

Farm Field Days



Every year, the Prince William Soil and Water Conservation District hosts a fun and educational program known as Farm Field Days. Fourth grade students from selected schools learn first hand the value of agriculture through a variety of activities that meet the fourth grade Standards of Learning. Farm Field Days is held at the county fairgrounds and is almost completely staffed by volunteers.

At Farm Field Days, there are six barns for the fourth graders to experience:

VOLUNTEER OPPORTUNITY!

We are recruiting volunteers to work with our Education and Adopt A Stream programs. Give us a call if you would like more information about our volunteer opportunities, 571-379-7514, or email pwsxcd@pwsxcd.org. More detailed information is available on our website www.pwsxcd.org/educators

TITLE

Environmental Education Program Assistant

GENERAL DESCRIPTION OF WORK

The Conservation Capsule Coordinator is in charge of managing, scheduling, distribution and maintenance of the District "Conservation Capsule" natural resources education program. This position commitment is 10-15 hours per week during the school calendar year, with flexible scheduling.

EDUCATION AND EXPERIENCE

Applicant should have an interest in assisting a local conservation leader with their natural resources education program. Experience with project coordination and/or logistics is desirable.

♣ **Pollinators Barn**—students learn the importance of pollinators and why crops are dependent on them. This barn is sponsored by the Prince William Regional Beekeepers Association.

♣ **Horsepower to High Tech Barn**—Students learn about the history and role of tractors in farming before discovering how much "horsepower" they have as a class, sponsored by the Yankey family.

♣ **Trees Barn**—students learn the importance of trees in Virginia from the Virginia Department of Forestry.

♣ **Soils Barn**—students learn the value of healthy soils from Prince William County's Master Gardeners.

♣ **Regions of Virginia Barn**—generally run by student volunteers from Stonewall Jackson High School's ecology club. Students learn the agricultural and industrial products from the different regions of Virginia using an interactive map.

♣ **Animal Barns**—students learn about livestock, products made from livestock, wool spinning, different types of animal feeds, where milk comes from along with a butter making experiment that includes taste testing, and more!

Farm Field Days would not be possible without the help of our volunteers! If you are interested in educating young minds about the importance of agriculture, visit our website at pwsxcd.org/educators to register to volunteer!



The Prince William Soil and Water Conservation District programs and employment are open to all regardless of race, color, religion, sex, age, veteran status, national origin, disability, or political affiliation.

If you would like to be removed from the newsletter mailing list or would prefer to receive it by e-mail, call 571-379-7514, or email pwsxcd@pwsxcd.org.

Electronic Address Service Requested

PRSRRT STD
U.S. POSTAGE
PAID
MANASSAS, VA
PERMIT #77

8850 Rixlew Lane
Manassas, VA 20109



Conservation InFARMatIon

The mission of the Prince William Soil & Water Conservation District is to provide leadership in the conservation of soil, water, and related resources to all Prince William County citizens, through technical assistance information and education.

In This Issue:

- 📖 Fall Cover Crops: A Cost Effective Way to Prepare for Your Next Season
Pages 1-2
- 📖 Stream Monitoring Volunteers Needed!
Page 1
- 📖 What are BMPs?
Page 1
- 📖 Top 6 Reasons You Need a Conservation Plan
Pages 2-3
- 📖 Voluntary Ag BMP Data Collection Program
Page 3
- 📖 Welcome Alysha Rayner, Education & Outreach Specialist
Page 3
- 📖 Farm Field Days
Page 4
- 📖 Volunteer Opportunity! Environmental Education Program Assistant
Page 4

Fall Cover Crops: A Cost Effective Way to Prepare for Your Next Season

As the growing season begins to wind down we look forward to the small bit of rest that the winter months provide. However, before we go into rest mode, there is a way to begin preparing for next year's crop season, and that is by planting fall cover crops. The main purpose of cover crops is to benefit the soil and other crops. The primary benefits are to provide soil quality improvements, erosion control, fertility improvements, weed suppression, and insect control. Cover crops may also have a secondary benefit such as being able to be commercially harvested or grazed by livestock.



Soil quality improvements by cover crops include increased soil tilth, improved water filtration, and by providing food to beneficial organisms. Soil tilth is increased when the plants establish roots and grow in compacted areas. These same roots also allow water to infiltrate the soil at an increased rate. Alternatively, when a field lays fallow for a period of time, the surface tends to seal and water will run off. Cover crops protect the soil surface and reduce sealing. Lastly, beneficial organisms in the soil, such as earthworms, thrive when fresh plant material is decomposing, and they help increase the organic material content within the soil.



All cover crops help limit soil erosion from both wind and water on all soil types by providing canopy cover and roots that holds the soil in place. By having the soil held in place by cover crops during the fall, winter, and early spring, loss of soil from erosion is greatly reduced, leaving healthy top soil and nutrients for the next crop.

How a cover crop improves fertility is dependent on what is planted. In general, they are categorized into two groups, legumes and non-legumes. Legumes, with the aid of symbiotic bacteria, can fix atmospheric nitrogen into forms readily available for plants.

