



1000 School Street
(641) 332-2812

Guthrie County Soil & Water Conservation District

2024 Annual Report



Guthrie Center,
Iowa 50115

FY2024 July 1, 2023-June 30, 2024 Annual Report

2024 Guthrie Soil and Water Conservation District Commissioners and Assistant Commissioner



From left to right Dennis Hoover (Asst), Bryan Coffman, Jim Wendl, Jamie Patrick, Cletus Steensen & Dave Deardorff.

Former Guthrie SWCD commissioner **Steve Roe** will be back on the board as Jim Wendl steps out in 2025. We thank Jim for his service these past 4 years and welcome Steve back.



State Funds

(State funds provided to the District by the Iowa General Assembly are allocated to the District by the Iowa Department of Agriculture and Land Stewardship)



Guthrie Field Office Staff

Back row left to right: Kevin Crees (780 HR State Technician), Kevin Kuhn (NRCS District Conservationist), and Shawn Macha (NRCS Soil Conservationist).

Front row: Jon Tesdell (NRCS Soil Conservationist Technician), Carolyn Schwartz (NRCS Civil Engineer Technician), and Cathy Sheeder (State Conservation Assistant).

Annual Guthrie SWCD Scholarship

The Guthrie SWCD commissioners offer a \$500 scholarship annually for a high school graduate who wishes to attend college to pursue an agriculturally related field of study. In 2024 their scholarship was awarded to **Isabelle Rouse**.



STEWARDSHIP WEEK

April 28-May 5, 2024

"May the Forest Be With You Always"



Commissioners David Deardorff and Cletus Steensen presenting Michelle Spack and 3 smiling elementary kids with conservation materials for Guthrie Center Elementary students to celebrate Stewardship Week.

Commissioner Expense Allocation	\$2,750.00
Commissioner expense/mileage	\$ 896.00
Association Dues.....	\$1,740.00
Office supplies/postage/printing	\$1,487.79
Expenses covered by District fundraising.....	<u>-\$1,373.79</u>
Balance.....	\$ 0.00
IIIM State Cost Share Funds	
2023-2024 Funds	\$185,045.62
Spent	\$109,212.60
Obligated	\$ 15,000.00
Recalled.....	<u>-\$ 60,833.02</u>
Balance.....	\$ 0.00
REAP Practices Fund	
2023-2024 Funds	\$13,985.71
Spent	\$ 3,054.29
Obligated	\$10,931.42
Recalled.....	\$ 0.00
Balance.....	\$ 0.00
REAP Forestry/Native Grasses	
2023-2024 Funds	\$ 4,868.28
Spent	\$ 792.75
Obligated	\$ 363.75
Recalled.....	<u>-\$ 3,711.78</u>
Balance.....	\$ 0.00

(Period 7/1/23-6/30/24)

District Revolving Funds Account	
7/1/2023 Balance.....	\$20,512.29
Total Income	\$ 8,957.27
Total Expenditures.....	<u>\$19,346.96</u>
6/30/2024 Balance.....	\$10,122.90

District Payroll Account	
7/1/2023 Balance.....	\$ 4,374.06
Total Income	\$18,273.02
Total Expenditures.....	<u>\$15,655.24</u>
6/30/2024 Balance.....	\$ 6,991.84
Certificate of Deposit	\$10,481.28

Poster Contest

The theme in 2024 was: **“May the Forest Be With You Always.”** Winners were selected in grade categories K-1, 2nd-3rd and 4th-6th. The overall winning poster was created by **Samantha Ortega**. The kids submitted **140** posters!

A great big thanks to all of the kids who participated!



Zeke Hernandez was the Region 5 winner for the K-1st Grade category and was part of the state competition held at the CDI Annual Conference. He received a certificate and a cash award for his efforts.



Guthrie SWCD commissioner Bryan Coffman with GC Elementary poster contest winners.

