

Blank Canvas

By **Omar de Kok-Mercado, Natural Resources Conservation Service**

Winter is a landscape for reprieve and a time to expand upon what we learned from the hustle and bustle of summer. As nature winds down and the snow begins to blow, so should we take the time to recharge our mental stores and reflect on all the possibilities. Next time you're sitting and looking out the window at a freshly falling snow, imagine your fields as a blank canvas – what tools will you use to paint a future of greatest potential?

Farming is risky business, and farmers are risk managers. Life is comforting when we feel in control; no matter the desire to control all the risk in our lives, nothing can be predicted with complete accuracy. Risk is managed through educated decision-making and an informed willingness to relinquish control over wild variables. Resiliency develops with the understanding that we can reduce consequences by anticipating problems. What problems do you anticipate this next growing season?

Conservation is the best on-farm risk manager and the hardest working farmhand around. Conservation increases the value of the natural resources every farming operation is dependent upon. Diversity in combination with reduction in soil disturbance increases the stability

of soil aggregates. Soil aggregate stability improves nutrient cycling, a deeply critical function that reduces the need for chemical inputs on any farming operation. Soil aggregate stability also improves water infiltration and water holding capacity. Diversity mitigates agricultural pests and reduces the costs associated with controlling them. Conservation adds value to a farm operation by enhancing ecosystem services; many studies have been conducted demonstrating their economic strength.

When you find yourself watching the snow blanket our beautiful Iowa landscape, ask yourself “what can I control?” Each one of those snowflakes could be a possibility, each snowflake could be a seed planted, each snowflake a new plan of action. When you’re sitting this winter contemplating the next growing season, contemplate how you can adopt conservation in your farming operation and how you can put conservation to work for you. Consider longevity and economic resiliency, and plan the next growing season with conservation practices in mind.

The views and opinions expressed in this article are those of the author featured and do not necessarily represent the official policy or position of any agency of the U.S. government.





DECOMPOSED UNDIES FROM "SOIL YOUR UNDIES" EXPERIMENT.
PHOTO BY ADAM ASCHE

Local Farmers “Soil Their Undies” to Learn About Soil Health

By Adam Asche, District Conservationist, Natural Resources Conservation Service

Last spring and into mid-summer, several producers in Humboldt and Kossuth Counties “soiled their undies” to better understand soil health in their crop fields.

The “Soil Your Undies” experiment has become popular in corn belt states as an excellent way for farmers to learn more about the biological activity in their soil. The experiment is conducted by burying new, white cotton underwear in the field at a depth of four to six inches with the underwear strap just above the ground surface and leaving them in place for six to eight weeks. The results are simple – the more the underwear is decomposed, the more biological activity is in the soil.

Producers buried the underwear the first week of June. What was left of them, they removed around the 24th of July. The intention of this experiment is to see the biology of the soil by visually observing how much of the underwear is decomposed in the time it is buried.

The results of our experiment went mostly as planned, with a few outliers. We saw a drastic difference in decomposition between underwear buried in a no-till planted soybean field with a cereal rye cover crop that was headed out versus a first year, no-till soybean field (conventionally tilled prior). The underwear in the no-till field with cover crop are decomposed so just the elastic bands are left. The underwear in the first year, no-till field without any cover crop are significantly less decomposed. This is a great comparison showing how incorporation of cover crops and reduced tillage can really improve our soil health and biology.

We did have a few samples that were not what we expected due to saturated soil conditions of a pair buried in long-term strip till with cover crops and one pair that was dug up by an animal out in the field. The results are currently on display at the Humboldt NRCS office. Overall, the experiment was a success and helped our local producers understand that soil is a living ecosystem and using good soil health principles can improve the soil resource.

The principles of soil health can be used to create a healthy and productive resource:

- Minimize soil disturbance with quality no-till.
- Maximize soil cover with crop residues and cover crops.
- Maximize biodiversity with diverse crop rotations and diverse cover crop mixes.
- Provide continuous living root systems by using cover crops.
- Where possible, incorporate livestock into your cropping system.

A big “thank you” goes out to our participants from Humboldt and Kossuth Counties for making this project possible.

If you are interested in learning more about how to improve your soil health, please contact your local Natural Resource Conservation Service office.

