Volume 4, Issue 10

The Flow

Fourteen Mile Creek Goose Creek-OH River WATERSHED Improvement Project

Eden Shale Farm

A few producers from the 14-Mile Creek Watershed area have visited the Eden Shale Farm near Owenton, KY over the past couple of years. They have visited this operation during annual field days to learn more about the practical projects the managers of this facility have constructed and use everyday on this working commercial cow-calf operation.

For those of you who haven't made the short trip to the Eden Shale Farm, I thought I would give you a brief description of the operation and its resources to producers.

Eden Shale Farm was established in 1955 as a research farm for the University of Kentucky. Five farms were purchased and combined to form one farm consisting of 950 acres. Research at the farm centered on pasture improvement, management, and livestock grazing. Some of the early research on Kentucky 31 tall fescue was conducted at Eden Shale. In 2012, UK closed operations of Eden Shale due to budget constraints. A year later, the Kentucky Beef Network assumed management responsibilities for Eden Shale. The cooperative agreement between UK College of Agriculture and the Kentucky Beef Network provides that the Kentucky Beef Network's five managers, who are appointed by the Kentucky Cattlemen's Association, and an advisory committee made up of 3 representatives from the UK College of Agriculture will oversee the overall direction and goals of Eden Shale.

From the beginning, Kentucky Beef Network's goal has been to educate cattlemen using a hands-on approach. Cattle on the farm are managed in a way that places emphasis on environmental stewardship and best management practices, that include centralized watering points, winter feeding areas and structures, water harvesting and wind and solar energy, among other emerging practices that are feasible and practical for producers to implement on their own farms.

If you would like to learn more about this demonstration farm and see some great best management practices put into practical, everyday use, I encourage you to go to their website and sign-up for their Blog.

https://www.edenshalefarm.com

Many of the best management practices they are using on this farm are eligible for cost-share assistance to our local producers in the 14-Mile Creek Watershed area.

Clark County Soil & 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

Inside this issue:

Soil Health

One of those “hot topic” phrases in today’s ag media is soil health. This phrase may have more than one meaning depending on the “camp” you are coming from. Extreme environmentalists may view soil health in terms of a natural, even organic, use of the soil with no amendments of any kind. Land developers may have the singular view that soil health is a soil that can handle and be approved by the local health department for an unlimited number of septic systems, without any regard for the multiplicative impact on a site’s limitations. But, for the purposes of this article, let’s focus on soil health as it applies to agriculture.

Soil health or soil quality, is defined as the continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans. This definition speaks to the importance of managing soils so they are sustainable for future generations. To do this, we need to remember that soil contains living organisms that when provided the basic necessities of life – food, shelter and water – perform functions required to produce food and fiber.

Only “living” things can have health, so viewing soil as a living ecosystem reflects a fundamental shift in the way we should care for our nation’s soils. Soil isn’t an inert growing medium, but instead is loaded with billions of bacteria, fungi, and other microbes that are the foundation of an elegant symbiotic ecosystem. Soil is an ecosystem that can be managed to provide a beneficial habitat for soil microbes to flourish and diversify to keep the ecosystem running smoothly.

Healthy soil gives us clean air and water, bountiful crops and forests, productive grazing lands, diverse wildlife, and breathtaking landscapes. Soil does all this by performing five essential functions: **Regulating Water, Sustaining Plant and Animal Life, Filtering and Buffering Potential Pollutants, Cycling Nutrients and Providing Physical Stability and Support**

Soil has both inherent and dynamic properties or qualities. Inherent soil quality is a soil’s natural ability to function. For example, sandy soil drains faster than a clay soil or deep soil has more room for roots than soils that are shallow with bedrock near the surface. These inherent properties or characteristics don’t change easily.

On the other hand, dynamic soil quality is how soil changes depending on how it is managed. Management choices affect the amount of soil organic matter, soil structure, soil depth, and water and nutrient holding capacity. A goal of soil health research is to learn how to manage soil in a way that improves soil functions.

Different soils respond differently to management depending on the inherent properties of the soil and the surrounding landscape.

Understanding soil health means assessing and managing soil so that it functions optimally now and is not degraded for future use.

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FREE Soil Health Webinar

Weighing the costs and benefits of soil health management practices is a primary concern for producers considering the adoption of such practices. However, the economic information needed for making data-driven, science-based decisions is difficult to find. Recognizing that cropping and operating systems, climate, and soils vary, the Soil Health Institute has done extensive research to develop partial budgets to fill the knowledge gap on the economics of soil health systems. Using data from more than 100 corn and soybean production partial budgets from across the United States, this webinar will provide an in-depth analysis of how cover cropping affects expenditures and management practices in reduced tillage systems. The webinar will also discuss details on cover crop seed mixes, planting, and termination strategies.

THE webinar, "Economics of Soil Health: Contributions of Reduced Tillage and Cover Cropping", will be held on January 18, 2022 at 12 noon to 1 pm (Eastern Time). This is a free webinar but advance registration is required.

