TALBOT SOIL CONSERVATION DISTRICT

NEWSLETTER

September 2020 Volume 20, Issue 3

RCPP – Taking Soil Health to the Next Level

Talbot County Producers Discuss Cover Crop Challenges and Successes After First Year of Adaptive Management

Cover cropping has been popular in Talbot County for years. Over half of the county's cropland is enrolled in cover crop programs, leading to many soil health benefits, including reduced erosion, increased diversity of soil organism communities, improved soil structure and aggregates, enhanced water infiltration, and more. The high participation in cover crop programs indicates producers in Talbot County recognize and appreciate these benefits, but formal opportunities to share knowledge and experience between landowners have been rare.

USDA Soil Scientists Annie Rossi and Jim Brewer demonstrate how to complete a "Soil Health Card" in the field to RCPP participants.

The Adaptive Management practice, offered through the NRCS RCPP – Taking Soil Health to the Next Level initiative, provides a platform to promote cover crop related discussions among producers, encourages producers to implement additional soil health practices on their properties, and evaluates the benefits of cover crop as a soil health practice. NRCS has partnered with the Maryland Department of Agriculture and University of Maryland to offer this opportunity. Participants sign up for three years of cover crop and adaptive management through the RCPP program, although some changes may be made to accommodate unique circumstances and crop rotations.

To assess the benefits of cover crop, participants select one field where a single species cover crop will be planted, and one field where a multispecies cover crop will be planted each year. NRCS will use their "Soil Health Card" to complete an annual in-field assessment, and employ more advanced soil lab analyses during the first year and final year of the study to evaluate the dynamic soil properties that reflect soil health in each field. The University of Maryland Soil Test Lab will evaluate Total Carbon and Nitrogen and C:N Ratio, Organic Car-

...Continued on Page 4

The Talbot SCD office is currently CLOSED to the public and is appointment only until further notice.

Talbot SCD to host Local Work Group meeting

We will be hosting our annual meeting via teleconference at **1:30 PM on September 30th, 2020**. The call-in information is as follows:

Phone Number: 888-844-9904
Access Code: 6377059

We are seeking assistance in determining what practices should receive federal priority funding for Fiscal Year 2021. The group will identify county-wide conservation needs, resource concerns, and pursue recommendations regarding Farm Bill Program implementation. If you have questions about this event, contact the Talbot service center at 410-822-1577, extension 3.

Office Space Available at the Talbot Agricultural Service Center

The Talbot SCD currently has two vacant suites available in our Agricultural Service Center located on Mary's Court in Easton.

Current tenants are the Talbot Soil Conservation District, USDA Farm Service Agency, UMD Extension, and Maryland Department of Agriculture Nutrient Management.

Both spaces are being offered at **$12/sq. ft.** Suites are adjoining, so they can be rented separately or together.

Suite 5 - 1,575 sq. ft.—Interior building access
Suite 6 - 1,826 sq. ft.—Interior and exterior building access

Visit **http://www.bensonandmangold.com** and search for 28577 Marys Court or directly enter **https://bensonandmangold.com/idx/mls-mdta137914-28577_marys_ct_suite_6_easton_md_21601** or **https://bensonandmangold.com/idx/mls-mdta137912-28577_marys_ct_suite_5_easton_md_21601** for more information including suite layouts.

Contact Shawn Smith at 443-746-4308 or **shawn.smith@maryland.gov**.

Cost-Share Opportunities for Conservation Drainage

Conservation drainage practices help reduce the movement of sediment, nitrogen and phosphorus into surface waters from agricultural land that is artificially drained. Agricultural practices and components commonly used in Maryland include subsurface denitrifying bioreactors, saturated buffers, created wet-lands, water control structures, underground outlets, and subsurface drains.

Denitrifying bioreactor | USDA-NRCS http:://www.nrcs.usda.gov/

◊ **Subsurface Denitrifying Bioreactor**–A buried trench filled with a carbon source, usually wood chips, and installed at the edge of a field to remove nitrate nitrogen from subsurface agricultural drainage water.

◊ **Saturated Buffer** - A biological treatment system used to divert subsurface drainage water to a vegetated area for treatment.

◊ **Wetland Creation** - A wetland is constructed at the edge of a field to treat and filter drainage water on a site that was not previously a wetland. Wetlands remove sediment, nutrients, organic matter and other pollutants from subsurface ground-water associated with farming operations.

◊ **Water Control Structure** - Used in con-junction with the above practices or as a stand-alone practice to help prevent gully erosion, manage water to improve crop production, and reduce the movement of nitrates to downstream waters.

◊ **Subsurface Drain** - An underground pipe used to collect and convey subsurface drainage water to a buffer, wetland, or bioreactor.

