

Conservation Connection

Fall 2024

Ohio Conservation Farm Family Award

Kelly Crout, District Director

Our history is rooted in agriculture - it is the very reason for our existence. While the events from which we were created was not agriculture's or farmers' shining moment, there have been many achievements and improvements that came after. Today, many farmers are implementing conservation practices to not only ease some financial costs, but to ultimately protect water quality and restore soil health.

Because we work closely with our farmers, each year, the Ohio Department of Agriculture asks that every District nominate a producer they feel is doing an outstanding job of protecting and conserving soil, water, and related natural resources on the land they farm. The Ohio Department of Agriculture then selects 5 finalists, one from each of the areas to be awarded the Ohio Conservation Farm Family award.

This year, Butler Soil and Water Conservation District nominated Alan and Rachel Mehl, and to our delight, they were selected as recipients of the Ohio Conservation Farm Family award, which they received at this year's Farm Science Review in London, Ohio on September 19.

Since purchasing their farm, Alan has always been no-till and is very passionate about cover crops. Because of his proximity to Acton Lake in Hueston Woods, his farming decisions and methods have been largely to ensure that he doesn't impact water quality negatively. When interviewed for the Ohio Farmer Magazine, Alan stated, "I think it's important that you pass on the farmland as good as you found it, or better than you found it."

Alan and Rachel have participated in our aerial cover crop seeding program, attended events such as cover crop field day, and Alan continues to encourage others to plant cover crops and practice notill farming. On his farm, Alan implements



Honoring Alan & Rachel at the Butler SWCD 2024 Annual Meeting. Pictured left to right: Brady Smith, Alan Mehl, Rachel Mehl, & Kelly Crout.

cover crops, no-till, wildlife habitat, and grassed waterways - all key practices of conservation. In 2010, Alan was awarded our District's Outstanding Cooperator Award.

I am proud to say that in Butler County we have many farmers who are good stewards of the land they are entrusted with. This year marks the 40th anniversary of the Ohio Conservation Farm Family award, meaning there have been 200 farmers given this distinction. Congratulations to Alan and Rachel Mehl for joining this incredible group!

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Grazing Considerations

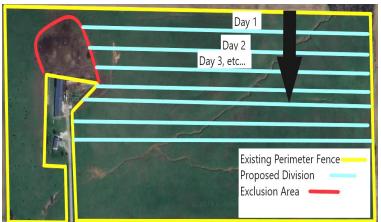
Brady Smith, Rural Specialist

Farmers who own livestock typically have them on pasture during certain periods of the year depending on what their schedule is, availability of forage, and weather conditions. Concerns arise when spring rains recede, we enter the late summer drought, and growth stops.

In Butler County, oftentimes the pasture is the roughest spot on the farm. Decades ago, as settlers cleared land for cultivation of crops, the flat fertile areas were planted for grain and the hilly areas, often with creeks running through them, were left for pasture. Sites like these have unique characteristics that create specific challenges for each site. Why, in some cases, has pasture management not improved over the last 100 years?

Availability of forages has increased; knowledge and resources are plentiful to help a farmer develop a new management plan to implement rotational grazing and increase efficiency of the land they already own. If you find yourself having to reseed pastures year after year, and beginning to see weeds and woody species take over, it may be time to think of how much damage overgrazing may be causing.

Let's take a look at this farm (map below) for instance; here we see ample pasture and a covered feedlot building. It appears that the covered feedlot may be open so cattle can enter when they please while bale feeding is still occurring outside.



Here is an example of a grazing plan map.

Some things that could be done fairly easily and inexpensively are moving the bale feeding area to another area of the pasture or moving indoors during the winter months. Another consideration is just simply running a hot wire down the middle of the pasture. This wire could be made permanent or temporary so that it may be moved again. The advantage temporary fencing has over permanent is this allows farmers the freedom and flexibility to move livestock where grazing is needed. Different soil types and terrain may favor one forage over another or grow at a faster rate than other areas of the pasture. Look ahead at the next area to be grazed, do you know what forages you have growing in your pasture? What does your livestock eat first? Can you manage undesirable species by training your livestock to eat them?

