

2022 Overall Achievement Award Winner

Brandon and Lacey Koenig and children Cedar, Saige, Briggs, and Bridger farm NE of Woodworth ND. The Koenigs have been transitioning their farm to a



regenerative agriculture system. Every year since 2014 the Koenigs have established 42,000 ft of windbreaks. A 999-head Ag Waste system was put in. In 2018 their operation went full no-till, with crop rotation, nutrient management, cover crops, buffer strips, and the utilization of winter feeding on cropland.



Stutsman county SCD would like to congratulate the Koenigs. It has been our pleasure working with the Koenigs in helping advance the operation goals that they have set for themselves.

Healthy Rangelands

By Marc Murdoff

What are healthy rangelands? First, what is rangeland, there are a few definitions; open country for grazing or hunting animals, any extensive area of land that is occupied by native herbaceous or shrubby vegetation which is grazed by domestic or wild herbivores, or grasslands, shrublands, woodlands, wetlands, and deserts that are grazed by domestic livestock or wild animals. There are also different types of rangelands they could be tallgrass and shortgrass prairies, desert grasslands and shrublands, woodlands, savannas, chaparrals, steppes, or tundra's. They all should be managed properly.

In North Dakota, we have tallgrass in the east moving to a shortgrass in the western part of the state and historically this was developed by Bison through a short duration high-intensity grazing. That is not the case anymore, now we can implement grazing plans or rotations that best benefit our system or landscape. The same system doesn't work for everyone due to location, labor, or time constraints, but the goal is to have a healthy productive range. One key indicator is overgrazing; looking like a pool table, we are just asking for weeds to come in and take over which will decrease the grazing area, a good rule of thumb is roughly 4.7 to 5.0 acres per cow/calf pair to not have a lot of overgrazing.

A healthy rangeland should have a variety of native grasses, forbs (flowering plants), and shrubs. A grazing plan can work towards achieving this, there are a few different types of grazing systems; season-long, once-over rotation, twice-over rotation, cell grazing, and mob grazing to name a few. Whatever your rotation a good rule of thumb is to leave at least 4 to 6 inches of grass, this allows for adequate cover for wildlife, will not starve out the plant, allow for the root system to keep functioning properly, and in case of emergency a relief area.

Continual Live Plant/Root

The Soil Health foundation consists of five principles which are: soil armor, minimizing soil disturbance, plant diversity, continual live plant/root, and livestock integration. This article will discuss the fourth principle, continual live plant/root.

In this fourth of five articles on soil health, Jay explains the concept of “continual Live plant/root” and why providing a continual live plant is important for building soil health.

Our perennial grasslands consist of cool-season grasses, warm-season grasses, and flowering forbs. Consequently, adaptable plants are able to grow during the cool spring and fall weather, as well as the summer heat. Allowing for continual live plant feeding carbon exudates to the soil food web during the entire growing season.

Our cropland systems typically grow cool or warm-season annual cash crops, which have a dormant period before planting and/or after harvest. Cover crops are able to fill in the dormant period and provide the missing live root exudate, which is the primary food source for the soil food web. Cover crops may be incorporated into to cropping system as annuals, biennials, or perennials. Starting on a small acre scale will allow farmers and ranchers to find the best fit for their operation.

Cover crops can address a number of resource concerns:

- Harvest CO₂ and sunlight, providing the carbon exudates to the soil food web.
- Building soil aggregates and pore spaces, which improves soil infiltration.
- Cover the soil, controlling wind and water erosion, soil temperature, and rainfall compaction.
- Catch and release of inorganic nutrients, improving water quality.
- Salinity management.
- Pollinator food and habitat.
- Weed suppression.
- Wildlife food, habitat and space
- Livestock integration.
- Adding crop diversity.
- Adjusting the cover crop combination’s carbon/nitrogen ratio, to either accelerate or slow decomposition.



NRCS Photo Caption: The photo shows an 8-way cover crop combination seeded after spring wheat harvest at the Menoken Farm, benefiting numerous resource concerns. The cover was seeded immediately after harvest.



A step-by-step guide to using

NDGrazingExchange.com

LET US HELP YOU FIND YOUR GRAZING MATCH!



Create a FREE account

To become a grazer or to have your land grazed, create your FREE account by visiting NDGrazingExchange.com. Here, you can fill out basic information about yourself.



Register a Pin

Once you have created your free account, it's time to register a pin. You can do so by entering information about the animals you have available for grazing, or land that you are looking to have grazed.