Poster contest winners by category:

- Grades K-1 - 1st Place - Zeke Hernandez; 2nd Place - Wren Marso; 3rd Place - Jaxon Stevens
- Grades 2-3 - 1st Place - Guinevere Wetzel; 2nd Place - Merrick Schreiber; 3rd Place - Hallee Richards
- Grades 4-6 - 1st Place - Samantha Ortega; 2nd Place - Cecilia Muell; 3rd Place - Alyvia Robison

Farm Safety Day

May 7-8, 2024

Commissioner Jim Wendl and Conservation Assistant Cathy Sheeder attended this annual event at the Guthrie County Fairgrounds to help promote farm safety. This was a two-day event. They assisted on May 7. A total of 197 3rd graders from the county schools attended. The various safety stations included: Animal Safety, ATV Safety, PTO Safety w/ Tractor Cab Simulator, Electrical Safety, Grain Bin Safety, and Sun Safety. The kids are always interested and a big thank you to the Extension Staff, Farm Bureau folks, Farm Service Agency staff and other volunteers that give their time to this worthy effort!



Rachel Blum from ISU Extension and helpers Jim Wendl and Cathy Sheeder talking with the kids about sun safety.

STEMFEST at Coon Rapids-Bayard

April 13, 2024



Ruth Blomquist and 2 CRB students conducting a soil health demonstration

2024 STEM Day at Guthrie Elementary

Cover Crop Monsters!

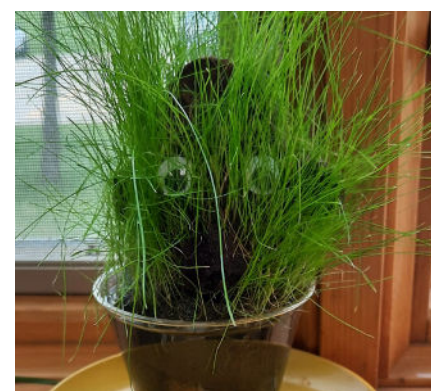


Commissioners Deardorff, Wendl, and Steensen with GC Elementary Students

Guthrie SWCD Commissioners were invited to The Guthrie Elementary STEM Day on May 20, 2024. Commissioners Cletus Steensen, Jim Wendl, & David Deardorff spoke with the kids about the benefits of cover crops and soil health. Then they worked with the kids making Cover Crop Monsters by lining a plastic cup with small stones and then filling it with potting soil mixed with rye seed. Each group made 2 monsters and then 2 lucky kids from each group got to take a monster home with them to tend to and help it to grow.



Left: Cover Crop Monster Before



Right: Cover Crop Monster After

Guthrie SWCD Field Shelterbelt Award



Adam Benner was the Guthrie SWCD award winner for his field shelterbelt. He was also the **Trees Forever State of Iowa Award Winner** for his Field Shelterbelt (below). Congratulations Adam!



Adam works hard to keep the deer out of his shelterbelt. He put up an 8 ft high, 7 strand electric fence to keep them out. He inspects frequently to repair any damage the deer might do before they learn the fence is there.

Guthrie SWCD Established Windbreak Award



Ashley Hunziker was on hand to receive her and husband Jason's award for the Guthrie SWCD Established Windbreak Award.



Jason and Ashley Hunziker's dog, Pearl, patrols their windbreak daily for rabbit and deer pests. Good job Pearl!

Guthrie SWCD Conservation Woman Award 2024



Ruth Blomquist was the Guthrie SWCD nominee for the State Conservation Woman Award. Even though someone else received the award, Ruth will always be number 1 with us!

Programs

State Cost Share and **REAP funding** may be available to qualified landowners to implement conservation practices such as waterways, terraces, certain structures, windbreaks and some seedings. The cost share rates may be up to 50% of the cost of the project. Total project cost share may not exceed **\$15,000.00 per fiscal year**. Windbreaks are cost shared at 75% of actual cost not to exceed **\$1,600**. The District had **13 State cost share projects totaling \$109,212.60 in cost shared funding**. These applications were for **14.09 acres of grassed waterways, 2 Grade Stabilization Structures and 14,260 feet of Terraces**. The District funded **2 REAP Windbreaks for .39 acres totaling \$2,376.00 and 1 application for 12.8 acres converting crop ground to pasture totaling \$1,471.04**.