Meet the New Watershed Coordinator

By Kit Paper, Soil and Water Conservation Districts

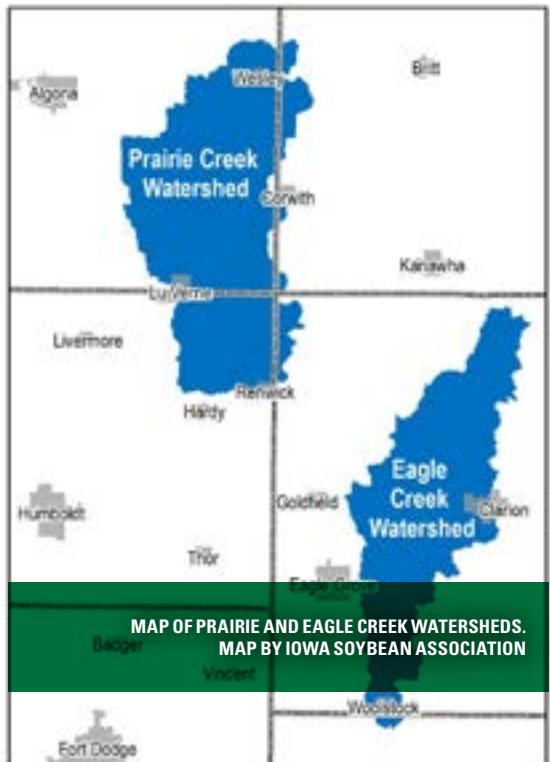
My name is Kit Paper, and I am the new Watershed Project Coordinator for Eagle and Prairie Creek in Kossuth, Humboldt and Wright counties with the Boone River Watershed Nutrient Management Initiative. I'm here to help promote and give technical guidance for different conservation practices related to water and soil quality in our watershed.

My background begins on a small farm in southern Hamilton County where my family raised cattle and grew corn and soybeans. I spent a lot of time outdoors as a kid. Some of the most memorable experiences I had growing up were on that farm while I was wandering through the pasture, exploring the waters of the Squaw Creek, riding horses, climbing trees, working cattle, hunting, participating in 4-H and FFA and helping my Dad take harvest to the cooperative.

I'm very familiar with the surrounding area, having gone to school at Webster City. I graduated with an associate degree in agriculture from Iowa Central Community College and a bachelor's degree in forestry with an emphasis in natural resource conservation and restoration from Iowa State University. After graduation, I gained experience working with landowners to manage natural resources, and I look forward to continuing that work through my new watershed coordinator position.

Contact me if you have any interest in applying conservation practices to reduce soil loss from wind and water erosion or reducing nutrient loss and increasing overall soil health. Are you worried about the quality of water exiting your property and would like to improve it for the downstream benefits? There is still cost-share available through a variety of programs to help you get started. This is especially helpful for beginning farmers and first-time users of these practices: cover crops, strip-till/no-till, saturated buffers, bioreactors, oxbow restorations and filter strips.

Learn more about the project and our goals at BooneRiver.org. If you are interested in discussing available options, feel free to contact your local USDA field office and ask for Kit, or email me at kit.paper@ia.nacdnet.net.



PRACTICES	PAYMENT	REQUIREMENTS: ACRES IN EAGLE AND PRAIRIE CREEK
COVER CROPS	\$35/ACRE	NONE
STRIP-TILL/NO-TILL	\$15/ACRE	1ST TIME USER. 320 ACRE CAP.
DRAINAGE WATER MANAGEMENT	\$40/ACRE	NONE
BIOREACTOR	100% OF COST	WHEN PAIRED WITH OTHER COST-SHARE
SATURATED BUFFER	100% OF COST	WHEN PAIRED WITH OTHER COST-SHARE

Are you interested in learning more about conservation practices that could improve your farm's soil health and increase the value of your land for the next generation?

- Visit 4Rplus.org today to find out how conservation practices make your farm more productive, profitable and resilient.

Are you a Certified Crop Advisor looking for Continuing Education Unit (CEU) credits?

- Visit 4Rplus.org/cca-courses/ to take online courses for credits in the Soil and Water Management and Nutrient Management categories.



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WINTER 2018

The Boone River **REVIEW**

MORE DETAILS AT BOONERIVER.ORG.