These are all questions you should be able to answer, if not, it may be time to rethink the way you graze. Observe your animals when they are eating, see if they are getting a full mouthful of forage. If not, your pastures are overgrazed. If you are feeding hay to animals on pasture during the drought, consider moving your bale feeders around, this prevents one area from being worn out and also helps distribute any forage seeds that may be in the bales; think of it as re-seeding your pasture for free. If you want a less management intensive pasture, consider installing more permanent fencing so your pasture is divided into permanent paddocks. Paddocks often have a lane leading to the barns, watering systems, and other resources so that livestock can stay there for a period of time. Within each paddock you can also choose to divide with temporary fencing. This fencing can be set at certain heights to allow "creep grazing" where calves can graze ahead of larger stock.

In the words of Bob Hendershot, "You cannot manage what you do not measure." By using a simple tool like a grazing stick, this can give you a better idea of pounds of dry matter available, when to graze, and when to let a pasture rest. Following the basic information printed on the side of the stick will help you prevent overgrazing, trampling loss, and increase productivity in your herd.



This is an example of how to use a grazing stick in your pasture.

If you are interested in getting a grazing stick, contact Butler SWCD today; we have several left over from our grazing field day. This is a great opportunity to meet with us and get trained on how to use one properly. Butler SWCD and NRCS have resources available to develop grazing plans and how to apply for cost share dollars for fencing, watering systems, and other resources.

Fall in Love with Native Plants

Dakotah Zimmer, Natural Resource Technician

Contrary to the 80-degree days Ohio has been experiencing lately, the first official day of fall was September 22nd. While the days are still warmer than we'd all like, the nights are getting chilly, and nature's autumnal colors are becoming more and more vivid. Most people believe that fall is a time to stay inside and settle in for winter, but for those in the plant world, we know it's the best time to get outdoors!

Autumn is the best time to start planting native trees, shrubs, and other perennial plants. It may seem odd to plant at a time when most plants are going dormant for the winter, so learning how plants function during different seasons might make more sense.

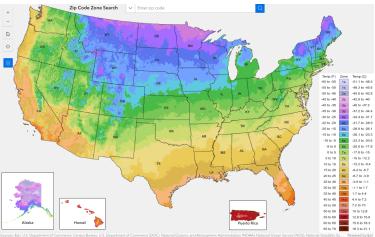
During the spring, plants focus most of their energy toward leaf, flower, fruit, and shoot development to prepare for reproduction during the growing season. During the fall, plants focus more energy on root development and nutrient storage to survive the cold, dark months of winter. This is why deciduous trees and other plants drop their leaves in the fall - to conserve energy.

There are many benefits to planting during the fall rather than the spring. In fall plantings, plants have just enough time to develop strong, deep roots before the ground freezes. As temperatures drop throughout the season, so does insect activity, so the risk of insect damage or pathogen infection is greatly reduced. By the time spring rolls around, the plant already has well established roots, and can focus more energy on above-ground growth and defense mechanisms.



Fall tree planting October 2023, Izaak Walton League Fairfield Chapter. This is not to say that spring plantings aren't "allowed", they have their place, but you may have more issues growing a strong, healthy plant than in fall planting. Planting a species in the spring that has underdeveloped roots could cause stress, as the plant would have to divide its energy between root development and above-ground growth at the same time. Spring plantings tend to struggle with unpredictable cold snaps, increased insect and pathogen activity, and drought stress during their first summer. Any state of stress can cause plant defenses to weaken and become more susceptible to insect activity, pathogen infection, or general health decline.

While fall weather is perfect for planting most types of plants, there are a few exceptions one should consider before buying out their local nursery this season. Firstly, one should consider if the plant(s) are suitable to grow in Southwest Ohio climate, or USDA Hardiness Zone 6. Hardiness zones describe a plant's ability to survive adverse growing conditions, usually referring to its survivability of a region's average yearly minimum temperature.



The plant hardiness zone map was updated in 2023. Go to www.planthardiness.ars.usda.gov to view the interactive map.

Planting Ohio native species ensures that the plants are acclimated to our local climate and can survive cold, winter conditions when they are planted in the fall. Other considerations to make before planting this season are the type of plant and the plant's species. Trees, shrubs, perennial plants, and even bulbs are best suited to plant during fall in any form. However, bareroot plants and broadleaf evergreens should be avoided during fall plantings.

