



Fall 2019 Newsletter
Volume 5, Issue 4

Conservation Matters

Fall is Here...

I had the opportunity to travel across the state this past month, and I never tire of the beauty we experience in Pennsylvania during the fall season. We are truly fortunate to be able to experience the beautiful canvas on full display every year.

Currently we are wrapping up what was another busy year. Within the next month we will start the process of planning projects and goals for 2020. There is never a shortage of work to be done. If anything, there is only a shortage of time available to get work completed. (I am sure you, dear reader, can relate!) As we start to look towards 2020, I anticipate another exciting year of conservation work in Northumberland County. I hope you enjoy the rest of this beautiful fall.

Judy Becker

REAP Program Funding Increased for 2019-2020

Pennsylvania Department of Agriculture's Secretary Russell Redding has announced the availability of \$13 million in Pennsylvania tax credits for on-farm conservation efforts. The Resource Enhancement and Protection Program (REAP) is a Pennsylvania tax credit program for agricultural producers who implement best management practices or purchase equipment that reduces the amount of nutrient and sediment runoff and improves the quality of Pennsylvania's waters.



Due to the passage of the PA Farm Bill, funding has increased to \$13 million, up from \$10 million. This is the 12th year of the program. Farmers may also now receive up to \$250,000 in any seven-year period, and spouses filing jointly can use REAP Tax Credits.

For more information, including the 2019-2020 REAP application packet, please visit agriculture.pa.gov. You may also contact Ryan Cherwinski, Agricultural Conservation Technician, for information on other funding programs that may be available at 570-495-4665 ext. 304.



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"Conservation Matters" is a quarterly
newsletter published by the
Northumberland County
Conservation District.

Our Programs: Erosion and Sedimentation Control, National Pollution Discharge Elimination System (NPDES), Dam Safety and Waterway Management, Environmental Education, Chesapeake Bay Program, Dirt & Gravel Roads, Agricultural Land Preservation, Watershed Protection and Education, Mosquito-borne Disease Control

Visit www.nccdp.org for more information. We are also on Facebook at www.facebook.com/nccdp.

APPLICATIONS FOR THE DIRT, GRAVEL, AND LOW VOLUME ROADS PROGRAM CURRENTLY BEING ACCEPTED

by: Michael McCleary, Erosion and Sedimentation Technician

The Northumberland County Conservation District receives approximately \$300,000.00 annually to fund work on dirt, gravel, and low volume roads. We are currently accepting applications for the funding of eligible projects until December 31, 2019. We would like to have sufficient projects approved for funding prior to receiving our annual allocation so that the funds can be disbursed to acceptable projects as soon as possible. All projects should be "shovel ready". We are required by law to spend all allocations within two years.

If you live near or regularly travel on a dirt or low volume paved road, (a road qualifies as low volume if it is traveled by 500 vehicles or less per day), which has a negative impact on a nearby stream or is negatively impacted by a stream, encourage your local municipality to consider applying for funding to reduce the chance of sediment pollution to the stream.

Pennsylvania's Dirt, Gravel, & Low Volume Paved Road Program

(An excerpt from the Center for Dirt & Gravel Roads Website)

Pennsylvania is the only state in the nation with a program of this type where such a large amount of funds are returned by the state to local municipalities for road work which improves the quality of water in our local streams.

SCC Program Overview

The Program received an annual allocation of \$4 Million from 1997 through 2013. Starting in 2014, the Program allocation was increased to \$28 Million, with a minimum of \$8 Million earmarked to paved low volume roads. A brief overview of the Program is provided below:

PA State Conservation Commission: Allocates funding to Conservation Districts based on amount of eligible roads and identified pollution sites.

Conservation Districts: County-based entities that administer the Program at the local level. Local public road-owning entities apply to the District for grants to fund individual worksites.

Quality Assurance Board: County-based multidisciplinary advisory board that establishes county-specific policies and ranking criteria, and recommends projects for funding.