This grassed waterway was funded through the State of Iowa's Cost Share program the Fall of 2023.

CATTLE PRODUCERS: Are you interested in converting cropland to pasture? Would you like to develop and renovate some of your existing pastures? Guthrie SWCD and NRCS offer several programs that can assist you with associated costs. Stop in the office and staff can visit with you about your goals.



The State [Iowa Water Quality Initiative Program](#) offers funding on a statewide basis for 3 specific water quality practices. Funding of \$25/ac for up to 160 acres was available for producers trying **Cover Crops for the first time in Fiscal Year 24**. Repeat users were eligible for a rate of \$15/ac. First time users of **Nitrification Inhibitor** or **No-Till/Strip-Till** practices were eligible for \$3/ac and \$10/ac respectively. Guthrie SWCD had **49 applications (including 8 first time users) funded for 5,264.94 acres of cover crop totaling \$83,731.25**. We also had **1 first time No-till application for 47.36 acres and \$473.60**. In Fiscal Year 2025, the cover crop amounts raised to \$30 for first timers and \$20 for repeat users.

The **Buffer Initiative** incentives program continued in **FY24**. Eligible producers could receive \$200 per acre for Contour Buffer Strips, Shallow Water Areas for Wildlife, Contour Buffer Strips on Terraces, Cross Wind Trap Strips and Bottomland Timber as they are approved on a continuous CRP contract. Non- CRP practices that were also eligible were Contour Buffer Strips, Filter Strips and Field Borders. Producers were eligible for \$300/ac.

NEED FUNDING TO HELP BUILD CONSERVATION PRACTICES? CHECK OUT OUR NO (0%) INTEREST AND LOW (3%) INTEREST LOAN PROGRAMS!

The **No Interest Loan Program** provides 0% interest loans to eligible landowners for the construction of permanent soil conservation practices contained in a conservation plan. Practices that may be funded include waterways, terraces, and some structures. **Landowners may borrow up to \$20,000** and can be used in conjunction with other public funds like REAP, State Cost-share, or EQIP. These are **Division of Soil Conservation and Water Quality (DSCWQ)** funds that are administered through the District. The sign-up period is continuous. **We had 1 No Interest Loan approved in 2024 for \$14,610.75.**

In 2024 CRP General Sign Up 62 resulted in contracted acres totaling 1.38 acres.
CP-2 Permanent Native Grasses/legumes - 1.38 ac

HEL PROGRAM
CP-1-Permanent Introduced grasses/legumes - 139.11 ac
CP-2- Permanent Native grasses/legumes - 55.69 ac

IA GAINING GROUND SAFE
CP38E-12 - Wildlife Food Plot - 2.8 ac.
CP38E-4D-Permanent Wildlife Habitat - 237.15 ac.

In 2024 Continuous Sign Up 61 resulted in contracted acres totaling 321.2 acres.
CP8A -Waterways - 48.0 ac
CP9-Shallow Water area for Wildlife - 2.57 ac
CP15A - Contour Grass Strips - 22.41 ac
CP16A - Shelterbelt Establishment - 5.78 ac
CP21-Filter Strips - 160.12ac
CP-22 Riparian Buffer - 17.54 ac
CP-23 Wetland Restoration - 22.6 ac
CP31-Bottomland Timber Est on Wetlands - 36.08 ac
CP-42 Pollinator - 6.10 ac

Fundraising



The Guthrie SWCD sells native grass seed as a fundraiser. If you are looking for seed for CRP seedings we can put together a seed mix that meets the necessary criteria.



The District also has a Vicon broadcast seeder that is available to rent to producers who wish to do their own seeding. It fits on a 3-point hitch and has a 15- foot spread.

