## Montgomery Conservation Connection



October 2019

## Montgomery County STEM Teachers Tour Montgomery County Farms



STEM Teacher's visiting Pleasant Valley Farm

On August 8<sup>th</sup>, the Montgomery Soil Conservation District, the Montgomery County Office of Agriculture (OAG) and the University of Maryland Extension-Montgomery County participated in a Chesapeake Bay Foundation sponsored mini course for Montgomery County Science, Technology, Engineering and Mathematics (STEM) teachers. The Mini Course was entitled "Connecting Montgomery County to the Chesapeake Bay through Environmental Chemistry". This day-long agricultural tour was part of a five day event that ran August 5<sup>th</sup>- 9<sup>th</sup>. The District, OAG and Extension conducted a day long bus tour of several Montgomery County farms and discussed the challenges farmers face in an urban County as well as the role farmers play in the Chesapeake Bay restoration effort.

On Day I of the course, teachers explored questions involving the unique impacts Montgomery County schoolyards, backyards and neighborhoods have on our waterways and learned about the tools used to quantify those impacts by visiting environmental education centers and County parks. One goal was to explore avenues to integrate these concepts into their STEM program curriculum.

On Day 2, teachers explored the Potomac and & Anacostia River systems by boat. Here teachers learned how hands-on field experience can enhance classroom discussion and stimulate student engagement and empowerment that translates into student led actions.

Day 3, the teachers were touring the Washington Suburban Sanitary Commission Wastewater Treatment Plant. Here teachers learned about the processes involved in the treatment of our drinking and wastewater and how to make connections to their classroom curriculum. More importantly, they learned how our daily water decisions impact the Potomac River, Chesapeake Bay and its tributaries.

Day 4, teachers toured three Montgomery County farms and interacted with farmers and State and County agricultural resource professionals where they discussed the role farmers play in the Chesapeake Bay restoration effort. Teachers had the opportunity to learn about how farmers are helping to clean up the Chesapeake Bay through the implementation of Soil Conservation and Water Quality Plans, Nutrient Management Planning and other Agricultural Best Management Practices that reduce nutrients and sediments entering our waterways. Teachers also learned

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## Calendar

Winter Cover Crop
Last day for Planting - Nov. 5th
Last day for Reporting - Nov. 12th

Agricultural Nutrient Management
Update Training - Dec 17th

MSCD Office will be closed on the following days:

November 11th November 28th December 25th



### **Montgomery**

about nutrient reductions to the Bay. Since 1985, agriculture has reduced nutrient loads to the Bay by an average of 10.5 million pounds of nitrogen per year. By 2025, an additional 8.4 million pounds of nitrogen must be reduced by all contributing sectors. Teachers then learned while farmers are responsible for 43% of the nutrient loads, under the Phase III Plan, they are being asked to achieve 51% of the reduction or 4.3 million pounds of nitrogen, per year.

Teachers also got a short course in farm economics by understanding the agricultural market challenges, cost of land, machinery and the inputs needed to nurture a crop all the way to harvest. Through this discussion, teachers learned that while agricultural Best Management Practices help to address soil and water resource concerns, most do not result in an increase to the farmer's bottom line. This means farmers are voluntarily installing practices at their own expense and it is one reason there are publicly funded cost-share programs designed to reduce the farmers' cost of practice implementation. The key takeaway is that farmers are doing their fair share and more to help clean up the Chesapeake Bay!

The final day of the tour found the STEM teachers canoeing along the Monocacy River where they stopped along the way to investigate water quality. Teachers learned how smaller tributaries like the Monocacy River contribute and connect to the overall health of the Bay.

We found that the agricultural component of the five day mini course was an incredible success. The STEM teachers saw first hand what farmers are doing on a voluntary basis to help protect the Bay and they heard about the unique challenges that face agriculture in an urban County.

"Everything was amazing, I could never have planned or even imagined a better day to immerse the teachers in farming of Montgomery County and its challenges and successes for the Bay. I think offering this opportunity for future Montgomery County Chesapeake Classroom Courses as well as other interested teachers will provide a new but very powerful force to our classrooms and therefore our future" Kellie Rogers of the Chesapeake Bay Foundation.

