



St. Joseph
County
Soil & Water
Conservation
District



Today's Visions for Tomorrow's Future

July/August 2019
Volume 21, Issue 4

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What's Going On...

Events hosted by the St. Joseph County SWCD
& Our Partners in Conservation

July

4 - Independence Day
Office closed

16 - Toddler Tales & Trails: Soil Explorers (ages 2-4) 10:00-11:30 am. (See page 3 for details.)

16 - Monthly Board Meeting - Open to the Public 7:00 PM LOCATION: Alligator Room Centre Township Library at Kern and Miami Roads in South Bend - 1150 Kern Road South Bend.

18 - Family Nature Nights: Soil Explorers (Families with school age children) 6:00-7:30 pm. (See page 3 for details.)

26 - Join us at Cardno's Open House (see page 3 for more details).

August

13 - Toddler Tales & Trails: What is a Watershed (ages 2-4) 10:00-11:30 am. (See page 3 for details.)

15 - Soil Health in Urban Vegetable Gardens (See page 3 for details.)

20 - Monthly Board Meeting - Open to the Public 7:00 PM LOCATION: Alligator Room Centre Township Library at Kern and Miami Roads in South Bend - 1150 Kern Road South Bend.

22 - Family Nature Nights: What is a Watershed (Families with school age children) 6:00-7:30 pm. (See page 3 for details.)

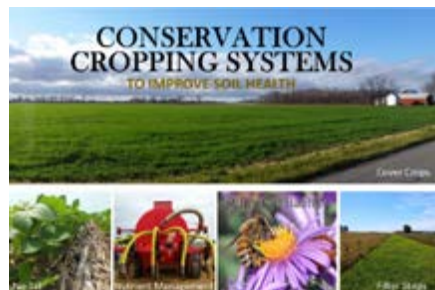
St. Joseph & Marshall County Awarded Clean Water Indiana Grant

Agricultural Best Management Practices for Water Quality, offers education, technical assistance, and cost share to implement no-till, cover crops, nutrient management, pollinator habitat and filter strips to increase soil health and improve water quality. Cost share is based on practices implemented.

Cover Crops have the potential to provide multiple benefits in a cropping system. They prevent erosion, improve soil's physical and biological properties, supply nutrients, suppress weeds, improve the availability of soil water, and break pest cycles along with various other benefits. The species of cover crop selected along with its management determine the benefits and returns.

Nutrient Management is defined as the management of the 4R's:

- Right amount (rate)
- Right source
- Right placement (method of application)
- Right timing of commercial fertilizers, manure, soil amendments, and organic by-products to agricultural landscapes as a source of plant nutrients while protecting local air, soil and water quality.



No-Till means planting into last year's crop residue without tilling the soil. The primary benefit of no-till farming is reduced soil erosion and sediment runoff.

Pollinator Habitat - Pollinators are an integral part of our environment and our agricultural systems; they are important in 35% of global crop production. Animal pollinators include bees, butterflies, moths, wasps, flies, beetles, ants, bats, and hummingbirds.

Protecting, enhancing or providing habitat is the best way to conserve native pollinators and, at the same time, provide pollen and nectar resources that support local honey bees. Farms with sufficient natural habitat, native pollinators can provide all of the pollination for some crops.

Vegetative **Filter Strips** are land areas of either planted or indigenous vegetation, situated between a potential pollutant-source area and a surface-water body that receives runoff. The term 'buffer strip' is sometimes used interchangeably with filter strip, but filter strip is the preferred usage. Runoff may carry sediment, organic matter, nutrients and pesticides that are either bound to the sediment or dissolved in the water. A properly designed and operating filter strip provides water-quality protection by reducing the amount of sediment, organic matter, and some nutrients and pesticides in the runoff at the edge of the field, and before the runoff enters the surface-water body. Filter strips also provide localized erosion protection since the vegetation covers an area of soil that otherwise might have a high erosion potential.

