improve soil health. The program is offered by the Maryland Department of Agriculture's Conservation Grants Program.

HOW IT WORKS

Farmers sign a contract to grow cover crop mixes on the same field for 3 consecutive years. Participants agree to maintain a living root system in enrolled fields for most of the year and manage the cover crop to achieve maximum soil health and water quality benefits.

The base payment for this premium incentive program is **\$115/acre per year**. Optional add-on practices can increase the reimbursement rate to **\$160/acre**. To qualify for payment, optional add-ons must be new practices (not used in the previous 3 years) for an enrolled field.

THE DETAILS

- Participants agree to plant cover crops on the same fields for 3 consecutive years.
- Fall cover crops must be planted by October 1 of each year.
- Participants must plant a cover crop mix containing at least 50% cereal grains and 25% legumes.
- This program uses the same species and seeding rates as Maryland's traditional Cover Crop Program.
- A cash crop is:
 - Planted directly into a living cover crop in the spring, or
 - The cover crop is terminated no earlier than one week before the cash crop is planted.
- Tillage is limited to no-till or conservation till throughout the 3-year contract.
- Participants may enroll up to 500 acres in this program.

If you are interested in learning more about or signing up for either the traditional Cover Crop Program or the Cover Crop Plus Program in Howard County please contact Kristal McCormick, 410.313.0680 or kmccormick@howardcountymd.gov

COVER CROP PLUS+ RATE CHART WITH ADD-ON PRACTICES

PRACTICE	PAYMENT RATE
Base Rate Cover Crop <i>Plus+</i> Conservation Tillage	\$115/acre (per year)
Option 1: Conservation Crop Rotation Add diversity to your current crop rotation	\$15/acre
Option 2: Integrate Livestock into Cropland Graze a well-established cover crop	\$15/acre
Option 3: PSNT (Pre-Sidedress Soil Nitrate Test) Use the PSNT to determine nutrient applications and timing for corn fields that have received organic nitrogen sources	\$15/acre

ELIGIBILITY

- You must meet the State of Maryland's definition of an "agricultural operation."
- If you lease land, you must confirm that the enrolled acres will be under your care for the entire term of the agreement.
- You must be in good standing with the Maryland Nutrient Management Program, the Maryland Agricultural Water Quality Cost-Share Program, the Maryland Agricultural Land Preservation Foundation Program, and other MDA conservation grants programs.
- You must submit a current Nutrient Management Plan Certification with your application.
- Additional restrictions may apply.

HOW TO APPLY FOR COVER CROP *Plus+*

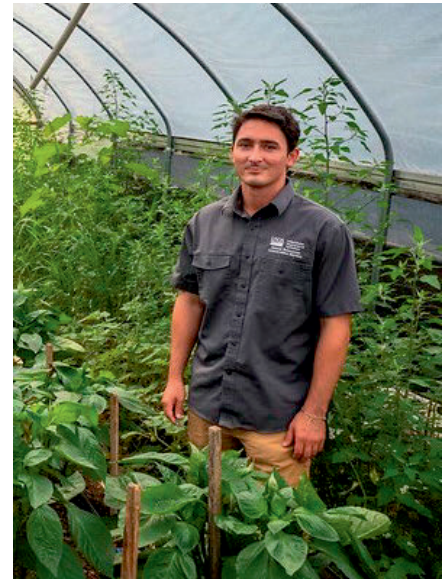
- Download an application from mda.maryland.gov/conservation
- Take the completed application to your local soil conservation district to review and submit to MDA
- Wait for your approval letter before proceeding.

Sam Engler, NRCS District Conservationist

Sam (pictured right) grew up in Carroll county and attended Century High School before graduating and heading to University of Maryland, College Park. There he studied Environmental Science and Geographical Information Systems. While a student at UMD he began interning with Natural Resources Conservation Service (NRCS). He worked as an intern in Howard, Montgomery, Worcester and Somerset counties, and at the Plant Materials Center in Beltsville.

Following his graduation in 2016, Sam accepted a job as a Soil Conservationist with NRCS in Baltimore County and Baltimore City, where he worked until coming back to Howard County by accepting the position as the District Conservationist. Outside of work Sam enjoys hiking, traveling, and playing with his dog. He is looking forward to starting in his new role helping the members of the agricultural community in Howard County and getting conservation on the ground.

Howard Soil Conservation District is excited to welcome Sam back to Howard County.



Learn More About Cover Crops in Under 11 Minutes



How Did Cover Crops Become so Popular?