# Conservation Planning and its Importance in Meeting the Watershed Implementation Goals

#### **Background**

Over the past several issues of the Montgomery Conservation Connection, we have kept our readers apprised of the progress of the State's Chesapeake Bay Watershed Implementation Plan ("the WIP Plan"). In summary, through the WIP Plan, each local jurisdiction's four land use sectors (Wastewater, Stormwater, Septic and Agriculture) have been assigned nutrient and sediment reduction goals that must be achieved by 2025. Last August, the Montgomery Soil Conservation District in partnership with the Maryland Department of Agriculture held a local Agricultural Watershed Implementation Plan meeting. Local farmers and agricultural assistance agencies met to develop the Phase III agricultural nutrient and sediment reduction plan. Over the past year, this plan has continued to go through refinements and now we are beginning the first year of the six-year plan (2019-2025).

One of the agricultural goals under the local WIP Plan is achieving a total of 36,000 acres of agricultural land covered by Soil Conservation and Water Quality Plans (SCWQPs). One of the services the District can provide to landowners, who we refer to as "cooperators", is to help develop SCWQP's for their farms. These services are provided to our "cooperators" free of charge. What is important about this 36,000-acre goal is not only does it include writing Conservation Plans for farms not currently cooperating with the District but also maintaining the Conservation Plans developed that are in our files. In order for the SCWQP to count towards our WIP goal it must not be more than 10 years old. Any plan that is more than 10 years old must be updated and agreed to by the cooperator. With this in mind, we thought it would be a great idea to explain what a Soil Conservation and Water Quality Plan (SCWQP) is and why it is important to have a plan written (if you don't already have one) or have it updated.

#### What is a Soil Conservation and Water Quality Plan?

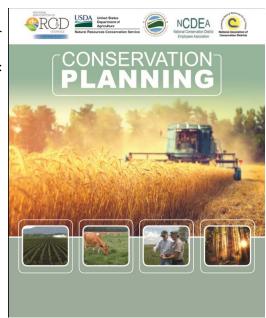
A Soil Conservation and Water Quality Plan (SCWQP) is a comprehensive document that addresses natural resource management concerns on agricultural land and recommends utilizing Best Management Practices (BMPs) that control erosion and sediment loss and manage runoff. SCWQPs include Management Practices such as crop rotation and structural practices such as grassed waterways and grade stabilization structures. At the request of a cooperator, the Soil Conservation District works to determine the group or system of practices needed to address specific erosion and runoff concerns on the farm. The practices are designed to control erosion within acceptable levels and to be compatible with Management and cropping systems. If substantial changes in Management do not occur, a SCWQP, can be used for up to ten years without revision. Nutrient reduction is only one of many benefits derived from SCWQPs. Also, included in a SCWQP are recommendations concerning forestry management, wildlife habitat and plantings, pond construction and management and other natural resource objectives.

### Why is having an approved Soil Conservation and Water Quality Plan Important?

Contained within a Soil Conservation and Water Quality Plan are certain Agricultural Land Management Practices or "conservation practices" which when properly implemented are valuable tools for protecting water quality as well as conserving related soil and water resources. Agricultural land management and conservation practices are categorized as follows:

- 1. Traditional farming activities such as plowing, disking, grazing, cultivating, planting and harvesting.
- Natural Resources Conservation Service (NRCS) Agricultural Land Management Practices listed in the Field Office Technical Guide (FOTG).
- Non-cost Shared Best Management Practices described in the Verification Procedures Manual published by the Maryland Department of Agriculture (MDA).

No land disturbance activity over 5,000 square feet or 100 cubic yards is exempt from the laws that govern erosion, sediment control and stormwater management. Under direction of the Soil Conservation District (SCD), conservation practices listed under categories 2 and 3 above must be designed, constructed and maintained in accordance with their respective standards and specifications. These conservation practices must be incorporated within an approved Soil Conservation and Water Quality



Plan for the farm where the installation occurs. The District determines the adequacy of the conservation plan, reviews the proposed conservation practices and approves the practice installation.