Our cost-share program is made possible by the funding of a Clean Water Indiana (CWI) grant 2019-2021. The CWI fund is administered by the Indiana Division of Soil Conservation under the direction of the Indiana State Soil Conservation Board. If you have questions or would like an application please contact Sarah Longenecker, County Conservationist at the St Joseph County SWCD office.

Cover Crops to Improve Soil in Prevented Planting Fields

When prolonged rain and flooding results in fields that will go unplanted, *prevented planting*, farmers need to weigh not only their program and insurance options, but also try to accomplish something positive from the situation.

Producers should explore the benefits of planting a cover crop to "prevented planting" fields. **Cover crops have the potential to fix and/or hold onto unused nitrogen, build organic matter, control weeds, control erosion and/or improve soil health during the remainder of the season.** Together these lead to long-term productivity and can build considerable rotational yield advantage for the crops that follow. Producers must check with Farm Service Agency (FSA) and their crop insurance agent/Risk Management Agency (RMA) on planting and harvest restrictions for cover crops related to prevented planting acres.

The above-ground biomass of cover crops help protect the soil from further sun, wind and water damage for the rest of the year. As excessive rainfall or flood waters cut across unprotected fields, the top soil may have already been lost from erosion and scouring. With the productive topsoil lost, so too are the nutrients, organic matter, and soil biology. If tillage alone is applied to these water-damaged fields to control weeds or smooth them out, even relatively flat soils will lose even more of these items that are critical to the farm's long-term profitability.

High biomass cover crops help build soil organic matter, improve soil aggregation, and stimulate soil biological activity by adding their roots and shoots to the soil. Fibrous roots enmesh soil particles and provide food for microorganisms which in turn produce polysaccharides and other "sticky" substances which stabilize soil aggregates. Cover crops also provide additional food for soil fauna such as earthworms. The roots and soil biological activity also increase soil porosity and decrease density near the soil surface, leading to improved infiltration into the soil. Both the root growth and top growth of the cover crops will contribute to building soil organic matter faster than if the soil is left bare or growing weeds.

Avoid harvesting the cover crops for forage or grain which will reduce the organic matter benefits. Instead, consider killing or mowing cover crops prior to seed-head formation, particularly if reseeding could be incompatible with subsequent crops. This will also ensure rapid decomposition and leave more nutrients in the below-ground plant material available to soil organisms and subsequent crops.

When selecting which cover crops to plant, producers

should consider their main purposes of the cover crops for their situation. Grasses usually provide the greatest amount of biomass both below and above ground and will build soil organic matter most quickly. Summer grasses such as sorghum-sudangrass and millets are good choices for early summer plantings while the more familiar cereal grains and annual ryegrass can be planted mid- to late-summer. Legumes will fix atmospheric nitrogen that can be used by next year's cash crop. Cowpeas are an excellent choice for mid-summer plantings, while hairy vetch, crimson clover, and winter peas can be planted through late summer. Be sure to inoculate all legume seed. Brassicas such as daikon radish, turnip, rapeseed and canola have tap roots that help break up tillage pans and improve permeability while being excellent nitrogen scavengers and can be planted mid- to late-summer. Note that planting daikon radish too early (before August) may result in the plant bolting and producing seed or in producing tubers larger than desired. Daikon radish should always be planted in a mixture with a grass, both to reduce the N losses during the rapid decomposition of the radish, and to maintain some surface residue cover after the radish decomposition.

Often a mix of cover crops provides more benefits than a single species, and producers should consider a mix including two or three of the plant classes discussed above. These species mixes stimulate soil biological activity more quickly due to the diversity of crop and root types. A mix of a fibrous-rooted grass and a legume or brassica with a tap root will produce soil improvement throughout the soil profile.

For prevented planting conditions it is best to seed the cover crop with a drill or planter to assure good soil seed contact. This is especially important given the crusted, hard top soil often present after prolonged soil ponding.

Contact Debbie Knepp, County Conservationist NRCS, or Sarah Longenecker, County Conservationist SWCD, for assistance in selecting Cover Crop plant species and seeding rates.



Source: 1. USDA Agronomy "Crib" Notes, June 2015, Issue 5 Cover Crops to Improve Soil in Prevented Planting Fields. 2. Purdue University Cover Crops for Prevented Planting Acres updated June 2015.