Grant Applicants: Public road-owning entities who apply to their Conservation District for grant funding for individual projects. Most grant applicants are municipalities, although any state or local public road-owning entity is eligible after attending a two day "Environmentally Sensitive Maintenance" training.

Center for Dirt and Gravel Road Studies: Non-profit Center at Penn State established to provide education, outreach, and technical assistance to entities involved in the PA Dirt, Gravel, and Low Volume Road Program.

Key Program Facts:

- Stresses site-specific, long-term solutions to prevent erosion and pollution, instead of "band-aid" fixes.
- Reduces pollution while promoting sustainable unpaved roads.
- Minimal administration; limited to 2% at the state level; limited to 10% at the local level.
- Emphasis on informed local control and environmental soundness puts decision-making at local level.
- Adherence to program values assured through central training, technical assistance, and quality control.

You may contact us at any time by email or phone to be added to, or removed from, our mailing list. Simply call 570-495-4665 or email jbecker@nccdpa.org. If you would rather "Go Green," email us with the words "electronic newsletter" in the subject line and we will send our newsletter to you electronically.

NORTHUMBERLAND COUNTY CONSERVATION DISTRICT'S 2019 MEMBERS

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The Northumberland County Conservation District Board of Directors and Staff would like to thank our 2019 members for their kind donations. We would not be able to accomplish the work we do without our members' support! For more information on becoming a member of the NCCD, visit our website at www.nccdpa.org or call 570-495-4665.

AG CAREER DAY

by: Janette Leshner, District Conservationist, Natural Resources Conservation Service

On October 16th, the Northumberland County Farm Service Center hosted the second annual Career Day for the Milton Area High School. Thirteen students from the 10th grade who showed an interest in agriculture related careers came to the Farm Service Center to hear about the variety of careers that are with the Conservation District, NRCS, Pheasants Forever, and Penn State Extension.



After the morning session, the students made a field trip to a dairy farm where they talked with the farmer about the different careers that impact his business. The students were given a tour of the operation and then went to the field to learn how to do yield checks, pull soil tests and check fields for compaction.

From the dairy farm, the students traveled to the Little Shamokin Creek Watershed Association's pavilion on the creek.

There they learned about some of the duties of the Mosquito-Borne Disease Technician who demonstrated the different mosquito trapping and monitoring techniques. The NCCD Watershed Specialist demonstrated how a stream's health is assessed based on aquatic macro-invertebrates and provided an aerated live-specimen pool for the students to be able to practice identification of different species of macro-invertebrates.

Despite the cool temperatures and steady rain, the students enjoyed the event. The head of the Milton High School Ag Department let us know that the students were raving about their Agriculture Career Field Day when they returned to school and said our work had made a big impact on his students.

The Farm Service Center is looking forward to hosting an Ag Career Day again next year.



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CHESAPEAKE BAY FARM INSPECTIONS: YEAR TWO

by: Ryan Cherwinski, Agricultural Conservation Technician

The Northumberland County Conservation District began conducting Chesapeake Bay Farm Inspections in July of 2018. Each year we are required to visit a certain number of farms which are selected randomly within a specific township. The townships that we focused on for the 2018-2019 fiscal year were Delaware, East Cameron, Jordan, and West Chillisquaque. One of the many positives from year one of the Bay inspections was the ability to work with farms we previously had not encountered. These new opportunities presented us with the ability to provide financial and technical assistance to farmers located in these townships. The overarching goal of the Chesapeake Bay farm inspection is to make sure all Pennsylvania agriculture operations are in compliance with PA's Manure Management and Agricultural Erosion and Sedimentation regulations.

For the 2019-2020 inspection year, NCCD will be conducting inspections within the boundaries of the Warrior Run watershed. We considered the increased focus from other agencies on this watershed, the potential funding for BMPs, and our lack of familiarity and project work within the area. Some may have received a letter from the District regarding this year's inspections. There are two plans we are looking for during the inspection: a Manure Management plan (MMP) and an Agricultural Erosion and Sedimentation plan (Ag E&S). If you are unsure if you need one of these plans, or would like assistance developing an MMP or Ag E&S plan, please don't hesitate to reach out to the conservation district. Below you will find information on MMP and Ag E&S plan requirements.