Start Grazing!

It is now time to connect with other users in your area! It really is that simple to find your perfect grazing match!

No two grazing operations are the same and determining your grazing need requires thoughtful consideration. This is something NDGLC can help you figure out! For additional support in determining your grazing needs, contact our NDGLC field representative at 701-537-3136 or visit NDGrazingExchange.com.



We Are Hiring

The Tree Program Manager's job is to interact with local area producers to put tree plantings and other conservation on the ground. Must be a good learner, and leader and be able to adapt to certain situations. The job entails long-duration days during the spring, planting trees and laying fabric. Also, may need to run other equipment that the district owns/operates. The District is managed by a board of 5 supervisors that we answer to and need to keep informed about how the district is operating. The manager must follow NRCS specs for conservation and be willing to work with other partners in helping producers better their land. They will also be in charge of hiring and managing a crew of 2 seasonal workers. Starting wage \$19 + DOE. Please send us a resume or stop in the office for an additional list of job duties and an application. The position includes a single health plan or \$600 per month towards health care, phone reimbursement, a 5% match for retirement, 11 days paid holiday, sick and vacation. If you add the phone and health benefits it's around an extra \$3.76 per hour. We are accepting applications until February 2, 2023.

Help Wanted Tree Planting Crew

- Summer help planting trees
- Wage at \$16.00/hr
- .50 cent/hour bonus will be rewarded for those who stay for both planting trees and laying fabric.

Skills necessary:

- Lifting trees and rolls of fabric
- Riding tree planter/fabric machine

Stop in the SCD office for an application.
USDA Building 1301 Business Loop East

Stop in the office at 1301 business loop E, Jamestown ND 58401, on our Facebook page Stutsman County SCD & 319, or we have the job posted on the ND Job Service.

What Good Are They?

As the winter drags on into the spring I would like to look at the benefits of trees. What benefits do trees have for everyone? What can they do for my farmstead or land? When should I plant trees? These are some of the questions we hope to be able to answer today and hopefully get you to start thinking I need to get a windbreak planted.

There are many benefits of windbreaks reduce soil erosion, crop protection, energy conservation, snow control, livestock protection, wildlife habitat, beauty, reduce energy needs, moderate noise, screen views, reduce airborne chemical drift, improve irrigation efficiency, increase carbon storage and mitigate odors to name the most important. Below from the Utah State University Cooperative Extension are some forest facts.

Reduced soil erosion — Windbreaks prevent wind erosion for 10 to 20 times their height downwind. They also filter wind-blown soil particles from the air.

Crop protection — Windbreaks can increase crop yields up by to 44%. Wind protection reduces crop water use, increases a plant's ability to make food, and may increase pollination. The quality of fruit and other high-value crops can be increased due to reduced sand and soil abrasion.

Energy conservation — Windbreaks can reduce winter heating costs by 20 to 40% by reducing cold air infiltration into buildings. In summer water evaporation from leaves directly cools the air. Windbreaks can be designed to provide energy savings for a small residential lot, a farmstead, or an entire housing development.

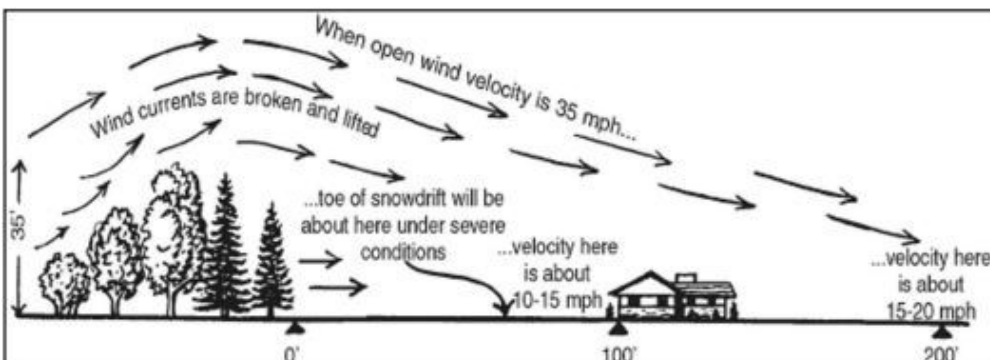
Snow control — Windbreaks can serve as “living snow fences”, controlling drifts near roads, buildings, or livestock or distributing snow evenly over large areas like crop fields. Money and energy are saved by the reduced need for snow plowing and artificial snow fences.

