



Grass Roots for Conservation



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Elkhart County Soil & Water Conservation District

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NEW STATE RECORD SET FOR COVER CROPS

INDIANA (July 1, 2021) — According to a recent conservation survey, Indiana farmers have set a conservation record this year by planting an estimated 1.5 million acres of overwinter living covers, the largest amount ever recorded by an Indiana Conservation Partnership survey.

Overwintering living covers (i.e. - cover crops and small grains, like wheat) are known for their environmental benefits. Cover crops and small grains help increase organic matter in the soil and improve overall soil health by adding living roots to the soil more months of the year. Cover crops also improve water infiltration into the soil, while other covers, like legumes serve as natural fertilizers.

Although the conservation transect doesn't differentiate between cover crops and small grains, Indiana farmers typically plant fewer than 200,000 acres of small grains annually, so cover crops vastly dominate the 1.5 million estimated acres. With the exception of corn and soybeans, cover crops are planted on more acres than any other commodity crop in Indiana. Cover crops are typically planted in the fall after harvest, and designed to protect the soil and keep roots in the ground throughout the winter, which improves soil health and helps filter water runoff.

"I want to congratulate Hoosier farmers for continuing to be a leader in conservation," said Lt. Gov. Suzanne Crouch, who also serves as Indiana Secretary of Agriculture and Rural Development. "By increasing our cover crop practices, we are keeping Indiana waterways and soil healthier for future planting seasons and the next generation of farmers."

As a result of the cover crops planted last year, it is estimated that 1.6 million tons of sediment was prevented from entering Indiana's waterways, which is enough sediment to fill more than 453 Olympic-size swimming pools. Overwintering covers also prevented 4.1 million pounds of nitrogen and over 2 million pounds of phosphorus from entering Indiana's waterways.

The conservation survey also showed that 62% of farmed acres were not tilled and 18% had employed reduced tillage after the 2020 harvest. This early spring survey is not intended to quantify pre-planting tillage.

"This year's data may be surprising to some considering the tough farm economy this past year. But over time, our farmers have learned that incorporating a comprehensive management system into their operation that includes cover crops and no-till/strip-till have helped improve the sustainability and productivity of their soils," said Indiana State Conservationist, Jerry Raynor. "As a result, farmers are sequestering more carbon, increasing water infiltration, improving wildlife and pollinator habitat—all while harvesting better profits and often better yields.

Indiana State Department of Agriculture Director Bruce Kettler is excited to see what the future holds for soil conservation in Indiana.

"Soil conservation remains strong in Indiana and this recent survey proves that Hoosier farmers go above and beyond in their best management practices to increase soil health," said Kettler. "I am optimistic that this trend of increasing cover crop acres will continue for years to come."



Elkhart Counties Gold Medal Olympic Cover Crop Performance

Hey everybody, as we looked at what the State reported for cover crops this last year, I thought it would be cool to break down Elkhart County's role in those numbers. With the Olympics scheduled to begin in a couple days, the amount of sediment saved was compared to the Olympic size pool. Now I will help you and save you the time of googling just how big is an Olympic size pool? Well it is 164 feet long by 82 feet wide and 6.5 feet deep. The entire State of Indiana prevented 453 Olympic sized pools worth of top soil from entering Indiana's waterways for 2020. Keep in mind there are 92 Counties in the state and if you do that math, it means each county saved five pools worth of sediment.

So now, I wanted to let you know how we compared here in Elkhart County. The 2020 *reported* cover crop acres for Elkhart County were 19,813 acres. Putting that into Olympic swimming pool measurements that is 12 pools worth of sediment not going into local Elkhart County waterways. I am all about sizes and capacities but in the end there is always a dollar amount tied to all our activities. Therefore, from a dollar stand point Elkhart County had a \$91,539 fertility savings to you the landowner. That means you kept that revenue on your land, you paid for it, might as well keep it and put it to use. From a water quality benefit, we saved \$214,899 in Elkhart County and beyond. Thank you Elkhart County for saving more than 43,590 tons of topsoil this last year. Your pocket book and our future generations will really appreciate all your efforts.

FILTER STRIPS CAPTURE NUTRIENTS & SEDIMENT AT EDGE OF FARM FIELDS

Healthy soil and plentiful nutrients are key ingredients to productive farms and ranches. But when they move off farms and ranches, they can harm streams and rivers. High concentrations of nutrients in water, such as nitrogen and phosphorus, can be harmful to humans, animals and plants. When the runaway nutrients reach estuaries, they can lead to hypoxic zones, or oxygen-depleted waters.