◊ **Underground Outlet** - Tubing, tile or pipe installed to move surface water from a treatment practice to a designated outlet.

What is a Soil Conservation & Water Quality Plan and why should I have one for my farm?

Recently completed diversion with a grade stabilization structure

Soil Conservation and Water Quality Plans (SCWQP) or **Conservation Plans** are a valuable tool for farmers and landowners to manage resources and improve profitability.

A conservation plan is a working document designed to fit each individual farmer's needs while protecting and conserving their soil and water resources.

A conservation plan folder contains:

- Aerial photo of the farm which includes property boundaries, topography, current and proposed BMPs, and possibly other resource items;
- A written record of the landowners decisions regarding cropping sequences, residue management, and nutrient management, with a plan for implementation and;
- A map showing soil types and boundaries along with descriptions and capability classes showing suitability for cropland, forestland, and wildlife habitat.

Conservation plans are not mandatory unless all or part of the farm falls within the Chesapeake Bay Critical Area, or you are applying for or currently participate in an agricultural land preservation program, or participate in any state or federal cost share programs.

If you are interested in developing a conservation plan for your farm, please contact one of the conservation planners to set up an on-farm visit. The planner will need to walk the farm and take notes on current farming practices and identify any resource issues which may need to be addressed. These plans are free and should be updated at least every 10 years.

Regional Soil Health Hub Meetings Scheduled

Talbot county is one of the leading counties in the use of cover crops in Maryland. Along with that, there is quite a lot of interest to assist farmers and landowners with gaining knowledge about what cover crops and practicing soil health can do for our land. An event is coming up that every farmer and landowner should consider joining. It is being produced by the *Million Acre Challenge*.

If you have not heard of this movement, you should investigate what it offers you to be a participant. As farmers and landowners, we are being blessed with a program that will lead us to understand a great deal of information beyond the simple idea of 20 plus years of cover crops scavenging left over nitrogen and receiving a per acre payment from MDA or NRCS.

The *Million Acre Challenge* will bring forward knowledge on soil health, new ideas for cropping, new light on improving profitability and success in improving the water quality in our mid shore area. By joining a **"Hub Group"** you will get this exposure and open the door for more cost assistance to learn about all of these new benefits.

Plan some time to join one of the mid-shore presentations on September 23rd or 24th.

For more information about the *Million Acre Challenge* and/or Soil Health Hubs contact Jack King or Laura Eddy at 410-822-1577 x 3.

Continued from page 1—

RCPP – Taking Soil Health to the Next Level

bon and Active Carbon, Aggregate Stability, and Soil Respiration. The Cornell Soil Health Lab will evaluate Active Carbon and Soil Respiration. These evaluation methods aim to detect changes over time to evaluate cover crop benefits and if a multi-species cover crop provides additional benefits over a single species cover crop. To reduce variability within the study, each field enrolled in the program has a been managed in a similar fashion and has a similar cropping history.

On August 25th, 2020, NRCS hosted the first of three discussion meetings for producers participating in the RCPP adaptive management and cover crop practices. The discussion session opened with an overview of the project, explaining the goals and methodology of the study. Next, producers were able to share the challenges faced and the benefits gained during their first year of the adaptive management study. Most producers used wheat or rye on their single species field, and wheat or rye, crimson clover, and forage radish for their multi-species fields. One producer used winter pea on their singles species field instead of rye or wheat.

Local farmers listen and discuss how the RCPP Adaptive Management program has benefited their grain operation.

A common challenge faced in the 2019 cover crop season was the lack of rain, leading to late germination of the cover crop seed. Despite this situation, producers experienced a significant amount of growth thanks to the high number of growing degree days presented with the mild winter. The winter pea posed a particularly significant challenge during the cover crop kill-down period, but the producer reported that he would be happy to use this cover crop species again. Planting green was identified as a way to minimize deer damage to young crops. The standing cover crop acts as a veil to guard the commodity crop from potential damage. Producers also noticed an increase in soil moisture retention in the areas where cover crop acted as a mulch to protect the soil. Participants are looking forward to seeing how the increased rainfall in 2020 impacts their cover crop stand, and how the 2020 year will compare to the 2019 results.

In spring of 2020, soil samples were taken from each field for a lab analysis. Samples were sent to the Cornell Soil Health Lab and the University of Maryland Soil Test Lab. The results from the Cornell test, which measured Active Carbon and Soil Respiration, were distributed to each participant. Annie Rossi, NRCS Soil Scientist, helped the producers interpret their results. As a whole, the majority of fields were high in Active Carbon, but had low Soil Respiration. The high levels of Active Carbon indicate there is plenty of "food" available for soil organisms, but the low levels of Soil Respiration indicate there is room for improvement in the soil organism population. As producers continue to use a diverse mix of cover crop to supply a wide range of food for microorganisms, the soil organism population should increase in abundance and diversity, resulting in higher Soil Respiration.