Livestock protection — Windbreaks can be used as “outdoor barns,” sheltered areas for feeding, calving, and other livestock-related activities.

Wildlife habitat — In open areas where windbreaks are needed for wind reduction, they may also provide the only woody cover and food necessary for some wildlife species.

Beauty — Trees provide visual screening and permanence in the landscape that other types of plants can not.

Tree products — Windbreaks can supply firewood or other products while maintaining conservation functions.



A dense windbreak provides good wind protection and snow drift control. Adapted from Montana State University Extension Bulletin 366.

Continued: What Good Are They



Trees are the filters of the world. They help remove air pollution and store carbon in their wood. During photosynthesis, the tree absorbs sunlight, carbon dioxide, and water and converts it to oxygen and sugar through a multistage chemical reaction inside the leaves through specialized chloroplast cells. Oxygen is an essential product we all need, and the sugars are eaten up by other organisms. Trees can work to battle climate emergencies with CO2 emissions higher than they have ever been and convert it into oxygen and store the carbon for the life of the tree.

Placing trees correctly around your building can help reduce your heating and cooling costs. Trees save energy by cooling in the hotter months and providing a windbreak during the winter. This results in burning fewer fossil fuels to generate electricity for cooling and heating. Deciduous and evergreen trees can save energy in summer by directly cooling the air. This cooling happens as water evaporates from the leaf surfaces. Deciduous trees save energy in summer by shading houses, paved areas, and air conditioners. Small deciduous trees and shrubs, especially those with low, dense branches, also can serve as effective wind barriers. Large and small evergreen trees and shrubs save energy by slowing cold winds in the winter. They also provide shade, but since they often have branches near the ground, their shade is most effective when the sun is not directly overhead.

Protection of livestock from cold wind and blowing snow in winter, as well as from the hot sun and drying winds of summer. Windbreaks can be placed along pastures to slow wind and provide shade for livestock. Windbreaks planted along feedlot for protection from cold winds and collecting show. If you have seen trees and windbreak panels ever in the same field during the winter, livestock prefers the natural trees to provide protection. Other benefits provided by windbreaks are that they help reduce mortality from cold weather, animal stress, and feed consumption, all of which lead to increased weight gain and milk production.

Trees are planted across the nation to help protect fields from water and wind erosion. Field shelterbelts slow the wind-down and protect the downwind side of a windbreak. A windbreak protects an area 10 to 15 times the height of the tree. Field windbreaks can also increase crop yields and help spread snow evenly across a field, increasing spring soil moisture.



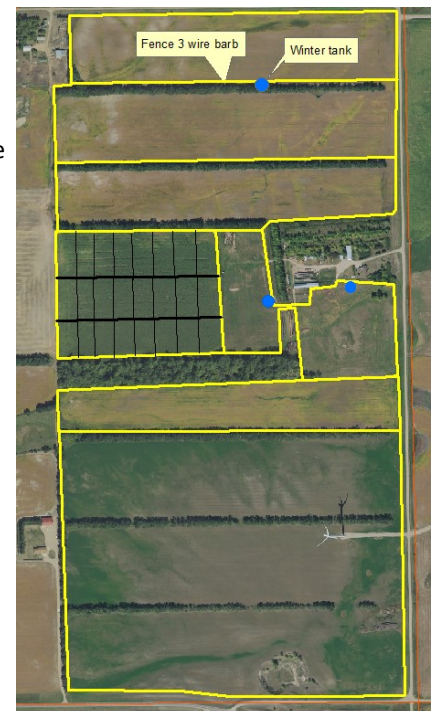
Living snow fences keep roads clear of drifting snow and increase driving safety. Benefits continue to improve and multiply as a living snow fence grows and matures including longevity, cost-effectiveness, reduced annual maintenance, snow and dust containment, wildlife habitat, and aesthetic enhancements.