Manure Management Plans:

Manure Management plans may appear overwhelming when you are looking through the guidance book for the first time. There are many questions as to what sections must be filled out, who must have an MMP, and what to do once the plan is complete.

"Every farm in Pennsylvania that land applies manure or agricultural process wastewater (generated on the farm or received from an importer), regardless of size, is required to have and implement a written Manure Management Plan. This includes manure and agricultural process wastewater application by various types of equipment and/or direct application of manure by animals on pastures and in Animal Concentration Areas (ACAs). In other words, farms that do not mechanically apply manure but which do have pastures or ACAs still need a manure management plan." (from PA DEP's Manure Management Plan Guidance workbook)

Completed plans are to remain on the farm and need to be available upon request for the PA Department of Environmental Protection (DEP), Conservation Districts, as well as any other agency that would request the information.

Agricultural Erosion & Sedimentation Plans:

Since 2011, PA DEP revised Chapter 102 (Erosion and Sediment Control) and included new regulations that affect farmers. All farms that till or plow (including no-till) must make use of Best Management Practices (BMP) to minimize erosion and sedimentation. Any farm that plows or tills more than 5,000 square feet must have a written Agricultural Erosion and Sedimentation Control Plan (Ag E&S Plan). In addition, any farm that contains an Animal Heavy Use Area (AHUA), sometimes called an ACA (Animal Concentration Area), must also have a written Ag E&S plan. According to PA Chapter 102.1, an AHUA is a "barnyard, feedlot, loafing area, exercise lot, or other similar area on an agricultural operation, where due to the concentration of animals, it is not possible to establish and maintain vegetative cover of a density capable of minimizing accelerated erosion and sedimentation by usual planting methods." A farmer must prevent pollution to a water body from any Animal Heavy Use Area runoff, and the written plan must address all Animal Heavy Use Areas.

We would like to encourage all farmers; small, large, part-time or full time, to get into compliance by having the needed plans for your farm. Contact our office if you need assistance with any plan development, or if you have questions. You can contact Ryan Cherwinski at 570-495-4665 ext. 304. Be sure to check www.nccdpa.org for more information.

Happy Harvest!



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ALLEY CROPPING: STABILITY IN TURBULENT TIMES

by: David McCoy, Soil Conservationist, Natural Resources Conservation Service

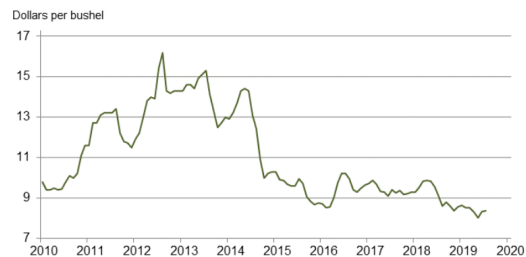
As many of you can attest, when I first step onto your farm my initial question is typically how are your crops? Recently, more and more of the answers I receive are, “it has been too wet/too dry,” “yield is down,” “prices are down,” etc. The price index for corn and soybeans has been steadily declining for the past five years. Coupling this with more frequent and intensive storm events, some of you might not see a positive outlook for the future of farming.

Prices Received for Corn by Month – United States



USDA – NASS
08/30/2019

Prices Received for Soybeans by Month – United States



USDA – NASS
08/30/2019

While I may try, I cannot remedy any of these very real issues. However, what I can do is bolster your operation’s resiliency by helping you diversify your crops with alley cropping. Alley cropping is the practice of planting two or more rows of trees and/or shrubs within your fields while cultivating agronomic crops in the “alley” between tree rows.

The most obvious benefit of this practice is the diversification of your crop portfolio. As the fruit/tree nut market has historically been more stable, this diversification serves to protect you from economic downturns seen recently in the cash grain market. Along with the economic benefits, alley cropping also improves nutrient retention and recycling, increases carbon storage in the soil, improves the microclimate in each field, and provides wildlife habitat.