Typically, bareroot plants and broadleaf evergreens are best planted during the spring. Bareroot plants tend to have stronger, and more developed root systems than plants grown in a container. Because of this, bareroot plants already have an advantage in spring plantings and can focus enough energy on leaf, bud, fruit, and flower development. Broadleaf evergreens such as holly, azaleas, rhododendron, and some magnolia species retain their leaves throughout winter. Leaf retention during the winter is helpful in storing water and nutrients when the ground is frozen, and water is limited. However, broadleaf evergreens planted in the fall can suffer from leaf desiccation, or winter burn, due to winter winds, limited water sources, and arid conditions.

Planting native species during the fall can give you, your plants, and early spring pollinators a jumpstart on the growing season!

Impacts of Droughts on Water **Quantity and Quality**

Ashlee Widener, Water Resource Specialist

As you may have heard, Butler County experienced severe drought conditions in late September and into early October. The majority of Ohio has been experiencing drought conditions, with the worst of it impacting southern and eastern Ohio. As of recently, following the events of Hurricane Helene, drought conditions have improved, but the rain might not have been enough. In fact, NOAA stated that Butler County would need 9-12 inches of rain to overcome this drought period.

This historic drought has had impacts on agriculture, water supply, and has even led to a county-wide burn ban. The Ohio Department of Natural Resources is urging people to be cautious with their water consumption during these drought conditions, including taking shorter showers, running the dishwasher and washer with full loads, and watering their lawns only during the coolest part of the day. While the period from late summer to early fall is normally drier than the rest of the year, these extreme drought conditions can take a toll on water quality and quantity in streams and rivers.

With the lack of precipitation these past few weeks, many local streams have been dryer than usual at this time. In streams and rivers, water quantity is extremely important. Streams in Ohio can be classified as ephemeral, intermittent, and perennial. Perennial streams flow yearround and are connected to the water table. Think of larger streams and rivers like Four Mile Creek or the Great Miami River. Intermittent streams are streams that only flow during some parts of the year when groundwater or precipitation is high; these streams are also connected to the water table. Ephemeral streams only flow in response to precipitation and are not connected to the water table. Many headwater streams are intermittent and ephemeral and serve important ecological functions. With the lack of precipitation we have been experiencing, these streams can dry up, negatively impacting any aquatic organisms relying on that system for habitat or food sources.

In the larger, perennial streams, most of the time these streams do not dry up completely, but drought conditions can impact flow. For example, riffles and pools are important stream habitats for many species of fish and bugs. In riffles, the water flows quickly over boulders or cobblestones, oxygenating and cooling off the water. Many sensitive fish, like darters, and bugs, like mayflies and stoneflies, take refuge in these riffles. With lower water levels following a drought, these riffles can lose their function and harm the wildlife that relies on them. Pools, or areas of deep water, serve as protection during drought conditions like what we have been experiencing.

When water levels drop, pools can become isolated from the rest of the stream. These pools are extremely important for fish refuge, but as drought conditions worsen, these pools can become shallow as well.

Drought conditions can also lower groundwater levels, reduce groundwater recharge, and deplete water in private wells. During this time of the year, water levels typically decline without drought conditions and the water table lowers. According to Tim McLelland, the Groundwater Consortium Manager, groundwater levels are being continually monitored and there is still a high level of saturation in the aquifer in most locations around the county. Some monitoring wells that are closer to the Great Miami River have current water levels similar to the 2007 drought, with a couple of feet lower than typical lows. The wells that are located further away from the river don't seem to be currently showing the same impact but will continue to be monitored over the next few years to see if there are any delayed effects. The recent rain events may help recharge the aquifer, but we might not see those effects for a few months.



Dry streambed in Hanover Township, Butler County, Ohio.

Not only do droughts impact water quantity and water levels, but water quality can also be significantly impacted. Larger flows of water can help dilute pollutants, so when water levels are low, contaminants and pollutants can have a larger impact on streams. As the water levels decrease, water temperatures can increase. This means less oxygen in the water as well. Higher temperatures and lower water levels can increase the likelihood for algal blooms and bacteria. One good outcome from drought periods, though, is that pollution that results from stormwater or agricultural runoff, like phosphorus, nitrogen, or sediments, can decrease. Droughts can also expose trash and other materials in streams and rivers that can be easily cleared out compared to during times of high flow conditions. In all, droughts can cause severe impacts on agricultural production and water quality and supply. To learn more about drought conditions in Butler ^{*L*} County, visit Drought.gov.