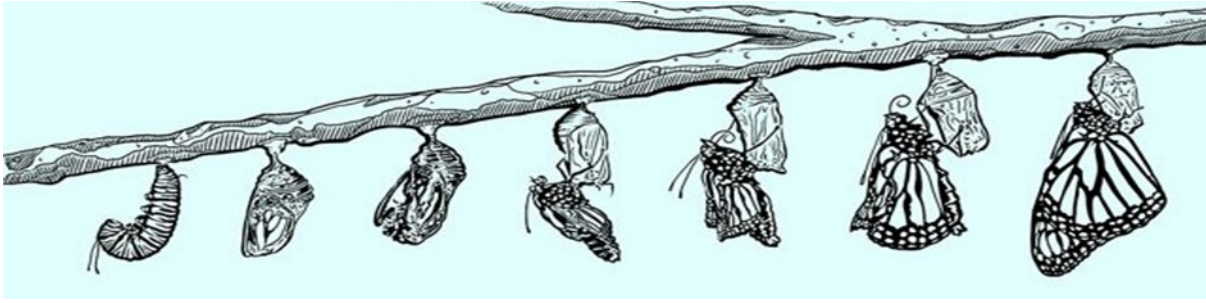
These are a few ways trees can benefit our way of life and improve it also. Let's not forget we need trees to help sustain our

living on this earth. So, if you have had the thought about trees or someone mentioned it please stop in and let's see what we can do for you. There are many cost-share opportunities available to help support tree planting. Our address is **1301 Business Loop E, Jamestown ND, 58401**, and our phone number is **701-252-2521 ext.**

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Photo to the right is a winter feeding operation a producer set up. Benefits of having tree rows on the half section. There are many options to feed through out the cropland and alfalfa. Having shelterbelts through out the half section has provided protection for cattle from harsh winter winds and snow from any direction.





Join us in protecting Monarch Butterflies

As essential pollinators, monarch butterflies do an incredible job of helping native plants reproduce—they're the life force behind many of our North American habitats. Unfortunately, in 2020, the U.S. Fish and Wildlife Service announced that they would be listing the monarch as endangered or threatened under the Endangered Species Act. If habitat loss, climate changes, and pesticides have their way, there might not be much time for these enchanting and beloved ambassadors of all pollinators.

Become a Milkweed Master!

1. Why is milkweed so important? Native milkweed is the one and only plant that monarchs can lay their eggs on because it is the only plant their larvae and caterpillars can eat! Unfortunately, no other plant will do for monarch caterpillars.
2. Monarchs need you to grow milkweed that is native to your area. Native plants are best suited to the weather of your region and are the best food sources for your native pollinators!
3. Call your local nurseries or native plant societies to find out where to get plants and when to plant them! Native milkweed for the Northeast region is Common Milkweed, Swamp Milkweed, Butterfly Weed, Whorled Milkweed, and Poke Milkweed.

Plant a Pollinator Garden!

Native milkweed is a must-have in your garden as we #Move4Monarchs. But other native, flowering plants are important too! Monarch larvae and caterpillars need milkweed to grow and transform but adult monarchs need to eat all kinds of green things. While making their impressive migration, monarch butterflies eat the nectar of a wide variety of native flowering plants. That's where you come in!

[Find and Purchase species of milkweed that are native to your area](#)

[Plant a pollinator garden](#)

[Find other native plants for pollinators](#)

Monarch Butterfly Fast Facts

Common name: Monarch butterfly
Scientific name: *Danaus plexippus*
Conservation status: Apparently secure
Lifespan: 2 to 6 weeks
Wingspan: 3.5-4 inches