For these reasons, it is critically important to have a current Soil Conservation and Water Quality Plan developed or updated for your farm. It is important to understand that what is written in the Plan are the conservation measures (if any) that may be needed to address any on-farm resource concerns. More importantly, once the plan is completed, it will help the District document and get "credit" for the conservation efforts our cooperators implement to the State regulatory agencies. These measures are tallied, and then extracted by State regulators so that the data may be incorporated into the Chesapeake Bay Watershed Model. This helps the District to show what farmers are doing to help improve the Bay in a voluntary setting.

As we embark on meeting the 36,000-acre SCQWP goal, we will be querying our conservation plan database to identify plans that have expired and are in need of updating. Once identified, our Conservation Planners will be reaching out to these cooperators. However, you don't have to wait for us to contact you. If you know your plan needs updating or you don't believe you have a conservation plan for your farm, you can contact the District at 301-590-2855 to request our assistance. Conservation Planning is a critical component of the County's Agricultural WIP Plan and we need your help in meeting the 2025 conservation planning goal head on!

Page 4 Montgomery

## 2019 MSCD Cooperator's Dinner, An Evening of Conservation Excellence

The Montgomery Soil Conservation District Cooperators dinner is a very important event for the District. The purpose of our annual dinner is to take a break from our day to day activities and gather to celebrate soil and water conservation here in Montgomery County. The event allows us to do several things: Promote and educate others about the importance of being good stewards of the land, keep the community up to date on the changing environmental landscape and recognize the cooperators in the County who have made a commitment to conservation. The evening also provides the opportunity to share our conservation experiences and exchange information with attendees in a very informal setting. Even more importantly, the dinner provides a pathway to extend our sincerest "thank you" to everyone that helps to make the conservation of our natural resources a priority.

The venue for this year's dinner was Brooke Grove Farm. Our gracious host, Dr. Charles Mess, his family and staff care for a beautiful tract of land located in the heart of Olney, Maryland. Despite the threat of severe thunderstorms, over 100 individuals attended and enjoyed the peaceful surroundings, conservation presentations and recognitions as well as a delicious meal. On site, our staff provided participants a tour and discussion of the conservation measures and practices Brooke Grove Farm has implemented on-farm. We also featured two video presentations during the event.

"Conservation Kids: A Green STEM Documentary," a 30-minute film developed by Cheryle Franceschi, a local film maker, explores the connection of learning in the STEM fields that include Science, Technology, Engineering, and Math with experiential learning in the natural world. The film highlights real-world events using STEM principles to explain the connection between Mother Nature and her agricultural lands, waters, parks, soils and wildlife habitats. Dr. Terron Hillsman, State Conservationist for Natural Resource Conservation Service in Maryland who is featured in the film said "We have to continue to expose parents and children that are not actively engaged in agriculture to what's going on in agriculture but also what farmers are doing to conserve the soil, conserve the land, and make sure it's available to future generations". We also had the opportunity to air excerpts from the documentary "Losing Ground" presented by the American Angus Association that exposes the impact of urban sprawl on American agriculture. This nationally televised documentary featured two Montgomery County Farmers who discussed the challenges as well as the opportunities of farming on the edge of large metropolitan areas. One of the main takeaways from this film is that we are losing farmland almost twice as fast as we had thought before. Which is about 1.5 million acres a year or 175 acres every hour.

The evening culminated with the presentation of several recognitions to individuals that were conservation leaders this year within Montgomery County. James "J" Harne was recognized as the **District's Outstanding Employee**. "The District is very fortunate to have such a dedicated and

passionate employee in J. Harne. His demonstrated commitment to conservation and conservation education is infectious to everyone he meets and he is a valuable member of the District's Conservation team" said John Zawitoski, MSCD District Manager.

J. has a history of providing excellent service and assistance to our cooperators. The effectiveness of his efforts is often rewarded through success in program participation or through direct feedback from our cooperators and other clientele. J. is always focused on providing the most accurate information so that he can provide exceptional customer service as well as find ways to improve program delivery or streamline technical assistance matters.