Ohio's Ancient Glaciers

Rylee Sanker, AmeriCorps GIS & Data Technician

Ever wondered why a quick drive up I-75 North leads almost directly to flat land? If you look around Cincinnati or any other major southwestern Ohio city, you'll find that they're almost always relatively hilly areas. But the opposite is true for Northern cities like Toledo or Findlay, they're usually quite flat and neighbor the Great Lakes. Why is that? Its all thanks to Ohio's glaciers!

Around 2.6 million years ago, Ohio entered its first of three major glaciation periods. A glaciation period is an interval of time where Earth was much colder and predominantly covered with glaciers. As the Earth entered the Ice Age, and global temperatures dropped, glaciers grew from ocean water and compacted snow in present day Canada. These glaciers eventually migrated south towards Ohio, moving like one big bulldozer: pushing, scraping, and leveling land as they moved, and eventually covered over two thirds of the state of Ohio.

The first glaciation period, called the Pre-Illinoian, reached the farthest south and even helped create the Ohio River.



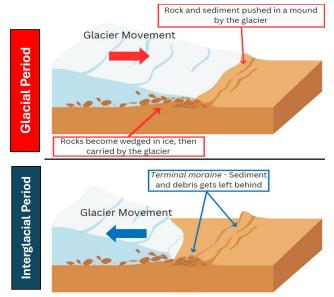
Wisconsinian

It's glaciers blocked an ancestral river, called the Teays River (pronounced "taze"), which assisted in the formation of Lake Tight. Eventually, the water breached Lake Tight, and the topography of the land diverted the water to flow in another part, which eventually created the Ohio River.

Ohio entered two other glaciation periods after: Illinoian and Wisconsinian. After each glaciation would occur, a period of warmer weather would follow, called an interglaciation period. During this time, the glaciers would recede and leave a mound of rock and sediment called terminal moraine.

Most moraines formed in southwestern Ohio, which are some of the hills we know and love today. The most notable moraines of Butler County are those that follow along the Great Miami River. These glacial deposits occurred during the Wisconsinian glaciation and mostly consist of unsorted (meaning many different grain sizes of sediment in one area) clay and sand. Sediments deposited by these glaciers and their meltwaters are one of the many reasons why

Ohio has such rich soils. The glacial deposits also provide a lot of the sand, gravel, and clay that we use for construction. As the Wisconsinian glaciation came to an end, and glaciers retreated, large glacial lakes began forming from the meltwater of the glaciers. These ancestral lakes would eventually turn into the Great Lakes. Lake Maumee was one of the first to form, but as the glaciers continued to retreat north, they carved out sediment and rock and deposited meltwater to help form the large bodies of water that neighbor Ohio today.



Source: Ohio Department of Natural Resources, Sangamon Link. Ohio History Connection.

2024 Butler SWCD Award Winners

Outstanding Cooperator - Emily Mullen & The Mullen Dairy & Creamery

Friend of Conservation - Izaak Walton League of America Hamilton Chapter

Outstanding Conservationist - Timothy Sheley Conservation Educator - Tim Ross



NRCS Welcomes New Employee

Jordan McMahon, Natural Resource Specialist

When asked who Jordan McMahon is, there is never just one answer, but many different answers depending on who you might ask. Through my own lens, I would simply identify myself as an adventurer and artist.

Growing up all over the Southeastern US in cities such as Jacksonville, Florida; Baton Rouge, Louisiana; and Virginia Beach, Virginia; I was blessed to have a plethora of diverse experiences. Having moved around plenty growing up, I became fascinated with the unique beauty and qualities of each and every city/town that I was able to visit and the people within.

In May, I obtained a Bachelor's Degree in Science studying Sustainable Agriculture from Central State University. All of this was made possible with a scholarship from the USDA, through the 1890 Program, which enabled me to travel, study, and establish a career for myself.