Photo by Christian Dupraz



Not without its shortcomings, alley cropping requires several years to produce, is more labor intensive, can complicate herbicide applications, and

requires a market for the products. However, as the future of farming becomes less clear, diversification can provide your operation stability and confidence. The monetary benefit coupled with decreased fertilizer requirement can provide a financial buffer when you need it most. If interested, contact me at the Sunbury NRCS (570-415-3127) office to discuss options.

Got Trees

Buyers of Standing Timber

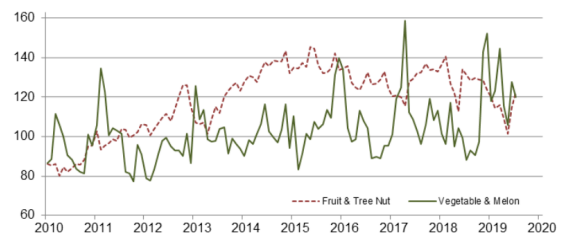
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United States: 2011=100



USDA – NASS
08/30/2019

MOSQUITO-BORNE DISEASE CONTROL PROGRAM UPDATE

by: Brandon Ball, Mosquito-borne Disease Control Program Coordinator

Wow, how time flies! I can't believe that another mosquito season has flown by. Alright, enough with the puns! Now that summer is over and autumn is upon us, let's talk about where our flying friends go when it gets cold out. Mosquitoes are cold-blooded creatures, so they cannot survive in colder temperatures. As the photoperiods become shorter and the temperatures creep down the mosquitoes that pester us throughout the summer months will begin to go into shutdown mode. This happens when temperatures stay consistently below 50° Fahrenheit. Some species will lay eggs once more in freezing water and then they will pass away shortly after. These eggs will survive the tough winter temperatures and hatch when the water warms up again in the spring. Others will take one last bloodmeal before searching for shelter from the cold. Look for mosquitoes on the inside walls of your barn, root cellar, or shed. You just might find some!

This season, like last season was one to remember but for quite the opposite reason. With the vast amount of rainfall and the tropical storm systems that hung around last year, there was standing water everywhere. As a result, mosquito populations were amplified, and so was the West Nile Virus (WNV). Last year was a record year for WNV, with over 2,900 positive mosquito samples and 130 human cases reported to the Centers for Disease Control and Prevention (CDC). This year, however, we saw a severe drop-off in the numbers. In the entire state in 2019, we have seen only 550 positive mosquito samples. In our five-county coalition, the numbers of positive mosquito samples dropped from 124 in 2018 to just 9 in 2019. This is absolutely a good thing for the residents of the Northcentral Coalition. There was one horse positive in Northumberland County and zero human positives in any of the five counties we serve. The total human case count for the entire state of Pennsylvania is currently at 2, although there is a bit of a lag with reporting in human cases, so there may be a few more human cases by the end of the year. In any case, this is great news for public health. The reason for this anomaly of a year is generally understood by the vector control community to be attributed to low levels of the virus in bird populations. We shall see what next year holds for WNV.

September marked the end of bi-weekly trapping for Zika Virus. This work was being done as part of a five-year research project funded by the CDC. There have been no local-borne cases of Zika Virus in the United States since 2017.

This year we also got a glimpse at a rare, but dangerous mosquito-borne disease known as Eastern Equine Encephalitis (EEE). EEE virus is a rare cause of brain infections (encephalitis). Only a few cases are reported in the United States each year. Most occur in eastern or Gulf Coast states. Approximately 30% of people with EEE die, and many survivors have ongoing neurologic problems (source: CDC). This year has seen an increase in human cases in Michigan, Massachusetts, Connecticut, Rhode Island, North Carolina, and New Jersey¹. Six people have died due to this disease in 2019. EEE is maintained in a cycle between *Cs. melanura* mosquitoes and avian hosts in freshwater hardwood swamps. *Cs. melanura* is not considered to be an important vector of EEEV to humans because it feeds almost exclusively on birds. Transmission to humans requires mosquito species capable of creating a "bridge" between infected birds and uninfected mammals such as *Coquilettidia perturbans*. Horses are susceptible to EEE infection, and some cases are fatal. EEE infections in horses, however, are not a significant risk factor for human infection because horses (like humans) are considered to be "dead-end" hosts for the virus (i.e., the concentration of virus in their bloodstreams is usually insufficient to infect mosquitoes) (source: CDC).

