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# The Flow

Clark County Soil and Water Conservation District

Partners helping to make our project happen:

- Clark/Jefferson/Scott County Health Departments
- Jefferson and Scott County SWCDs
- IDNR Division of Nature Preserves
- Indiana State Department of Agriculture
- Natural Resources Conservation Service

## Cover Crops

Cover crops aren't anything new; their use in agriculture has been around for centuries. But after the 1940's when synthetic fertilizers and other agronomic practices came on the scene to make farming "easier", the use of cover crops was all but forgotten. That is until recently when farmers started seeing some long term financial and soil health benefits that only cover crops can provide. While we can manage some of the missing pieces with man-made inputs, trying to replicate the synergy that occurs in the soil between the microbes, bacteria, fungi and cover crops is unmatched.

When we stopped using cover crops, we lost these beneficial relationships and entered into a time of soil degradation that continually relied on more and more inputs. With the costs of synthetic inputs skyrocketing and their potential detrimental effects becoming more evident, the use of cover crops as an effective and natural answer is regaining popularity. Adopting a more holistic approach and nurturing the soil could have benefit of improving profitability and also benefiting future generations with healthier soils.

Besides gathering-up unused nitrogen, cover crops recycle that nitrogen through their roots and shoots and as they decompose the following year, some of that nitrogen is released for use by the next grain crop and some will go towards building soil organic matter. Cover crops also benefit the crop producer by building the soil organic matter through carbon sequestering, improving soil permeability because of their deep roots and loosening compacted soils with their taproots. The historic use of cover crops was to cover the soil to protect against both water and wind erosion. However, the cover crop's live roots also help hold the soil in place and further reduce erosion. Cover crops can also provide ruminant livestock producers with extra grazing or haying opportunities.

Although nitrogen is the usual focus, cover crops may also help recycle other plant nutrients by bringing them up from subsoil. Cover crops improve water quality by scavenging residual soil nitrogen and reducing losses into drainage waters. Cover crops also reduce erosion and thus the losses of phosphorous and even pesticides that may be bound to the sediments are reduced as well.

Cover crops can also improve fish and wildlife habitats by providing winter food, cover and landscape diversity. Some cover crops are even noted for their ability to suppress weeds, which may be due to competition, shading, or allelopathic reaction.

Funds to assist with the establishment of cover crops are available to producers in the 14-Mile Creek/Goose Creek Watersheds through the funded watershed improvement project. To learn more about cost-share assistance and cover crop decisions, contact the Clark County SWCD at 812-256-2330, ext. 3.

Inside this issue:

# Availability of Cost-Share Funds May Be Limited

The 14 Mile Creek/ Goose Creek Watersheds Improvement Project has several components that must be met in order to obtain the funds provided through the Indiana Department of Environmental Management. The project includes an education and outreach component that is intended to bring about behavioral changes and encourage the implementation of best management practices that will lead to a reduction of nonpoint source pollution in the watershed. About 40% of the funds for the watershed improvement project comes from the Clark County SWCD; of the 60% provided by IDEM, more than 73% of those funds are for the Cost-Share component that is provided to landowners for implementing best management practices.

The watershed improvement project is designed to be available for three (3) years however, the cost-share component may have a "life span" that is shorter than that because of the limited funds that were put into that component when the grant was approved and funded by IDEM. By comparison, the Silver Creek Watershed Improvement Project that we worked on a few years back had about 5 times the amount of money allocated for cost-share funding that the current 14 Mile Creek/Goose Creek Watersheds Improvement Project has and both these projects had/ have a 3-year term.

Applications for cost-share assistance for the current watershed improvement project started off slowly this spring but, recently we have received several applications for best management practices such as: cover crop seedings, water control structures, conversion of crop ground to hay/pasture seedings, heavy use protection area structures, interior fencing of livestock to limit access to waterbodies and/or improve grazing management, and alternate livestock watering systems.

So, if you are considering doing some practice(s) don't delay. Once the funds have been allocated we will be forced to start a wait list for additional applications. The best way to get in on these cost-share funds is make an application now, even if you don't plan to install the practice until 2020 or even 2021. We can't make a commitment to you for the funds without first having your approved application in hand.

# What's That Smell?

A failing septic system can reek havoc on your health, your wallet and the environment. Malfunctioning septic systems can release excess nutrients into our streams and rivers. This contamination can stimulate algae growth. Excess algae growth harms oxygen levels thus killing or negatively affecting fish and other aquatic organisms and reducing stream quality. E. coli can also enter our creeks, streams and rivers when a septic system isn't properly functioning.

**Here are 8 quick tips for properly maintaining your septic system:**

1. Inspect your septic system annually
2. Pump out your septic tank every 3 -5 years, using a licensed septic hauler
3. Avoid or reduce the use of garbage disposals; they can contribute unnecessary solids to your septic system
4. Avoid drain-field failures by avoiding hydraulic (excessive water) overloading. Install water efficient shower heads, faucets, and toilets to help limit wastewater levels and reduce the likelihood of septic system overflow.
5. Obtain proper permits from the county health department before making or allowing repairs to your system
6. Don't plant anything over your soil treatment area (leach field, mound, etc.) except grass
7. Divert roof drains and surface water from driveways away from the septic system
8. Don't use your toilet as a "trash can"! Chemicals can corrode septic system pipes and might not be completely removed during the filtration process. They may also interfere with the proper function of your septic system. Keep grease, disposable diapers, tampons, gasoline, oil, paint, pesticides, etc. out of your septic system.

