

# Town & Country

Hamilton County Soil & Water Conservation District

Fall 2018

## Hamilton County SWCD to Offer Year-Round Women's Conservation Learning Circles

*Jenny Blake, Conservation Technician and Outreach Assistant*

More than one million women now operate American farms, as a growing number of women inherit, start, or take charge of working farms each day. In the Midwest, women now own or co-own an estimated one-fourth to one-half of all farmland.

To reach the growing number of women landowners interested in farming practices that benefit the health of their land, Hamilton County SWCD is joining with Women4theLand to host a free conservation discussion and field tour for women farmland owners and operators throughout the year.

Women4theLand is a partnership of conservation and natural resource agencies and organizations working together to provide education and resources to Indiana women landowners, farmers, and natural resource professionals. They promote the use of Women's Conservation Learning Circles as an effective way to help women learn about and implement conservation practices on the land. The objective is to empower women to positively impact Indiana's land, food, and quality of life through sustainable agriculture, wise conservation actions, and strong farm enterprises.



*Women touring a farm to view conservation practices*

*Photo courtesy :Women4theland*

Women's Learning Circle meeting-style methods for conservation outreach to women who own or operate farmland and the activities associated with the circle were pioneered by Woman Food and Agriculture Network (WFAN) – a national organization based in Iowa. During their work with an increasing number of female landowners, they noticed that women were very interested in the idea of land stewardship, land health, and the ability of the land to produce for multiple generations. They also noticed that there were very few women coming into the National Resource Conservation Service (NRCS) or Soil and Water Conservation District (SWCD) offices to take advantage of the technical assistance, programs, and financial assistance that

can help them with their land stewardship goals.

"We are excited to reach women landowners and operators who otherwise may not be aware of all of the programs and resources available to them in our county," said Ginger Davis, HCSWCD District Administrator. "We want women landowners to form allies with one another, in addition to establishing connections with local resource professionals who can help them."

HCSWCD recently hosted an Urban Learning Circle at Cool Creek Nature Center in August with a full-house attendance. The Urban Learning Circle is an abbreviated 2-hour session that includes an informal meeting of a *women-only* morning discussion during lunch. The Traditional Learning Circle includes a bus tour after lunch to view on-farm practices that promote healthy soil and water quality. Female conservation professionals will be on-hand to answer questions and share resources. The key topic(s) of discussion will include soil health, government financial assistance programs, and communicating with farm tenants about conservation management practices.



"These meetings have been well-received in other parts of Indiana," says Angie Garrison, District Conservationist in Boone County. "We're excited to bring this unique program to central Indiana."

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**Town & Country**

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**Infield Advantage Program Helping Local Farmers**

*Mark McCauley, Resource Conservationist*

INfield Advantage (INFA) continues to be one of the largest adaptive nutrient management farmer networks in the country (after Iowa) and in 2018 we continued to grow in Hamilton County. We grew from 28 participant fields in 2017 to 43 fields in 2018! A total of 3004 acres was monitored using the INfield Advantage tools!

The Hamilton County group was formed by local growers to improve their nitrogen use efficiency in corn. This year, we had 15 local growers participate in INFA. Our local group is part of the state-wide program coordinated by the Indiana State Department of Agriculture (ISDA). More information about the program and previous years' results can be found at: [www.INfieldAdvantage.org](http://www.INfieldAdvantage.org) INFA uses aerial imagery and the Corn Stalk Nitrate Test (CSNT) to determine nitrogen use efficiency in each field enrolled. Producers are not restricted on tillage, rotation, nitrogen form, timing or rate and may enroll multiple fields. The basic participation level of the program is called Guided Stalk Sampling (GSS). Growers may also use INFA to conduct more detailed on-farm research using Replicated Strip Trials (RST). At the end of the year, INFA supplies each grower with the aerial imagery and CSNT results from each field. Any fields with a Replicated Strip Trial will also have an RST report. Each grower also receives a regional report, with each field assigned an anonymous ID number.

Our local 2018 working group consisted of 43 GSS fields. INFA costs are funded through Indiana Corn Marketing Council/Indiana Soybean Alliance (ICMC/ISA) checkoff funds and offered free of charge to producers. Results from the 2018 program are still being tabulated and analyzed, and will be reported in a later newsletter. If interested in enrolling your fields in either GSS or RST, contact Mark McCauley at 317-773-2181.