With the rise in incidence in nearby states, the vector control community in Pennsylvania increased surveillance for the mosquitoes that transmit this virus. In September, EEE was found in Pennsylvania in a wild turkey in Erie county, pheasants in Monroe county, and two horses in Carbon county. For more information, search for **Wolf Administration Warns Pennsylvanians Eastern Equine Encephalitis Confirmed in Three Counties**, or check the Centers for Disease Control and Prevention website (www.cdc.gov).

Adult tick surveillance began in mid-October. We are dragging edge vegetation in public use areas throughout the Northcentral Coalition with the goal of finding fifty ticks per county. The surveillance target will again be adult blacklegged ticks (*Ixodes scapularis*). This surveillance data will be used to determine population density (acarological risk), and infection rates of two less-known human pathogens.

As always, if you have any questions about mosquitoes or mosquito-borne illnesses, ticks or tick-borne illnesses, repellents, or educational opportunities, please feel free to give me a call at 570-495-4665 ext. 303 or email me at bball@nccdp.org.

¹Hauser, Christine. "States Warn Residents About Rare Mosquito-Borne Illness That Has Killed 6." New York Times Sept. 9, 2019. Web

LIVE STAKES: I'LL TAKE THEM WELL DONE

by: Chantel Shambach, Watershed Specialist

No, I'm not talking about the delicious ribeye, porterhouse, or NY strip steaks. I'm talking about live stakes. Live stakes are commonly used as a soil bioengineering technique that treats a variety of degraded riparian areas. In short, they are cuttings from desired tree species that are plunged into the eroded stream bank to promote quick tree growth. When they become established, the once small clippings will grow into developed shrubs/trees complete with stems, leaves, and roots.

Since live stakes are placed right along the stream or on the exposed stream bank, the selected species habitat consists of damp woods, saturated meadows, thickets, riparian areas, and swamps. The selection most often harvested for live stakes is listed in the table below:

| Shrubs | Trees |
|---|---|
| Buttonbush(<i>Cephalanthus occidentalis</i>) | American Sycamore(<i>Platanus occidentalis</i>) |
| Speckled Alder(<i>Alnus incana</i>) | Box elder(<i>Acre negundo</i>) |
| Smooth Alder(<i>Alnus serrulate</i>) | Tulip tree(<i>Liriodendron tulipifera</i>) |
| Gray Dogwood(<i>Cornus racemose</i>) | River birch(<i>Betula nigra</i>) |
| Silky Dogwood(<i>Cornus amomum</i>) | Quaking aspen(<i>Populus tremuloides</i>) |
| Redosier Dogwood(<i>Cornus sericea</i>) | Silky willow(<i>Salix sericea</i>) |
| Ninebark(<i>Physocarpus oulifolius</i>) | Black willow(<i>Salix nigra</i>) |
| Pussy Willow (<i>Salix discolor</i>) | |
| Winterberry(<i>Ilex verticillata</i>) | |
| Spicebush(<i>Lindera benzoin</i>) | |
| Elderberry(<i>Sambucus canadensis</i>) | |
| Highbush Blueberry(<i>Vaccinium corymbosum</i>) | |

Harvesting

Before harvesting, an inspection of the donor plant is important to be sure that the plant is healthy enough to supply cuttings. The best time for harvesting the live stakes is when the tree is dormant; between ground freeze and ground thaw. Dormant cuttings grow roots easier and are better able to resist environmental stresses. By using hand pruners, a hand saw, and/or loppers, branches are cut roughly 1/2 to 1 1/2 inches in diameter and 2-3 feet in lengths (Figure 1). It's important to indicate which section of the cutting is the bottom (that will be inserted into the ground to create roots) and the top (that will be exposed above ground to create stems and leaves). To properly indicate these areas, the tops are cut flat, while the bottom is cut at an angle.

