



Summer 2020 Newsletter

Letter from the District Conservationist

by Story County USDA-NRCS District Conservationist Doug Roupp

Thank you for joining us again for this summer's edition of the Story County Soil and Water Conservation District's (SWCD) newsletter. It feels like summer has just begun, but it's already time to start thinking about activities for the fall! That being said, the goals that the Story County SWCD and I have for the summer relate mainly to cover crops and post-harvest activities. My main goal for the summer is to sign up at least 2000 acres for cover crops to be planted in the fall. Summer is the time to start thinking about keeping some living roots in the ground to protect against soil erosion once the rowcrops have been removed. Cover crops are a great and easy way to do this.

As we've stated before, both the Story County SWCD and Natural Resources Conservation Service (NRCS) offer several payment programs that farmers can sign up for to get conservation practices on the ground to protect our local soil and water. Plus, an added bonus with some of these programs is a generous payout to participating farmers. One program that I recommend farmers, especially those interested in cover crops, take a look into is the state's Water Quality Initiative. This is a state-funded program that will pay producers that are planting a cover crop for the first time \$25 per acre, and \$15 per acre for producers that have

implemented cover crops before. Something to keep in mind is that these rates are capped at 160 acres per person.

Finally, we have a couple of upcoming deadlines for cover crop programs. September 16th is the deadline for planting winter-kill cover crop species, while October 28th is the deadline for planting winter-hardy cover crop species. Again, thank you for taking the time to read through our summer newsletter, and I hope you enjoy it!



Doug Ruopp is the Natural Resources Conservation Service District Conservationist for Story County and works closely with the Story County Soil and Water Quality District. Ruopp holds a Bachelor's Degree in Environmental Science from Iowa State University and has over 15 years of experience working for the NRCS.

Story SWCD Participates in Field Day

On June 11th, Story SWCD along with our partners at Iowa Learning Farms and Prairie Rivers of Iowa held a virtual field day through a Zoom presentation. This field day was dedicated to the history and function of saturated buffers along Bear Creek here in Story County, the oldest saturated buffer system in the State of Iowa. The field day was split between presentations from Iowa State University Researchers and conservation specialists from Prairie Rivers of Iowa.

Dr. Tom Isenhardt and Dr. Billy Bush represented the Iowa State University research team that first established these buffers, and gave some insight into their conservation benefits and history. Topics covered by the research team included saturated buffer design, how saturated buffers work, how buffers are monitored, and what species of plants to consider when constructing a saturated buffer. Additionally, Dan Haug and David Stein from Prairie Rivers of Iowa covered online tools to determine if a saturated buffer is appropriate for your land, and how an initial field visit would function to start the conservation process. The field day presented a great opportunity to introduce farmers and landowners to the benefits and functions of saturated and riparian buffers here in Central Iowa.

A recording of this field day is available to view on the Iowa Learning Farms YouTube channel at www.youtube.com/user/IowaLearningFarm. If you or someone you know is interested in installing a saturated buffer, please reach out to the Story SWCD at 515-382-2217, Ext. 3.

Get Assistance with These Conservation Practices and More

Cover Crops



Cover crops are plants that protect the soil during the off-season of the rowcrop season in Iowa. These plants are seeded in the fall, either into existing crops or immediately after harvest, and will either

die during the winter or will need to be terminated in early spring before planting the next crop.

Conservation Tillage (Strip-Till/No-Till)



Strip-till is a system in which residue-free strips of soil are tilled ahead of planting, either in the fall after harvest or in the spring.

No-till is a system in which the soil is

not disturbed before planting, except for injecting fertilizer.

Nutrient-Removal Wetlands



Nutrient removal wetlands are constructed or restored areas of poor drainage, where water runoff naturally pools after rainfall, and a vegetated buffer.

The buffer is seeded with wet-tolerant plants which act as a natural filter for nutrients found in the runoff. Wetlands provide benefits for water quality as well as valuable wildlife habitat.

Prairie STRIPS



Prairie STRIPS (Science-based Trials of Rowcrops Integrated with Prairie Strips) are strips of land that are planted into a diverse mix of perennial grasses and flowers.

The deep-roots of the vegetation reduces nutrient runoff by allowing water to easily infiltrate the soil of the strip and reduces soil loss by holding it in place. The thick plant cover aboveground provides habitat for a variety of pollinators, birds, reptiles, amphibians, and mammals.

Filter Strips



Filter Strips are strips of herbaceous vegetation that filters runoff and removes contaminants before they reach water bodies or water sources, such as rivers, streams, or wells.

These strips can reduce both nutrient runoff and soil erosion while providing cover for birds and wildlife.

Timber Stand Improvement



Eliminating selected trees and vegetation to promote desired forest conditions and achieve improvements in the local ecosystem. Benefits include improved forest health and productivity,

reduced damage from pests and stress, and the restoration of natural plant and animal communities and habitat.

For technical and financial assistance to implement practices like these, contact your Story County SWCD and NRCS at 515-382-2217 Ext. 3.

Know Your Strips

In the conservation world, there are several practices that farmers can install on their land. Each with its own benefits, input costs, maintenance needs, and effect on yield. One issue that comes up with these practices, is that a fair amount of them are referred to as 'strips' in one way or another. This article provides some clarity on each of the strips, and will help you decide which practice is the best fit for your operation.

