



Beaver Tales

Fall 2020

Beaver County Conservation District

INSIDE THIS ISSUE:

New YouTube Channel 2

Ag Corner 3

Invasive Plant Management 4

Wetlands and Waterways 5

BCCD Rain Garden 6

CDC Flyer 7

Wander in the Wonder of 8

Independence Conservancy 9

Our Mission

The Beaver County Conservation Districts mission is to preserve natural resources and to protect/promote the health, safety, and general welfare of the people of Beaver County. Also to provide technical services to improve resource management for the benefit of farmers and urban residents.

Tick Talk! Tick Talk!

The fall season is approaching and it's time to get out and enjoy all the beautiful autumn colors. But remember, ticks are still out and about! Here are some helpful tips to help you and your family stay safe while you're enjoying all that nature has to offer this fall.

- Use repellent.

The EPA (Environmental Protection Agency) recommends a product that contains at least 20% DEET

There are many products available such as Picaridin and oil of lemon eucalyptus, the EPA has a search tool to find the right repellent for your individual needs, visit

www.epa.gov/insect-repellents

- Check clothing, gear, and pets when you return to the indoors.
- Check yourself.

Check for ticks when you return from the outdoors, especially under the arms, around hairline and scalp, behind the knees, and around the ears.

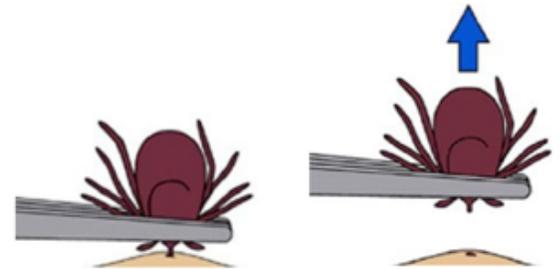
- Shower soon after being outdoors.

Following these tips can help you and your family have a fun and safe fall season, so get outdoors and have fun!!

Additional information concerning ticks and Lyme disease can be found at www.cdc.gov/lyme/

How to remove a tick

1. Use fine-tipped tweezers to grasp the tick as close to the skin's surface as possible.
2. Pull upward with steady, even pressure to remove the tick. Avoid twisting or jerking.
3. Clean the bite area and your hands with rubbing alcohol or soap and water.



Notes:

- Remove the tick as soon as possible to reduce your chances of getting an infection from the tick bite.
- Don't use nail polish, petroleum jelly, or a hot match to make the tick detach.
- If tick mouthparts remain in the skin, leave them alone. In most cases, they will fall out in a few days.

Please see page 6 for the full CDC Flyer "Understanding Tick Bites and Lyme Disease"

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Educational Videos on Beaver County Conservation District's New YouTube Channel

Due to Covid-19, the Conservation District's spring fieldtrip season had to be cancelled. This did not discourage us from engaging in educational efforts, however. With no in-person classes to teach, District staff began making educational videos which are now posted on our new YouTube channel. For our first public video, we documented the refurbishment of our office's rain garden, and then we did a short series of three videos on tree, plant, and wildlife identification for our local Cub Scout packs. Future videos will offer education on soil and water issues related to the Conservation District's work and public services. Links to our YouTube videos and PDFs of the transcripts can be found on the District's website under the Education heading.

Although formal fieldtrip opportunities have been postponed due to Covid, the Conservation District's grounds are still open to visitors. Families are welcome to come and explore, giving children and youth opportunities to discover Pennsylvania's native plants and animals living in the habitats which border their backyards and communities. Parents, teachers, and youth leaders can contact the District for assistance in finding supplemental education materials as Covid continues to interrupt interactive learning opportunities into the new school year.



Forage Production: Items to Consider

Forage production occupies the most cropland acres in Beaver County. According to the 2017 Census of Agriculture there were 13,443 acres of hay and forage in the county. Forage crops typically include grass, clover and alfalfa which are harvested for storage and fed to animals later. Pasture for grazing is another forage crop. How can farmers optimize the yield of their forage crops? Two basic actions will make a significant difference in your operation.

Soil testing gets to the root of good forage management. That is where the roots obtain nutrients. Soil testing is the first action a farmer should take. A soil test will tell you if the hay field or pasture is in need of lime or other key nutrients to optimize yield. Implementing soil test recommendations is the key to optimizing yield and quality. You will see the difference!