Stream Monitoring Volunteers Needed!

If you want to help improve the health of our streams, then we need you! We need volunteers to help collect stream data. If this interests you, please visit our website at pwsxcd.org/news-events.html. You can also contact our Water Quality Monitoring Volunteer Coordinator, Veronica Tangiri, at 571-201-4434, waterquality@pwsxcd.org

Examples of common legume cover crops are clovers, vetches, field peas, alfalfa, and soybeans. Non-legumes can be used to take up excess nitrogen from previous crops and recycle the nitrogen, as well as available phosphorus and potassium, to the following crop. This is very important after manure application, because cover crops can reduce the leaching of nutrients. Examples of common non-legume cover crops are rye, oats, wheat, forage turnips, oilseed radish, Sudan grass, and buckwheat, to name just a few. It is recommended to plant a combination of 2 or more types of cover crops for quick establishment and improved nutrient utilization.

Weed suppression by cover crops is performed in two manners, either by shading or allelopathy. In the process of shading, the planted crops prevent light from reaching undesirable species causing them to eventually die out. Through allelopathy, the plants, such as rye, produce an allelochemical that inhibits the growth of other species.

Lastly, cover crops can provide habitat for beneficial insects such as lady beetles or ground beetles that feed on pests like aphids. By introducing these beneficial insects, you may be able to control pest problems before they start instead of using a costly reactionary control.

How do farmers get started with cover crops? First, they must determine how their farming system can accommodate cover crops. Ideally, as soon as one type of crop is utilized (harvested, killed, or incorporated) the next is planted. In this way, active plant growth occurs from March to November each year. However, there are some drawbacks to using cover crops that farmers should be aware of. If the

What are BMPs?

In agriculture, Best Management Practices (BMPs) are structures/systems used to help reduce nutrients from polluting our waterways. Examples of BMPs include fencing livestock out of a waterway, establishing a vegetated buffer, installing interior fencing for a rotational grazing system, etc.

Board Members:

Jim Gehlsen, *Chairman*
 Steve Danziger, *Vice Chairman*
 Elizabeth Ward, *Treasurer*
 Paige Thacker, *Virginia Cooperative Extension Agent*
 John J. Pickeral, Jr., *Secretary*

Associate Directors:

Deb Oliver
 Christopher M. Wallace
 Harrison Glasgow
 Veronica Tangiri

Staff:

Jay Yankey, *District Manager*
 Jeannie Heflin, *Office Manager*
 Nicole Slazinski, *Conservation Specialist*
 Mike Miller, *Conservation Planner*
 Alysha Rayner, *Education & Outreach Specialist*

...Fall Cover Crops: A Cost Effective Way to Prepare for Your Next Season, Continued from Page 1

cover crop does not naturally winter-kill/die, then a farmer should have a method for killing the crop before it competes with the next cash crop. This can be done mechanically or by using herbicides. Cover crops can act as weeds if not controlled. Timing is important when killing a spring growing cover crop. Cover crops should be allowed to grow as long as possible in the spring to add additional nutrients to the soil and suppress weeds, but they can also use up soil moisture and hurt the following cash crop if dry conditions exist. More management time is required to determine how and when it would be best to control the cover crop. Hard seed that did not germinate may also require control later in the season. Like any other crop, moisture is needed to establish a cover crop. This is especially critical during July and August (ohioline.osu.edu).

Cover crops are proven to be more economically beneficial than constantly purchasing costly nutrients and herbicides. There are also other factors that are not easily credited to cover crop use, such as improved soil tilth, enhancing soil biology, and improving organic matter content of the soil. Overall, as the cost of fertilizer and herbicides continue to increase, the benefits of using cover crops in a sustainable farming system has become more attractive to modern farmers (ohioline.osu.edu). If you should have any questions about cover crops, our technical staff is here to provide technical assistance to meet your goals.



Top 6 Reasons You Need a Conservation Plan

If you have an active agricultural practice in Prince William County, and

- ★ You don't have a conservation plan
- ★ You have a plan, but it's expired (conservation plans are good for 3 years)

then you are in need of a new conservation plan or a revision plan!

Consider the following:

It's FREE!



We are a non-regulatory agency funded by Prince William County and the Commonwealth of Virginia. Our goal is to help farmers protect their land, soil, and waterways, which in return helps the Chesapeake Bay. Therefore, all of our services are at no cost to you. Consider this as your tax dollars working for you!

It Can Help You Financially!

That's right! On top of being free, our plans are also financially beneficial. We take soil samples so you know the exact nutrient requirements of your land. This helps guide you from over-applying fertilizer, which is a waste of money and bad for the environment, or under-applying fertilizer, which can result in lower yields. We also give you budget friendly and chore efficient ideas to help make your work on the farm easier and more convenient.

You are Helping the Environment!



Your conservation plan not only helps guide you from over-applying fertilizer, which would otherwise pollute our waterways, but it also helps you with manure, mud, and weed management. The nutrients in manure and mud can easily wash off your property and into surrounding watersheds that empty into the Chesapeake Bay. We'll provide advice and tips to help you limit this from happening on your farm. As for weeds, many are invasive and detrimental to our environment. Just like you, we want your fields to have the plants you desire!