**Intern Spotlight**

Hello everyone! My name is Grace Cochran and I am a senior at Noblesville High School. I am lucky enough to be this year's intern at Hamilton County Soil and Water Conservation District (SWCD)! Last year I took Advanced Placement (AP) Environmental Science and I loved it. While headed into my senior year, I was still unsure of what I wanted to study in college. Our school provides us with many different internship opportunities and I thought interning at Hamilton County SWCD would give me some insight on what a job would look like in the environmental field.



*Cochran poses briefly on a perfect bluebird day before skiing down the mountain!*

Each week I spend six to nine hours performing various tasks. Some of these tasks include going on site visits, performing well water/soil tests, project work on the computer, or assisting the staff with whatever they need. I love that I get *real-world* experience and I get to meet new people along the way. Some of the highlights include investigating a fish kill (50-100 fish!), testing a stream, visiting a community garden, and even speaking in front of the council. I love being active and specifically enjoy skiing, playing soccer, and hiking. I think my passion for the environment comes from my love of being outdoors. I am hopeful for the future and will be attending an in-state college to study environmental science or possibly agriculture. Regardless, I am excited to continue my internship for the rest of the school year with the amazing staff here at SWCD!

## Regional Soil Judging Competition Hosted by Hamilton County at Teter Organic Farm

Mark McCauley, Resource Conservationist

Teter Organic Farm, located in Noblesville, was the site of the Regional Soil Judging Competition this year. The high school competition brought 20 teams and 86 students from eight different counties. The purpose of the competition is to test their knowledge and understanding of soil characteristics, and how those characteristics (soil texture, composition, drainage, layers, etc.) affect various land use choices. Teams of four students judged four different soil pits (excavated by local Woodward Farm) in various soil types and conditions. Following this timed competition, score sheets were tabulated by the Purdue Extension staff, while students gathered at each soil pit for a review by soil scientists.

This year's Area VI 4-H/FFA Soils Career Development Event was a collaboration between the Purdue Extension, Purdue Soils Department, Hamilton County Soil and Water Conservation District, Teter Organic Farm, and USDA-Natural Resources Conservation Service. To learn more about soil judging events, please contact your school FFA leader, Purdue Extension at 317-776-0854, or the Hamilton County Soil and Water Conservation District at 317-773-2181.

Teter Organic Farm is an outreach mission of Noblesville First United Methodist Church which grows over 40 varieties of vegetables and fruits on 3 acres. Because they believe everyone deserves to eat healthy food, they grow certified organic produce for local food pantries, food banks, and feeding programs, as well as, for a 36-member CSA and the Noblesville Farmer's Market. They also offer farm tours and farm stays, environmental education, host outdoor weddings, spiritual retreats, corporate outings, and family reunions. For more information on Teter Organic Farm, check out their website at [www.teterorganicfarm.com](http://www.teterorganicfarm.com).



Help us Celebrate

50

Years

of

CONSERVATION

# OPEN HOUSE

JOIN US at the 4-H Fairgrounds Winks Building and learn about all of the services that we can provide for Hamilton County residents! Snacks/drinks will be provided! Don't miss out on the RAFFLE prizes donated by local businesses!!

November 1st 4-pm-7pm

**Celebrating 50 Years of  
Conservation in  
Hamilton County**

**1968**  **2018**

## Conservation Happenings

*Ginger Davis, Conservation Administrator*

### **New Funds Sought for Agricultural Trials, Pollutant Source Tracking, and Conservation Practices**

There is an increasing trend in the agricultural community to “try before you buy” with some conservation practices. Trials in agriculture are a way to see what works and what does not. INfield Advantage trials in Hamilton County have been going on since 2014. Conservation Cropping System Initiative (CCSI) has a hub farm in Hamilton County where trials of conservation practices have been investigated since 2012. We would like to see an expansion of the amount of conservation trials within our county to determine what conservation efforts make sense and how to implement them on large fields with little risk. There are things known about the improvements to soil health to help improve a plant’s response to increased organic carbon, increases in fungal and bacterial presence in the soil. But, how to best achieve that success is still open for debate. And the best way to get an improved soil health system takes some trial and error, as well as time. This is a risk that most producers cannot take on a large scale with so many unknowns. Especially, when their livelihood depends on the yield they get from their crops at the end of the season.