Pictured left to right John Zawitoski, MSCD District Manager, Robert Butz, MSCD Chair and J. Harne 2019 Outstanding Employee Award Recipient

The District also recognized Dr. Charles Mess as the recipient of the MSCD **Contribution to Agriculture Award.** Dr. Mess has been a conservation leader in the agricultural community for 34 years when he first signed up as a cooperator in 1985. He has demonstrated his commitment to conservation through the numerous Best Management Practices on his 203-acre farm. He has implemented numerous conservation practices including a waste storage/ composting facility, remote watering facilities, stream fencing, stream crossings, a rotational grazing system, construction of an on-farm pond, and installation of a roof runoff system. He has conducted a timber harvest that implemented forest harvest BMP's to mitigate soil erosion associated with the activity.

Though like many cooperators, Dr. Mess has utilized cost share programs to implement several practices on his farm, his deep commitment to conservation is evident by the investment of conservation work achieved at his own expense. Dr. Mess's operation has been certified by the Maryland Association of Soil Conservation Districts (MASCD) under the Farm Stewardship Certification and Assessment Program (FSCAP) and this year, has been recognized by the National Association of Soil Conservation Districts as Montgomery County's first Soil Health Champion. Dr. Mess's long association with the District and his history of conservation work on his farm makes him very worthy of receiving the District's Contribution to Agriculture Award.

Last but certainly not least, the District and our conservation partners (MDA and NRCS) honored Windridge Farm, LLC with the **2019 Cooperator of the Year** award. Windridge Farm,



Pictured Left to right John Zawitoski, MSCD District Manager, Robert Butz, MSCD Chair and Dr. Charles Mess, Contribution to Agriculture Award Recipient

LLC is owned and operated by the Butz family. They are excellent examples of conservation leaders within the Montgomery County agricultural community. Some of the more notable conservation practices that have been implemented on their farms include the installation of a trough system that integrated a waterway and innovative drop structure, grassed waterways, construction of a large lagoon in association with an aquaculture system, construction of an agricultural chemical storage structure to contain chemical waste and reconstruction of a farm pond that included a forebay to help reduce sediment accumulation in the pond. They have also worked with the District on the installation of a farm access road and coordinated with the District for erosion and sediment control and stormwater management associated with their new on-farm winery. They are also pioneers in nutrient trading, being one of the first cooperators to participate in the nutrient trading trials to determine

what it would take to be able to generate tradable credits. They are avid implementors of conservation tillage methods and participate in both the traditional and local commodity Cover Crop Program.

Windridge Farm, LLC has both a current Soil Conservation and Water Quality Plans and a Nutrient Management Plan for their operation. They have participated in both the MACS & EQIP program for cost share assistance for installing agricultural Best Management Practices on their farms. Several family members are involved with agricultural committees and organizations to help promote soil and water conservation as well as a sustainable agricultural industry. The District congratulates



Pictured Left to right Justin Culler, Robert, Jeremy and Teddy Butz of Windridge Farm, LLC - 2019 Cooperator of the Year

Windridge Farm, LLC as the 2019 Cooperator of the Year.

We hope all that attended our event enjoyed the evening and we look forward to seeing everyone again for next year's Cooperators Dinner. Next year will mark the 75<sup>th</sup> Anniversary of the Montgomery Soil Conservation District. Please stay tuned for more information about our Dinner and Anniversary celebration!

Page 6 Montgomery

## Gratitude

The Montgomery Soil Conservation District is appreciative of all the sponsors, supporters and guests of the 2019 Cooperator's Dinner. It is with sincere gratitude that we say "Thank You!"

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## Cover Crop Update

2019 Winter Cover Crops—As a reminder cover crop eligibility this year is also determined by complying with the Nutrient Management Law. A current Nutrient Management Plan is required to receive a payment for the program. If you do not have a current Nutrient Management Plan for your farm operation, please consult with you planner as soon as possible to have one completed. There are important dates to remember for the MDA Cover Crop Program. October 1st was the last planting date for radish, oat, clover, vetch and winter pea cover crops. October 15th is the last date for barley planting. rye, triticale and wheat all have a November 5th deadline.

October 7th was the last date for aerial seeding. October 15<sup>th</sup> was the last date to seed and incorporate using broadcast stalk chop and broadcast cultipacker methods. The date of incorporation with these methods is the planting date that should be reported to the Soil Conservation District.

When you visit the District Office to finalize your fall reporting, please remember to bring your seed tags or seed test

results with you. Seed tags must be signed as well as seed tests. Once all of your acreage has been planted and reported, you will be required to sign a Fall Certification form. Please call the District office ahead of time to schedule an appointment, especially on rainy days.