Farmers often cut hay too short and stunt regrowth. Cutting hay too short damages the plant's energy reserves and removes leaf area necessary for optimum regrowth. Set harvest equipment at least 3 inches or higher. Pastures are often overgrazed. Rotate animals to a new pasture when the grass is three inches tall. Animals often remain on a pasture far longer than the grass can tolerate. Harvest forage with machinery or animals to the proper height and the grass will respond with optimum regrowth. You will see the difference!

The conservation district assists farmers starting a soil testing program on their farm. We can provide assistance with development of a grazing system on your pastures. The conservation district is a tool in your toolbox to optimize forage production and improve your farm operation. Now is a great time to collect soil tests and plan for healthy, productive forage crops.

All farms tilling greater than 5,000 sq. ft. must have an ag erosion and sedimentation plan (Conservation Plan). All farming operations that land apply manure or graze livestock need to develop and implement a manure management plan. Call the conservation district to get detailed information and support developing your plans

No-till Drill For Rent

The Beaver County Conservation District owns an 8' Truax FLEXII 812RD No-Till drill that is available for rent to interested farmers in Beaver County. The purpose of the drill rental program is to encourage and assist farmers in implementing no-till crop production systems, including cover crops, as well as promote good pasture management. Reducing tillage can improve soil health and improve farm economics. Renting this drill provides farmers with a low cost opportunity to try no-till planting and determine if it can be an asset to farm management. More information is available on our website or you can contact the district's agricultural technician.

Invasive Plant Management at the Environmental Center

The conservation district manages over 80 acres of wetland, riparian forest and upland forest at our environmental center. Perhaps you visit this land to walk, enjoy the wildflowers or observe the many birds which visit during migration. Perhaps you have attended a class here. If you have visited the grounds you have probably noticed the many non-native invasive plants which grow here. These plants take over and outcompete the native plants, wreaking havoc on natural ecological processes.

The conservation district has developed a Land Management Plan and an Integrated Pest Management Plan to guide management of the environmental center grounds. One main goal of the land management plan is to Restore Native Ecosystems. Integrated Pest Management (IPM) is the coordinated use of pest and environmental information to design and implement pest control methods that are economically, environmentally, and socially sound. An Integrated Pest Management Plan establishes a sustainable approach to managing pests by combining biological, cultural, physical, and chemical tools in a way to minimize economic, health, and environmental risks.

Non-native invasive plants such as Japanese Knotweed, Multiflora Rose, Privet and others outcompete native plants causing a cascade of ecological issues. These non-native invaders take over growing space so native plants have no room to grow. Research has shown that these invasive plants can alter soil properties, reduce bird nesting success and inhibit forest regeneration.

As we implement our integrated pest management program you may see withered invasive plants along the trails. You may someday come across goats eating invasive plants. Trails may be closed temporarily while work is occurring. This is part of our integrated approach to combat these invaders. As these invaders are controlled, natural ecosystem processes will improve.

Look toward the future where more native wildflowers, more native trees, and more native birds will call the environmental center home!



Sessile Trillium is just one of many native plants threatened by advancing non-native invaders at the environmental center.



Multiflora Rose is an invasive non-native shrub originally planted for wildlife habitat and living fences throughout Pennsylvania. It has grown out of control just about everywhere.



Invasive Japanese Knotweed has taken over riparian forests at the environmental center and throughout the Raccoon Creek watershed.

Waterways and Wetland Encroachments: What General Permit Does Your Project Need?

County Conservation Districts and the Pennsylvania Department of Environmental Protection issue General Permits under Chapter 105 of the Pennsylvania Code. This chapter lays out the regulations which developers and landowners must follow when doing any work which crosses or encroaches on a waterway or wetland within our state. These regulations are in place to help protect water quality and resources. General Permits are also issued under the Pennsylvania State Programmatic General Permit, known as the PASPGP-5. The PASPGP-5 addresses federal-level regulations for waterway and wetland encroachment which is overseen by the United States Army Corps of Engineers. For most projects, approval for both levels of permitting are issued as a complete package, requiring only one agency to review an application. However, some projects of a larger nature will need to be reported to the USACOE for additional review.

The type of project being conducted determines the type of General Permit that a developer or landowner needs. Each permit type has different conditions which need to be met in order for the project to qualify for a General Permit. If these conditions cannot be met, then the applicant may need to apply for a Joint Permit which will have special conditions which pertain only to their project. Different General Permit types require different application fees, and Joint Permits cost more than General Permits. The table below lists the permit types which can be issued by county conservation districts. Additional GPs which address bridges, mine reclamation, or residential wetland development must be reviewed by the PA DEP.