Get Information for YOUR Farm!

Your plan is written specifically for your farm. We don't write cookie cutter plans because one size does not fit all! All plans are detailed to each producer's goals with consideration of your economic and time constraints, to institute the Best Management Practices that work best for your property. After all, it is **YOUR** farm!



Continued on Page 3...

If you would like to join our **mailing list**, e-mail

pwsxcd@pwsxcd.org, or visit our website at www.pwsxcd.org (left hand column). Future newsletters may only be delivered electronically to save paper and be more environmentally conservative. For our events calendar and board meeting dates visit: www.pwsxcd.org/calendar.html (board meetings are open to the public).

PWSWCD is a non-regulatory agency funded by Prince William County Public Works and Virginia Department of Conservation and Recreation (DCR)

...Top 6 Reasons You Need a Conservation Plan, Continued from Page 2

Lots of Maps!

All of our conservation plans include several maps that are site specific to your farm, including, but not limited to: Aerial, Fields (with estimated acreages), Topography, Soils, Soils Productivity, Hydrology, Watershed, and Best Management Practices specific to your goals and needs.



It's the Law!

Agriculture operations in Prince William County are required to have a current conservation plan according to Prince William County's Municipal Code, Sec. 32-504.16. - Agriculture uses in Chesapeake Bay preservation areas: "Land upon which agricultural activities are being conducted, including but not limited to crop production, pasture, and dairy and feedlot operations, or lands otherwise defined as agricultural in accordance with section 32-504.04, shall have a soil and water quality conservation assessment conducted that evaluates the effectiveness of existing practices pertaining to soil erosion and sediment control, nutrient management, and management of pesticides and, where necessary, results in a plan that outlines additional practices needed to ensure that water quality protection is being accomplished consistent with the act and this chapter."

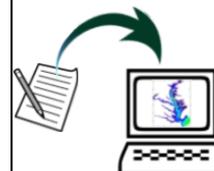
If you are interested in a conservation plan, you can contact our conservation specialist, Nicole Slazinski, or our conservation planner, Mike Miller, at 571-379-7514 or e-mail nicoleethier@pwsxcd.org (Nicole) or conservation@pwsxcd.org (Mike). We look forward to working with you!

Voluntary Ag BMP Data Collection Program

Various federal, state, and, local agencies use the Chesapeake Bay Program's computer modeling to direct decisions regarding water quality programs and rules. This computer modeling requires accurate data reporting in order to fairly assess the water quality situation in the Bay and its tributaries. Agricultural BMP data is input into the computer model when BMPs are completed. The Chesapeake Bay Program requires that each BMP be given a "lifespan". When a BMP reaches the end of its "lifespan" it is removed from the model, even if it continues to function properly. We know that many structural BMPs such as stream exclusion fencing and manure storage facilities remain operational long after their 10 year program "lifespan" is over. In an effort to be sure that the data in the computer model is current and accurate, the district will be assisting the Department of

Conservation and Recreation (DCR) in the coming months to assess if BMPs that are out of their "lifespan", or soon will be, are still functioning.

District staff will be contacting landowners who have practices on their properties that were installed through the Virginia Agricultural BMP Cost-Share Program to see if they will be willing to participate in this voluntary program. This program is used to assess if these BMPs are still functioning so appropriate credit can be provided in the computer model for any associated water quality benefits. While we encourage landowners to continue to maintain and use their BMPs, by participating in this program participants are not obligated to continue to do so. If the BMP is no longer operational and functioning it will simply not be included in the computer model. If contacted to participate in the program, we hope landowners will participate so their efforts to protect water quality will continue to be recognized.



Welcome Alysha Rayner, Education & Outreach Specialist

We are very excited to have Alysha working with us. Alysha joined us in July 2015 as our Education and Outreach Specialist. Previously, she had volunteered and interned for us from September 2014 through April 2015. She was a great help during our Education Department reorganization efforts.

Alysha's duties at the District include delivering education programs; design, manage and maintain the education program capsules; represent the District at community events and festivals; administer the Adopt-A-Stream cleanup program; and manage volunteers.

In fiscal year 2015 our Education Capsule Program served 5,822 students and assisted 250 teachers. Our Citizen Stream Education program served 486 people at community events focusing on watershed and water quality education. The District supported the Prince William Board of County Supervisors with Arbor Day programs and ceremonies at county schools for 828 students. Our Adopt-A-Stream program stream stewards, 971 of them to be exact, cleaned 70 miles of streams, collecting 26,906 pounds of trash.

Alysha comes from Lansing, Michigan, making her way to Northern Virginia in 2011, via a several year stay in Virginia Beach. Alysha received her Bachelor's degree from George Mason University in Sustainability and Environmental Studies with a Conflict Analysis and Resolution minor. Alysha performed significant course work in Permaculture, Sustainable Business Practices, Ecology, Anthropology, Sustainable Economics; Conflict Analysis, Techniques, and Practices, and Information Technology.