The **State Revolving Loan Program** is a source of **low-interest (3%) financing** available to landowners. This opportunity is available specifically to assist and encourage landowners to address non-point source pollution of Iowa streams and lakes. Loan terms are for \$5,000 to \$500,000. Terms can go up to 10 years. Applications are accepted throughout the year. These loans may be used in conjunction with available cost share programs and can be considered the owner's share or may be used as a **stand-alone source to pay for 100% of the cost of the project**. Most practices eligible for State Cost Share/IFIP, REAP, and EQIP are eligible for a low interest loan. Such practices include terraces and grade stabilization structures, water and sediment control basins, waste storage structures, pasture and hayland planting, grassed waterways, filter strips, field borders, windbreaks and riparian forest buffers. These loans are available through a lender of your choice. **In FY24 we had 6 Low Interest (3%) loan applications for a total of \$533,672.91.**



USDA Environmental Quality Incentives Program (EQIP) 5 contracts and \$491,785.24 in funding was awarded to producers in Guthrie County in Federal Fiscal year 2024. This program provides financial assistance to treat high priority erosion and water quality problems. Livestock manure management, grazing land management, soil erosion control, and water quality improvement practices are eligible for cost-share as well as some wildlife practices.



A livestock water pond under construction cost shared through the federal EQIP program.

The **Conservation Security Program (CSP)** is a voluntary conservation program that supports ongoing conservation stewardship of agricultural lands by providing payments to producers who maintain and enhance the condition of natural resources. CSP identifies and rewards those farmers and ranchers who are meeting the highest standards of conservation and environmental management on their operations. Applications are accepted on a continuous basis with periodic cutoffs for ranking and awarding of contracts.

The **Agricultural Conservation Easement Program (ACEP)** provides financial and technical assistance to help conserve agricultural lands and wetlands and their related benefits. The former Grassland Reserve Program (GRP) and Wetland Reserve Program (WRP) now fall under the provisions of this agricultural and wetland easement program.

The **Conservation Reserve Program (CRP)** was created to help reduce erosion, increase wildlife habitat, and improve water quality through the application of conservation plans. (Landowners set aside cropland for annual rental payments.) Practices that may be funded include tree planting, grass cover, small wetland restoration, prairie restoration and others. Eligibility for this program varies by soil type and crop history.

SUPPORT YOUR LOCAL SOIL & WATER CONSERVATION DISTRICT

The Guthrie County Soil & Water Conservation District was formed back in December of 1945. This organization has been promoting the protection of our soil and water resources since that time.

As District commissioners, we are proud of the conservation work promoted by the District and our Partners. We are also proud of the good stewards of our land and water that we work with daily to protect their land and our water!

Guthrie SWCD provides scholarships to graduating seniors who wish to pursue a career in agriculture and/or conservation. We participate in county school STEM events to help promote conservation within the schools to get kids interested and excited about conservation. We sponsor a conservation poster contest and provide awards to kids who place in their age categories. We provide signs to producers who want to draw attention to the public that they implement no-till and/or cover crops on their farms.

In partnership with Iowa Department of Agriculture & Land Stewardship (IDALS) we pay 25% of the wage for a 780 Hr. part time employee and when those hours run out, we payroll that individual in full through the District.

We publish a report to the public each year to inform you all about what we do and why. If the District has been of value to you in any way and you wish to be a contributor to help us fund some of these outreach activities, please mail or bring your contribution to **Guthrie SWCD, 1000 School Street, Guthrie Center, IA 50115**. Any amount contributed, large or small, is tax deductible and very much appreciated.



The Outcome of a Raindrop Influences Profitability for Farmers

Ruth Blomquist,
NRCS SW Area Soil Health Specialist



Too little, too much, or not enough at the right time, how can non-irrigated farmers protect themselves against the unpredictability of the rain? We can't control when the rain comes or how much we get, but we can influence what happens to a raindrop after it falls.

There are three potential outcomes for a raindrop: runoff, evaporation, or infiltration. Only one of these scenarios turns raindrops into profit for farmers.