General Permit Type	Project Type	Permit Fee
GP-1	Fish Habitat Enhancement Structures	\$50.00
GP-2	Small Docks and Boat Launching Ramps	\$175.00
GP-3	Bank Rehabilitation, Bank Protection, and Gravel Bar Removal	\$250.00
GP-4	Intake and Outfall Structures	\$200.00
GP-5	Utility Line Stream Crossings	\$250.00
GP-6	Agricultural Crossings and Ramps	\$50.00
GP-7	Minor Road Crossings	\$350.00
GP-8	Temporary Road Crossings	\$175.00
GP-9	Agricultural Activities	\$50.00

Once a project is reviewed and a General Permit issued, that General Permit is only applicable to that project. Once the work is complete, the permit cannot be used for future work on the project site unless it is part of the maintenance activities associated with the permitted structure (such as dredging next to a dock or bridge). The current PASPGP-5 is set to expire on June 30, 2021 and a new PASPGP-6 will take its place. Any projects which receive a General Permit under the PASPGP-5 will need to be completed within twelve months of this expiration date. Projects not completed within that time may need to apply for new authorization under the PASPGP-6.

BCCD Rain Garden Overhaul

A rain garden is a type of landscaping that has a shallow depression that catches and filters stormwater. Rain gardens are a landscaping technique that many property owners use. They are important because they reduce stormwater runoff, increase infiltration, filter stormwater, and provide valuable habitat for birds, butterflies, and many other insects and animals. There are many different ways that you can incorporate a rain garden into your property.

The conservation district has had a rain garden outside of the office for a number of years now. In recent years it had become very over taken with weeds. This left it looking very unappealing and no longer very valuable as an educational resource.

Our office worked together to overhaul the tired looking rain garden and made it a beautiful native rain garden that is an example of how wonderful they can be! We chose to use only native plant's which is extremely beneficial for preserving Pennsylvania's biodiversity!

If you have questions on a rain garden that you want to install please contact the Watershed Specialist at the district!



The rain garden before the overhaul. We started by removing all of the weeds and digging the large groups of roots out.



Then we had to unclog the existing down spout pipe and reinstall it at the right angle. After this we put down weed mat, planted plants, and mulched.



The completed overhaul! More plants will start flowering and it will get even more beautiful!

Native Rain Garden Success! We have Monarch Butterflies that laid eggs on our milkweed plants! They hatched into caterpillars and will turn into butterflies!





Understanding Tick Bites and Lyme Disease



How to prevent tick bites



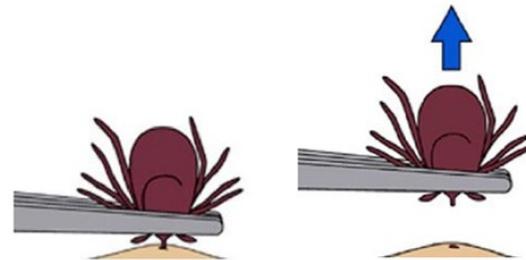
Ticks can spread disease, including Lyme disease.

Protect yourself:

- Use Environmental Protection Agency (EPA)-registered insect repellents containing DEET, picaridin, IR3535, oil of lemon eucalyptus, para-menthane-diol, or 2-undecanone. Always follow product instructions.
- Wear clothing treated with permethrin.
- Shower as soon as possible after spending time outdoors.
- Check for ticks daily. Ticks can hide under the armpits, behind the knees, in the hair, and in the groin.
- Tumble clothes in a dryer on high heat for 10 minutes to kill ticks on dry clothing after you come indoors. If the clothes are damp, additional time may be needed.

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U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

Wander in the Wonder of Fall

Fall has always been a great time to get out and witness the ever changing splendor of nature, and this year is no exception. In fact, I'd wager we could all use a good hike in the woods this fall, even more than in years past! Thankfully, Beaver County has an abundance of hiking opportunities just waiting outside your front door. Looking for a short, family friendly hike? Why not try the Mineral Springs Loop trail or the Pinto Loop trail, both located in Raccoon Creek State Park and both just over one mile in length. For the more experienced hiker, or those wanting to test their endurance, there are plenty of longer trails, ranging from moderate to hard in terms of their difficulty. Some great examples include the Bradys Run trail, the Raccoon Creek Heritage trail, and the Raccoon Creek Extended Loop. The Bradys Run trail is a 6 mile moderately trafficked loop, whereas the Raccoon Creek Heritage trail and the Raccoon Creek Extended Loop trail come in at 17.2 miles and 19.8 miles! In addition to these trails, let us not forget to mention the North Country trail. This trail is 4,600 miles long, stretching from North Dakota all the way to Vermont. Beaver County is fortunate enough to hold a part of this great trail, which includes a 10.9 mile point to point hike from State Game Land 285 to Darlington. If you now have a hankering to explore more hikes, but aren't sure where to begin your search, don't worry! There are plenty of helpful apps for that, including ones such as Alltrails, Hiking Project, and Gaia GPS.