For this reason, we have decided to go after some grant funding to help get trials for conservation practices in the field. Since this can be a risky venture, we want to be able to limit the risk to smaller areas and work with the landowner/operator to reduce erosion and nutrient loss, as well as improve the soils. If we can get an area to become successful, we can give the producer some evidence as to how to change the operation and what can be expected over time. We are partnering with neighboring county Soil and Water Conservation Districts, CCSI, the Soil Health Partnership, and nutrient management groups to help get this started.

Additional funding support was requested from the grant application to help fund a study of source tracking for sediment, nutrient, and bacterial sources. We have found a new method for determining the source of these stream pollutants that may help us to identify where conservation would be the most helpful and give us the biggest “bang for our buck”. This study would be conducted by the US Geological Survey and would be a great help in providing the evidence to determine where many of these sources of pollutants are located. This will be of major interest to those that live and/or recreate on our multiple reservoirs, as the quality of the water in those reservoirs serves as the drinking water for many people.

Money will also be available for traditional conservation practices, if funded. Conservation practices that help to filter pollutants or nutrients to our waterways have always been available, but the funding and education for these types of practices will be more readily available with funding from a grant. The grant we are seeking is a 319 Clean Water grant through Indiana Department of Environmental Management. They receive funds from the Environmental Protection Agency (EPA) to implement the Best Management Practices in areas that have watershed management plans. This sort of funding will require the hire of a watershed coordinator and possibly a conservation trial coordinator. Wish us luck as we wait to hear whether we are funded or not for this next grant cycle. If funded, the grant would start in the late fall of 2019.

### DID YOU KNOW?



[Indiana.clearchoicescleanwater.org/consERVE](http://Indiana.clearchoicescleanwater.org/consERVE)



DO YOU? GET INVOLVED >

America Recycles Day

**November 15**

## New Website of Soils Tools, Information, and Resources

[www.nrcs.usda.gov/wps/portal/nrcs/main/soils/survey/tools/](http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/survey/tools/)

### Helping People Understand Soils

The Soils and Plant Science Division (SPSD) Soil Survey Database Focus Team has redesigned the Tools page on the NRCS Soils webpage to improve customer access to our rich collection of soil information resources. The webpages provide access to unique and leading edge interactive tools and improve improved navigation functionality for both our internal and external customers. The main homepage features user-friendly buttons by topic (above). Selecting a topic will give a list of applicable tools. Please email the Soils Hotline [SoilsHotline@lin.usda.gov](mailto:SoilsHotline@lin.usda.gov) for feedback, comments, and suggestions. Some highlights of the new website features include the following:



The Soil Data and Maps page provides easy access to applications where you can download up-to-date official soil data and generate maps. It features Web Soil Survey which provides official soils data, beautifully formatted maps and up-to-date reports for farmers and partners across the U.S.

The Soil Apps page provides access to SoilWeb Apps which includes SoilWeb, a tool that provides quick access to selected areas of interest (like local farm maps) via interactive maps and quick links to soil information derived from the official NRCS data.

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think what thousands of us can do, working together!*



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## Urban Conservation Spotlight

Claire Lane, Urban Conservationist

### Fall is a Great Time to Take on Woody Invasive Species

Fall is a great time to take on woody invasive species. As woody invaders prepare for winter dormancy, they pull their nutrients and energy down into their roots. This means it is a great time to apply our efforts toward eradication— or a first step towards it at least.

Woody invasive shrubs commonly found in Hamilton County include autumn olive, Asian bush honeysuckles, multiflora rose, and winged burning bush. Fall control of these species is best achieved through a cut stump treatment. This treatment is simply cutting the plant off as close to the ground as possible (chainsaw or pruning shears) and then immediately applying a systemic herbicide to the cut stump. A targeted application of herbicide to the stump limits damage to the surrounding wanted plants. Targeted application can be achieved by using a small sprayer, spray bottle, or even a paintbrush or sponge to apply the herbicide. Glyphosate and Triclopyr are the most commonly used herbicides. Be sure to follow all herbicide label instructions and take safety precautions. Large vines of wisteria, autumn clematis, and oriental bittersweet can also be treated via the cut stump method throughout the fall.