If a raindrop runs off, it isn't available for plant growth. A raindrop that runs off the soil surface can capture topsoil and nutrients from the field and move it to our streams. Not only does this impact a farmer's profit in the form of displaced topsoil and lost fertility, it can also lead to nutrient and sediment pollution in streams and waterways.

A raindrop that sits on the soil surface will evaporate. This scenario provides no benefit to the plants, and no benefit to the farmer. Water sitting on the soil surface causes ponding and anaerobic growing conditions, leading to plant stress and yield loss.

Ideally, a raindrop will infiltrate into the soil profile where it can be stored until the plant needs it. Then it will be taken up by the roots and used in photosynthesis for plant growth. Water in the soil transports minerals and nutrients to the plant, and then transports the nutrients throughout the plant. In this way, a raindrop that makes it into the soil profile drives plant growth, plant health, and ultimately, profitability.

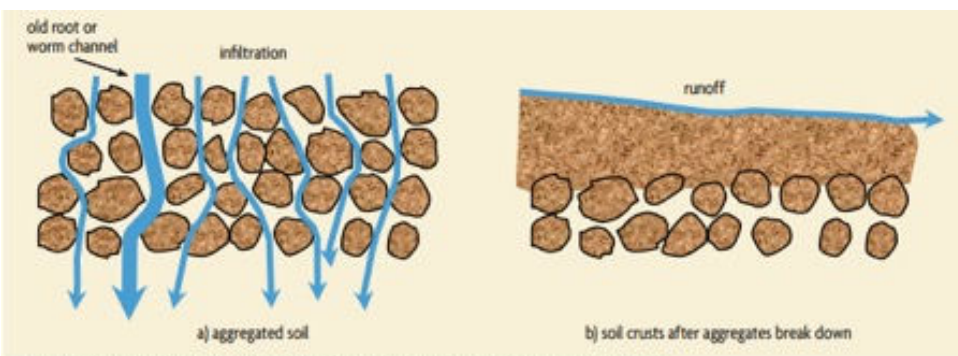


Figure 2.6 from SARE Building Soils for Better Crops by Fred Magdoff and Harold Van Es

How can we influence the outcome of a raindrop? The soil needs good structure and adequate pore space for water to infiltrate (as seen in the photo above). Soils with good structure are well aggregated. Aggregates are tiny clumps of mineral particles (sand, silt, and clay) that are stuck together with beneficial fungi and organic glues from plant roots and soil organisms.

The varying sizes and stability of the aggregates create space for air and water to exchange in the soil. Old root channels and earthworm tunnels are larger spaces that allow water to quickly soak into the soil. Minimizing soil disturbance with practices like no-till keep soil aggregates intact and maintain good structure.

Soil organisms are like underground employees, working to cycle nutrients, suppress pathogens, and build soil aggregates. The organisms live in the pore spaces in the soil. Disturbances like tillage destroy the microbial habitat and hinder the ability of soil organisms to continue their work in the soil.

The primary food source for the underground employees are root exudates – liquid carbon released from living plant roots. Adding cover crops to the crop rotation provides the soil organisms with fresh root exudates during a time of year when cropland soil wouldn't normally have an actively growing plant. This boosts the microbially community, who in turn, continue to actively build soil aggregates, improve soil structure, and improve water infiltration.

The next time it rains, don't ask how much rain was in the rain gauge. Ask how much of that rain did you get into your soil profile? The goal should be ALL of it! Infiltration is the best outcome for the raindrop, the soil, the plants, and the farmer. We have the tools and knowledge to implement changes on our fields that equip us with the best odds of success, rain or shine.

Grain prices are down, can we save \$ on reducing fertilizer?

By Kevin Kuhn,
Guthrie County District Conservationist



Save on input dollars is a yes, but make more net profit depends on what you have for soil test levels and your past nitrogen management program.