Watch for signs of a non-working septic system. Signs include foul odors, wet spongy ground or puddles of water near a drain-field, lush plant growth near a drain-field and fixtures that drain slowly.

## Fall Pasture Management

Livestock producers wanting to provide healthier pastures next spring might want to take steps now to prevent pasture overgrazing this late-summer and fall. Producers should begin planning for the end of the season now in an effort to help forage plants prepare for fall and winter. In order to prepare for fall and winter, forage plants are starting to build-up nutrients in the form of root reserves. So, it's important that grazing practices at this time match and even enhance these plant efforts.

Recent extreme heat and a prolonged dry spell make having a good grazing management plan to protect against overgrazing extremely critical this fall.

During the fall (especially in September thru October), pastures must be managed by producers and not by the cows. This will allow grass and legume plants to build-up and store carbohydrate reserves for the winter period ahead. These stored carbohydrates will keep a plant's root system living over the winter months. While leaf tissue dies during the winter, the buds and roots of pasture plants remain as living tissue over the winter and continue to respire and burn energy to survive. But, if the root reserves are insufficient, the plant may die over winter. If the plant does survive with these low root reserves, spring re-growth and plant vigor will be negatively impacted.

In order to build-up carbohydrate root reserves in the fall, there must be adequate leaf area so that the plant can maximize the photosynthetic process. To accomplish this, producers should ensure they don't overgraze pastures now. For orchardgrass, producers should graze pastures to no lower than 4 to 5 inches; tall fescue and bluegrass pastures should be managed to leave 3 to 4 inches of residual plant growth.

Typically, the growth rate of pasture plants tend to slow down in the fall. Overgrazing in late-summer and early fall sets up a potential problem that could make it extremely hard for plants to recover. Besides helping to build root reserves, another benefit to maintain a higher fall grazing residual includes conserving soil moisture so plants continue to grow.

Overall, good fall pasture grazing management is really all about keeping enough leaf area on the plants so we get quicker spring "green-up" and better, more vigorous plant growth early next season.

## Eden Shale Farm Open House

The 14 Mile Creek/Goose Creek Watersheds Improvement Project is partnering with the Clark County Cattlemen's Association to provide transportation arrangements and registration to livestock producers who would like to attend the Eden Shale Farm fall open house and farm tour. The event will be on Saturday, October 12, at the farm near Owenton, KY. Two innovations that will be highlighted at the open house are the new water harvesting designs and the new winter feeding techniques that they have developed and will put to use this year. Farm tours will also be part of the open house.


The Eden Shale Farm is operated by the Kentucky Beef Network. The 961 acre farm is operated as a demonstration and learning center. Some of the innovations that this farm has put into actual use include: tire waterers, shade structures, water harvesting structures, large bale feeding areas, new barn and lot flooring innovations, fencing, fence line feeders, black vulture management techniques, rotational grazing, and multiple forage combinations. You'll get to see all these and more during this open house opportunity. Many of the innovations that will be demonstrated are best management practices that will qualify for cost-share funding through the 14 Mile Creek/Goose Creek Watersheds Improvement Project. So, come see these practices actually in place, hear if they could work for you and think about ways to improve how you manage your livestock. Lunch will also be provided at the event so reservations will be required. If you are interested in joining us for this event, contact Scott Abbott at scott.abbott@helmfert.com or 812-218-1905.

Clark County Soil and
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*For additional information or details on the Fourteen Mile Creek/Goose Creek Watersheds Improvement Project, contact David Trotter, Watershed Coordinator, at 14mcwatershed@gmail.com*

## Here's a Flow Fact for You!

**Water your lawn only when it needs it!** A good way to see if your lawn needs watering is to step on the grass. If it springs back up when you move, it doesn't need water. However, if it stays flat, the lawn is ready for watering. Letting the grass grow taller (to 3") will also promote water retention in the soil.

Most lawns only need about 1" of water each week. During dry spells, you can stop watering altogether and the lawn will go brown and dormant. Once cooler weather arrives this fall, the morning dew and a rainfall here and there will bring the lawn back to its usual vigor. This may result in a brown summer lawn, but it will save a lot of water. Most lawns are composed of cool-season grasses that naturally have a summer "dormancy" period in their lifecycle.

## Watershed Newsletter Going Electronic

There will be one more newsletter for the 14 Mile Creek/Goose Creek Watershed Improvement Project mailed to you this year; after that quarterly newsletters will be sent electronically to folks who have provided us with their email address. The newsletters can also be accessed at our website (14milecreekwatershed@weebly.com).
However, if you wish to continue to receive a hardcopy of the newsletter, we can make that happen too. So, if you wish to continue to get this newsletter in the future either email us at david.trotter@in.nacdnet.net or call 812-256-2330, ext. 3465.

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