The meeting participants also had the opportunity to witness the Soil Health Card in use, allowing them to gain a better understanding of the methods of analysis used on their property. NRCS Soil Scientists Annie Rossi and Jim Brewer demonstrated the methods used and explained how the results are interpreted. The Soil Health Card evaluates 7 physical soil properties; Surface Residue, Infiltration, Compaction/Root Growth, Organic Matter, Soil Structure/Aggregation, Earthworms, and Soil Odor. Each of these parameters can be observed in the field, and help to paint a picture of the current state of soil health in a field.

In the coming years, with the help of the Talbot County producers participating in the study, our research question, "Will the use of a multi-species cover cropping system show greater improvements to dynamic soil properties (soil health) compared to a single-species system?", will be explored. We hypothesize that the use of a multi-species cover crop system will lead to increases in soil health relative to a single species cover crop system. Through lab analysis and indicators observed through the Soil Health Card, our hypothesis will be tested.

For more information on this program, contact Jack King or Laura Eddy at 410-822-1577 x 3.

Agricultural & Environmental Law Conference 2020

This year's conference will be ONLINE and FREE!

ALEI invites agricultural professionals, attorneys, educators, environmentalists, farmers, policymakers, and students to join us for Maryland's premier conference on agricultural and environmental law. This annual event brings farming and conservation experts together for an exchange of ideas and education on current legal topics of interest.

Due to ongoing uncertainty related to the global pandemic, the conference will be offered online over the course of three weeks with six sessions:

NOVEMBER 2

2 PM *Pivoting in a Pandemic: Risk Management During COVID-19 from the Perspective of Maryland's Dairy Farms*

3 PM *A Fresh Look at Clean Air: Maryland Ambient Air Quality Study Roundtable*

NOVEMBER 9

2 PM *The Conowingo Dam Settlement- Litigation, Opposition and Re-Licensing*

3 PM *The Chesapeake Bay Foundation, et. al. v. EPA – A Case to Require a Watershed Wide Effort to Reach 2025 Bay Restoration Goals*

NOVEMBER 16

2 PM *Waters of the US: From Obama to Trump Understanding How the Rule Impacts Agriculture in the Mid-Atlantic*

3 PM *Developing Topics in Agricultural, Environmental, and Food Law*

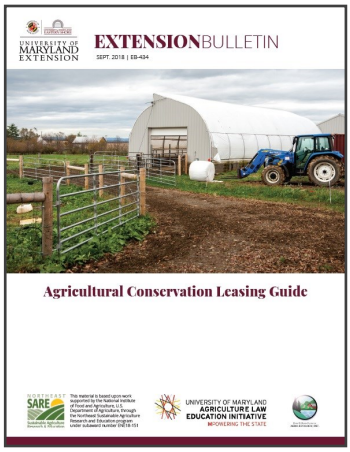
Registration and more information:
go.umd.edu/5EG

UNIVERSITY OF MARYLAND
AGRICULTURE LAW EDUCATION INITIATIVE

Questions? Email umaglaw@umd.edu

Agricultural Conservation Leasing

If you are landowner who leases your land to a farmer you should download the free **Agricultural Conservation Leasing Guide** developed by the University of Maryland Agricultural Law Education Initiative (ALEI) and the Hughes Center. This guide is meant to help farmers and landowners use leases as a tool to not only protect their business interests but to also implement stewardship planning and conservation practices on leased land. For more information and to download the guide, visit **https://agresearch.umd.edu/agroecol/educationoutreach/agricultural-conservation-leasing**.



Talbot SCD Board of Supervisors

About the Board

The Talbot SCD Board of Supervisors provides overall supervision and sets policy assuring that the district performs tasks required by law and memorandums of understanding. Supervisors are appointed to represent farming, forestry, wildlife, suburban/urban interests, and other natural resource interests in a district.

Appointments are made by the following groups, which each term five (5) years:

- Talbot County Government
- Talbot County Farm Bureau
- Talbot County Cooperative Extension
- Two supervisors are appointed by the SSCC from among residents of Talbot County.

Supervisors

- John Swaine III, Chairman (County Appointee)
- Lewis Smith, Vice Chairman (At-large)
- Kyle Hutchison, Treasurer (At-large)
- Lemmie Swann, Member (UMD Extension)
- Sarah Everhart (Farm Bureau)
- Shannon Dill (Extension Service), Secretary
- Billy Foster, Associate
- Raymond Harrison III, Associate
- Norman Fike, Honorary Member

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