You can take proactive steps to keep nutrients and soil in their proper places – on the land and out of waterways. Many producers implement filter strips – a belt of plants – at the edge of crop fields and pastures. Producers station these strips in environmentally sensitive areas on a farm or ranch, especially near ditches and other waterways. The strips slow the speed of water flowing over fields following a rainstorm, allowing for the plants to capture sediment and nutrients. The best plants for filter strips have stiff stems and are dense near the ground.

Filter strips not only help the environment, but they can help the producer, too. They provide habitat for wildlife and pollinators. It's always helpful to lure pollinators, such as bees and butterflies, to a farm because the more pollinators – the better the harvest.

NRCS can help you incorporate conservation practices like filter strips on your farm or ranch. For more information, contact your District Conservationist [Wes Krug] at the Elkhart County USDA Service Center at (574) 533-4383, ext 3 or visit nrcs.usda.gov.

IMN Courses Enrich Elkhart County

One of the best things about working for Elkhart County is the partnerships that are built between organizations, people, and departments. Partnerships like this creates a stronger sense of community within Elkhart County. The Elkhart County Soil & Water Conservation District (SWCD) and the Elkhart County Parks have partnered this year to host an annual Indiana Master Naturalist (IMN) course.

The IMN course is a series of eight classes over eight weeks that serves as an introductory course on Indiana's natural resources. Some of the topics covered every year are zoology, botany, water, geology, and people & natural resources. Each class has a different speaker from the local community that speaks about the chosen topic. This course is designed to be hands-on and interactive, so that students may feel a deeper connection to what they are learning. To create an even deeper connection, each class is held at a different county park so that students can see all the natural ecosystems that we protect.

Although it is too late to take this year's class, there is always next year. If you would like to be notified when the next Indiana Master Naturalist course will be, please email jwait@elkhartcounty.com.



BLOGGING BMP'S

A monthly Blog discussing the Best Management Practices (BMP's) that must be used to aid in erosion and sediment control.

Welcome back to another edition of Blogging BMP's. Well, so much for those drought conditions everyone was so concerned about heading into the middle of June. It is truly amazing how the faucet can truly be turned off and on in our current weather pattern. I have been around the county hitting every pocket of construction from Middlebury to Milford, Simonton Lake to Syracuse, and Baugo to Benton talking to contractors and farmers alike. I've had reports of anywhere from 6 inches all the way up to over 10 inches of rain that happened in 4 days time! Needless to say, jobsites and farm fields were flooded, roadways were overrun with rising creeks and ditches, and basements were filled with stormwater pushing the sump pumps of Elkhart County to the brink. This is not the first time this has happened, it just seems like enough time passes between these rain events that we forget how destructive they can be.

I'm not what one would consider a "deep" thinker, however, over the years I have developed an appreciation for old Chinese proverbs and this recent rain has brought a couple to mind that apply directly to our love hate relationship with rain and how we deal with it. The first is one that comes to mind relates to the contractors out there that tend to become a little complacent when things remain dry for a while. **Before the rains repair the cloth.** This has everything to do with planning ahead. Some tips, whether you are an erosion control supervisor on a 75 acre jobsite or live on a quarter acre lot in town, are as follows.

1. Ensure stormwater drains remain free of debris. If this drain is on a jobsite, ensure the proper inlet protection is in place to prevent sediment from entering our waterways.
2. If you have exposed soil or stockpile soil on your project or property, make sure it is stabilized with vegetation and has some type of sediment barrier to prevent runoff. An example of this would be straw wattles, silt fence or even sand bags.
3. Be mindful of when you fertilize or seed your grass or jobsite. If you spread it on, water will take it off. Not only do you lose the money you spent on the product, you also send that stuff into the waterways, which is not good.
4. Check any measures that you have in place weekly to ensure that they are ready for any event that may stress them.

And now to the second proverb, and this one I am almost certain you have heard, **An ounce of prevention is worth a pound of cure.** It really applies to so much in life, but in this case let's focus on some of the last line of defense BMP's that prevent erosion on job sites.

1. Construction entrances really do help! It is absolutely critical to use the correct 1 to 1.5-inch diameter washed INDOT No. 2 coarse aggregate to ensure the sediment that is on the tires of your equipment is properly scrubbed off. Small stones do not provide the vibration needed as vehicles exit the lot to remove sediment. This should be maintained daily as 20-30 loads of dirt leaving the site can flatten out a drive real quick. Did you know that the number 1 complaint the SWCD fields is sediment on the roadways? By a long shot!
2. Silt Fence will slow down water and clean it in the process! Make sure your silt fence is properly entrenched to ensure unfiltered water does not travel beneath it. This should be inspected daily.
3. Erosion control mats will hold seed and soil in place! Those areas of high flow that seem to take forever to get grass to grow may just need some protection. What do you think is cheaper, buying erosion control mats 1 time or buying grass seed and labor to plant the seed 3 or 4 times?