Looking at your soil tests is a great place to start. Iowa State University categorizes the soil test results as Very Low (VL), Low (L), Optimal (O), High (H), and Very High (VH). As your soil test results go up the odds of seeing a yield increase by adding P & K fertilizer goes down. Odds of seeing a yield increase by soil test category: VL – 80%, L – 55%, O – 25%, H – 5%, VH – <1%. From a pure business perspective its best to stay in the Optimum range. With H & VH soil test levels the chance of a return on your investment are low. But the chance of a return is high within soil test are in the L to VL categories. For more information google PM-1688: A General Guide for Crop Nutrient and Limestone Recommendations in Iowa.

Note: Quality soils tests are needed to make good decisions regarding P, K, and lime. If we're using zone sampling, a sample should represent on average no more than 10 acres and when grid sampling no more than 5 acres. A good sample should have a minimum of 10 soil cores and recommend 12 – 15 cores. Greater cores / sample decrease the number of outlier samples you can have. Soil testing every 2 – 4 years is recommended.

I see a lot of CB fields that could go without P & K for several years but also see a lot of hay fields that putting on additional P & K will increase hay tonnage and profits.

For more information google PM-1688: A General Guide for Crop Nutrient and Limestone Recommendations in Iowa.

The right Nitrogen application for corn production can be harder to determine. Iowa State University uses the Corn Nitrogen Calculator to determine a recommended range that stays in the profit range of \$1.00. It uses the price you believe you will get for your corn and the price you're paying for a lb. of N. It does not use yield goals. Yield goals don't correlate well with the amount of N needed, i.e. good soils may need less N than poorer soils.

For Corn following Beans using \$4.50 price for corn grain and \$685/ ton for anhydrous (\$0.42/lb.) the recommended profitable N Rate Range is 149lbs of N/acre or 137lbs – 161lbs range staying withing a \$1 of return.

For Corn following Corn the recommended rate is 192lbs / acre or 179lbs – 207lbs range.

For Corn following Alfalfa the recommended rate is 0 – 30lbs when the stand is not more than 50% grass and is minimum of 3 years old.

A start on determining your N rate is to know how much you have been putting on. That means accounting for all N sources applied such as anhydrous, 32% with pre-emergent herbicides, starter, N in a sulfur product, side dressing, MAP or DAP applications, etc. N rates can add up to more than you think.

If you have questions on fertilizing for your farm your agronomist is a great place to start but feel free to contact me with any questions.

Farewell

Cathy Sheeder, Conservation Assistant

By the time this Annual Report comes to you either in your mailbox or your digital mailbox, I will have retired from my role here within the NRCS office, with Guthrie SWCD commissioners, and with the Iowa Department of Agriculture & Land Stewardship.

I don't know where the 22 years and 4 months went but suddenly, they did! I have always felt the best part of the job was the people I met along the way. I have loved working with the county schools, both kids and staff. You welcomed us and I hope we planted some seeds of awareness about conservation and these fragile ecosystems that we live in.

One of my favorite projects over these past few years was working with producers who wanted to try cover crops and introduce them into their farming operations. In this county we grew from 17 producers who tried them in 2013 for a total of 946 acres to 56 producers using them in 2024 for a total of 7,184.64 acres. There is still a long way to go, but it has been very rewarding to have conversations with you about your experiences, mostly good, and some not so much. But you kept going and kept learning and are now seeing some of the benefits you hoped for. I am proud to have been a very small part of that and to assist you in some way.

Customers and co-workers and certainly the members of the Guthrie SWCD board, have brought countless grins and some groans along the way, but I wouldn't change a thing. Again, the people you meet has always been the best part of the job. I hope in the time I have been here I have been "worth" the taxpayer dollars that paid me. That was always my goal. It has been my great pleasure to have worked with you all!



“The nation that destroys its soil destroys itself.”

Franklin D Roosevelt

All programs and services of the Guthrie County Soil and Water Conservation District are offered on a non-discriminatory basis, without regard to race, color, national origin, religion, sex, age, marital status or handicap.