Education Happenings

Best Week Ever Soil and Water Recap

St. Joseph County Soil and Water Conservation District participated in South Bend's Best Week Ever for the second year in a row. This week-long celebration is filled with fun, community building events. It has been the perfect place to share environmental education with our residents and help make our neighborhoods more sustainable spaces.

We started out by having a booth at Purple Porch Co-op's 10 Year Anniversary Party. This event was great for connecting with some of our area's urban gardeners



and producers. In-between the music, food, and shopping, guests stopped by our booth to learn how to increase soil health in their own backyards. We gave free packets of a winter-kill cover crop seed mix that will cover 100 sq. ft garden.



Rebel Art Fest was our second event where we were able to get crafty. We shared information about pollinators and assembled and distributed around 200 solitary pollinator houses. These houses are meant for mason bees, who are very important pollinators in our area. Families that

came up to our tent had the option of putting their own house together or grabbing a pre-assembled one. Once they had their solitary pollinator house, they could then tap into their creative side by painting the roof. Hopefully this is just one of many steps our community and residents take to encourage native pollinators to call their backyards home. **Thank you** to LaVille High School's Ag Department for cutting and drilling all the lumber for our solitary pollinator houses.



Upcoming Events

Community Programs

Join us this summer for activities and environmental education during our new community programs! We have two different options, Toddlers and Trails that are targeted for ages 2-4 and Family Nature Nights that are targeted for families with school age children. These events will be held at the Mishawaka Res, 13950 Scout Lane, Mishawaka. They are **free** to attend but space is limited. Contact Jane Sablich, Environmental Education Coordinator, to reserve your spot.

July: Soil Explorers

- Toddler Tales and Trails, Tuesday, July 16th
10:00-11:30 am
- Family Nature Nights, Thursday, July 18th
6:00-7:30 pm

August: What is a Watershed

- Toddler Tales and Trails, Tuesday, August 13th
10:00-11:30 am
- Family Nature Nights, Thursday, August 22nd
6:00-7:30 pm

Other Events:

- July 26th 9:30 am – 4:00 pm. Join us at Cardno's Open House to learn about best management practices that the SWCD promotes. Cardno Native Plant Nursery, 128 Sunset Dr, Walkerton.
- August 15th 5:30 pm. "Soil Health in Urban Vegetable Gardens." We will be discussing ways that gardeners can incorporate cover crops and other practices to build soil health and resilience in their gardens. St Joseph County Library, Main Branch, 304 S Main Street South Bend.

Contact Jane Sablich, Environmental Education Coordinator, with questions or to get registered.

jane.sablich@in.nacdn.net

(574) 936-2024 Ext. 4

St. Joseph County Soil And Water Conservation Partnership

Save the Date!



Women's Learning Circle

September 19, 2019

9:00 am - 3:00 pm

Location TBA

Forestry Topics to Include:

- * Forestry Management
- * Invasive Species
- * Tree ID



Soil & Water Conservation District (SWCD) Supervisors:

John Dooms, Chair
Jeremy Cooper, Vice Chair
Mike Burkholder
Dave Vandewalle
Dave Craft

St. Joseph County Soil & Water Conservation Partnership Staff:

Sarah Longenecker, SWCD
Sandra Hoffarth, SWCD
Jane Sablich, SWCD
Debbie Knepp, NRCS

SWCD Associate Supervisors:

Jim LaFree
Chuck Lehman
Randy Matthys
Richard Schmidt
Dave Straughn
Dru Wrasse

Farm Service Agency Staff:

Gideon Nobbe, CED
Katie Leitch
Devan Harrell
Aldona Martin
Tara Wolfe

SWCD Honorary Members:

Bernard Byrd
Jerry Knepp
Keith Lineback
William Millar



Are you ready to "GO GREEN" and help us save money and natural resources? We can deliver your "Conservation Kaleidoscope" newsletter by email ... Give us a call or send us an email and tell us you'd like to "GO GREEN" THANK YOU!!!!

Scan me to go Green!