Winter Cover Crops play a vital role in most crop rotations on Maryland farms. For years, farmers throughout Maryland have been using Winter Cover Crops as one way to improve soil health, reduce soil erosion, suppress weeds and improve the overall health of the Chesapeake Bay. Thank you to all our participants this season. The program changes from year to year and we appreciate the patience of our cooperators. The Maryland Cover Crop Program is a beneficial and a cost-effective way to reduce nutrient and sediment movement into our local waterways.

## **Spotted Lanternfly Spotted in Cecil County**

Last year, we reported on the Spotted Lanternfly. A new invasive insect species that could affect crops and gardens here in Maryland. We encouraged farmers and landowners to become familiar with what this pest looks like and to report any sightings to the Maryland Department of Agriculture at <a href="DontBug.MD@maryland.gov">DontBug.MD@maryland.gov</a>. Early this summer, State officials found a small population of Spotted Lanternflies in Cecil County while surveying for pests. This prompted the Maryland Department of Agriculture to begin spraying to kill spotted lanternflies at multiple sites in the northeast corner of Cecil County and along the northern border of Harford County. "Even before the first Spotted Lanternfly was confirmed in Maryland last October, the Department and our partners



had been vigorously surveying and educating the public about this pest," said Maryland Agriculture Secretary Joseph Bartenfelder. "Due to its potentially devastating effects on the agriculture industry, treating for this invasive insect now is critical to controlling its spread in Maryland and protecting our State's agricultural commodities."

The Spotted Lanternfly, while an important agricultural pest, prefers to feed on *Ailanthus altissima*, a weed tree more commonly known as tree-of-heaven. Controlling tree-of-heaven is one way to help control the spread of this invasive species as they use this tree to aid them with reproduction. Detecting the pest early, while the population is small, is critical to stopping its spread and this is where you can play an important role by calling MDA or the extension office if you see Spotted Lanternfly or find egg masses.

The Spotted Lanternfly feeds on 70 different types of plants and crops, including grapes, hops, apples, peaches, oak, pine, and many others. They are originally from Asia and were first detected in Berks County, Pennsylvania last year. The Spotted Lanternfly continues to spread across our region where sightings have been confirmed in 14 counties within Pennsylvania as well as confirmed populations in Delaware, Virginia and New Jersey. There are no Spotted Lanternfly quarantine for businesses or homeowners in Maryland at this time.

If you suspect you have found a Spotted Lanternfly, snap a picture of it, collect it, put it in a plastic bag, freeze it, and report it to the Maryland Department of Agriculture at <a href="DontBug.MD@maryland.gov">DontBug.MD@maryland.gov</a>. Dead samples from any life stage can be sent to the Maryland Department of Agriculture's Plant Protection and Weed Management Program at 50 Harry S. Truman Parkway, Annapolis, MD 21401.

## The Browning Pasture

It may be hard to believe, but another year is almost over. Without a doubt, many horse owners are happy to see it go. A soggy spring and bone-dry summer have put the pressure on our pastures, leaving many of us wondering if it's time to consider renovating our weather-worn fields.

Fortunately, the first months of fall provide an excellent opportunity to assess the health of our pasture grasses. How so?

Truth be told, throughout spring and summer our pastures can be deceptive. Rich green color and vigorous growth may speak of a productive field, when in fact that beauty is only skin-deep. This is because most summer weeds, including crabgrass, stiltgrass, panic grass, and foxtail are already well along in their growth by the time we reach April and May. Come fall, however, they have either died off or have begun to turn brown.

How does your pasture measure up? October and November in our region should be growth periods for fescue, orchardgrass and bluegrass. Even during a dry spell, we should be able to see these grasses peeking out between the brown thatch of dead summer weeds. If we do not, that is a problem.

If your field has browned with no such promise of new growth, this is a likely sign that it may be time to consider renovation. Whatever your pasture needs, the Soil Conservation District and its Equine Planner, Travis Gorleski are happy to assist you. Your pasture may even qualify for Cost-Share Programs that provide reimbursement for renovation projects.

For more information, contact Travis at 301-590-2832.

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DISTRICT MONTGOMERY SOIL



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