Installing

The live stakes that Northumberland County Conservation District retains are installed in areas where stream restoration projects have been implemented or in areas being considered for repair. These live stakes are a line of defense against soil erosion and sedimentation within the stream channel (Figure 2). After harvesting and storing; the best time to plant the cuttings is when the ground is soft, in late fall or early spring. With the angled side of cutting pointed down, the flat top is pounded into the ground at a 90-degree angle. Two-thirds of the cuttings should be within the ground, but it's important to make sure that nodes are above and below the surface.

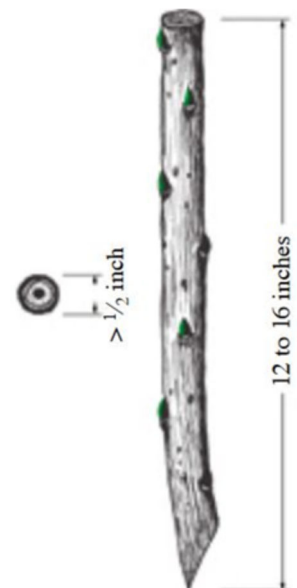


Figure 1: Typical size and diameter of each live stake.

LIVE STAKES: I'LL TAKE THEM WELL DONE, cont.

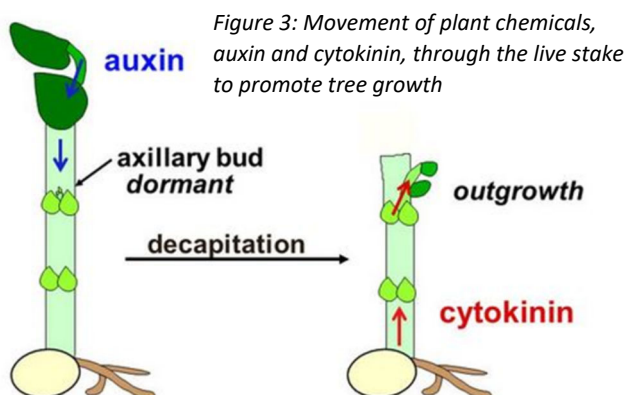
Figure 2: live stake progression
(photo credit to Google Images)



Success/Growth

The success of a live stake planting depends on many different variables: weather, flooding, soil type, proper installment, soil to stake contact, etc. It does, however, increase the probability for success when you harvest during dormant season because the stem wasn't cut when the tree was establishing energy to make new leaves. Success is when there is approximately 70-75% of survival. The growth of the live stakes is influenced by the release of chemicals, auxin and cytokinins, both having specific jobs. Auxin is the plant hormone, created in buds, that moves down to create roots; and cytokinins is the chemical, produced in roots, that travels upward to promote bud growth (Figure 3).

Comparison to other plants



There are differences in each planting method. Methods will depend on your buffer preference and whether live stakes, bare-root seedlings, or container trees are for you. Live staking is much cheaper (with little to no cost), easier to plant and handle, shelters are not necessary for success, less species selection, and limited to the first 10-15 feet from your stream. Bare-root seedlings have a small-medium cost associated, a little bit more effort and time to plant (depending on soil and size of seedlings), more species selection, shelters are highly recommended for survival, and can be planted anywhere in the buffer. Container stock have a higher cost associated, longer planting time and larger equipment for installation, more species selection, no shelters necessary, and can also be planted anywhere in the buffer.