The last thing that I will mention is to the farmers out there... **DON'T FARM NAKED!** Farmer's don't have all of these fancy options for their fields, so what better way to keep your soil where you want it than planting cover crops, but that is for another column on another day. The bottom line is that heavy rain can move sediment and transform a field or jobsite in a hurry. Give an ounce of prevention and keep soil where it belongs.

For more information on ways to not farm naked visit our website at <https://www.elkcoswcd.org/ag/costshare/> and for a better understanding of the erosion control measures that were discussed in this article visit <https://www.elkcoswcd.org/developers/compliance-process-for-elkhart-county/temporary-and-permanent-site-stabilization/>

Until next time I will leave you with this. When it started to rain I noticed all of the cows lying down. After a brief moment I realized they were actually pretty smart. They just wanted to keep each udder dry.



Send your questions to Walden the Worm

The "Dear Abby" of conservation farming!

Q. Carbon is the topic of many Ag magazine articles. What role does carbon play in the soil?

A. Walden here. Carbon, which is usually called soil organic matter, is the stuff that makes your fields productive. I like to work in soils that are high in organic matter because they are porous and I can move through them with much less effort. The organic matter acts as a sponge between the mineral particles of the soil. This serves several functions. Since it is sponge like it greatly reduces the yield-reducing problem of compaction. Organic matter helps to keep the soil moist. I like moist soil because of my thin skin. High organic soil will take in rain fostering less run off. Loss of water, soil and crop nutrients lowers production leading to less food for us worms and less jingle in your pocket. Mr. Farmer if you manage your soil to maintain or increase soil organic matter we will both be happy.

From my underground library. Remember organic matter will absorb water the same way a paper towel or sponge will. To absorb is to engross completely and occupy wholly. The mineral portion of soil will only absorb water. Meaning water is held only in an outer surface, as is the case with playground sand. Soil organic matter is more than crop roots, residue and manure. It should be thought of as the engine that powers your soil. James B. Nardi, Biologist writes the following from, "Life in the Soil", pg. 31 and 243. "As microbes and animals of the soil break down the remains of various creatures into simpler compounds, they add organic matter to the soil. Such organic matter also happens to be the main source of certain essential elements of the soil such as nitrogen, phosphorous, and sulfur. Eventually the organic matter transforms to tiny particles of a dark organic matter known as humus. Calcium, potassium and magnesium are leached from top soil and washed out of reach of plant roots unless they are bound by negatively charged particles of humus."

— Walden

UPCOMING EVENTS

- July 23-31 **Elkhart County 4-H Fair:** The theme for this year's Fair is "Honor the Past. Celebrate the Present. Embrace the Future."
- August 7 **Elkhart EnviroFest:** The Region's Largest Environmental Festival! Tickets are \$5 per family; kids are free! Island Park from 3 pm – 9 pm. The 25th Annual EnviroFest will include food vendors, booths, raffle & silent auction, live music, kids' area and entertainment.
- August 7 **Disposal of Your Unwanted Pesticides Safely:** The Clean Sweep Project is free of charge up to 250 pounds per participant. Over 250 pounds there will be a \$2.00 per pound charge. https://www.oisc.purdue.edu/pesticide/clean_sweep.html
- August 12 **Pasture Walk:** Steve Kauffman – 1-3 pm @ 13586 County Road 28, Middlebury, IN – **Topic:** Jersey Dairy
- August 16 **SWCD Board Meeting:** 5:30 PM, SWCD Office, 59358 County Road 7, Elkhart, IN
- August 28 **Middlebury RiverFest and the Regatta of Recyclables:** A miniature boat race, a race down the river down at Riverbend Park during RiverFest! Race starts at 12 pm! RiverFest runs from 10 am – 2 pm.
- Sept. 4 **Disposal of Your Unwanted Pesticides Safely:** The Clean Sweep Project is free of charge up to 250 pounds per participant. Over 250 pounds there will be a \$2.00 per pound charge. https://www.oisc.purdue.edu/pesticide/clean_sweep.html
- Sept. 20 **SWCD Board Meeting:** 5:30 PM, SWCD Office, 59358 County Road 7, Elkhart, IN
- October 2 **Disposal of Your Unwanted Pesticides Safely:** The Clean Sweep Project is free of charge up to 250 pounds per participant. Over 250 pounds there will be a \$2.00 per pound charge. https://www.oisc.purdue.edu/pesticide/clean_sweep.html

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