Now, there are a few key items you'll want to have with you on every hike, regardless of length or difficulty; preparation is key. First lesson, as Ralph Waldo Emerson stated, "Do not follow where the path may lead. Go instead where there is no path and leave a trail." Now, I get where he's going with this, but please, disregard this fine quote and **STAY ON THE PATH!** Not only can it be destructive to sensitive habitats to wonder off path, but depending on where you're at in relation to civilization, as well as your experience level, leaving the path can be a grave mistake, as many stories over time have shown. Some trails are very clearly labeled with signs or blazes, but sometimes you come to a fork in the trail and aren't quite sure which direction your next step should be; this is where your first few items come into play. One very valuable, newer resource is a GPS device or smartphone with a hiking app that has your trail mapped out. That being said, it is still essential to also carry a traditional map and compass with you, and know how to use them. The next item on the list, and possibly the most important, is water! One of the number one rescue calls for people on the trails in National Parks is for dehydration. It is also critical to have some type of snack with you, as hiking can burn a lot of energy and the last thing you want is to be lightheaded when trekking on hillsides and over uneven terrain. Another safety concern when hiking is exposure to the elements. This broad category includes rain, wind, temperature, sun, and even insects; therefore, your item list for fall should include a raincoat, hat or bandana, waterproof hiking shoes with good grip, extra layers, sun block, and, as always, a first aid kit! For longer hikes that will extend past early afternoon, it is also important to have a headlamp/flashlight and fire starter, just in case you find yourself lost and exposed. Lastly, always remember the "Leave No Trace" principles; simply put, leave the trail how you found it! If you can do all of these things, then you will find your hike to be a thing of great joy, and you may also find that the "unexpected" is no longer quite as inconvenient. John Muir said it best when he stated, "In every walk with nature, one receives far more than he seeks." Now get out there and seek!



Nature Nasties: Why Knotweed is Not Good

No doubt you've seen that tall, lush, bamboo-looking plant that seems to line every creek bank, fill every roadside ditch or crowd every abandoned place in western Pennsylvania. Chances are, you're looking at Japanese knotweed. Japanese knotweed is considered a noxious weed and an invasive plant by the PA Department of Agriculture. What is an invasive plant and why is it bad? An invasive plant species like Japanese knotweed is one that evolved elsewhere, in this case Asia, was brought here deliberately and/or by accident, and grew out of control without its homeland competitors and predators to keep it in check. Once an area is overtaken by an invasive, the plants that do belong – the native plants – cannot compete and slowly die out. This upsets nature's balance, depriving wildlife on land and water of food and shelter.

Japanese knotweed seeds – which are forming now on pale yellow sprays of flowers – float downstream and start new patches along waterways. Dense tangles of knotweed are nearly impossible to walk through, but do not hold the soil on a stream bank, leading to erosion and smothering macroinvertebrates, the tiny animals that fish eat. What can you do about Japanese knotweed? First, learn to identify it. If you have it on your property, control it. Penn State Extension has guidance on what to do: <https://extension.psu.edu/japanese-knotweed>. Share your knowledge and work together with your neighbors. Knotweed doesn't respect property lines.

Some people say nothing can be done to control Japanese knotweed. This isn't true. Patience, persistence and an educated approach will work in the long run. If you don't want to spray the leaves, try this method. Wait until June or July when the canes are very high. Cut the canes off about a foot tall, just below a bulging joint segment. Prepare a one or two-gallon pump-type hand sprayer tank with the herbicide of your choice. Pump the sprayer up and carefully fill the hollow center of each stem with the pesticide (see photo). The herbicide will make its way into the underground rhizomes of the knotweed clump and kill it. You can also do this treatment now, in the fall, but be sure to bag and dispose of all the flowers and seeds. You can use an agricultural dye to help you see which stems you have treated. Good luck!

Knotweed knock-out: knotweed plants shown one month after cutting down the canes and filling the hollow stems with a herbicide. Rainfall doesn't interfere with this technique. This patch of knotweed is trouble no more.



In this case, green is not good: Japanese knotweed (circled in orange) lines both sides of Raccoon Creek, choking out plants that belong in the landscape, leading to shoreline erosion, muddy water, and loss of food and cover for wildlife.