This video (link below) explores the origins of cover crop research in Maryland and how scientists at the University of Maryland Wye Research and Education Center and the Harry R. Hughes Center for Agro-Ecology helped advance the practice toward national and international use.

www.youtube.com/watch?v=SQS8khhRvcA

MDA's Conservation Spotlight: Cover Crops

Farmers share how they have incorporated cover crops into their management systems and the benefits they have experienced by doing so.

www.youtube.com/watch?v=zTR0qqgtgY4&list=PLdMGQvDTNcyzaHZPhn5ZfQCmZ60P4OFOS&index=1

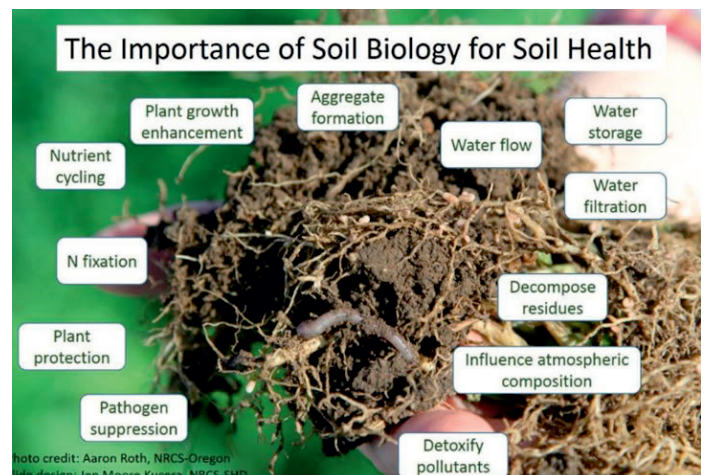
Soil Health and Soil Biology

Soil Health is the continued capacity of a soil to function as a vital living ecosystem that sustains plants, animals, and humans.

Healthy functioning soils: produce food, fuel, fiber, and medicinal products; store, filter, and release water; resist diseases, pests, and pathogens; and store and cycle nutrients internally.

Learn how soil biology plays a role in soil health. Check out the webinar recording for "Biological Indicators of Soil Health: What they are, how they are measured, and what is on the horizon?" (link below)

<https://conservationwebinars.net/webinars/biological-indicators-of-soil-health>



Ag Preservation Tax Credit

If your farm is under easement with the Howard County Agricultural Land Preservation Program (ALPP) or the MD Agricultural Land Preservation Foundation program, you are eligible to apply for a property tax credit. The credit equals 75 percent of any county property tax imposed on the land, not including any improvements. The deadline for submitting an application is July 31. ALPP staff sent a reminder letter out to all eligible property owners several weeks ago to encourage application by June 10, which was the Department of Finance's cut-off for the credit showing up on the July 1 bill. You can still apply anytime up until July 31, but your credit will be reflected on a later, corrected bill.

The application can be found under ALPP Resources on this link: <https://www.howardcountymd.gov/planning-zoning/agricultural-planning>. If you have any questions, please contact Lauren McDonald at lmcdonald@howardcountymd.gov.

Save the Date

Howard Soil Conservation District's 2022 Cooperator Dinner will be held Thursday, September 15th. Additional details coming soon. We hope that you will join us.

MDA's Latest Conservation Videos

Nutrient Management Planning Can Help You Fight Back Against Fertilizer Costs

Nutrient management planning helps farmers protect local water quality while improving farm efficiency and profitability. Meet a Washington County dairy and grain farmer who gets the most out of his nutrient management plan.



www.youtube.com/watch?v=VHm9jHO8248&list=PLdMGQvDTNcyzaHZPhn5ZfQCmZ60P4OFOS&index=7



Does Your Pasture Need a Makeover?

Sound pasture management provides health benefits for both your horses and local waterways. Learn how this Anne Arundel County barn manager uses rotational grazing to improve pasture grasses and save on feed costs.

www.youtube.com/watch?v=JmVVQNnQUe4&list=PLdMGQvDTNcyzaHZPhn5ZfQCmZ60P4OFOS&index=6

Will Your Garden Survive Climate Change? What You Need to Know

Are you looking for ways to reduce your lawn's carbon footprint? Can green landscaping really reduce your home's heating and cooling costs? What's the secret to building healthy, resilient soil? The experts at the University of Maryland Extension Home and Garden Information Center have teamed up with MDA to provide you with what you need to know and do to fight climate change in your own backyard.

Visit mda.maryland.gov/SiteAssets/Pages/fertilizer/Tip8.pdf



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