Invasive vines such as periwinkle, English ivy, and winter creeper can be managed using a foliar spray of 5% Glyphosate and .5% non-ionic surfactant. Non-ionic surfactant (available online or at supply stores) helps the herbicide penetrate the waxy leaves of these vines. Some species respond better to management efforts during the growing season or earlier in the year. Foliar sprays are also best for species such as crown vetch, Japanese knotweed, lespedeza, and garlic mustard. Species near water, such as purple loosestrife, require a herbicide safe for use near aquatic areas. Some invasive trees, such as princess tree and tree-of-heaven, re-sprout prolifically when cut so a basal bark treatment is best.

The Southern Indiana Cooperative Invasives Management (SICIM) website has a great “Landowner Toolkit” with online resources related to invasive species identification, control, and management. If you are overwhelmed by the density or diversity of invasive species on your property, SICIM offers a great “Where to Start, Prioritizing Control” resource. Their “Generalized Control Calendar” also offers suggestions for treatment and herbicide options successful in different parts of the year (control methods in this article where adapted from these resources.)

If you have a limited infestation of woody shrubs or prefer not to use herbicide, the SWCD has several puller bars/weed wrenches of various sizes that use a clamp and leverage to easily pull the shrub out by the root. These tools are available for free check-out from the SWCD. More info is available by calling the office or visiting [www.hamiltonswcd.org/toolloan](http://www.hamiltonswcd.org/toolloan).

Invasive species infestations can be very overwhelming but the SWCD is committed to making resources and tools available to help you develop a management plan, the tools (including cost share), and the info you need to respond. Remember that battling invasives typically takes several years. Annual and ongoing maintenance is required especially in areas with a prolific seed bed or near seed sources. Know that your efforts are making a difference and with some commitment and perseverance we will make a difference across our county!

### Most Common Invasive in Hamilton County

Where it came from: There are several species of non-native, invasive honeysuckle that have taken root in the Midwest. These fragrant flowering shrubs (and vine) were introduced as wildlife plants through the landscape trade. Outside of their natural range, they are able to take over and spread prolifically. They leaf out earlier in the spring than our native understory plants and therefore, shade out the native plants our wildlife depend on. Non-native honeysuckles are prolific berry producers but these berries are essentially empty carbs for migrating birds whereas our native shrubs produce high protein berries the birds need to migrate. In addition to early leaf out, birds eat the berries and carry them elsewhere— contributing to the extensive spread of these species in urban and rural areas, including our protected natural areas.



What does it look like: Control: Invasive honeysuckle shrubs are typically 6-15 feet tall and 6-12 feet wide. The shrub honeysuckles have simple, opposite, oval to oblong leaves with entire margins and short petioles. The leaves are usually about 1-2.5 inches long. Invasive honeysuckles are usually very easy to identify in the spring and fall as they leaf out before other plants and retain their leaves longer in the fall.

Native substitutes: chokeberry, gray, padoga, and flowering dogwood, winterberry, common elderberry, New Jersey Tea, buttonbush, ninebark, blackhaw and others.

*Invasive honeysuckle berries Photo Courtesy: Purdue Extension*



*Volunteer uses a weed wrench to remove invasive shrub. Photo courtesy: MC-IRIS*



*Invasive honeysuckle shrub in flower. Photo courtesy: Purdue Extension*

## Urban Agriculture Update

Andrew Fritz, *Urban Agriculture Conservationist*

### Healthy Topsoil, Healthy Guts

Topsoil is healthiest when there is ample organic matter and roots for bacteria, fungi, and other microscopic life forms, known as the microbiome, to live in. The microbiome is important because, like our gut, it's how nutrients are delivered and processed to the plant. This is why many of us take probiotic supplements, like vitamins, to nourish our guts with a healthy microbiome using bacteria. When the microbiome is healthy, it supports a healthier environment, requires less fertilizer, and produces more nutritious food. Also, like our guts, healthy soil is the immune system of plants - requiring less pesticide control.

Healthy topsoil also provides other direct benefits to us that we may not be aware of. In fact, it may be one reason why spending time in nature is good for us. We don't know exactly how it works but what we do know is that there is a complex interaction between the microbiome found in nature and the microbiome found in us. Therefore, when we spend time in nature or with healthy soil, we inhale, ingest, and cover our skin with bacteria that our bodies need. In other words, healthy nature gives us free probiotics. People who have access to nature are healthier partly for this reason.