The newest practice known as a strip is the **Prairie STRIPS**. This is a practice funded through the Conservation Reserve Program (CRP) on a continuous basis, and is a strip of native prairie plants. These strips of native perennial plants are placed as a contour buffer on the farm field to maximize the benefits of soil health and water management. Because these strips of land are covered in native perennial prairie plant species, they have very thick, deep roots that can extend as much as 15 feet down into the soil! These deep roots can have several effects on your soil health. First, the roots create a complex web of deep channels that water can flow, increasing infiltration, and water storage. Second, since the root systems are so thick and deep, they act as natural anchors for your soil, keeping it in place and reducing erosion. Finally, the roots are a form of underground carbon storage. As plants conduct photosynthesis they take carbon dioxide out of the air and convert the carbon into plant tissues, including root mass below the soil. With long-lived, deep-rooted perennial species this can store carbon below ground over time and mitigate climate change. Above ground, the prairie strips have several necessary benefits for wildlife, providing food and shelter for Iowa's native pollinators, birds, reptiles, amphibians, and mammals.



Prairie STRIPS with Rowcrop



Filter Strips

Other practices that are often referred to as strips are **Filter Strips**. These are strips of land located next to a river, creek, or other sources of water, sandwiched between rowcrops and the water source. Filter strips are relatively flexible in their design and can come in a variety of widths and ground cover. Like Prairie STRIPS, the purpose of filter strips are to solve soil and water conservation issues, just in a different way. The filter strip acts as a sort of a natural wall between the farm field and the waterway. The plants placed in the strip increase infiltration of water runoff before it can reach the waterway, reducing nutrient and soil pollution into the river. Additionally, the roots of the plants will act as both a filter, stopping nutrients from escaping the field, and as an anchor for soil which significantly reduces erosion. Like their Prairie STRIPS counterparts, the filter strip's vegetation provides vital habitat for Iowa's native pollinators and wildlife.

Grassed Waterways are another practice sometimes referred to as strips. These are long strips of land within a farm field that are strategically placed where water naturally flows after a big rain event due to the slope and contours of a field, and therefore act as channels for water to safely flow. The grasses that make up the waterway form a tight sod, that act as a sort of natural carpet for water to flow over after heavy rain. As the water flows through the waterway, the thick grass protects the soil underneath from erosion, keeping it in place on the farm field. Like the previous two practices, the grass provides cover and habitat for Iowa's native wildlife, in particular ground-nesting birds like quail and pheasant. However the plant communities in grassed waterways are less diverse than the other two practices, often only having a single grass species as compared to a wide array of grasses and flowering plants.

It's Time to Try Something New!

by Story County Soil and Water Conservation District Chairperson Alisha Bower

To put it mildly, 2020 has been a wild ride. The COVID-19 crisis has had wide-reaching impacts that have stretched from local foods to international commodity markets and livestock production alike. As consumers have become more interested in where their food comes from they have stopped traveling. This has decreased the demand for ethanol and disruptions to meatpacking facilities have created bottlenecks in livestock production, decreasing demand for animal feed. This sent corn and soybean prices on a wild ride, swinging to some of their lowest levels in years.

In the spring these situations were rapidly developing as or after corn and soybean planting had gone ahead for 2020, so it was too late to make a change of plans for 2020 crops. But, public health experts agree that the challenges of COVID-19 are here to stay for the foreseeable future so there is time to take a different tactic for 2021.



The most popular cover crop in Iowa is rye. It's usually planted in September - November after harvest and then terminated in the spring before planting corn or soybeans. However, if that rye (or a similar choice, winter wheat) were left to grow, it would produce a grain or seed crop ready for harvest in July. Or it could be harvested as



nutritious silage for livestock feed in June. Given the uncertainty in crop markets, planting a cover crop of rye or winter wheat this fall may be a great risk management tool that could pivot from cover crop to cash crop if the commodity markets continue to fluctuate and dip. Not only does a flexible cover crop and/or cash crop provide options heading into 2021 - the early harvest date of these crops (approximately July) also opens a long summer window to install structural features like wetlands, waterways, prairie strips, terraces or tile. Managing these projects is far less of a headache with abundant labor from contractors in August and September, not to mention that you won't be racing Mother Nature to complete work before the ground freezes.

If you do decide to try something new this fall or next summer, Story County SWCD is here to help. We have a variety of different cost share pools to financially support practices like cover crops, small-grain production, restoring wetlands, planting prairie strips, and installing waterways and terraces. Even though markets and supply chains may be uncertain, you can count on us and our partners at Iowa Department of Agriculture and Land Stewardship (IDALS) and NRCS to support you. So come on, let's give something new a try.

Alisha Bower is the chair of the Story County Soil and Water Conservation District (SWCD) board. The SWCD board provides oversight over cost share dollars administered to Story County landowners and works to increase awareness about soil and water conservation throughout the county.

Story County Soil & Water Conservation District (SWCD)
We are available by appointment during the COVID-19 outbreak. Please call:
(515) 382-2217, Ext.3 in Nevada, Iowa