Through the support of my Alma Mater and the USDA, every day I am able to serve and help people whether it be through research or programming. Being able to help people, especially those in need and underserved communities, has always been a big part of my life. I have really been able to experience this while serving as Senior Class President at my school, where I was able to introduce my peers to resources to help us achieve our goals and make the leap from undergrad to a fulfilling career.

Outside of school and career, I love to find myself out in nature whether it be through hiking, camping, fishing, or just about anything to get me outside, especially if it's a challenge! I practice photography anywhere I can get the chance and love capturing special memories in friends, family, and my own life. Lastly, even though I don't own a sporty car myself, I am fascinated by older and muscle cars, taking time to go to car meets and shows whenever the opportunity pops up.



FSA Disaster Assistance Programs: Farmers Impacted by Drought

USDA's Farm Service Agency (FSA) offers multiple programs and loan options for producers to consider while working through this drought.

Livestock producers who suffered grazing losses for covered livestock due to drought on privately owned or cash lease land may be eligible for the 2024 **Livestock Forage Disaster Program** (LFP). To participate in LFP producers must own, cash or share lease, or contract grow eligible livestock, provide pasture or grazing land to eligible livestock on the beginning date of the qualifying drought; certify that they suffered a grazing loss due to drought, and submit an acreage report to FSA for all grazing land for which a grazing loss is being claimed. Butler & Hamilton Counties qualified for drought on September 24, 2024.

The Emergency Assistance for Livestock, Honeybees, and Farm-Raised Fish Program (ELAP) provides eligible producers with compensation for above normal costs of hauling water and feed to livestock as well as transporting livestock to forage or other grazing acres. For ELAP, producers are required to complete a notice of loss and a payment application to their local FSA office no later than the annual program application deadline, January 30, 2025, for 2024 calendar year losses.

FSA also offers a variety of **Direct and Guaranteed Farm Loans**, including operating and emergency farm loans, to producers unable to secure commercial financing. Producers in counties with a primary or contiguous disaster designation may be eligible for low interest emergency loans to help them recover from production and physical losses. Loans can help producers replace essential property, purchase inputs like livestock, equipment, feed and seed, cover family living expenses or refinance farmrelated debts and other needs. Additionally, FSA offers several loan servicing options available for borrowers who are unable to make scheduled payments on their farm loan programs debt to the agency because of reasons beyond their control.

FSA has developed an on-line disaster assistance discover tool which allows producers to learn the USDA assistance programs which might fit their operation due to this year's drought. This easy-to-use tool can be accessed at: www.farmers.gov/protection-recovery/disaster-tool.

Producers need to evaluate the impact on their operation and contact the Butler/Hamilton County FSA office to schedule an appointment to timely report all crop, livestock, and farm infrastructure damages and losses. To reach the Butler/Hamilton FSA office call 513-642-3715.

Pictured: Jordan teaching a student at the OSU Extension, Butler County Workforce Development Event.



Want to Sponsor our Newsletter? Contact our office today (513) 887-3720



Butler SWCD 1802 Princeton Rd Hamilton, OH 45011 513-887-3720 ButlerSWCD@bcohio.gov

The Butler SWCD and the NRCS prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. USDA: An Equal Opportunity Provider, Employer, and Lender.

Upcoming Events

- BEST Volunteer, Invasive Removal: October 26
- BEST Volunteer, Invasive Removal: November 2
- Office Closed, Veteran's Day: November 11
- Garden Series: November 12
- Board Meeting: November 21 @ 3:30pm
- Office Closed, Thanksgiving Holiday: November 28 & 29
- **BEST Volunteer, Wildlife Friendly Decorations:** December 5
- Board Meeting: December 12 @ 10am
- Office Closed, Christmas: December 25
- Office Closed, New Years: January 1

To find out more information on any upcoming events, please visit **www.butlerswcd.org** or call our office at (513) 887-3720.

Native Seed Sale

We have partnered with the Ohio Prairie Nursery - giving locals an opportunity to purchase native seeds at a discounted price.

Sale will run until the end of the year.

- To place an order use the QR code provided below or visit www.opnseed.com/discount/BUTLERSWCD10 to place your order.
- Add seed packets to cart.
- At check out the promo code: BUTLERSWCD10 will appear and you will see your savings.
- Seeds will be shipped to your home.

Any questions please email butlerswcd@bcohio.gov.