NCCD harvesting events

Harvesting events create great team building opportunities since it takes a team to gather many cutting samples. When harvesting, it's important to have at least two people working together to make sure that cuttings are being cut to length, bottom parts are being angled, and that the bucket is being tended to. The NCCD is proudly partnering with Susquehanna University, DCNR, and Chesapeake Conservancy to help collect their goal of 27,000 stakes for spring 2019 through fall 2020. Last year the NCCD accepted cuttings from the Susquehanna University Live Stake Cooperative for various project sites, and it's time to help pay it forward. The NCCD will be looking to conduct live stake harvesting events each year, starting November 2019. I am open to participating with school groups, boy/girl scouts, community volunteers, etc. Please contact me, Chantel Shambach at 570-495-4665 ext. 306, if you are interested in helping with future events and so you can ultimately participate in Chesapeake Conservancy's fulfillment of their mission to "conserve and restore the natural and cultural resources of the Chesapeake Bay watershed for the enjoyment, education, and inspiration of this and future generations."

ICE CREAM BY THE STREAM

by: Janette Leshner, District Conservationist, Natural Resources Conservation Service

The Natural Resources Conservation Service and the Northumberland County Conservation District offices recently worked together to hold an outreach event in the Warrior Run Watershed as part of the recently selected National Water Quality Initiative (NWQI).

The Warrior Run basin is a priority watershed of the USDA-NRCS and is targeted in the NWQI program. NWQI provides a way to accelerate voluntary, on-farm conservation investments. It also focuses on water quality monitoring and assesses resources to show where they can deliver the greatest benefit to clean the water. The NWQI is a partnership among NRCS, state water quality agencies, and the U.S. Environmental Protection Agency to identify and address impaired water bodies through voluntary conservation. NWQI provides targeted funding for financial and technical assistance in small watersheds most in need where farmers can use conservation practices to make a difference.

Agriculture is the dominant land use in the Warrior Run Watershed. As our team began working on a Watershed Plan, we discovered there was a large sector of producers with whom we have not worked. We knew if we wanted to work with them, we needed to get to know them. It was decided to have an ice cream social - and homemade ice cream of course!



We recently had the privilege of meeting a landowner who has a beautiful farm right along the Warrior Run. As we walked the property with the landowner, we knew this was the place we needed to bring farmers together. As we told him what we wanted to do he said, "invite them and they will come." So, that is exactly what he did. Ryan Cherwinski, NCCD Ag Technician, did not disappoint as there was plenty of delicious homemade ice cream to go around.

It was a rainy afternoon on August 22nd. As the rain continued, the agency staff sat under the tents that were set up at the stream and waited for producers to arrive. The rain stopped, and we quickly began wiping off chairs and made sure the homemade ice cream was finished.

As NCCD and NRCS staff served ice cream, families sat by the stream. Gary Walters, PA DEP, was gracious enough to demonstrate electro-shocking on the stream. As he began catching fish, the farmers lined up on the stream bank to see what was in the buckets.

Soon clusters of producers gathered around agency staff to learn about stream health, best management practices and what we are trying to achieve in the Warrior Run Watershed. As the parents listened and asked questions, the children were able to get their feet wet and help with a macro-invertebrate kick in the stream. NCCD Watershed Specialist, Chantel Shambach, helped the children identify what they found.

As day turned toward darkness the families rode home to their farms with a new appreciation of the watershed in which they lived. As NRCS and NCCD staff packed up the chairs, tents and ice cream supplies, we left with 50 new friends and many contacts of farmers to visit in the next few weeks. We look forward to doing other similar events in the watershed again. You will find information on an upcoming free breakfast we are holding for residents of the Warrior Run Watershed at the end of this newsletter.