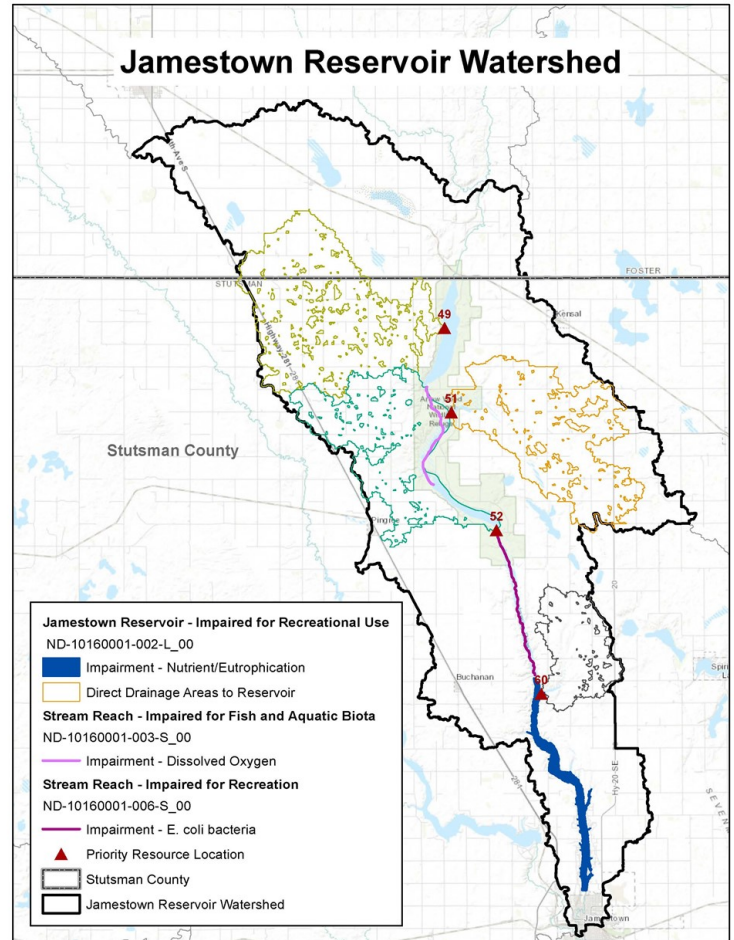


MONARCH BUTTERFLY RIVER FORK RANCH Monarch butterfly at River Fork Ranch Preserve in the Carson Valley, NV. © Simon Williams/The Nature Conservancy

New Project Alert

Jamestown Reservoir Watershed

The Stutsman County SCD was able to secure funds for a grant through the ND Department of Environment Quality. The goal of the project is to minimize the occurrence of harmful algal blooms (HABs) and improve recreational opportunities in Jamestown Reservoir by reducing the delivery of nutrients from the watersheds immediately adjacent to the reservoir. We are utilizing a new tool called PTMApp (Prioritize, Target, Map Application), with this tool we will be able to target certain areas in the watershed focus effort towards getting a better capture of nutrients on the landscape and not allowing the nutrients to flow into water bodies. Areas throughout the watershed will still be taken even if not in the highest priority areas so please stop in or give me a call at 701-252-2521 ext. 3 and ask for Dustin. Some practices available for cost-share options include critical area treatments, nutrient management, cover crops sediment basins, prescribed grazing, fencing, and many other better management practices. If I am not able to help you with your project on this grant, I will try and find some other cost-share program that will fit your needs better. If stopping in does not work I would love to be invited out to your place and listen to what you are doing and what your plans for your operation are.



New Employee Alert



Hi, there! I'm Mikayla Lardy and I'm the new Soil Conservation Technician with the NRCS here in Jamestown. My official start date is January 30th and I'm so excited to get started and work with producers. I grew up on a ranch near Carrington, ND. We have been implementing no-till and cover crops for as long as I can remember, and my dad sparked my enthusiasm for soil health. I attended Bismarck State College and got my associate in agribusiness. I have spent the last five years living in Killdeer, ND where I worked for the Dunn County Soil Conservation District for three years. I enjoyed my time there, but my husband and I had the opportunity to start a construction business in Jamestown and we moved this last fall. I am excited to be closer to my family so my daughter can be around the cows and horses as much as she would like. She's a big outdoor girl! I look forward to getting to know everyone and be apart of putting conservation on the ground.



Stutsman County Soil Conservation District
 1301 Business Loop East
 Jamestown, ND 58401-5946

CHANGE SERVICE REQUESTED

All programs and services of the Stutsman County Soil Conservation District are offered on a non-discriminatory basis, without regard to race, color, national origin, religion, sex, age or handicap. In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

The District was formed to assist people in Stutsman County through the District Mission:

"To take available technical, financial, and educational resources, whatever their source, and focus or coordinate them so that they meet the needs of the local land user for conservation of soil, water, and related resources."



Stutsman SCD

Board of Supervisors

- ◆ Robert Hess,
- ◆ Bernie Wanzek
- ◆ Cody Kreft
- ◆ Gloria Jones
- ◆ Bob Martin

Find us on the web at:
www.stutsmanscd.net

We are located in the
 USDA Service Center
 1301 Business Loop East
 Jamestown, ND 58401
 701-252-1920 ext. 3

NRCS

- Darin Hirschhorn**
District Conservationist
- Marc Murdoff**
Soil Conservationist
- Mikayla Lardy**
Soil Technician

Soil Conservation District

- Gina Olson**
District Manager
- Vacant**
District Technician
- Dustin Krueger**
319 Watershed Coordinator
- Cody Hoggarth**
Farm Bill Specialist