For instance, researchers have noticed that a "diversity of skin proteobacteria of rural children is higher than urban children, and correlates with increased expression of anti-inflammatory immune markers." This means that the immune systems of children in rural areas closer to natural areas are better equipped to fight disease. (Mills, Gellie, Lowe, & Breed, 2017)

In another case, researchers noticed that the "high exposure to the microbe-rich rural environment of the Amish, a community practicing manual agriculture, confers strong immune protection, significantly more so than [others] who practice mechanized agriculture." (Mills, Gellie, Lowe, & Breed, 2017)

It is inspiring to know that nature supports us! Yet, it is suggested that disturbances in the microbiome through urbanization increases the chance of disease and psychiatric disorders especially in the case of affluent urban populations removed from exposure to microbiota through the microbiome. (Mills, Gellie, Lowe, & Breed, 2017)

In urban areas, topsoil loss and microbiome disturbance occur in many ways. The tilling and the over use of fertilizers in gardens, lawns, and landscapes, can evaporate organic matter into the atmosphere. Insensitive development, especially the physical removal of top soil during construction, can severely impair the ability of the soil to perform health benefits. Soil erosion, too, is a major urban issue.

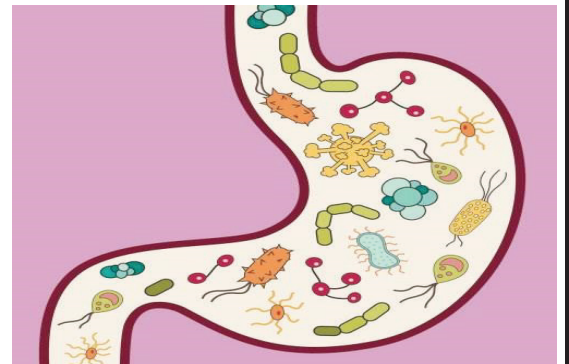
The loss of biodiversity means that there are less types of roots and plants to diversify the microbiome. In fact, indigenous communities who are exposed to a greater diversity of plants have a greater diversity of gut bacteria. Scientists are collecting these bacteria samples and reintroducing them to civilized cultures. Nestle, in fact, does this with its baby formula.

Essentially, when topsoil is disturbed without remediation, it loses its power to benefit us. But there are many ways you can improve it:

- Get a soil test before applying fertilizer to know exactly what you need (We offer soil tests)
- Consider reducing the amount of lawn you mow and replace with native grasses, wildflowers, and trees to increase biodiversity (We offer technical assistance for this and even offer cost share assistance)
- Consider mowing your lawn less to allow the roots to penetrate deeper into the topsoil
- If you farm or garden, consider using no-tilling methods and planting cover crops during the fall and winter to keep the microbiome healthier (We offer free cover crops to gardeners)
- Build topsoil by composting your garden, lawn, or kitchen waste instead of throwing it out



Works Cited:  
Mills, J. G., Gellie, N., Lowe, A. J., & Breed, M. F. (2017, October). Urban habitat restoration provides a human health benefit through microbiome rewilding: The Microbiome Rewilding Hypothesis. *Restoration Ecology*. Retrieved October 2, 2018



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## 2018 White River Clean Up Info - Hamilton County



**RESCHEDULED**  
**NEW DATE ANNOUNCED**

October 27, 2018

**Who:** Anyone willing to get wet and help clean up the river! We'll pull trash and debris from the White River and perform maintenance or planting projects along the banks. Children 15 years and younger must be accompanied by an adult.

**Where: Carmel / Fishers Location:**

116th Street Boat Launch  
6100 Wapihani Drive

**Noblesville Location:**

The Moose Lodge at 950 Field Drive  
(near SR-19)

**Event Details:**

- RE-REGISTER even if you registered for the CANCELED event
- Groups must pre-register online [www.whiterivercleanup.org](http://www.whiterivercleanup.org)
- Individuals may pre-register or register onsite the day of
- Wear sturdy shoes and gloves
- Limited # of canoes available
- Plan to get dirty!



More info and register at [www.whiterivercleanup.org](http://www.whiterivercleanup.org)

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All programs and services of the Hamilton County Soil and Water Conservation District are offered on a nondiscriminatory basis without regard to race, color, religion, sex, marital status or disability.

If you wish to be removed from our distribution list, to make a name or address change, or to switch to email newsletters, please call 317-773-2181 or email [soil.water@hamiltoncounty.in.gov](mailto:soil.water@hamiltoncounty.in.gov).