Many thanks to all those on the team who helped make this a successful event:

NCCD Ag Technician – Ryan Cherwinski

NCCD Watershed Specialist – Chantel Shambach

DEP Water Quality Division Chief – Gary Walters

NRCS Civil Engineering Technician – Pam Richardson

NRCS Soil Conservationist – David McCoy

NRCS District Conservationist -Janette Leshner

WINTER SPREADING

by: Ryan Cherwinski, Agricultural Conservation Technician

With harvest time approaching and winter just a few months away, many farmers will be planning on spreading their manure to clean their barns for the winter. Winter spreading is still an option for farmers in Pennsylvania with some restrictions, though it is recommended to avoid when possible. Winter spreading begins December 15th and runs through February 28th, as well as anytime the ground is snow covered or the ground is frozen 4 inches in depth. The setbacks and application rates for winter application are outlined in the Manure Management Manual based on proximity to Environmentally Sensitive Areas, i.e. streams, lakes, ponds, wells, ditches, and other sensitive areas. The maximum slope that you may winter land apply manure is 15%. There is a 25% residue requirement. The best places to winter apply manure, if you need to, would be fields with cover crops planted to help reduce the chance of runoff. With the EPA pushing for more regulations on PA farmers, winter spreading should be the option of last resort. If you have questions about winter spreading, please contact Ryan Cherwinski at our office at 570-495-4665 ext. 304. Below are state recommendations, as well as regulations for winter applying manure:



- Select fields with cover crops or at least good residue.
 - Regulations require a cover crop or at least 25% residue for winter spreading.
- Stay as far away from water as practical.
 - Regulations require staying 100 ft. from water in the winter.
- Regulations prohibit manure application on slopes greater than 15%.
- Avoid spreading high rates of manure in the winter.
 - Regulations limit winter manure applications to the following:
 - >No more than 5000 gal/A of liquid manure.
 - >No more than 20 ton/A of dry non-poultry manure.
 - >No more than 3 tons/A of poultry manure.
- Avoid areas in fields where concentrated water flow is likely.
- Avoid poorly drained fields.
- Don't spread on snow unless it is unavoidable.
- Try to avoid spreading when rain or melting conditions are expected.
- For daily spreading, mark where you stop spreading in case fresh snow covers up the previous application to avoid skips and overlaps.

FULL-SERVICE CONSTRUCTION FOR HEAVY HIGHWAY



EOE - Min/Fem/Vet/Disabled
www.trumbullcorp.com



~JOIN US~

For a

Free Family Breakfast



All residents of the
Warrior Run Watershed
are invited

**Saturday,
January 18
8am-12pm**



WE WANT TO HEAR FROM YOU

What can we do to help your watershed?

Listen to stories from landowners in the watershed
and enjoy an interactive presentation.
Kids are welcome!



United States Department of Agriculture
Natural Resources Conservation Service



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION



NORTHUMBERLAND
COUNTY
Conservation District

Pre-Registration is required
Please call Northumberland County Conservation District at:
570-495-4665 by January 4, 2020

Visit nccdpa.org for more information

Northumberland County
Conservation District
441 Plum Creek Road
Sunbury, PA 17801
Phone: (570) 495-4665
Website: www.nccdpa.org



Northumberland County Conservation District

The NCCD, formed in 1943 under the Conservation District Law, is a subdivision of state government and is one of 66 Conservation Districts throughout the state of Pennsylvania. The purpose of the Conservation District is to promote protection, maintenance, improvement, and wise use of the land, water, and other natural resources.

Directors

Mike Hubler: Chairman, Public
Leon Wertz: Vice-Chairman, Farmer
Richard Shoch: Commissioner
Gary Truckenmiller: Farmer
John Kopp: Farmer
Natalie Wertman: Public
Rich Daniels: Farmer

Mike Erdley: Associate
Dave Crowl: Associate
Blair Carbaugh: Associate
Albert Mabus: Associate
John Pfleegor: Associate
Ted Carodiskey: Associate
Lynn Wilson: Associate

Staff

Judy Becker: District Manager, AgLand Preservation, Editor
Shirley Snyder: Administrative Assistant
Chantel Shambach: Watershed Specialist
Michael McCleary: Erosion & Sediment Technician, Dirt & Gravel Roads
Ryan Cherwinski: Agricultural Conservation Technician
Brandon Ball: Mosquito-borne Disease Control
NCCD Board of Directors Upcoming Meetings:
December 5 at 12:30pm
in the NCCD EE Center