If you are interested in participating in the webinar, email me at david.trotter@in.nacdnet.net and I'll send you the link to register. Or you can contact the webinar sponsors by phone at 608-273-8080.

Soil Testing Service Offered

The Clark County SWCD offers soil testing services for homeowners seeking fertilizer recommendations for their lawn and gardens. Soil samples may be brought to the SWCD office at 9608 Highway 62, Charlestown. Soil sample bags are available at no charge from the SWCD. Cost of a basic test is $22; a more extensive test is $32. Both tests provide suggested fertilizer recommendations for up to three crops (i.e. lawn, flowers, trees). It normally takes 4-5 working days for samples to be analyzed and recommendations returned. Having your soil tested provides you with information about soil amendment recommendations such as lime, fertilizer, etc. By using a soil test report, you take the guess work out of how much or how little to apply. This saves you both time and money, and also protects our water quality by diminishing nutrient runoff.

Wisconsin Cover Crop Conference

The Wisconsin Cover Crop Conference will return to an "in-person" format on February 24, 2022. This conference is one of the premier educational conferences in the US on the topics of cover crops, soil health, nutrient capture and retention and related information. Some of the mid-west's most notable experts on these topics will be on hand; not just university experts but also real-life producers who put cover crops to work on their farms every year.

The Wisconsin Cover Crop Conference will be held at the Central Wisconsin Conference Expo Center in Rothschild, WI. The registration information can be found at: https://cropsandsoils.extension.wisc.edu/events/wisconsin-cover-crops-conference/

Can't make it to Wisconsin this February? Then check-out these sites for videos from previous conferences about cover crops, soil health and conservation. Videos are archived and available for viewing. Here are two sites you can check-out:

https://cropsandsoils.extension.wisc.edu/article-program/wi-cover-crops-conference/

https://cropsandsoils.extension.wisc.edu/events/wisconsin-cover-crops-conference/

Here's a Flow Fact for You!

Clean Dishes and Clean Streams

It may seem a bit out of place for a newsletter that is primarily agriculture based to contain an article about a housekeeping issue. But, the truth of the matter is that we all live in a watershed, regardless of whether it's on a farm, in a city or in a sub-division. And since we all live in a watershed, we all share a responsibility for improving water quality where we live, work and play.

Dirty soapy water from your dishwasher flows into your septic system, and can leach into the nearest waterway, bringing with it lots of phosphorus. Phosphorus is a nutrient and causes excessive aquatic plant growth. Even if your home is on a public sewer system, treatment plants don't remove all the phosphorus, discharging some to waterways.

Excessive aquatic plant growth can cause a depletion of oxygen in waterways thus threatening aquatic wildlife populations. It can also plug up water flow channels thus causing flooding or erosion when water finds or creates a new course of flow.

You can help improve water quality by using no- or low-phosphorus dishwasher detergent. Read labels and make sure phosphorus is not a listed ingredient. Most common brands of dishwasher detergent contain some phosphorus, with the amount varying considerably by brand and by type, with the lesser amounts in gels and liquids, and greater amounts in powders and tablets/pacs. A good target goal to help with improving water quality is a dishwasher detergent with a phosphorus content of 4.5% or less.

SWCD to Host Native Tree and Plant Sale

The Clark County Soil and Water Conservation District (SWCD) is gearing up for their annual Spring Tree and Plant Sale. Trees offered in this sale are supplied by Woody Warehouse, Lizton, IN. The trees are 3-gallon, Grade 1 (nursery stock) container trees. Trees can be easily removed from their containers and directly planted. Some of the species offered are: Bald Cypress, Black Walnut, Pawpaw, River Birch, Sugar Maple, Dogwood, and Swamp White Oak. Trees are $25.00 each plus tax. Perennial Plants offered in the sale are produced locally by Old Thyme Loghouse Gardens in Otisco, IN. Plants are sold individually in one-quart containers. Some of the plants offered are: Black-eyed Susan, Butterfly Milkweed, Cardinal Flower, Columbine, and Purple Coneflower. Plants are $5.00 each, plus tax.

Deadline for orders is 4 p.m. on Friday, April 22, 2022. Trees will be ready for pick-up May 17-19 between the hours of 8 a.m. - 4 p.m. at the SWCD office. For order forms or more information, contact the SWCD office at 256-2330 or visit www.clarkswcd.org.

Why Native Plants? They do not need fertilizer or supplemental watering to help them grow. ● They can tolerate Indiana's cold winters and hot summers. ● They have very deep roots, as compared to turf grass, that allow them to be more drought resistant. These roots also help to stabilize the soil and prevent erosion. ● They have natural defenses against harmful insects and animals. ● They provide diverse and long-lasting beauty to the landscape. ● They provide critical habitat and food for native wildlife, including pollinators. ● They help improve water quality. Native plant species can be very efficient at absorbing nutrients, especially nitrogen and phosphorus, the main nutrients in lawn and agricultural fertilizers that contribute to algal blooms within waterbodies. • Native plant roots create channels in the soil that allows water to infiltrate into the ground, reducing stormwater runoff, flooding, and facilitating recharge of groundwater. **These are just some of the reasons why!**

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